Veterans Health Administration (VHA)

Coronavirus Disease 2019 (COVID-19)

Response Report

October 27, 2020

U.S. Department of Veterans Affairs

Veterans Health Administration

This page was intentionally left blank.

FOREWORD

The COVID-19 pandemic has challenged our Nation in ways great and small, and health care in the United States will never be the same. Health care workers have rightfully emerged as some of the heroes of this effort, suddenly thrust to the frontlines of a battle against a deadly yet invisible enemy.

It has been a great privilege to lead VHA during these trying times and to interact with the incredible men and women who serve Veterans every day. Their resiliency and innovation in the face of unprecedented challenges and uncertainty inspires me. Much of what we now consider routine, such as parking lot screenings, digital questionnaires and rapid testing were revolutionary and challenging to implement at the initial onset of the pandemic. Teams of experts worked around the clock to reshape our physical structures, as well as our policies and procedures, to keep our patients and staff safe.

I have personally learned so much from this experience, which I consider to be one of the hardest periods of my personal or professional life. First and foremost, I learned that the senior leader must embrace vulnerability and that there must be a constant reexamination of every decision one makes, with no hesitation to admit when a decision was wrong. Over these last many months, we have tried to do that every day because lives were on the line. We have also tried to be as transparent as possible in this report to reflect that mindset.

COVID-19 has shown the Nation the capabilities of the Department of Veterans Affairs (VA). While we are certainly not perfect, we are a learning organization and seek to always find ways to improve. Decades ago, we were charged to be the backstop of the Nation's private medical system in times of need, and over the years we have primarily performed that role through local responses to hurricanes and other disasters. This is the first time in our history that we have mobilized at scale, and I hope that one of the lessons to come out of this pandemic will be the positioning of VA firmly at the center of the Nation's response to future disasters. We were honored to be able to contribute when our Nation called.

The report that follows is the first chapter of our story, which continues to be written each day. This report is created and shared with you for the benefit of other medical professionals to learn from what we put into place to combat this virus in the first six months of 2020. I learned long ago in the Army that there is no substitute for experience but learning from others enhances each person's capability. This report reflects our strategic actions and reactions at all levels of VHA, from the frontline workers caring for Veterans and members of the community to the leaders and employees who worked relentlessly to protect frontline workers and patients.

I would like to express my appreciation to each VHA employee for their tireless efforts in serving Veterans and members of the community. I would also like to thank Secretary Robert Wilkie and Acting Deputy Secretary Pam Powers for their support and trust during our response to the pandemic. Their advocacy and effort on our behalf were steadfast from the beginning, and we would not have accomplished what we did without their leadership.

Thank you for your interest in learning from our hard-fought experience, and for all you do for our country.

Please be safe,

Richard A. Stone, M.D.

Executive in Charge (EIC)

Veterans Health Administration

Veterans Health Administration COVID-19 Pandemic Response

June 30, 2020

"Americans are coming together to fight COVID-19 in ways they haven't joined together since World War II, and VA is providing vital services to both Veterans and non-Veterans as part of this fight." **VA Secretary Robert Wilkie**

VETERAN CARE

VHA has **tested 240,986** Veterans for COVID-19*[A]

*Excludes Veteran-Employees, March 1, 2020 to June 30, 2020.

VHA has **diagnosed 20,949** Veterans with COVID-19*[A]

*Excludes Veteran-Employees, March 1, 2020 to June 30, 2020.

Prepared rapid response to protect and care for **6,330,433** Veterans Using VHA Services*[B]

*Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. This definition excludes Veterans who died prior to February 1, 2020.

3,830 Veteran COVID-19 patients admitted to VA facilities*[A]

*Excludes Veteran-Employees, as of June 30, 2020.

338,789 total VHA employees supported the VHA COVID-19 Pandemic Response*[C]

» 12,583 total new employees hired to supplement surge capacity**[D]

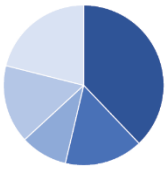
» 4,726 registered nurses & nurse practitioners hired**[D]

*Includes VHACO and VISN employees.
** New hires represents unique external hires, which is exclusive of transfers from other VA entities. Hired between February 1, 2020 and June 30, 2020.

FOURTH MISSION

65 FEMA Mission Assignments across more than 45 states[E]

93 taskings issued to support FEMA Mission Assignments*[E]



- 36 taskings to support State Veterans Homes
- 15 taskings to support Community Nursing Homes
- 9 taskings to support State Health Agencies
- 15 taskings to support Indian Health Services
- 20 taskings to support other types of facilities

*Two taskings supported both State Veterans Homes and Community Nursing Homes, therefore they are counted twice. Data covers taskings that started prior to June 30, 2020.

More than **275** patient transfers accepted from state, local and community organizations[E]

VHA provided multiple types of support to state, local and communication organizations:

Beds | Education | Infection Control | PPE

Staff | Consultations | Supplies | Testing

MEDIA OUTREACH

VA has published **41** news releases related to COVID-19 since February 2020[F]

Secretary Wilkie has participated in **132** media opportunities since February, 2020[F]

VIRTUAL CARE

84,313 average weekly telehealth (CVT) video encounters*[G]

» **321%** increase since February 2, 2020**[G]

614,421 average weekly telephone encounters*[G]

» **132%** increase since February 2, 2020**[G]

*Encounters between February 2 and June 27, 2020.
**Comparing the weeks starting on February 2, 2020 and June 21, 2020.

Sources:
[A] National Surveillance Tool, Healthcare Operations Center, VHA, accessed 8/1/2020;
[B] Veterans Using VHA Services Data, Allocation Resource Center, VHA, 8/31/2020;
[C] HR Employee Cube, VHA Support Service Center (VSSC) , VHA, accessed 8/3/2020;
[D] HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020;
[E] Response to Data Calls, All VISNs, July – August 2020;
[F] VA COVID-19 Pandemic Response - Weekly Report, VHA, 6/29/2020;
[G] Telehealth Cube and Encounters Cube, VSSC, VHA, accessed 7/30/2020.

This page was intentionally left blank.

EXECUTIVE SUMMARY

Purpose

This report describes effort taken by VHA to respond to the COVID-19 pandemic. The scope of this report is limited to the response during the initial months of the pandemic from early January 2020 through June 30, 2020; as such, data is presented as of June 30, 2020 unless otherwise specified. While the pandemic and response continue beyond this period, the EIC recognized the importance of capturing the actions and assessing the issues from the initial months to inform VHA strategies and actions to follow. VHA expects to develop further reports to document the evolution of VHA's response to the pandemic and consider additional strategic follow-up actions informed by the ongoing experience.

Guiding Principles

The VHA Steering Committee for this report established the following guiding principles for the processes used to build the VHA COVID-19 Response Report:

- Reporting and assessment of the COVID-19 response is essential to VHA as a learning organization.
- Accurate documentation of the evolution of the pandemic and essential elements of the response is an imperative to inform future VHA readiness and planning for VHA emergency response.
- Data, observations and experiences in response to a crisis are all important to identifying issues key to learning from the response.
- Identification of root causes for complex process problems is essential to improvement, and often requires a focused analysis by subject matter experts (SME).
- Questions identified in the response for which answers require new knowledge will be approached via research employing the scientific method.
- A systems-oriented approach to process solutions is important to identifying reliable solutions.

Method

The team that produced this report (the "COVID-19 Response Reporting Team") conducted more than 90 interviews with VHA leaders and stakeholders. These interviews were the primary source of information for this report. The interview questions were designed to keep discussion at a strategic level, focusing on the critical

elements and impacts of the response as they directly related to VA missions. Interviewees included a selection of VHA senior leaders, Veterans Integrated Service Network (VISN) leaders and VHA SMEs as well as non-VHA stakeholders including the Department of Health and Human Services (HHS), the Department of Defense (DOD) and McKinsey & Company, which served as a consultant to VHA. The COVID-19 Response Reporting Team interviewed VHA senior leaders identified as SMEs to explain critical elements of the response at the enterprise level (for example, supply chain), while VISN Network Directors and Deputy Directors shared their account and insights at the regional network level. See Appendix A for a list of individuals interviewed.

To gather strategic direction for report development, the COVID-19 Response Reporting Team met with the EIC weekly. Additionally, VHA established a COVID-19 Response Steering Committee to oversee the development of this report and set out the guiding principles. The steering committee conducted twice-weekly meetings to provide the team with real-time insights on evolving stakeholder perspectives, impacts of the pandemic and critical VHA response elements. The Steering Committee also provided input on the report outline and report drafts, helped identify interviewees and served as a liaison between the team and broader VHA organization.

Finally, this report also relied on a variety of documents and data pertaining to the VISNs and VHA enterprise. To collect VISN-level data, the team issued data calls to VISN Network Directors. For enterprise-level data, the team issued a data call to the Healthcare Operations Center (HOC) and held meetings to discuss and obtain access to VHA databases, standardize and align datasets to the report elements and understand data nuances. Additionally, this report relied on documents obtained through VHA internal collaboration sites, documents provided by interviewees and open source data.

Strategic Challenges and Actions Within the Elements of the Response

The scope and scale of the crisis required a comprehensive response involving multiple elements. There were many complex, strategic issues to be surmounted within the elements of response to a global pandemic. Some issues stemmed from legacy systems and processes internal to VHA, but many issues stemmed from external impacts of the pandemic. The following are high level summaries of the challenges and actions within major elements of the VHA response as described within the report.

Overall

The COVID-19 pandemic brought a health, economic and social crisis to the Nation and required a coordinated response of unprecedented scope and scale. The challenges within the response were extraordinary for every aspect of U.S. society and industry. As the nation's largest health care system, VHA confronted the need for rapid and comprehensive action to protect the health of Veterans and contribute to the Federal support to the states. Meeting these challenges mandated that VHA act with unity of effort and agility across 18 networks containing 170 medical centers.

Foundational Assets

The following summarize some of the major assets VHA possessed at the outset of the pandemic as VHA confronted the challenges inherent to a national response to a newly emerged infectious disease:

- Nationwide capacity for inpatient health care in 170 medical centers and health care systems (HCS) designated by U.S. Code Title 42 as a national asset for response to public health emergencies (the VA Fourth Mission)
- Considerable experience generating and managing responses to regional and local public health emergencies including deployment of volunteer staff under VA's Fourth Mission
- An operational model implemented in 2019 of shared decisions on execution within strategic frameworks aligned to a central strategy. The model placed decision authority for daily operations and execution with the Network Directors applying standards, support and tools supplied by the VHA Central Offices (VHACO)
- A HOC hosting operational communications and prepared to act as the interface to a common operating picture
- A legacy of applying safety science in health care with actions in progress to transform VHA to a High Reliability Organization (HRO) committed to zero harm
- Strong clinical processes focused on evidence-based guidelines and bolstered by affiliations with academic medical centers across the networks and 15 years of experience with telehealth
- A well-organized capacity for research by experienced staff including conduct of clinical trials, often with academic affiliates and industry

Recognition of the Threat and Planning

The primary challenge for VHA in planning for the COVID-19 pandemic pertained to forecasting the required capacity and types of care for the Veteran population and community response. Without national analytics of data from outbreaks in other nations, and without a national plan addressing the VHA role, forecasting demand for VHA inpatient services under the Fourth Mission required assumptions with a high degree of uncertainty. VHA's experienced planners assessed international data on the threat, developed planning assumptions and worked with a mix of SMEs to produce a framework for the VHA response. VHA planners adapted the existing High Consequence Infections (HCI) Base Plan to COVID-19 and developed the COVID-19 Response Plan as an annex to the HCI Base Plan. This plan was released to the public in the interest of a coordinated national response.

National and Interagency Coordination

Once it became evident COVID-19 was not contained in the U.S. and was spreading widely, the national response required greater focus on meeting health care demand. Within the national and interagency approach to the early response, the VHA capabilities available under Title 42 were not (yet) fully integrated into the response. Within state governments, awareness of VHA's role under Title 42 varied. VA and VHA were assertive in making their capabilities readiness known to those leading the national response as they recognized the importance of VHA capabilities to the effort. As the response progressed, VHA's role under Title 42 in support of the states and the Indian Health Service (IHS) grew, demonstrating that VHA's capabilities are an important safety net to communities during a public emergency.

Emergency Management and Readiness

VHA Office of Emergency Management (OEM) with its Emergency Management Coordinating Cell (EMCC) had considerable experience generating and managing responses to regional and local contingencies, most often (but not exclusively) due to natural disaster. The nationwide response required by a pandemic, the national shortage of supplies, urgent requests for VA response and safety concerns about air travel imposed new challenges. OEM's processes for contingency response were beneficial to VHA's readiness for movement of resources and deployment of personnel. Timely sourcing and movement of registered volunteer personnel, often to sites outside the VA system, were particular challenges that required adjustments to the Disaster Emergency Medical Personnel System (DEMPS) process. VHA generated qualified volunteers who responded to 65 Mission Assignments to over 45 states and tribal territories during the response.

Leadership Stakeholder Engagement and Strategic Communication

The pace at which the pandemic evolved, and the complexity of the required response, generated the need for succinct, coordinated communication to external and internal audiences. The Secretary of VA, the Acting Deputy Secretary of VA and the EIC were each very active and effective in strategic communications during the response. The EIC focused primarily on internal communications to VHA personnel, interagency communication and Congressional interaction. The Secretary and Acting Deputy Secretary communications included national leaders, the public, internal VHA personnel, Members of Congress, and Governors. The frequent short videos for front line personnel from the EIC received wide circulation with information about the response. The VHA Office of Communications managed communications effectively with Veterans, VHA staff and external audiences across a variety of media. The communications effectively addressed issues of high interest and concern among all audiences.

Leadership and Organization

The coordination of many simultaneous actions across a very large health system and the need for unity of effort within a common strategy posed a daunting leadership challenge. The EIC aligned responsibilities with emphasis on keeping decision authority for execution in the networks with central focus on strategy, communications, support and data management. Daily leadership calls during the response focused on analytics reports on the pandemic, leadership updates on health care operations and network updates on the response. The Secretary of VA and the Acting Deputy Secretary of VA frequently participated in the daily updates. Their participation focused on coordination of communications with state and local government officials about VHA response to State Veterans Homes (SVH) and community health care facilities.

Data and Analytics

While VHA had a strong legacy of using clinical data to assess performance and outcomes, disparate collections of data pertaining to several aspects of VHA health care operations was a major concern for VHA leaders at the outset of the response. The recognized importance of a common operating picture in all phases of the response heightened the concern among VHA leaders. VHA leaders in biosurveillance and performance assessment developed and deployed a National Surveillance Tool (NST) to provide VHA leaders with near real-time daily awareness of disease burden and clinical course. The NST informed research efforts and was integrated with operational metrics (for example, number of hospital admissions, clinical encounters) with the HOC to build the common operating picture for VHA response.

Capacity and Facilities

The age of infrastructure in VHA health facilities extends across a span of decades. The adaptability of facility spaces to negative pressure and expansion of critical care varied with the age of the facility. Data in the VHA Bed Management System (BMS) required manual updates and lacked currency and standardization of bed types at the outset of the response. VHA produced integrated surge plans that generated additional inpatient capacity to meet the needs of Veterans while supporting communities in multiple locations of sustained accelerated spread of COVID-19. The EIC set an enterprise bed expansion goal of 3,000 additional beds, including 1,500 intensive care unit (ICU) beds, early in the response as a target for surge plans built by each VA medical center (VAMC).

Supply Chain

Supply chain management for VA facilities utilized prime vendors in accordance with health care industry efficiency standards, utilizing just-in-time (JIT) delivery and maintaining relatively low levels of owned inventory. Shipments from manufacturers, located primarily outside the U.S., diminished due to global demand and the availability of critical supplies for pandemic response in the U.S. plummeted. The Strategic National Stockpile (SNS) was depleted of pandemic supplies in early April 2020. VHA implemented a series of interim processes and systems that compensated for unstandardized supply chain management and deficient inventory management systems. VHA took these actions to procure, allocate and shift supplies and equipment to meet mission demand during the response.

Testing

VHA, along with all U.S. health care systems and public health agencies, entered the pandemic response with very low capacity for COVID-19 testing and had to adjust guidelines for testing as national availability of devices, supplies and reagents gradually increased. VHA worked with HHS while managing VHA's utilization of COVID-19 testing as national availability of devices and supplies gradually increased.

Human Resources (HR)

The requirements to increase capacity for inpatient care, with a focus on critical care, and respond to Mission Assignments by deploying personnel made addition of personnel with clinical skill sets essential. VHA leaders were mindful of the possibility of increased movement of personnel out of the workforce during a pandemic and recognized the need to outpace attrition. The policy waivers that expedited VHA hiring and onboarding processes during the response, coupled with supplemental funding,

enabled a significant net gain in clinical personnel at VAMCs. VHA employed these factors, along with retraining of existing personnel, to expand capacity to provide care.

Finance

VHA identified new requirements for the response that included: resources for increased inpatient care capacity, hiring of additional personnel, procurement of supplies and equipment, expansion of virtual care capacity, augmentation of Clinical Contact Centers, and acceleration of certain modernization initiatives. Congress provided supplemental funding through the Coronavirus Aid, Relief, and Economic Security Act (CARES) Act in response to request and leaders and VISN Network Directors applied the funding to resource actions in the response.

Clinical Operations

The rapid evolution of the pandemic caused by a newly emerged pathogen presented great challenges in adapting care. Knowledge of the disease and effective means of treatment were quite limited early in the response. VHA adjusted clinical processes during the response in accordance with the VHA COVID-19 Response Plan. The adjustments included universal screening with controlled access and movement within VHA facilities for infection control. Visitation was restricted. This included the postponement or shift to telehealth of non-urgent care and elective procedures. The actions to increase capacity, access and utilization of telehealth generated a greater than ten-fold increase in telehealth encounter volume. Special actions were implemented to protect vulnerable populations such as Community Living Center (CLC) residents, including recurring testing of residents and staff as well as restriction of CLC access to assigned staff.

Fourth Mission

VHA entered the response with considerable experience deploying personnel in support of state requests to the Federal Emergency Management Agency (FEMA), generally in local or regional natural disaster contingencies rather than nationwide crises. During the COVID-19 pandemic, the Mission Assignments under the VA's Fourth Mission grew to the greatest scale and scope in VA's history. This response required deployment of VHA personnel and equipment to multiple locations simultaneously for sustained periods of time. FEMA asked VHA networks to respond to multiple Mission Assignments where circumstances involved patients that were critically ill or at imminent risk for becoming critically ill. VHA generated responses with volunteer personnel possessing the requisite skills to FEMA Mission Assignments involving deployment of VHA personnel to over 45 states plus certain tribal health systems. Many of the VHA responses to FEMA Mission Assignments were to State

Veterans' Homes with COVID-19 outbreaks in progress, requiring deployment of VHA staff to provide care and quell the outbreak. VHA also received COVID-19 patients in transfer from other health systems at multiple locations experiencing severe outbreaks while sustaining inpatient care to the Veteran population.

Research

The emergence of SARS-CoV-2 as the pathogen and its associated disease, COVID-19, created the urgent need for scientific evidence to guide the response. With a longstanding embedded research program, VHA was well-positioned to contribute much-needed knowledge to the national response. VHA's Office of Research and Development (ORD) generated a high volume of coordinated research activities. The enterprise-wide approach adopted by ORD allowed partners like Operation Warp Speed, the Federal effort to identify effective vaccines and therapeutics, to rapidly connect to numerous sites for clinical trials. VHA participation brought the diversity of the Veteran population to clinical trials which is important to assessing epidemiology, risk factors, environmental factors, access to care and therapeutic efficacy across a full demographic and socioeconomic range. This diversity is particularly important for clinical trials of newly developed vaccines, given the disproportionately high incidence of COVID-19 among ethnic minorities in the U.S. In addition, VHA's extensive data assets contributed knowledge within a range of topics, including disparities in the incidence of COVID-19, the effectiveness of re-purposed therapeutics and predictors of COVID-19 severity. ORD also served as a partner to the U.S. Food and Drug Administration (FDA) and other agencies in the effort to validate the safety and validity of 3D printed nasal swabs for COVID-19 testing and the effectiveness of a disinfection process for 3D printed masks.

Moving Forward

As was true for all health systems, sudden adjustments to health care operations, followed by phased resumption of in-person care, in an ongoing pandemic was an uncharted journey. VHA established the Moving Forward Plan as a criteria-based framework for VAMCs to rebalance the provision of health services to Veterans, including the phased resumption of non-urgent, in-person care and elective procedures.

Modernization

VHA was executing an ambitious Modernization Plan with multiple lanes of effort as the response began. Every lane of effort had relevance to pandemic response, although some were early in execution and unable to deliver the full benefit. As VHA

mitigated issues with interim actions during the response, it began to build plans for permanent solutions, including actions additive to those in the Modernization Plan.

Conclusions, Findings and Recommendations

The following tables tie together conclusions, findings and related recommendations for each element of the response. See the Conclusions and Recommendations sections for more details.

Overall

Conclusion: The Secretary of VA and the EIC aligned responsibilities, communicated with stakeholders and employed an operational concept that produced an effective response in support of Veterans and U.S. communities.
Finding: The effectiveness and agility of the comprehensive VHA response to a historic crisis of unprecedented scope and scale is the fundamental finding of this report.

Recognition of the Threat and Planning

Conclusion: VHA's planning was based upon sound assumptions, included an appropriate mix of SMEs and provided a sound framework for initiation of the VHA response.	
Finding: The full-time presence of a VHA liaison in HHS facilitated early recognition of the pandemic threat and enabled monitoring of the threat with preparation for planning.	**Finding:** The absence of a national framework tailored to available health intelligence on COVID-19 specifying VHA's role under Title 42 increased the uncertainty for VHA leaders and planners in mapping the VHA response.
Recommendation: It is recommended that VHA expand its presence and relationships with selected Federal agencies and organizations to enable recurring interactions beneficial to planning and recognition of public health threats.	

National and Interagency Coordination

Conclusion: VA and VHA were assertive in making their capabilities' readiness known to those leading the national response as they recognized the importance of VHA capabilities to the effort.	
Finding: Early incorporation of VHA into the planning and execution of the interagency response would have enhanced forecasting of requirements and preparations for support to states and community health organizations.	**Finding:** State agencies were not consistently aware of the option or the process to request support from VHA via FEMA.
Recommendation: It is recommended that VA and VHA pursue interagency relationships and standing processes that enable a coordinated interagency response to public health crises. The aim of this coordinated interagency response would be to integrate Federal health capabilities in order to enhance the national readiness.	

Emergency Management and Readiness

Conclusion: OEM's processes for contingency response were beneficial to VHA's readiness for movement of resources and deployment of personnel. Timely sourcing and movement of registered volunteer personnel, often to sites outside the VA system, were particular challenges that required adjustments to the DEMPS process.	
Finding: The COVID-19 response highlighted the importance of incorporating readiness into strategies for all VHA functions, networks and facilities.	**Finding:** The VHA processes for deployment sourcing and personnel deployment were not sufficiently adaptable to the broader array of scenarios and degrees of urgency in a complex national contingency.
Recommendation: It is recommended that VHA develop readiness and response processes for deploying personnel balancing agile response with preparation and support within the range of operational scenarios.	

Strategic Communication

Conclusion: The Secretary of VA, the Acting Deputy Secretary of VA and the EIC were each very active and effective in strategic communications during the response.
Finding: VA senior leader communication and engagement with external and internal stakeholders facilitated timely requests from states for VHA support and enhanced personnel response to meet a challenging mission.

Leadership and Alignment of Responsibilities

Conclusion: The alignment of responsibilities, organization of the response and frequent communications produced unity of effort and agility in a system-wide response involving a multitude of challenges.
Finding: A central strategy with execution authority in the networks, informed by analytics and a common operating picture, facilitated an agile, collaborative response to a complex threat.

Data and Analytics

Conclusion: The creation of the NST based upon a biosurveillance requirement, complemented the HOC as substantive steps toward reliable data quality for the common operating picture for VHA.
Finding: Consolidated data management enabling a common operating picture and predictive analytics proved essential to effective response to the pandemic.
Recommendation: It is recommended that VHA lead operational integration of Federal medical data to enable a national biosurveillance capability for early detection of threats to public health

Capacity and Facilities

Conclusion: VHA produced integrated surge plans that generated sufficient additional inpatient capacity to meet the needs of Veterans while supporting communities in multiple locations of sustained accelerated spread of COVID-19.	
Finding: Standard processes, standard definitions of care capabilities and an integrated information system were essential to managing capacity to provide care in a contingency.	**Finding:** Facility design for ready adaptation of spaces to critical care proved to be a valuable asset in the response to a surge in COVID-19.
Recommendations: It is recommended that VHA acquire a system to facilitate management of enterprise inpatient capacity and adopt facility design requirements facilitating expansion of inpatient services in response to contingencies.	

Supply Chain

Conclusion: While the supply chain issues (external and internal to VHA) were major, VHA's interim mitigating actions succeeded in providing sufficient supplies and equipment to meet all demand for care and Fourth Mission responses.	
Finding: VHA required system-wide interim solutions during the response for VHA supply chain management processes that lacked standardization and lacked integrated information systems.	**Finding:** International disruption of access to manufactured supplies imposed operational impacts that interim VHA readiness and supply chain management processes mitigated sufficiently to sustain the mission.
Recommendations: It is recommended that VHA modify the VHA Supply Chain Modernization Plan by incorporating elements of supply chain contingency resilience and accelerating transformation of management practices.	

Testing

Conclusion: VHA effectively managed and adapted its utilization of COVID-19 testing as national availability gradually grew.
Finding: National shortages in testing supplies impeded VHA capacity to fully utilize testing devices for detection of SARS-CoV-2.

Human Resources

Conclusion: The policy waivers that expedited VHA hiring and onboarding processes during the response, coupled with supplemental funding, enabled a significant net gain in clinical personnel at VAMCs.

Finding: Retraining of ambulatory care clinicians to augment critical care teams and other inpatient teams proved important to expansion of VHA capacity for inpatient care in the pandemic response.	**Finding:** Concerted recruitment, hiring and streamlined onboarding of new personnel facilitated flexibility and enabled expanded VHA capacity to provide care for COVID-19.
Recommendations: It is recommended that VHA assess the outcomes and effectiveness of processes for expedited hiring and onboarding of new employees to determine what processes should be incorporated into permanent policy and guidance.	

Finance

Conclusion: The supplemental funding provided by the CARES Act proved essential to VHA's response to COVID-19.

Clinical Operations

Conclusion: VHA adjusted clinical processes effectively during the response in accordance with the VHA COVID-19 Response Plan.	
Finding: Integration of an array of clinical experts into planning the response, assimilating new information and formulating guidelines enhanced the response to a pandemic stemming from a newly emerged infectious disease.	**Finding:** Clinical Contact Centers lacked the integration needed for agile management of demand fluctuations during the pandemic response.
Finding: Accelerated adoption of telehealth proved important to sustaining health services for Veterans during the pandemic response.	**Finding:** Processes developed by VHA during the pandemic response for protecting vulnerable populations, such as CLC residents and Spinal Cord Injury and Disorders (SCI/D) patients, proved effective.
Recommendations: It is recommended that VHA accelerate incorporation of virtual care into clinical processes enabled by accelerated implementation of integrated virtual care tools. It is also recommended that VHA develop a modernization strategy for Clinical Contact Centers to gain reliability, central visibility, agile surge adaptation, efficiency and integration of virtual care processes.	

Fourth Mission

Conclusion: Overall, VHA's Fourth Mission response was timely and effective at the greatest scale and scope in VA's history.	
Finding: VHA demonstrated the value of deployable advanced care assemblages to the mission.	**Finding:** VHA processes for generating sufficient numbers of volunteers for a broad range of deployments in locations throughout the Nation proved effective.
Finding: VHA demonstrated the essential role and capabilities of VHA under Title 42 in providing a health care "safety net" for the states.	

Research

Conclusion: In this effort, VHA's research has demonstrated its value to the national response in discovery, evaluation and implementation of new therapeutics and vaccines. VHA research has likewise demonstrated its importance to VHA's service to Veterans as a learning health care system. The VHA research contributions to the response featured collaboration with VHA operational leaders, attention to process requirements on the front lines of clinical research and establishment of key capabilities, such as the initiative to create a Veteran registry of prospective volunteers.
Finding: Sustained research capacity enhances readiness through generation of new knowledge concerning mitigation of health impacts to Veterans.
Recommendation: It is recommended that VHA remain active in research generating new knowledge about COVID-19 among Veterans and that enterprise research capabilities continue to be established

Moving Forward

Conclusion: The VHA Moving Forward Plan provided a framework for VAMCs to rebalance the provision of health services to Veterans, including the phased resumption of non-urgent, in-person care and elective procedures.
Finding: VHA produced an effective framework for rebalancing health services during an ongoing response to a pandemic with leadership balancing the health needs of Veterans, safety and forecasted demand for COVID-19 care.

Modernization

Conclusion: Issues requiring mitigation during the response warrant consideration of adjustments or additions to the VHA Modernization Plan.
Finding: The VHA Modernization Plan provided a strong foundation for advancing VHA capabilities but issues mitigated during this pandemic response are not entirely addressed in the plan.
Recommendation: It is recommended that VHA conduct a review of the VHA Plan for Modernization to identify adjustments to the lanes of effort important to moving forward with rebalanced health services for Veterans and enhanced readiness for future national response.

Acknowledgement

The COVID-19 Response Reporting Team wishes to express their appreciation to Dr. Christine Bader and Dr. Carolyn Clancy for their support, guidance and many hours of review as the Steering Group for this report. The team also thanks Secretary Robert Wilkie, Acting Deputy Secretary Pamela Powers, the VHA EIC Dr. Richard Stone, VHA senior leaders, VISN Directors and personnel for taking the time to share their experiences and perspectives in the midst of the ongoing COVID-19 response. The team particularly appreciates the continuous dedication of the VA team to America's Veterans**.**

Steering Group

Carolyn M. Clancy, MD

Christine E. Bader, PhD, RN

Contributors

The COVID-19 Response Reporting Team consisted of professionals from Deloitte Consulting LLP.

Mark Ediger, MD, MPH (team lead)
Lt Gen (retired) U.S. Air Force

Caroline Lee, CFE

Dan Pelton, PhD

Jonpaul Ursick, MHA

Brooks Carney

Andy Chen Wang, MPA

TABLE OF CONTENTS

Foreword **3**

Executive Summary **7**

Acronyms **25**

1. Background **29**

Evolution and Impact of the COVID-19 Pandemic 29

VHA Overview 34

2. VHA Planning and Preparation for Pandemic Response **39**

Planning Process 39

Alignment of Responsibilities 42

3. Sequence of Events **45**

Key VHA Policies and Directives During COVID-19 Response 45

4. Interactions and Interdependencies with Federal and State Agencies **53**

5. Overview of VHA COVID-19 Response **61**

Initial (Crisis) Response 61

Stabilization 64

Continued Surges in Demand 65

Epidemiologic Summary for VHA Populations of Veterans and Staff 66

Summary of Adaptations to Health Care Operations 71

Summary of Fourth Mission Data 72

6. Analysis of Policy and Execution within Elements of VHA's COVID-19 Response **73**

Emergency Management 73

Planning Cell 78

Staffing Command Cell 79

Healthcare Operations Center 81

Clinical Processes 82

Virtual Care 104
Human Resources 108
Data Management 116
Support Services 121
Capacity Management 137
Fourth Mission 144
Research/Innovation Related to COVID-19 and Impacts to Existing Research Projects 156
Financial Management 161
Moving Forward Plan 164
7. VISN Narratives 167
Cross-VISN Summary 167
VISN 1: VA New England Healthcare System 179
VISN 2: New York/New Jersey VA Health Care Network 197
VISN 4: VA Healthcare 212
VISN 5: Capitol Health Care Network 227
VISN 6: Mid-Atlantic Health Care Network 240
VISN 7: VA Southeast Network 253
VISN 8: Sunshine Healthcare Network 266
VISN 9: Mid-South Veterans Healthcare Network 278
VISN 10: VA Healthcare System 289
VISN 12: VA Great Lakes Health Care System 302
VISN 15: VA Heartland Network 318
VISN 16: South Central VA Health Care Network 331
VISN 17: VA Heart of Texas Health Care Network 348
VISN 19: Rocky Mountain Network 361
VISN 20: VA Northwest Health Network 372

VISN 21: Sierra Pacific Network 387
VISN 22: VA Desert Pacific Healthcare Network 400
VISN 23: VA Midwest Health Care Network 416
8. Discussion and Conclusions 430
9. Recommendations 449
10. Appendix 455
A. Stakeholder Interviews 455
B. Timeline of Key Events and Actions 460
C. COVID-19 Clinical Trials 470
D. COVID-19 Policies and Directives 475
E. Suggested Offices of Primary Responsibility for Recommended Actions 513
F. Endnotes 517

This page was intentionally left blank.

ACRONYMS

Acronym	Definition
ABR	Abandonment Rates
ACTIV	Accelerating COVID-19 Therapeutic Interventions and Vaccines
ACU	Acute Care Units
AEM	Area Emergency Manager
AI	Artificial Intelligence
AIIR	Airborne Infection Isolation Rooms
API	Office of Analytics and Performance Integration
ARC	Allocation Resource Center
ASA	Average Speed to Answer
ASPR	Assistant Secretary for Preparedness and Response
AUSH	Assistant Under Secretary for Health
AUSH-S	Assistant Under Secretary for Health for Support Services
AUSH-DEAN	Assistant Under Secretary for Health for Discovery, Education and Affiliations
BASIC	Biosurveillance, Antimicrobial Stewardship and Infection Control
BMS	VHA Bed Management System
CARES	Coronavirus Aid, Relief and Economic Security
CARF	Council on Accreditation of Rehabilitation Facilities
CBOC	Community Based Outpatient Clinic
CCC	Clinical Coordination Cell
CDC	Centers for Disease Control and Prevention
CDW	Centralized Data Warehouse
CEMP	Comprehensive Emergency Management Program
CLC	Community Living Center
CMO	Chief Medical Officer
CMS	Centers for Medicare and Medicaid Services
CNH	Community Nursing Home
COVID-19	Coronavirus Disease 2019
CPRS	Computerized Patient Record System
CSDE	Clinical Systems Development and Evaluation
CVT	Clinical Video Telehealth
DASD	Deputy Assistant Secretary of Defense

Acronym	Definition
DEMPS	Disaster Emergency Medical Personnel System
DHS	Department of Homeland Security
DLA	Defense Logistics Agency
DMLSS	Defense Medical Logistics Standard Support
DOD	Department of Defense
DOE	Department of Energy
DOL	Department of Labor
DUSH	Deputy Under Secretary for Health
EIC	VHA Executive in Charge
EMCC	Emergency Management Coordination Cell
EPS	Office of Environmental Program Services
ESF #8	Emergency Support Function #8
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FFCRA	Families First Coronavirus Response Act
FORTS	Fold-Out Rigid Temporary Shelter
FY	Fiscal Year
HCI	High Consequence Infection
HCS	Health Care System
HEFP	Healthcare Environment and Facilities Programs
HEPA	High-Efficiency Particulate Air
HHS	Department of Health & Human Services
HOC	Healthcare Operations Center
HR	Human Resources
HRO	High Reliability Organization
HUD	Department of Housing and Urban Development
HVAC	Heating, Ventilation and Air Conditioning
ICC	Integrated Clinical Community
ICT	Incident Command Team
ICU	Intensive Care Unit
IHS	Indian Health Service
IPT	Integrated Project Team
IT	Information Technology

Acronym	Definition
JIT	Just-in-Time
MHS	Military Health System
MVP	Million Veteran Program
NCOD	VHA National Center for Organization Development
NCRT	National COVID-19 Request Tool
NDMS	National Disaster Medical System
NIDS	National Infectious Disease Service
NIH	National Institutes of Health
NIOSH	National Institute for Occupational Safety and Health
NLP	Natural Language Processing
NRAC	National Research Advisory Council
NRCC	National Response Coordination Center
NST	National Surveillance Tool
NYC	New York City
OCR	VA Office of Client Relations
OEM	VHA Office of Emergency Management
OHC	VHA Organizational Health Council
OHE	VHA Office of Health Equity
OHT	Office of Healthcare Transformation
OI&T	Office of Information and Technology
OIG	VA Office of the Inspector General
OMHSP	VHA Office of Mental Health and Suicide Prevention
OPM	Office of Personnel Management
OR	Operating Room
ORD	Office of Research and Development
ORH	VHA Office of Rural Health
OSH	Office of Occupational Safety and Health
P&LO	Procurement and Logistics Office
PAPR	Powered Air Purifying Respirator
PAR	Population At Risk
PEO	Program Executive Office
PHS	Public Health Service
PPE	Personal Protective Equipment

Acronym	Definition
PREVENTS	President's Task Force to Empower Veterans and End the National Tragedy of Suicide
PTSD	Post-Traumatic Stress Disorder
PUI	Person Under Investigation
SCI/D	Spinal Cord Injury and Disorders
SME	Subject Matter Expert
SNS	Strategic National Stockpile
SPPRITE	Suicide Prevention Population Risk Identification & Tracking for Exigencies
SVH	State Veterans Home
USH	Under Secretary for Health
USNS	United States Naval Ship
VA	Department of Veterans Affairs
VAHCS	Veterans Affairs Health Care System
VAMC	Veterans Affairs Medical Center
VCL	Veterans Crisis Line
VCS	Veterans Canteen Service
VHA	Veterans Health Administration
VHACO	Veterans Health Administration Central Office
VINCI	VA Informatics and Computing Infrastructure
VISN	Veterans Integrated Service Network
VistA	Veterans Health Information Systems and Technology Architecture
VSSC	VHA Support Service Center
VVC	VA Video Connect
WHO	World Health Organization
WMC	Workforce Management Consulting

BACKGROUND

Evolution and Impact of the COVID-19 Pandemic

Global Spread and Impact

A pneumonia of unknown cause detected in Wuhan, China was first reported to the World Health Organization (WHO) Country Office in China on December 31, 2019. The virus, a newly emerged form of coronavirus, was later named SARS-CoV-2 and the disease it caused named "coronavirus disease 2019" (abbreviated COVID-19).[1] After the SARS-CoV-2 virus began to spread through Wuhan, China, cases of SARS-CoV-2 infection began to emerge in other countries in January 2020.[2] Thailand was the first country outside of China to confirm a case of SARS-CoV-2 infection; Thailand reported its first case on January 13, 2020.[3] Shortly thereafter on January 16, 2020, Japan confirmed its first case of SARS-CoV-2 infection.[4] On January 21, 2020, the United States Centers for Disease Control and Prevention (CDC) confirmed a case in Washington state, marking the first case in the United States and in the Americas.[5] Europe reported its first case on January 24, 2020 in France.[6] The SARS-CoV-2 virus reached Australia on January 25, 2020 and Africa on February 15, 2020 when Egypt reported its first case.[7] On February 26, 2020, South America reported its first case of SARS-CoV-2 infection in Brazil.[8]

The virus continued to spread throughout the world and deaths followed soon after outbreaks began. China reported its first death related to COVID-19 on January 11, 2020 and the first death outside of China occurred on February 2, 2020 in the Philippines.[9] Outbreaks emerged in Italy and Iran in late February 2020 and within a week of reporting its first cases, Iran reported 61 cases of COVID-19 and 12 related deaths.[10] On April 2, 2020, 171 countries across the globe reported over one million total global cases with at least 51,000 deaths. On April 26, 2020, the global death toll surpassed 200,000.[11] On June 30, 2020, the WHO published that the global community reported more than 10 million cases of COVID-19 with more than 500,000 deaths.[12]

United States Spread and Impact

In the United States, the SARS-CoV-2 virus first emerged in Washington state on January 21, 2020.[13] Washington state reported the first confirmed case of person-to-person transmission in the United States on January 30, 2020 and also reported evidence of community spread on February 28, 2020.[14] On March 3, 2020, New York reported the state's second case of COVID-19 in Westchester, NY.[15] The virus quickly spread to New York City (NYC), where one of the largest epicenters of COVID-19 in

the United States developed.[16] By June 30, 2020, the state of New York reported over 390,000 cases and over 24,000 deaths.[17] The virus continued to spread throughout the United States and other outbreaks emerged in communities near denser urban areas such as Detroit, Chicago and New Orleans.[18] The country attempted to control the spread of the virus as states mandated shutdowns to limit gatherings and social contact, social distancing and/or masking requirements.[19] As the pandemic response stretched from May 2020 into June 2020, the growth of new COVID-19 cases appeared to be slowing; however, outbreaks reemerged, often in places that previously saw little COVID-19 activity, such as the Southeast and Midwest regions of the country.[20] On June 19, 2020, 19 states across the South, West and Midwest reported rising cases; on June 20, 2020, Florida and South Carolina broke their single-day records for new cases, for the third consecutive day, while the infection level in Missouri and Nevada also reached new highs.[21]

As the SARS-CoV-2 virus continued to spread throughout the world, the United States emerged as one of the countries with the largest impact. The United States reported what was believed to be the country's first death on February 29, 2020 in Seattle; however, the retroactive diagnosis of two deceased citizens in California on April 21, 2020 established that earlier deaths occurred.[22] On March 26, 2020 the United States became the country with the highest number of confirmed cases in the world, at 81,321, and reported over 1,000 deaths.[23] By May 27, 2020, the United States death toll reached 100,000.[24] On June 30, 2020, the United States announced a new record for new cases in a single day, reporting more than 48,000 new cases across the country; eight states (Alaska, Arizona, California, Georgia, Idaho, Oklahoma, South Carolina and Texas) also announced their highest number of new cases in a single day.[25] The WHO reported that by June 30, 2020, the United States had approximately 2.5 million cases of COVID-19 and more than 120,000 deaths.[26]

Transmission and Disease Characteristics

As SARS-CoV-2 spread through and from Wuhan, China, global knowledge of the virus was limited. After identification in early January 2020, China shared the genetic sequence of SARS-CoV-2 with WHO on January 11, 2020.[27] On January 14, 2020, one day after Thailand reported the first case of COVID-19 outside of China, the WHO acknowledged the possibility of human-to-human transmission, saying, "it is certainly possible that there is limited human-to-human transmission;" however, the WHO also noted that preliminary investigations found no clear evidence of such transmission in China to-date.[28]

On January 18, 2020, three days prior to the first confirmed case in the United States, the WHO Western Pacific Regional Office stated on Twitter that, according to new information and WHO analysis, there was "evidence of limited human-to-human

transmission" of COVID-19.[29] The WHO also stated that this was "in line with experience with other respiratory illnesses and in particular with other coronavirus outbreaks."[30] Two days later, on January 20, 2020, the WHO Western Pacific Regional Office issued another tweet strengthening this statement, saying, "it is now very clear from the latest information that there is at least some human-to-human transmission," also stating that, "infections among health care workers strengthen the evidence for this."[31] By January 30, 2020, evidence of human-to-human transmission outside of China existed in eight cases from Germany, Japan, Vietnam and the United States.[32]

As the world continued to learn about SARS-CoV-2 and COVID-19, understanding potential methods of transmission was a key focus and the world's knowledge evolved over time. On February 27, 2020, in a guidance document addressing PPE usage, the WHO stated that, "based on the available evidence, the [SARS-CoV-2] virus is transmitted between people through close contact and droplets, not by airborne transmission."[33] The WHO reaffirmed this statement in an additional guidance document addressing mask usage on April 6, 2020, stating, "the two main routes of transmission of the COVID-19 virus are respiratory droplets and contact."[34] The WHO also stated that "droplets may also land on surfaces where the virus could remain viable; thus, the immediate environment of an infected individual can serve as a source of transmission (contact transmission);" however, on June 5, 2020, in a subsequent guidance document addressing mask usage, the WHO acknowledged that "airborne transmission of the COVID-19 virus may be possible…this is an area of active research."[35]

In addition to methods of transmission, the world focused on understanding which individuals may be carriers of SARS-CoV-2 and could transmit the virus. Reports of asymptomatic carriers of the virus emerged as early as February 2020 and the viral load of asymptomatic people suggested that virus spread could be possible.[36] On February 4, 2020, the WHO Secretariat stated that "it is possible that there may be individuals who are asymptomatic that shed virus," but noted that they needed more studies to determine the rate of occurrence and if it led to secondary transmission.[37] On April 2, 2020, the WHO reported that documented cases of both symptomatic and pre-symptomatic transmission existed, but that no documented cases of asymptomatic transmission existed to-date; however, they did not rule out the possibility that asymptomatic transmission may occur.[38]

A study posted by the CDC on April 10, 2020 focused on COVID-19 transmission in Singapore between January 2020 and March 2020; the study found that pre-symptomatic spread occurred in several cases and reported that, "[t]he evidence of pre-symptomatic transmission in Singapore, in combination with evidence from other studies…supports the likelihood that viral shedding can occur in the absence of

symptoms and before symptom onset…These findings also suggest that to control the pandemic it might not be enough for only persons with symptoms to limit their contact with others because persons without symptoms might transmit infection."[39]

On June 5, 2020, in a guidance document addressing mask usage, the WHO stated that asymptomatic transmission may be occurring, stating that "viable virus has been isolated from specimens of pre-symptomatic and asymptomatic individuals, suggesting, therefore, that people who do not have symptoms may be able to transmit the virus to others."[40] The document also refers to a study performed in China that revealed "among 63 asymptomatically-infected individuals studied in China, there was evidence that 9 (14%) infected another person."[41] The WHO's document recognized the limitations of the study in China and acknowledges that it may be subject to recall bias, but nonetheless alludes to the fact that asymptomatic transmission may be occurring.[42]

Transmission Prevention Measures

As the understanding of transmission methods and potential carriers of the SARS-CoV-2 virus were better understood by the global community, guidance and policies regarding masking and social distancing evolved in tandem. On February 27, 2020, the WHO issued an interim guidance document titled "Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19)," which advised that individuals should perform hand hygiene frequently, avoid touching their face, maintain a social distance of one meter from other individuals with respiratory symptoms and wear a mask if the individual is showing respiratory symptoms.[43]

In the United States, on April 3, 2020, the CDC published guidance that recommended Americans wear cloth masks or face coverings in public to limit transmission of COVID-19 when social distancing is not easy.[44] Also, on April 3, 2020, after the President of the United States announced the new measures, the United States Surgeon General advised the public that fabric face coverings can help reduce asymptomatic transmission but that face coverings should complement, not replace, other measures such as social distancing.[45] The Surgeon General stated that masking guidance changed due to new data on the spread of COVID-19 by asymptomatic people.[46]

On April 6, 2020 the WHO issued another interim guidance document titled "Advice on the use of masks in the context of COVID-19;" this document provided guidance that advised individuals to take further precautions than previously recommended by the WHO in February 2020.[47] The document stated that individuals showing symptoms are advised to self-isolate, seek medical attention if needed and follow all preventative measures such as hand hygiene and physical distancing of one meter.[48] The document also advises that all individuals, regardless of infection status, are to avoid

crowded places and maintain a physical distance of one meter from all other persons.[49] In this April 6, 2020 guidance document, the WHO stated that the wide use of masks by healthy individuals in the community setting is not supported by evidence; however, the WHO did highlight specific advantages of masking, such as "reducing potential exposure risk from infected person during the 'pre-symptomatic' period and [reducing] stigmatization of individuals wearing mask for source control," while also providing potential risks to consider such as a "false sense of security, leading to potentially less adherence to other preventive measures such as physical distancing and hand hygiene."[50]

On June 1, 2020, the WHO published the results of a study in the Lancet focused on investigating "the effects of physical distance, face masks, and eye protection on virus transmission in healthcare and non-healthcare (eg, community) settings."[51] The study included 172 observations studies across 16 countries and found that "[t]ransmission of viruses was lower with physical distancing of 1 [meter] or more, compared with a distance of less than 1 [meter]…protection was increased as distance was lengthened ...Face mask use could result in a large reduction in risk of infection…[and] eye protection also was associated with less infection." [52]

On June 5, 2020, the WHO published an updated version of the interim guidance document titled "Advice on the use of masks in the context of COVID-19."[53] In this version, the WHO stated that while studies may show "indirect evidence for the use of masks in healthy individuals…At present, there is no direct evidence (from studies on COVID-19 and in healthy people in the community) on the effectiveness of universal masking of healthy people in the community to prevent infection with respiratory viruses, including COVID-19."[54] However, the guidance document also proceeded to state that after "taking into account the available studies evaluating pre- and asymptomatic transmission, a growing compendium of observational evidence on the use of masks by the general public in several countries, individual values and preferences, as well as the difficulty of physical distancing in many contexts, WHO has updated its guidance to advise that to prevent COVID-19 transmission effectively in areas of community transmission, governments should encourage the general public to wear masks in specific situations and settings as part of a comprehensive approach to suppress SARS-CoV-2 transmission."[55] The specific situations and settings that the WHO recommended the public wear masks included areas of widespread transmission, areas of limited ability to physically distance and settings of high population density where physical distancing cannot occur, among others.[56]

VHA Overview

VA and VHA Missions

VHA is one of three administrations under VA; the other two administrations are the Veterans Benefit Administration and the National Cemetery Administration. At the overall department level, VA's mission is "[t]o fulfill President Lincoln's promise 'to care for him who shall have borne the battle, and for his widow, and his orphan' by serving and honoring the men and women who are America's Veterans."[57] VA has four underlying missions, three of which correspond to each of the three administrations and a "Fourth Mission" that supports the Nation's emergency preparedness response. VA's four underlying missions are as follows:[58]

1. "[H]onor America's Veterans by providing exceptional health care that improves their health and well-being." This is the primary mission of VHA.[59]
2. Help Veterans transitioning back to civilian life. This is the primary mission of the Veterans Benefit Administration.[60]
3. Provide dignified burial services and remembrance for Veterans. This is the primary mission of the National Cemetery Administration.[61]
4. "[I]mprove the Nation's preparedness for response to war, terrorism, national emergencies, and natural disasters by developing plans and taking actions to ensure continued service to Veterans, as well as to support national, state, and local emergency management, public health, safety and homeland security efforts."[62] Through the Fourth Mission, VHA serves the general community in addition to Veterans.

VHA Organization and Operations

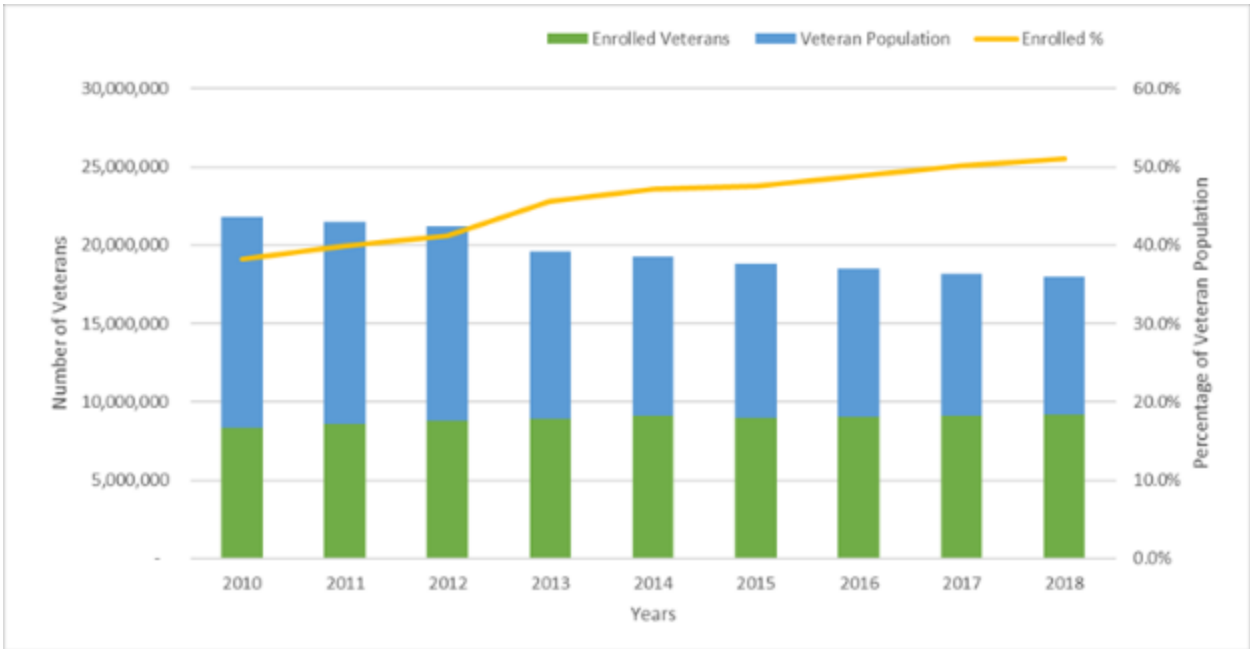
Nine million Veterans are enrolled in the VA health care program.[63] Although the general population of Veterans has declined since 2010, the number of enrolled Veterans has increased slightly and the percentage of enrolled Veterans has steadily increased, as seen in Figure 1.1.

Not all enrolled Veterans actively use their VHA benefits; for example, some use health care benefits through an employer. This report focuses on the approximately 6.3 million Veterans who used VHA services between October 1, 2018 and June 30, 2020. This number excludes Veterans who died prior to February 1, 2020.[64]

VHA is the Nation's largest integrated health care system. It provides care at 1,255 health care facilities, including 170 VAMCs and 1,074 outpatient sites of care of varying complexity.[65] VHA employs more than 358,000 full-time health care professionals and support staff.[66]

VHA divides the U.S. geographically into 18 VISNs. The VISNs are regional systems of care working together to better meet local health care needs and provide greater access to care.[67]

Figure 1.1 *Comparison of Enrolled Veterans and Veteran Population (2010 - 2018)*



Sources: Current Enrollment Cube Dataset, VHA Support Service Center (VSSC), VHA, accessed 8/5/2020; 2010 to 2018 Veterans Status data, United States Census, https://www.census.gov/topics/population/veterans/data/tools.html, accessed 8/5/2020.

The EIC is responsible for leading VHA, overseeing the delivery of care to more than 9 million enrolled Veterans and managing an annual budget of approximately $68 billion.[68] The EIC also has the authority to perform the functions of the Under Secretary of Health.[69]

In 2019, the EIC stood up a Governance Board to empower VHA senior leaders by formally including them in decisions on coordinated execution of enterprise strategies.[70] The Governance Board reviews, discuses and makes decisions in key areas of enterprise operations, resource allocation and policy.[71] The VHA Governance Board is chaired by the Assistant Secretary for Health for Operations; voting members include senior VHA personnel and the Network Directors from the 18 VISNs.[72] Other VHA personnel also serve as non-voting SMEs. Per its charter, the VHA Governance Board meets monthly.[73]

Emergency Readiness and Response Functions

OEM is responsible for coordinating VA's response during an emergency or disaster. This includes coordinating essential VA emergency medical response and support

services at the local, regional and national levels to ensure the health and safety of Veteran patients, their families, staff and visitors as well as the continued delivery of VHA health care services.[74] OEM is responsible for the development and implementation of VHA's Comprehensive Emergency Management Program (CEMP).[75] The CEMP addresses five phases of the emergency management cycle: prevention, mitigation, preparedness, response and recovery.[76]

OEM coordinates and delivers VHA support missions for VHA facilities affected by disasters; it also executes missions assigned to VA by FEMA or HHS for response to, and recovery from, nationally-declared emergencies and disasters.[77] The following list describes activities provided by OEM to support emergencies:[78]

- Coordination of VHA-level incident response operations
- Reception of patients under the National Disaster Medical System (NDMS)
- Mobilization of support personnel through DEMPS, VHA's main deployment program for clinical and non-clinical staff to an emergency or disaster
- Mobilization of mobile response/recovery assets
- Mobilization of VHA's incident management and response teams
- Coordination or resource sharing within VHA through the Emergency Mobile Asset Inventory

VHA Modernization

In 2019, VHA launched a "Modernization" initiative.[79] VHA Modernization is a transformation journey to realize VHA's vision of delivering exceptional, coordinated and connected care, anytime and anywhere, for Veteran health and well-being.[80] VHA Modernization's 10 critical initiatives, also known as "lanes of effort," aim to bring VHA closer to its vision and turn VHA into a HRO.[81] For more information on HRO, see the Safety Processes subsection of this report within the section titled, "Analysis of Policy and Execution Within Elements of VHA's COVID-19 Response."

The first lane of effort, "Commit to Zero Harm," refers to the HRO transformation and includes a culture change involving all VHA employees.[82] The following nine lanes of effort are referred to as enabling initiatives:[83]

- VHA Mission Act: Improving Access to Care
- Engaging Veterans in Lifelong Health, Well-Being and Resilience
- Integrated Clinical Communities (ICCs)[84]
- Streamline VHACO
- Revise Governance Processes and Align Decision Rights

- Develop Responsive Shared Services
- Modernize Electronic Health Records
- Transform Financial Management System
- Transform Supply Chain

While all modernization will enhance future response, HRO, Supply Chain and ICCs comprise the lanes of effort immediately relevant to VHA's COVID-19 response. Naturally, committing to zero patient harm is paramount in responding to an infectious disease, and Supply Chain efforts are critical to sourcing and delivering necessary PPE and other necessary equipment, such as ventilators. By integrating clinical and operational processes in Clinical Communities, processes of care can be transformed with agility.

VHA also moved towards a "cell" model for complex implementation of strategic initiatives and operational actions requiring agile change integrated across functional areas. Program offices support execution and provide tools. The cells consist of selected functional experts from various parts of VHA under the oversight of an Assistant Under Secretary for Health (AUSH). This alignment leverages expertise and enables timely decisions for speed of execution.

This page was intentionally left blank.

VHA PLANNING AND PREPARATION FOR PANDEMIC RESPONSE

Planning Process

VHA began planning for COVID-19 quickly after the virus appeared on VHA's radar in early January 2020. VHA learned about the virus through OEM, which has a liaison embedded full time with HHS to stay on the front line of planning. The OEM Executive Director alerted VHA leadership on January 4, 2020 and began tracking the potential risk.[85] During the second week of January 2020 the EIC advised the Secretary of VA that the virus could impact the U.S. and the VA.

Planning activities quickly ramped up in late January 2020. On January 21, 2020, the same day as the first confirmed COVID-19 case in the U.S., VHA activated the EMCC with 24-7 operations to track the risk of, and respond to, COVID-19.[86] In late January 2020, the Assistant Under Secretary for Health for Operations released a memo to all field operations to provide updated CDC information and guidance and separately announced that OEM (via the EMCC) and the Office of Population Health ("Population Health") would lead the COVID-19 Response Plan.[87] Immediately thereafter, OEM and Population Health convened work groups to cover various areas of the response, such as communications, infection control and diagnostics/screening.[88] OEM and Population Health populated these work groups with SMEs by January 31, 2020.[89]

OEM initiated planning activities at the VISN and VAMC levels by conducting three national coordination calls on January 29, 2020, February 5, 2020 and March 4, 2020.[90] On these three calls, OEM and Population Health SMEs provided situational updates and projections and distributed written guidance, including planning guides such as Standard Operating Procedure, Hospital Discussion Guide, Tabletop Exercise and Strategic Response Plan.[91] OEM delivered Continuity of Operations planning guidance and a Tabletop exercise template to VHA Program Offices later in March 2020.[92]

As of January 31, 2020, VHA's Procurement and Logistics Office (P&LO) completed an assessment of PPE at each VAMC and identified no shortages at the time; however, it noted that PPE procured from China was restricted and plans were underway to source PPE from other vendors and develop burn rate models to predict potential PPE shortages. VHA hired McKinsey & Company, a consulting firm, to assist with modeling and forecasting. VHA developed an assumption of 2% prevalence of COVID-19 cases from the initial wave and determined planning would focus on critical care capacity, including the addition of 3,000 acute care beds.

By mid-February 2020, COVID-19 and related preparations became the primary focus for VHA, including writing the COVID-19 Response Plan and redefining the Fourth Mission from a local or regional response to a nationwide response; see the Fourth Mission section of this report for more details. VHA had determined the need to take the existing HCI Base Plan, which was the generalized high consequence infection plan, and adapt it for COVID-19. VHA developed the COVID-19 Response Plan as an annex to the HCI Base Plan; therefore, the COVID-19 Response Plan is sometimes referred to as the "Annex." The HCI Base Plan was based upon the VA Pandemic Flu Plan, which the VA developed in 2006 in response to the Avian Influenza (H5N1). In 2009, the Swine Flu (H1N1) was the first to test the VA Pandemic Flu Plan. The plan was later updated for Ebola.[93] To build the COVID-19 Response Plan, EMCC applied experience from multiple tabletop exercises conducted each year focused on a generalized HCI event and tested response aspects, such as PPE and testing. EMCC also stood up work groups to prepare appendices to the COVID-19 Response Plan; appendices included guidance on topics such as patient screening and treatment, infection control and clinical practice guidelines.[94]

The EMCC shared the draft COVID-19 Response Plan to VHA medical facilities around the latter portion of February 2020 and VISN Network Directors joined discussions around preparations. On March 3, 2020, VHA internally released its COVID-19 Strategic Response Plan. This plan described the four-phased approach that was later incorporated into the COVID-19 Response Plan and described later in this section.[95] On March 3, 2020 and March 4, 2020, VISNs stood up their Incident Command Systems.[96] On March 4, 2020, VHA vetted the COVID-19 Response Plan with the VISN Network Directors. On March 16, 2020, a draft of the COVID-19 Response Plan was shared with the EIC for review.[97]

Before public release, the COVID-19 Response Plan was socialized with other government organizations and with the American Hospital Association.[98] The White House was also involved in vetting the COVID-19 Response Plan prior to public release. VHA released its COVID-19 Response Plan to the public on March 27, 2020.[99]

The stated primary purpose of the COVID-19 Response Plan is to "protect Veterans and staff from acquiring COVID-19 by leveraging technology, communications as well as using dedicated staff and space to care for COVID-19 patients."[100] The COVID-19 Response Plan provides the VISNs and VAHCS / VAMCs a framework for adapting health care operations. The COVID-19 Response Plan details a recommended approach to health care delivery that includes separate "zones" for delivery of inpatient care (standard and COVID-19), and delivery of most outpatient care through telehealth.[101] The report also acknowledged VHA's Fourth Mission role in supporting

HHS through Emergency Support Functions as requested.[102] VHA's COVID-19 Response Plan includes a four-phased approach:[103]

1. **Phase 1:** Contingency Planning and Training. Triggered when there is a COVID-19 outbreak outside the U.S.
2. **Phase 2:** Initial Response. Triggered when there is a COVID-19 outbreak inside the U.S.
3. **Phase 3:** Alternate Sites of Care. Triggered if VHA cannot meet the demands of COVID-19.
4. **Phase 4:** Extended Operations and Recovery. Triggered with the ability to meet and maintain the long-term response capabilities to combat COVID-19

Alignment of Responsibilities

This section provides an overview of VHA's concept of operations for responding to COVID-19, the key groups with primary responsibilities for the response and the communications strategy during the response.

Concept of Operations

In conjunction with planning, the EIC aligned responsibilities with emphasis on keeping decision authority for execution in the networks with central focus on strategy, communications, support and data management. The EIC established and consistently reinforced roles and responsibilities that aligned with his vision for a 'servant model' of leadership in which VHACO exists to support regional health care directors. VHACO's role was set up to support Network Directors and their networks with clinical guidelines, policy and information technology (IT) tools, which included the HOC and the use of the NST. The concept of operations incorporated utilization of cells comprising SMEs from VHACO who provide response functions (including planning, staffing command and moving forward).[104] VHACO also developed workstreams to provide clarification and recommendations on policies and guidance for clinical care through a number of workstreams, including inpatient care, telehealth, clinical training, informatics, outpatient care and Clinical Contact Centers.[105] Further, the role of VHACO network support liaisons also served to coordinate between VHACO and VISNs on support services (such as ventilators, bed expansion, PPE and supply chain), including providing coordinating points of contact on bed surge planning.[106]

Key Groups

The organization of the COVID-19 Response Plan focused on the HOC, the COVID-19 Program Executive Office (PEO), the Planning Cell, the Staffing Command Cell and the Clinical Coordination Cell (CCC). As described in the VHA Overview section of this report, the movement towards the "cell" model aimed to help VHA assemble more integrated and agile teams with more efficient communication. In this model the cell, led by an AUSH, brought together stakeholders and SMEs across the organization with support of the PEO. The following describes responsibilities of these key groups:

- **HOC:** The HOC existed prior to COVID-19 and its regular responsibility was to engage with the field on a daily basis to provide horizontal and vertical awareness of daily operations and specific issues. The HOC's role was to address COVID-19 planning and response actions of concern both nationally and locally and includes VHA leadership, COVID-19 response leadership,

Network Directors, VAMC leadership and VHACO program offices.[107] Prior to the COVID-19 pandemic, the HOC hosted a morning daily call. This pace increased for the COVID-19 response. During the response, the HOC hosted conference calls twice daily, up to seven days a week, to discuss data tracking and collection as well as updates from Network Directors on a variety of areas.[108] The HOC's role also included conducting analytics to inform the COVID-19 response. The HOC incorporated analytics during planning to forecast demand for inpatient hospital care during the initial wave for the U.S. VHA used analytic reports of available data from COVID-19 outbreaks in China and Europe for initial forecasting. During the VHA response, VHA leaders in VHACO and VISNs regularly reviewed and discussed daily analytic reports. As national knowledge expanded regarding the spread of COVID-19 and associated demand for inpatient hospital care, the analytic forecasts informed VHA's approach wherein VISNs activated surge plans and augmented resources at locations with sustained accelerated spread of COVID-19.

- **Planning Cell**: The Planning Cell's role was to integrate the planning components of various workstreams (for example, Bed Expansion, PPE, Rural Health, Staffing Command Cell and Office of Information and Technology or OI&T) to ensure all long-term plans are coordinated, communicated and understood in order to mitigate the impact of COVID-19 and expand VHA's capacity to provide patient care.[109] The Planning Cell was set initially with a goal of planning one to two weeks out, with a planned shift to longer term planning for recovery as the effort matures.[110]
- **Staffing Command Cell:** The Staffing Command Cell's role was to support hiring and DEMPS COVID-19 initiatives through coordination, flow mapping and project management with VHACO and VISN HR, clinical and nursing points of contact.[111]
- **PEO:** The PEO was not originally envisioned as part of the organization for the COVID-19 response; however, VHA later set it up to manage the volume of information and activities as well as to ensure COVID-19 workstreams are integrated. The PEO's receptibilities also included preparing a daily bulletin consolidating all resources and guidance released.
- **CCC:** The role of the CCC was to partner with VISN and VHACO leadership to clarify policy, guidelines and practices. It developed and communicated clinical practice models as well as identified and shared best practices. It facilitated clinical guidance for Mission Assignments from FEMA. It also integrated consistent and informed responses for COVID-19 to program offices and the field.[112]

Communications

This subsection provides an overview of communications strategies taken by VHA during the response. For interagency communications, see the Interactions and Interdependencies with Federal Agencies section of this report.

VHA recognized the importance of communications during the pandemic, which caused a dramatic increase in demand for information from internal and external audiences; therefore, early in the response, VHA assembled a communications team to take action on the response. VHA's Office of Communications placed importance on speaking in "one voice," meaning to deliver messaging to employees, Veterans and the public with consistency and clarity.

VHA's Office of Communications noted that daily calls with public relations personnel in the field were a key mode of disseminating information quickly to internal audiences eager to obtain information on updates and guidance. The EIC also started a routine of daily video messages to VISN employees, focusing on all aspects of the organization, acknowledging their contributions and often heroic efforts, and encouraging employees in their service to Veterans.[113] He made 150 such videos since March 18.[114] VHA's Office of Communications provided also VISNs with toolkits including tools such as safety signage and social media posts. For more information on how communications flowed down from leaders to staff in the VISNs, see the Cross-VISN Summary.

The approval process for responding to media inquiries changed during the course of the pandemic. At the outset of the pandemic, responses to media inquiries were required to be reviewed by VA's Office of Public and Interagency Affairs before release. In March 2020, due to the dramatic increase in volume of media requests, the EIC changed the process to empower VISNs and facilities to respond directly to media requests.

SEQUENCE OF EVENTS

Key VHA Policies and Directives During COVID-19 Response

The VHA COVID-19 Response Plan outlined an initial communications process in which VHA appointed the Unified Command, comprised of the directors of OEM and Population Health, to review all COVID-19 related messaging prior to issuance.[115] This process existed until the VHA COVID-19 Communications Joint Task Force established a new approval process for all clinical and non-clinical COVID-19 products on April 22, 2020. The new process followed the below steps: [116]

- All COVID-19 products and materials (clinical and non-clinical) were submitted to Office 10NC.
- Office 10NC/10N submitted documents to the Communications Joint Task Force email group for review/approval.
    - The abbreviation "10NC" refers to VHA Office of the AUSH for Clinical Operations and "10N" refers to VHA Office of the AUSH for Operations and Management. See Table 3.1 for references to offices that issued guidance throughout the COVID-19 response and are referred to in Table 3.2.
- All PPE-related documents were reviewed by the White House; the Communications Joint Task Force coordinated this process.

Table 3.2 provides a timeline of key directives and guidance during the COVID-19 response. Table 3.2 is not an exhaustive list of guidance; for an extended listing of directives and guidance impacting VHA issued throughout the COVID-19 response, see Appendix D. The sources used to collect directives and guidance, as well as the process to identify the subset considered as "key" directives and guidance for the purposes of this report, are as follows:

- VHA archives, including the Office of Healthcare Transformation (OHT) SharePoint and VHA Workforce Management Consulting (WMC) SharePoint, served as the primary sources for directives.
- Other government entities outside of VHA, for example Department of VA or the Office of Personnel Management (OPM), issued some of the key directives referenced.
- VHA stakeholders directly identified select directives as key.
- Directives associated with key topics discussed during interviews with VHA stakeholders are also identified as key.

The reader should note that, in some instances, guidance issued through 10N originated from a different office; however, 10N issued the guidance for streamlining purposes.

Table 3.1 *Issuing Office References and Office Names*

Issuing Office Reference[A]	Office Name[B]
05	VA Office of the Chief Human Capital Officer
006	VA Assistant Secretary for Human Resources and Administration/Operations, Security and Preparedness
10	VHA Office of the Under Secretary for Health (USH)
10A2	VHA Office of Human Capital Management *(Formerly known as VHA Office of Workforce Services)*
10D	VHA Office of Community Care *(Formerly known as VHA Office of the Deputy Under Secretary for Health for Community Care)*
10N	VHA Office of Operations[C] *(Formerly known as VHA Office of the Deputy Under Secretary for Health for Operations and Management)*
10NA1 / OEM	VHA Office of Emergency Management
10NC	VHA Office of Clinical Services *(Formerly known as VHA Office of the Assistant Deputy Under Secretary for Health for Clinical Operations)*
10NG	VHA Office of Access
EMCC	VHA Emergency Management Coordination Cell
OPM	United States Office of Personnel Management
VHACO	VHA Central Office

Notes:

[A] The Issuing Office Reference is based on the information provided through VHA Historical Logs as shown in Table 3.2. In some instances, this reference can be the same as the FY2020 VHACO Mail Codes.

[B] The Office Names are based on the current naming convention of VHA Offices that align to the FY2021 VHACO Mail Codes. Where applicable, a former Office Name is provided that aligns to the FY2020 VHACO Mail Codes.

[C] In some cases, guidance issued by 10N may have originated in a different office but was issued by 10N for streamlining purposes.

Sources: "VHA Organization Chart," VHA, 1/31/2020; "Key Staff," VHA, 7/8/2020, https://www.va.gov/directory/guide/keystaff.cfm?id=2001, accessed 10/4/2020; "VHACO Crosswalk", VHA, 10/1/2020.

***Table 3.2**: Key Directives and Guidance Issued During COVID-19*

Date	Document	Issuing Office	Action / Decision
January 30, 2020	Request for DEMPS Volunteers to support HHS Response to 2019-nCOV	10N	Volunteer support requested for HHS screening response.[A]
February 18, 2020	COVID-19 Table-Top Exercise (TTX)	10N	Each VISN and VAMC directed to conduct an emergency preparedness table-top exercise by March 6, 2020.[B]
March 3, 2020	Veterans Health Administration COVID-19 Strategic Response Plan	EMCC	4 Phases of VHA's COVID-19 Strategic Response Plan outlined: Contingency Planning and Training; Initial Response; Establishing Alternate Sites of Care; and Sustainment and Recovery.[C]
March 5, 2020	VA Response to COVID-19: Guidance for VA Community Living Centers	10N	Guidance provided to CLCs and SVHs.[C]
March 10, 2020	Memorandum: COVID-19 Guidance for the VA Spinal Cord Injuries and Disorder (SCI/D) Centers	10N through 10NC	Guidance given to limit admissions; postpone elective admissions; use virtual care; and avoid group settings, sharing of equipment and visitors in SCI/Ds.[D]
March 15, 2020	Memorandum: Coronavirus (COVID-19) Personal Protective Equipment (PPE) Use	10N through 10NC	Notification provided and request made of VISNs to redistribute supplies in accordance with updated CDC PPE recommendations.[D]
March 15, 2020	Memorandum: Coronavirus (COVID-19) - Guidance for Elective Procedures	10N through 10NC	Network Directors informed that VHA facilities will cease non-urgent elective procedures by March 18, 2020.[D]
March 16, 2020	Memorandum: COVID-19 Guidance for Department of Veteran Affairs (VA) Health Care Systems	10N	Guidance provided to limit facility access and implement screening procedures prior to entry.[E]
March 16, 2020	Memorandum: Waiver of the Biweekly Pay Limitation – Coronavirus Disease	006	Employees permitted to be paid overtime in excess of the biweekly limitation of premium pay for employees performing duties in response to COVID-19.[E]
March 18, 2020	COVID-19 Supporting ICU Operations with Tele-Critical Care	10N	Facilities with an ICU and no Tele-Critical Care services asked to establish at least one temporary VA Video Connect (VVC) capable mobile cart for every 10 ICU beds.[E]
March 19, 2020	Appendices for Expanding Telehealth Capabilities	10N	Defines Tier 1 healthcare professionals and requirements to become telehealth capable.[E]

Date	Document	Issuing Office	Action / Decision
March 23, 2020	Memorandum: Preparedness for Mechanical Ventilation of COVID-19 Patients during Pandemic	10N through 10NC	All facilities directed to assess and verify the sufficiency of ventilators to cover all ICU beds.[F]
March 23, 2020	VHA Office of Emergency Management COVID-19 Response Plan	10NA1, VHACO	VHA OEM Response plan provided to outline activities VHA will conduct to protect Veterans and staff and ensure continuity of care.[F]
March 23, 2020	Delegated Authority to Waive Salary Offset - Novel Coronavirus Disease (COVID-19) National Emergency	05	This memorandum provides guidance on dual compensation (salary offset) waivers for reemployed annuitants hired in support of COVID-19 national emergency.[G]
March 23, 2020	On-boarding Processes for New Employees During the COVID-19 Emergency	OPM	Provides agencies with additional guidance related to on-boarding processes for new employees during the COVID-19 emergency.[H]
March 24, 2020	Veterans Health Administration (VHA) Approved Direct Hire Authority (DHA) in Response to COVID-19	05	This memorandum provides guidance on the OPM approval of a Direct Hire Waiver for VHA in support of the COVID-19 national emergency.[I]
March 24, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Temporary Authorization to Delay Preplacement and Recurring Physical Examinations	05	Guidance to allow for requirement for pre-placement physical examination to be fulfilled post-employment, to allow VA to meet emergency hiring needs.[J]
March 25, 2020	Temporary Procedures for Personnel Vetting and Appointment of New Employees during Maximum Telework Period due to Coronavirus COVID-19	OPM	Institutes temporary procedures for personnel vetting during telework period due to COVID-19.[K]
March 25, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Temporary Postponement of Applicant Drug Testing during COVID-19 Pandemic	05	Notifies HR offices of the temporary postponement of pre-employment applicant drug testing for testing designated positions (TDP).[L]
March 26, 2020	Memorandum: Use of Government Purchase Card with Amazon for Personal Protective Equipment and Other Emergency Medical Supplies in Support of COVID-19 Response	10N	Guidance provided for sourcing of PPE and medical supplies from non-contracted sources available through Amazon.[F]
March 26, 2020	Memorandum: Delegation of Authority – Group Recruitment and Retention Incentives for Title 38 Employees	10	Authority delegated to GS-15 VISN and WMC HR Officers to approve group recruitment and retention incentives up to 50% for Title 38 employees.[F]

Date	Document	Issuing Office	Action / Decision
March 29, 2020	Memorandum: Leveraging Capacity to Support Surges in Demand for COVID-19	10N	Actions outlined in support of an enterprise-wide plan to optimize the VHA workforce for COVID-19 related surges in care.[F]
March 31, 2020	Memorandum: Guidance to Avoid All Routing or Non-urgent Face to Face Visits	10N	Guidance given to review and convert all but urgent outpatient appointments to virtual modalities.[M]
April 1, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Waiver of the Exclusion of Temporary Appointments to Receive Recruitment, Relocation and Retention Incentives During the COVID-19 Pandemic	05	Notifies VA HR Offices (HRO) of the Chief Human Capital Officer's waiver of the exclusion of temporary appointments and those on intermittent schedules to receive recruitment, relocation and retention incentives during this national emergency.[N]
April 2, 2020	Memorandum: COVID-19 Bed Expansion Planning Guidance and Reporting	10N	Guidance provided on bed expansion (surge) planning and reporting across VISNs and facilities for COVID-19.[M]
April 3, 2020	Memorandum: COVID-19 Employee Deployment – Special Contributions Award (SCA) Guidance	10	VISNs requested to identify and approve employees are ready, willing and able to deploy to an area of priority need.[M]
April 6, 2020	Memorandum: COVID-19 VHA Guidance for Tuberculosis Testing of New Employees	10	Guidance provided on tuberculosis testing for all new employees following expedited onboarding procedures.[O]
April 9, 2020	Memorandum: Process for Providing Resources to State and Federal Partners via FEMA Mission Assignments	10N	Guidance provided for offering resources to State and Federal partners and the process by which VHA accomplishes this activity.[O]
April 9, 2020	Memorandum: Coronavirus: Prioritizing Testing to Maximize Value to the Pandemic Response	10N	Guidance provided to prioritize testing for CDC Priority 1 and 2 groups and avoid testing for Priority 3 or Non-Priority groups.[O]
April 14, 2020	Memorandum: Coronavirus (COVID-19) Community Living Center (CLC) and Spinal Cord Injury and Disorder Unit (SCI/D) Veteran and Staff Testing	10N	Guidance provided to implement population-based testing of all Veterans, patients received under a Fourth Mission assignment and employees working in CLCs and SCI/D units.[P]
April 17, 2020	Memorandum: Reporting Personal Protective Equipment (PPE) Levels and Daily Consumption	10N	Guidance provided for reporting critical PPE levels and daily consumption in the COVID-19 Response Monitoring Tool.[P]
April 17, 2020	Memorandum: National Surveillance Tool for Veterans	10N	The VA NST established as the authoritative data source, operational dashboard and clinical monitoring

Date	Document	Issuing Office	Action / Decision
	Health Administration (VHA) COVID-19 Operations		platform for COVID-19 to be used by VHA.[P]
April 21, 2020	Memorandum: COVID-19 Pandemic Pre-Approved Deployable Personnel	10N	Guidance provided on inter-VISN personnel movement and deployment of deployable personnel responding to a surge in COVID-19 and staffing needs.[Q]
April 22, 2020	Memorandum: Instructions for Admitting State Home Veterans during the COVID-19 Pandemic	10N	VAMC Business Implementation Managers guidance provided for admitting patients transferred to a VA facility from a SVH due to COVID-19.[Q]
April 27, 2020	Office of the DUSHOM Communications: VISN Surge Plan Expansions	10N	Request made of VISNs to expand surge plans to include creating or converting beds for post-acute care for COVID-19 patients.[R]
April 29, 2020	Memorandum: VHA – Implementation Guidance: Coronavirus Aid, Relief, and Economic Security Act (CARES) Act, Public Law 116-136	10A2	Further guidance provided on procedures and scenarios for waiving certain limitations on pay for work done in support of the COVID-19 response.[R]
May 13, 2020	Memorandum: Authority to Approve Weather & Safety Leave for Employees Affected by COVID-19	10	Delegation of authority given to Senior Executive Service / Title 38 appointed Senior Executive Service-equivalent VHACO employees, Network Directors and Medical Center Directors to approve Weather & Safety Leave in increments of up to 15 days.[S]
May 18, 2020	Memorandum: Delegation of Authority to Exclude an Employee from Application of the Emergency Paid Sick Leave Act, Division E of the FFCRA	10	Authority further delegated to Senior Executive Service and Title 38-appointed Senior Executive Service-equivalent employees within VHACO, Network Directors, and Medical Center Directors to exclude VHA employees from certain provisions under EPSLA.[T]
May 22, 2020	Memorandum: Moving Forward: Guidance for Resumption of Procedures for Non-Urgent and Elective Indications	10N	Guidance provided for resuming non-urgent procedures in alignment with VHA's Moving Forward Plan.[T]
June 3, 2020	Memorandum: Disaster Response during a Pandemic	10N	Plan provided to respond to and manage an emerging crisis while simultaneously managing ongoing COVID-19 operations.[U]
June 9, 2020	Veterans Health Administration Moving Forward Guidebook	10N	Guidebook provided for regulations, policy and guidance associated with expanding services at VA sites of care.[V]

Date	Document	Issuing Office	Action / Decision
June 26, 2020	VHA Moving Forward Guidebook	10NC, 10NG, 10D	Second iteration of VHA's Moving Forward Guidebook released.[W]

Notes: In some instances, guidance issued through 10N originated from a different office but was issued through 10N for streamlining purposes. Document title and description were taken verbatim from source; in some cases, a description was not available and a summary description was created for the purposes of this report.

Sources:

[A] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: January 27 - February 2, 2020," VHA, accessed 7/15/2020.

[B] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: February 17-23, 2020," VHA, accessed 7/15/2020.

[C] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 2-8, 2020," VHA, accessed 7/15/2020.

[D] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 9-15, 2020," VHA, accessed 7/15/2020.

[E] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 16-22, 2020," VHA, accessed 7/15/2020.

[F] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 23-29, 2020," VHA, accessed 7/15/2020.

[G] "Delegated Authority to Waive Salary Offset - Novel Coronavirus Disease (COVID-19) National Emergency," VA, 3/23/2020.

[H] "On-boarding processes for new employees during the COVID-19 emergency," OPM, 3/23/2020.

[I] "VHA Approved Direct Hire Authority in Response to COVID-19," Chief Human Capital Officer, VA, 3/24/2020.

[J] "Temporary Authorization to Delay Pre-Placement and Recurring Physical Exams," VA Office of the Chief Human Capital Officer, 3/24/2020.

[K] "Temporary Procedures for Personnel Vetting and Appointment of New Employees during Maximum Telework Period due to Coronavirus COVID-19," OPM, 3/25/2020.

[L] "Temporary Postponement of Applicant Drug Testing during COVID-19 Pandemic," VA Office of the Chief Human Capital Officer, 3/25/2020.

[M] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 30 - April 5, 2020," VHA, accessed 7/15/2020.

[N] "Waiver of the Exclusion of Temporary Appointments to Receive Recruitment, Relocation and Retention Incentives During the COVID-19 Pandemic," VA Office of the Chief Human Capital Officer, 4/1/2020.

[O] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 6-12, 2020," VHA, accessed 7/15/2020.

[P] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 13-19, 2020," VHA, accessed 7/15/2020.

[Q] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 20-26, 2020," VHA, accessed 7/15/2020.

[R] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 27 - May 3, 2020," VHA, accessed 7/15/2020.

[S] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 11-17, 2020," VHA, accessed 7/15/2020.

[T] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 18-24, 2020," VHA, accessed 7/15/2020.

[U] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 1-7, 2020," VHA, accessed 7/15/2020.

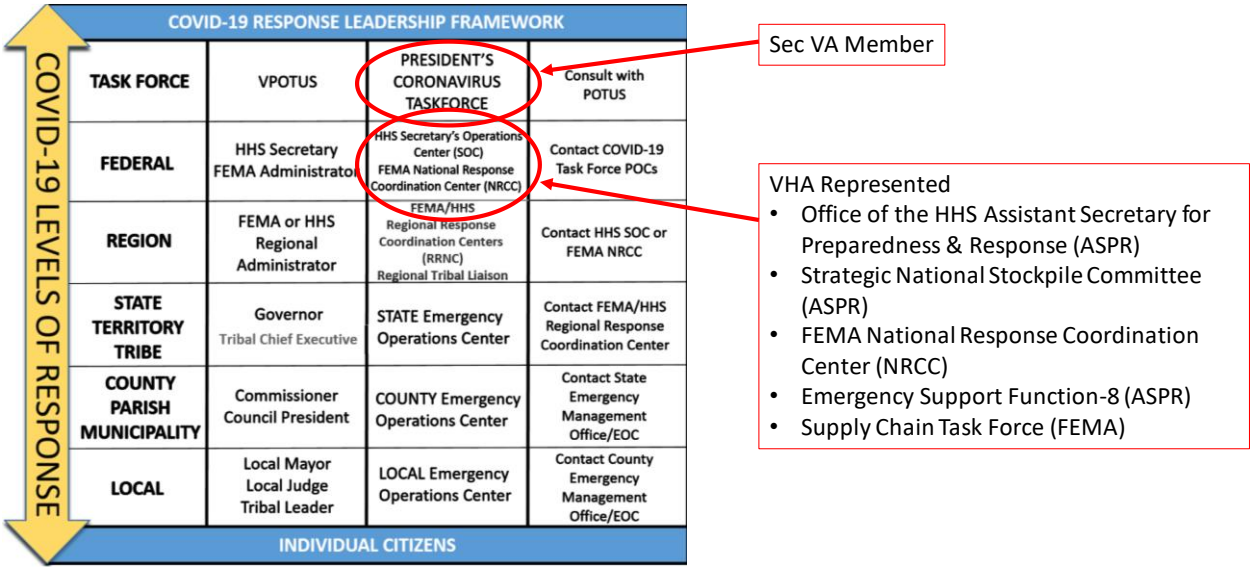
[V] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 8-14, 2020," VHA, accessed 7/15/2020.

[W] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 22-28, 2020," VHA, accessed 7/15/2020.

INTERACTIONS AND INTERDEPENDENCIES WITH FEDERAL AND STATE AGENCIES

At the end of December 2019, global health monitors in the Federal government noted the outbreak of an illness in China that developed into a novel coronavirus, and subsequently into a pandemic, during the month of January 2020. During the first week of January 2020, the EIC learned of the outbreak in China from the embedded VHA liaison to the office of the Assistant Secretary for Preparedness and Response (ASPR) in HHS after it was described in an ASPR operations briefing. This linkage between VHA and HHS provided the global health intelligence that led the EIC to advise the Secretary of VA in early January that the pandemic threat warranted preparatory actions by VHA. Figure 4.1 depicts the structure for the national COVID-19 response as well as the point of representation for VA and VHA.

Figure 4.1 *VA and VHA Representation in the National COVID-19 Response Structure*



Source: Original illustration obtained from "Coronavirus (COVID-19) Pandemic: Response and Recovery Through Federal-State-Local-Tribal Partnership", White House Office of Intergovernmental Affairs, March 2020, https://www.whitehouse.gov/wp-content/uploads/2020/03/COVID-Response-and-Recovery-Guidance.pdf, accessed 10/14/2020.

The U.S. Coronavirus Task Force was initially established on January 29, 2020, under the leadership of the Secretary of HHS, and included representation from ASPR, CDC, the Centers for Medicare & Medicaid Services (CMS), the Public Health Service (PHS), the Department of Homeland Security (DHS) and the Department of State; however, the task force did not include VA representation. During the month of February 2020, concern mounted in the U.S. regarding the threat posed by COVID-19. The President appointed the Vice President as lead of the U.S. Coronavirus Task Force on February 26, 2020 and the task force was still absent VA representation.[117]

In March 2020, the Secretary of VA recommended VA's inclusion on the U.S. Coronavirus Task Force due to VA's "Fourth Mission," described in Title 42 of the United States Code, to respond to public health emergencies within the U.S. His recommendation was accepted and the Secretary of VA joined the U.S. Coronavirus Task Force in late March 2020.

When the U.S. Coronavirus Task Force was initially formed, it designated HHS to hold primary responsibility for interagency execution of the COVID-19 response.[118] During preparations or upon initiation of the response, Federal agencies were not working from a national response framework tailored to available information about COVID-19 and detailing VHA's role. In mid-February 2020, VHA shared its COVID-19 Response Plan with the U.S. Coronavirus Task Force and the Office of Management and Budget for review prior to full implementation. VA conducted preparatory actions for VHA response while developing and vetting its COVID-19 Response Plan; see the VHA Planning and Preparation for Pandemic Response section of this report for further details.

As VHA conducted planning and preparatory actions in January and February 2020, the EIC began a series of coordinating discussions with the HHS ASPR; these discussions focused on VHA's capacity to offer inpatient care to non-Veterans in support of communities as specified in Title 42. Discussions also focused on supply chain management and requirements for scarce resources such as PPE and ventilators.

On March 13, 2020, the President enacted provisions of the National Emergencies Act and the Stafford Act by declaring a national emergency, making FEMA the lead for executing the Federal response under direction of the U.S. Coronavirus Task Force.[119] The declaration designated HHS to provide subject matter expertise in public health.[120] On March 19, 2020, the FEMA Administrator engaged the FEMA National Response Coordination Center (NRCC) to execute the response with HHS ASPR as co-chair.[121] The President's declaration invited states and tribes to request Federal assistance and advised the Secretary of Defense to support use of the National Guard by the states under Title 32.[122] As of May 31, 2020, 57 major disaster declarations had been approved.[123]

Leading up to March 13, 2020 HHS ASPR had the lead for executing the national response and requested VHA representation. The EIC selected the Executive Director of P&LO as one of the VHA representatives. As FEMA assumed lead for executing the national response on March 13, 2020, the Executive Director of P&LO transitioned to FEMA to support the Health Resilience Task Force before transitioning to the Supply Chain Task Force. VHA and the states began submitting requests for FEMA

assistance for critical supplies and equipment, PPE and ventilators. VHA requested these items as it built capacity to respond in anticipation of Mission Assignments from FEMA within VHA's Fourth Mission. NRCC encountered a major challenge in gaining fidelity of quantities required and degree of urgency in prioritizing requests from both states and VHA for critical supplies and equipment. As VHA established processes to improve enterprise visibility of inventories, the Executive Director of P&LO was instrumental in coordinating VHA supply chain actions with the evolving interagency response to national supply chain issues.

In late March 2020, concern mounted about demands for hospital care in NYC as evidence indicated the spread of COVID-19 was accelerating rapidly in the area. To inform VHA expansion of inpatient capacity, the VHA leadership team had been analyzing data from outbreaks in other nations to estimate the demand for COVID-19 inpatient care. The objective was to meet the needs of the enrolled Veteran population and also open up capacity to U.S. communities under the Fourth Mission. The EIC concluded that planning for hospital demand commensurate with 2% prevalence of confirmed COVID-19 cases in a community was the target with the greatest fidelity. He met with the FEMA Administrator on March 26, 2020 to present VHA's analytic model and suggest use of such a model to inform the response. The EIC was concerned that requirements for low-acuity hospital beds equipment and supplies (for low severity cases) in NYC were not linked to a forecasted prevalence and appeared to be high. The discussion was not completed as the FEMA Administrator was unexpectedly called into another discussion. The FEMA Administrator's staff indicated FEMA had a model they would send to the EIC for review; however, the EIC never received the information. VHA proceeded with bed expansion targets based upon an expected 2% prevalence of confirmed cases, which (according to VHA analytic reports) has since been validated as an accurate assumption in quantifying peak demand for hospital capacity in communities with initial periods of sustained acceleration of COVID-19 spread. The percentages of confirmed cases that required inpatient hospital care and led to death appear to be higher in the initial epicenter in NYC and New Jersey than in subsequent sites of sustained accelerated spread, possibly because the cohort infected in NYC and New Jersey included more people at elevated risk for complications. Some communities have exceeded 2% prevalence of confirmed cases over an extended period of time, but prevalence approaching 2% during the initial period of accelerating spread has enabled accurate forecasting of peak demand for hospitalization.[124]

VHA's model suggested critical care capacity would be the shortfall of greatest concern for COVID-19. VHA believed the surge demand for lower acuity hospital care could be accommodated by expanding Med/surg beds within hospitals, making alternate sites of care a less probable requirement. Later in the response, after the

surges in New York, New Jersey, New Orleans and Detroit plateaued, HHS Emergency Support Function #8 (ESF #8) incorporated analytics informed by those outbreaks as a forecasting tool. For more information on ESF #8, please see the Emergency Management section of this report.

On March 26, 2020, the EIC designated the VHA Chief of Staff as the VHA representative to FEMA's NRCC. He began updating the NRCC on VHA's activities to expand ICU and Med/surg bed capacity by 3,000 beds nationwide with intent to offer bed capacity in locations where health care systems were approaching capacity. However, VHA's Fourth Mission was not generally understood and much of the focus on Federal health assets for response to NYC was on DOD. DOD mounted a large response with medical personnel for the alternate care site at the Javits Center and the United States Naval Ship (USNS) Comfort, which docked in NY Harbor initially as a site for non-COVID-19 care. Both the Javits Center and the USNS Comfort treated patients (COVID-19 cases included), but neither saw the expected volume as most care remained concentrated in established hospitals. VHA offered capacity in NYC for community COVID-19 patients to transfer, specifically offering to accept critical care patients. VAMCs in NYC subsequently received 111 patients in transfer, most of them critical care patients.

As the response to NYC was formulated with FEMA in March 2020, the EIC began a series of discussions with the Deputy Assistant Secretary of Defense (DASD) for Homeland Defense Integration and Defense Support of Civil Authorities. The discussions focused on potential coordination of response to NYC; however, parallel discussions at a national level led to commitment of extensive DOD assets before a coordinated VHA-DOD response could be proposed. VHA then also mounted an extensive response focused on critical care capacity in VAMCs for COVID-19 victims.

On March 18, 2020, the President invoked authorities within the Defense Production Act to direct HHS to manage the distribution of health and medical resources needed for the COVID-19 response, including PPE and ventilators.[125] Initial distribution prioritization under Defense Production Act did not give priority to VHA's requirements for PPE, threatening to impede community response under VHA's Fourth Mission. This led to a series of direct engagements by the Secretary of VA with leaders in HHS and DHS. According to the VHA liaison to FEMA NRCC, the Secretary's engagement and the growing requests for assistance from states led to higher priority for VHA requirements for critical supplies. By late April 2020, VHA had implemented an information system with processes that provided enterprise visibility to inventories of critical supplies, bringing greater accuracy to VHA supply chain requirements. HHS ASPR regards VHA's progress in supply chain visibility as a major contribution

informing the interagency response and serving as a model for the states in emergency management.

As the pandemic progressed and localities experienced sustained periods of accelerated spread of COVID-19, state governments and community health systems were generally unfamiliar with VHA's response capabilities under its Fourth Mission. They were also generally unaware of the process for requesting VHA assistance. VHA employed multiple channels of communication to make VHA's response capabilities known and facilitate requests for assistance from states. These channels included local community engagement by VAMC Directors, coordination by VHA Regional Emergency Managers with FEMA and state agencies, engagement by VHA Network Directors with state agencies and direct engagement by the Secretary of VA with governors.[126] The Secretary of VA sustained frequent and regular contact with governors throughout the response, with discussions focused on concerns about stress on community health systems, support to state Veteran populations and areas where VA response could be helpful. According to the VHA liaison to FEMA NRCC, Secretary of VA's direct engagement with governors expedited requests and VA response to crises in several instances.

In March 2020, FEMA and HHS determined that the HHS ASPR ESF #8 Coordinating Council would provide oversight to aspects of the interagency response pertaining to health care related support to states. The Coordinating Council members represent an array of Federal agencies, including ASPR, VA, DOD, FEMA, CDC and PHS.[127] The Supply Chain Task Force, led by the Deputy Director for Logistics Planning and Execution (J4) on the DOD Joint Staff, transitioned from FEMA to HHS in June 2020 to work in coordination with ESF #8. The EIC designated the VA Acting Deputy Under Secretary for Health (DUSH), as the VA representative to the ESF #8 Council, a role he started on April 15, 2020. In this role, the DUSH coordinated VHA response capabilities with requests from the states. The DUSH developed a process by which he worked with VHA Network Directors to expeditiously identify VHA's capacity to respond to requests, a process requiring careful consideration to ensure an effective response while sustaining capacity to meet the needs of the Veteran population. During this response, the EIC set a strategy whereby VHA networks planned to commit 80% of hospital capacity to meet a surge in demand among the Veteran population and use the remaining capacity to offer response to FEMA Mission Assignments. According to the EIC, the DUSH representation of VHA on the ESF #8 Council produced a consistent and expedited approach to coordinating Mission Assignments, leading to rapid coordination enabling timely response. According to the DOD representative, ESF #8's use of analytics to forecast demand on health systems as COVID-19 continues to spread across the U.S., as well as its coordination, has led to a more integrated and coordinated interagency response.

The persisting shortfalls in availability of critical supplies for health care and the stress on hospitals during the COVID-19 response have highlighted the importance of coupling expertise in health system operations with public health expertise in the interagency response. According to the EIC, the whole of Federal interagency response to the COVID-19 pandemic has included multiple advisors with deep expertise in public health and infectious disease, but only ad hoc advisers in health care system (hospital) operations. Effective planning assumptions for response to a public health crisis requires translation of predicted disease incidence and prevalence into forecasted requirements for hospital resources. This is particularly critical within the context of an uncertain supply chain and a health care workforce under stress.

In order to redefine the objectives and composition of the SNS to inform replenishment actions, HHS ASPR convened a SNS Steering Committee led by a member of the U.S. Coronavirus Task Force. The VHA Assistant Under Secretary for Health for Support Services (AUSH-S) is the VHA representative. According to HHS ASPR, the SNS will be a core element of the national framework for future response to a public health emergency.[128]

Every element of the Federal health system has a significant role in the national response to the COVID-19 pandemic, including HHS, CMS, ASPR, CDC, PHS, National Institutes of Health (NIH), VHA, IHS and DOD. According to the EIC, the response has highlighted the need for greater synchronization among the missions of the Federal health agencies to facilitate coordinated contingency response.

The IHS and the Tribal Health Systems requested and received support from VHA during the COVID-19 response. VHA has provided supported in a variety of forms, including on-site provision of care, consultation and acceptance of COVID-19 inpatients in transfer. The experience in this response and ongoing leadership interactions between VHA and IHS have prompted VHA leaders to consider how a sustained partnership could be beneficial to the missions of both systems.

According to the EIC, the support actions in response to FEMA Mission Assignments of the two large Federal health care systems, VHA and the Military Health System (MHS), have not been coordinated during this response. Readiness concerns among military forces and health care requirements for DOD beneficiaries imposed by the pandemic led DOD to moderate its commitment of medical forces to civil support after the commitment of a large number of assets to the initial large outbreaks in March and April 2020. The DASD for Homeland Defense Integration and Defense Support to Civil Authorities stated that DOD regards VHA, coupled with FEMA contract support, as the primary health care response options for a national or regional public health emergency, with MHS assets in a supporting role focused on capabilities unique to

DOD. Such unique DOD capabilities would include aeromedical evacuation and rapidly deployable field hospitals. The EIC has expressed concurrence with this concept for response by Federal health care systems; however, he also pointed out that greater integration between the two systems would enable coupling of capabilities for a more agile, efficient response within a variety of scenarios including a public health crisis or mass casualty crisis.

VHA senior leaders have expressed interest in renewed exploration of a partnership with PHS, potentially providing a career track for uniformed PHS members in VHA to the mutual benefit of both VHA and PHS. Such a partnership could pose benefits to VHA's deployment capability.

This page was intentionally left blank.

OVERVIEW OF VHA COVID-19 RESPONSE

Initial (Crisis) Response

As COVID-19 began to surface in China in December 2019 and into January 2020, VHA leadership closely monitored the situation and began to prepare the enterprise for a potential response to the disease. On January 4, 2020, the WHO announced a cluster of pneumonia cases in China with an unknown origin, and OEM began officially tracking the disease.[129] Also on January 4, 2020, OEM notified the EIC about the virus. In the second week of January, the EIC notified the Secretary of VA about the virus and its potential impact. In mid-January 2020, VHA leadership began receiving updates from the organization's infectious disease and public health experts on the topic. On January 20, 2020, when HHS began to have conversations regarding the repatriation of American citizens, VHA began to intensify preparation efforts for the potential impact of a pandemic in the United States.

On January 21, 2020, the same day that the state of Washington announced the first confirmed case of COVID-19 in the United States, OEM and Population Health activated the EMCC.[130] Shortly thereafter, on January 31, 2020, the EIC designated OEM and Population Health as co-leads for preparedness, response and recovery efforts related to COVID-19, including an immediate focus on creating an updated written COVID-19 plan based on the pre-existing VA Pandemic Influenza Plan.[131]

In late January 2020, the EIC directed a review of inventory levels based on population at risk (PAR), contingency stocks and central stocks and as a result, decided to raise PAR supply levels to 30 days and reexamine contingency stocks. From this review, the EIC recognized that the locally operated supply chain would cause challenges due to a deficit in standardization and limited central visibility of inventories. As the U.S. identified initial cases of COVID-19 in February 2020, consumption of PPE in VAMCs began to increase significantly. Vendors for PPE began to advise VAMCs they could only fill orders consistent with historical requirements for the facilities. The absence of a supply chain system providing enterprise visibility of inventories using standard quantification kept VHA from gaining a clear picture of existing inventories. VHA had an existing reorganization plan that called for the creation of an AUSH-S to assume responsibility for functions including supply chain management. This was planned in order to execute VHA's Modernization Plan for supply chain transformation. This aspect of the reorganization took effect on March 15, 2020 and included realignment of procurement and logistics operations to AUSH-S.

In late February 2020, NYC reported its first case of COVID-19 and quickly became the epicenter of COVID-19 in the U.S.; by the end of March 2020, NYC reported more

than 65,000 cases and nearly 2,200 associated deaths.[132] VISN 2, which covers NYC, responded by accommodating facility, staffing and bed demands in its own facilities, as well as by accepting patients from community hospitals.

Detroit and the tri-county area east of Ann Arbor also experienced a surge in cases in March 2020.[133] As prevalence of confirmed cases in the community increased, VISN 10 leadership activated bed expansion and moved ventilators areas of peak demand. VISN 10 also reallocated staff to help sites impacted by the escalating surge.

In Chicago, the spread of COVID-19 cases began accelerating in mid-March 2020 and reached over 5,000 cases by early April 2020, at which time Chicago community health facilities needed Fourth Mission support.[134] VISN 12 responded through rebalancing PPE, ventilators and dialysis machines as well as by reallocating its workforce to manage the outbreaks.

New Orleans also saw an outbreak of COVID-19 cases in mid-March 2020, one day after the Orleans Parish began quarantine procedures.[135] By late March 2020 the community 7-day rolling average of new cases per day exceeded 100; a week later the 7-day rolling average more than quadrupled to approximately 450 new cases per day.[136] The rate of new cases decreased through the last few weeks of April and returned to a baseline rate by late April 2020.[137] VISN 16 put out a call for ventilators as leadership was concerned about running short; other VISN's provided supplies soon after the request. VISN 16 leadership stated it was able to accommodate this influx in new patients due to the agility of its new facility. In the facility, each room offered the same functionality and enabled personnel to quickly convert Med/surg beds to ICU beds. VISN 16 redeployed personnel from other locations within the VISN to meet the demand in New Orleans. It also transferred non-COVID-19 patients from New Orleans to CLCs in Biloxi, MS, Jackson, MS, and Alexandria, LA in order to open up space in New Orleans.

On March 23, 2020, just over a week after the WHO officially declared the COVID-19 outbreak a pandemic, VHA completed stakeholder coordination, finalized the COVID-19 Response Plan and provided the plan to all FEMA regions through the Area Emergency Managers (AEM).[138] VHA released the plan to the public on March 27, 2020.[139] Additionally, on March 23, 2020, the HOC initiated twice daily calls (seven days a week) with VHACO, Network and VAMC leadership to discuss critical COVID-19 planning and response topics.[140] This call was one of multiple recurring leadership touchpoints held throughout the response that served as conduits for communication and provided a forum to quickly raise issues occurring across the 18 VISNs. The same week, the VHA Chief of Staff was assigned to represent VHA at the FEMA NRCC to improve coordination on a recurring basis.[141]

On April 2, 2020, VHA directed the VAMCs to plan and report bed expansion projections in anticipation of needed additional bed capacity.[142] Across the enterprise, VHA established a goal of increasing total bed capacity by 3,000 acute care beds. VHA also instructed the VAMCs and VISNs to hire rapidly throughout the response; on April 15, 2020, the EIC reiterated that rapid hiring should continue in anticipation of a second wave of COVID-19.[143]

Stabilization

In mid to late April 2020, the spread of new COVID-19 cases in the U.S. seemed to be slowing.[144] The U.S. 7-day moving average, which moderates fluctuation in data, initially peaked as of April 11, 2020 with over 33,000 average new cases per day.[145] Approximately one week later, that average decreased to just under 26,000 new cases per day.[146] In response to the outbreak slowing, VHA developed a Moving Forward Plan to outline how VA facilities would resume services. VHA's initial emphasis was to develop criteria where environmental factors made the facilities likely candidates for reopening some health care services. In mid-June 2020, based on analytics of national epidemiological data, VHA leaders met and concluded the pandemic was not progressing in sequential waves of spread. Instead, SARS CoV-2 was present in communities nationwide and spread continuously. The rate of spread at specific locations varied with effective implementation of public health mitigating actions. This required a sustained response using analytics to forecast locations where demand for care would surge.

Continued Surges in Demand

On May 28, 2020, shortly after VHA released the Moving Forward Plan, the U.S. saw total deaths in the country surpass 100,000.[147] As of the same date, the 7-day average in the U.S. reached approximately 21,000 new cases per day. Soon after, states across the southern U.S. began to see a sharp rise in cases.[148] As a result, some VISNs and VAMCs had to pause, or even reverse, their reopening plans to refocus on treatment of COVID-19 patients. VISNs made decisions to reopen facilities on an individual basis depending on the level of demand for COVID-19 care in the community and region of each VAMC. In the first week of June 2020, 14 states and Puerto Rico reported new peak 7-day averages of COVID-19 cases; the 14 states included Alaska, Arizona, Arkansas, California, Florida, Kentucky, New Mexico, North Carolina, Mississippi, Oregon, South Carolina, Tennessee, Texas and Utah.[149] By the end of June 2020, the 7-day average of new cases in the U.S. increased to over 43,000 new cases per day, more than 30% over the April 2020 peak previously mentioned.[150]

"The commitment to our mission that I see at VHA – just as I saw when I was in uniform – makes me feel at home here. I've had the privilege of meeting so many incredible Veterans and staff in this job and that is what keeps me going."

Richard A. Stone, MD
VHA Executive in Charge

Photo source: Dr. Richard A. Stone, VHA EIC, "Reflections on the last two years", 7/17/2020, https://www.blogs.va.gov/VAntage/77059/reflections-last-two-years, accessed 10/14/2020.

Epidemiologic Summary for VHA Populations of Veterans and Staff

Through June 30, 2020, 20,949 Veterans using VHA services and 2,445 VHA employees tested positive for COVID-19. During the same time period, VHA treated 3,830 COVID-19 inpatients. VHA also recorded 1,691 Veteran deaths and 38 employee deaths associated with positive COVID-19 tests.[151] Table 5.1 displays summary statistics for Veterans Using VHA Services and VHA employees; Table 5.2 shows a breakdown of COVID-19 confirmed cases by age and gender. Note, a breakdown of statistics by race and ethnicity is not provided in this report because detailed record reviews or interviews would be required to assure accuracy. When Veterans enroll in VHA, they have the option to provide race and ethnicity information but it is not required.

As part of the COVID-19 response, VHA's Office of Occupational Safety and Health secured a contract for an occupational health record keeping system including, among other things, COVID-19 employee exposure tracking. While it is generally not possible to know if an employee's COVID-19 infection resulted from an occupational exposure, VHA followed the Department of Labor's (DOL) guidance for classifying infection among employees under the Federal Employee Compensation Act. According to the DOL guidance, "All Federal employees who develop COVID-19 while in the performance of their Federal duties are entitled to workers' compensation coverage pursuant to the Federal Employees' Compensation Act."[152]

Table 5.1 *Summary Statistics, All VISNs (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	6,330,433
Veteran COVID-19 Cases	20,949
Veteran COVID-19 Inpatients	3,830
Veteran Deaths (COVID-19 related)	1,691
VISN Employees	338,789
Employee COVID-19 Cases	2,445
Employee Deaths (COVID-19 related)	38

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives, and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, Allocation Resource Center (ARC), VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Table 5.2 *Number of Veterans Using VHA Services with COVID-19 Diagnosis, by Age and Gender (as of June 30, 2020)*

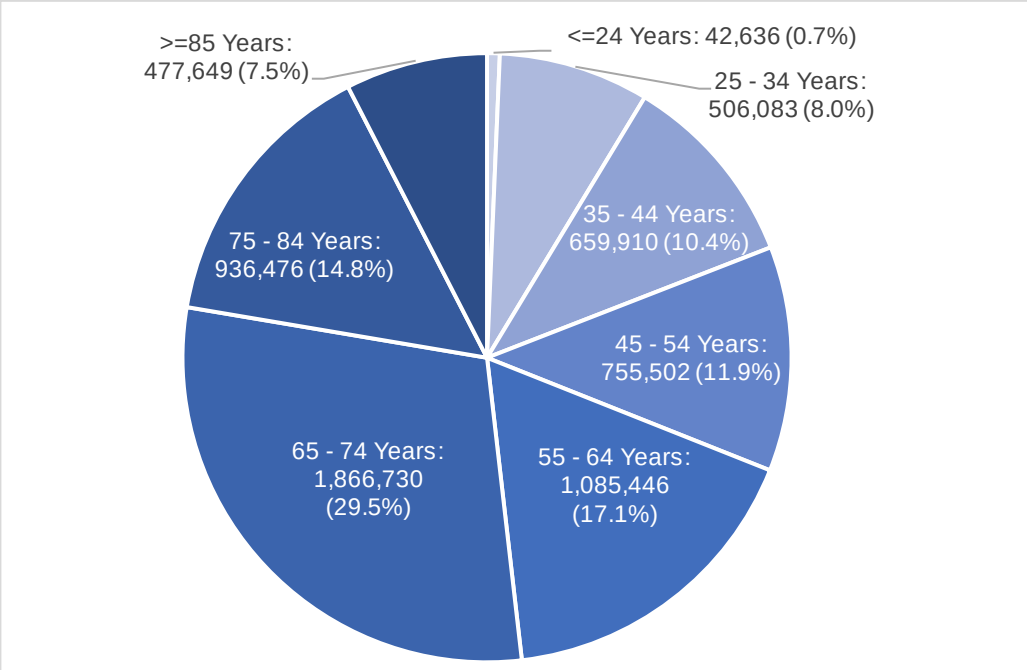
Gender	Female Veterans		Male Veterans		All Veterans	
Age Group	Number of COVID-19 Diagnosis	(% with Diagnosis of COVID-19)	Number of COVID-19 Diagnosis	(% with Diagnosis of COVID-19)	Total with COVID-19 Diagnosis	(% with Diagnosis of COVID-19)
34 and under	358	(0.34%)	1,370	(0.31%)	1,728	(0.31%)
35 - 44	425	(0.34%)	1,706	(0.32%)	2,131	(0.32%)
45 - 54	457	(0.38%)	2,263	(0.36%)	2,720	(0.36%)
55 - 64	485	(0.35%)	3,734	(0.39%)	4,219	(0.39%)
65 - 74	215	(0.31%)	5,349	(0.30%)	5,564	(0.30%)
75 - 84	38	(0.24%)	2,651	(0.29%)	2,689	(0.29%)
85 and over	51	(0.67%)	1,847	(0.39%)	1,898	(0.40%)
Total	**2,029**	**(0.35%)**	**18,920**	**(0.33%)**	**20,949**	**(0.33%)**

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Veteran confirmed positives and deaths figures exclude Veteran-Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020.

The reader of this report should note that the deaths associated with a diagnosis of COVID-19 enumerated in Table 5.1 are not case fatality rates. Detailed analysis of the population and cases will be required to arrive at case fatality rates; however, this section does aim, at a high level, to provide some context for the reader to consider when viewing Veteran deaths associated with confirmed COVID-19 cases. Notably, there are many factors that contribute to the risk of fatality from COVID-19. One such example is age, as the CDC has noted higher case fatality rates of older people.[153] The general Veteran population is older than the general U.S. population. For purposes of comparing age of Veterans against the general U.S. population, in 2018 the median age range of Veterans Using VHA Services was 65-69 years and the median age of people living in the U.S. was estimated at 38.2 years by the U.S. Census Bureau.[154] Figure 5.1 displays the breakdown of Veterans Using VHA Services by age range for the time period of October 1, 2018 to June 30, 2020. Table 5.3 shows a breakdown of deaths among Veterans Using VHA Services associated with confirmed COVID-19 diagnosis by age and gender.

Figure 5.1 *Number of Veterans Using VHA Services by Age Range (October 1, 2018 - June 30, 2020)*



Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19.

Source: Veterans Using VHA Services Data, ARC, VHA, on 8/31/2020.

Table 5.3 *Mortality Among Veterans Using VHA Services Following Diagnosis of COVID-19, by Age Group and Gender, All VISNs (as of June 30, 2020)*

	Female Veterans		Male Veterans		All Veterans	
Age Group	Deaths with Diagnosis of COVID-19	(% of Females Using VHA Services who Died with Diagnosis of COVID-19)	Deaths with Diagnosis of COVID-19	(% of Males Using VHA Services who Died with Diagnosis of COVID-19)	Deaths with Diagnosis of COVID-19	(% of Veterans Using VHA Services who Died with Diagnosis of COVID-19)
34 and under	-	(0.00%)	-	(0.00%)	-	(0.00%)
35 - 44	-	(0.00%)	7	(0.41%)	7	(0.33%)
45 - 54	5	(1.09%)	26	(1.15%)	31	(1.14%)
55 - 64	6	(1.24%)	133	(3.56%)	139	(3.29%)
65 - 74	13	(6.05%)	514	(9.61%)	527	(9.47%)
75 - 84	4	(10.53%)	427	(16.11%)	431	(16.03%)
85 and over	9	(17.65%)	547	(29.62%)	556	(29.29%)
Total	**37**	**(1.82%)**	**1,654**	**(8.74%)**	**1,691**	**(8.07%)**

Note: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA

Services definition for this report in order to quantify Veterans at risk for COVID-19. Veteran confirmed positives and deaths figures exclude Veteran-Employees.

Source: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Mortality data were pulled from the Case Detail view from NST, HOC, VHA, on 7/29/2020 at 10pm.

To illustrate the numbers of Veterans with COVID-19 that received care at facilities in areas of greater prevalence, Table 5.4 shows the 25 facilities with highest cumulative number of confirmed COVID-19 cases among Veterans Using VHA Services as of June 30, 2020.

Table 5.4 *Top 25 Facilities by Number of COVID-19 Cases among Veterans Using VHA Services (as of June 30, 2020)*

VISN	Facility Name	City	State	Number of Veterans Using VHA Services with COVID-19 Diagnosis
2	VA New Jersey Health Care System (HCS)	East Orange	NJ	781
16	Southeast Louisiana Veterans HCS	New Orleans	LA	679
2	VA NY Harbor HCS	Manhattan	NY	669
2	James J. Peters VAMC (Bronx, NY)	Bronx	NY	575
22	Eureka Vet Center	Phoenix	AZ	550
1	VA Boston HCS	Jamaica Plain	MA	530
17	South Texas Veterans HCS	San Antonio	TX	510
4	Corporal Michael J. Crescenz VAMC	Philadelphia	PA	504
5	Washington DC VAMC	Washington	DC	495
16	Michael E. DeBakey VAMC	Houston	TX	464
12	Jesse Brown VAMC	Chicago	IL	462
2	Atlanta VA HCS	Atlanta	GA	433
1	VA Connecticut HCS	West Haven	CT	394
2	VA Western New York HCS	Buffalo	NY	354
7	Columbia VA HCS	Columbia	SC	333
8	Orlando VAMC	Orlando	FL	333
10	Patient Response Center	Indianapolis	IN	331
10	Louis Stokes Cleveland VAMC	Cleveland	OH	325
19	VA Eastern Colorado HCS	Aurora	CO	318
23	Omaha VAMC - VA Nebraska - Western Iowa HCS	Omaha	NE	306
12	Edward Hines Jr. VA Hospital	Hines	IL	298
2	Northport VAMC	Northport	NY	286

VISN	Facility Name	City	State	Number of Veterans Using VHA Services with COVID-19 Diagnosis
8	Miami VA HCS	Miami	FL	281
10	John D. Dingell VAMC	Detroit	MI	280
8	Bay Pines VA HCS	Bay Pines	FL	277

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care.

Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Summary of Adaptations to Health Care Operations

The COVID-19 Response Plan laid out an approach to creating safe zones by segregating standard inpatient care from COVID-19 inpatient care and by providing most outpatient care through telehealth.[155] VAMCs in communities that experienced sustained periods of accelerating spread of COVID-19 saw high ICU occupancy at expanded (surge) capacity. As seen in Table 5.5, as of June 30, 2020, COVID-19 patients occupied approximately 8% of total occupied Med/surg beds and approximately 18% of total occupied ICU beds.

Table 5.5 *Bed Occupancy by Patient Type (as of June 30, 2020)*

Category	Med/surg	(% of Med/surg Occupied Beds)	ICU	(% of ICU Occupied Beds)
Occupied Beds (COVID-19)	400	(8%)	201	(18%)
Occupied Beds (Non-COVID-19)	4,523	(92%)	895	(82%)
Total Occupied	**4,923**	**(100%)**	**1,096**	**(100%)**

Note: This data covers the period from March 25 to June 30, 2020.

Source: Med/surg and ICU COVID-Occupied Bed Counts Data, HOC, VHA, 8/4/2020.

In accordance with the VHA COVID-19 Response Plan, VISNs applied a number of preventative measures across VHA facilities, including the implementation of measures to control entry to facilities for infection control. These measures included designated access points for entry with screening and triage processes prior to entry. VHA implemented virtual screening and triage processes for those seeking care via phone or messaging. Within facilities, managers put controls in place for Veterans, visitors and staff to reduce the risk of spread by asymptomatic individuals. VHA also developed and released a Moving Forward Plan to provide guidance regarding the resumption of in-person care.[156] See the Moving Forward Plan section of this report for more details.

Summary of Fourth Mission Data

In support of the Fourth Mission, VHA VISNs completed 93 Mission Assignment taskings spanning various types of facilities and support provided. See the Fourth Mission section of this report for more background about VA's Fourth Mission and the breadth of support provided.

Table 5.6 *Number of Fourth Mission Taskings by Type of Facility Receiving Care*

Type of Facilities Receiving Care	Number of Fourth Mission Taskings
SVH	36
Community Nursing Homes (CNH)	15
State Health Agencies	9
IHS	15
Other	20

Notes: Two taskings supported both SVHs and CNHs therefore they are counted twice. Data covers taskings that started prior to June 30, 2020.

Source: Response to Data Calls, All VISNs, July – August 2020.

Table 5.7 *Number of Fourth Mission Taskings by Support Type*

Support Type	Number of Fourth Mission Taskings
Bed Capacity	12
Education	4
Infection Control	6
PPE	14
Staffing Supplement	43
Subject Matter Expertise	5
Supplies	3
Testing	19
Other/Unspecified	3

Notes: Some taskings were counted more than once if they provided multiple types of support. Did not include taskings that did not specify mission goals. Data covers taskings that started prior to June 30, 2020.

Source: Response to Data Calls, All VISNs, July – August 2020.

ANALYSIS OF POLICY AND EXECUTION WITHIN ELEMENTS OF VHA'S COVID-19 RESPONSE

Emergency Management

The role of the EMCC is to coordinate the emergency response, deploy personnel and assets and provide real-time information to senior leadership for decision making. OEM and Population Health activated the EMCC on January 21, 2020 immediately following the first confirmed case of COVID-19 in the United States.[157] At the time of activation, the EMCC was still in the midst of responding to an earthquake in Puerto Rico.

Personnel Deployment Coordination (DEMPS)

A key OEM program involved in the COVID-19 response is DEMPS, which is VHA's main deployment program for clinical and non-clinical staff to an emergency or disaster. DEMPS existed prior to COVID-19; VHA had developed a web-based DEMPS database to enable accountability of DEMPS volunteer deployments by collecting information on VHA clinical and non-clinical staff who have volunteered and have been approved by their Medical Center Director to be deployed in the event of a disaster.[158]

Due to the concerns that volunteers were not deployed quickly enough in response to COVID-19 needs, some deployments occurred directly between VHA facilities and to external sites rather than through DEMPS. In fact, OEM estimated that it did not have transparency into the majority of deployments; this lack of visibility created risks around ensuring credentials, facilitating awareness around safety requirements, obtaining proper approvals for government credit cards and limiting access to real-time data on deployments.

Fourth Mission Coordination

The EMCC's role also includes coordinating FEMA Mission Assignments. The process for obtaining Mission Assignments changed during the COVID-19 response, namely the primary VA point of contact receiving the requests. Historically, VHA personnel embedded with regional FEMA teams in the field received requests, obtained requirements and discussed what VA could provide. In mid-April 2020, the EIC assigned the VHA DUSH to participate in the ESF #8 Allocation Council and serve as the single primary point of contact for receiving Mission Assignments. The ESF #8 Allocation Council is a group, including FEMA, DOD, HHS, PHS and VA, that reviews humanitarian mission requests from across the U.S., focusing on clinical care needs.[159] By participating in the ESF #8 Allocation Counsel, the DUSH obtains earlier

access to information on potential cases and advises the council on how, or if, VA can support. VHA leadership noted the relationship between FEMA and VA improved after this change was implemented.

In both the legacy and current processes, FEMA at the national level ultimately must approve the Mission Assignment, with input from HHS. Once requirements are settled, VHA consults its Office of General Counsel to ensure it is following legal authorities. Once the Mission Assignment is signed, the EMCC identifies staffing and deploys volunteers within HHS and FEMA travel requirements. The EMCC coordinates with the applicable VISN to ensure the VISN is comfortable with the assignment; ultimately, the VISN executes the Mission Assignment.

Mobile Asset Deployment

The EMCC's role also includes facilitating deployment of mobile assets to serve as alternative sites of care to address the possibility of overwhelming numbers of patients who need hospitalization. The EMCC has under its purview Fold-Out Rigid Temporary Shelter (FORTS) modular temporary medical structures, mobile command units, mobile pharmacy units and engages with the Veterans Canteen Service to access mobile emergency nutrition units as needed.[160] The EMCC deploys the mobile assets via its fleet of diesel pickup trucks or through other means, such as tractor trailers, for larger items.

On February 2, 2020, VHA provided a Multi-Use Vehicle to the HHS Incident Management Team supporting cruise ship passenger repatriation at Travis Air Force Base in California; the Multi-Use Vehicle provided HHS with Command Post space for the Incident Management Team.[161]

The EMCC's FORTS model, referred to as C-FORTS, offers various configurations, the most common of which is a three-exam room unit with a small intake area. In early May 2020, OEM conducted a proof of concept for a different configuration, a C-FORTS Rapid Response Hospital configured as an ICU. The purpose was to validate the concept of a mobile ICU for use in the VHA health care system and identify any needed modifications or equipment changes for workflow in an ICU unit.[162] A multi-disciplinary team of 150 personnel from VISNs 8 and 16 (covering various types of staff including clinical, facilities and logistics, security, nutrition services, IT and leadership) conducted the exercise. The team determined the time to deploy, set up and make ready the unit for receiving patients. They conducted walk throughs and worked hands-on with the equipment. Ultimately, the proof of concept determined that 30-person configuration is a worst-case scenario and recommend a rearrangement for operating 26 beds.[163]

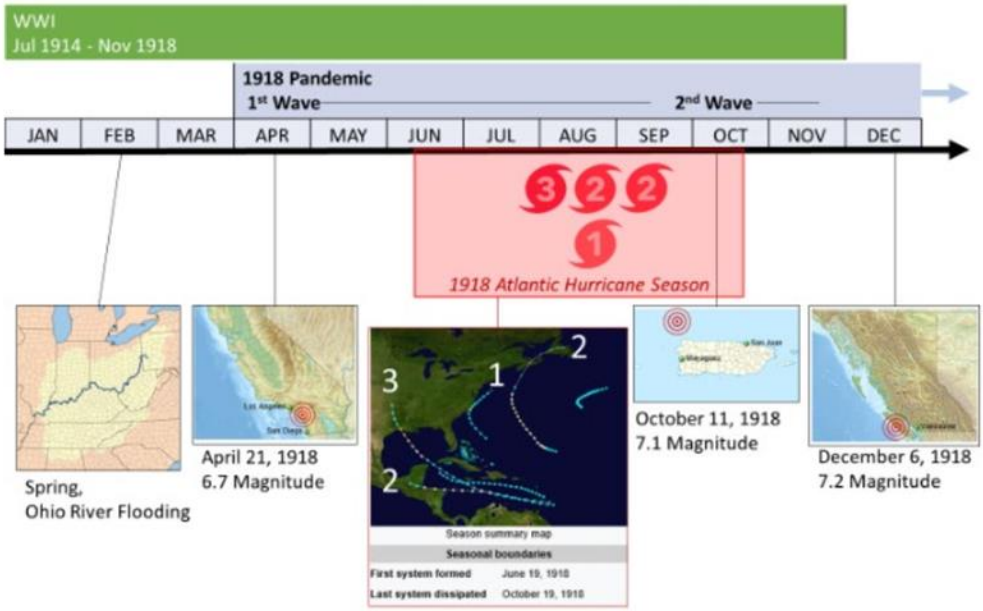
VHA ordered four C-FORTS scheduled for delivery in July 2020. The C-FORTS units are fully contained with heating, ventilation and air conditioning (HVAC), water and other hospital necessities.[164] Each mobile hospital unit contains five modules of 25 beds. The units can be deployed at a minimum of 25 beds (one module) up to a total of 125 beds (5 modules).[165]

Additionally, prior to the pandemic, OEM ordered two additional mobile command units scheduled for delivery by the end of 2020.

Hurricane Season Planning

While the COVID-19 Response Plan focused on responding to a single crisis, VHA acknowledged the need to be able to respond to multiple crises simultaneously, particularly as the U.S. entered its hurricane season.[166] In order to do so, VHA developed a Disaster Response During A Pandemic plan ("Disaster Response Plan"), which was internally released on June 3, 2020.[167] The Disaster Response Plan noted that the same year as 1918 Influenza pandemic, the U.S. experienced other incidents and disasters including flooding, hurricanes, earthquakes and the conclusion of World War I, as seen in Figure 6.1.[168] The Disaster Response Plan also projected the 2020 hurricane season to be more active than usual, including an estimated 19 named storms, eight hurricanes and four major hurricanes.[169]

Figure 6.1 *Depiction of Crisis Incidents during 1918 Spanish Influenza Pandemic*



Source: "Disaster Response During a Pandemic, Version 2.0," VHA, 6/1/2020.

VHA noted that responding to a secondary hazard would require OEM to provide resources and support; leadership would also need to organize in a way that effectively manages multiple hazards simultaneously.[170] Similar to the COVID-19 pandemic response, determining the best course of action for a secondary hazard is the role of VAMCs and VISNs.[171]

The Disaster Response Plan factored in a number of considerations; for example, an impacting incident may involve one or more VISNs.[172] Depending on the severity of the incident, it may require coordination of a full or partial evacuation of one or more medical facilities, sheltering in place, deployment of mobile medical assets to the impacted area and/or deployment of personnel through DEMPS.[173]

The Disaster Response Plan's concept of operations aligned existing COVID-19 response efforts across three phases:[174]

1. **Steady State or Pre-Incident**: This phase is triggered when an incident of size and/or magnitude warranting a response is identified. This phase includes pre-storm evacuations, contact with all vulnerable patient populations, implementation of shelter-in-place plans, reducing or curtailing services and pre-staging resources.[175]
2. **Post Incident Response:** This phase is triggered after the incident, such as a hurricane, has occurred. It includes efforts to stabilize the situation and reestablish continuity of care.[176]
3. **Recovery:** This phase begins transition to new normal operations, which is the ability to provide standard care in a COVID-19 pandemic environment.[177]

As previously noted, the cut-off date for information and data in this report is June 30, 2020; however, this section also briefly describes related efforts VHA took during the summer of 2020. President Trump made emergency declarations for parts of Louisiana and Texas, effective August 22, 2020, due to Hurricanes Laura and Marco.[178] The EMCC used the Regional Level Disaster Response structure outlined in Annex A to the Disaster Response Plan. The Regional Level Disaster Response structure is intended for a crisis incident with a regional scope covering one or two VISNs; Hurricanes Laura and Marco impacted VISNs 16 and 17.[179] The Regional Level Disaster Response structure also means that EMCC responds to a crisis incident impacting a region of the U.S. while simultaneously maintaining COVID-19 response operations.[180] In order to do so, multiple incident-specific sub-sections can be stood up under the existing EMCC COVID-19 organizational structure.[181] These sub-sections can focus on geographies or functions.[182] In the case of Hurricanes Laura and Marco, the EMCC implemented the latter approach of functional sub-sections, with one sub-section continuing to focus on COVID-19 and another sub-section

focusing on the hurricane response. The sub-sections report to a single section chief; for example, under the DEMPS branch, a separate DEMPS COVID-19 subsection and DEMPS hurricane subsection report to a single DEMPS section chief.[183] The Disaster Response Plan noted that advantages of the Regional Level Disaster Response structure include more efficient use of limited EMCC staffing resources and improved coordination ability and flow of EMCC communication; however, disadvantages include increased management demands for EMCC Section Chiefs and a need for additional management leads to maintain optimum span of control.[184]

Also, after the cut-off date for this report, VHA internally released another related document on July 31, 2020 titled Considerations for Sheltering and Mass Care During a Pandemic ("Sheltering Guidance").[185] The stated purpose of Sheltering Guidance is to "provide planning consideration for sheltering and mass care of our Veteran populations in response to a disaster occurring during a pandemic."[186] Sheltering Guidance laid out planning considerations for three strategies: shelter-in-place, congregate sheltering and non-congregate sheltering.[187] The following provides examples of benefits, risks and other considerations for each strategy type contained in Sheltering Guidance:

- **Shelter-in-Place:** Shelter-in-place strategies encourage Veterans to remain in their households during and immediately following a disaster. Benefits include social distancing and reduced staff needs. Risks include disrupted transportation and communications; other considerations noted that shelter-in-place may not be viable for homeless populations.[188]
- **Congregate Sheltering**: Congregate shelters are locations where evacuees are sheltered together in mass; examples may include gymnasiums and conference halls. Benefits include local familiarity of locations and centralization. Congregate sheltering presents a high risk of pandemic exposure, even if social distancing, masks and sanitization are present. Accordingly, space needed for social distancing is a key consideration for congregate sheltering.[189]
- **Non-Congregate Sheltering**: Non-congregate sheltering means providing individuals and family members shelter at separate living spaces such as hotels, motels or dormitories. One main benefit is improved ability to socially distance compared to congregate sheltering; however, non-congregate sheltering comes at a higher financial cost and requires planning to both determine need/eligibility and accommodate Veterans with disabilities.[190]

Planning Cell

As noted in the Alignment of Responsibilities section, the Planning Cell started with a focus of coordinating plans across the cells and workstreams with a one to two-week time horizon; however, during the response the Planning Cell evolved into a future wave readiness planning cell. The Planning Cell served as a synchronization of the various plans conducted by the underlying workstreams such as Bed Expansion, PPE, Rural Health and the Staffing Command Cell. As a visioning operation, the Planning Cell aimed to foster a coordinated response and continues to plan for COVID-19 challenges as they arose.[191] The Planning Cell facilitated collaboration by integrating leaders from supply chain (ventilators, logistics), bed expansion, nursing services, clinical services, tele-health, IT and rural health. It also aimed to enable data-driven decisions by facilitating presentations on areas, such as available data and tools, that may be important in the future.

Staffing Command Cell

VHA stood up the Staffing Command Cell in recognition of the intense and urgent efforts needed in light of many areas of uncertainty surrounding the COVID-19 pandemic, including where, how, and when outbreaks might develop; level of prevalence; whether outbreaks would happen in parallel; and with what safety, volume and speed VHA would be able to move staff in order to respond. An additional unknown was the extent of VHA staff attrition (above baseline attrition) due to circumstances related to COVID-19 requiring backfill. VHA identified staffing as one of the primary keys to the success of the response given that increasing capacity not only required opening additional beds, but also identifying staff to enable care. Further, Fourth Mission requests from States became many and varied. The cross-functional Staffing Command Cell integrated leaders and operators across OEM, hiring/workforce management, the Office of Patient Care Services (including leaders directing the Travel Nurse Corps), the HOC, OHT and OI&T to accelerate a safe, holistic, evidence and stakeholder-driven approach to personnel movement in order to meet the anticipated demands of both the VHA enterprise and Fourth Mission requests. The Staffing Command Cell anticipated the need to integrate efforts between hiring, volunteer deployments and Travel Nurse Corps deployments to address staffing demands resulting from increased bed expansion, backfill for staff who fell ill to COVID-19 and growing numbers of Fourth Mission assignments.

During the COVID-19 response, many unexpected and challenging requirements arose in the area of personnel deployment. Unlike typical disasters, the COVID-19 response necessitated more complex planning and required the development of a robust, agile and adaptable project management process that addressed immediate requirements and also set the foundation for additional unplanned requirements. While natural disasters typically affect a specific geographic area, the COVID-19 response required surge personnel support to many dispersed areas of the country simultaneously. Impacts of the virus rapidly evolved and were so unpredictable that the process had to enable agile movement of staff to many locations simultaneously. To accelerate movement and better understand capacity, the AUSH for Operations distributed a memo to VISNs directing them to prepare lists of pre-approved personnel, with a focus on frequently needed skill sets in nursing and respiratory care, that could be leveraged to quickly fill these staffing needs.

Additionally, travel challenges such as limited and unreliable air travel, as well as safety concerns with travel, made it necessary to prioritize moving staff strategically within proximate geography. The Staffing Command Cell built upon the demonstrated early success of neighboring VISNs, most often within Consortia, working directly together to fill staffing needs quickly. For safety and operational continuity, VHA

prioritized ground transport by personal vehicle, allowing greater certainty of safety from COVID-19 during travel and enabling rapid return to home station when necessary; VHA also established a first-ever partnership with DOD to move personnel safely via air when the requirements of the mission and environment made this advisable.

Healthcare Operations Center

The HOC serves as an integrator of qualitative and quantitative data for VA and VHA leaders for the COVID-19 response. The HOC contains a Field Operations team with points of contact for each VISN who act at liaisons; each team member is assigned to two VISNs to support. Additional divisions within the HOC include a Monitoring and Analytics team that provides daily operational analyses and an Implementation and Integration team that supports enterprise-wide change.[192]

As noted in the Alignment of Responsibilities section of this report, the HOC implemented twice-daily calls early in the COVID-19 response, seven days a week. The HOC's twice daily communication tempo organized with VHACO leaders and Network Directors participating proved instrumental in coordinated identification of issues and agile development of solutions. At times, solutions consisted of agreement among Network Directors to move resources across VISN boundaries to match resources to surges in demand for COVID-19 care. VISNs also used the updates to share solutions. SMEs provided periodic updates on solution implementation in conjunction with the operations updates. As of June 30, 2020, the daily calls moved from seven days a week to five days a week.

The HOC's role also includes gathering data from outside of VHA for the EIC upon request. In order to do so, the HOC liaises with other VHA stakeholders who have relationships with other agencies from which data was needed; for example, the HOC works with the EMCC to gather information from FEMA.

HOC leadership noted that with COVID-19, similar to other past crises, clear data is needed for decision making; however, it also noted that VHA needs a balance of proceeding with sufficient data without waiting for perfect data.

The HOC Director of Monitoring and Analytics stated that he believes the COVID-19 response has highlighted the need for a better of surveillance system. Accordingly, VHA stood up the NST as a concerted effort to move away from disparate VISN databases and methods towards a centralized approach. HOC leadership noted the NST has helped VHA evolve from hand counting and data calls to having the ability to uniformly survey the environment in which VHA is operating; HOC leadership further noted the increases in visibility of the NST and its elevation toward becoming the primary source information under which VHA operates. Improvements noted include better organization and more consistency of data classifications and architectures; for example, the VHA inventory systems previously included 17,000 different classifications for an N95 respirator, making it difficult to answer questions such as how many N95 respirators were on hand.

Clinical Processes

VHA released more than 250 guidance memos related to COVID-19 as of June 30, 2020. This section describes the role of the CCC during the COVID-19 response, the process used for releasing clinical guidance, access to care through contact centers, safety processes, processes for protecting vulnerable populations and testing.

Clinical Coordination Cell

As described in the Alignment of Responsibilities section of this report, the role of the CCC is to partner with VHACO and the VISNs to clarify policy, guidelines and practices.[193] VHA built the CCC to operate in an agile manner, a critical characteristic during the response to COVID-19 given the rapid evolution of clinical information and guidelines from CDC, as well as other authoritative sources, that needed to be turned around quickly for release into the field for implementation. In some cases, VHA turned around guidance the same day as the CDC release.[194] The CCC's operating model organized efforts into five main workstreams, drawing upon experts in each of these workstream areas: inpatient care, outpatient care, informatics, virtual health and education. The following highlights certain efforts conducted by the five workstreams during the COVID-19 response with the exception of virtual health, which is covered separately in the Virtual Care section of this report.

- **Inpatient and Outpatient Care**: The inpatient and outpatient care workstreams monitored and assessed best available evidence from authoritative sources, in consultation with VHA clinical experts, to develop updated guidelines pertaining to clinical evaluation, treatment and infection control measures. As COVID-19 was a newly emerged infectious disease, clinical information was shared globally at a rapid pace. The swift spread of the disease early in the pandemic required development of clinical guidelines without the benefit of published, peer-reviewed controlled clinical trials. The inpatient and outpatient care workstreams provided the agile assimilation of the best available evidence as a high volume of information circulated from a variety of sources.
- **Informatics:** According to CCC leadership, during the COVID-19 response the informatics workstream played a key role in responding to a large number of requests for new electronic health record artifacts, including templates and reminders aligned to COVID-19 clinical workflows; for example, it created screening, triage, testing, intubation and virtual care documentation templates.
- **Education:** The education workstream implemented multiple new programs during the COVID-19 response. One new program developed was Clinical Strong Practices, which takes clinical principles learned by experiences of VHA clinicians in the field serving COVID-19 patients, converts those principles into

documentation and releases them as Clinical Strong Practices guidance to be used by all VAMCs in the field. The impact of Clinical Strong Practices was speed, whereby clinical insights can be shared and integrated into care processes quickly. Another new program developed during the COVID-19 response was an educational series called "COVID in 20," a series of 20-minute educational sessions delivered in video podcast form; facilitated by the CCC leadership to highlight different aspects of the COVID-19 response through interviews with leaders and SMEs. The series gained great popularity throughout the response and continued across a diverse array of topics, such as VHA responses to outbreaks in New York and New Orleans, PPE, testing and VA's Fourth Mission.

According to CCC leadership, one key action it took was to assign a resource from the Office of Public Health to capture daily updates on COVID-19 released by CDC, HHS, FEMA and DOD. As a result, SMEs across each of the five workstreams could leverage the daily updates and avoided duplicative efforts on collecting and summarizing this information.

Clinical Guidance Processes

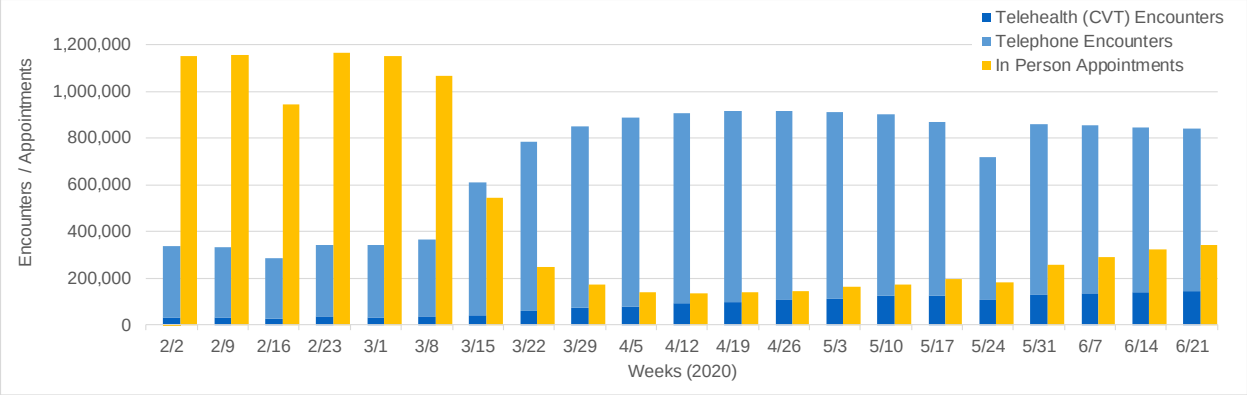
An important aspect of clinical guidance was gathering input from the field. Throughout the response, the CCC solicited clinician and field input on processes and what worked well throughout the response. It also consulted clinical leaders in the field to gain specialty input in developing guidelines. One mode used for interacting with the field was through conducting daily calls; for example, on one call in April 2020, a VHA clinical leader from NYC shared their insights on screening, triage and testing processes. VHA used that experience to build clinical workflows for the VHA electronic health record. During the daily calls, facilitators also left an open 'chat window' to capture input, solicit ideas and address questions and issues.

Clinical policies followed a particular review process before release. The CCC reviewed all clinical policies before publication. The AUSH for Operations (office 10N) or the AUSH for Clinical Operations (office 10NC) issued many guidance documents, and therefore the documents are signed by the respective party; however, if the impact was organization-wide the guidance went through the EIC. Prior to April 22, 2020, the Unified Command (comprised of Directors from OEM and Population Health) reviewed all messaging related to COVID-19 prior to issuance; however, beginning on April 22, 2020, all COVID-19 artifacts went through 10N or 10NC and then to the Communications Joint Task Force Communications for approval.[195] New clinical guidance went out through the AUSH for Operations as part of the daily updates.

Adaptation of clinical services for the COVID-19 Response Plan led to the cancellation and/or postponement of non-urgent and/or elective procedures due to safety concerns. Figure 6.2 shows the dramatic move away from in-person appointments and towards virtual encounters during March 2020. This timing also coincided with CMS' March 18, 2020 announcement delaying all elective surgeries, non-essential medical, surgical and dental procedures.[196]

The VA Office of Inspector General (OIG) conducted a review to assess VHA's appointment management strategies during the COVID-19 pandemic and the state of VA medical facilities' canceled appointments.[197] The OIG analyzed 7.3 million appointments cancelled from March 15, 2020 through May 1, 2020 and found that while facilities made "significant efforts" to conduct virtual care and track patient cancellations, approximately 2.3 million cancellations (32%) had no indication of follow up; furthermore, it found that there was no tracking mechanism associated with cancellations.[198] In the OIG report's management response section, the OIG stated that VHA "had nearly completed a strategic and operating plan for [VHA's] COVID-19 Appointment and Consult Management Initiative that provides direction to all medical facilities on rescheduling patients for in-person and virtual care, and includes oversight responsibilities, process development, defined data review, and a communication strategy."[199]

Figure 6.2 *Virtual Encounters vs. In-Person Appointments - all VISNs (February through June 2020)*



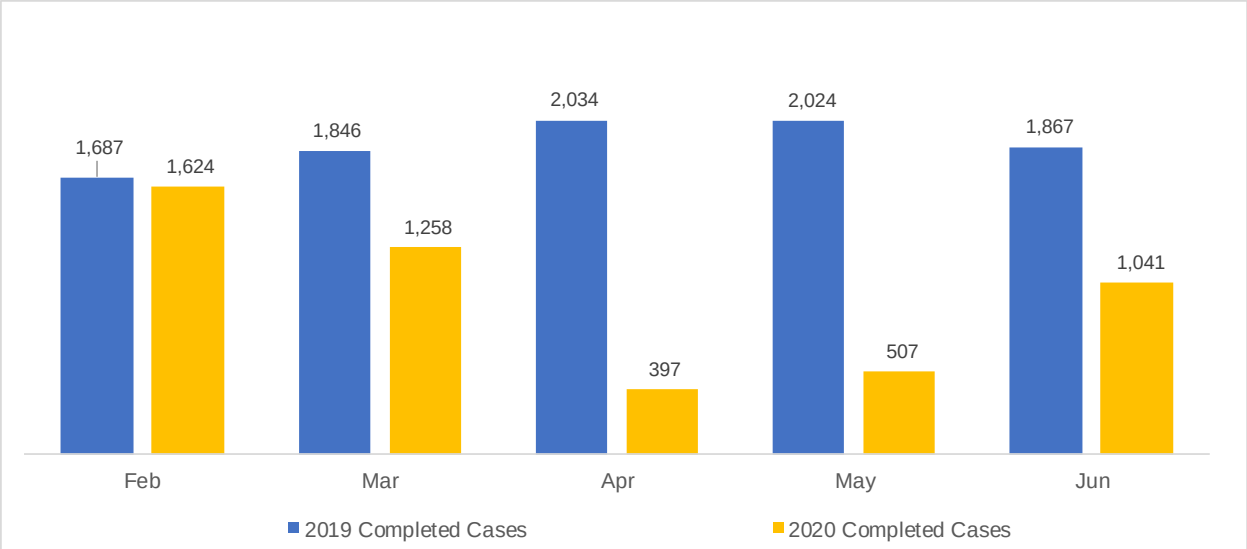
Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to Clinical Video Telehealth (CVT). Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As seen in Figure 6.3, due to cancellation and postponement of procedures, operating room (OR) cases decreased dramatically from approximately 32,500 cases per month to nearly 7,000 cases per month from February 2020 to April 2020, compared to an increase from nearly 34,000 cases to approximately 38,000 cases during the same

period the prior year. Since April 2020, OR cases rebounded, up to approximately 19,500 cases in June 2020.

Figure 6.3 *Total Operating Room Cases (February – June 2020 versus prior year)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

As shown in Figure 6.4, in terms of types of service lines, ophthalmology experienced the most dramatic decline of approximately 97% from February 2020 to April 2020. Thoracic (heart, lungs and esophagus) surgery was least impacted, decreasing by approximately 42% from February to April 2020. By June 30, 2020, cardiac surgery and vascular surgery procedures were closest to pre-pandemic levels at approximately 92% and 88% of February 2020 levels respectively.

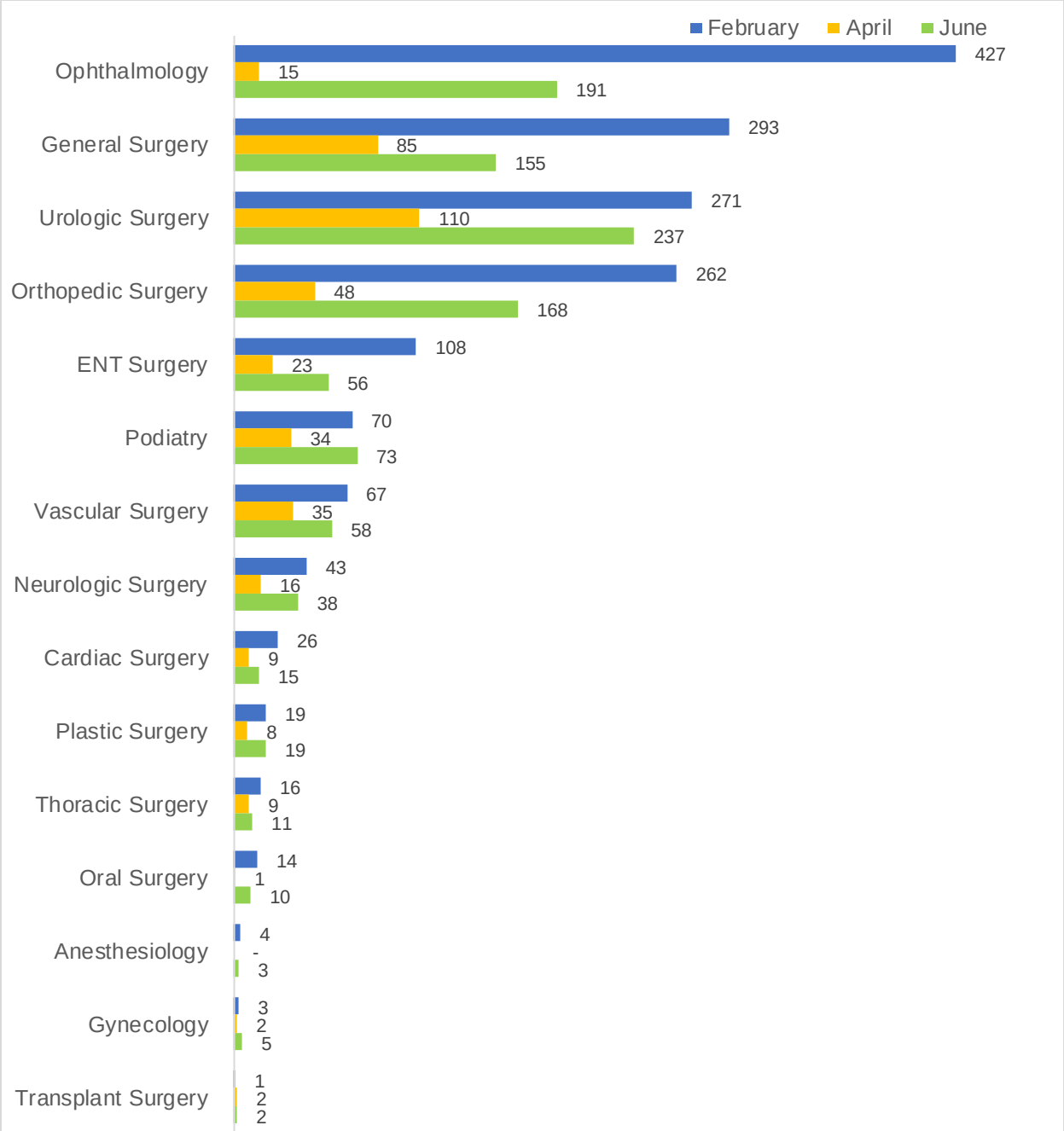
Access to Care via Contact Centers

VHA faced a requirement of handling hundreds of thousands of calls during the COVID-19 response, experiencing an increase in calls due to the following situations.

4. Encouraging Veterans who believe they might have COVID-19 to call before coming to a medical facility, unless the Veteran is experiencing an emergency
5. Converting in-person to virtual care appointments
6. Rescheduling/canceling appointments
7. Conducting follow up calls

For context and as noted previously, Figure 6.2 illustrates the evolution away from in-person care towards virtual care. In addition to providing increased virtual care, VHA also fielded calls related to in-person appointments that continued during the pandemic.

Figure 6.4 *Completed Operating Room Cases Across all VISNs (February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

VHA noticed an increase in abandoned calls and, as a result, stood up a nurse advice line to provide capacity for overflow; however, the line was not in place early enough in the pandemic to address all overflow.[200] One of the contact centers that dealt with overflow was in the Greater Los Angeles area and the center became overwhelmed due to the number of calls. The issues persisted for several weeks and, in order to

help, VHA assigned retired nurses, reassigned staff and clinical nurses who were not currently seeing patients to the call center and further transitioned some calls out of the network (VISN 22).

Contact centers are managed locally by medical facilities. VHA is in the midst of an ongoing modernization effort to organize contact centers at the VISN level instead of the facility level. It is common for a single medical facility to have multiple contact centers (for example, one for pharmacy, one for nursing and one for scheduling appointments), meaning there are hundreds of contact centers across VHA. Additionally, Veterans might call a Community Based Outpatient Clinic (CBOC) directly. When experiencing an increase in call volume, facilities typically try to address the volume themselves; if needed, they will reach out to the VISN for assistance and, if further help is needed, they will reach out to VHACO for problem-solving assistance. There is no one single organization or group that is responsible for standardizing and monitoring the disparately contact centers; this results in limited enterprise visibility into contact centers, including clinical call centers and other call centers targeted to female Veterans, Veterans experiencing homelessness and community care. VHA leadership acknowledged that COVID-19 heightened the importance of transparency in field operations. Transparency of, and operational control over, contact centers is lacking and is needed to conduct effective load balancing.

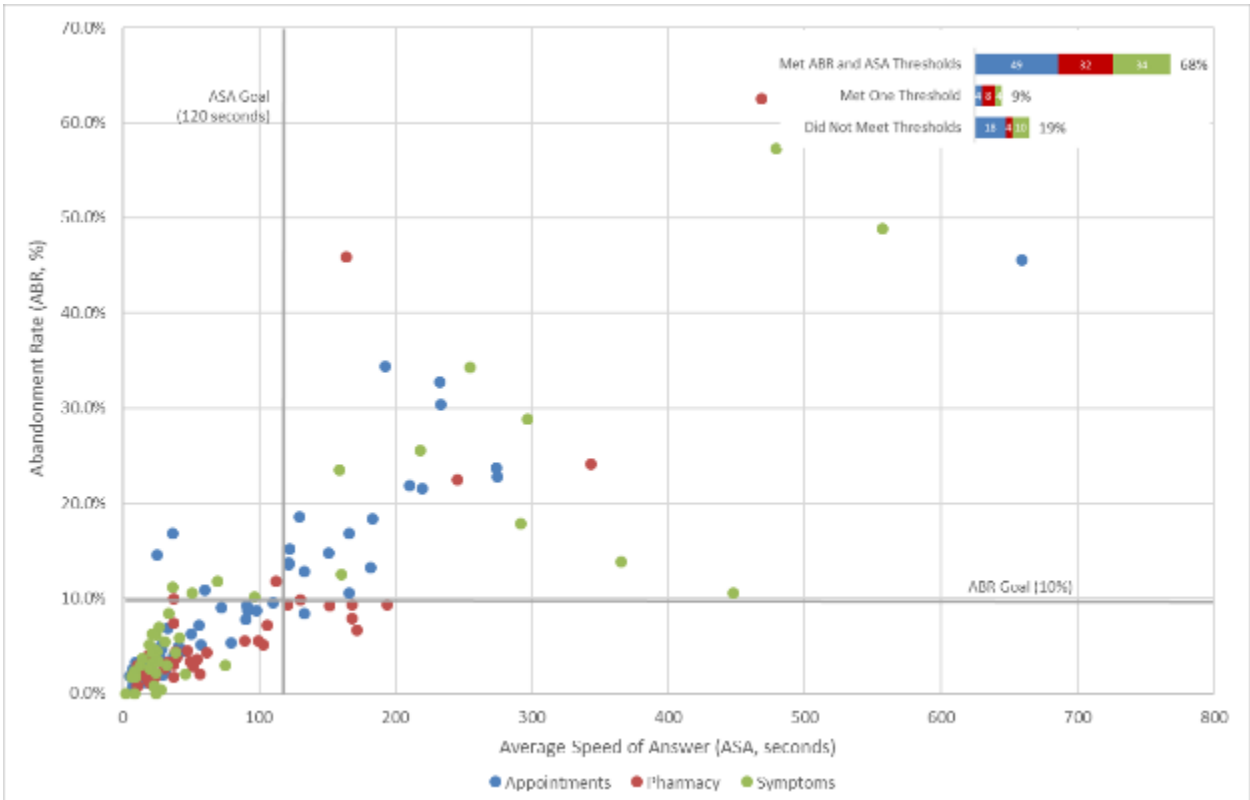
Notably, VHA is not able to centrally track performance metrics on all its contact centers given that only a fraction use a technology system that enables centralized metric tracking. The metrics used for the subset of call centers that are on the technology system are in line with industry practices. VHA has operating thresholds for its contact centers, including the percentage of calls that are abandoned, or dropped, before they are answered (also known as abandonment rates, or ABR) and time to answer (also known as average speed to answer, or ASA). VHA's normal operating thresholds typically are less than 5% ABR and fewer than 30 seconds ASA; however, during the COVID-19 response, VHA expanded to 10% ABR and 2-minute ASA.[201]

For illustrative purposes, this section analyzes 101 contact centers that are on the Cisco contact center system ("Cisco Contact Center Cohort") against VHA's threshold targets. As previously noted, while VHA has hundreds of contact centers, the 101 contact centers represent the only performance data available for call centers, demonstrating the lack of transparency over contact centers. It is unknown whether the Cisco Contact Center Cohort is representative of all call VHA contact centers. In looking at weekly averages for ABR and ASA for the Cisco Contact Center Cohort, there appears to be significant variation between contact centers and changes over

time. For simplicity, this analysis used the thresholds established during COVID-19 (10% ABR and 2-minute ASA).

As seen in Figure 6.5, as of the first week of February 2020, which can be considered a pre-COVID-19 benchmark, 68% of the 101 contact centers in the Cisco Contact Center Cohort met VHA's threshold targets across the three categories of calls.[202] During the week starting April 11, 2020, as presented Figure 6.6, the performance against those thresholds improved, with 75% of the Cisco Contact Center Cohort meeting the threshold targets across the three categories of calls. As of the last week of June 2020, it appears that performance against the threshold targets dipped below pre-COVID-19 levels; only 60% of the Cisco Contact Center Cohort met threshold targets across the three categories of calls, as seen in Figure 6.7.

Figure 6.5 *Cisco Contact Center Cohort – Average Abandonment Rate and Average Speed to Answer (Week of February 1 - 7, 2020, N = 298,475 Total Calls Handled)*

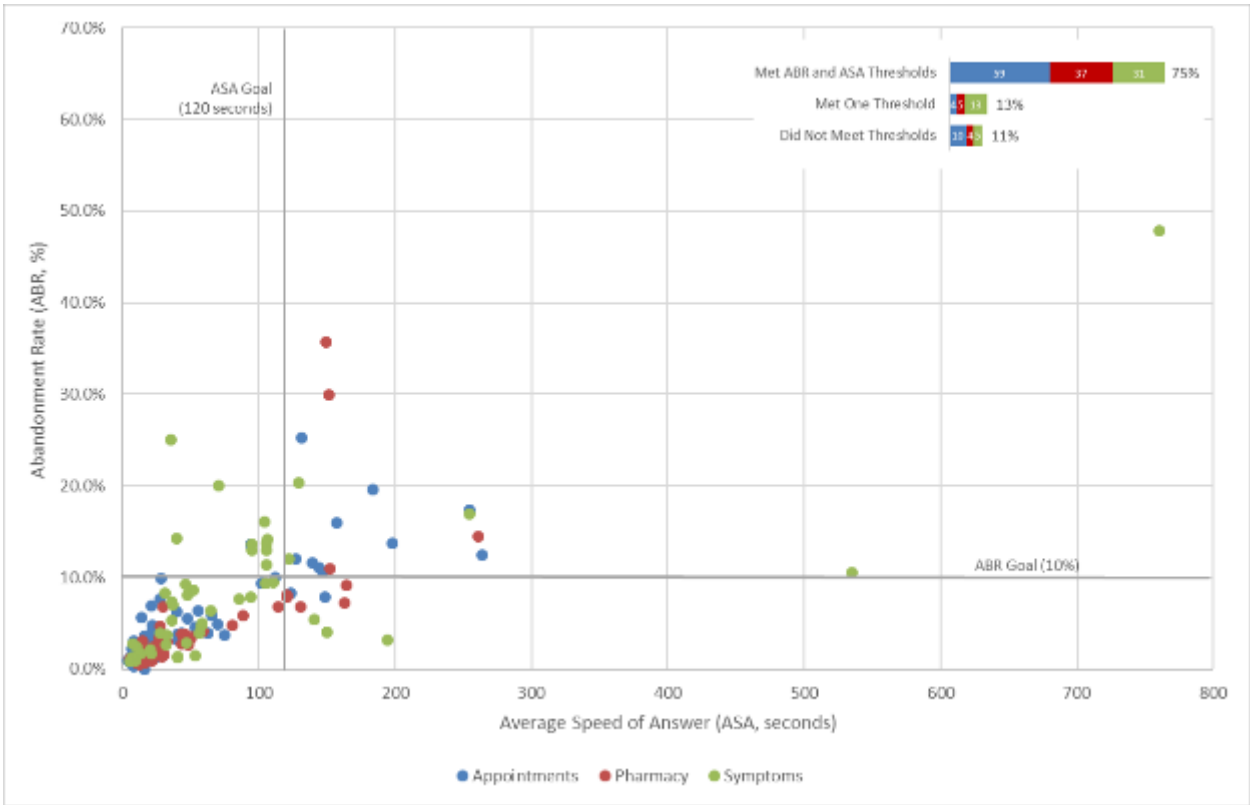


Notes: This is not a representative sample of overall Veteran Contact Center statistics. This chart is meant to be shown in a series of three time periods between February 1 to June 30, 2020 to provide a generalized visualization of the trend of the selected cohort of Veterans Contact Center statistics. This cohort is limited to available information from 101 contact centers spanning 14 VISN regions (no data from VISNs 9, 12, 15, 16). There are 163 dots on this chart. Each dot represents the average weekly speed of answer and average weekly abandonment rate for the section of a contact center handling appointments (blue dot), pharmacy

(red dot), and symptoms (green dot). A single contact center may take multiple types of calls. This chart excludes contact centers that did not handle calls during this period.

Source: Veterans Contact Center Dashboard, VHA, accessed 8/10/2020.

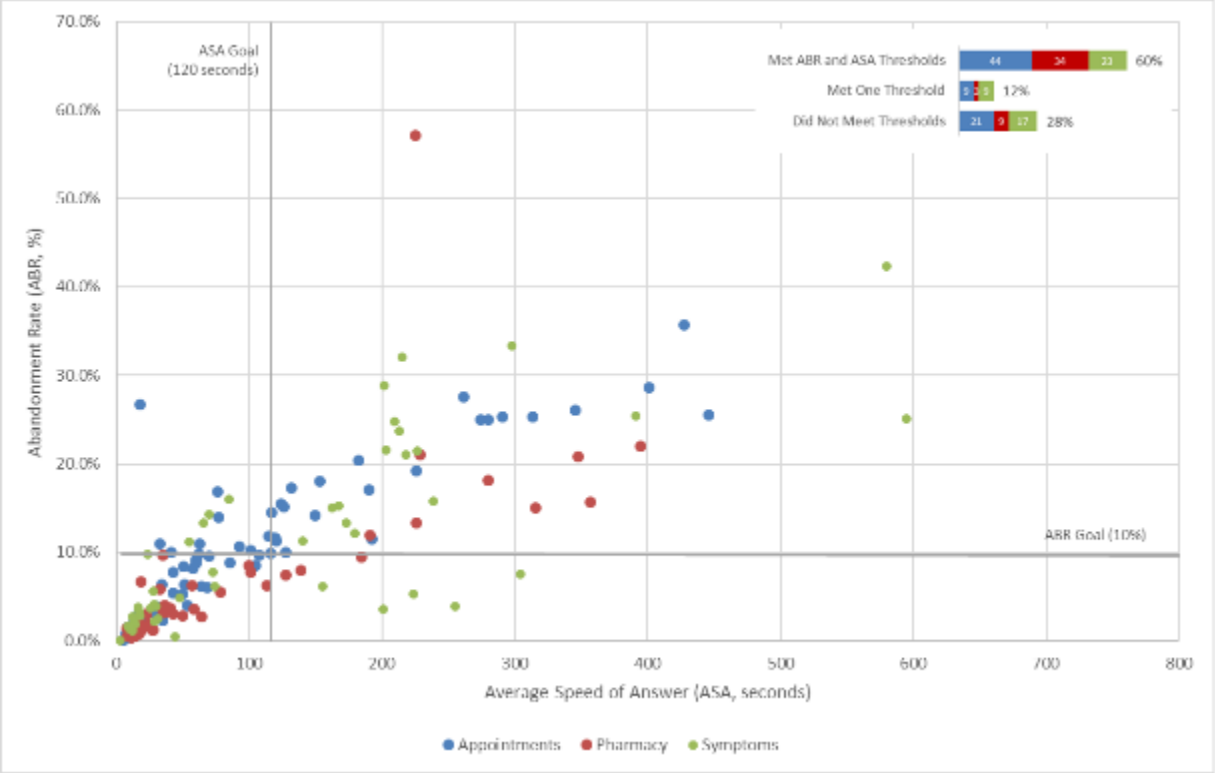
Figure 6.6 *Cisco Contact Center Cohort – Abandonment Rate and Average Speed to Answer (Week of April 11 - 17, 2020, N = 280,659 Total Calls Handled)*



Notes: This is not a representative sample of overall Veteran Contact Center statistics. This chart is meant to be shown in a series of three time periods between February 1 to June 30, 2020 to provide a generalized visualization of the trend of the selected cohort of Veterans Contact Center statistics. This cohort is limited to available information from 101 contact centers spanning 14 VISN regions (no data from VISNs 9, 12, 15, 16). There are 168 dots on this chart. Each dot represents the average weekly speed of answer and average weekly abandonment rate for the section of a contact center handling appointments (blue dot), pharmacy (red dot), and symptoms (green dot). A single contact center may take multiple types of calls. This chart excludes contact centers that did not handle calls during this period.

Source: Veterans Contact Center Dashboard, VHA, accessed 8/10/2020.

Figure 6.7 *Cisco Contact Center Cohort – Abandonment Rate and Average Speed to Answer (Week of June 24 - 30, 2020, N = 338,529 Total Calls Handled)*



Notes: This is not a representative sample of overall Veteran Contact Center statistics. This chart is meant to be shown in a series of three time periods between February 1 to June 30, 2020 to provide a generalized visualization of the trend of the selected cohort of Veterans Contact Center statistics. This cohort is limited to available information from 101 contact centers spanning 14 VISN regions (no data from VISNs 9, 12, 15, 16). There are 169 dots on this chart. Each dot represents the average weekly speed of answer and average weekly abandonment rate for the section of a contact center handling appointments (blue dot), pharmacy (red dot), and symptoms (green dot). A single contact center may take multiple types of calls. This chart excludes contact centers that did not handle calls during this period.

Source: Veterans Contact Center Dashboard, VHA, accessed 8/10/2020.

Safety Processes

This section addresses some of the main ways that COVID-19 impacted safety processes and VHA's response. It focuses on guidance around preserving PPE, changes to credentialing/licensing verification and accreditation visits and the intersection with VHA's ongoing HRO journey. Testing is covered in a separate section.

PPE

This subsection describes the evolution of VHA's guidance around PPE, which includes N95 respirators, face masks (also known as surgical masks), gowns, eye protection (for example, goggles) and gloves; the primary focus is on strategies regarding the preservation of PPE. In order to provide background and context for VHA guidance around PPE, this section starts with background on relevant CDC guidance.

CDC Guidance

VHA released PPE guidance in accordance with CDC guidelines during the COVID-19 response as the CDC is the authoritative source for the U.S. The CDC provides guidance on strategies to optimize PPE in health care settings using a framework of surge capacity when PPE supplies are stressed, running low or absent.[203] This framework includes strategies across a continuum of levels:[204]

1. Conventional Capacity (strategies that should already be in place for infection control)
2. Contingency Capacity (strategies when anticipating PPE shortage)
3. Crisis Capacity (strategies when supplies cannot meet a facility's current or anticipated PPE utilization rate)

In the conventional capacity strategy, most PPE is single use; this means that health care workers typically doff (remove) disposable PPE and throw it away after leaving each patient's room. In the contingency level strategy, facilities preserve PPE through actions such as: wearing the same N95 respirators for repeated close contact encounters with several different patients, placing facemasks in a secure and monitored site (for example, a health care worker must ask to get a facemask instead of being able to enter a storage room and take one), extending use for facemasks and using washable (and therefore reusable) gowns instead of disposable gowns. The crisis capacity strategy, which is not commensurate with U.S. standards of care, includes actions such as limited re-use of N95 respirators on top of extended use and using PPE past its expiration date.[205] Different facilities may be on different levels of the continuum at the same time; a single facility may also employ different strategy levels within the continuum for different types of PPE. In general, VHACO releases minimum PPE standards and ultimately practices are determined at the local facility and VISN levels.

PPE Guidance Released During the COVID-19 Response

Discussion and guidance around PPE began early in VHA's COVID-19 response with a number of guidance documents coming out in late January 2020 and through February 2020. On January 22, 2020, VHA released information about the novel coronavirus and referred to CDC guidance, which, at the time, recommended standard precautions, contact precautions, airborne precautions and wear eye protection.[206] On January 28, 2020 VHA also provided checklists to reiterate the January 22, 2020 guidance.[207] In mid-February, 2020, VHA released several guidance documents in quick succession covering: PPE, tracking the use of PPE, PPE and employee exposures and table-top exercises to help facilities build their own PPE plans.[208] Also in mid-February 2020, VHA leadership in the National Center for Health Promotion and Disease Prevention Office (as part of the Isolation, Quarantine and Treatment team), advising the EMCC, discussed the appropriateness of VHA staff wearing standard surgical or procedure masks versus a N95 respirator. On February 26, 2020, VHA released a PPE flowchart and PPE "at a glance" document for Emergency Medicine covering guidance of when to use gowns, gloves, eye protection and respirators when interacting with presumptive COVID-19 positive patients.[209]

VHA's PPE guidance in March 2020 shifted more towards tracking PPE usage and implementing a key part of its PPE strategy of reducing the need for PPE.[210] On March 2, 2020, the Deputy Under Secretary for Health for Operations and Management (DUSHOM) guided facilities to use masks only for Veterans and staff exhibiting flu-like symptoms and to implement a strategy to conserve, track and account for all PPE.[211] On March 15, 2020 DUSHOM instructed facilities to prioritize respirators for high-risk procedures that are likely to generate respiratory droplets, as well as to prepare for redistribution of supplies to meet individual facility demand.[212] Also, on the same day, VHA informed Network Directors that VHA facilities would cease non-urgent elective procedures by March 18, 2020.[213] The following day, VHA provided guidance for facilities to limit facility access and implement screening procedures prior to entry.[214] On March 31, 2020, VHA provided facilities guidance to review and convert all but urgent outpatient appointments to virtual modalities and to cancel and manage non-urgent, elective OR procedures.[215]

The situation changed in early April 2020 as supply chain issues and concerns that some facilities might burn through PPE too quickly if they continued in the contingency strategy level grew; therefore, VHA provided guidance to utilize the safest of the crisis capacity strategies if crisis capacity measures were needed. On April 7, 2020, VHA provided guidance to permit extended use and limited re-use of facemasks and N95 respirators in specific circumstances; this meant that VHA had implemented CDC crisis capacity strategies for those PPE categories until supply chains improved.[216]

Approximately one week later, on April 16, 2020, VHA released guidance to return to a contingency strategy for facemask and N95 respirator use, noting that VHA staff providing direct care to COVID-19 patients should wear N95 respirators if available, and facemasks if N95 respirators are not available.[217] That guidance also instructed staff working with CLC residents and SCI/D patients would be given one facemask per day.[218] In addition, it instructed facilities to make plans for further situations that would require extended mask use and limited re-use, but only under "crisis" level.[219]

In May 2020, VHA released additional guidance around masking. On May 1, 2020, VHA instructed that all personnel entering a VHA facility needed to wear a mask or face covering.[220] On May 2, 2020, VHA released guidelines indicating that in a contingency or crisis scenario, it is acceptable to use reprocessed respirators, to extend use, or reuse respirators in conjunction with appropriate additional PPE and face shields using CDC guidelines.[221]

HRO Journey

According to VHA's Quality & Patient Safety leadership, the COVID-19 response unexpectedly resulted in the acceleration of the spread of tools and processes related to VHA's HRO effort and supported a national conversation about reliability and safety. HRO is a concept pioneered by industries such as aviation and nuclear to reduce accidents in complex environments; by putting procedures and processes into place. it can be effective in reducing accidents even in high-risk environments where small errors can lead to catastrophic results.[222] While the COVID-19 pandemic resulted the adjustment of plans and implementation strategies related to HRO, VHA quickly realized that it was not the time to set HRO aside; rather, VHA shifted the HRO strategy towards what facilities can, and should, be doing to improve safety of Veterans and staff during a pandemic, including PPE and leveraging leadership rounds. VHA also shifted how it communicated about HRO with front line workers; for example, it released short videos with consultants and field clinicians regarding HRO pandemic topics, brief written summaries and posters on HRO topics.

Credentialing, Privileging and Accreditation

As described in the Human Resources section, reducing time spent onboarding new staff was a key change implemented during VHA's COVID-19 response. VHA's Quality Management staff streamlined the onboarding process related to credentialing and privileging of new staff. Credentialing refers to the verification of licenses and qualification; privileging refers to permissions granted for clinicians to work in a particular area of health care at a particular institution or facility.[223] VHA reduced the process to checking a national practitioner data bank to see if there is any adverse information on the practitioner and calling one reference (instead of three). VHA

postponed additional steps, such as checking for residency graduation certificates, to 60 or 90 days out.

VHA's Quality and Patient Safety leadership also addressed efforts related to external accreditation, such as hospital accreditation and rehabilitation program accreditation. The Joint Commission and the Council on Accreditation of Rehabilitation Facilities (CARF) suspended onsite accreditation survey work. VHA's Quality and Patient Safety leadership granted extensions for facilities due for an upcoming accreditation visit. In June 2020 discussions began with the Joint Commission and CARF to conduct surveys through virtual and/or in-person modes. VHA developed criteria for allowing in-person surveys to resume, including considering COVID-19 prevalence in the community and the facility subject to the survey.

Vulnerable Populations

CLCs and SCI/D Centers

Early in the COVID-19 response, VHA adopted measures to protect vulnerable populations, namely Veterans in CLCs, which are Veteran nursing homes managed by VHA and often located at a VAMC, and SCI/D Centers. The experiences of VISN 1 and VISN 2, particularly in observations around asymptomatic cases and spread within CLCs, informed guidance across CLCs and SCI/Ds in the VA network. After observing positive cases in CLCs, VISN 2 tested all of its CLC staff, 10% of whom tested positive. Of the 10% who tested positive, 69% reported no symptoms. VISN 1 also responded to early outbreaks in nursing homes by deploying temporary staff to impacted Community Nursing Homes (CNH), accepting COVID-19 patients in VHA facilities to free up space in CNHs and proactively reaching out to CNHs to offer assistance. See VISN 1 and VISN 2 summaries for more details.

VHA's efforts to protect individuals in CLCs and SCI/D Centers include limiting admissions and visitors, limiting movement of staff, conducting ongoing screening of patients and staff as well as conducting testing of patients and staff. In early March 2020, VHA limited admissions and visitors to CLCs and SCI/D Centers.[224] In mid-March 2020, VHA halted admissions from the community to CLCs as well as Blind Rehabilitation Centers to prevent admissions from outside the VHA network.[225] VHA Blind Rehabilitation Centers provide advanced vision care and rehabilitation for blind or low-vision Veterans. As the services provided are generally not acute, postponement or transition to ambulatory care is often an option. VHA prohibited staff from floating in between a general medical unit and a CLC. In CLCs, VHA halted communal gatherings, including the operation of dining rooms and physical therapy. VHA took steps such as avoiding group settings and limiting exposure from, and to,

others to protect Veterans and staff in SCI/D Centers. CLCs and SCI/D Centers implemented COVID-19 symptom screening for all individuals entering CLCs and SCI/D Centers. For CLC residents requiring outpatient care, such as dialysis, the CLC minimized the number of trips and outside locations. According to VHA clinical leadership, VHA sent SCI/D patients home if the patients were at the SCI/D facility for an annual exam; additionally, VHA cancelled new annual exams. SCI/D Centers leveraged virtual care modalities, maintaining critical access to care for Veterans with SCI/D in outpatient and home care settings.[226] As of mid-April 2020, VHA had diagnosed 190 CLC residents with COVID-19 across 12 VHA locations.[227] Accordingly, VHA released guidance for CLCs and SCI/D units to conduct baseline population testing and periodic testing for all staff and residents.[228]

Photo caption: Intermediate Care Technicians screen a patient for COVID-19 symptoms before they can enter the emergency department.

Photo source: Ed Drohan, "VA putting former military 'docs' back to work", James A. Haley Veterans' Hospital, VA, 4/30/2020, https://www.tampa.va.gov/features/Intermediate_Care_Technicians.asp, accessed 9/30/2020.

According to VHA clinical leadership, VHA established the frequency of testing based on the judgment of the facility medical center director; however, generally the frequency has been weekly or bi-weekly depending on the prevalence of COVID-19 in the community. For any positive tests, CLCs and SCI/D Centers activated their plans to conduct contract tracing and additional testing based on exposure.

As of April 16, 2020, CLCs had tested 34% of their residents and that increased to 95% shortly thereafter, as of April 23, 2020.[229] As of June 30, 2020, CLCs had tested 99% of their Veterans. Of 118 CLCs, 115 had tested at least 95% of their Veterans, an additional 2 had tested at least 90% and 1 remaining had tested 78%.[230] Of 6,773 Veterans CLC residents, 499 tested positive for COVID-19 in total throughout the response.[231]

Testing rates were similar for inpatient Veterans in SCI/D Center units. As of April 30, 2020, 97% of Veterans on SCI/D inpatient units had been tested and as of June 20, 2020 99% of that population had been tested.[232] As of June 30, 2020, of 25 SCI/D Centers, 23 had tested at least 95% of their inpatient Veterans and the remaining 2 had tested at least 90%.[233] Of 763 Veterans in SCI/D inpatient units, 28 tested positive for COVID-19 in total throughout the response.[234]

Mental Health

VHA anticipated the potential negative psychological impacts of COVID-19 on Veterans, including impacts of quarantine (for example, isolation, potential unemployment and other hardships). VHA's Office of Mental Health and Suicide Prevention (OMHSP) monitored and reported several indicators of higher risk during the pandemic for Veterans specifically, as well as in the general population: [235]

- Between April 2019 and April 2020, Veteran unemployment increased from 2.3% to 11.7%.[236]
- Estimated handgun sales increased by 91% between March 2019 and March 2020.[237]
- Alcohol sales increased during the 7-week period ending April 18, 2020: brick and mortar alcohol sales increased by 21% and online alcohol increased 235%.[238]

OMHSP's refers to its model for Veteran suicide prevention as a "full public health model," in that the model combines community-based and clinically based efforts.[239] Examples of community-based strategies are VISN-level community coalition building programs and Veteran-to-Veteran engagement.[240] Clinically-based interventions are evidenced-based psychotherapies such as cognitive behavior therapy (talk therapy) for depression.[241] VHA implements community-based and clinical efforts through three domains: universal strategies (all Veterans), selective strategies (target Veterans who may be at higher suicide risk) and indicated strategies (target a smaller segment of Veterans at an elevated suicide risk).[242] Universal strategies include national outreach efforts across social media, blogs and educational material on VHA's website; providing clinical guidance to providers on topics such as tele-mental health; ensuring access to care; and using peers for support.[243] Selective strategies include identifying

Veterans with indicators of higher risk (for example, Veterans with appointment cancellations, helping front line identify Veterans who are isolated) and performing outreach to encourage use of virtual modalities of care.[244] Indicated strategies involve use of an existing Suicide Prevention Population Risk Identification & Tracking for Exigencies (SPPRITE) dashboard, adding a flag for Veterans who test positive for COVID-19 to the dashboard and conducting outreach to that group, as well as conducting follow up calls to targeted callers of the Veterans Crisis Line (VCL).[245]

VHA's primary mental health-related efforts in response to COVID-19 include a focus on maintaining continuity of mental health and suicide prevention programs, outreach and enabling and encouraging virtual mental health. In mid-March 2020, VHA released guidance around local decision making to ensure continuity of mental health services, suicide prevention programs and outreach.[246] In late March 2020, VHA outlined actions for Intensive Community Mental Health Recovery and Psychosocial Rehabilitation and Recovery Center programs to take in response to COVID-19.[247] Also in late March, the President's Task Force to Empower Veterans and End the National Tragedy of Suicide (PREVENTS) Task Force launched a national health campaign on Facebook with the hashtag #MoreThanEverBefore and featuring informational videos on how Veterans and their families can take steps to care for their emotional well-being during the pandemic.[248] In mid-April 2020, VHA released guidance around prevention, screening and guidance for inpatient mental health facilities and leveraged a dashboard to help prioritize and track outreach efforts for those at highest risk of suicide during the pandemic.[249] As of late April 2020, 93% of employees working the VCL were equipped, trained, and working remotely from home. Virtual care was also a key feature of VHA's efforts to protect Veterans with mental health conditions. In early April 2020, VHA provided guidance to assist facilities in maintaining mental health care and suicide prevention activities through virtual methods.[250] In late April 2020, VHA further required facilities to identify tele-mental health champions to increase spread and integration of virtual care into metal health providers' practices.[251]

While it is still too early to assess the impact of efforts related to mental health during the COVID-19 pandemic, OMHSP reported that as of late June 2020 it had not observed an increase in reported Veteran suicides; however, OMHSP also noted this data may be impacted by delayed notification and information flows. OMHSP also noted that an assessment of COVID-19 on Veteran suicides in 2020 will not be available until 2022 because the assessment requires death record searches.[252]

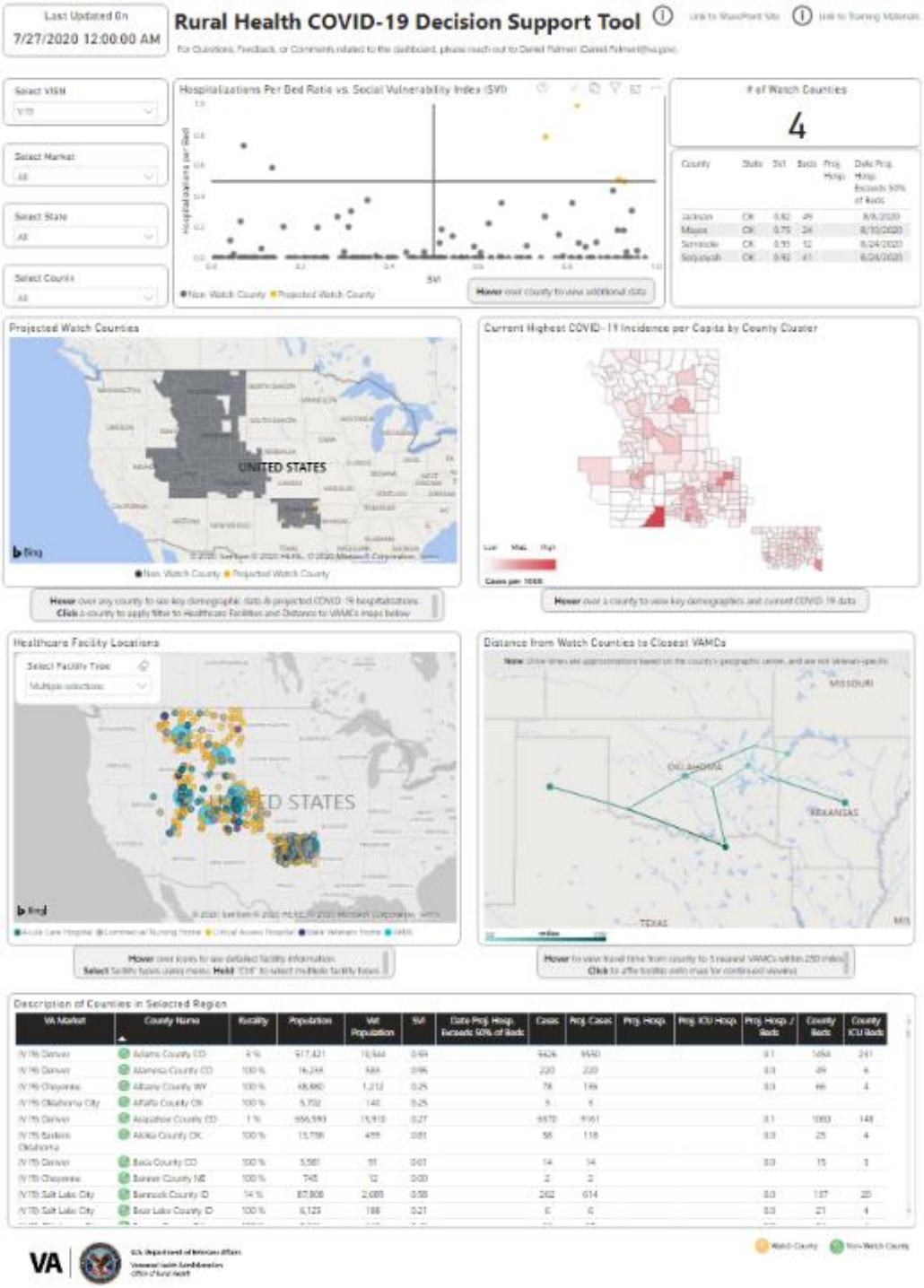
Rural Populations

Veterans living in rural areas are also indirectly at higher risk from COVID-19 due to a shortage of rural critical access hospitals and ICU capacity. The VHA Office of Rural Health (ORH) implements a diverse range of programs that aim to help improve the health and well-being of rural Veterans by increasing their access to care and services.[253] These national programs stem from ORH's model to "research, innovate and disseminate" new innovations to support the approximately 2.7 million rural Veterans who are enrolled in, and rely on, the VA health care system.[254]

As part of the COVID-19 response, ORH launched a COVID-19 "ECHO" virtual training program to educate providers in rural areas through instructional sessions and case presentations. ECHO refers to the Project Extension for Community Healthcare Outcomes, which is a pioneering telemedicine and distance-learning program developed in 2003 by the University of New Mexico School of Medicine.[255] VHA has implemented the ECHO training program with considerable success, such as seeing improved survival rates of Veterans with liver disease by 50%.[256]

In consideration of VA's Fourth Mission, ORH also established a Rural Health Dashboard to predict demand and potential outbreaks in rural areas, estimate drive times to VAMCs and relay that information to VISNs. The model in the dashboard also incorporates socio-economic factors that impact the probability of spread. An example of the dashboard is presented in Figure 6.8. Each VISN has a Rural Consultant that helps monitor the dashboard in order to spot "watch counties" that exhibit potential supply-demand stress in the upcoming 2-4 weeks and aid in strategic planning and Fourth Mission response.[257] The VISN Rural Consultants have a functional relationship with ORH and liaise between ORH and the VISNs.[258]

Figure 6.8 *Rural Health Dashboard Examples*



Sources: Rural Health COVID-19 Decision Support Tool Screenshots, VHA, 7/27/2020.

Health Equities

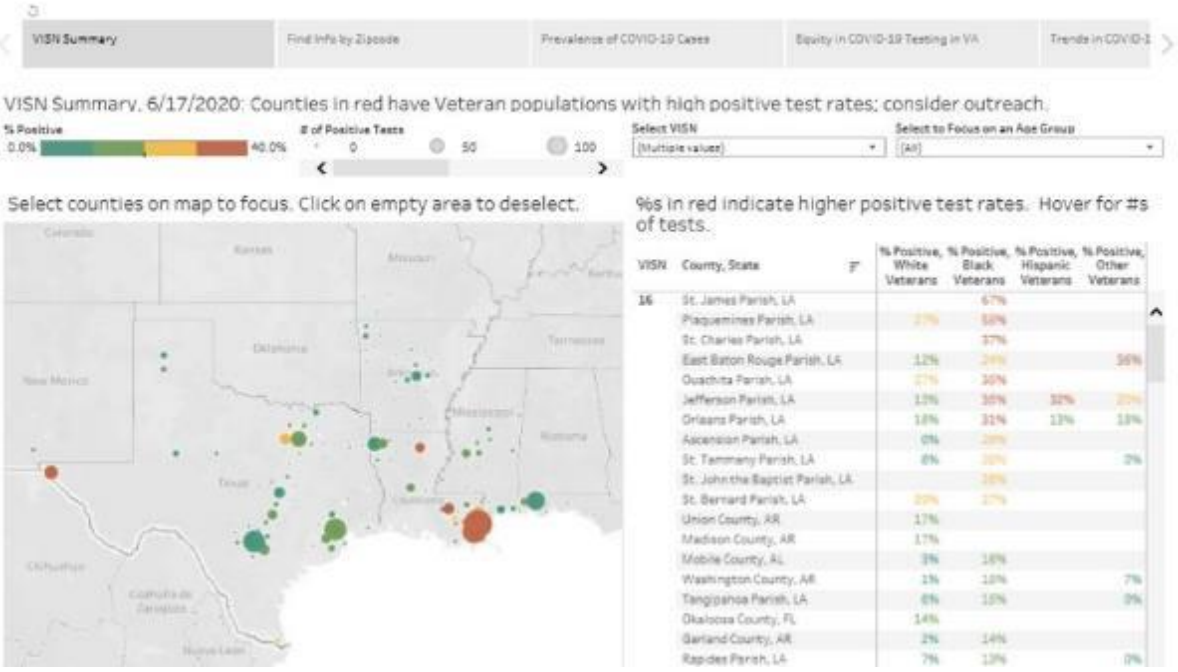
The VHA Office of Health Equity (OHE) is charged with reducing disparities in health and health care affecting Veterans and enabling all Veterans to achieve equitable health outcomes.[259] It is the only office in VA with the primary mission to understand differences across many groups of Veterans and to work to eliminate non-clinical differences related to: racial or ethnic group, gender, age, geographic location, religion, socio-economic status, sexual orientation, mental health, military era and cognitive / sensory / physical disability.[260] OHE has five aims:[261]

1. **Awareness:** Increase awareness of the significance of health disparities, their impact on the Nation and the actions necessary to improve health outcomes for racial, ethnic and underserved populations.
2. **Leadership:** Strengthen and broaden leadership for addressing health disparities at all levels.
3. **Health Outcomes:** Improve health and health care outcomes for racial, ethnic and underserved populations.
4. **Workforce Cultural and Linguistic Competency:** Improve cultural and linguistic competency and the diversity of the health-related workforce.
5. **Data, Research, and Evaluation:** Improve data availability and coordination, utilization and diffusion of research and evaluation.

Early in the COVID-19 response, OHE used VHA and public data to track differences in COVID-19 positivity rates from an equities perspective. OHE tracked different communities based on geographic populations and noted that Black, Hispanic and White communities experienced COVID-19 in very different ways. A VA study published in PLOS Medicine in September 2020 showed that early in the pandemic (through May 2020) Veterans of color were two to three times more likely to test positive for SARS-COV-2, but several published studies found no significant differences in deaths within a specific group. OHE then used this insight to inform VHA leadership and the VISNs about racial and ethnic health disparities related to COVID-19 as well as age, gender and co-morbidity disparities, which exist in both the Veteran population as well as the general population.

OHE later built a dashboard, as illustrated in Figure 6.9, to enable a user to drill down into VISN counties with higher numbers of confirmed COVID-19 cases in the general population and Veteran population. VISNs then can use that information to identify high-risk Veterans and contact them to help them get care.

Figure 6.9 *Example of Rural Health Decision Support Tool*



Source: Rural Health Decision Support Tool Screenshot, VHA, 6/17/2020.

Disparities are not intrinsically related to race or ethnicity, but rather represent a combination of biological, social risk factors (for example, household density, occupational factors such as whether it is suitable for telework) and clinical factors (for example presence of comorbidities such as diabetes, obesity and hypertension). For example, groups that are more likely to be essential workers or take public transportation may be associated with higher risks. OHE also built a set of two social risk screening questions that became part of the VA COVID-19 screening and augment the other seven symptoms-based questions that are asked to Veterans. By identifying Veterans at higher risk for COVID-19, VHA is able to use that information for future outreach.

Testing

Testing Capacity and Model

This section focuses on VHA's testing for acute COVID-19 infection. VHA conducts its own diagnostic COVID-19 testing in addition to using commercial labs for testing when required.[262] Early in the response, VHA developed its own assay (analytic approach) for COVID-19 testing. VHA adopted a hub-and-spoke model, whereby facilities that do not conduct their own testing collect samples and send them to referral sites (other facilities that do conduct testing). To mitigate referral sites from being overloaded, VHA conducts load balancing. As of the writing of this report, 140 VHA sites had the

ability to conduct rapid testing, which returns results in about an hour; and this has resulted in lower necessity for the hub-and-spoke approach. As of the writing of this report, VHA's typical daily testing surpassed 10,000 tests.

Testing Limitations

Starting early in the COVID-19 response, VHA experienced shortages in testing supplies, such as swabs used to collect samples, transport tubes and transport media; however, throughout the duration of the response, VHA developed strategies to partially mitigate the supplies shortage. Strategies include having facilities make their own supplies, bulk purchases and sourcing surplus supplies from the state of New Hampshire, which has been the primary source from which VHA has centrally procured PPE and other scarce supplies during this response. VHA clinical leadership stated the supplies shortage was expected to be mostly resolved in August 2020, but that testing reagents (chemicals used in COVID-19 testing) remained the most limiting factor constraining the volume of tests as of June 30, 2020; in fact, VHA is only conducting approximately one eighth of its testing capacity due to this shortage of reagents.[263]

VHA also expanded testing capability through outsourcing to commercial labs when VHA capacity was exceeded; however, commercial labs experienced similar testing limitations such as number of testing platforms, the number of swabs, the amount of transport media and regents. These limitations fluctuated during the COVID-19 response. In some instances, commercial lab turnaround times were upwards of 10 days during the response. This turnaround time limited the ability to apply testing results to patients' clinical scenarios.

Going forward, VHA clinical leadership stated that a key priority for testing is achieving panel testing that can test both COVID-19 and influenza in the same sample.

Testing Guidance

In mid-February 2020, VHA released guidance to VISNs and facilities specifying the type of COVID-19 diagnostic testing that should be used. It also released guidance on how to report positive cases.[264] In early April 2020, VHA instructed sites to prioritize testing based on CDC guidance; namely, if testing capacity does not meet demand, it was recommended to focus testing on the priority groups one and two and avoid testing for both priority group three and the non-priority group.[265] In general, priority groups one and two included highest risk patients as well as symptomatic first responders and VA health care workers; priority three included symptomatic critical infrastructure workers and individuals in outpatient care living, as well as asymptomatic health care workers and first responders.[266] The non-priority group

included all others.[267] As noted in the Vulnerable Populations section, in mid-April 2020 VHA implemented mandatory testing for personnel in SCIs and CLCs.[268] In mid-May 2020, VHA provided guidance on offering COVID-19 testing to Veterans and employees who are asymptomatic but request testing.[269] According to VHA's Executive Director of Public Health, as of late May 2020, VHA was still limited in its ability to offer on-demand testing for asymptomatic individuals without high risk exposure.

See the Cross-VISN Summary section of this report for figures displaying the number of COVID-19 positive tests for Veterans who use VHA services, confirmed as of June 30, 2020.

Virtual Care

VHA recognized early in the COVID-19 response that, for Veteran patient and personnel safety, it would need to be able to provide care from a distance. As a result, telehealth became a primary option for care delivery. Telehealth is using technology to connect patients with care teams and specialists across a distance, and includes interactive video visits, in-home and mobile heath monitoring, secure messaging and devices that gather and store data.[270] Telehealth also performs a critical care backup role; for example, if ICU staff become overwhelmed at a particular facility, telehealth can facilitate backup support.

Enabling Tele-health

Photo caption: A Veteran utilizes a tablet to speak to a provider during a telehealth encounter.
Source: VA Telehealth homepage, https://telehealth.va.gov/type/home, VA, accessed 8/8/2020.

Prior to the COVID-19 response, VHA had set a goal to enable all primary care and mental health providers with telehealth delivery capabilities. COVID-19 accelerated that goal; to do so, VHA sent out guidance and training to providers on how to conduct telehealth from home. In order to equip providers, VHA tackled other key issues including providing devices and increasing capacity of the system to manage the volume of telehealth encounters; increasing capacity of the system involved re-engineering and adding hardware while also complementing it with cloud technology (distributing across a network instead of a local site). Through the cloud capability,

VHA is able to add 5,000 video encounters simultaneously to the 10,000 concurrent participants enabled by on-premises technology. VHA also updated its scheduling system to adjust to the increase in telehealth demand and implemented monitoring to check if systems are working properly or going down.

VHA distributed approximately 20,000 web cams to providers to enable telehealth. One challenge to telehealth is Veterans who lack devices, internet and/or sufficient skills to use telehealth. VHA provided Veterans with devices and developed partnerships with certain cellular providers for internet access to cover the cost of access to telehealth. VHA providers can also refer Veterans to social workers who help Veterans identify benefits that the Veterans may qualify for, including tablets and internet service.

In terms of training, VHA was ahead of the curve with its 2020 telehealth goal and began training providers on telehealth a couple of years ago. From the start of 2019 until the beginning of the pandemic, the percentage of primary care and mental health providers that completed a video call from home increased from approximately 15% to 60-65%. During the COVID-19 response, that percentage increased to 85-90%.

Tele-ICU

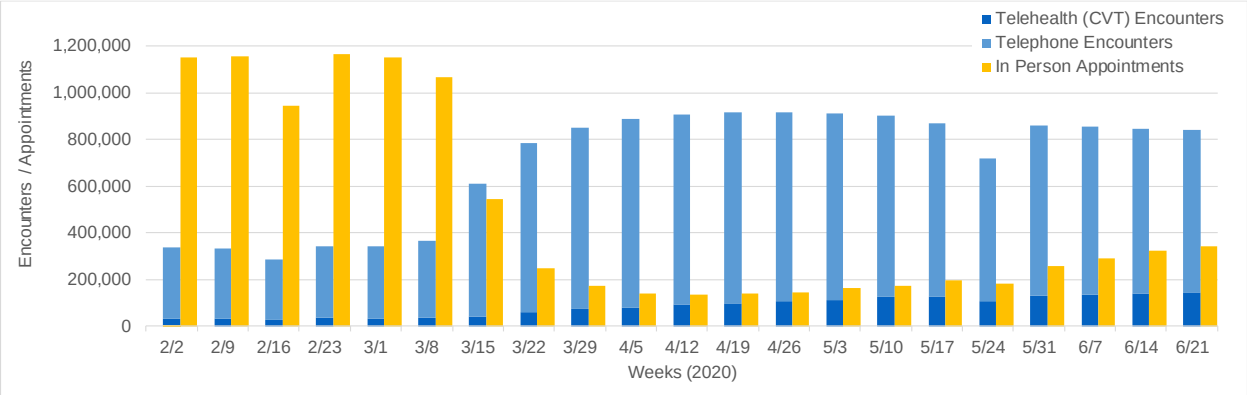
Prior to the pandemic, VHA had enabled approximately 39% of ICU facilities with tele-critical care, or telehealth for critical care patients. VHA implemented a program where facilities can activate on-call critical care providers. As of June 2020, approximately 98% of VHA ICU facilities are able to activate tele-critical care and obtain a phone consultation from a critical care nurse or provider. VHACO asked each of those sites to also put up a temporary tele-ICU cart to enable both a video conversation and the ability to view the patient and bedside monitors. VHA also ordered permanent tele-ICU carts to replace the temporary carts.

VHA also implemented a complementary program to enable providers to log in to a centralized system for access to medical records. This program, which had been in progress for a couple of years, aimed to solve the problem of gaining initial access to medical records from another facility; in some cases, this process could take months. This program was in the testing phase at the beginning of the COVID-19 response and was accelerated accordingly so that, as of June 2020, approximately 6,000 VHA users are utilizing the centralized system and have been able to help with patients across the country.

Telehealth Usage during COVID-19

As displayed in Figure 6.10, virtual encounters expanded dramatically in March 2020 and continued to exceed in-person care into June 2020. Between March 1, 2020 and June 27, 2020, telephone encounters comprised 87.7% of virtual encounters with the remaining 12.3% via telehealth (video).[271] In-person appointments reached their lowest point (13.1% of overall patient interactions) during the week of April 12, 2020, but since have slowly climbed to 28.8% as of the week of June 21, 2020.[272]

Figure 6.10 *Virtual Care Encounters vs. In-person Appointments - All VISNs (February to June 2020)*



Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

VA COVID-19 RESPONSE IN ACTION: VIRTUAL CARE

COVID-19 Patient: VA Telehealth "Saved My Life"

Photo caption: Marine Veteran Michael Novielli at Niagara Falls, NY less than two months after his recovery from COVID-19 and pneumonia.

After being hospitalized with COVID-19, VA providers sent United State Marine Veteran Michael Novielli home and placed him on a telehealth program to remotely track his recovery. Mr. Novielli began sharing his temperature, oxygen levels and heart rate every day with his telehealth team. He recalled an urgent phone call he received from a Registered Nurse on his treatment team two weeks after his discharge. "She said, 'Your heart rate is up. Something's definitely wrong. Go to the emergency department right away,'" Mr. Novielli said.

When Mr. Novielli arrived back at the hospital, doctors found that COVID-19 caused fluid to build up in his lungs. Mr. Novielli had developed pneumonia and he remained in the hospital for two more weeks for treatment and recovery. When recalling the experience, he shared the telehealth resources likely helped save his life. Mr. Novielli shared, "if I wasn't on the telehealth, I would have stayed home with the pneumonia, and who knows what would have happened."

Source: "Covid-19 Patient: VA Telehealth "Saved My Life," VA, 6/22/2020, https://www.blogs.va.gov/VAntage/76108/covid-19-patient-va-telehealth-saved-life/, accessed 10/14/2020.

Human Resources

The COVID-19 pandemic warranted a dramatic increase in hiring on an expedited basis to complement the significantly increased bed capacity across the enterprise and deploy personnel to locations experiencing outbreaks (both for VA facilities and Fourth Mission Assignments). Early in the COVID-19 response, the EIC set out a goal of hiring 5,000 personnel and shortening onboarding time to 3 days. This section describes the processes used to recruit and onboard staff; key guidance and policy changes; and statistics on actual hiring and attrition during the COVID-19 response. This section also addresses how VHA addressed employee wellness.

Recruiting Process

The VHA Office of Human Capital ("Human Capital") conducted recruitment marketing centrally.[273] It posted national job announcements through USAJobs, a U.S. Federal government job posting website, and placed job postings on the VA Careers website.[274] It also utilized its marketing contract in collaboration with VA Communications to purchase advertisement spots and media buys. Originally, job postings were fairly general; for example, the posting stated a requirement for Registered Nurses, Nurse Practitioners and Certified Registered Nursing Anesthetists. During the recruiting process, Human Capital added more specificity in job posting advertisements after observing that a majority of candidates were only interested in telehealth or virtual assignments while VA needed direct care assignments at specific locations throughout the nation.

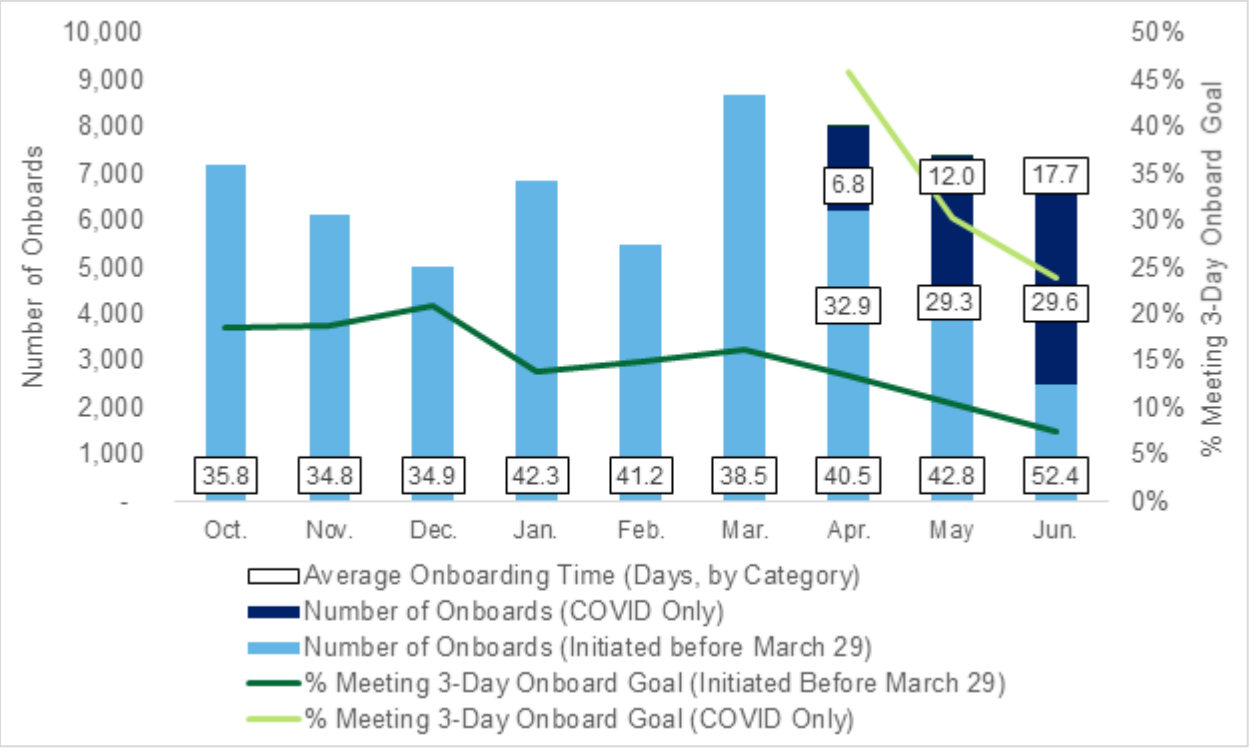
On March 16, 2020, VA increased hiring and retention incentives by removing bi-weekly premium pay caps based on an annualized limitation of $160,100.[275] On March 23, 2020, VA incentivized re-hiring of government retirees by waiving requirements that would normally reduce their salary by a certain offset amount based on retirement annuity amounts.[276] On April 1, 2020, VA increased hiring and retention incentives for hard-to-fill positions by allowing increased hiring bonuses (up to the maximum allowed by statute) and retention bonuses for current personnel (up to 25% of annual salary).[277]

On April 20, 2020, VHA increased hiring opportunities and expanded hours for specific categories of health care professionals, increasing the number of hours that part time and intermittent hires could work, to give greater flexibility to management officials and more closely align with part-time work schedules utilized by private sector competitors.[278]

Onboarding Process

Human Capital leadership considered the three-day onboarding target a stretch goal but also a necessary disruption to upend the norm; historically, onboarding took upwards of 60 days and comprised activities such as conducting a drug test, confirming credentials and obtaining a physical.[279] In terms of existing features that made the three-day goal a possibility, VHA Human Capital leadership credited VHA's recent move from a decentralized to centralized HR model as a critical enabler of the rapid hiring through standardized positions and processes. Previously, individual facilities had their own HR function; however, in 2020, HR was centralized to a shared service at the VISN level. Additionally, there were a number of policy changes key to enabling hiring and reducing the onboarding time. Some of the policy changes are internal to VHA and some are external; for example, those issued by the OPM, which oversees all executive branch hiring policies. VHA HR guidance was either issued by the EIC, the AUSH for Operations (previously known as DUSHOM) or the Chief of Human Capital Management. To work towards the three-day onboarding goal, Human Capital Management collaborated with the field to determine what changes were needed and worked with VA's Office of Human Resources & Administration, as well as OPM, to obtain the necessary waivers and granted authorities.

Figure 6.11 *Average Onboarding Time, Number of Onboards, and Percent Meeting 3-Day Onboarding Goal by Month (October 2019 – June 2020)*



Notes: Data includes both internal and external hires who were onboarded during the month displayed.

Number of days for onboarding is calculated starting from the tentative offer sent date to the firm offer sent date. COVID Only recruitments were initiated March 29, 2020 or later. Data for the month of July was excluded in this illustration.

Source: VHA Time to Hire SharePoint - August 1, 2020, Workforce Management and Consulting, VHA, accessed 9/14/2020.

For COVID-19 hires (those initiated March 29, 2020 or later) onboarded in April 2020, VHA achieved an average onboarding time of approximately 7 days for nearly 1,800 hires onboarded, as seen in Figure 6.11.[280] This increased to 12 days in May 2020 and 18 days in June 2020, along with increases in onboarding volume.[281] The overall average onboarding time is shown in the center boxes in Figure 6.11 for April 2020 through June 2020.[282] While the COVID-19 only recruitments have increased since the end of March 2020, these averages are still well below the pre-COVID-19 monthly averages.[283]

With respect to the averages displayed in Figure 6.11, it is also important to note that narrowing the timeframe to analyze just those hires initiated on or after March 29, 2020 (and onboarded each month thereafter) limits the analysis, by definition, to hires completed in a shorter period of time. The average will continue to increase each month as more of those hires continue to be onboarded.[284] As an illustrative example, take the case of a custodian worker and medical officer who both received a tentative offer on April 1, 2020. The custodian worker goes onsite in 7 days (April 7, 2020) and the medical officer goes onsite in 35 days (May 6, 2020). The custodian's seven-day onboarding period is factored into the April 2020 average; however, the medical officer's on boarding is not because the medical officer is still in the onboarding process as of the end of April 2020. Instead, the medical officer's 35-day onboarding period is factored into the May 2020 average.

The below are key guidance and policy changes issued during the COVID-19 response that accelerated onboarding:

- **March 17, 2020:** Changes to credentialing and privileging checks to enable faster onboarding.[285] Credentialing refers to the systematic process of screening and evaluating qualifications and other credentials, including, but not limited to: licensure, required education, relevant training and experience and current competence and health status.[286] Privileging, also known as "clinical privileging," is the process by which a practitioner, licensed for independent practice (in other words, without supervision, direction, required sponsor, preceptor or mandatory collaboration), is permitted by law and the facility to practice independently, to provide specified medical or other patient care services within the scope of the individual's license, based on the individual's clinical competence as determined by peer references, professional

experience, health status, education, training and licensure.[287] Clinical privileges must be facility-specific, practitioner-specific and within available resources.[288] Changes included, but were not limited to, extending parent privileges to deployed locations, streamlining checks to a single query of the National Practitioner Data Bank Continuous Query program for any licensure actions/malpractice cases and prioritizing when primary source verifications are needed (references).[289] The guidance also instructed that other than licensure verifications, verbal verifications could be utilized in certain scenarios.[290]

- **March 20, 2020:** Allowed flexibility to delay physical inspections of certain employment eligibility documents and to administer the oath of office virtually.[291]
- **March 24, 2020:** Waived hiring requirements for certain occupation types such as maintenance workers and health aides. Eliminated steps included rating and ranking system, preference for Veteran hires and "Rule of Three" procedures, which require managers to choose one of three candidates. VA later expanded this waiver to include other occupations on March 30, 2020, April 2, 2020, April 14, 2020, May 19, 2020 and May 28, 2020.[292]
- **March 24, 2020:** Enabled the delay of a physical examination of new hires to be completed at a later date post-employment. Normal procedures require the physical examination prior to the start date. This was later amended on April 28, 2020 to require new hires to agree to Tuberculosis testing; a memo from the EIC on April 6, 2020 also stated a requirement for new hires to be screened, including a skin test, for Tuberculosis on their first day.[293]
- **March 25, 2020:** Delayed drug testing up to 180 days post-employment.[294]
- **March 31, 2020:** Allowed delay of fingerprinting as part of the security vetting process.[295]

Going forward, Human Capital leadership stated it considered seven days to be a realistic onboarding goal with three key areas contributing to longer times: time needed by candidates to give notice at a prior job, concerns around expedited credentialing and budget concerns, particularly given the higher pay rates. Human Capital leadership also noted while most of the waivers and authorizations granted by OPM have a 1-year expiration date, it had also designated a team to evaluate each change in HR policy, the impact of the change and feasibility to make the change long-term.

Hiring and Attrition Statistics

As seen in Table 6.1, between February 2020 and June 2020 VHA increased its personnel by approximately 7,500, net of attrition, representing a 2% net increase of the workforce. The occupation types with the largest net increases are Custodial Worker (approximately 7%), Nursing Assistant (approximately 6%) and Medical

Support Assistance (approximately 5%). VISN 20, which covers Washington state, Oregon and parts of Idaho, increased its personnel by nearly 4% on a net basis while most of the other VISNs increased their personnel on a net basis of 1-3%. See the VISN Narratives within this report for comparable tables showing new hires, losses and total personnel onboard as of June 30, 2020 for each VISN.

Table 6.1 *Key HR Statistics Across VHACO and VISNs (as of June 30, 2020)*

Occupation	External New Hires	Total Losses	Net Gain *(New Hires - Total Loss)*	Total Staff Onboard (as of June 30)
Medical Officer	841	702	139	26,779
Nurse	3,773	2,095	1,678	75,475
Practical Nurse	953	528	425	15,574
Nursing Assistant	1,321	493	828	13,984
Medical Support Assistance	2,396	970	1,426	28,726
Pharmacist	188	116	72	9,126
Psychology	120	118	2	6,075
Social Work	644	312	332	15,835
Custodial Worker	1,907	983	924	12,512
All Other Occupations	6,752	5,037	1,715	154,201
Totals	**18,895**	**11,354**	**7,541**	**358,287**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical, and other occupations not independently identified in the table above.
Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

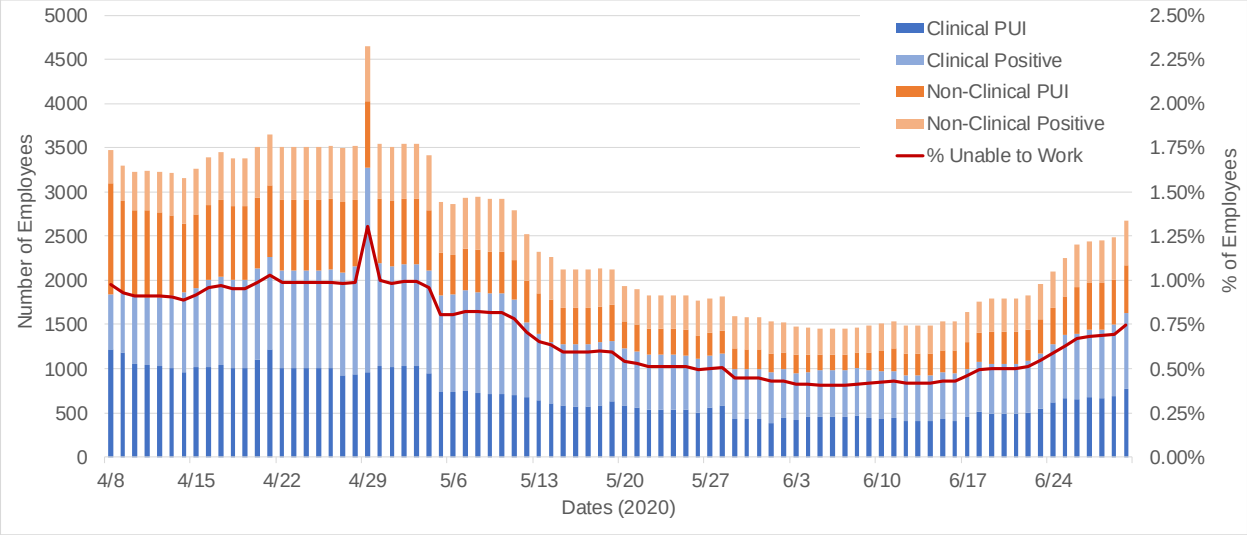
Staff Unavailability Due to Circumstances Related to COVID-19

VHA recognized that managing levels of staffing would likely be impacted by workers taking leave due to illness, quarantine or taking care of others.[296] On May 13, 2020, VHA increased retention of the current workforce by allowing COVID-19 leave (safety leave) for up to 15 days.[297] On May 18, 2020, VHA increased its ability to maintain staffing levels by exempting workers from taking leave under the Families First Coronavirus Response Act (FFCRA) by giving local officials the authority to exempt workers for certain qualifying reasons.[298]

As seen in Figure 6.12, about 1% of VHA's workforce was unable to work due to circumstances related to COVID-19 in early April 2020. That number spiked to over 1.2% briefly in late April 2020, dipped down to approximately 0.4% in June 2020 and increased to over 0.7% as of the end of June 2020.[299] VISN 2, which covers New York, primarily drove the late April 2020 spike when more than 12% of its workforce (2,388 staff) were unable to work due to circumstances related to COVID-19. This number

represented more than half the workers across all VISNs at the time unable to work due to circumstances related to COVID-19 (4,649 staff).[300] VISN 1, which covers New England, also experienced a higher-than-average percentage of workforce unable to work due to circumstances related to COVID-19, peaking at over 2.25% in late April 2020.[301] See the VISN Narratives within this report for data regarding personnel unable to work due to circumstances related to COVID-19 in each VISN.

Figure 6.12 VHA Employees Unable to Work Due to Circumstances Related to COVID-19 - All VISNs (April 8 - June 30, 2020)

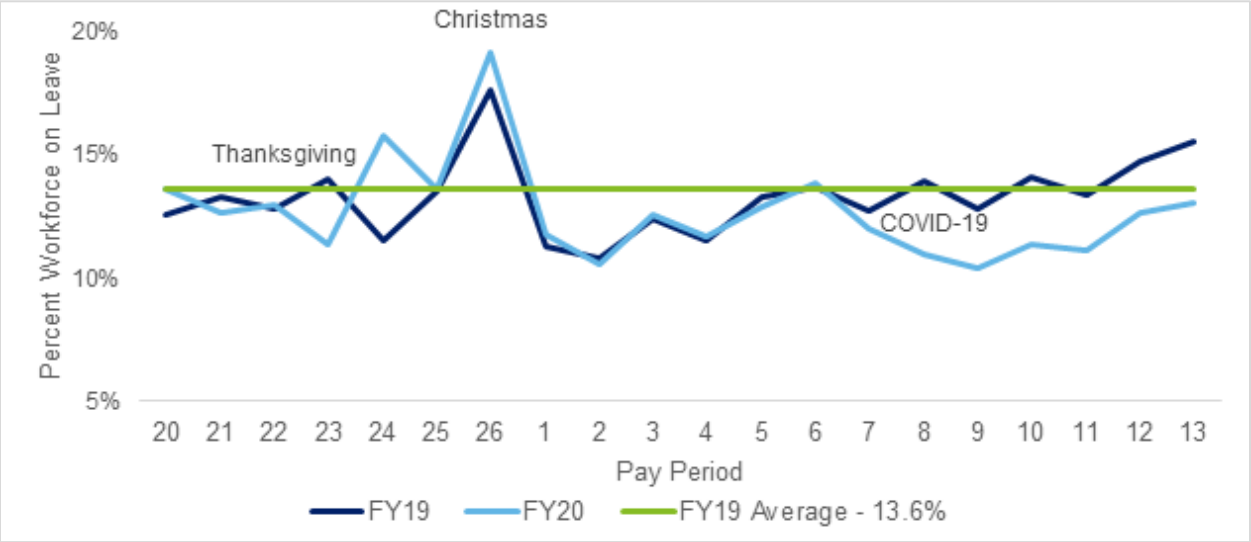


Sources: Self-Reported Employee Data, Rapid COVID database, VHA, accessed 8/7/2020; HR Employee Cube, VHA Support Service Center (VSSC), VHA, accessed 8/3/2020.

Staff Leave Utilization

Leave utilization was predicted to rise during the COVID-19 pandemic; however, leave was actually lower than the prior fiscal year (FY) for these same months (as shown in Figure 6.13). Between pay period 7, which began March 29, 2020, and pay period 13, which ended July 4, 2020, leave usage (including sick, annual, administrative and leave without pay) was below the prior FY's usage rate.[302]

Figure 6.13 *VHA Employees Leave Usage FY 2019 / FY 2020 Comparison*



Source: Workforce Management and Consulting Data, VHA, 9/11/2020.

Employee Wellness

In early spring 2020, it became apparent that pre-COVID-19 availability of mental health support for leaders and employees would not be enough to meet the unique needs and stresses likely to arise during the pandemic.[303] In response, VHA National Center for Organization Development (NCOD) developed a Rapid Response Consultation Service that provided VA leaders with coaching services for any area of concern, from personal stress management to leading and managing teams in a virtual environment.[304] Eighteen psychologists supported the Consultation Service and provided coaching support to leaders at all levels across VA (frontline supervisors through senior executives).[305] Psychologists typically responded to coaching requests in less than an hour.[306] Sixty VA leaders reached out for coaching support and subsequently reported high satisfaction via surveys and qualitative comments. NCOD also created a series of self-help resources for leaders as an adjunct to, or in place of, coaching services. The printable tools, references and real-world scenarios were available to all leaders via NCOD's webpage and through the electronic request link NCOD provided for Rapid Response Consultation services.[307]

For employee wellness, the VHA Organizational Health Council (OHC) brought together relevant VHACO program offices to develop a repository of resources that employees could access for emotional, spiritual and physical support.[308] The team developed short videos, tip sheets and links on a variety of wellness topics that were accessible to all employees on the VA.gov website.[309] The website generated between 8,000-9,000 visits during the height of the pandemic, up from 4,000- 5,000 visits in a typical month. The OHC and respective program offices also developed an Employee

Support Toolkit that provided a framework for how to implement local support services like mental health, social work and chaplain support.[310] For example, the toolkit outlined how local support services could use “care carts” to bring wellness services directly to employees. “Care carts” gave employees a break by bringing resources directly to them, whether to market support services (for example, virtual group or on-demand offerings) or to provide a therapeutic aid (like a stress ball) to support employee wellness.[311]

Data Management

VHA created the NST to serve as the authoritative VA data source for COVID-19 and to provide a common denominator for all reporting and metrics during the course of the COVID-19 response. The NST harmonizes data from critical sources to enable near-real time analysis of patient-level and system-level data relating to caseload, health care system staffing, bed capacity and supply availability.[312] The NST integrates information across four key data domains, patient, staff, inventory and capacity, from dozens of different internal and external databases.[313] The NST allows VA users, (including frontline providers and managers, network staff, national program personnel and emergency response personnel and leaders) to interpret the progression and impact of the pandemic through audience-tailored reports that capture relevant information for strategic, operational and tactical responses.[314] Outside of VA, the common surveillance data is used to provide information to the public-facing Access to Care website and insights to the White House Coronavirus Task Force.[315]

Development of the NST

The roots of the NST, and COVID-19 case detection, lie in preexisting VHA efforts to improve monitoring of emerging disease pathogens and antibiotic resistance.[316] Starting in late 2014, the VA Office of Biosurveillance began working with the Department of Homeland Security on a biosurveillance concept to focus on the use of consolidated data for predictive analytics for the prevention and early identification of infectious disease threats and outbreaks. This effort led to the collaboration between VA and the CDC on a national biosurveillance system whereby VA provided daily data to the early CDC BioSense effort that was designed for early identification of biologic events and to track disease movement throughout the country. From there, a joint effort with DHS to enable automated extraction of data from the VA national electronic health record system further bolstered the ability for different components of VA and VHA to achieve a common operating picture. In 2017, a program named the Biosurveillance, Antimicrobial Stewardship and Infection Control (BASIC) in the Office of Clinical Systems Development and Evaluation (CSDE) initially released tools to analyze large volumes of electronic health record data. Since that time, the program expanded surveillance efforts using artificial intelligence (AI) and natural language processing (NLP) in order to discern events, analyze relationships, identify potential precaution candidates and disseminate information to appropriate personnel in the field.[317] The BASIC program's analytic capacity helped to lay the groundwork for the NST and to provide a single "source of truth" for COVID-19 case definitions; for example, to determine if a patient was COVID-19 positive or negative. The Office of Biosurveillance continued its work during the pandemic response to establish

integrated medical data for DHS biosurveillance from sources including VA, HHS, CDC and the Association of Public Health Laboratories.

In the early days of the onset of COVID-19, the BASIC team helped track the outbreak by applying AI tools used for previous outbreaks. In particular, the BASIC team searched patient travel histories, keying off certain keywords and applying NLP classifiers in patient records that could indicate the records that might be related to COVID-19. The BASIC team coordinated with VA laboratory services and other program offices to help identify key elements in health records and support the development of definitions of what constituted a COVID-19 positive or negative result.

When VHA first began to confirm COVID-19 cases at VHA facilities, leadership relied upon Issue Briefs, which are hand-typed reports from individual facilities that provide details on reported cases; however, according to CSDE Leadership, this method of tracking cases quickly became unrealistic given the pace and transmission of COVID-19. At this point, VHA leadership realized that it required a rapid, automated and centralized approach to dynamically track cases over time.

In early March 2020, CSDE and the Office of Analytics and Performance Integration (API) teams initiated a coordinated effort to bring together key data elements managed by a variety of offices spanning VA and VHA, including the OI&T. API combined information on bed capacity, bed management data, census data, electronic medical records, staffing data, inventory data and PPE data with case data. After centralizing the data, creating the NST required a constant feedback loop between different offices to improve data quality on the four key domains of patient, staff, inventory and capacity data covering 130 major facilities across 18 VISNs.

Improving Data Quality

The CSDE team noted that it worked closely with the API team and the VHA National Infectious Disease Service (NIDS) to establish a clinical partnership to improve data quality across multiple sources. The BASIC program developed and applied automatic algorithms to machine-readable lab packages and lab results and further applied NLP methods to all clinical records available in the health record electronic systems. This included developing “triggers,” or rules, to further improve data quality by determining which data could be automatically ingested based on those triggers. A major part of this effort involved engaging expert clinical program personnel to directly review electronic health record data from VA’s Computerized Patient Record System (CPRS). Data that triggers rules-based quality filtering undergoes required chart review by these expert clinicians.

Application of AI and NLP Tools

According to the BASIC team, non-VA sources conducted approximately one-third of Veteran COVID-19 positive tests; therefore, it became important to develop AI tools to search through patient data, as well as clinical text notes that may contain references to outside testing, and overcome issues of data inconsistency across electronic health record systems. Between January 2020 and February 2020, the BASIC team trained an AI program to review electronic health records related to COVID-19 as if the AI program were an infection control nurse determining whether a patient might have COVID-19. In addition, the team leveraged an iterative process using an NLP system to collect data from over 15 million documents, extract concepts and determine relevant keywords, as well as classify documents based on the system's understanding of the data to determine if the patient was positive or negative for COVID-19.

Data Sources for the NST

The NST combines data on patients, employees, inventory and bed capacity into a centralized database. Operational and research users can obtain data feeds of this information for additional reporting and analyses. For patient information, the NST primarily relies on lab data from the Veterans Health Information Systems and Technology Architecture (VistA) system that is then consolidated into the Centralized Data Warehouse (CDW) in near real-time at approximately every hour. If a patient was not tested in the VA, patient information can be sourced from data obtained from electronic health records through the AI methods described above, combined with clinical chart review of CPRS. For employee data, the NST sources self-reported data from the VA Time and Attendance System to track leave. Inventory data is sourced from self-reported data from each facility and VISN, as well as from the P&LO. Capacity data and inpatient locations for each ward specialty are from VistA and the BMS.

Impact on VISN Offices

Prior to the development of NST, as different VISN regions began to report COVID-19 cases in February 2020, human effort drove data collection and analysis and each VISN managed it independently, each with a slightly different approach. This reporting process sustained in February 2020 and for an early part of March 2020; however, as cases began to increase in sites like New Orleans and NYC, according to CSDE leadership, there was a strong need to adhere to common definitions and manual tracking became overwhelming for some facilities and VISNs. On April 17, 2020, the AUSH for Operations issued a memorandum guiding VISN and facilities to the NST as the authoritative source for data and adopted definitions.[318] The primary argument was

that it would be impossible to maintain synchrony, consistency and validity of VA COVID-19 data if VISNs each individually refined their own local reporting systems. The more sustainable strategy was for facilities and VISN offices to provide continuous feedback to the developers of NST. This facilitated a continuous learning process that could rapidly improve reporting across the entire VA system. Frequent listening sessions involving facilities, VISN offices and CSDE leadership enabled this incremental approach.

Data Infrastructure Challenges

At the very early stages of NST implementation, VISNs developing their own patient lists and reports created an issue as these created a heavy burden for the servers, which run the data systems, and corporate infrastructure. CDW servers supporting data analysis crashed due to the large amount of processing power needed to run complex data queries through billions of records. The lack of data governance and of an overall standardization of data, combined with the complexities around defining COVID-19 cases, meant that VISN offices and facilities queried the system with inefficient code that looked through the entire dataset (billions of records), overwhelming the system. By adopting NST as the case data source for COVID-19, coupled with additional monitoring and controls on corporate database usage, VHA relieved the heavy burden on the systems (in addition attaining to the benefits for data quality described previously).

Sharing NST Data Outside of VA

Upon the standardization of data, the CSDE team, API team and their colleagues in OI&T integrated the NST data into the VA Informatics and Computing Infrastructure (VINCI) initiative.[319] VINCI is a research initiative that aims to improve researchers' access to VA data and to facilitate the analysis of those data while ensuring Veterans' privacy and data security.[320] In addition to VINCI, during the COVID-19 response, VHA began sending NST data to a super computer facility managed by the Department of Energy (DOE) for analysis in order to provide insights to the White House Coronavirus Task Force.[321] This effort leveraged an existing partnership between VHA and DOE that dates back to 2017 to combine data sources across multiple agencies and apply DOE's supercomputing capabilities on those data sources for research purposes.[322] The data sources include Veteran health records, CMS data, Department of Defense data and the CDC's National Death Index.[323] Finally, since May 4, 2020, NST has enabled VA to provide centralized daily reporting to HHS and CDC.

Additionally, common surveillance data on VA positive cases and deaths by state and facility is made available to the public through the VA Access to Care website (www.accesstocare.va.gov) on a Microsoft Power BI platform.[324] This website uses

the same data source as NST and is updated hourly.[325] The website helps provide important information to a wide-ranging audience including Veterans, Congress, state governments and the media.[326]

Support Services

When VHA first recognized the pandemic threat posed by the novel coronavirus in early January 2020, supply chain management at VHA facilities employed JIT delivery via prime vendor contracts.[327] JIT supply delivery had become the efficiency standard for most U.S. health care systems.[328] The provision of medical products to hospitals, clinicians and patients depended upon a globally integrated supply chain designed to provide JIT delivery.[329] JIT, and the lean manufacturing practices it relies upon, reduced the amount of stock held at every link in the supply chain, from raw material providers to the patient's bedside.[330] In the JIT and lean models, the objectives are to reduce waste, increase efficiency and cut cost throughout the supply chain.[331] JIT delivery works well when the demand for end products is known and predictable.[332] Historically, when a regional event such as a natural disaster (for example, a hurricane) disrupted some segment of the global integrated supply chain, there was enough remaining supply in other regions to limit disruptions to care.[333]

While preparedness was always a consideration in commercial and Federal health care contingency planning, that planning focused on regional contingencies of short duration and relied upon an intact and responsive global medical supply chain.[334] The demand the pandemic imposed upon the global PPE and critical item medical supply chain was unprecedented.[335] The increased global demand disrupted access to manufactured supplies.[336] The JIT-based PPE supply chain was unable to meet demand in U.S. markets.[337]

Anticipating the implications of unprecedented PPE requirements, along with the uncertainty regarding the pandemic's duration, the EIC moved to consolidate and strengthen all components of supply chain management within VA, as well as to clarify roles and responsibilities of multiple subunits.[338] The EIC appointed an Acting AUSH-S on March 15, 2020. By establishing this new AUSH position, the EIC sought to focus expert leadership on supply chain management. The AUSH-S' initial assessment of VHA's supply chain system led to several conclusions:

1. There was a need for greater standardization of contingency supply levels.
2. VAMCs had to procure more supplies using purchase cards as the availability of supplies from prime vendors diminished.
3. There was a need for more supply chain expertise in positions responsible for management processes.
4. VHA needed greater visibility of inventory and consumption rates of medical material across the system.

The existing inventory system was the 40-year-old Generic Inventory Package, which was a module of the Integrated Funds Distribution Control Point Activity Accounting & Procurement. The AUSH-S found that Generic Inventory Package is inadequate as a supply chain management tool and is not integrated with purchasing, distribution or shipping systems, thereby requiring that supply chain personnel in the field work within multiple systems. Many Chief Supply Chain Officers managing inventory in the field had to manually place and track orders for PPE due to functional limitations of the systems.

Preparations for the Response

As the U.S. identified cases of COVID-19 in February 2020, consumption of PPE in VAMCs began to increase significantly. Vendors for PPE began to advise VAMCs they could only fill orders consistent with historical requirements for the facilities.[339]

With the designation of FEMA as the national lead for distribution of PPE and other critical items came the need for VHA to accept large materiel shipments from FEMA to VA's two small warehouses: the EMCC and the VA Office of Acquisition, Logistics and Construction Service & Distribution Center warehouse in Hines, Illinois.[340] Follow-on allocation and distribution to VAMCs occurred based on need.[341] VA and VHA did not design or staff these two small facilities to support medical supply chain operations, and neither were equipped or designed to store more than small amounts of PPE and other COVID-19 critical materiel.[342] VHA recognized that the anticipated shipments (from FEMA or from central procurement) supporting facilities in all VISNs would overwhelm the two small warehouses.[343] This led VHA to consider options for interim storage and distribution sites for centrally procured supplies for the pandemic response.[344]

Linkage to the National Supply Chain Response

Photo caption: VA North Texas Health Care System supply chain personnel run a 24-hour operation to make sure purchase orders flow and deliveries continue to arrive, so employees are equipped with the tools they need to care for Veterans.

Source: "A Community Fights and Heals," VA North Texas Health Care System, June 2020, https://www.northtexas.va.gov/docs/PULSE_JUNECOVID19issue2020.pdf, accessed 10/14/2020.

In early March 2020, HHS ASPR had the lead for executing the national response and requested VHA representation. The EIC selected the VHA Executive Director of P&LO as one of VHA's liaison officers. Later that month, as FEMA assumed the lead for execution of the national response, the VA representative moved to FEMA and, after a transition period, joined the Supply Chain Task Force aligned to the U.S. Coronavirus Task Force.[345] The VHA Chief of Staff, represented VA on the FEMA NRCC. The VHA liaisons advised the Supply Chain Task Force and the NRCC on VHA requirements for PPE and other critical supplies to enable Fourth Mission response.

The Supply Chain Task Force transitioned to HHS ASPR in June 2020, working in coordination with ESF #8. The visibility VHA's interim inventory processes provided to ESF #8 became a template for transparency for states when requesting supplies through FEMA; however, the depletion of the SNS in early April 2020 and the limited quantities available through national procurement led VHA to focus on establishing its own central procurement activity.

Response and Mitigation of Issues

VHA overcame three major issues to mitigate unprecedented global supply chain shortages of supplies and equipment critical to the COVID-19 response:[346]

1. **Limitations of Inventory Management Systems**: VHA mitigated PPE inventory visibility issues and enabled enterprise management of PPE through interim PPE inventory processes and an interim information system. As of the date of this report, permanent comprehensive solutions were still needed.
2. **Diminished Market Access to Critical Supplies**: VHA overcame market access challenges through actions taken by the newly created VHA central procurement and distribution office.
3. **Insufficient VAMC Contingency Stocks**: VHA demonstrated agility in shifting PPE and ventilators to match rapid changes in demand for resources as outbreaks unfolded across many locations.

As described in more detail in this subsection, these actions resulted in VHA maintaining health care operations across its networks, including locations experiencing high levels of demand, with sufficient PPE to meet CDC contingency guidelines.[347] As with most U.S. health care systems, VHA operated under PPE contingency guidance during the response. See the Safety Processes section for more information about CDC guidance on PPE. Out of 65 FEMA Mission Assignments, only 1 response was truncated due to PPE limitations.[348]

Limitations of Inventory Management Systems

Early in the response to COVID-19, VHA identified the immediate need for a national view of materials.[349] The AUSH-S Supply Chain Analytics and Metrics Service then developed and deployed an electronic dashboard to display daily PPE consumption rates, inventory & projected demand for all VAMCs. In late April 2020, VA began using the new PPE inventory dashboard that pulled data from multiple existing IT systems.[350] This included a tool that assisted field service representatives in identifying shortages and initiating shipments to the VISNs or facilities.[351] While the National COVID-19 Request Tool (NCRT) and Power BI represent improvements in providing a national view of materiel, a permanent solution is needed to support the overall transformation of supply chain management.[352]

During implementation of this process for enterprise inventory visibility it became evident that inventory data standards would be required.[353] The AUSH-S established a PPE Reporting Integrated Project Team (IPT) to build standards for reporting PPE inventory levels and quantification of consumption rates at each VAMC.[354] The VISN 15 Network Director led the IPT with representatives from other networks and P&LO.[355]

The IPT developed the methodology and standard operating procedures.[356] The HOC established an interim process using its SharePoint site to capture the daily, mostly manual, VAMC PPE inventories.[357]

Diminished Market Access to Critical Supplies

After it became apparent in March 2020 that many prime vendors for VAMCs were unable to fulfill PPE orders and that SNS supplies would soon be depleted, P&LO stood up a COVID-19 Response Cell at VHACO in early April 2020.[358] VHA established the COVID-19 Response Cell to serve as the back-up Med/surg prime vendor for the enterprise. The National Director of the VA Medical Supply Program led the establishment of central procurement processes for pandemic supply items such as PPE. The Acting Director for Operations Plans, Planning and Readiness added two additional warehouse operations in April 2020 and May 2020, totaling 95,000 square feet, to augment the 22,000 square foot central warehouse and distribution center at Hines, IL. The small OEM warehouse in West Virginia was not used for this response after March 2020. The center at Hines IL became the storage and distribution management center for centrally procured PPE.

The central procurement of PPE focused on large quantities as the AUSH-S encouraged VAMCs to also continue to procure through local prime vendor contracts and other sources via credit card purchases. P&LO established a process, using the NCRT, for VAMCs to order PPE from central procurement. The Acting Director for Operations Plans Planning and Readiness noted that the nomenclature in the NCRT lacks standardization and involves free text entry; this has posed significant challenges in understanding requests. The VHA Logistics Operations, Planning and Readiness team created Field Service Representatives with each team of two representatives supporting a VISN to coordinate requests for PPE. The large quantities of PPE required by VHA enabled direct engagement between National Director of the VA Medical Supply Program and manufacturers on consolidated orders. VHA developed a procurement option from the state of New Hampshire when state PPE procurements exceeded state requirements. Under this process, VHA was under no obligation to purchase PPE and could inspect the PPE prior to the decision to purchase. In response to NCRT requests, the VHA Medical Supply Procurement Office procured 275 distinct items during the response, including 347 million counts of PPE totaling over $300 million.[359]

As ventilator support for COVID-19 patients requiring critical care was core to the clinical response, VHA leadership monitored daily ventilator usage versus ventilators available for each network in the Daily Operations briefings.[360] The VAMCs also inventoried positive pressure breathing devices, such as anesthesia machines and

automated resuscitation devices, that could function as ventilators in an emergency.[361] VHA shifted ventilators and other critical supplies between VAMCs and often between networks to ensure adequate supplies to meet surges in demand.[362] As shown in Table 6.2, through June 30, 2020 VHA's central procurement ordered 2,335 new ventilators during the response from a variety of manufacturers; however, VHA only received 182 ventilators as of June 30, 2020. Expected delivery dates for the remaining ventilators, shown in Figure 6.14, extend from July 2020 to March 2021.[363]

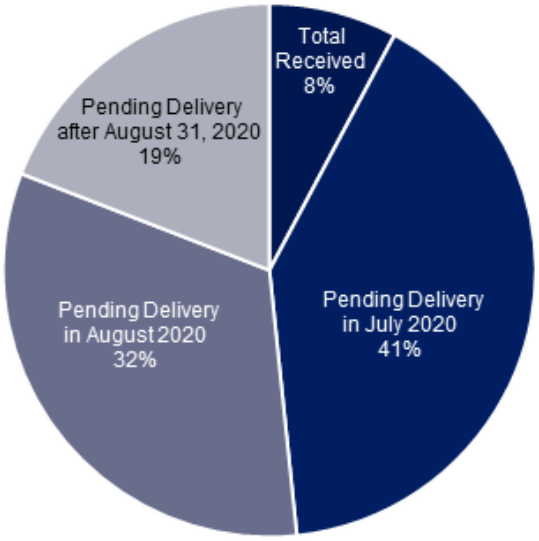
Table 6.2 *Ventilator Procurement Status as of June 30, 2020*

Status	Number
Received in May 2020	29
Received in June 2020	153
Total Received	**182**
Pending Delivery in July 2020	947
Pending Delivery in August 2020	760
Pending Delivery after August 31, 2020	446
Total Pending Delivery	**2,153**

Source: Ventilator Procurement Data, VHA Medical Supply Office, 8/14/2020, accessed 8/18/2020.

The availability of PPE supplies in the commercial market remained very tight through June 30, 2020, with numerous outstanding VHA orders pending fulfillment. As HHS and the U.S. Coronavirus Task Force worked to replenish the SNS, the EIC was in communication with the National Supply Chain Task Force lead regarding the right balance of increasing emergency response supply inventory while enabling reasonable access to critical supplies for health systems. Beginning on June 30, 2020, AUSH-S assumed the role as the VHA representative on the HHS SNS Steering Committee that is mapping the future concept and requirements for the SNS.

Figure 6.14 *Ventilator Procurement Status as of June 30, 2020 (N=2,335)*



Source: Ventilator Procurement Data, VHA Medical Supply Office, 8/14/2020, accessed 8/18/2020.

Alignment of Critical Supplies and Equipment to Demand for COVID-19 Care

As the pandemic evolved and progressed, demand for COVID-19 care varied nationwide and multiple geographic locations in the U.S. experienced periods of sustained accelerated spread, generally 3-6 weeks in duration.[364] Agile movement of critical resources, including supplies and equipment, to areas of accelerated spread became a critical aspect of VHA's COVID-19 response.[365]

The establishment and maturation of the HOC as the fusion center for collecting, analyzing, planning and disseminating data and information to all stakeholders created a key enabler to timely movement of materiel between VAMCs and between VISNs.[366] The four VISN Consortia generated a further maturation of VHA's approach to management of the COVID-19 response effort in the face of the disrupted global PPE supply chain.[367] Each VISN Consortium represents a partnership between multiple regionally proximate VISNs, each formed to foster collaboration among medical centers, enhance operations and improve service to Veterans.[368]

Health Care Facility Adaptations

Healthcare Environment and Facilities Programs (HEFP)

As the realignment of functions under the VHACO reorganization progressed from January 2020 through March 2020, VHA realigned the VHA Executive Director for HEFP under the AUSH-S. During this realignment, HEFP began networking with private sector health care facilities regarding best practices utilized to respond to a pandemic. In addition, personnel within HEFP monitored WHO and CDC guidelines

pertaining to health care facility infection control procedures for patients requiring airborne pathogen precautions in a pandemic.[369]

In February 2020, the EIC directed VHACO HEFP personnel to establish processes with the VISNs to initiate an expansion of inpatient bed capacity across the VHA system with a target of adding 3,000 additional Med/surg and ICU beds. The plan also included outfitting and staffing a donated community hospital facility in Garland, Texas to operate as a VHA health care facility.[370] In March 2020, OEM released the COVID-19 Response Plan and recommended that COVID-19 patients be treated in Airborne Infection Isolation Rooms (AIIR) whenever possible, also known as negative air pressure or negative pressure rooms.[371] The plan defines an AIIR as a room with a pressure differential between adjacent spaces such that air flows into the room relative to the corridor ventilation.[372] The plan also states "in the event there is a shortage of AIIRs - negative air pressure rooms - alternate settings may need to be used ([for example] a single patient room with the door closed)."[373]

The AUSH-S recognized that operationalizing bed expansion would require coordination with each VHA Network's Surge Planning activities.[374] Support Services and HEFP engaged the OHT to coordinate and align all VHA efforts for bed expansion.[375]

Support to Bed Expansion

Beginning March 17, 2020, HEFP created bed expansion space capacity assessment tools on SharePoint including one used for gathering data.[376] VHA used these tools to determine what facility space could be identified for conversion or used to expand negative pressure beds to meet the goal of 3,000 total beds.[377] Within three days of the initial assignment, HEFP identified over 1,800 potential beds using these assessment tools in addition to information obtained from the VHA facility engineering and capital asset managers.[378]

Before April 1, 2020, with further review and reconciliation of gathered data, HEFP, the BMS team and the OHT program offices identified over 4,000 beds for expansion during the early stages of the VHA COVID-19 response.[379] HEFP worked closely with the BMS team, HOC and OHT to coordinate and align plans, as well as monitor data used for the bed space expansions in conjunction with VISN Surge Planning.[380] VHA established the Bed Expansion IPT on March 23, 2020 to address the high need for coordination across multiple VHA organizational units to support the bed expansion related activities.[381] The HEFP Office of Healthcare Engineering continued to support VISNs during this period, providing guidance on the review of building drawings and associated information provided on a SharePoint to facility Chief Engineers to address facility space and HVAC adjustments to create additional AIIRs.

The HEFP Office of Healthcare Engineering also created a long-term HEFP COVID-19 response support SharePoint site.[382] This site provided VHA facilities and VISNs access to all tools developed for the COVID-19 response.[383] The HEFP Program SMEs provided information to the VHA Bed Expansion IPT for guidance to VHA Field Operations; this information focused on space, supplies, equipment and technical (facilities management) information required for implementing and supporting bed expansion and increasing capacity for care.[384] VHA integrated the HEFP information packages into a COVID-19 Surge Planning Toolkit initially released April 2, 2020.[385]

The HEFP Office of Special Engineering Projects provided support to the VHA Bed Expansion IPT response team until VHA placed the VHA Moving Forward Plan into action.[386]

Support to Negative Air Pressure Capability Expansion

The VHA health facilities team noted that existing VHA standards for an AIIR were stringent; these standards required an anteroom for donning and doffing PPE with improved pressure and flow control, whereas CDC guidance did not. In coordination with VHA infectious disease specialists on the HCI Team, the VHA HEFP Healthcare engineering program office followed CDC guidance for expedient patient isolation rooms, including the creation of negative air pressure treatment spaces for COVID-19 wherever possible and leveraging anterooms when available.

The VHA HEFP Healthcare Engineering program office researched HVAC system adjustments and impacts to achieve negative pressure in patient treatment areas and recognized options would vary with the age of the HVAC systems. This research indicated portable high-efficiency particulate air (HEPA) filtration systems, when used properly, could create negative pressure in treatment spaces where the HVAC adjustments were not possible or feasible. The VHA HEFP Healthcare Engineering program office also noted that CDC guidance stated, “The National Institute for Occupational Safety and Health (NIOSH) has developed guidance for using portable HEPA filtration systems to create expedient patient isolation rooms.”[387]

CDC guidance also stated, “The expedient patient isolation room guidance is research-based and is an effective solution for surge isolation capacity during outbreaks when traditional airborne isolation rooms are not available.”[388] In March 2020, NIOSH released detailed guidelines on use of portable HEPA filtration systems for expedient patient isolation rooms.[389] The VHA HEFP Healthcare Engineering Program Office created a SharePoint for requesting and tracking portable HEPA filtration systems and began procurement in March 2020. As of June 30, 2020, 1,138 Negative Air Pressure Units have been purchased and 930 have been deployed. In some VAMCs, Chief Engineers were successful in establishing AIIRs through HVAC

adjustments and sometimes created entire nursing wards under negative pressure because the systems present were designed for this application.

Technical Risk Management and Fatality Management Support

The HEFP Program Offices, in coordination with the VISNs and OEM, conducted technical risk management and analysis related to COVID-19 actions.[390] This analysis focused on space, Healthcare Engineering, Capital Asset Management and Environmental Program services.[391] This support included guidance to reduce and prevent the icing on liquid oxygen systems during periods of high utilization for increased bed expansions.[392]

At the request of the AUSH-S, the HEFP program office facilitated and provided mobile fleet support for the initial procurement of portable refrigerated morgue trailers to increase VHA temporary morgue capacity and space through space conversions or OEM trailer deployment.[393] The HEFP program offices assisted OEM and the AUSH-S with contracting and logistics teams for funding, procurement and deployment coordination for 51 refrigerated trailers for use as temporary morgues.[394]

Sanitation and Design Support

The Office of Environmental Program Services (EPS) provided support for special facility requirements associated with bed expansion and provision of care in a pandemic.[395] Near the onset of the pandemic, EPS provided the following support to VHA networks and facilities:[396]

- EPS, in collaboration with P&LO and Program Contracting Activity Central, developed and deployed a comprehensive Acquisition Package outlining the unique cleaning and disinfection requirements of VHA facilities.
- EPS Interior Design Operations communicated with existing contracted vendors to obtain lead times, availability and quantity limitations for critical supply items procured as furniture to support the bed expansion effort.
- EPS developed reopening guidance to help VHA sites prepare for the transition to more in-person ambulatory care. The guidance addressed facility actions consistent with requirements for sanitation, physical distancing and infection control.
- EPS collaborated with NIDS to develop COVID-19 cleaning and disinfection guidance for VAMCs and CBOCs. This guidance augmented existing sanitation standard operating procedures found within the 2016 EPS Sanitation Procedure Guide.

PPE Procurement and Utilization Support

The HEFP Office of Occupational Safety and Health (OSH) worked closely with VHA P&LO to evaluate potential procurements of PPE such as respirators and face masks.[397] OSH personnel reviewed both NIOSH and other manufacturer information on PPE being offered by vendors to determine the legitimacy of the claims being made by the vendors attempting to sell their material to VHA.[398] OSH developed guidance for facilities to properly utilize, optimize and maintain PPE supplies based on the CDC guidelines.[399]

Supply Chain Resilience and Modernization

As the pandemic response progressed, AUSH-S initiated strategic actions to pursue full mitigation of issues for which interim solutions had been implemented.[400]

Regional Readiness Centers

Early in this response, VHA senior leaders recognized the importance of assuring availability of critical supplies for response to surges in demand for health services during national or regional health emergencies. The EIC directed the AUSH-S to develop a concept for maintaining VHA-owned inventory sustaining supplies critical for response to health emergencies. The EIC and AUSH-S, in collaboration with P&LO, decided upon a concept in which VAMCs would maintain 60 days of critical supplies and four Regional Readiness Centers would maintain at least 120 days of critical supplies as VHA-owned inventory for response to public health emergencies. At the national interagency level, AUSH-S represented the VA on the HHS ASPR SNS Steering Committee. The HHS ASPR described the SNS target as 60 days of response supplies with the expectation that health systems will maintain 60 days of owned inventory of response supplies. As of the writing of this report, the SNS Steering Group was redefining the critical supplies to be maintained in the SNS, including consideration of pharmaceuticals critical to emergency response.

The AUSH-S set a target of December 2020 for standing up the four Regional Readiness Centers; however, as of the publication date for this report, the limited availability of supplies, such as PPE, while the SNS was being replenished and the continued nationwide COVID-19 response yielded a forecast extending to July 2021 to build VHA inventories. The interim VHA Readiness Centers will be located in four leased warehouses secured through agreements with HHS and Defense Logistics Agency (DLA) pending identification of permanent warehouses. VHA will determine the final location of the permanent Regional Readiness Centers based on an analysis of the VISN Consortia's unique transportation, logistics infrastructure and readiness needs.[401] The permanent solution included establishment of supply levels at each

VAMC to sustain response to a public health emergency for 60 days.[402] As of the publication date for this report, some VAMCs had facility shortfalls for maintaining 60 days of critical supplies and will identify location-specific storage options with resource requirements.

This concept calls for the Regional Readiness Centers to serve as central sources for management and resupply for the VISN Consortia PPE and critical item needs.[403] The Readiness Centers may also support Fourth Mission customers, such as SVHs, as required.[404] Rather than functioning as depots, as a new component in the VHA readiness supply chain the Regional Readiness Centers will supply PPE and other readiness materiel to the VAMCs on a recurring basis.[405]

The AUSH-S, through P&LO, will manage and maintain the VHA Regional Readiness Centers and will issue PPE and associated equipment supply chain management policy.[406] VHA will obtain the required infrastructure for the Regional Readiness Centers as a contracted service and/or via an interagency agreement with a Federal partner.[407] Doing so will provide VHA with the greatest flexibility, including the ability to expand, reduce or eliminate Regional Readiness Centers based on operational readiness needs.[408]

Under the concept, each Regional Readiness Center will:[409]

- Manage and maintain at least 120 days of supply for the consortium. A day of supply will be equivalent to the typical pre-COVID-19 demand signal for each VAMC within its geographic area of responsibility plus the materiel required to sustain a response equivalent to the COVID-19 demand.
- Manage and maintain critical equipment items (for example, ventilators and dialysis machines) so they are immediately available should VAMCs or VISNs require additional equipment to support a disease outbreak.
- Operate a Battelle Critical Care Decontamination System for decontamination of the VISN Consortium's N95 respirators and, as required by a FEMA Mission Assignment, for support of local community hospitals. The Battelle Critical Care Decontamination System is authorized for reprocessing certain N95 respirators under a FDA Emergency Use Authorization at the time of this report.
- Provide space, management and sustainment services and support for EMCC deployable assets, such as pharmacy trailers; mobile hospitals; the sets, kits and outfits for VHA's mobile hospitals; and mobile refrigerated fatality morgues.
- Provide storage capacity for VAMCs unable to store more than 30 days of supply.

The EIC and AUSH-S have determined that the supply chain inventory management deficiencies identified during the COVID-19 response require an accelerated timeline of 3 years for the Defense Medical Logistics Standard Support (DMLSS) implementation. The need for a fully integrated supply chain management system, including an interface with an enterprise financial management system, will require commensurate acceleration of the modernization lane of effort to transform financial management. Until an integrated enterprise supply chain management system is in place, VHA will continue to use legacy tools involving a significant component of manual data tracking by VHA Chief Supply Chain Officers.

In March 2020, the VHA Innovation Ecosystem entered into a memorandum of understanding with the FDA and NIH to test and validate 3D printed designs for PPE and other devices to support COVID-19 response efforts.[410] Around the same time, several VAMCs utilized existing 3D printers to produce and distribute needed supplies.[411] In light of this effort, the EIC launched the Agile Design and Production Transformation initiative, under the oversight of the Assistant Under Secretary for Health for Discovery, Education and Affiliations (AUSH-DEAN), to expand 3D printing production capabilities at three sites: Seattle, Richmond and Charleston.[412] The EIC set a target of 25% as the proportion of VHA's requirements for certain critical supplies obtained via additive manufacturing, such as 3D printing.[413] One of the challenges in quantifying the production target is gaining clarity on the requirement for PPE across VHA health care operations. As of June 30, 2020, testing swabs and face shields were the primary supplies manufactured within VHA under this initiative. VHA established a goal to manufacture 100,000 test swabs per week and, with gradually increasing production, plans to produce 50,000 swabs per week by the end of October 2020. VHA made all designs developed for 3D printing available to the public via the NIH 3D printing exchange. Newly designed items in testing include a reusable N95 respirator and a powered air purifying respirator (PAPR) hood. As of June 30, 2020, the innovation team and FDA worked closely as VHA designed and tested items. In conjunction with the FDA's aim to establish more rigorous standards for testing swabs, VHA launched a research study to test the efficacy of the swabs designed and manufactured by VHA. This study was in progress as of the publication date of this report. The AUSH-DEAN was considering external partners in additive manufacturing with the intent to create surge capacity in production of supplies for future responses. The aim is for the 3D printing operation to become financially self-sustaining.

Leaders in VHA supply chain management agreed that contracts with prime vendors will remain the primary means of procuring supplies for VAMC operations. Assured access to critical supplies in the market in a national health emergency remains a difficult problem to solve given the predominance of manufacturing outside the U.S. for items such as PPE and pharmaceuticals. HHS ASPR stated, "We cannot stockpile

our way out of this problem." Restoring a U.S. manufacturing base for critical supplies will require a coordinated public and private approach to offset the higher costs of manufacturing in the U.S. The EIC and AUSH-S pointed out that Congressional action enabling VHA to participate in the War Stopper Program that DLA operates for DOD would help VHA gain greater supply chain resilience.

The VHA modernization strategy for supply chain management has been deemed urgent by the EIC based upon the system-wide supply chain challenges within this response. Acceleration of the modernization strategy will include use of an enterprise information system linked with an enterprise financial management system. The strategy will move supply chain management into a shared service model utilizing standard processes and systems with Regional Readiness Centers and a combination of local (prime vendor) and central procurement. Given the important role that local purchasing with credit cards played in procuring enough PPE to sustain VAMCs in this response, the transition to a shared service model will make some leaders in the network uneasy. The pandemic spotlighted deficiencies in the legacy supply chain management processes and systems while the collapse of the commercial market for PPE spotlighted the flexibility of VAMC credit card purchasing.[414] The EIC stated he believes the modernization of supply chain management as a shared service will greatly enhance VHA's ability to respond to a national emergency and reduce cost while minimizing the need for local credit card purchases.

Biomedical Equipment and Health Care Technology Support

VHA installed and activated 49,000 new items of medical equipment between March 1, 2020 and June 30, 2020 to support the surge of patients related to COVID-19.[415] New medical equipment included, but was not limited to, ICU physiologic monitors, ICU ventilators, infusion pumps, dialysis machines, hospital beds and medical administration workstations.[416] VHA Biomedical Engineering teams defined technical requirements for this equipment, facilitated its installation, assured its safe operation and integrated the equipment to the electronic health record.[417]

The following are four prime examples of biomedical equipment and health care technology support to the response:[418]

- VHA inspected and prepared over 2,500 ventilators for critical care patients.
- VHA equipped an additional 78 VAMC for continuous remote access to critical care expertise via the Tele-Critical Care program. Currently, every VAMC with an ICU (115 sites) has access to remote critical care expertise 24 hours a day, seven days a week.

- VHA provided a Biomedical Engineering Community of Practice platform for immediate information sharing on issues pertaining to medical equipment for critical care and other aspects of the response.
- VHA implemented “dynamic port security” architecture for connecting medical equipment to the IT data network.

Veterans Canteen Services (VCS)

VCS is an essential service and remained open through the response in order to provide food, beverage and retail services to VA’s frontline clinicians, custodians, police, facilities personnel and local executive leadership who could not telework and provided on-site services to Veterans.[419]

Initial Operational Impacts and Response

On March 20, 2020, it became evident that the COVID-19 pandemic would significantly impact VCS’ daily business.[420] The 40% revenue drop on Friday, March 20, 2020 was the foreshadowing of a volatile, uncertain, complex and ambiguous future for VCS.[421] The need to provide services while meeting its obligations to be financially self-sustaining placed considerable strain on VCS.[422]

VCS senior leaders gathered in the St. Louis headquarters on March 24, 2020 to develop a cost mitigation strategy combined with a service plan to safely provide retail, food and coffee services in VAMCs and CBOCs in accordance with VHA’s Emergency Operations plan.[423] VCS was not financially constructed to meet COVID-19’s extreme, deteriorating market corrections. In fact, VCS projected a $225M revenue loss through March 2021.[424]

VCS Central Office buyers and field management responded to ensure stores were stocked with essential foods, cleaning supplies and personal hygiene products.[425] The 4,400 VCS employees continued to provide services, including café and coffee shops, that provided food for VHA staff.[426]

Strategy and Operational Adaptations

VCS senior leadership crafted a business plan to achieve three goals: remain open and provide essential service; preserve cash and cut non-critical expenses; and make payroll and keep personnel employed.[427] The primary actions to meet these goals included the following:[428]

- The Executive Director established a six-member COVID-19 task force to develop a new revised revenue and expense budget that would guide VCS’

operations to prioritize expenses from least critical to most critical and preserve cash to keep VCS financially solvent.

- The Executive Director formed a five-member Inventory Review task force to determine, on a weekly basis, how much retail inventory could be liquidated to create cash to make payroll.
- In June 2020, VCS pivoted the inventory strategy to buying in-demand, non-consumable categories to generate rapid customer sales to help offset payroll costs. Securing the merchandise from the vendor market was a sustained challenge.
- VCS division leaders remained in constant contact with suppliers to ensure consistent deliveries of the most in-demand, bestselling products (for example hygiene items, clothing items and home supplies) to support essential VA employees serving Veterans. This engagement secured the support of many suppliers and vendors.

VCS carefully navigated the financial challenges to sustain services supporting VHA personnel and Veterans during the response.[429]

Capacity Management

Strategy

As VHA leaders planned VHA's response to the COVID-19 pandemic, they considered the potential requirements for additional inpatient beds to meet a national surge in demand for COVID-19 care. They decided to determine inpatient capacity requirements to meet demand for COVID-19 care for VHA's Veteran population, to meet demand for Veterans in SVHs and to provide support to surrounding communities. They anticipated potential needs at each VISN with modeling based on the analytics of available data from the outbreak in China to estimate demand for inpatient care and ventilator support. They weighed the potential prevalence of COVID-19 in the U.S. with analytics suggesting the prevalence could be 2% or potentially as high as 5%.

The EIC recognized that meeting demand associated with 5% prevalence created a level of demand VHA could not expand to meet. He saw the requirement for bed expansion associated with 2% prevalence as challenging but more feasible. He believed bed expansion targeting community COVID-19 prevalence of 2% would give VHA an attainable challenge and avoid the potential demoralization of a much larger target for 5% prevalence. The EIC also reasoned that actions to mitigate spread could slow the growth in prevalence, such that it would slowly climb to 5%, reducing the requirement for inpatient capacity. Based on early reports of symptoms and treatment in China and Italy, VHA leaders believed the crisis would primarily relate to critical care and ventilator support; as a result, they decided to focus bed expansion on high acuity care.

During response planning, total VHA bed capacity was uncertain as data in the BMS was known to be inaccurate according to a VHA leader; however, bed capacity was estimated to be 13,000 beds.[430] VHA leaders considered total bed expansion targets ranging from 2,500 to 4,000 before the EIC settled on a target of 3,000 total beds with 1,500 of those being critical care beds.[431]

Surge Plans and Responsibilities

The DUSHOM (position title changed to AUSH for Operations during the response under the planned reorganization of VHACO) directed the VISN Network Directors to develop surge plans to operationalize bed expansion.[432] Surge plans ensured the readiness of space, supplies, equipment and staffing to activate new beds.[433] The effort started with an environmental scan led by the VHA HEFP Office working with the VISN Capital Asset Management Offices.[434] The scan confirmed VHA's ability to add 3,000 beds for COVID-19 care by using existing space, repurposing or renovating

existing inpatient units, expediting construction projects and reactivating former inpatient units.[435]

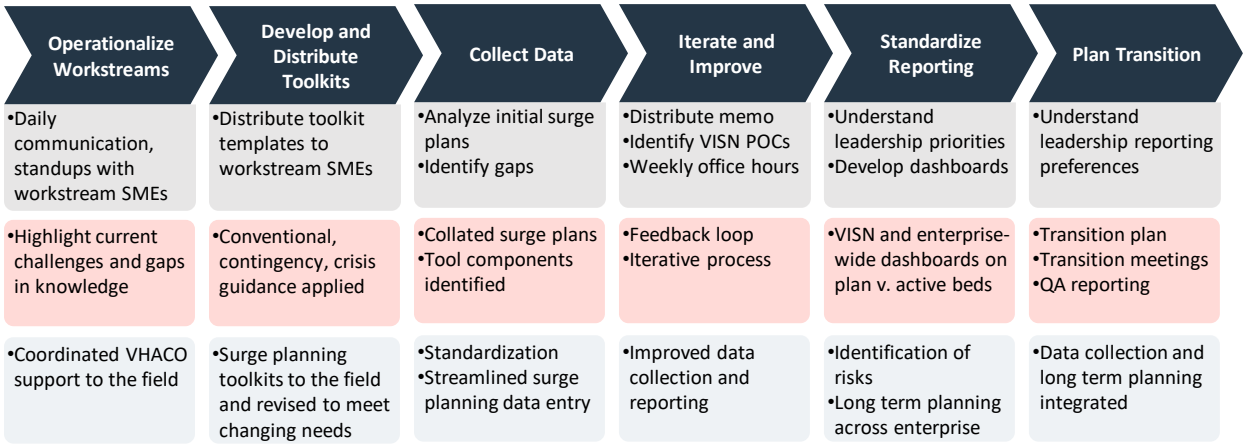
The DUSHOM did not give the networks specific bed expansion targets but instead provided assumptions for capacity to meet demand associated with 2% prevalence of COVID-19 in the community. Network Directors, alongside their ICCs, determined required capacity for each of the communities in which VHA inpatient facilities are located and built surge plans to attain the target capacity for each location. Each VISN determined the feasible timing for establishment of increments of additional bed capacity for COVID-19 care.

Due to accelerating spread of COVID-19 at locations including King County Washington, NYC, New Jersey, New Orleans and Detroit, VHA implemented surge plans in late March 2020 in VISNs 20, 2, 16 and 10 as described in the VISN Narratives of this report.

The Bed Expansion IPT

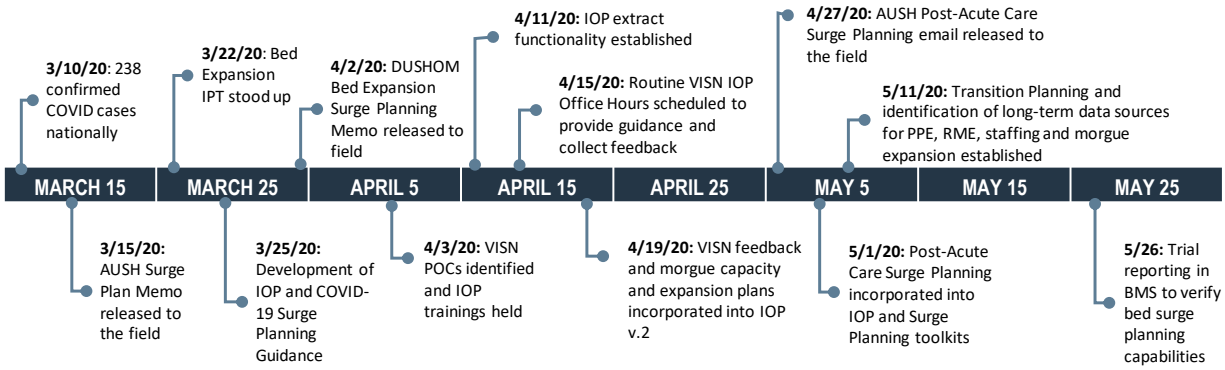
The VHA Bed Expansion IPT stood up on March 23, 2020 under joint sponsorship by the AUSH for Operations, AUSH-S, the Director of HEFP and the OHT.[436] The IPT membership included experts from multiple functions and reported to the AUSH-S.[437] The IPT focused on providing toolkits and standard reporting processes such that infrastructure and support could be established by networks for bed expansion with safety of Veterans and personnel as a priority.[438] Figure 6.15 provides a summary of the IPT's approach and Figure 6.16 depicts the timeline for its actions.

Figure 6.15 *Bed Expansion IPT Summary of Approach*



Source: VHA COVID-19 Bed Expansion IPT Summary and Readiness Plan, VHA, 5/28/2020.

Figure 6.16 *Bed Expansion IPT Timeline*



Source: VHA COVID-19 Bed Expansion IPT Summary and Readiness Plan, VHA, 5/28/2020.

The IPT delivered a Surge Planning Toolkit to the networks structured around capacity definitions aligned to the VHA COVID-19 Response Plan Annex to the VHA HCI Base Plan using categories for capacity under conventional operations, contingency operations and crisis operations.[439] The tool kit included elements for space, including infrastructure, engineering and utilities; supplies, including equipment and PPE; and staffing. The IPT also developed reporting processes and dashboards for planned bed expansion with detailed associated requirements.[440] This ensured VHACO had the appropriate demand signals on a daily basis to report to the EIC and inform workstream SMEs of potential needs. The IPT completed its tasks and VHA deactivated it in June 2020. [441]

Resources

The Surge Guidance on Space and Engineering within the toolkit included guidelines pertaining to facility engineering, acute care spaces, post-acute care spaces, temporary negative pressure rooms and morgue expansion.[442] The VHACO health facilities team focused on working with the VISNs to provide information to facility Chief Engineers regarding procedures to create negative pressure AIIRs. The Support Services section in this report provides details on the approach to creation of AIIRs in VHA facilities.

The Surge Guidance on Supplies within the toolkit provided guidelines for PPE and reusable medical equipment.[443] As demand for ventilators nationally exceeded availability from manufacturers, VHA created a central procurement function that ordered 2,153 ventilators; however, delivery time for the procured ventilators extended weeks and months into the future. VHA leadership monitored daily ventilator usage versus ventilators available for each network in the Daily Operations briefings.[444] VAMCs also inventoried positive pressure breathing devices, such as anesthesia machines, and automated resuscitation devices that could function as ventilators in an

emergency.[445] VHA shifted ventilators and other critical supplies between VAMCs, and often between networks, to ensure adequate supplies to meet surges in demand.[446] To meet PPE requirements for bed expansion, networks monitored inventories as VAMCs balanced PPE procurement from prime vendors (where available), credit card purchases from alternative suppliers and VHA central procurement. As described in the VISN Narratives section of this report, access to COVID-19 testing supplies was a persisting factor in meeting surges in demand. Nationally, HHS has managed allocation of testing swabs and reagents.

The Surge Guidance on Staff within the toolkit provides guidance for expansion of capacity for acute care and post-acute care.[447] As described in the VISN Narratives section of this report, the networks used retraining of existing personnel and new hires to enable expansion of bed capacity. The VISN Narratives and the Human Resources sections of the report describe VHA's success in hiring new clinical personnel by leveraging new authorities for expedited hiring and onboarding.

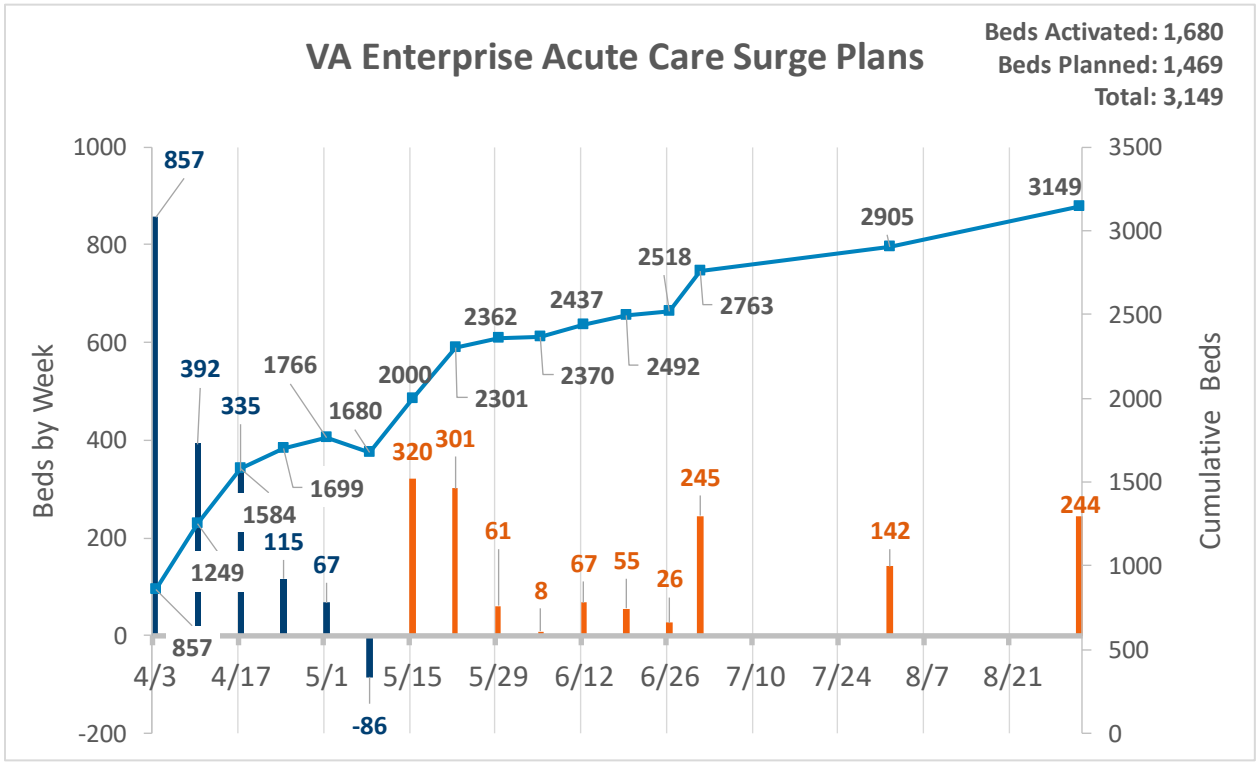
Execution

In March 2020, the IPT worked with the VISNs to improve the accuracy of data in the BMS. VHA reported bed expansion data into an interim central site until the BMS was able to incorporate surge data in June 2020.[448]

The VISN surge plans, including 994 additional beds established at sites of early peak demand prior to March 27, 2020, mapped the addition of 3,149 total beds for COVID-19 care as shown in Figure 6.17.[449]

As the response progressed and VHA established the Moving Forward Plan, the networks began deactivating surge beds at select locations with lower rates of COVID-19 spread while preserving the option to reactivate surge plans if required due to accelerating spread. Figure 6.18 shows the enterprise progression from surge plans of planned bed expansion and activated "new" beds.

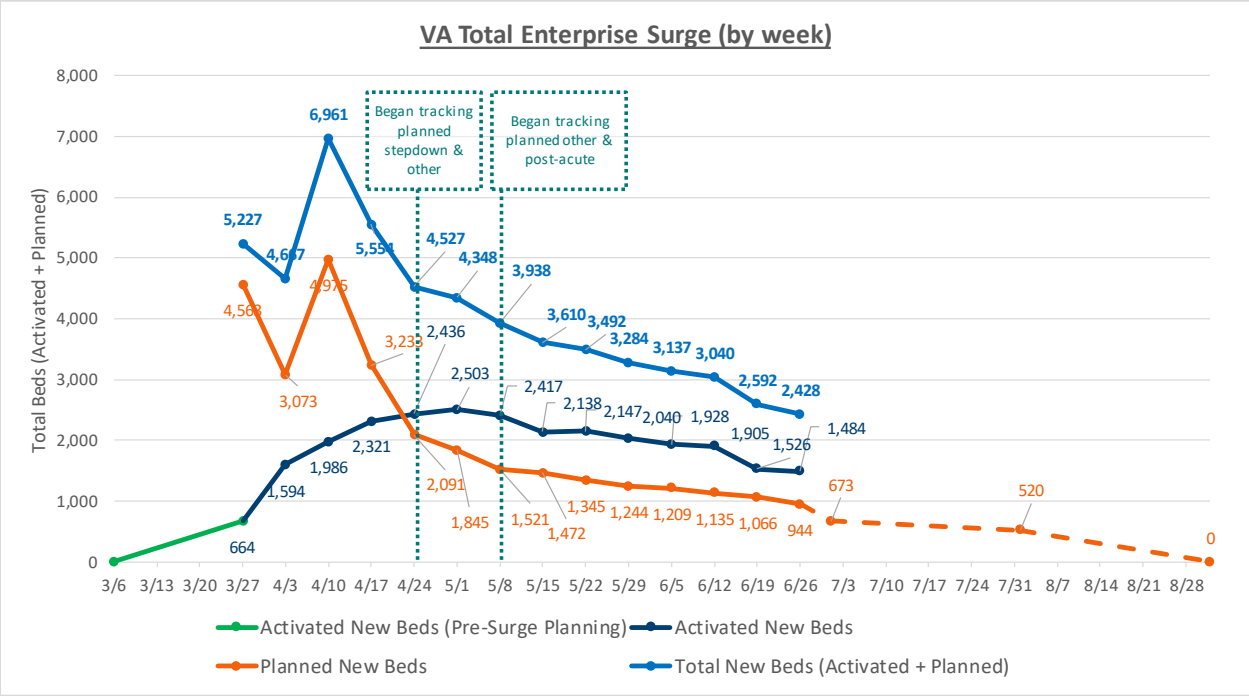
Figure 6.17 *VHA Enterprise Surge Plan Summary as Depicted on May 8, 2020*



Notes: Activated bed data is from weekly comparisons of BMS reports. Planned bed data is as reported and validated by VISNs in the Surge Planning Tool, launched on March 28. Activated and planned bed data include acute care beds (ICU, Med/surg, and Other). Planned bed data is current as of May 7, 2020 at 10:00 PM EDT. Data reflects projections of net new beds, not patient caseload. VISN completed surge activities prior to launch of Bed Expansion Planning Tool; from March 6 – March 27, 994 beds were also activated (based on weekly comparisons of BMS reports).

Sources: VHA COVID-19 Bed Expansion IPT Summary and Readiness Plan, VHA, 5/28/2020; COVID-19 VHA Update Briefing, VHA, 5/8/2020.

Figure 6.18 *VHA Enterprise Surge Plan Summary Through June 2020*



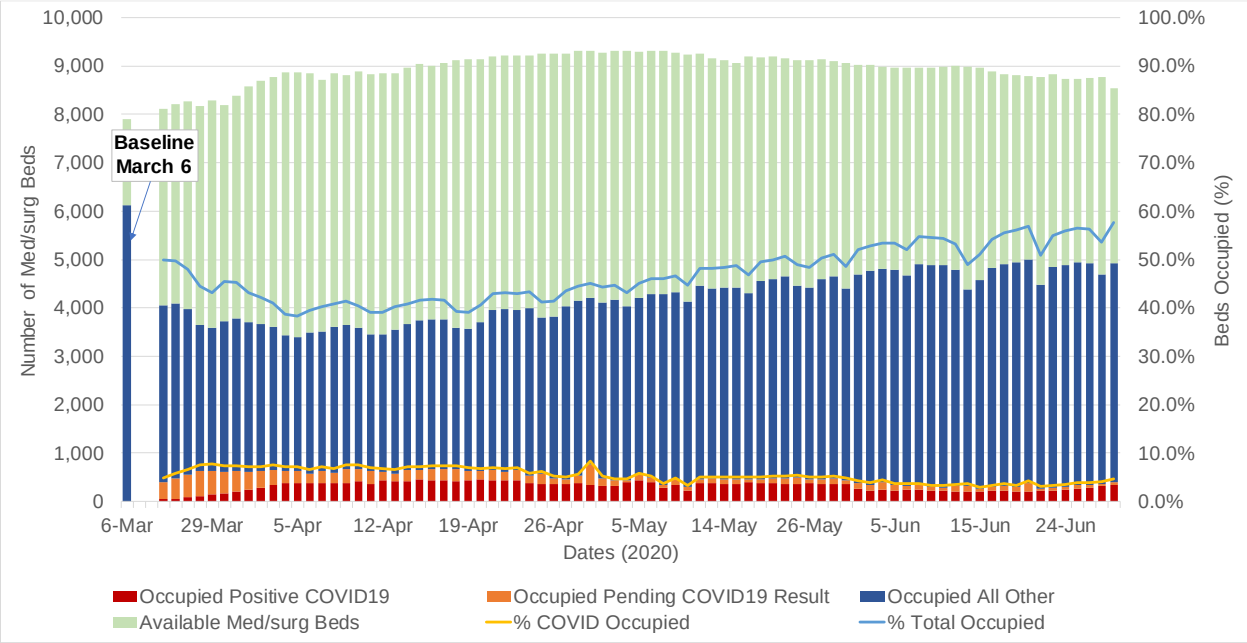
Notes: Total Activated Beds – Acute care beds (ICU and Med/surg) stood up through the date shown, captured by comparing BMS reports from the start and end of the week; data is available through June 26. Total Planned Beds – Acute (ICU, Med/surg, stepdown, and other) and post-acute care beds to be activated in future weeks, reported in the Surge Planning Tool at the start of the week (Saturday before the date shown). To interpret the graph, on May 8, VISNs had activated 2,417 beds and planned to activate 1,521 new beds between that date and September 1, for a total of 3,938 beds for COVID-19 response. Planned bed figures after June 26 are subject to change; VISNs finalize weekly surge bed activation plans on Fridays at 10pm before the start of each week. Data reflects projections of net new beds, not patient caseload.

Sources: VHA COVID-19 Bed Expansion IPT Summary and Readiness Plan, VHA, 5/28/2020; VHA COVID-19 Bed Expansion Brief, VHA, 6/30/2020.

Figure 6.19 shows total Med/surg bed capacity and occupancy through June 30, 2020 from data provided by the HOC. Figure 6.20 shows total ICU bed capacity and occupancy through June 30, 2020. The Bed Expansion IPT reported that the baseline bed capacity for VHA is an estimate and also noted that expansion of 994 beds occurred prior to March 27, 2020.[450]

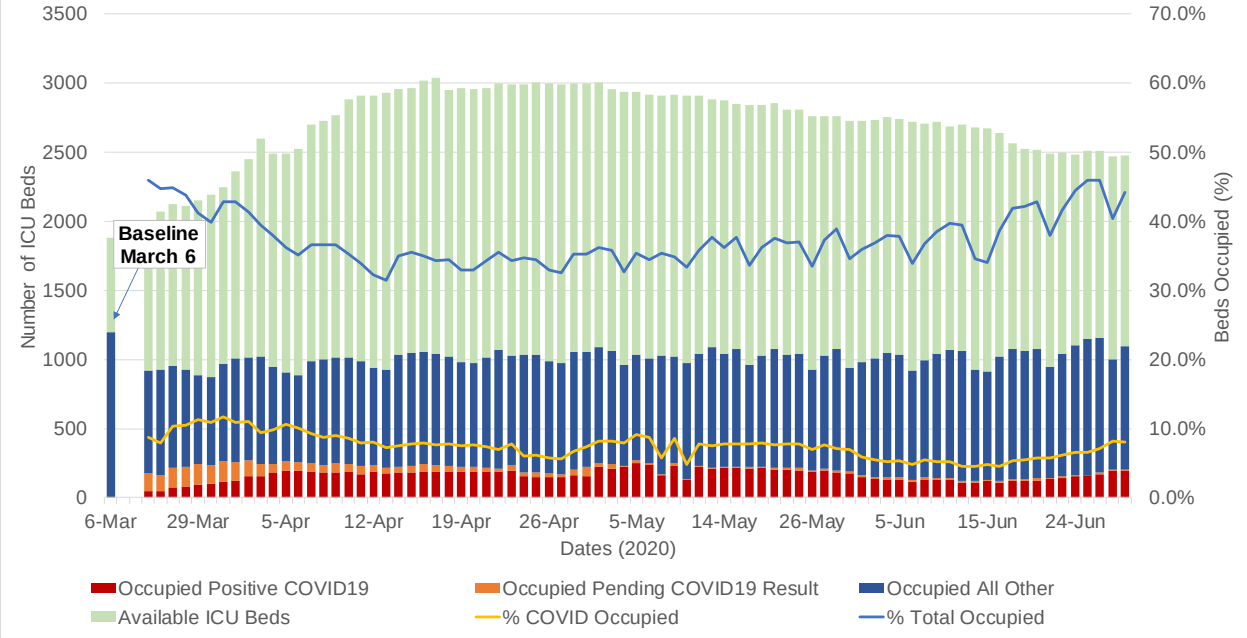
While VHA enterprise data presents bed capacity during the response above requirements, specific locations that experienced sustained acceleration of COVID-19 spread in the community required surge plan implementation and reallocation of resources to meet demand, as illustrated in the VISN Narratives within this report. See the VISN Narratives for VISNs 1, 2, 10, 12 or 16 for specific examples.

Figure 6.19 *VHA Enterprise Med/surg Bed Capacity and Occupancy*



Source: Med/surg COVID-Occupied Bed Counts Data, HOC, VHA, 8/4/2020.

Figure 6.20 *VHA Enterprise ICU Bed Capacity and Occupancy*



Source: ICU COVID-Occupied Bed Counts Data, HOC, VHA, 8/4/2020.

Fourth Mission

The novel SARS-CoV-2 virus presented ample opportunity for VA to exercise its Fourth Mission. Nearly all states as well as various local governments across the country and IHS requested support from VA to combat the virus. The following explores VA's Fourth Mission taskings relative to the pandemic.

Redefining the Fourth Mission

The legal authorities that comprise VA's Fourth Mission, or "contingency support" mission, are as follows:

- **38 U.S.C. § 1784**, Humanitarian Assistance. Covers members of the public and First Responders.
- **38 U.S.C. § 1785**, Care and Services during Certain Disasters and Emergencies. Covers participation in the National Response Framework and NDMS, support to DOD during wars or national emergencies and un-enrolled Veterans.

During normal circumstances, VA carries out its duties in service to Veterans through VHA, the Veterans Benefits Administration and the National Cemetery Administration.[451] In emergency situations, VA avails itself to national, state, territorial, tribal and local governments to prepare and support relief efforts.[452] This service is known as VA's Fourth Mission.

VA's Fourth Mission has historically mobilized for local or regional disasters. For example, hurricanes and wildfires launch VA Fourth Mission support to the affected regions of the country.[453] By nature, pandemics are more widespread than local or regional disasters and require a nationwide response. The COVID-19 pandemic response marks the first time VA needed to accommodate a nationwide response. In mid-February 2020, the EIC began advising his colleagues that COVID-19 would need to become a major focus of VHA. VHA faced extraordinary preparations and quickly realized that the Fourth Mission required redefining.

VHA prioritized Veterans in its planning for Fourth Mission responses. In regions where Veterans did not take up the entire capacity of a VHA hospital, VHA reserved the remaining capacity for the Fourth Mission. Handling the overflow from community hospitals became an important aspect of VHA's redefined system for the response.

The Secretary of VA noted the redefined Fourth Mission in his own words on April 14, 2020 when he said, "Helping Veterans is our first mission, but in many locations across the country we're helping states and local communities. VA is in this fight not only for

the millions of Veterans we serve each day; we're in the fight for the people of the United States."[454]

The Nation's Backstop Health Care System

The United States passed the Disaster Relief Act into law in 1974. The law established a process of Presidential disaster declarations and authorized the President to establish a program of disaster readiness utilizing the services of Federal agencies.[455] Five years later, the creation of FEMA consolidated numerous agencies into one.[456] Later, in 1988, Congress amended the Disaster Relief Act and changed its name to the Stafford Disaster Relief and Emergency Assistance Act ("Stafford Act").[457]

The Stafford Act aimed to structure and systematize Federal disaster assistance for state and local governments.[458] Still in place today, when a president declares a disaster or emergency the Stafford Act triggers financial and physical assistance through FEMA.[459] In effect, nationwide relief efforts are FEMA's charge.[460] Through FEMA, VHA may be called upon and authorized to act as a failsafe for the nation's public and private health care system.[461] On March 13, 2020, the President of the United States declared the COVID-19 pandemic a national emergency; shortly after, on March 18, 2020, the Secretary of VA agreed to provide assistance to FEMA.[462] The COVID-19 pandemic marked the first time in history that all 50 states declared emergencies under the Stafford Act.[463] VA's announced Fourth Mission actions and activities to-date in more detail on April 13, 2020, the same day that all 50 states reported at least one COVID-19 related death.[464]

VHA Response Under the VA Fourth Mission

By late March 2020, the Secretary of VA announced to governors that the VA stood ready to respond.[465] As described in the Emergency Management and Interactions and Interdependencies with Federal and State Agencies sections of this report, Fourth Mission requests are coordinated through formal processes. Formal requests are submitted through local FEMA regions; the normal process any state or local government would take in a national emergency.[466] Occasionally during the COVID-19 crisis, requests via non-traditional routes disrupted the formal request processes. Several parts of the country have not historically been impacted by large-scale disasters; in those areas, state and local governments are less familiar with the official response framework and in specific situations they made requests directly to the Secretary of VA or VISN Network Directors. VA approved these informal requests. In some cases, the EMCC could redirect informal requests to the formal process. In other cases, when the requests were not intercepted in time, EMCC had to reconcile the formal paperwork after the Mission Assignment began.

VHA provided support to states and local governments across three primary areas of Fourth Mission activity:

1. **Request for VHA Beds and Patient Transfers:** VHA made beds available through FEMA.[467] VHA received and treated both COVID-19 positive and non-COVID-19 non-Veteran patients.[468]
2. **Request for VHA Personnel to Non-VHA Facilities:** VHA deployed personnel to non-VHA facilities to help treat vulnerable people at high risk of complications due to COVID-19.[469]
3. **Request for Other Support:** VHA provided resources to state agencies in need at various locations.[470]

By June 30, 2020, VHA VISNs activated 93 Fourth Mission taskings within 65 Mission Assignments across the country, delivering on VA's commitment to be the U.S. health care system's failsafe.

Request for VHA Beds and Patient Transfers

VHA committed to provide FEMA with 1,500 beds throughout VAMCs across the country.[471] NYC was the earliest examples of this Fourth Mission tasking; in late March 2020, VHA opened 35 Med/surg and 15 ICU beds to non-Veteran patients.[472]

As shown in Figure 6.20, by June 30, 2020, the networks contributed to 11 Fourth Mission taskings involving bed capacity and patient transfers at the request of states, local governments and community organizations. By the end of June 2020, VAMCs had admitted over 275 patients.[473] Nearly 75% of those patients resided in VISN 2, New York/New Jersey VA Health Care Network, and VISN 10, VA Healthcare System.[474]

In some instances, beds allocated for surge responses and Fourth Missions went unused in areas less impacted by the pandemic. VISN 23 leadership, for example, noted many of the dedicated beds for surge measures and Fourth Mission Assignments went unutilized during the response. See the VISN Narratives section of this report for more details.

New York Fourth Missions

Leadership in the state of New York requested assistance from VHA to help ease the strain on the NYC hospitals overwhelmed with COVID-19 patients. On March 27, 2020, VISN 2 became the first network tasked with a Fourth Mission Assignment; one day later, VISN 2's VA New York Harbor HCS began receiving critical care COVID-19 patients from NYC hospitals. According to VA New York Harbor HCS leadership,

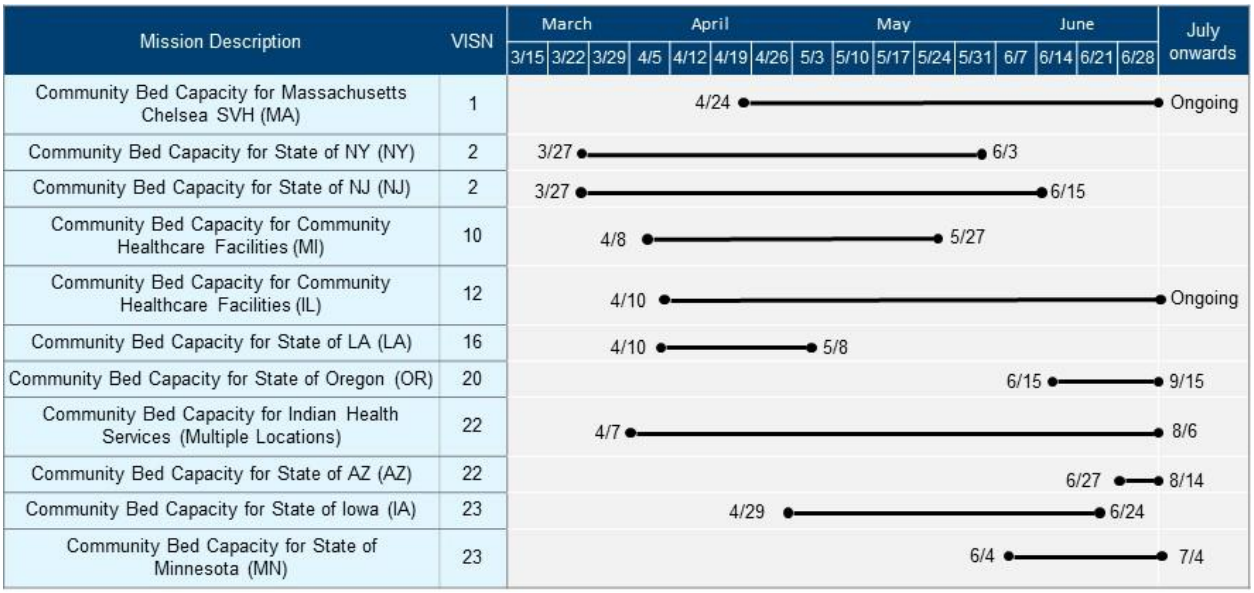
communication with external hospitals was critical to manage patient flow and ensure VA New York Harbor HCS was not overwhelmed by additional patients. VA New York Harbor HCS created a COVID-19 triage team early in the response and met regularly with the public and private hospital associations to ensure they had the necessary resources to care for community patients. As needs emerged throughout NYC, VA New York Harbor HCS accepted patients as it had availability.

Photo caption: A team of licensed practical nurses from Reno VAMC deployed to New Jersey to assist medical staff in nursing homes with COVID-19 patient care.

Photo source: "When Heroes Need Heroes," VA, 6/10/2020, https://www.blogs.va.gov/VAntage/75724/heroes-need-heroes/, accessed 10/19/2020.

As the first VISN to accept community patients under the Fourth Mission, VISN 2 recognized it would set a precedent with many of its actions. For example, VA uses social security numbers to identify Veterans and create medical records. When accepting community patients, VA needed to create a coding system to track patients; VA New York Harbor HCS generated unique numbers for each non-VHA patient and opened an electronic medical record so providers could document care. The facility sent these unique numbers to VISN leadership and VHACO multiple times throughout the day to properly track community patient admissions. One of VA New York Harbor HCS' largest surges of inpatient admissions came from Queens' Elmhurst Hospital, which had over 500 COVID-19 patients. In addition, VISN 2 created a precedent for developing policies and procedures regarding asymptomatic transmission, source control and universal masking before VHACO released formal guidance. Through the course of its early response, VISN 2 developed best practices that other VISNs later adopted in advance of surges in patient demand.

Figure 6.20 *Fourth Mission Taskings – VHA Beds & Patient Transfers (as of June 30, 2020)*



Notes: Illustration did not include Fourth Mission Taskings that had an undefined start/end date. The illustration represents the period covering March 1, 2020 to June 30, 2020.

Source: Responses from Data Calls, VHA, July and August 2020.

Requests for VHA Personnel to Non-VHA Facilities

Another major focus of Fourth Mission efforts, as of June 30, 2020, was to provide staffing support to non-VHA facilities.[475] Advisors, managers, trainers and clinicians are only a few of the range of roles VHA made available to SVHs, CNHs and other Federal health systems such as IHS and Indian Country-operated health care centers.[476]

VA placed a high priority on SVHs, in particular because SVHs house Veterans who are highly vulnerable to the virus and faced the high risk. To help protect Veterans, VA formally certifies facilities as SVHs and then surveys all designated SVH facilities each year to ensure they continue to meet VA standards.[477] VA reports on observed SVH deficiencies and recommendations for improvement. This process requires the VISN VAMC's Director of Jurisdiction to approve all corrective action plans.

At the Bill Nichols SVH in Alexander City, AL, an outbreak left the SVH in need of clinical personnel to assist more than 90 Veteran residents.[478] Nurses at the Birmingham VAHCS mobilized and deployed through FEMA response operations to the SVH from April 24, 2020 to June 4, 2020.[479] The team, consisting of nine nurses, provided direct nursing care at the Bill Nichols SVH.[480]

Figure 6.21 *Fourth Mission – VHA Personnel to Non-VHA Facilities (as of June 30, 2020)*

Mission Description	VISN	March	April	May	June	July onwards
Staffing Supplement for Massachusetts CNHs (MA)	1	4/4 – 4/8				
Staffing Supplement for Rhode Island CNHs (RI)	1		4/22 – 5/20			
Staffing Supplement for Rhode Island SVH (RI)	1			5/13 – 6/22		
Staffing Supplement for New Hampshire Community Hospital and CNHs (NH)	1			6/5 – 6/19		
Staffing Supplement and Education for Paramus and Menlo Park SVHs (NJ)	2		4/20 – 6/1			
Staffing Support and Subject Matter Expertise for Delaware CNHs (DE)	4		4/16 – 6/30			
Staffing Support and Subject Matter Expertise for Southeastern Pennsylvania SVH (VA)	4		4/23 – 7/11			
Staffing Support and Subject Matter Expertise for New Jersey SVHs and CNHs (NJ)	4			5/17 – 6/3		
Staffing Supplement for Menlo Park SVH (NJ)	5		4/26 – 6/2			
Staffing Supplement for Charlotte Hall SVH (MD)	5			5/25 – 6/22		
Facility Safety, Logistics, and Infection Control Review for Charlotte Hall SVH (MD)	5			5/25 – 6/22		
Staffing Supplement for Waters Edge Healthcare and Rehabilitation (CT)	5			6/2 – 6/30		
Testing Support for Caswell Development Center (NC)	6			5/15 – 5/18		
Staffing Supplement and PPE Support for LTC and Skilled Nursing Facilities (VA)	6				6/22 – 7/25	
Staffing Supplement for Bill Nichols SVH (AL)	7		4/20 – 6/6			
Staffing Supplement for Veterans Victory House SVH (SC)	7			6/6 – 7/19		
Staffing Supplement & Education for 61 Florida SVHs and CNHs (FL)	8		4/21 – Ongoing			
Staffing Supplement for Bureau Indian Health Affairs (AZ)	9				6/21 – 7/4	
Staffing Supplement for Rhode Island SVH (RI)	9				6/21 – 7/4	
Pharmacy Support and Staffing Supplement for Detroit Federal Medical Station (MI)	10			5/18 – 6/6		
Staffing Supplement for Milwaukee Alternate Care Facility Site (WI)	12		4/27 – 5/10			
Community Skilled Nursing Home Bed Capacity for Community Healthcare Facilities (IL)	12		5/1 – 6/2			
Staffing Supplement for Indian Health Services (NM)	15			5/23 – 7/7		
Staffing Supplement for Indian Health Services (AZ)	15			6/5 – 7/7		
Staffing Supplement for Indian Health Services (AZ)	15			6/5 – 7/3		
Staffing Supplement for Charlotte Hall SVH (MD)	15			6/7 – 6/23		
Staffing Supplement for Rhode Island SVH (RI)	15			6/8 – 6/22		
Staffing Supplement for New Jersey Department of Health (NJ)	15				6/17 – 6/30	
Staffing Supplement for Southeastern Veterans Center SVH (PA)	15				6/17 – 6/30	
Staffing Supplement for Indian Health Services (AZ)	15				6/22 – 8/5	
Staffing Supplement for VA Department of Health (VA)	15				6/23 – 7/7	
Staffing Supplement and Education for Multiple Florida CNHs (FL)	16		4/21 – 5/21			
Staffing Supplement for Indian Health Services (AZ)	19			5/7 – 5/20		
Staffing Supplement for Indian Health Services (NM)	19			5/8 – 5/22		
Staffing Supplement for Charlotte Hall SVH (MD)	19			6/7 – 6/7		
Staffing Supplement for Indian Health Services (AZ)	19				6/21 – 7/4	
Staffing Supplement for Premier Cadbury of Cherry Hill (NJ)	21			5/18 – 6/15		
Staffing Supplement for Gallup Indian Medical Center (Indian Health Services) (NM)	21			6/6 – 7/7		
Staffing Supplement for Charlotte Hall Veterans Home (MD)	21			6/7 – 6/23		
Staffing Supplement for Tuba City Regional Health Care (Indian Health Services) (AZ)	21				6/22 – 7/6	
Staffing Supplement for State of CA (CA)	22		4/30 – 6/29			
Staffing Supplement for Indian Health Services (Navajo Nation)	22			5/4 – 8/19		
Staffing Supplement for Tuba City Indian Medical Center (Navajo Nation)	22			5/5 – 7/6		
Staffing Supplement for Whiteriver Indian Hospital, Indian Health Services (AZ)	22				6/20 – 8/17	
Staffing Supplement for Iowa Veterans Home (IA)	23		4/26 – 6/29			

Notes: Illustration did not include Fourth Mission Taskings that had an undefined start/end date. The illustration represents the period covering March 1, 2020 to June 30, 2020.

Source: Responses from Data Calls, VHA, July and August 2020.

VA's Fourth Mission personnel deployments also included other Federal health systems, as shown in Figure 6.21. VHA personnel deployed through DEMPS response processes to multiple IHS facilities, as well as Indian Country-operated health care centers, scattered throughout Arizona and New Mexico, areas that are home to communities particularly impacted by the virus.[481]

IHS Fourth Missions

In April 2020 and May 2020, IHS requested assistance from VHA to supplement personnel and care for Navajo Nation patients with COVID-19 IHS sites, including Chinle Comprehensive Health Care Facility, Kayenta Health Center, Gallup Indian Medical Center, Crownpoint Health Care Facility and Shiprock-Northern Navajo Medical Center. From May 2020 to June 2020, eight VISNs responded to the request through DEMPS response processes and deployed approximately 50 Registered Nurses to the sites impacted by COVID-19.[482]

Additionally, VA provided staffing support to Whiteriver Indian Hospital, which is operated by the IHS and located in Arizona, an area where Apache Nation residents reside. Personnel from VISNs 9, 10, 15, 19, 20, 22 and 23 were deployed to Whiteriver Indian Hospital. See the VISN Narratives section for more Fourth Mission details.

In early May 2020, after an outbreak emerged in northeastern Arizona and northwestern New Mexico where Navajo Nation residents reside, VHA activated Fourth Mission support to help Tuba City Regional Health Care counter a steady influx of COVID-19 patients requiring hospitalizations.[483] The facility converted its pediatric unit to acute care in order to expand capacity and needed additional acute care personnel to help treat COVID-19 positive patients. VISNs 8, 21 and 22 responded to the request and deployed approximately 50 Registered Nurses and 2 Nurse Managers to Tuba City Regional Health Care from May 2020 to July 2020.[484] The Nurses specialized in critical care and came from VHA respiratory care units, Med/Surg units and ICUs.

According to VISN 22 leadership, cultural training was an important element of onboarding VHA personnel as they arrived at facilities such as Tuba City Regional Health Care. The first DEMPS group who served at Tuba City Regional Health Care created an onboarding presentation about cultural awareness, helping subsequent waves of DEMPS volunteers as they provided care to patients and worked alongside their new counterparts. Additionally, VISN 22 leadership noted the importance of maintaining clear line of sight into how deployed personnel fared. An established clinical liaison at the network or facility level provided personnel with resources and assistance while they were deployed at non-VHA sites. The liaison communicated the status of deployed personnel on a daily basis, ensuring VISN leadership always knew

the status of their deployed personnel. As shown in Figure 6.21, 16 of 18 VISNs sent personnel to non-VHA facilities by June 30, 2020. In total, VHA initiated 45 Fourth Mission taskings related to personnel deployments. IHS and Indian Country health care centers received VHA personnel as part of 13 Fourth Mission taskings. Nursing homes, including SVHs and CNHs, received VHA personnel as part of 21 Fourth Mission taskings.

Request for Other Support

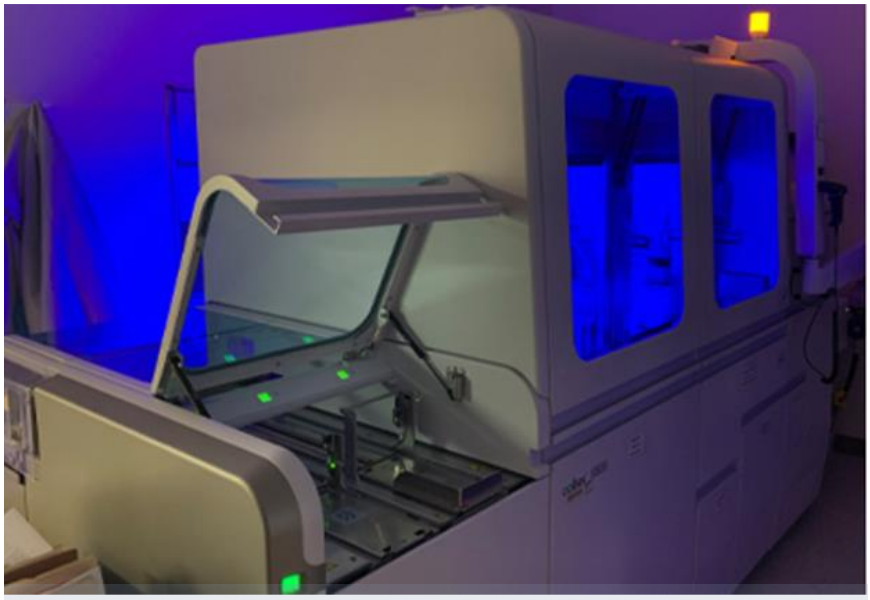


Photo caption: The Roche Cobas is a high-volume analyzer used for COVID-19 testing. Since April 2020, the Columbia VA has performed more than 17,000 tests for VA facilities and SVHs in the Southeast United States.

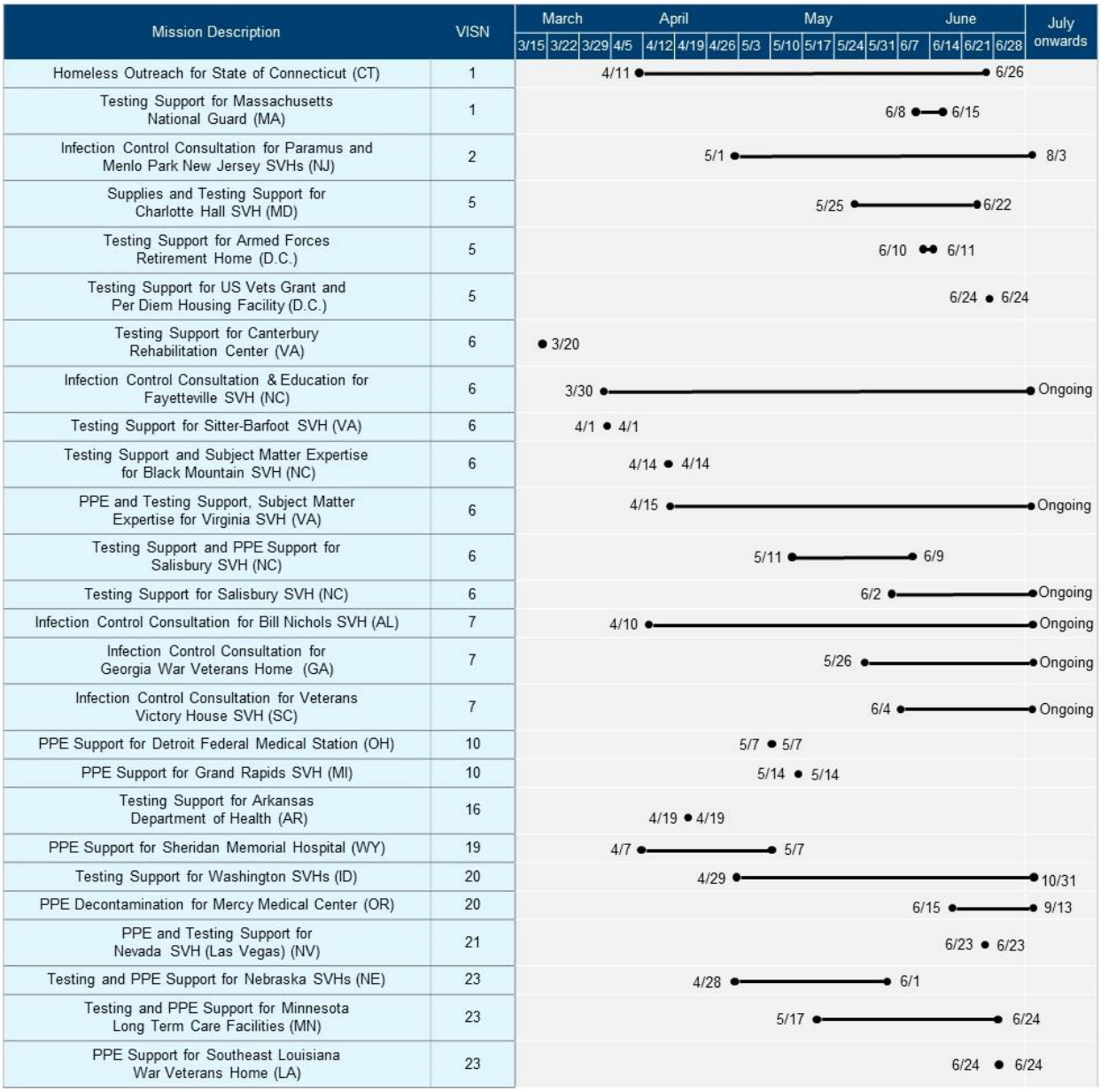
Source: "Fourth Mission: Columbia VA provides needed support to veterans' homes in Southeast," VA, 7/21/2020, https://www.columbiasc.va.gov/features/2020/Fourth_Mission_Story.asp, accessed 10/14/2020.

Another major focus of VA's Fourth Mission support, as of June 30, 2020, was to provide state and local communities with resources.[485] VHA provided resources such as testing, equipment, supplies and mobile units, as well as services such as community outreach and consultations.[486] In Idaho, for example, VHA supported a state testing lab by providing 2,400 test kits.[487] In New Orleans, where one of the country's major outbreaks occurred, VHA provided 500 surgical gowns and 500 face masks to the Southeast Louisiana War Veterans Home.[488] In Detroit, VHA brought in a Mobile Pharmacy unit to support a temporary Alternate Site of Care established at the TCF Center by Federal, state and local authorities.[489]

Additionally, VHA sent four ventilators to Southwest Medical Center in Liberal, KS as part of an emergency request from the FEMA Deputy Federal Coordinating Officer

representing Kansas on May 1, 2020. Staff from the Robert J. Dole VA Medical and Regional Office Center delivered the requested ventilators to the Wichita Dwight D. Eisenhower National Airport; the Army National Guard then delivered the ventilators to the Southwest Medical Center in Liberal, Seward County, KS (over 200 miles away from Wichita, Kansas) via helicopter. Notably, the total time from emergency request to delivery was less than 4 hours.

Figure 6.22 *Fourth Mission – Other Support (as of June 30, 2020)*



Notes: Illustration did not include Fourth Mission Taskings that had an undefined start/end date. The illustration represents the period covering March 1, 2020 to June 30, 2020.

Source: Responses from Data Calls, VHA, July and August 2020.

Across the Nation, VHA and VISN Network Directors conducted outreach activities to communities in need. In New Hampshire and Connecticut, VISN 1 completed Veteran outreach at homeless shelters.[490] In Iowa, VHA held a virtual town hall with Veterans Service Organizations.[491] In Ohio, VHA supported the transformation of the convention center to a hospital in conjunction with the Greater Cincinnati Health Collaborative.[492] As indicated in

Figure 6.22, from March 2020 to June 2020, VHA completed 26 Fourth Mission taskings involving testing, equipment, supplies, mobile unites, community outreach and consultations.

Listening Sessions with Deployed Employees

Following the completion of initial Fourth Mission Assignments supporting SVHs and CNHs, VHA hosted Listening Sessions with volunteers who deployed to various SVH and CNH facilities across the country.[493] The stated goal of the Listening Sessions was to help VHA better understand volunteers' perspectives of the situations experienced at the SVH and CNH facilities, training provided, overall deployment experiences and best practices observed in order to help better prepare the SVHs, CNHs and VHA for future pandemic responses.[494]

To gather observations, lessons learned and recommendations, VHA hosted 20 Listening Sessions including deployed volunteers, SVH and CNH leadership and VHA leadership involved in deployment.[495] For the sessions involving VHA volunteers, VHA asked consistent set of questions and requested anonymous feedback around four key topics: conditions, training, deployment and culture.[496] Common themes emerged during the Listening Sessions and most feedback focused on a lack of Infection Control and PPE knowledge at the SVHs and CNHs, staffing and PPE shortages at the facilities, inadequate training, inconsistencies in the deployment and post-deployment experience and a lack of understanding by the SVHs and CNHs regarding VHA volunteers' role and purpose at their facility.[497]

The first theme observed, a lack of infection control and PPE knowledge at the SVHs and CNHs, applied to many sites based on VHA volunteers' feedback.[498] VHA volunteers reported that SVH and CNH personnel did not know how to use PPE properly, frequently did not separate COVID-19 positive residents from others and did not properly disinfect the facilities.[499] One volunteer reported that they wiped down hand railings themselves; they also noted that no overnight cleaning personnel existed at their facility.[500] VHA volunteers spent time educating the SVH and CNH personnel on proper infection control and PPE procedures, as well as how to properly isolate COVID-19 positive patients from the rest of the residents.[501] Some personnel at the SVHs and CNHs received feedback and training well, but in some instances VHA

volunteers encountered resistance, both from facility personnel and facility leadership, when trying to transfer knowledge. One VHA volunteer reported that their facility told them, “you are not here to provide training of any kind, you are here to support and maintain the norm.”[502]

Another common theme voiced by deployed volunteers related to inconsistencies in the deployment and post-deployment processes.[503] Volunteers noted inconsistencies or challenges regarding logistics during deployment, such as booking travel in a timely manner; however, some personnel noted that they had only positive experiences settling logistics.[504] Another item noted by multiple personnel was inconsistent post-deployment policies at their home VAMCs regarding their return to work upon completion of their deployment. Some VAMCs required an immediate return to work while others mandated time off for quarantine or rest given the intensity of the volunteers’ deployment.[505] Multiple VHA volunteers noted that they thought it was important to provide time off upon return to both ensure safety and “recalibrate” after working extensive hours in a challenging environment during deployment.[506]

During the Listening Sessions, deployed volunteers cited a lack of communication at the SVHs and CNHs regarding the purpose of VHA volunteers’ deployment, as well as a general attitude of distrust from facility personnel.[507] Some volunteers reported that the facility personnel believed volunteers were there to inspect or report them to a government entity; other facility personnel did not want to be criticized or educated by the volunteers.[508] Volunteers reported that many facility personnel appeared to be overworked or scared during this time period, likely due to the environment that they were operating in.[509] VHA volunteers provided mixed responses regarding the facility personnel’s attitude at the end of their deployment; some volunteers reported that the facility personnel eventually appreciated their support.[510]

Despite the challenging environments reported at many of the SVHs and CNHs, the majority of participants in the Listening Sessions stated that they would deploy again. They also stated that they felt they made a difference to both the Veterans they cared for and the personnel at the SVHs and CNHs. When asked what motivated them to deploy, one volunteer responded, “they are Veterans and they needed our help,” while another simply stated, “it’s what Nurses do.”[511] After completing the 20 Listening Sessions, VHA compiled a report titled “The COVID-19 VHA Rapid and Agile Response to State Veteran Homes and Community Nursing Homes: Listening Sessions and Lessons-Learned Report.” In the report, VHA documented formal lessons learned and recommendations to improve coordination with SVHs and CNHs during a pandemic response in the future.[512]

VA COVID-19 RESPONSE IN ACTION: FOURTH MISSION

Nurses Deploy for Fourth Mission Assignment to Tuba City, Arizona

In early May 2020, after an outbreak of COVID-19 emerged in northwest Arizona, a mix of 16 Med/surg and critical care nurses received Fourth Mission assignments to Tuba City Regional Health Care in Arizona to care for patients with COVID-19. Stephanie Murray, a Registered Nurse, had initially received orders to deploy to Los Angeles but was rerouted to Tuba City, AZ at the last minute. “I got a text message from my supervisor on a Sunday,” she said. “I needed to be packed and headed to the site within 24 hours. I’m thinking, do I have the knowledge base for this? Am I smart enough? Am I going to be able to do this, go into a new place, working with people that I’ve never worked with before, into a facility where I don’t know their specific rules and regulations?”

The VA nurses and the Tuba City Regional Health Care personnel worked side-by-side in the COVID-19 unit. “In each one of the units, it was about half and half with Tuba City staff and the staff from VA,” Stephanie said. “We always had an amazing Nursing Assistant, either one or two working with us. We were just all like one big family working for the shift. If the alarms were sounding because the patient’s oxygen level was dropping, it was everybody’s responsibility to go check. It wasn’t like, oh that’s your patient. No, you hear a dinging, and before you know it, everybody’s standing up and they’ve got their ear turned trying to figure out where the alarm is coming from. It was super helpful because you knew they had your back.”

Stephanie shared that Tuba City Regional Health Care took care of the VA nurses as their own employees. “We were just one of them,” Stephanie said. “Our employee that wasn’t feeling well ended up getting taken care of right away. He went there the first time and then needed to go back for a follow-up and they took great care of him at nighttime,” Stephanie said. In describing her Fourth Mission deployment experience, Stephanie stated, “It’s so exhausting being in that environment,” she said. “On your days off you just need that time to rest. But having said that, we did get invitations for dinners and hikes.” The VA nurses and Tuba City Regional Health Care staff still communicate today. “We’ve talked about getting together outside of there and when things slow down and all the isolation stuff goes away.”

Source: Interview with VISN 22 staff conducted on 8/10/2020.

Research/Innovation Related to COVID-19 and Impacts to Existing Research Projects

ORD conducts and supports projects across all VA facilities that have research programs. Research programs include a diverse array of research areas such as clinical trials, which include trials of therapeutic interventions and vaccines, and other research studies that do not involve interventions (for example, studies on genetic contributors to diseases and prevention measures).[513] For simplicity, this section uses the terms “studies” and “research studies” to encompass all these types of research projects.

At any given time, ORD supports thousands of individual research studies across three main domains:

1. VHA-led research studies
2. Participation with other Federal agencies’ studies
3. Industry studies (private-sector research studies such as studies led by pharmaceutical companies)

Additionally, ORD participates in studies involving academic and non-profit partners.

ORD’s COVID-19 response planning started in late January 2020, soon after the U.S. confirmed its first COVID-19 case on January 20, 2020.[514] On January 31, 2020, ORD met with the National Research Advisory Council (NRAC) Chair regarding the VA’s research response to COVID-19.[515] The NRAC provides advice to the Secretary of VA “on the nature and scope of research and development sponsored and/or conducted by the [VHA], to include policies and programs of [ORD].”[516] ORD met with the NRAC committee on March 4, 2020 as well.[517] The following day, on March 5, 2020, ORD conducted its first official COVID-19 response team meeting and begin organizing its response.[518] ORD’s planning encompassed preparation across two research study populations. First, ORD planned for new COVID-19 studies, in particular how to accelerate the startup of new studies and source ideas for additional COVID-19 studies; second, ORD planned on how to address the thousands of existing studies (notably whether to resume them or place them on hold due to safety concerns). This section focuses on highlighting efforts taken by ORD across these two populations of research studies; however, it is not a comprehensive description of all activities undertaken by ORD in response to COVID-19. Additionally, Appendix C lists COVID-19 studies in which VHA participated.

COVID-19 Research Studies

As of June 29, 2020, VHA participated in more than 90 COVID-19 research studies across all three of its domains: VHA-led, Federal-led and private sector.[519] ORD prioritized Federal-led research studies and has participated in four Federal-led studies as of June 30, 2020. Additionally, VA also participated in the national convalescent plasma expanded access protocol led by the Mayo Clinic and funded by HHS.[520] As of the date of this report, the two major Federal research efforts were Operation Warp Speed and Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV).[521] Operation Warp Speed launched as a joint effort among several Federal agencies and industry and is part of a broader Federal strategy to accelerate the development, manufacturing and distribution of COVID-19 vaccines, therapeutics and diagnostics.[522] As of June 30, 2020, Operation Warp Speed encompassed vaccine studies and nearly 40 VA research sites had expressed interest in participating in the Operation Warp Speed trials; one site was shortly thereafter selected for participation in the Moderna vaccine clinical trial.[523] Another VA research site was expected join its academic affiliate to participate in the AstraZeneca vaccine trial.[524] The Moderna trial was the first vaccine clinical trial under Operation Warp Speed. ACTIV, which is part of Operation Warp Speed, involves public-private partnerships led by NIH. As of June 30, 2020, ACTIV focused more on therapeutics and VHA had significant efforts underway in ACTIV-2 and ACTIV-3, which are platform protocols of newly developed SARS-CoV-2 neutralizing monoclonal antibodies to treat persons with mild to severe COVID-19.[525]

VHA also participated in seven industry-led studies related to COVID-19 as of June 30, 2020, the majority of which launched prior to Operation Warp Speed.[526] In order to identify opportunities, ORD made industry contacts aware of VHA's interest in participating in industry trials using its relationships from past research studies and from an ongoing Access to Clinical Trials for Veterans initiative that started in 2018. VHA also accelerated its work under this initiative to enable faster start up for these COVID-19 studies.[527] Historically, VHA has taken approximately 300 days on average to start up a clinical trial; however, during the COVID-19 response, ORD significantly reduced that timeframe and one trial started in under five days.[528] ORD also used its newly-established Partnered Research Program to accelerate the time that it takes to start up trials by streamlining processes for how external parties work with VHA. An example of an industry-led study that VHA participated in, as of the date of this report, was a study sponsored by Alexion to look at a monoclonal antibody, Ravulizumab, in patients with severe pneumonia, acute lung injury or acute respiratory distress syndrome.

As of July 6, 2020, VHA led 28 studies on COVID-19 in various stages, many of which began in the latter part of June 2020 or early July 2020.[529] See Appendix C for a list of these 28 studies. In order to rapidly identify research opportunities, ORD published requests for applications focused on non-clinical trial studies. In addition, early in the COVID-19 response, ORD set up a mailbox to receive ideas and questions from the field; it also assembled a steering committee of experts to conduct rapid reviews of ideas and guide the process of identifying opportunities to study COVID-19. Hundreds of ideas came into the mailbox and encompassed a diverse array of ideas, including studying the mental health consequences of COVID-19 and utilizing the vast array of VHA data resources to conduct data-driven analyses.

Photo caption: Dr. Parisa Khan, a clinical pharmacist at VA Las Vegas and a recovered COVID-19 patient, donated her convalescent plasma, which is being used as an investigational treatment in a Mayo Clinic study.
Source: "VA pharmacist donates blood plasma as part of efforts to find treatment for COVID-19," VA, 6/3/2020, https://www.blogs.va.gov/VAntage/75546/va-pharmacist-donates-blood-plasma-as-part-of-efforts-to-find-treatment-for-covid-19, accessed 10/14/2020.

There are multiple ongoing VHA research efforts that enabled COVID-19 projects led by VHA.[530] For example, VHA collaborated with the DOE, where a copy of VHA electronic health data are held, to use advanced data science techniques to make discoveries. VHA has historically participated in, and as of June 30, 2020 continued to participate in, an ongoing effort with HHS to combine electronic health records data from VHA and HHS. Together with the DOE, VA and HHS formed the COVID-19 Insights Partnership to coordinate and share health data, research and expertise to aid in the fight against COVID-19.[531] HHS data includes Medicare and Medicaid data.[532] Through the VINCI initiative, researchers can gain access to VA data related to COVID-19 for analysis while ensuring Veterans' privacy and data security.[533] Additionally, VHA leads an existing study called the Million Veteran Program (MVP),

a national research program to understand how genes, lifestyle and military exposures affect health and illness. The MVP has enrolled over 825,000 Veteran participants since its 2011 launch.[534] As discussed in the following Existing Research Studies section, in-person recruitment into the MVP was largely paused; however, online recruitment and enrollment continued as of the date of this report. The MVP has launched a COVID-19 survey to its participants and is starting up a pilot to study seroconversion by collecting blood samples from COVID-19 positive MVP participants in their homes. The MVP has also launched a comprehensive scientific study to understand the role of genetics in susceptibility to SARS-CoV-2 infection, COVID-19 disease severity, complications and mortality. The study also aims at understanding the role of genetics in responding to COVID-19 medications, identification of new drug targets for treatment and understanding the mechanisms of COVID-19 disease.[535]

Existing Research Studies

As previously noted, ORD supports thousands of individual research studies at any given time. The vast majority of existing studies had to be placed on hold due to safety concerns with COVID-19. The following describes the impact for existing VHA-led studies and non-VHA-led studies.

For VHA-funded studies, on March 17, 2020, the Chief Research and Development Officer issued notification of an administrative hold on VA-funded studies that did not involve critical interactions.[536] At that time, ORD had 2,319 active VA-funded studies.[537] A survey of the field completed on August 17, 2020 determined that 1,300 VA-funded studies had been put on hold in response to the pandemic (1,004 on partial hold and 296 on full hold).[538] The primary factors for determining whether a VHA-funded study could be continued included whether the study directly benefitted the participant's well-being and whether the study required in-person interaction with medical facility clinicians and/or staff. For example, VHA deemed oncology (cancer) studies and suicide prevention studies essential for patients and as a result were continued, sometimes with modifications for participant and research safety; for example, a switch to virtual methods of interaction. ORD paused parts of the MVP that involve in-person interaction by Veterans as enrollment in MVP did not directly benefit the Veteran participants. As of September 2020, in-person MVP enrollment had resumed with appropriate safety precautions at 4 of 60-plus sites and additional sites were expected to continue to reopen safely in phases.[539]

For non-VHA led studies, ORD determined that, during the time of the pandemic, there were over 1,800 other studies at 78 locations supported by the VA-affiliated non-profit corporations.[540] The VA facility, principal investigator or sponsor placed holds on 61% of these studies.[541]

Other ORD efforts related to COVID-19

ORD aided the COVID-19 response in other ways supplemental to studies. ORD leadership noted that it conducted recruitment for trials as well as worked closely with VAMCs and clinical operations to identify and address barriers to participating in the Operation Warp Speed trials.[542] As part of ORD's Evidence Synthesis Program, ORD personnel collaborated with the WHO to comb through scientific literature related to COVID-19, assess the quality of those published studies and generate syntheses of them. These syntheses were published and made available to VHA leadership. Additionally, ORD supported COVID-19 research through a safety and effectiveness work group; this group was part of an effort to assess and implement models to distinguish the severity of COVID-19 in patient. Also, ORD's biorepository team worked to develop requirements that would allow synergies for COVID-19 studies where possible. A biorepository is a collection of specimens (for example, blood samples) that can be analyzed by researchers to arrive at correlations between biomarkers, biochemical features or genetic markers and outcomes.

Financial Management

VHA received approximately $17.4 billion in appropriations through the CARES Act to fund incremental costs associated with VHA's response to COVID-19.[543] Additionally, the CARES Act appropriated $2.15 billion to VA for OI&T. The $17.4 billion excludes agreements with other agencies; these agreements consist primarily of reimbursements from FEMA for Fourth Mission Assignments, estimated at $210 million (VHA has received $14 million).[544] This section focuses on the $17.4 billion in CARES Act supplemental funding and Fourth Mission Assignment reimbursements.

Supplemental Funding for COVID-19

The CARES Act provided supplemental funding over VHA's base budget. For example, an existing nurse's salary is already covered in VHA's base budget for the year. For simplicity, this section refers to amounts obligated as expenditures or spent amounts. The $17.4 billion is planned to be spent across two FYs: FY 2020 and FY 2021.[545] The CARES Act was passed in the middle of FY 2020 and approximately $5 billion was planned to be spent in the remainder of FY 2020. Of this approximately $5 billion, approximately $1.9 billion had been spent as of June 30, 2020.

By providing supplemental funding, the CARES Act augmented VHA's ability to respond to COVID-19. The following list identifies six areas that have been or are expected to be significantly enabled by the CARES Act supplemental funding:

1. **Supply Chain Modernization:** As described in the Support Services section, VHA deemed the acceleration of modernization of supply chain management urgent, including technology enhancements, moving towards a shared services model and standing up Regional Readiness Centers. As the vast majority of the CARES Act funding appropriated for VHA is under the "Care Delivery Costs" category, utilizing CARES Act funding for supply chain modernization may require Congressional approval.[546]
2. **Expansion of VA Connected Care capacity and capability (includes telehealth):** VHA's Office of Connected Care brings VA digital technology to Veterans and health care professionals, extending access to care beyond the traditional office visit.[547] As noted in the Virtual Care section of this report, virtual care increased dramatically during the COVID-19 response. The CARES Act designated $300M to expand telehealth capabilities to supplement the $300M included in the 2021 Budget request.[548]
3. **Clinical Contact Center Modernization:** During the COVID-19 response, the Clinical Contact Center Modernization efforts came to the forefront with increased expectations, organization and milestones. The supplemental

funding enabled expansion from 1.5 dedicated full-time equivalents to an estimated $250 million in funding dedicated for the efforts.

4. **Deployable Temporary Care Equipment:** Includes purchase of tents and mobile units, as described in the Emergency Management section of this report.
5. **Staffing:** CARES Act funds are available to support salary costs associated with COVID-19 responsibilities through a medical center.[549] This includes partial salary costs for individuals working COVID-19, as well as the costs for the net gain in employees hired during the respond to enable expansion of VHA capacity for care.[550]
6. **Support to Deployed Staff:** Covered cost of travel, lodging, meals and the like for deployed staff.

The CARES Act also designated funding for Veterans experiencing homelessness and SVHs.[551] It designated approximately $971 million to help Veterans experiencing homelessness and required VA to ensure that telehealth capabilities are available during a public health emergency for case managers and Veterans participating in the HUD-VASH program.[552] HUD-VASH is a joint program between the Department of Housing and Urban Development (HUD) and VA that combines HUD housing vouchers with VA services to help Veterans, as well as their families, who are homeless find and sustain permanent housing.[553] The CARES Act designated approximately $150 million in construction grants for SVHs' emergency requirements.[554]

Fourth Mission Reimbursement

Fourth Missions have associated inter/intra-agency agreements, referred to as Mission Assignments, that direct agencies to provide goods and/or services pursuant to a declaration under the Stafford Act.[555] In some cases, due to the urgency of an emergency such as a hurricane (or COVID-19 outbreak), goods and/or services are provided in parallel to formalizing the Mission Assignment. The Mission Assignment is issued to VHA using a DHS/FEMA standardized form that identifies funding, funding limitations, the requirements of the tasks to be performed, completion date and State cost-share requirements, as applicable.[556]

For VAMCs providing inpatient care for non-Veterans under Mission Assignments, reimbursement is set out as a daily rate based on national average costs, by bed type, as shown in Table 6.3.[557]

Table 6.3 *Mission Assignment Reimbursement Rates for Inpatient Care*

Type of Bed	Rate
Med / Surg	$3,835
ICU	$6,485
CLC	$1,178
Mental Health Acute	$2,249
Mental Health Non-acute	$1,372
Observation	$2,429

Source: "Updated FY20 COVID-19 Reimbursement Process," VHA Office of Finance, 7/2/2020.

As of June 30, 2020, VHA Finance estimates $210 million in total reimbursements; reimbursement is subject to change and approval by FEMA upon review of supporting documentation after completion of each Mission Assignment.[558]

Moving Forward Plan

In March 2020, VHA cancelled elective surgeries and instructed facilities to move primary care and mental health encounters to virtual modalities. In late March 2020, VHA provided additional guidance related to specialty care and when it was appropriate to conduct in-person versus virtual visits. VHA monitored appointment cancellations, follow-up on cancellations and the breakdown of care delivery (virtual or in-person) by practice area.

Towards the end of April 2020, VHA began to discuss reopening use case sites and developed the Moving Forward Plan to outline how VHA facilities would resume services. The Secretary of VA approved the VHA Moving Forward Plan on May 4, 2020 and VHA provided the plan to the VISNs, as well as to Congress, on May 8, 2020.[559]

Table 6.4 *Moving Forward Plan Gating Criteria*

Symptoms[A]	Cases	Medical Facilities
The state or region in which the facility is located has a downward trajectory of influenza-like illnesses reported within a 14-day period **AND** A downward trajectory of COVID-like syndromic cases reported within a 14-day period	The state or region in which the facility is located has a downward trajectory of documented cases of COVID-19 within a 14-day period **OR** A downward trajectory of positive COVID-19 tests as a percent of total COVID-19 tests within a 14-day period (flat or increasing volume of tests)	The facility is able to treat all patients within the normal standard of care (not the crisis standard of care) **AND** A robust testing program is in place for at-risk healthcare workers, including emerging antibody testing
VISNs and VAMCs may need to tailor application of these criteria to local circumstances (for example, metropolitan areas that have suffered severe COVID-19 outbreaks, rural and suburban areas where outbreaks have not occurred or have been mild).		

Notes: This table was taken as verbatim from the source.

[A] Based on CDC and NST, if market-specific data is unavailable, consider facility Emergency Department Dashboard.

Source: “VHA Moving Forward Plan: Safe Care is Our Mission," VHA, 4/30/2020.

The Moving Forward Plan, which was developed in accordance with the White House Guidelines for Opening Up America Again, provided standard guidelines for general/elective surgery, other procedures and inpatient and outpatient care.[560] The Moving Forward Plan instructed that standard guidance should be tailored to individual VISNs and VAMCs in order to conform with Federal, state and local guidance.[561] The Moving Forward Plan set forth gating criteria for resuming elective procedures. The

gating criteria were aligned with the White House guidelines during development and are set forth in Table 6.4.[562]

The Moving Forward Plan lays out a communication campaign and provides multiple documents to the field for consistent messaging and to reinforce “top line” messaging (such as safety as the top priority), emphasizing commitment to VHA’s mission.[563] VHA outlines a risk-based framework to prioritize non-urgent procedures.[564] Factors include patient factors, such as age or immunocompromise; disease factors, such as impact of disease from various periods of delay; staff safety, such as low, medium or high risk based on respiratory droplet exposure; and resource considerations, such as volume of pending cases or how much PPE would be consumed through the procedure.[565] The risk-based framework explains that as part of the patient and disease factors, vulnerable populations will be prioritized.[566] The Moving Forward Plan encourages VA facilities to prioritize virtual modalities of care whenever possible; it also encourages facilities to educate Veterans about virtual care and dispel myths about it.[567]

On May 18, 2020, Moving Forward use-case sites began to reintroduce services and VHA held national, as well as consortium-based, calls to allow for open dialogue and lessons to be shared; however, shortly thereafter on May 28, 2020, the United States saw deaths in the country surpass 100,000.[568] Additionally, in the following weeks, southern states in the United States began to see a sharp rise in COVID-19 cases.[569] As a result, some VISNs and VAMCs had to pause, or reverse, their reopening plans to refocus on treatment of COVID-19 patients. Decisions on managing the reopening of facilities was made on an individual basis depending on the level of demand for COVID-19 care in the community and region of each VAMC.

On May 22, 2020, VHA released additional detailed guidance on resumption of procedures for non-urgent and elective procedures, including how to consider risk of COVID-19 transfer during the procedure (low risk to high risk) and guidance on when COVID-19 testing is required based on the risk profile.[570] VHA also provided guidance on case prioritization and scheduling, guidance across the different stages (before, during and after the procedure, as well as post-procedure management), environment of care (for example, cleaning, storage, room downtime between patients) and detailed guidance regarding examples of procedures considered higher-risk for generating aerosols.[571]

In June 2020, VHA also released two iterations of a tactical guidebook to complement the Moving Forward Plan and provide guidelines for multiple facets of the COVID-19 response including screening, PPE, testing, training, service expansion and resumption.[572] The guidance around the guidebook also encouraged VISN and facility leadership to share "Moving Forward Promising Practices," which are local strategies

and approaches, with other VISNs and facilities.[573] The guidebook includes eight examples of these Moving Forward Promising Practices with links to more information.[574]

VISN NARRATIVES

Cross-VISN Summary

VHA delivers health care services to its beneficiaries through 18 geographically divided administrative areas known as VISNs.[575] Each VISN manages day-to-day functions and is responsible for health care planning and resource allocation in its respective region.[576] The 18 VISNs provide health care services for Veterans across all 50 states, Puerto Rico, the Virgin Islands, Guam, the Philippines and American Samoa, as shown in Figure 7.1. Within each VISN, Veterans can receive treatment in a variety of facilities including a VAHCS / VAMC, CLCs and outpatient clinics, which include CBOCs. In total, VHA has 187 VAHCS / VAMCs, 134 CLCs and 930 outpatient clinics which includes 741 CBOCs.[577]

Figure 7.1 *VHA VISN Locations by Geographic Region (as of June 30, 2020)*

Source: "Interactive US Map," VA, updated 10/12/2018, https://www.va.gov/directory/guide/map.asp?dnum=1, accessed 9/21/2020.

This Cross-VISN Summary section provides an overview of strengths and challenges the VISNs encountered in their response to COVID-19 through June 30, 2020. This section details salient data for all VISNs, common cross-VISN strengths and challenges and Network Directors' appraisal of the response. Following this Cross-VISN Summary section are 18 distinct VISN narratives that provide additional detail, depth and unique themes observed for each VISN.

Each VISN narrative follows a template format of nine sections to document each network's response:

1. Description of the Network and Population Served
2. Summary
3. Community Prevalence and VISN Case Statistics
4. Capacity Management
5. HR / Staffing
6. Fourth Mission
7. Patient Care by Visit Type
8. Resource Movement / Inventory
9. Testing

Additionally, each VISN narrative reflects four primary data sources:

- A series of group interviews with each of the 18 VISN Network Directors and their designated personnel conducted in June and July 2020
- A series of group interviews conducted in August 2020 with Network Directors specifically on communication processes with employees
- Quantitative and qualitative data provided by each VISN through data calls (data requests)
- Data obtained through VHACO managed databases

Testing

As shown Table 7.1, VHA tested over 240,000 (or 3.8% of) Veterans Using VHA Services for COVID-19 through June 30, 2020. Of Veterans Using VHA Services tested, 8.7% tested positive for COVID-19; the largest proportion of positives occurred in the VISN 2 network (19.31%) and the smallest proportion in VISN 9 (3.76%).

Outside of VHA, variations in community prevalence across regions existed as shown in Figure 7.2. Notable areas of elevated prevalence include the metropolitan NYC area; urban centers around Boston, MA and Washington, D.C; portions of Louisiana, Mississippi and Alabama; southern Florida; northeastern and southwestern Arizona; and pockets of communities in the Mid-West and along the West Coast. Overall prevalence of confirmed COVID-19 across the United States was 0.79% as of June 30, 2020, as seen in Figure 7.3. VISN Veterans Using VHA Services prevalence and community prevalence were approximately equal on March 25, 2020. Beyond that date, prevalence of confirmed COVID-19 in the community began to steadily increase at a rate higher than the growth among Veterans Using VHA Services. Between March

22, 2020 and June 30, 2020, U.S community prevalence of confirmed COVID-19 increased from 0.01% to 0.79% while prevalence among Veterans Using VHA Services increased at a lower rate, from 0.01% to 0.37%.

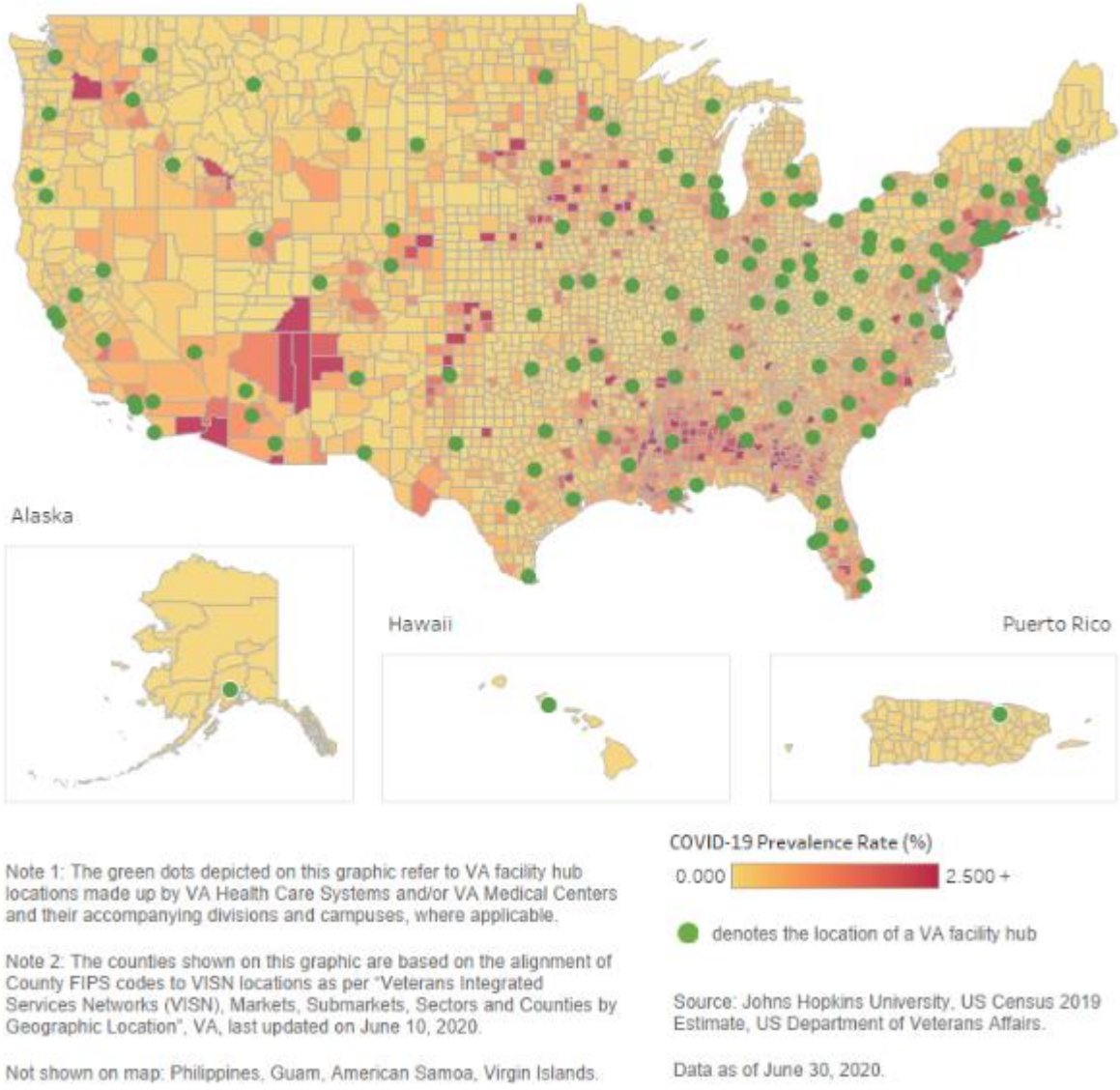
Table 7.1 *Summary COVID-19 Statistics of Veterans Using VHA Services - Tests, Confirmed Cases of COVID-19 and Deaths (as of June 30, 2020)*

VISN	Veterans Using VHA Services	Veterans Using VHA Services - Tested		Veterans Using VHA Services - Confirmed Cases of COVID-19	
		Total	% of Users	Total	% of Users
1	245,124	11,329	*4.62%*	1,461	*12.90%*
2	276,500	14,813	*5.36%*	2,861	*19.31%*
4	279,249	9,439	*3.38%*	1,106	*11.72%*
5	198,958	7,778	*3.91%*	827	*10.63%*
6	393,884	13,250	*3.36%*	819	*6.18%*
7	456,156	15,140	*3.32%*	1,585	*10.47%*
8	578,681	24,408	*4.22%*	1,548	*6.34%*
9	275,569	12,152	*4.41%*	457	*3.76%*
10	489,201	15,081	*3.08%*	1,573	*10.43%*
12	266,970	11,686	*4.38%*	1,176	*10.06%*
15	240,902	8,779	*3.64%*	439	*5.00%*
16	421,656	15,221	*3.61%*	1,806	*11.87%*
17	426,697	10,413	*2.44%*	1,324	*12.71%*
19	312,907	12,553	*4.01%*	625	*4.98%*
20	321,734	9,913	*3.08%*	394	*3.97%*
21	329,656	11,846	*3.59%*	503	*4.25%*
22	498,028	27,126	*5.45%*	1,773	*6.54%*
23	318,561	10,059	*3.16%*	672	*6.68%*
Totals	**6,330,433**	**240,986**	***3.81%***	**20,949**	***8.69%***

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020.

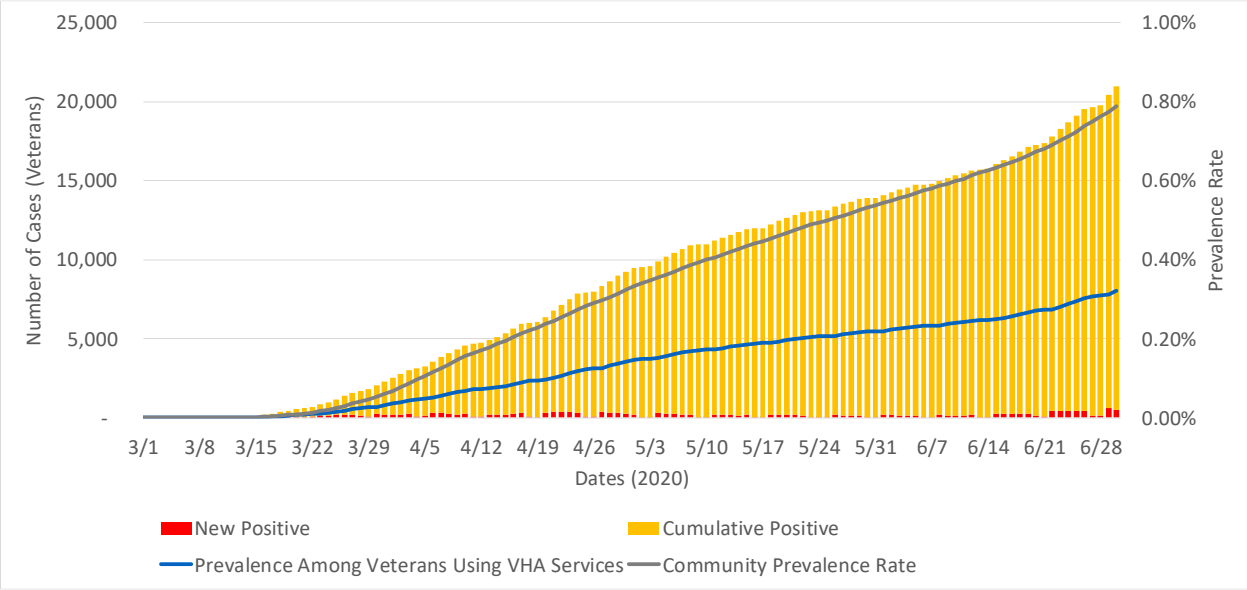
Figure 7.2 *Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties, All VISNs (June 30, 2020)*



Comparison of prevalence of confirmed COVID-19 among population groups, such as a comparison between community prevalence and prevalence among Veterans Using VHA Services, will be important to expand understanding of this disease, effectiveness of public health actions and effectiveness of health care interventions. Such comparisons will require careful scientific analysis to identify statistically significant correlations considering multiple factors. Examples of factors to be considered include age, gender, race, status of chronic medical conditions, access to care, availability of testing, socioeconomic factors, medications, environment, family history, occupation and more. Such analysis is beyond the scope of this report and will surely be the focus of many research projects and publications in months and years ahead. The authors

recommend caution when using data presented in the report to assess COVID-19 penetration or outcomes among population cohorts.

Figure 7.3 *COVID-19 Confirmed Case Statistics, All VISNs (Daily, March 1 to June 30, 2020)*



Note: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Common Cross-VISN Strengths

While each of the 18 VISNs had unique approaches to managing COVID-19 within their own networks, there were several common strengths that VISN leaders noted strengthened VHA's overall response to the pandemic.

VHACO provided the central governance needed to relay critical (and consistent) communication, deploy emergency management infrastructure and help VISNs plan for surges in demand. Many Network Directors cited the importance of having multiple daily calls with the EIC and VHACO early in the response.[578] This open line of communication provided a routine opportunity to discuss VISN specific needs, such as PPE, testing and manpower, and allowed discussion and input on emergency planning within and across VISNs.[579] Unlike many civilian hospitals, VHA

has extensive experience responding to local and regional crises including the deployment of VHA's CEMP for crisis response.[580]

VHACO developed new HR processes that enabled VISNs to expedite the onboarding process for new employees. VISN leaders expressed initial concern that they would not be able to bring on new employees in a timely manner using legacy HR processes.[581] VHACO orchestrated waivers and changes to existing HR policies, hiring processes and onboarding processes that streamlined actions previously requiring several weeks or months to enable hiring completion in three weeks and onboarding completion in three days. These changes provided the VISNs an expedited process to bring on needed employees.[582]

All VISNs managed bed capacity and ventilators to meet demand. In early March 2020 with the uncertain course of COVID-19 outbreaks and associated demands for care, several Network Directors were concerned about inpatient care capacity and ventilators to meet demand.[583] VISNs effectively shifted ventilators within and between networks and consistently met demand; this became a standard aspect of VHA's response via coordination on the daily updates hosted by the HOC.[584] While some facilities had to enact contingency plans to avoid exceeding inpatient capacity, the networks, with VHACO support, were able to support those facilities with resources to provide enough ICU and Med/surg capacity to meet demand.

VHA met surges in demand and served vulnerable populations through its Fourth Mission engagements. Across VHA, personnel within each VISN served the nations' health care system by volunteering in missions across the country.[585] VHA personnel served in 65 FEMA Mission Assignments across SVHs, CNHs and IHS, and other community locations across the country. See the Fourth Mission section of the report for additional details.

Each VISN transitioned quickly from in-person to virtual care. On March 8, 2020, in-person patient appointments were more than double the virtual encounters within most VISNs. In a matter of only two weeks, VHA transitioned to predominately virtual care for ambulatory patients such that 24% of patient visits were in-person and 76% were virtual. This trend continued through June 2020 as in-person care gradually increased as the Moving Forward Plan was employed where COVID-19 circumstances allowed.

VISNs reallocated supplies within and between networks to help address potential shortages of supplies. VISNs leaders noted that they reallocated supplies, mitigating negative impact on clinical care.[586] Strong relationships as well as clear communication within and between networks helped the reallocation process; however, reallocation was challenging given the amount of concerted effort needed to

monitor and manage all supplies. As one Network Director reported, ensuring appropriate allocations required "ruthless management…on a day by day basis." [587]

Common Cross-VISN Challenges

The VISNs collectively encountered a series of challenges in responding to the COVID-19 pandemic, as described below.

Delays in the supply chain impacted the VISNs' ability to get critical supplies in a timely manner. Global demand exceeded the global production of critical supplies such as PPE and testing kits, creating competition both within and outside the VA.[588] As a result, in some instances VISNs turned to non-traditional sources to combat supply chain disruptions. This had an impact on the timeliness, cost and quality of supplies.[589] Despite the downsides of leveraging non-traditional sources, the ability to procure PPE from alternative sources was important to continue operations and provide patient care; multiple VISN leaders noted that without the ability to leverage non-traditional sources, including internal supply production, as well as other policy changes (for example, increased credit card spending limits), their VISNs would likely have experienced critical supply shortages.

There was no early centralized tool to track contingency stocks and PPE. Early in the response, the VISNs had no centralized way to track supplies, impeding their ability to have accurate visibility into the volume of their contingency stocks.[590] As a result, many VISNs created their own manual tracking tool(s). VHACO released the Power BI Dashboard in May 2020. As of June 30, 2020, several VISNs continue to use their own tool(s) in conjunction with national tools.[591]

During the response, shortfalls in PPE and testing supplies required careful management and utilization of supplies. Most VISNs developed concerns very early in the response about PPE and testing supplies as procurement access from Prime Vendors and manufacturers diminished considerably. VISNs found it difficult to maintain or increase their stock on hand as the global supply chain for PPE could not respond.[592] VISNs continue to carefully manage testing kits and supplies to meet testing demand in accordance with VHA guidance.[593] One Network Director commented on the difficulty in maintaining visibility of supplies on hand due to lack of standardization in inventory management systems.

Insufficient testing supplies and longer than expected wait times for test results early in the response led to limited bed availability while presumptive positives waited on test results. Early in the response, shortfalls in testing capacity led some medical centers to admit persons under investigation (PUI) until COVID-19 test results returned.[594] Early in the response, VISNs often had to outsource testing or ship

specimens to a VHA hub laboratory, delaying receipt of results. Testing shortfalls have led to delays in discharging COVID-19 patients following treatment.

Network Directors perceived that administrative issues with the DEMPS system slowed some VISNs' Fourth Mission responses. While some VISNs appreciated the value of the DEMPS system in deploying personnel, others cited challenges using the system to deploy personnel to sites urgently.[595] Due to known delays in the DEMPS process, some networks sent volunteers directly to a site prior to receiving a formal mission tasking.[596] In one reported case, a network pre-loaded DEMPS volunteers in the system but an administrative oversight caused the volunteers to not be called upon.[597] As one Director noted, "[The DEMPS program] hasn't worked as efficiently as it could have, and I just don't even see it as a as a viable contingency right now. I rely on other Network Directors and my relationships with them. And I just wish we had a better system not only to locate resources [but also to] deploy them."

Early in the response, many VISNs provided guidance to VAMCs prior to issuance of formal VHA guidance. As the pandemic evolved quickly, several Network Directors noted that they would have preferred early VHA guidance on operational matters such as PPE procurement, PPE use and clinical operations; however, they acknowledged that VHA needed some time to develop definitive guidance via SMEs and consultation with authoritative sources. The Network Directors also acknowledged that the issues arose in rapid sequence early in the pandemic. For example, VHACO asked some VISNs to wait for assistance procuring particular supplies; however, VHACO subsequently told the VISNs a few days later that the VISNs needed to procure the supplies on their own. Others noted that VHACO did not provide clear or definitive guidelines for universal masking and use/re-use of particular PPE early in the response, in part due to changing guidance form the CDC. In response, some VISNs created internal policies for these issues, notably with some mandating universal masking prior to formal VHACO guidance.

Network Director Ratings

During interviews, each Network Director rated the following six questions on a scale of 1 (poor) to 10 (outstanding) to assess their perception of VHA's response to COVID-19 at a VISN and enterprise level. The ratings for each of the six questions represent the average scores across each of the 18 Network Directors' responses. Each question is followed by a series of anonymized quotes from Network Directors that provide more insight for each rating. As seen in Table 7.2, on average, Network Directors ranked Access to Leadership highest at a rating of 9.69 and Clarity of Guidance lowest at a rating of 7.11.

Table 7.2 *Network Directors Ratings*

Question	Rating
Coordination of the response between networks	**8.94**
Comments: *"The networking that occurs between VISNs informally really comes back quick, we're supportive of each other. Things really shown the value of trying to drive decision making down toward the network level."* *"All of my peers I've found to be extraordinarily helpful…it's a very collegial group and very willing to share."*	
Coordination of the response between network and VHACO	**8.47**
Comments: *"I think [daily calls were] beneficial, finding out what's happening in each network…we tried to identify some best practices by what other networks were doing as well."* *"I have never worked for an organizational team right now that is so willing to listen to the field and willing to allow us at the table and to drive decisions from what is truly best for the patient and the organization."*	
Clarity of guidance	**7.11**
Comments: *"And because VA was looking at what CDC [and FDA] was saying…we had a tremendous lag [when] we were making policy… because of that, when VHACO came out with their policy, we had to go back and make sure that we included everything and that we didn't contradict it."* *"The changing requirements for different types of PPE [were confusing, as was] clarity of guidance about when to test staff and when not test staff."*	
Access to leadership	**9.69**
Comments: *"I have easy access to my boss. I have easy access to [the EIC] if I need to contact him. So, and if I had an issue, I could bring it up on calls that we had several times a day;"* *"There's not one of those leaders that I don't have their cell phone that I can't reach them 24/7."*	

Question	Rating
Communications tempo	**8.00**
Comments: *"We had to find a rhythm that satisfied the Office of Public Affairs yet got our story out timely manner so that our Veterans…looking at the media could be comforted in knowing we were handling [issues] in a proper manner"* *"Some of the messaging was a bit slow coming…in the beginning, VHACO was really trying and still trying to keep it consistent and that's important, but health care is local."*	
Access to resources	**7.17**
Comments: *"[Access to resources] has been the most frustrating part…just moving from managing inventories to 30 days, less than 30 days on hand, to making sure that there's sufficient supplies."* *"Initially the system both within the VA and the community were all caught a little short with the volume that we would need to address this."*	

Source: Interviews with VISN leadership teams, VHA, May to August 2020.

Approaches to Communicating and Supporting Personnel

Network Directors participated in group interviews to discuss their networks' approaches to communication over the course of their response. Due to the nature of the group interviews, interviewers informed Network Directors that their identities would not be attributed directly. The interviews identified a series of shared processes and experiences that worked well across the networks.

Network Directors moved to daily communications with Hospital Directors early in the response and then adjusted frequency based on conditions with their network. Network Directors held daily calls with Hospital Directors for up to three months, including weekends. Some Network Directors said that they mirrored the rhythm and cadence of VHACO's daily communication with them. Over time, networks pared back on calls, moving to a two to three days a week cadence. Eventually, some moved to email communication but were prepared to ramp back up calls as needed based on needs within the network. Some VISNs created a compendium of helpful resources, including frequently asked questions (for example, PPE, HR and testing guidance), CDC guidance and fiscal guidance that they hosted on a SharePoint site and/or provided as a hard copy to employees when requested.

Hospital Directors used structured and detailed approaches for communicating with employees and Veterans. Hospital Directors first relied on their Incident Command Teams (ICT) to organize, coordinate and disseminate information to employees. To augment these communications, Hospital Directors communicated directly with employees primarily through virtual town halls and WebEx meetings, as well as email as needed. Network Directors cited the value of virtual town halls, whether daily or weekly, to provide information to employees and hear their concerns due to the larger number of participants in virtual town halls compared to past in-person town halls. Several VISNs observed 300-500 employees participating in the town halls. One Director noted virtual town halls will likely remain after the pandemic, stating, "the virtual town halls have become much more effective than the face-to-face town halls we used to do. It is pretty unusual when a medical center has less than 300 people attending a virtual town hall. We have had 400 and 450 and they're doing them on multiple shifts. So, it's amazing how just sort of incidentally the virtual town hall is probably going to become the method we use for town halls from here on out." Network Directors also emphasized the value of virtual meetings with Veterans. A few sites hosted daily Facebook Live engagements with Veterans to address any care and access issues. Attendees for some of these virtual engagements numbered between 2,000 and 3,000 Veterans.

Hospital personnel had multiple avenues to present complaints or concerns to VISN leadership and VISN leaders perceived less negative feedback than what they saw portrayed in the media. Leadership noted that communication with employees was a crucial way to stay connected and receive regular feedback. VISN leadership reported a few incidents where employees filed complaints to the Occupational Safety and Health Administration about not getting the PPE they needed; however, leadership noted that the VISN was following CDC guidelines and employees always got the PPE they needed. One Network Director noted they received three inspector general inquiries which medical centers dealt with locally. VISN leaders indicated that they believed the frequent communication (including town halls, daily calls and emails) made a large difference in hearing and responding to employee complaints. Employees generally did not use the media or social media to issue complaints as might have happened in the past, so VISN leadership partially attributed the frequency of communication to making a difference in understanding employee needs.

Network Directors believe that many of the policies and programs instituted through their response to the pandemic will incentivize and ultimately retain VA personnel. Network Directors believe that the VA is doing a good job incentivizing personnel for retention through continued trainings, flexible work arrangements, incentive pay, health benefits, mission-oriented work and the general stability of the

VA jobs as compared to the private sector. Several Network Directors focused on accommodating work schedules and even telework as a key to retention, as they acknowledged personnel have school and daycare arrangements that make it challenging for them to be in the office. Deeper engagement and investment in individual employees are other keys to retention; as one Network Director noted, “it is the organization's responsibility to make staff feel safe.” A few Network Directors noted that “staff are happy to be working in the VA” and cited that Network leadership can continue to engage and help employees recognize the value and purpose behind their mission-oriented work.

VISN 1: VA New England Healthcare System

Description of the Network and Population Served

The VA New England Healthcare System (VISN 1) operates in the six New England states of Massachusetts, New Hampshire, Vermont, Rhode Island, Connecticut and Maine and provides health care services to more than 245,000 Veterans Using VHA Services, as shown in Table 7.3.[598] VISN 1 consists of 13 medical centers, 6 CLCs and 44 outpatient clinics including 40 CBOCs.

VISN 1 had 1,461 COVID-19 cases and reported 186 Veteran deaths associated with positive COVID-19 tests as of June 30, 2020, as shown in Table 7.3. During its response, VISN 1 identified 239 VA employee cases and two VA employee deaths related to COVID-19.

Table 7.3 *VISN 1 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	245,124
Veteran COVID-19 Cases	1,461
Veteran COVID-19 Inpatients	183
Veteran Deaths (COVID-19 related)	186
VISN Employees	15,520
Employee COVID-19 Cases	239
Employee Deaths (COVID-19 related)	2

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

VA Boston HCS confirmed the first community case of COVID-19 in its catchment area the week of February 2, 2020.[599] By March 15, 2020, all six New England Governors had issued emergency declarations.[600]

VISN 1 leadership monitored the network closely for outbreaks and confirmed its first Veteran case of COVID-19 at VA White River Junction VAMC in Vermont. According to VISN 1 leadership, the most significant early outbreaks in the community were in West Haven and Newington, CT. Per VISN 1 leadership, the source of the Connecticut

outbreak was assumed to be its close proximity to NYC, the pandemic's first U.S. epicenter.

VISN 1 attempted to mitigate spread of the virus through multiple actions, including:

1. Creating of single points of entry at VAMCs
2. Requiring screening of all patients and personnel entering the VAMCs for symptoms consistent with COVID-19
3. Limiting access to CBOCs
4. Minimizing traffic inside medical facilities by practicing virtual care

VISN 1's testing strategy included a hub and spoke model in Connecticut to run high capacity testing for a range of VA sites. In order to increase capacity across the entire network, the testing hub shuttled test kits from the surrounding sites. VISN 1 leadership noted that this method proved critical to bolstering VISN 1's testing capabilities. Later in the response, VISN 1 began to use 3D printers to produce testing swabs at each of its VAMCs. This innovation enhanced the network's ability to test patients and reduced its dependence on third-party suppliers.

Shortly after the emergence of the two aforementioned Connecticut outbreaks, the Boston metropolitan area also reached high COVID-19 prevalence. The virus hit two VA Boston HCS campuses and the Edith Nourse Rogers Memorial Veterans Hospital in Bedford, MA hardest. According to VISN 1 leadership, a large annual biotech conference and an influx of travelers returning home for fear that travel restrictions would leave them stranded in Europe most likely originated these initial Boston outbreaks.

Even with the crisis unfolding in New England, VISN 1 responded to other VISNs in need. The network to the south of VISN 1, VISN 2, quickly became the epicenter of the crisis. Notably, VISN 1 deployed DEMPS volunteers including Physicians, Registered Nurses, Allied Health Clinicians and others to VISN 2 beginning in April 2020. By June 30, 2020 VISN 1 deployed over 50 DEMPS volunteers to New York and New Jersey.[601] VISN 1 also provided extensive services to New England states as part of the Fourth Mission. VISN 1 cared for patients transferred from SVHs to VISN 1 facilities, sent personnel to nursing homes to help counter COVID-19 and led the VA as the first network to respond to CNH requests.

VISN 1 is affiliated with numerous medical schools and academic medical centers located throughout New England. Affiliations with medical schools ranging from Boston University School of Medicine to Harvard Medical School provide educational opportunities to medical residents and faculty in allied health fields. Additionally, VISN 1 partners with academic medical centers in New England, where VA researchers

contribute to medical science and receive the most research funding among the VA networks. During its response, VISN 1 leadership supported VA personnel with guidance as they worked across VAMCs and academic medical facilities in the network.

Community Prevalence and VISN Case Statistics

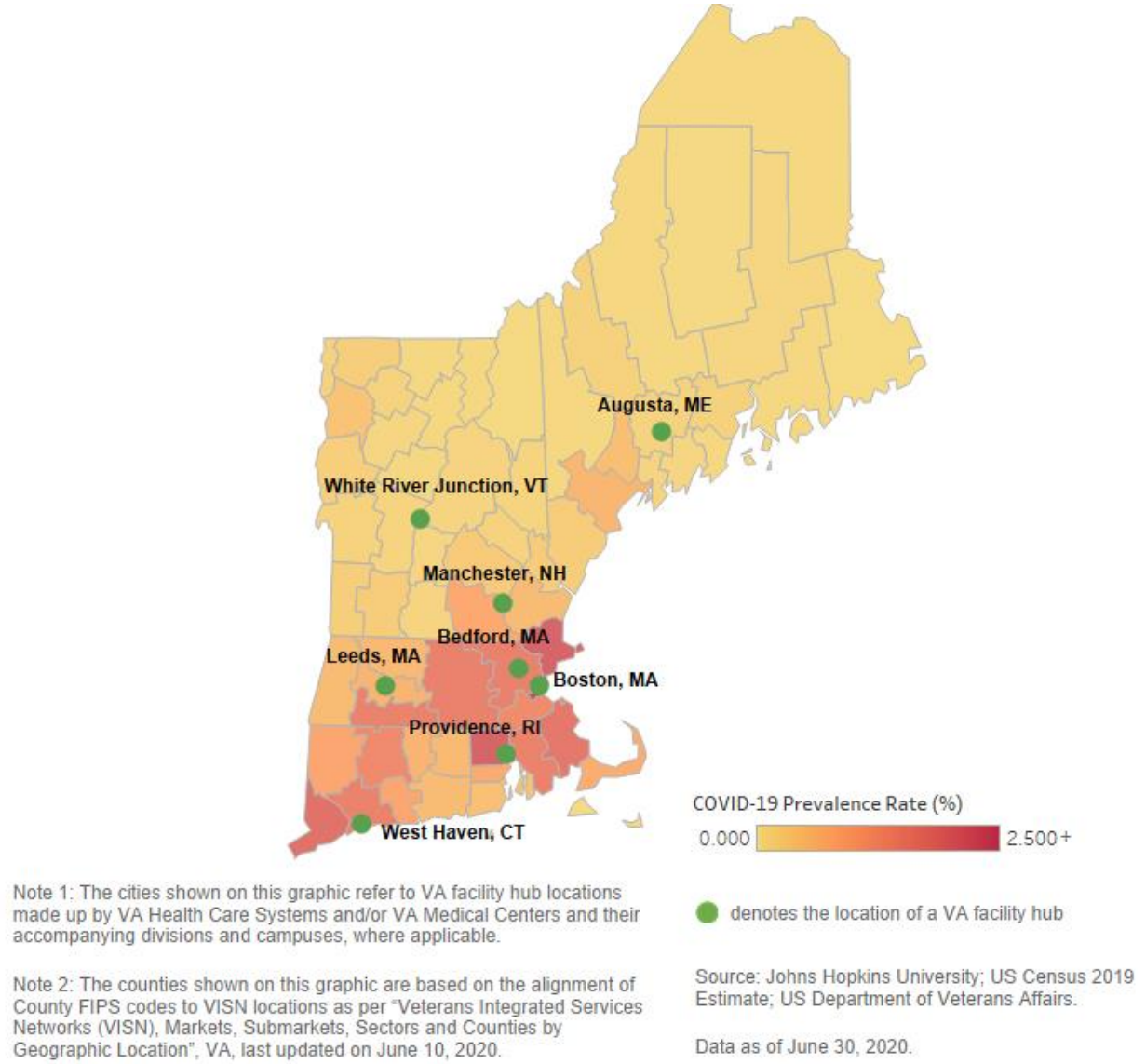
VISN 1 confirmed its first Veteran case of COVID-19 on March 11, 2020.[602] As indicated in Figure 7.5, new positive cases among Veterans increased rapidly until mid-to-late April 2020 before tapering off. By June 30, 2020, a total of 1,461 Veterans Using VHA Services tested positive for COVID-19, resulting in a Veterans Using VHA Services prevalence of confirmed COVID-19 of 0.60%, lower than the community prevalence of 1.21%.[603]

As Figure 7.4 shows, COVID-19 concentrated in the more urban areas of VISN 1's catchment area. According to VISN 1 leadership, the VA systems in Connecticut, Boston and Bedford experienced the most Veteran case activity. By June 30, 2020, the VA Boston HCS and Edith Nourse Rogers Memorial Veterans Hospital in Bedford saw the highest community prevalence of confirmed COVID-19 in their catchment areas, at 1.86% and 1.67% respectively. The VA Connecticut HCS, whose primary activity point was the West Haven campus, reached 1.29% community prevalence of confirmed COVID-19 by June 30, 2020.[604]

Of the VISN 1 catchment areas, VA Boston HCS reported the highest number of VA cases due to COVID-19. Edith Nourse Rogers Memorial Veterans Hospital, which has a large CLC population, saw the second highest number containing a mix of acute and long-term care patients. VA Connecticut HCS West Haven Campus, which also balanced a mix of acute and long-term care patients, saw the third most Veteran cases.

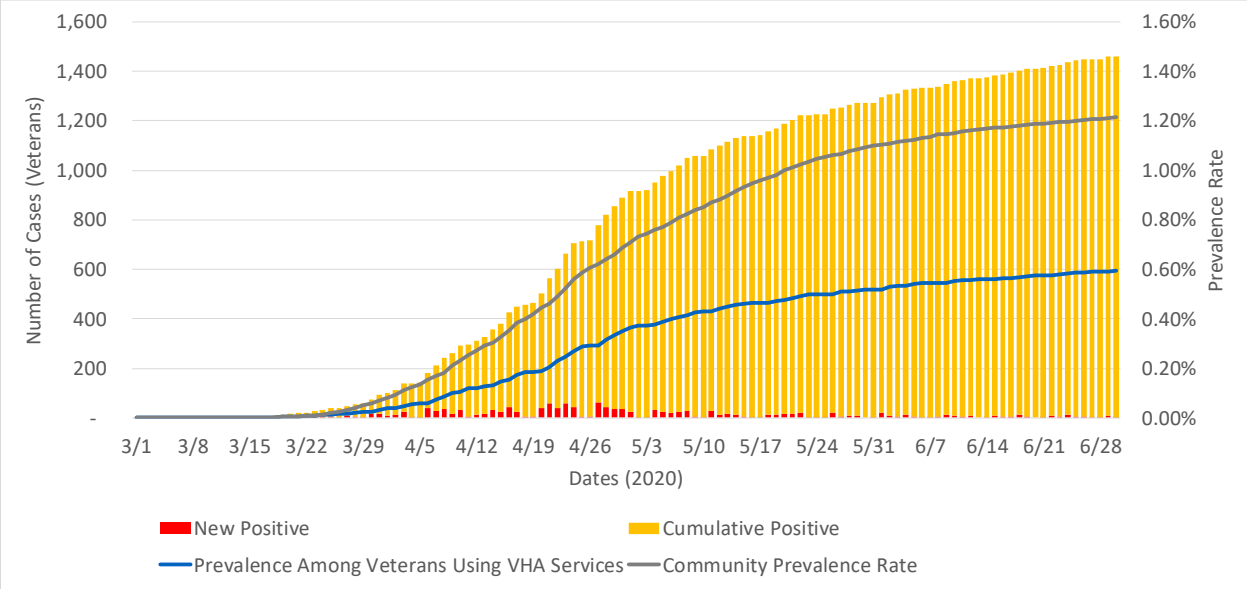
By June 30, 2020, community prevalence reached 1.34% in Providence VAMC's catchment area and 1.27% VA Central Western Massachusetts HCS' catchment area. Providence VAMC and VA Central Western Massachusetts HCS confirmed 133 and 126 Veteran cases, respectively. Manchester VAMC, White River Junction VAMC and VA Maine HCS catchment areas experienced less than 0.50% community prevalence through June 2020 and 104 Veteran cases were confirmed among the three VAMCs.[605]

Figure 7.4 VISN 1 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)



Around the rest of VISN 1, the nine rural counties of Fairfield, New Haven, Hartford, Hampden, Worcester, Bristol (MA), Plymouth, Norfolk and Middlesex (MA) reported community prevalence of confirmed cases between 1% and 2% by June 30, 2020.[606] The three counties of Essex, Suffolk and Providence had community prevalence of confirmed cases more than 2%.[607]

Figure 7.5 *VISN 1 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

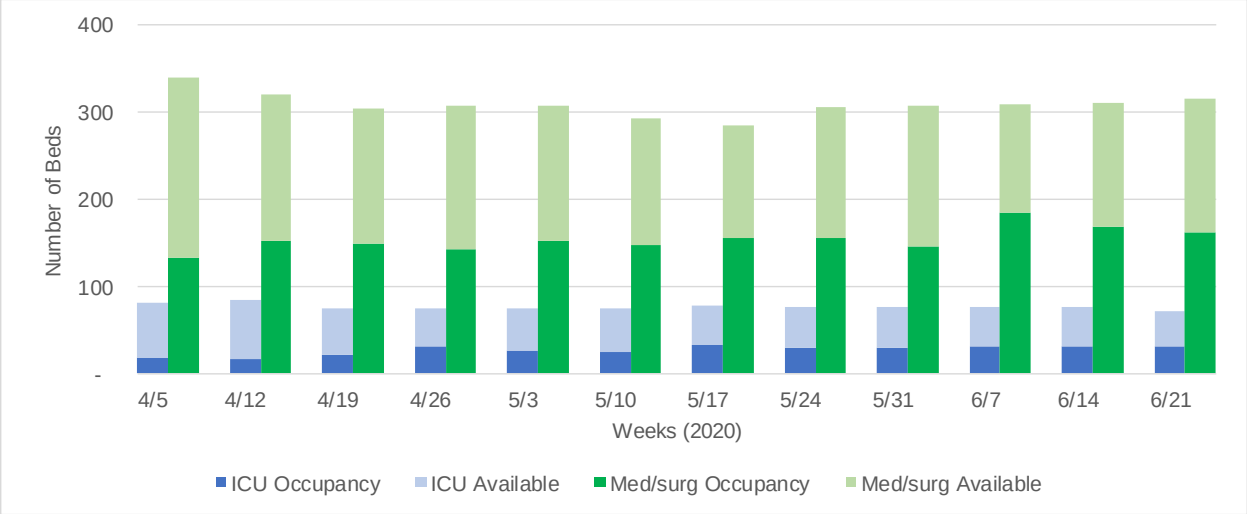
Capacity Management

On April 23, 2020, VISN 1's Boston facility district Med/surg occupancy reached 80%.[608] VISN 1 responded to the capacity demands with internal resources. First, the eight VISN 1 VAMCs triaged case workload and collaborated with one another by re-balancing personnel between them. Second, CBOC facilities redeployed personnel to the most impacted VAMCs. Third, VISN 1 activated reconfiguration measures to help increase bed capacity and mitigate the impact of high caseload. Finally, VISN 1 leadership established a patient transfer process as an additional contingency plan in the event a facility reached maximum capacity. During its response, VISN 1 was forced to activate that backup plan and transferred patients from Edith Nourse Rogers Memorial Veterans Hospital to Manchester VAMC. Additionally, surge plans were prepared to transfer patients to less impacted locations such as White River Junction

VAMC, Manchester VAMC and VA Maine HCS; however, VISN 1 did not need to execute these plans during its response.

The expanded bed capacity ensured VISN 1 would be able to accommodate its Veterans; according to VISN 1's Network Director, "We really walked the tightrope in Boston for a number of weeks. We were up around the 90% capacity level for both Med/surg and ICU at various points of their peak." In Maine, the VA Maine HCS reached 47 Med/surg and 11 ICU beds at peak capacity.[609] At the VA Connecticut HCS West Haven Campus, Med/surg reached 81 beds while ICU bed capacity reached 22.[610] At White River Junction VAMC, Med/surg and ICU bed peak capacity extended to 48 and 17, respectively.[611] At Providence VAMC, 80 Med/surg and 15 ICU beds were available at the peak.[612] At peak capacity across the VISN, VISN 1 expanded Med/surg beds to 340 and ICU beds to 85. Figure 7.6 provides an overview of VISN 1 bed occupancy and capacity.

Figure 7.6 *VISN 1 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

As Table 7.4 shows, VISN 1 hired 739 new personnel from February 2020 to June 2020. During that same time, 543 VISN 1 employees left the VA. Of the new hires, 367 were clinical personnel including Medical Officers, Nurses, Practical Nurses, Nursing Assistants, Psychologists and Medical Support Assistants.

Table 7.4 *VISN 1 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	22	37	(15)	1,256
Nurse	150	100	50	3,210
Practical Nurse	53	13	40	544
Nursing Assistant	56	33	23	746
Medical Support Assistance	89	52	37	1,249
Pharmacist	9	5	4	309
Psychology	6	5	1	349
Social Work	17	12	5	689
Custodial Worker	86	66	20	677
All Other Occupations	251	220	31	6,491
Totals	**739**	**543**	**196**	**15,520**

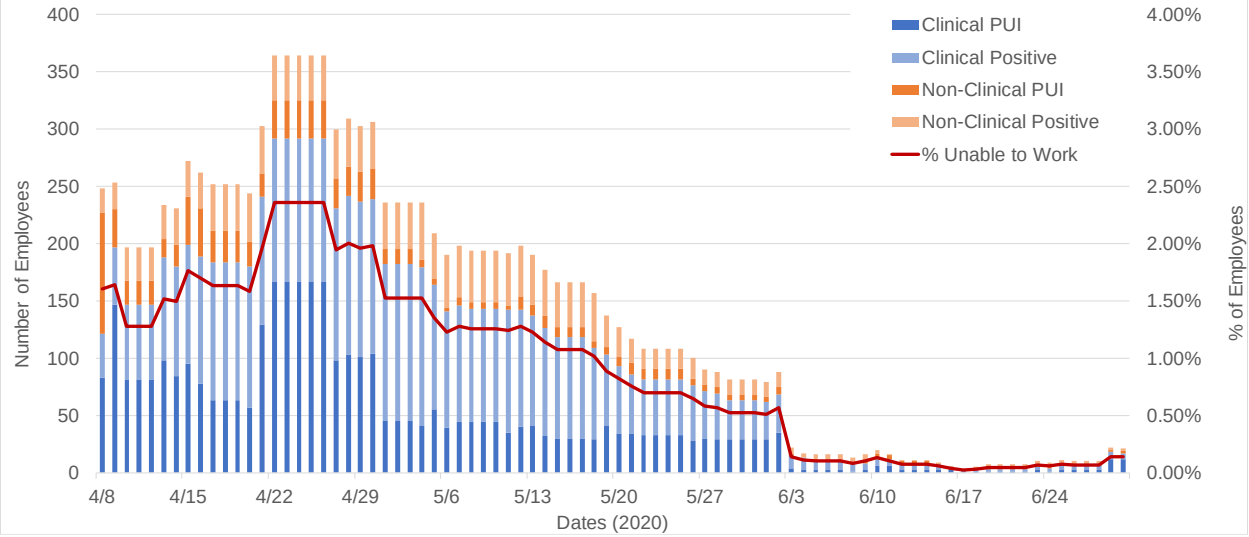
Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

VISN 1 also hired 372 new Pharmacists, Social Workers, Custodial Workers and other occupations. Overall, Nurses, Medical Support Assistants and all other occupations experienced the most growth in VISN 1 from February 2020 to June 2020. As of June 30, 2020, VISN 1 had more than 15,500 active personnel.

As indicated in Figure 7.7, between 1.0% and 2.5% of VISN 1's workforce was unable to work due to circumstances related to COVID-19 throughout April 2020. That percentage started to decline in May 2020, eventually reaching 0.1% by the end of June 2020. The majority of those unable to work were clinical employees.

Figure 7.7 *VISN 1 Employees Unable to Work Due to Circumstanced Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VHA Support Service Center (VSSC), VHA, accessed 8/3/2020.

Fourth Mission

VISN 1 carried out numerous Fourth Mission efforts between April 2020 and June 2020, as shown in Table 7.5 The contributions to Fourth Mission taskings in Connecticut, Massachusetts, New Hampshire and Rhode Island included the community bed expansion, VA personnel to non-VA facilities and other support including supplies and testing.

VISN 1 was the first VISN to attend to CNHs in the crisis. Two CNHs in Massachusetts, Hunt Nursing Home in Danvers and Charlwell Nursing Home in Norwood, suffered substantial COVID-19 outbreaks according to VISN 1 leadership.[613] VISN 1 leadership reported that personnel at these nursing homes became too ill to work or otherwise failed to report to work. In late March 2020, VISN 1 supported these homes with 13 temporary personnel, stabilizing the facilities until they could find replacements, as seen in Table 7.5. Additionally, VISN 1 provided the CNHs with 800 gloves, 450 gowns and 80 face shields.

VISN 1 also accepted patients from CNHs. The primary plan was to get Veterans out of infected nursing homes and into VA facilities. Secondarily, VISN 1 deployed reinforcements into the field. In the case of Rhode Island, VISN 1 deployed 24 personnel for the Fourth Mission tasking. In New Hampshire and Massachusetts, VISN 1 sent 26 personnel to support community health care facilities, as seen in Table 7.5.

VISN 1 took a similar approach to SVHs by transferring patients to VAMCs. According to VISN 1 leadership, outbreaks and significant loss of life occurred at Chelsea and Holyoke Soldiers' Homes. Holyoke contacted VISN 1 for help midway through the outbreak. After assessing the situation at Holyoke, VISN 1 proactively contacted the Chelsea nursing home to assess its needs as well. VISN 1 transferred 68 patients from Chelsea SVH to the Boston and Bedford VAMCs, as seen in Table 7.5. In total, VISN 1 made 30 beds available for patients from Chelsea and Holyoke Soldiers' Homes.

VISN 1 Fourth Mission taskings also supported CNHs in Rhode Island and New Hampshire. In April 2020, VISN 1 provided 24 personnel to Rhode Island community nursing homes to help care for developmentally disabled patients with COVID-19. In June 2020, VISN 1 sent 13 personnel to New Hampshire Community Hospital and CNHs to supplement personnel.

In New Haven, CT, VISN 1 provided clinical personnel to help a homeless shelter operated by the state. The VISN 1 personnel spent six weeks assisting the shelter employees and supporting homeless outreach. In June 2020, VISN 1 provided COVID-19 tests for Massachusetts National Guard service members.

Table 7.5 *VISN 1 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Multiple Locations, MA	Massachusetts CNHs	4/4/2020	4/8/2020	Staffing Supplement	Provided 13 staff, 450 gowns, 800 gloves, 450 masks and 80 face shields
New Haven, CT	State of Connecticut	4/11/2020	6/26/2020	Homeless Outreach	Provided homeless outreach as well as 3 clinicians and 4 webcams
Multiple Locations, RI	Rhode Island CNHs	4/22/2020	5/20/2020	Staffing Supplement	Provided 24 personnel to care for developmentally disabled patients with COVID-19
Multiple Locations, MA	Massachusetts Chelsea SVH	4/24/2020	Ongoing	Community Bed Capacity	Accepted 68 patients from Chelsea SVH
Bristol, RI	Rhode Island SVH	5/13/2020	6/22/2020	Staffing Supplement	Provided 29 staff
Manchester, NH	New Hampshire Community Hospital and CNHs	6/5/2020	6/19/2020	Staffing Supplement	Provided 13 staff

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Massachusetts	Massachusetts National Guard	6/8/2020	6/15/2020	Testing Support	Provided 12 COVID-19 tests for Reserve soldiers

Source: Response to Data Call, VISN 1, VHA, 8/24/2020.

Patient Care by Visit Type

COVID-19 forced VISN 1 into some operational changes, primarily from in-person care to virtual care. The shift in strategy occurred mainly to preserve PPE and contain viral spread. These adaptations helped prevent asymptomatic spread and were in accordance with the VHA COVID-19 Response Plan issued initially by the OEM. Additionally, VISN 1 leadership recognized that a significantly larger portion of its mental health and primary care service lines would be completed virtually for the foreseeable future.

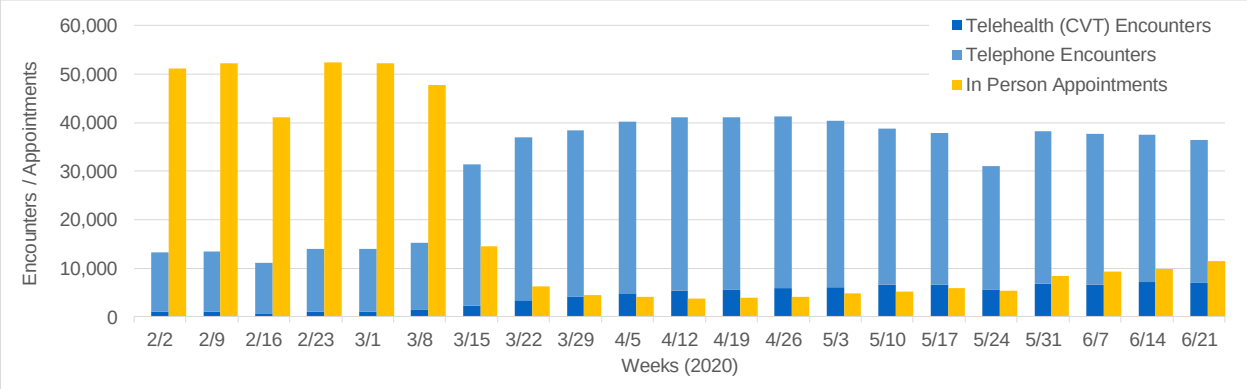
The overall approach at CBOCs was to limit in-person care as much as possible. According to VISN 1 leadership and in accordance with the VHA COVID-19 Response Plan, at the smaller facilities the strategy was successful and some facilities went almost entirely virtual. Larger CBOCs, although attempting the same goal, had to keep some in-person operations in place. In all cases, CBOCs kept limited personnel at their facilities for patients showing up spontaneously but they did not schedule in-person appointments.

As depicted in Figure 7.8, from February 2, 2020 to March 8, 2020, VISN 1 primarily delivered in-person care to patients. During the week of March 8, 2020, VISN 1 scheduled approximately 50,000 in-person visits and completed 15,000 telehealth and telephone encounters.

In March 2020, VISN 1 began tracking the cross-VISN shift from in-person care to virtual care. By the week of March 15, 2020, telephone and telehealth visits increased to more than 30,000 encounters per week, a trend that continued for the next three weeks. By the week of April 5, 2020, telephone and telehealth encounters plateaued around 35,000 to 40,000 encounters per week.

From mid-March 2020 to mid-April 2020, in-person appointments decreased to approximately 5,000 appointments per week, then started increasing again. By late June 2020, in-person appointments reached approximately 10,000 appointments per week, roughly 25% of pre-COVID-19 levels.

Figure 7.8 *VISN 1 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to Clinical Video Telehealth (CVT). Visual represents a 7-day week starting on the date indicated.

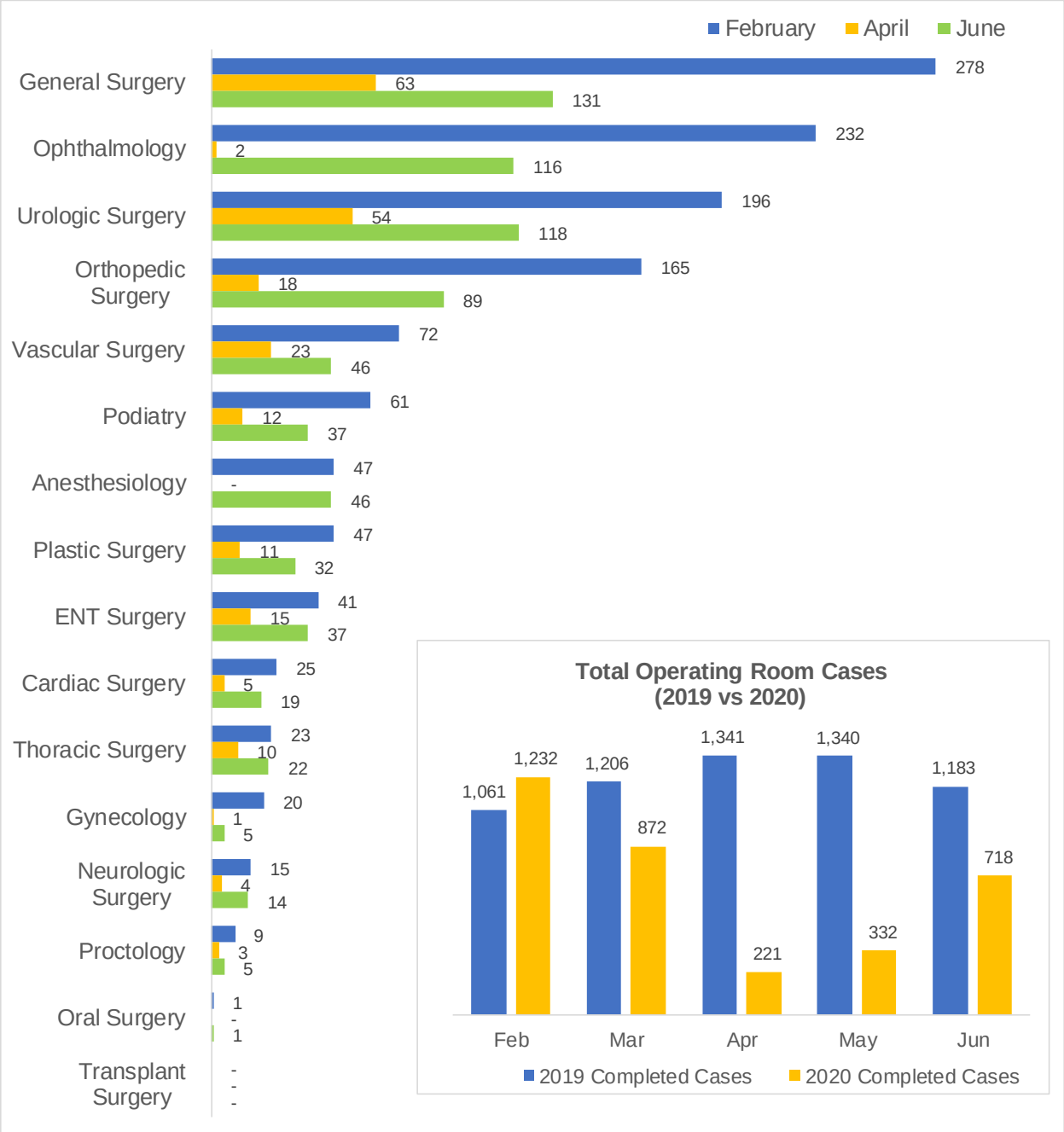
Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.9 provides an overview of VISN 1 completed OR cases over time. Early in the response, VISN 1 total OR cases declined from 1,232 in February 2020 to 221 in April 2020. Notable drops occurred in general surgery, ophthalmology, orthopedic surgery and anesthesiology.

By May 2020, total OR cases in VISN 1 increased to 332 cases, approximately 25% of the May 2019 total. As the response matured, total OR cases across all service lines started to trend upward. In June 2020, total OR cases rose to 718, approximately 60% of June 2019 totals.

Each VISN 1 facility's goal was to return completed OR cases to the new normal; however, not every facility was at the same stage of restarting. In July 2020 at White River Junction VAMC, which was VISN 1's test site for early reopening due to its low community prevalence, leadership estimated the surgical backlogs to be completed within 60 to 90 days. As of June 2020, OR cases across all service lines remained lower than pre-pandemic totals.

Figure 7.9 *VISN 1 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

VISN 1 leadership stated it strongly believed early in the response that reallocating resources across the network would be critical to the network's response. VISN 1 leadership realized early on that any issues, particularly staffing, would have to be solved themselves. Each of the VISN 1 sites had to help each other as upticks in

demand and workload occurred. “We felt going in fairly early on that, any issues we would have to solve ourselves in terms of staffing in particular. And then we'd have to look to our eight sites to help each other out as the sites experienced upticks in the workload, we have to move personnel between the sites and that's absolutely played out; that's exactly what we did,” said VISN 1’s Network Director. Additionally, as noted by VISN 1 leadership, moving resources became the most important part of VISN 1’s response. The Network Director additionally noted, “and so that was probably the most important part of our success, frankly, was the ability to move resources between sites, including leveling and cross-balancing PPE between sites; additionally, we've developed Connecticut as a hub site for actually running tests. So, we have testing capacity there and we've set up a shuttle system just to get test kits to them from the other sites, so that Connecticut could supplement testing capacity at all of our sites. So, it's mostly been ability to move resources around and really act as a single network.”

Table 7.6 provides an overview of VISN 1 personnel reallocation. As of June 30, 2020, VISN 1 reallocated 148 personnel within the network, 120 of which were clinical personnel – Physicians, Physician Assistants, Nurses, Clinical Nurse Specialists and Industrial Hygienists. The network also reallocated other personnel, including Health Care Technicians and Logistics, Administration and Trade/Craft personnel.

Allocating personnel within the VISN was critical, but other VISNs and non-VHA entities needed help too. By the end of June 2020, VISN 1 sent 45 clinical personnel including Physicians, Physician Assistants, Nurses, Clinical Nurse Specialists, Industrial Hygienists and Allied Health Clinicians to other VISNs. Additionally, VISN 1 sent Administrators, Managers, Health Care Technicians, Mechanics and trade/craft personnel to external networks. Non-VHA entities received clinical and non-clinical personnel, including 31 Nursing Assistants, 24 Registered Nurses, 6 Licensed Practical Nurses, 1 Nurse Manager, 1 Nurse Practitioner, 3 Health Care Technicians and 1 Clinical Support personnel.

During its response, VISN 1 sent personnel outside of New England on a variety of DEMPS assignments, mostly to VISN 2. Some of the personnel worked at VISN 2 VA sites, while others worked at CNHs or SVHs. According to VISN 1 leadership, and as described in the Cross-VISN Summary of this report, the DEMPS process was problematic at first. VHA quickly remedied issues with the registration system in identified in the first week by week two. VISN 1 found success recruiting DEMPS volunteers by limiting air travel and keeping deployments within drivable distances. Additionally, VISN 1 offered hotel rooms to personnel returning from missions to self-quarantine and kept their families safe from potential asymptomatic exposure;

however, VISN 1 leadership noted the most effective recruitment tool was compensation, in the form of special contributions, provided to volunteers.

Deploying personnel on DEMPS assignments or Fourth Mission taskings presented challenges. On a mission at a CNH located in VISN 2, VISN 1 personnel became concerned about a lack of PPE available at the facility. Ultimately, they were forced to return home before the mission completed. Tracking DEMPS mission deployments was another challenge VISN 1 faced. The process of tracking DEMPS deployments using spreadsheets made it difficult to quickly and accurately report the data requested by VHACO and disseminate to Congressional stakeholders. The formal DEMPs process tracked volunteers in a different system than internal or informal deployment processes. This caused some DEMPS volunteers to be immediately redeployed after completing their formal mission.

Additionally, VISN 1 deployed personnel without leveraging the DEMPS system. VISN 1 leadership established early on that reallocation assignments would be honored no differently than DEMPS deployments.

As noted by VISN 1 leadership, inconsistencies in PPE protocols between VA policy and affiliated partners' (Harvard, Yale and Brown) policies posed a challenge for the network. The absence of a national agreement for standardized PPE protocols resulted in uncertainties around the use of PPE. For example, in Boston, most of the large health systems shifted to universal masking; however, the limitations on availability of face masks compelled VHA to issue contingency guidance that did not align with universal masking. As a result, VHA personnel found themselves in conflicting situations as they provided care at both VHA and private sites. VISN 1 leadership stated it attempted to alleviate this challenge by setting expectations around VHA guidance related to PPE protocols and ensuring clear and consistent communications to VA personnel.

Table 7.6 *VISN 1 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	4	2	-	-
Allied Health Clinician	-	3	-	-
Associate Director	1	-	-	-
Clinical Nurse Specialist	1	2	-	-
Clinical Support	-	-	1	-
Health Care Technician	2	2	3	-
Industrial Hygienist	1	-	-	-
Logistics	9	-	-	-

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Mechanic	-	1	-	-
Nurse	2	-	-	-
Licensed Practical Nurse / Licensed Vocational Nurse	11	2	6	-
Nurse Manager	-	-	1	-
Nurse Practitioner	2	7	1	-
Nurse Shift Supervisor	2	-	-	-
Nursing Assistant	21	-	31	-
Physician	2	10	-	-
Physician Assistant	1	1	-	-
Registered Nurse	78	20	24	-
Trade / Craft	11	3	-	-

Source: Response to Data Call, VISN 1, VHA, 8/24/2020.

In addition to personnel, VISN 1 sent supplies and equipment to non-VHA entities throughout the response; Table 7.7 provides an overview of VISN 1 supplies movement. Notably, VISN 1 provided 800 gloves, 450 gowns, 450 masks and 80 face shields to non-VHA entities.

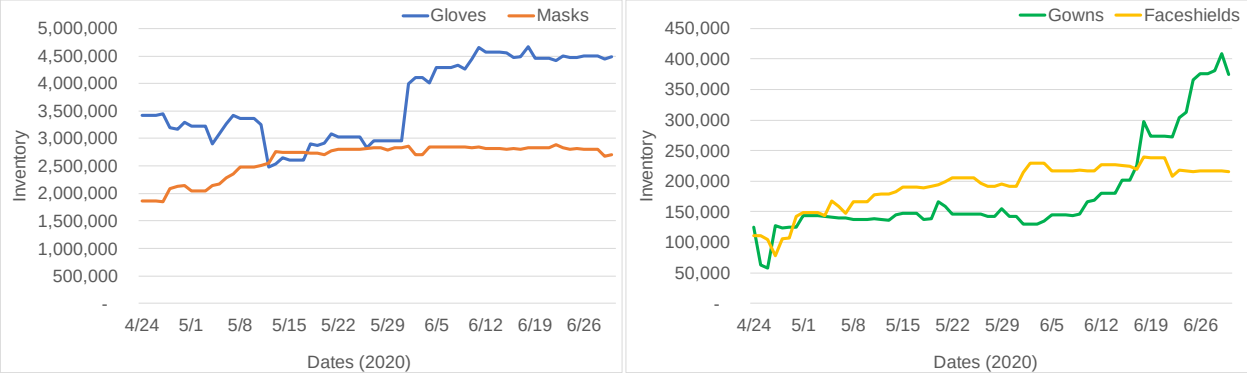
Table 7.7 *VISN 1 Movement of Supplies (as of June 30, 2020)*

Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Face Shield	-	-	80	-
Glove	-	-	800	-
Gown	-	-	450	-
Mask	-	-	450	-
Test Kit	-	-	12	-
Webcam	-	-	4	-

Source: Response to Data Call, VISN 1, VHA, 8/24/2020.

Figure 7.10 provides an overview of VISN 1 PPE inventory over time. PPE inventory including gloves, masks, gowns and face shields fluctuated from April 2020 to June 2020. Gloves and gowns experienced the most significant inventory changes as shown in Figure 7.10. During the week of May 8, 2020, gloves decreased sharply from approximately 3,500,000 to 2,500,000 and then bounced back to over 4,000,000 by the week of June 5, 2020. From June 12, 2020 to June 26, 2020, gowns increased from approximately 150,000 to over 400,000. Masks and face shields moderately increased to over 2,500,000 and 200,000, respectively, by late June 2020.

Figure 7.10 *VISN 1 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

According to VISN 1 leadership, the network saw similar PPE and inventory data challenges as VHA and other VISNs. Particularly, PPE data still relied on manual counts and VISN 1's Med/surg prime vendor was unable to supply PPE.

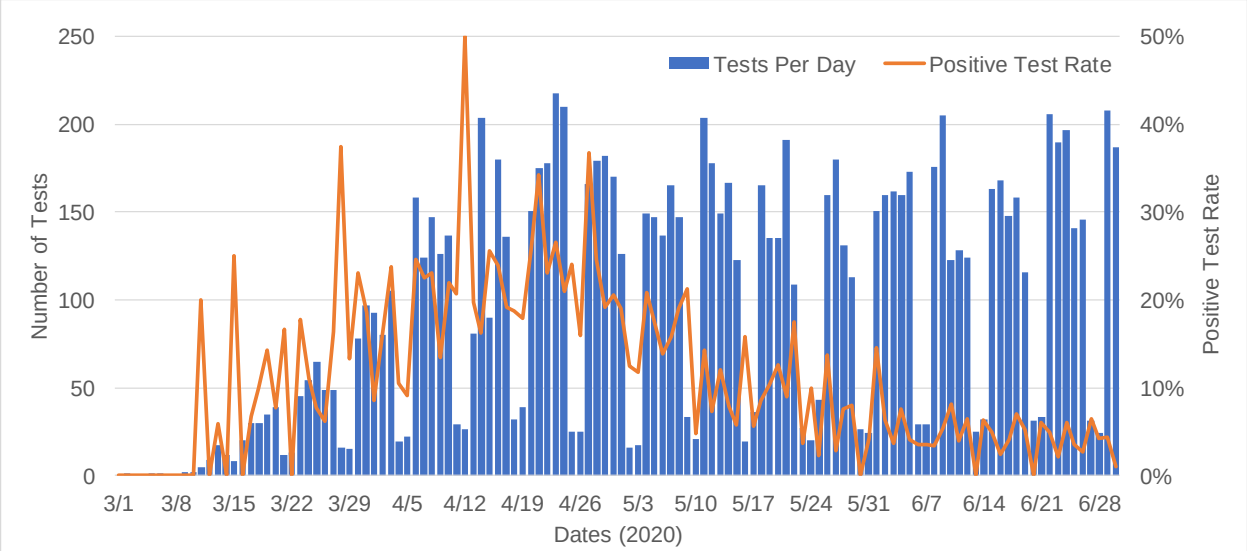
VISN 1 needed to find alternatives when its prime vendor was unable to deliver necessary PPE early in the response. First, VISN 1 took advantage of the credit card limit increase granted by VHACO and began procuring supplies through the VISN rather than its medical surgical prime vendor. Second, VISN 1 leveraged its warehouse space to store and stockpile critical supplies. Providence VAMC received and stored over a quarter of a million surgical masks in the facility's excess warehouse space, in addition to cleaning supplies, hand sanitizer, gloves, disposable gowns and reusable gowns. Third, VISN 1 adopted the strategy of large bulk purchases at the VISN level instead of individual purchases at the facility level. This procurement approach required coordination and logistics to be successful but ultimately eliminated PPE rationing and other supply shortages.

Inconsistencies in the logistics data, lack of standardization, manual daily counts and manual data entry, especially for PPE, compounded supply chain management issues. The VISN 1 Logistics Team discovered discrepancies between its data and the actual number of N95 respirators on facility shelves. In one case, the national Power BI Dashboard showed a VISN 1 facility to have 30,000 N95 respirators in inventory. This number included N95 respirators that had expired but were given an extended use letter. Similar to the cadence around reprocessed N95 respirators, extended use masks may or may not be used and cannot be counted in inventory. The national Power BI Dashboard showed the same facility to be fully stocked; however, the facility was critically low on masks, with only 800 1860 surgical masks. Additionally, the facility showed to have 5,000 to 9,000 other types of N95 respirators, but not all were surgical N95 respirators.

Testing

Figure 7.11 provides an overview of VISN 1 testing volume over time during the response. Testing in VISN 1 ramped up in the early months of the pandemic. In March 2020, between 10 and 100 tests per day were completed; in April 2020, between 10 and 225 tests per day were completed. During that two-month period, positivity rates varied significantly, ranging between 0% and 50% positive tests. Throughout May 2020 and June 2020, completed tests held steady between 20 and 225 per day while positivity rates varied between 0% and 20%. By late June 2020, testing produced the lowest positivity rate since testing began in March 2020.

Figure 7.11 *VISN 1 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

VISN 1's hub and spoke testing model was helpful during the response; however, demand for test kits and swabs far outpaced supply. VISN 1 found it challenging to fulfill the continued needs for testing. As such, VISN 1 decided to manufacture swabs internally through 3D printing. By purchasing 3D printers for each facility, VISN 1 not only reduced testing costs but also provided better control over its own inventory, both critical needs during its response.

Table 7.8 provides an overview of VISN 1 Veteran testing. Within VISN 1, 11,329 of 245,124 (4.6%) Veterans Using VHA Services received tests for COVID-19 as of June 30, 2020. There were 1,461 positive cases among Veterans Using VHA Services, representing 0.6% of the total Veterans Using VHA Services population.

VISN 1 tested 324 of 324 (100%) of its CLC residents by June 30, 2020. Of the total CLC resident population, 71 (21.9%) tested positive for COVID-19.

Table 7.8 *VISN 1 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	245,124	324
Population Tested	11,329	324
% of Population Tested	4.6%	100.0%
Population Positive	1,461	71
% of Population Positive	0.6%	21.9%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 2: New York/New Jersey VA Health Care Network

Description of the Network and Population Served

The New York/New Jersey VA Health Care Network (VISN 2) serves a population of more than 500,000 Veterans in 76 counties in New York, New Jersey and Pennsylvania and offers a wide range of inpatient and outpatient medical services.[614] Across VISN 2, eligible Veterans can receive care at 18 VAHCS / VAMCs, 12 CLCs and 59 outpatient clinics including 58 CBOCs.[615]

Table 7.9 *VISN 2 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	276,500
Veteran COVID-19 Cases	2,861
Veteran COVID-19 Inpatients	549
Veteran Deaths (COVID-19 related)	371
VISN Employees	18,913
Employee COVID-19 Cases	470
Employee Deaths (COVID-19 related)	11

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Source: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Within its expansive network of over 276,000 Veterans Using VHA Services, as shown in Table 7.9, VISN 2 provided COVID-19 testing for both employees and patients throughout its response. As of June 30, 2020, VISN 2 had 2,861 COVID-19 Veteran cases and 470 employee cases. Of these cases, 371 Veteran and 11 employee deaths were associated with positive COVID-19 tests.

Summary

VISN 2 reported that, by late February 2020 as reports emerged of the first confirmed case in Manhattan, it recognized the serious threat of COVID-19 to NYC and its facilities.[616] New York reported the first case of COVID-19 attributed to community spread on March 3, 2020, when a man from New Rochelle fell sick.[617] On March 7, 2020, Governor Cuomo declared a state of emergency as the state confirmed 89 cases.[618] VISN 2 leadership engaged with VHA leadership and used daily data calls

to prepare for a surge in patients. Each VISN 2 VAMC stood up its facility Incident Command Center and hosted daily calls to receive and provide updates. NYC confirmed nearly 3,000 community cases and 8 deaths attributed to COVID-19 by March 16, 2020.[619] By March 30, 2020, total community cases surpassed 65,000 and deaths attributed to COVID-19 approached 2,200.[620] New cases in Veterans Using VHA Services also rose precipitously across VISN 2, as illustrated in Figure 7.13.

VISN 2 stood up its Incident Command Center on March 5, 2020. The Incident Command Center consisted of eight key command leads:

1. Incident Command Leader, led by the VISN 2 Network Director
2. Clinical Operations, led by the VISN 2 Chief Medical Officer (CMO)
3. Administrative Operations, led by the VISN 2 Deputy Network Director
4. HR, led by the VISN 2 Human Resource Officer
5. Logistics, led by the VISN 2 Supply Chain Officer
6. Communications, led by the VISN 2 Public Affairs Officer
7. Finance, led by the VISN 2 Chief Financial Officer
8. Emergency Management, led by the VISN 2 Emergency Manager

All VISN 2 medical centers stood up Incident Command Centers on, or before, March 25, 2020. The VISN Incident Command team held daily meetings with the eight Incident Command leads and senior-level executives from each medical center (for example, the Medical Center Director, the Chief of Staff, the Associate Director and the Chief Nurse Executive). Subject matter experts from various areas were also included in the calls as needed. These meetings were key to disseminating relevant information, as well as planning and implementing various actions in preparation for a potential surge in patients.[621]

VISN 2 leadership stated that the COVID-19 epicenter spanned the network's four major downstate facilities, beginning with the VA NY Harbor HCS in Manhattan and Brooklyn, in early March 2020. Network leaders, collaborating with the VA New York Harbor HCS Medical Center Director and Chief of Staff, initially decided to make the Brooklyn Campus of the VA New York Harbor HCS an exclusive COVID-19 hospital while focusing the Manhattan campus on other medical conditions; however, leaders soon recognized that they required more ICU beds than the Brooklyn campus could provide. Eventually, both campuses approached full capacity with COVID-19 patients while only six ICU beds remained for postoperative emergency surgery. The Northport VAMC on Long Island began to reach full capacity as well. The James J. Peters VAMC, located in Bronx, NY, faced manpower challenges with critical care personnel as many of its employees contracted COVID-19. While the Bronx, Manhattan and Hudson

Valley facilities were initially intended for non-COVID-19 care, the rapid spread of COVID-19 in NY made this infeasible.

VISN 2 leadership noted that obtaining sufficient manpower in a short timeframe was its most critical issue during the response.[622] To address staffing challenges, VISN 2 leadership stated that it created and executed a mitigation plan including the following elements:

- VISN 2 leadership met with the contracting officer two-to-three times a week and used existing contracts to ensure proper staffing.
- VISN 2 leadership stood up an Emergency Credentialing team to expedite hiring.
- VISN 2 moved to a three-day onboarding model.
- VISN 2 worked with upstate facilities to acquire volunteers outside of DEMPS.

According to VISN 2 leadership, the decision to bring on personnel via these new processes and expanded hiring authorities enabled VISN 2 to onboard personnel quicker than prior to the pandemic.[623] VISN 2 also shifting personnel within the network to address staffing challenges or shortfalls. Notably, the Syracuse VAMC provided support, including a roster of individuals willing to deploy to downstate locales. VISN 2's mitigation plan helped to meet critical staffing needs across the network.

VISN 2 leadership also reported that the network made facility changes to expand bed capacity to accommodate COVID-19 patients. As part of their mitigation strategy, all VISN 2 facilities with acute inpatient beds created negative pressure rooms to accommodate potential surges.[624] To create negative pressure rooms, the Chief of Engineering and support team mounted ventilation fans in each room and installed plastic construction film to seal rooms. VISN 2 leadership shared this practice with VISN 17 as it experienced similar capacity demands through June 2020. The VA New York Harbor HCS in Manhattan also created ICU beds in the post-anesthesia care unit to increase capacity and receive more COVID-19 positive patients from within the network.

VISN 2 leadership reported that, as efforts continued to accommodate facility, staffing and bed demands, infections continued to rise across the network's catchment areas. On March 24, 2020, 13 patients died of COVID-19 in Elmhurst Hospital, a community facility in Queens. In response, the Governor's office contacted VISN 2 and initiated a Mission Assignment to stand up 35 Med/surg and 15 ICU beds in support of community patients. During this assignment, VISN 2 developed a process to handle the intake of community patients; the requesting facility contacted the VISN 2 hospital bed screeners, who then liaised with the admitting doctors. The admitting doctors

determined where there was capacity to admit. In total, VISN 2 received 111 community patients from NYC, most of whom required critical care.

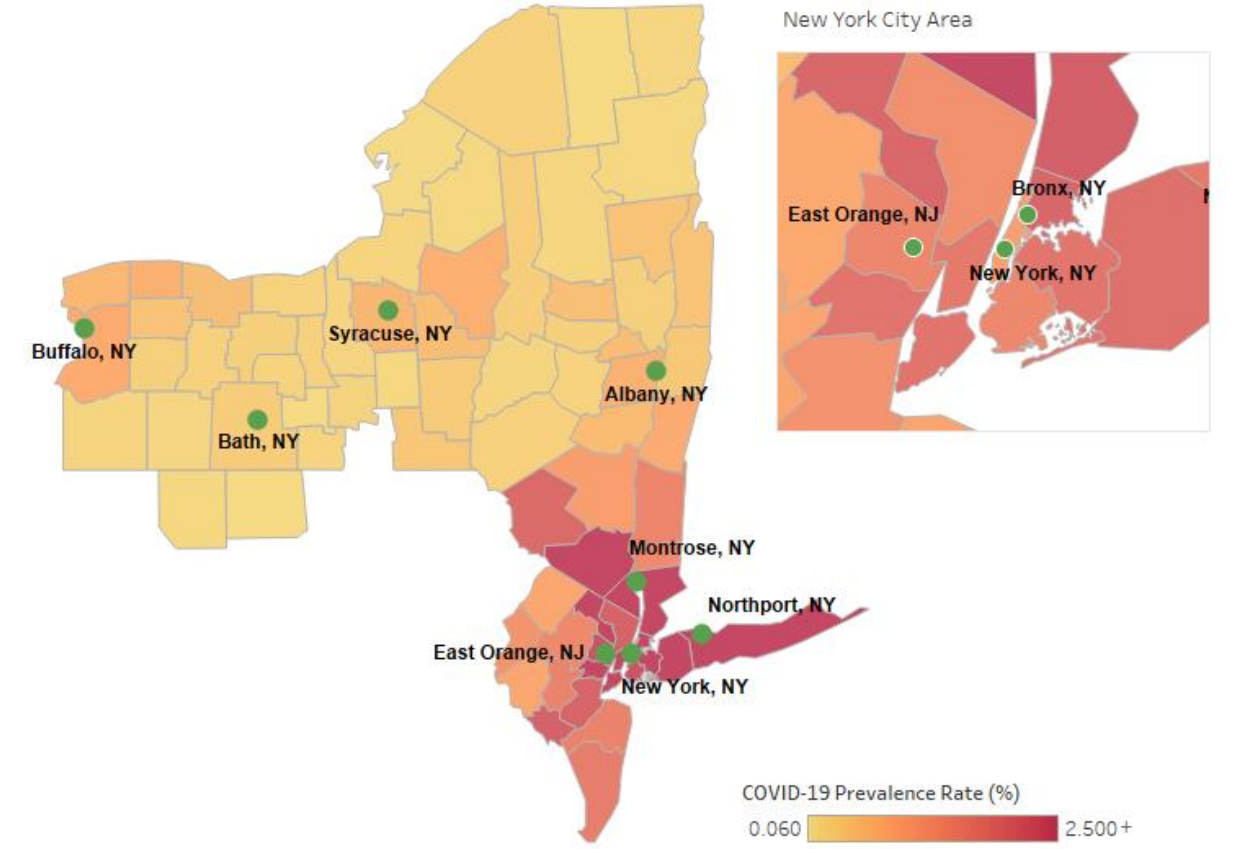
In early April 2020, COVID-19 began to spread rapidly through northern New Jersey.[625] The VA New Jersey HCS converted a recently opened Emergency Department into a dedicated COVID-19 ICU ward with 32 beds. The unit came close to utilizing full bed occupancy in April 2020 but never exceeded capacity. VISN 2 also supported a Mission Assignment to provide clinical personnel and infection control education to two SVHs in New Jersey as shown in Table 7.11

VISN 2 helped to influence national guidance to protect Veterans in CLCs. Early in its response, VISN 2 recognized the role of asymptomatic transmission from CLC and hospital personnel to patients. The VISN 2 CMO noted, “we needed to assume every individual was [an] asymptomatic carrier in environments where you have widespread community spread” (for example, CLCs and SCIs). VISN 2 leadership realized that many of the employees in CLCs could be exposed on their commute or potentially at other jobs within the community, increasing the risk for transmission within a VHA facility. The network tested over 2,000 CLC employees and 10% tested positive for COVID-19. Of the 10% who tested positive, 69% were asymptomatic and came to work while unknowingly carrying the virus. VISN 2 shared its procedures on the VISN Incident Command calls, as well as during a daily VHA-wide call, and encouraged facilities to consider testing all CLC employees. VISN 2 demonstrated successful implementation of this strategy at a CLC in Batavia, NY where, upon testing all residents, two positive residents were quickly identified and isolated. There was no further spread after this identification. VISN 2’s CLC procedures were soon adopted enterprise-wide and influenced the development of official VHA guidance.

In western and central NY facilities, spread was slower and at a smaller volume than downstate and the VAMCs were able to meet patient demands. According to VISN 2 leadership, VISN 2 held weekly clinical practice calls with infectious disease and critical care colleagues to communicate important information to Physicians throughout the surge and subsequent leveling off periods.

Community Prevalence and VISN Case Statistics

Figure 7.12 *VISN 2 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs; City of New York.

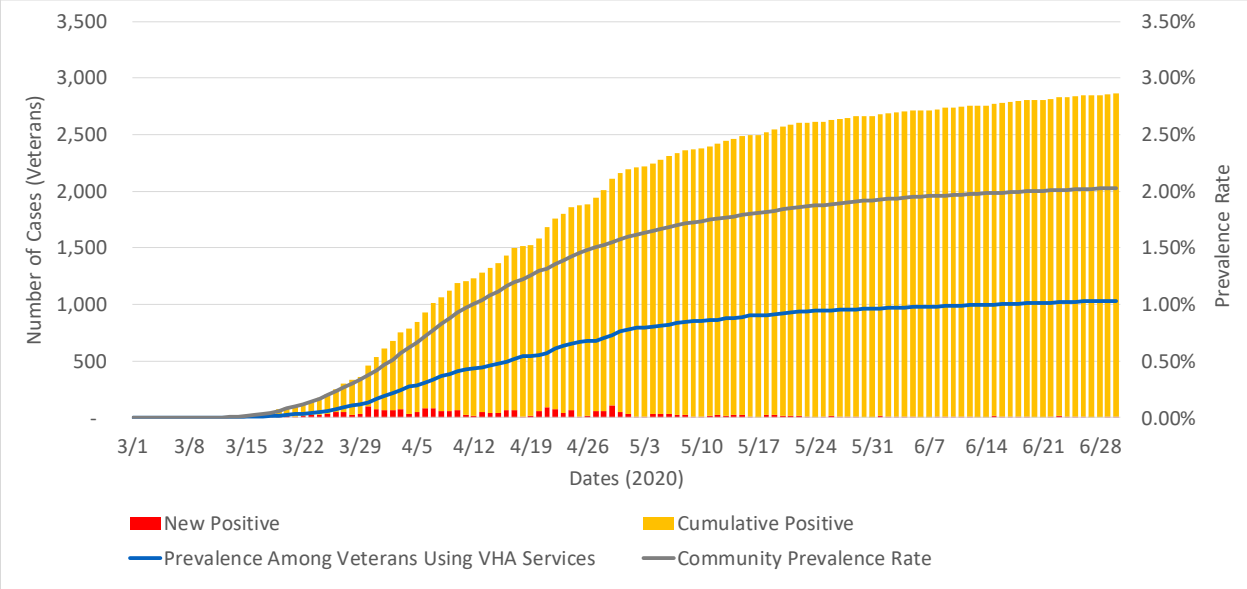
Data as of June 30, 2020.

As of June 30, 2020, COVID-19 community prevalence rates exceeded 2.0% across the catchment areas for the downstate VISN 2 facilities. As illustrated in Figure 7.12, upstate and western New York prevalence remained comparatively low.

VISN 2 identified the first case of COVID-19 in the network on March 10, 2020.[626] VISN 2 Veteran cases rose rapidly in the successive weeks, peaking in the network on April 29, 2020 and declining successively through the end of June 2020, as illustrated in Figure 7.13. The rate of infection began to slow in May 2020 and there was only a small increase in cumulative community prevalence (0.30%) between May 6, 2020 and

June 30, 2020. As new cases declined, prevalence growth leveled off in similar patterns for both the community and the VISN 2 population of Veterans.

Figure 7.13 *VISN 2 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

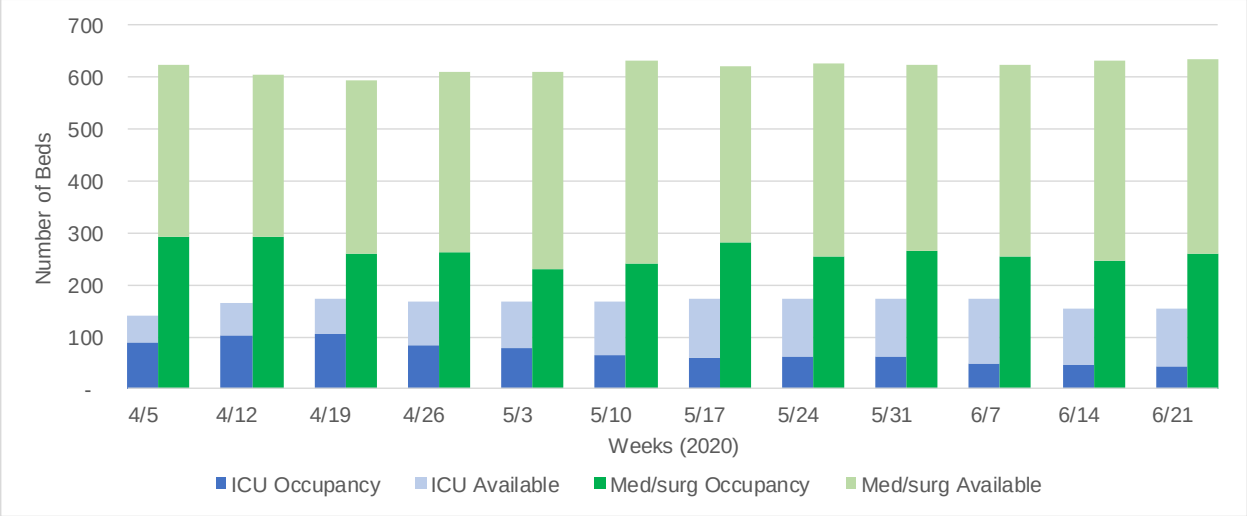
Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 2 expanded bed capacity to accommodate rapid increases of positive patients in all downstate facilities; however, VISN 2 encountered a few challenges in acquiring beds to account for projected shortages. In response, the logistics team contracted multiple vendors leasing beds for six-month leases. As seen in

Figure 7.14, through June 30, 2020, VISN 2 never exceeded Med/surg or ICU capacity and at times had at least twice the bed capacity needed.

Figure 7.14 *VISN 2 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

With the new hiring authorities, including emergency credentialing, VHA tasked all networks with onboarding new personnel as quickly as possible, ideally within three days. VISN 2 brought on new employees within six days (from offer to first day onsite) on average, as compared to the national average of eight to nine days.[627] As shown in Table 7.10, VISN 2 had a net gain of 265 personnel from February to June 2020. In total, VISN 2 hired 947 personnel and had 18,913 active employees as of June 30, 2020. From February 2020 to June 2020, 682 VISN 2 personnel departed the Department of VA. The network made notable net gains with Nurses (+67) and Nursing Assistants (+44) while notable net losses include Medical Officers (-23), Pharmacy (-7) and Psychology (-3).

Table 7.10 *VISN 2 Key HR Statistics (February - June 2020)*

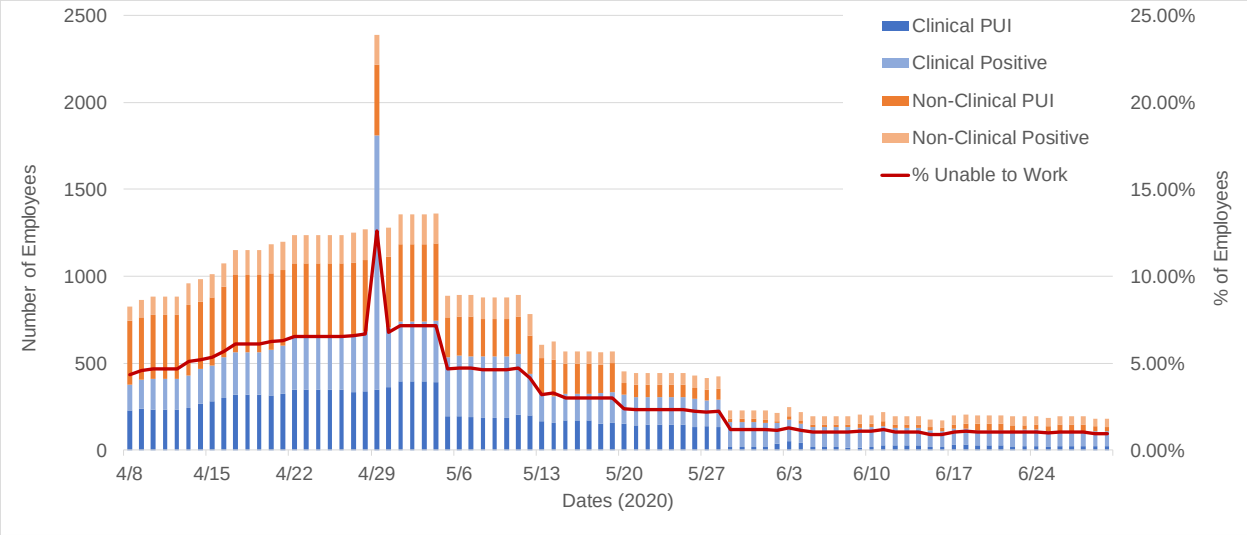
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	29	52	(23)	1,436
Nurse	207	140	67	3,860
Practical Nurse	71	49	22	765
Nursing Assistant	103	59	44	1,079
Medical Support Assistance	45	41	4	1,206
Pharmacist	1	8	(7)	440

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Psychology	3	6	(3)	299
Social Work	34	22	12	805
Custodial Worker	175	69	106	972
All Other Occupations	279	236	43	8,051
Totals	**947**	**682**	**265**	**18,913**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

Figure 7.15 *VISN 2 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

VISN 2 required increased manpower in anticipation of higher employee unavailability due to circumstances associated with COVID-19. In late April and early May 2020, approximately 6.0% of the workforce was unable to work due to circumstances related to COVID-19, as shown in Figure 7.15. Over time, clinical positives and PUIs decreased to a point where, from May 30, 2020 to June 30, 2020, overall unavailability remained at approximately 1.0% of the workforce.

Fourth Mission

New York and New Jersey state governments requested support for Fourth Mission engagement across the NYC metropolitan area. To initiate Mission Assignments for community bed capacity the governors approached FEMA, who subsequently approached VISN 2 to develop and finalize the plan. VISN 2 opened 15 ICU beds and 35 Med/surg beds to accommodate patients from NYC hospitals that had exceeded capacity. VISN 2 also supported three engagements in New Jersey that consisted of the following:

1. Provided 5 ICU beds and 15 Med/surg beds at the East Orange Campus for community patients. VHA treated a total of 32 community patient by the completion of the engagement on June 15, 2020.
2. In collaboration with VISN 4, VHA supplied a total of 175 personnel to support NJ SVHs. Personnel included up to 90 clinical personnel, consisting of Nurse Practitioners, a Nurse Educator, Infection Control practitioners, a Geriatrician, Registered Nurses, Licensed Practical Nurses, Nursing Assistants and Licensed Clinical Social Workers. Additionally, several non-clinical personnel supported the mission, including Housekeeping, Logistics and Industrial Hygienist.[628]
3. A VISN 2 Infection Control Nurse and Nurse Educator provided expertise to New Jersey SVHs at Paramus and Menlo Park regarding best infection control practices.

Each engagement is documented in Table 7.11 below.

Table 7.11 *VISN 2 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
New York Harbor HCS	State of NY	3/27/2020	6/3/2020	Community Bed Capacity	Provided 15 ICU and 35 Med/surg beds at the Manhattan and Brooklyn campuses for community patients
East Orange VAMC	State of NJ	3/27/2020	6/15/2020	Community Bed Capacity	Provided 5 ICU beds and 15 acute care beds at the East Orange Campus for community patients
Paramus and Menlo Park, NJ	Paramus and Menlo Park SVHs	4/20/2020	6/1/2020	Staffing Supplement and Education	The VA provided personnel support including Registered Nurses, Nurse Practitioners, a Nurse Educator and Licensed Practical Nurses

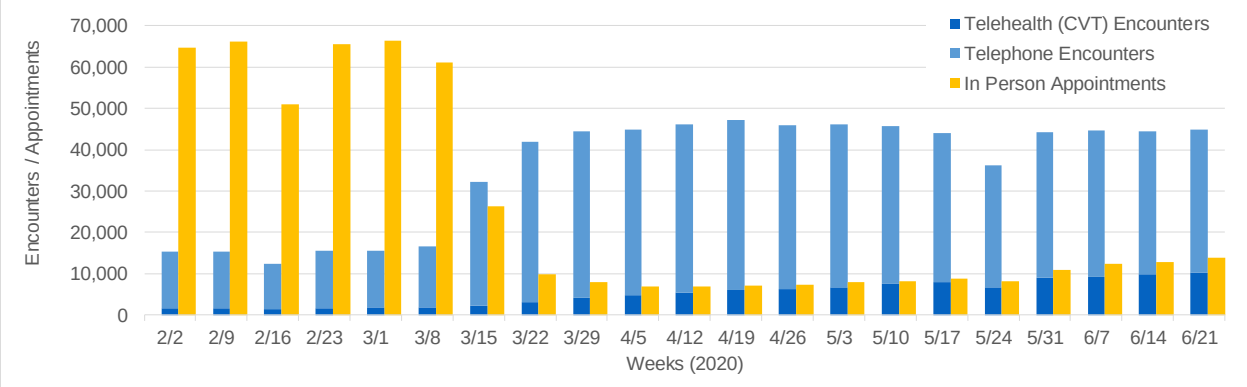
Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Paramus and Menlo Park, NJ	Paramus and Menlo Park SVHs	5/1/2020	8/3/2020	Infection Control Consultation	Supplied an Infection Control Nurse and Nurse Educator to provide expertise to the New Jersey SVHs at Paramus and Menlo Park regarding best infection control practices

Source: Response to Data Call, VISN 2, VHA, 8/11/2020.

Patient Care by Visit Type

As shown in Figure 7.16, from February 2, 2020 to March 8, 2020, VISN 2 primarily delivered in-person patient care. Network providers conducted approximately 65,000 in-person visits versus 15,000 virtual encounters per week. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020 patient visits were nearly equal at 28,000 for in-person and virtual; only one week later, most encounters were conducted virtually. Through June 2020, VISN 2 conducted approximately 45,000 virtual encounters per week while in-person appointments hovered around 10,000. As facilities began to reopen in June 2020, both in-person and Clinical Video Telehealth (CVT) encounters began to increase.

Figure 7.16 *VISN 2 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



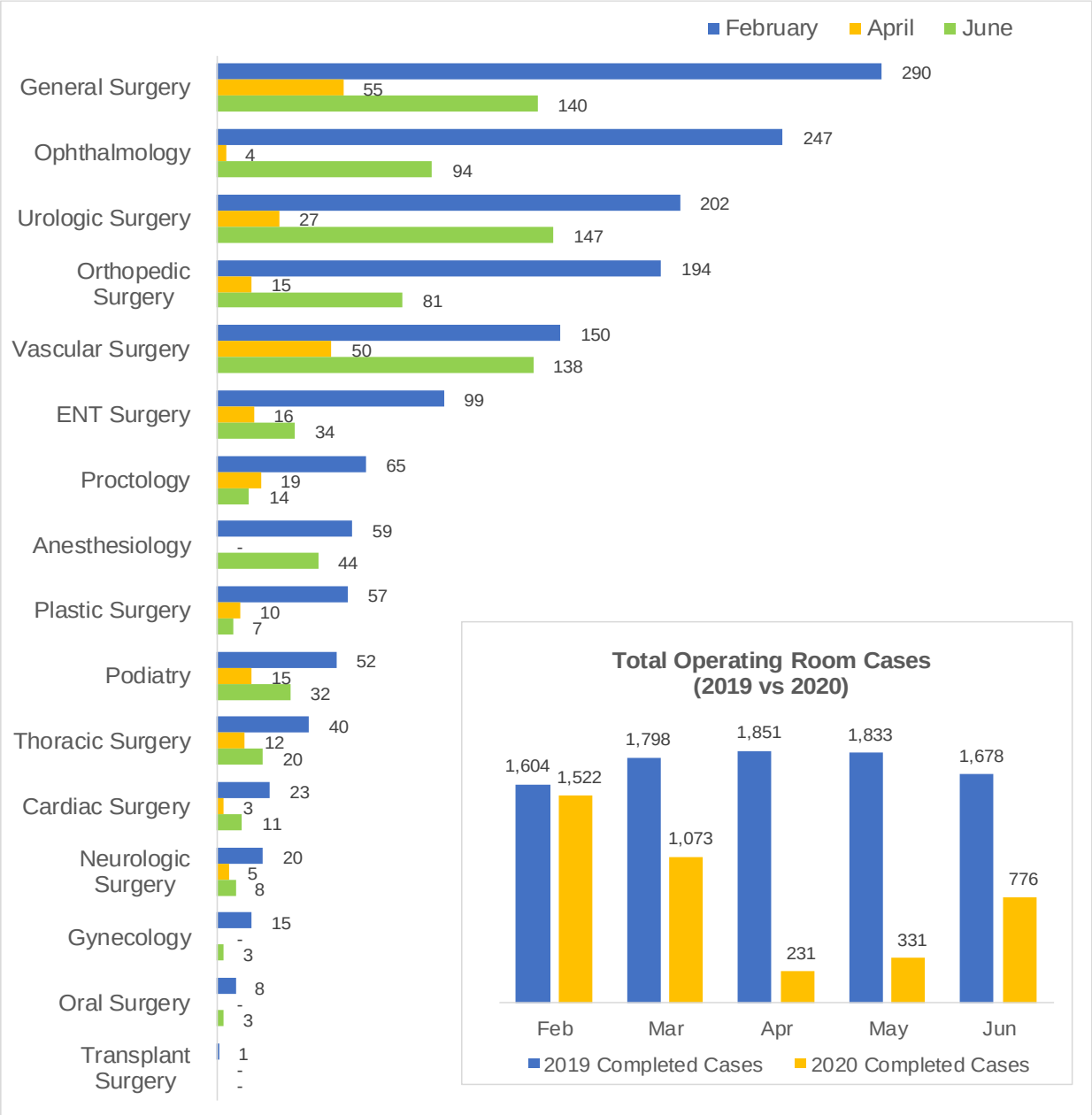
Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As shown in Figure 7.17, during its response VISN 2 OR cases decreased significantly in comparison to February 2019 to June 2019. VISN 2 completed 231 OR cases in April 2020 compared to 1,851 cases in April 2019. VISN 2 OR cases began to increase in June 2020 when VISN 2 began to more fully open facilities, including when it initiated the moving forward plan at Syracuse VAMC on May 27, 2020. The largest net loss in OR cases was in General Surgery, with a decrease of 235 cases between

February and April 2020; however, nearly all specialties increased their OR case count from April 2020 to June 2020.

Figure 7.17 *VISN 2 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

VISN 2 shifted supplies within the network, most notably in large reallocations of 45,000 gowns, 20,000 N95 respirators and 9.600 general masks, as shown in Table 7.12. VISN 2 sent 100,000 procedural masks to other VISNs who were in short supply.

Table 7.12 *VISN 2 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Body Bag	143	-	-	-
Gown	45,000	-	-	-
ICU Ventilator	38	-	-	-
Mask (General)	9,600	-	-	-
N95 Respirator	20,000	-	-	-
Oxygen Concentrator	8	-	-	-
Probe Covers	4	-	-	-
Procedural Mask	-	100,000	-	-
Test Kit	25	-	-	-
Transport Ventilator	8	-	-	-
Viral Specimen Kit	300	-	-	-

Source: Response to Data Call, VISN 2, VHA, 8/11/2020.

VISN 2 also shifted personnel across the network and brought nurses from upstate to downstate facilities. As shown in Table 7.13, the network received nearly 150 volunteers from other VISNs to support patient care efforts.

Table 7.13 *VISN 2 Movement of Personnel (as of June 30, 2020)*

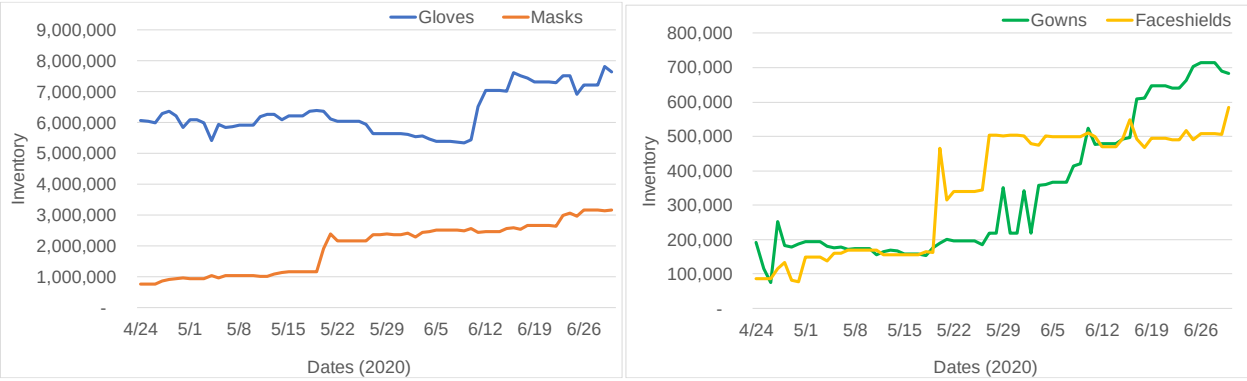
Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	-	-	6
Allied Health Clinician	-	1	-	7
Clinical Nurse Specialist	-	-	-	2
Clinical Support	-	-	-	3
Geriatrician	-	-	1	-
Health Care Technician	-	-	-	6
Infection Control Nurse	-	-	1	-
Licensed Practical Nurse	7	-	23	14
Mechanic	-	-	-	1
Nurse	-	-	-	1
Nurse Educator	-	-	2	-
Nurse Manager	-	-	-	2
Nurse Practitioner	-	-	2	8
Nursing Assistant	-	1	10	7
Physician	-	-	-	16

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Physician Assistant	1	-	-	2
Registered Nurse	21	8	39	69
Respiratory Therapist	2	-	-	-
Surgical Technician	1	-	3	-
Trade / Craft	-	-	-	6

Sources: Response to Data Call, VISN 2, VHA, 8/11/2020; Response to Data Call, VISN 2, VHA, 8/19/2020.

VISN 2 increased its supply of masks by over 2 million over the course of its response, as illustrated in Figure 7.18. Similarly, VISN 2 increased its supply of face shields and gowns over time, from approximately 100,000 in late April 2020, to between 600,000 and 700,00 by late June 2020.

Figure 7.18 *VISN 2 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

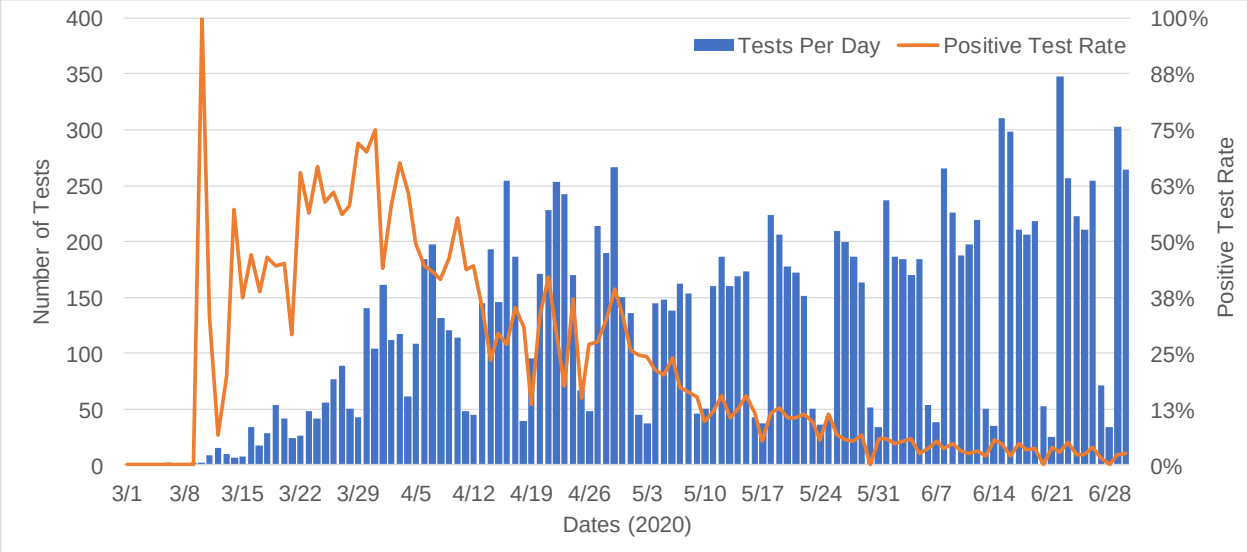
Testing During Response

By mid-April 2020, VISN 2 performed over 200 tests on some days, as seen in Figure 7.19. As new cases began to decline, VISN 2 administered fewer tests. Through late May and June 2020, VISN 2 typically tested between 150 to 250 patients a day, with positive rates remaining below 5%.

VISN 2 tested 6.1% of its Veterans Using VHA Services population and 100% of CLC residents, as illustrated in Table 7.14. Of the Veterans Using VHA Services tested, 1.2% returned positive. CLC residents returned higher positive rates at 30.1% of the population tested. VISN 2 was one of the first networks to respond to COVID-19 and the first to experience large outbreaks within its CLCs. In response, VISN 2 created precedent for developing policies (for example, asymptomatic transmission, source control and universal masking) before formal guidance was released from VHACO.

Much of VISN 2's guidance was adopted into national VHA policy to help prevent future outbreaks in CLCs and VISN facilities.

Figure 7.19 *VISN 2 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Table 7.14 *VISN 2 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	276,500	767
Population Tested	14,813	767
% of Population Tested	5.4%	100.0%
Population Positive	2,861	231
% of Population Positive	1.0%	30.1%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VA COVID-19 RESPONSE IN ACTION: VISN 2

New York Harbor VAMC Meeting Critical Care Needs of NYC Residents During COVID-19

On March 27, 2020, VISN 2 VA New York Harbor HCS was the first VHA hospital system tasked with a Fourth Mission Assignment during the COVID-19 response. One day later, VA NY Harbor HCS began receiving and treating critical community COVID-19 patients from NYC hospitals. VA NY Harbor HCS Director Martina Parauda described how New York Harbor HCS helped meet urgent community needs. “[NYC hospitals] were just overwhelmed and really were looking for any kind of help. So, the minute they were told that VA could help, they reached out to us,” she said. “If there had been even more beds available sooner, [we] would have filled them up.”

Ms. Parauda shared several stories of how New York Harbor HCS worked with the NYC health care system to help save community patients' lives. She also shared that much of the day-to-day work was challenging and took a toll on her staff. “The staff will readily tell you that, that it was very dark days, the end of March, and the month of April. They were seeing far more deaths than they had ever seen before.” She recalled a story of a (non-Veteran) New York Harbor HCS staff member who contracted COVID-19 and requested to be transferred to New York Harbor HCS after spending three weeks at a community hospital. Upon transfer, she was given only a few days to live. “That was very, very hard on the staff to watch one of their own die, despite their best efforts,” she said. “There are far too many, very sad stories that happened and that staff have to deal with.”

However, through these experiences, New York Harbor HCS teamed together to meet critical needs. Chief of Staff Dr. Patrick Malloy shared that one staff member said, “I wish that we could continue the way we were as a team during COVID-19 all the time; meaning all barriers were knocked down.” Dr. Malloy noted that the staff’s willingness to adapt ultimately had an impact on patient outcomes. “The ability of everyone to just respond to and accommodate that flexibility [of managing patients] was really just outstanding. It was a source of pride for everyone to work together as group…ultimately our patient outcomes were positively impacted from it.”

Source: Interview with VISN 2 Director and Chief of Staff, New York Harbor HCS, conducted on 8/8/2020.

VISN 4: VA Healthcare

Description of the Network and Population Served

VA Healthcare (VISN 4) operates in Pennsylvania, Delaware and New Jersey and provides health care services to nearly 280,000 Veterans Using VHA Services, as shown in Table 7.15. VISN 4 consists of 9 VA campuses, 9 CLCs, 43 outpatient clinics including 42 CBOCs.[629]

VISN 4 had 1,106 Veteran COVID-19 cases and reported 105 Veteran deaths associated with positive COVID-19 tests as of June 30, 2020. During its response, VISN 4 identified 117 VA employees who tested positive and there was one VA employee death related to COVID-19, as shown in Table 7.15.[630]

Table 7.15 *VISN 4 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	279,249
Veteran COVID-19 Cases	1,106
Veteran COVID-19 Inpatients	157
Veteran Deaths (COVID-19 related)	105
VISN Employees	14,878
Employee COVID-19 Cases	117
Employee Deaths (COVID-19 related)	1

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

In early March 2020 Philadelphia and Wilkes-Barre, PA reported the first confirmed community cases of COVID-19 in VISN 4.[631] By March 6, 2020, the Governor of Pennsylvania declared a State of Emergency.[632] VISN 4 had stood up its Incident Command Center approximately a month prior to this point in March 2020 in order to plan for COVID-19. VISN 4 followed national guidance to plan for a surge in cases by suspending non-essential activities, increasing bed capacity and creating additional negative pressure rooms.

As surge plans matured, VISN 4 faced challenges creating access for patients due to postponed routine and non-urgent care. Following VHACO directive, VISN 4 responded by implementing a waiver process across the network, restoring some access to providers. The first waiver enabled clinicians to conduct virtual visits using platforms other than the VA's virtual care platform, VA Connected Care. This first waiver opened up a breadth of services previously unavailable to patients without access to VA Connected Care. According to VISN 4 leadership, the virtual visit waiver helped to address the most critical issue during the network's response, deferred in person visits, as it enabled the provision of care. The second wavier addressed Veterans with opioid addiction and allowed clinicians to initiate pharmacologic treatment of substance abuse disorders via virtual visits.

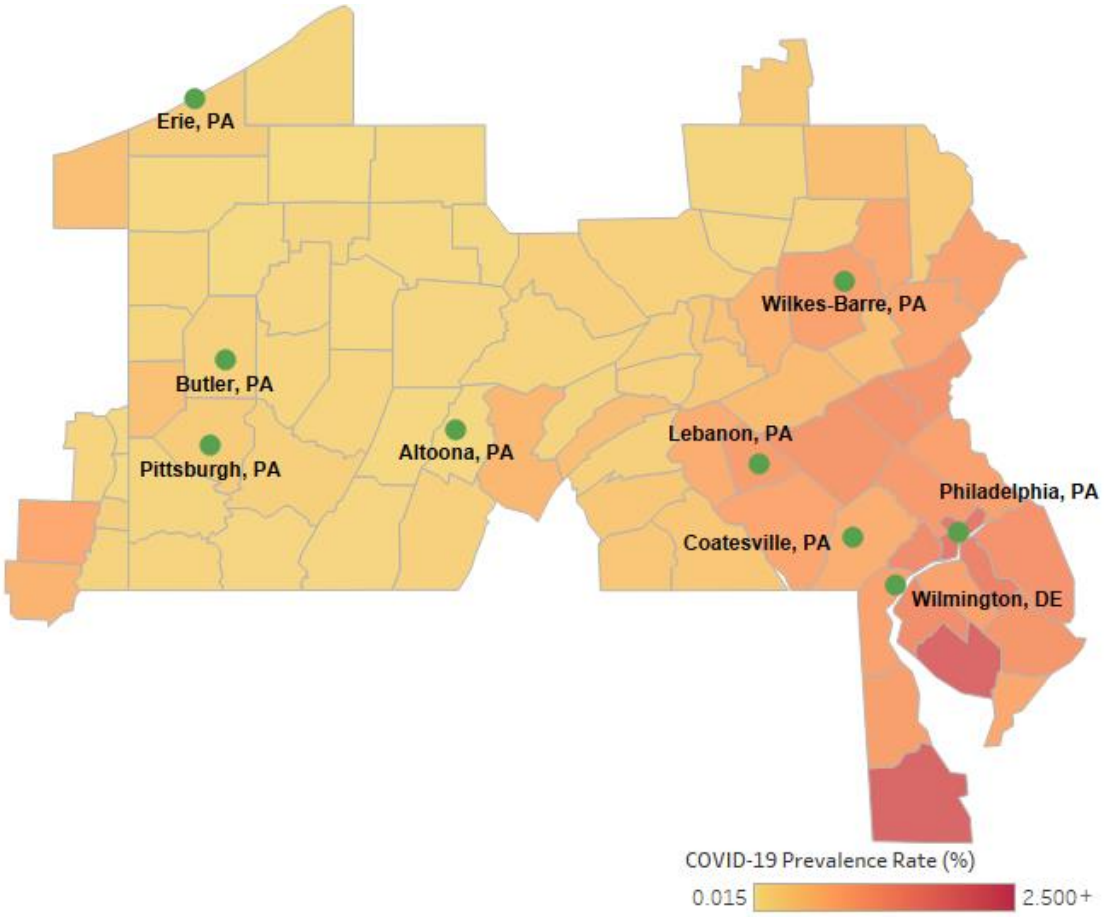
VISN 4 began expanding services at select sites once the virus started to recede. VISN 4 leadership viewed the notion of returning to normal as an opportunity to make accelerated changes toward a new normal. VISN 4 leadership met with primary care and mental health specialty teams and challenged them to think of new, creative ways to provide care virtually, especially for high risk populations. VISN 4's home-based primary care personnel increased the number of virtual care encounters during the response. Additionally, expanded telehealth services were beneficial as VISN 4 conducted more telephonic encounters in 2020 than any previous year. In this new normal, VISN 4 planned to expand a clinically-driven virtual health service that is left to the preferences of the providers.

Community Prevalence and VISN Case Statistics

The Corporal Michael J. Crescenz VAMC in Philadelphia, Pennsylvania was one of VISN 4's primary activity points during the response.[633] Burlington, Camden, Philadelphia, Montgomery and Delaware counties all exceeded 1% community prevalence and nearly reached 2% in some counties by June 30, 2020.[634] The Wilmington VAMC in Wilmington, Delaware was also heavily impacted.[635] Multiple counties including Salem, Delaware, Sussex and Cumberland experienced prevalence above 1% during the same period.[636] In aggregate, VISN 4 community prevalence reached nearly 0.80% by the end of June 2020, as shown in Figure 7.20.[637]

VISN 4 reported the first confirmed Veteran patient case the week of March 8, 2020. Positive cases among Veterans Using VHA Services increased rapidly from late March 2020 to late April 2020 before dwindling to lower levels. COVID-19 was less prevalent among Veterans Using VHA Services compared to the community, capping at 0.40% and 1,106 total confirmed cases by the end of June 2020, as shown in Figure 7.21.[638]

Figure 7.20 *VISN 4 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

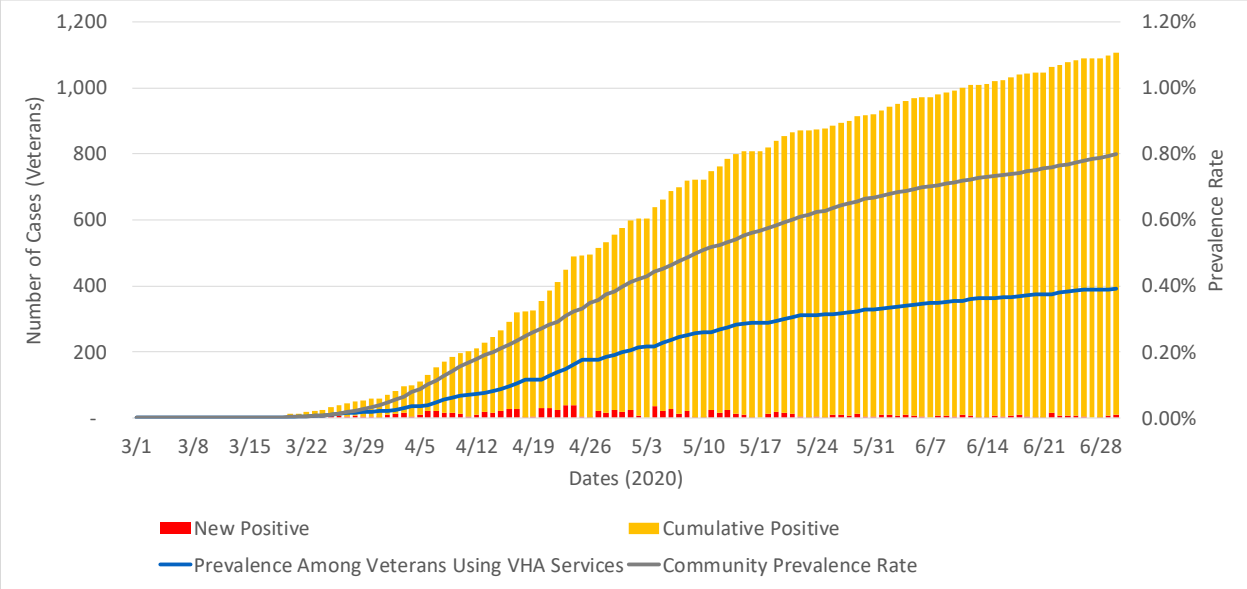
Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

denotes the location of a VA facility hub

Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs.

Data as of June 30, 2020.

Figure 7.21 *VISN 4 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

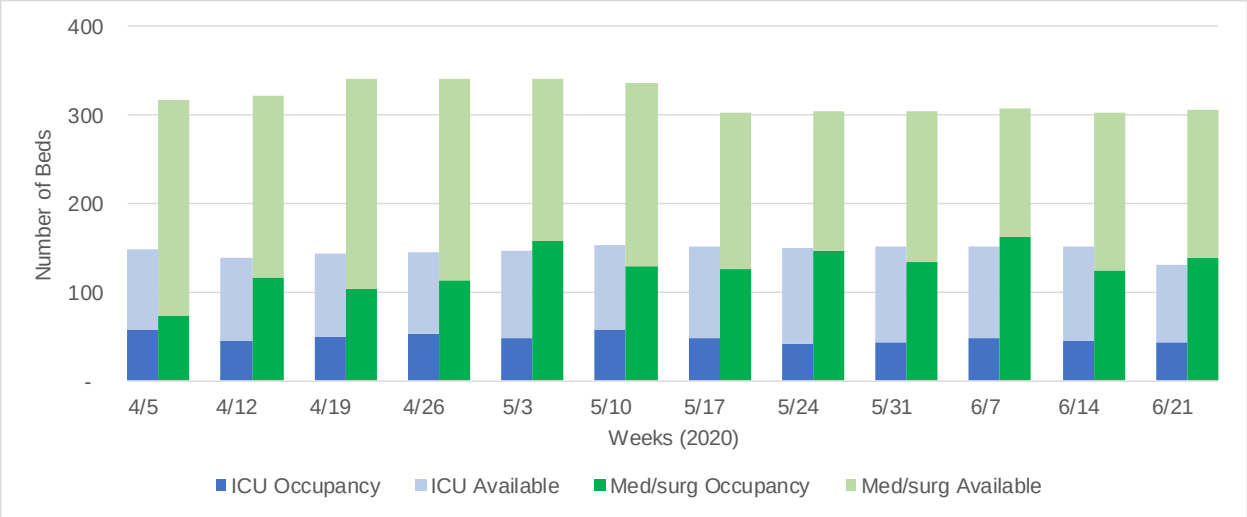
Capacity Management

VISN 4 followed national guidance to plan for a surge in cases by suspending non-essential activities, increasing bed capacity and creating additional negative pressure rooms. By late April 2020, Corporal Michael J. Crescenz VAMC increased its peak bed counts to 43 and 86 for ICU and Med/surg, respectively.[639] VISN-wide, Med/surg capacity increased to over 300 beds and ICU bed capacity expanded to more than 150 beds at their respective peaks, as seen in Figure 7.22.[640]

From March 2020 to June 2020, VISN 4 experienced few significant capacity issues.[641] Across the network, total inpatient bed occupancy never exceeded 75%.[642] The Corporal Michael J Crescenz VAMC in Philadelphia was the one outlier. At one point, only three ICU beds remained unoccupied and the medical center was running low on ventilators. VISN 4 responded by redistributing six ventilators from Pittsburgh VAMC

and two from Wilmington VAMC to the Corporal Michael J. Crescenz VAMC in Philadelphia, as shown in Table 7.19.

Figure 7.22 *VISN 4 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

VISN 4 hired 820 personnel and 488 VISN 4 personnel left the VA from February 2020 to June 2020. Of the new hires, 326 were clinical personnel ranging from Medical Officers, Nurses, Practical Nurses, Nursing Assistants and Medical Support Assistants. Other hired personnel, 494 in total, included Pharmacists, Social Workers, Custodial Workers and all other occupations. Overall, Nurses, Custodial Workers, Social Worker and all other occupations experienced the most growth in VISN 4 from February 2020 to June 2020. As of June 30, 2020, VISN 4 had 14,878 active personnel. Table 7.16 provides an overview of VISN 4 staffing statistics.

During its response, VISN 4 worked closely with VHACO to identify and address staffing needs. To recruit additional staff and fill important occupancies, VISN 4 engaged WMC to promote hiring announcements and certificate reviews. In addition, VISN 4 stood up its own staffing unit in March 2020 to focus on high priority positions across the network, as shown in Table 7.16. VISN 4 accelerated in-demand candidate hiring by using the expedited onboarding process established by VHACO, which is described in the Human Resources section of this report.

Facilities across VISN 4 agreed to place temporary personnel as support for existing personnel if facilities became overwhelmed. For example, new hires were assigned to augment telehealth during high demand.

Table 7.16 *VISN 4 Key HR Statistics (February - June 2020)*

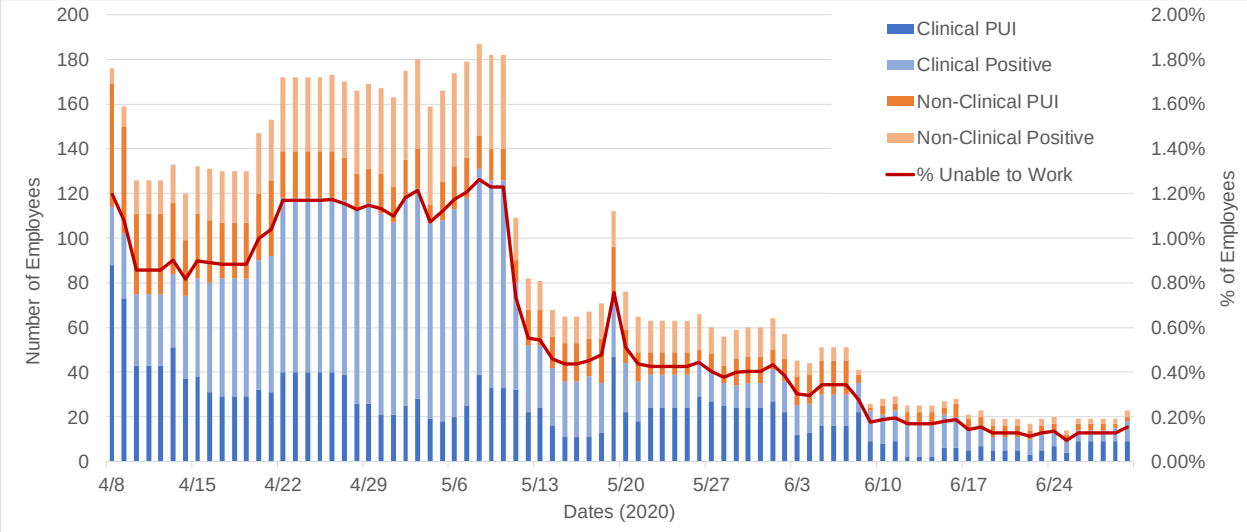
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	19	23	(4)	1,083
Nurse	187	101	86	3,079
Practical Nurse	54	27	27	803
Nursing Assistant	56	21	35	546
Medical Support Assistance	68	36	32	1,085
Pharmacist	14	3	11	346
Psychology	3	3	-	247
Social Work	28	11	17	606
Custodial Worker	117	54	63	677
All Other Occupations	274	209	65	6,406
Totals	**820**	**488**	**332**	**14,878**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

As indicated in Figure 7.23, from April 8, 2020 to May 10, 2020, 0.8% to 1.2% of VISN 4's workforce was unable to work due to circumstances related to COVID-19. The percentage of employees unable to work declined through May 18, 2020 to approximately 0.40%, then suddenly increased to nearly 0.80% on May 19, 2020. From May 20, 2020 to the end of June 2020, the percentage of employees unable to work due to circumstances related to COVID-19 gradually declined and reached less than 0.20% by June 30, 2020. Overall, COVID-19 impacted more clinical personnel than non-clinical personnel in VISN 4.

Figure 7.23 *VISN 4 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 4 contributed to three Fourth Missions during the response, as indicated in Table 7.17. The Fourth Mission taskings took place in New Jersey, Delaware and Pennsylvania.

In Delaware, VISN 4 provided staffing support and subject matter expertise to CNHs by deploying 45 clinical and non-clinical personnel in April 2020.[643] In Pennsylvania, VISN 4 deployed 17 Registered Nurses, 6 License Practical Nurses and 1 Health Care Technician in April 2020 to the Southeastern Pennsylvania SVH located in Spring City, PA to provide staffing support and subject matter expertise.[644] In May 2020, VISN 4 provided staffing support to New Jersey SVHs and CNHs by deploying more than 80 clinical and non-clinical personnel.

VISN 4 relied on the DEMPS program and an intra-VISN direct detail process during Fourth Mission taskings. Initially, VISN 4 relied on internal detail processes in order to deploy personnel directly on urgent Fourth Missions. As described in the Cross-VISN Summary section of this report, VISN 4 leadership noted delays in DEMPS processes; the network utilized DEMPS more as the program's processes evolved and reached steady state.

Table 7.17 *VISN 4 Fourth Mission and Community Support (as of June 30, 2020)*

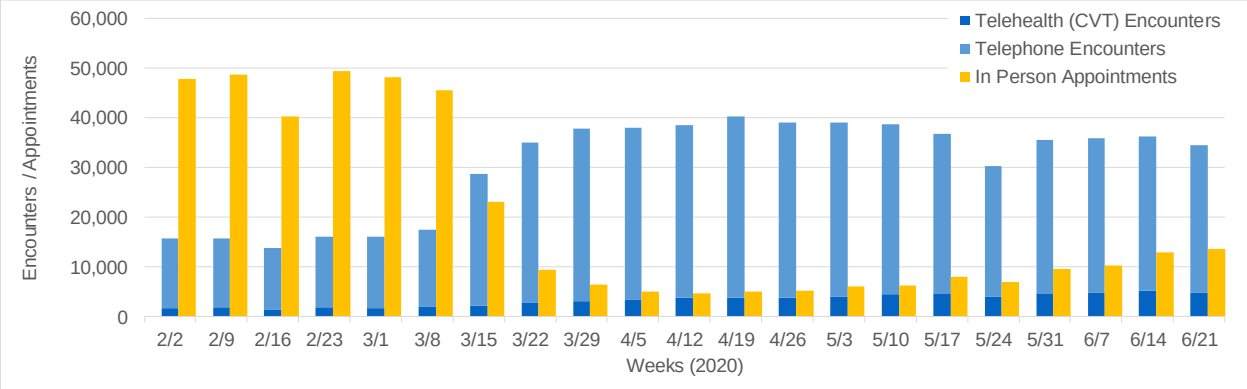
Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Multiple Locations, DE	Delaware CNHs	4/16/2020	6/30/2020	Staffing Support and Subject Matter Expertise	Provided 3 Administrators, 23 Registered Nurses, 12 License Practical Nurse, 5 Nursing Assistants, 1 Dietician, 1 Administrative Staff
Spring City, PA	Southeastern Pennsylvania SVH	4/23/2020	7/11/2020	Staffing Support and Subject Matter Expertise	17 Registered Nurses, 6 License Practical Nurses, 1 Health Care Technician
Multiple Locations, NJ	New Jersey SVHs and CNHs	4/19/2020	6/3/2020	Staffing Support and Subject Matter Expertise	5 Administrators, 36 Registered Nurses, 18 Licensed Practical Nurses, 9 Nursing Assistants, 2 Nurse Practitioners, 1 Health Care Technician, 5 Social Workers, 6 Administrative Staff, 2 Housekeeping Aids

Source: Response to Data Call, VISN 4, VHA, 7/14/2020.

Patient Care by Visit Type

Figure 7.24 provides an overview of VISN 4 patient appointments and encounters over time.[645] From early February 2020 to early March 2020, VISN 4 primarily delivered in-person care to patients. For example, during the week of March 8, 2020, VISN 4 scheduled approximately 45,000 in-person appointments and completed approximately 17,000 telehealth and telephone encounters. By mid-March 2020, VISN 4 began tracking along the overall cross-VISN trend, shifting from in-person care to virtual care. During the week of March 15, 2020, telephone and telehealth encounters increased to nearly 30,000 encounters per week and continued to trend upward over the following two weeks. By the week of March 29, 2020, telephone and telehealth encounters reached a steady state between 30,000 and 40,000 encounters per week.

Figure 7.24 *VISN 4 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



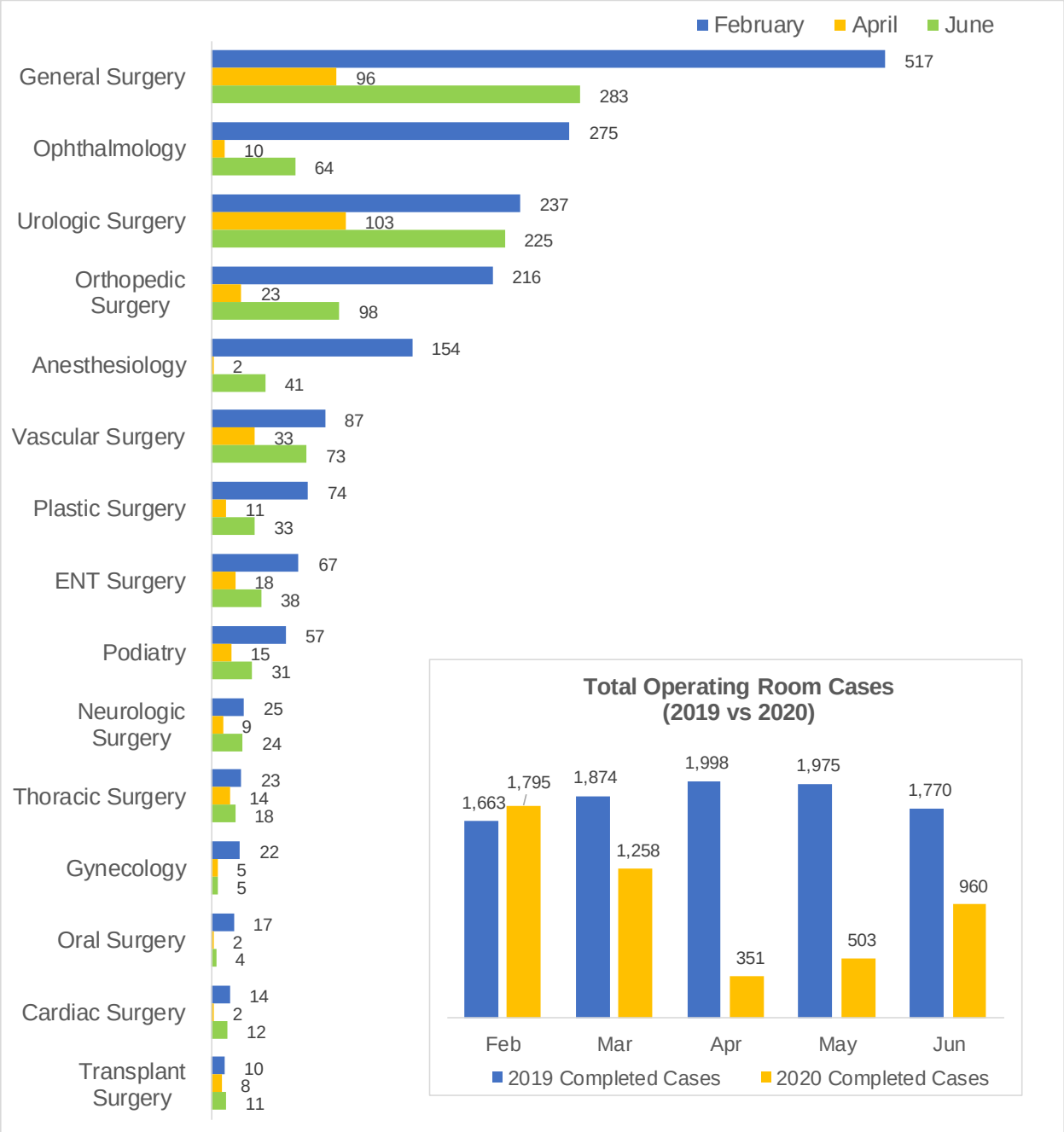
Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Between mid-March 2020 to mid-April 2020, in-person appointments decreased to approximately 5,000 appointments per week, then started trending upward starting in late-April 2020. By late June 2020, in-person appointments reached nearly 15,000 appointments per week, or approximately 35% pre-COVID-19 levels.

Figure 7.25 provides a comprehensive overview of VISN 4 completed OR cases. Early in the response, VISN 4 total OR cases declined from 1,795 cases in February 2020 to 351 cases in April 2020. The most significant decreases in OR cases occurred in general surgery, ophthalmology, orthopedic surgery and anesthesiology service lines. By May 2020, total OR cases in VISN 4 began to increase and reached 503 cases, or approximately 25% of May 2019's total OR cases. As the response matured, total OR cases across all service lines started to recover from the April 2020 figures. Total OR cases increased to 960 in June 2020, or approximately 50% of June 2019's cases. As of June 2020, OR cases across all services lines, excluding transplant surgery, remained below February 2020 levels.[646]

Figure 7.25 *VISN 4 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

Table 7.18 provides an overview of VISN 4 personnel movement. Within the network, VISN 4 sent Police Officers and Registered Radiologic Technicians to support responses in Philadelphia and Pittsburgh, respectively. Additionally, VISN 4

reallocated personnel within each facility as needed. Internal facility shifts were not tracked at the VISN level.

VISN 4 sent personnel to support other VISNs and non-VHA entities throughout the response. VISN 4 sent a total of 58 clinical personnel including Nurse Practitioners, Registered Nurses, Allied Health Clinicians (such as Physical Therapists or Respiratory Therapists), Clinical Support personnel, Nursing Assistants and Licensed Practical Nurses to other VISNs by the end of June 2020. Additionally, VISN 4 deployed other personnel including 12 Administration personnel, 2 Health Care Technicians and 2 Trade/Craft personnel to support other VISNs.[647]

VISN 4 also supported non-VHA entities with personnel. Notably, VISN 4 deployed 73 Nurses, 26 Licensed Practical Nurses, 10 Nursing Assistants, 8 Allied Health Clinicians, 5 Nurse Practitioners, 2 Nurse Managers and 1 Clinical Support personnel to non-VHA entities. The network also deployed personnel from Administration, Management, Health Care Technicians and Trade/Craft to non-VHA entities from February 2020 to June 2020.[648]

Overall, VISN 4 sent more personnel to other VISNs and non-VHA entities than it reallocated within its network. As of June 2020, VISN 4 did not receive personnel from other VISNs.[649]

Table 7.18 *VISN 4 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	12	14	-
Allied Health Clinician	-	6	8	-
Clinical Support	-	1	1	-
Firemen	-	-	-	-
Health Care Technician	-	2	2	-
Licensed Practical Nurse / Licensed Vocational Nurse	-	14	26	-
Nursing Assistant	-	5	10	-
Nurse Manager	-	-	2	-
Nurse Practitioner	-	5	5	-
Nurse	-	-	20	-
Police Officers	7	-	-	-
Registered Nurse	-	27	53	-
Trade / Craft	-	2	2	-

Source: Response to Data Call, VISN 4, VHA, 7/14/2020.

Table 7.19 provides an overview of VISN 4 supplies movement. In addition to personnel, VISN 4 rebalanced supplies within the network and sent supplies to non-VHA entities. VISN 4 primarily rebalanced supplies from a central repository to VISN facilities during the response.[650] By June 2020, VISN 4 rebalanced 81,000 cloth masks, 44,600 gowns, 30,000 gloves, 20,000 surgical masks and 20,000 face shields within the network.[651]

VISN 4 provided supplies to non-VHA entities including SVHs and CHNs. Notably, VISN 4 sent 19,860 gloves, 15,400 isolation gowns and 12,800 non-surgical masks to non-VHA entities from February 2020 to June 2020. Overall, VISN 4 rebalanced more supplies within its network than sent to other VISNs and non-VHA entities. As of June 2020, VISN 4 did not receive supplies from other VISNs.[652]

Table 7.19 *VISN 4 Movement of Supplies (as of June 30, 2020)*

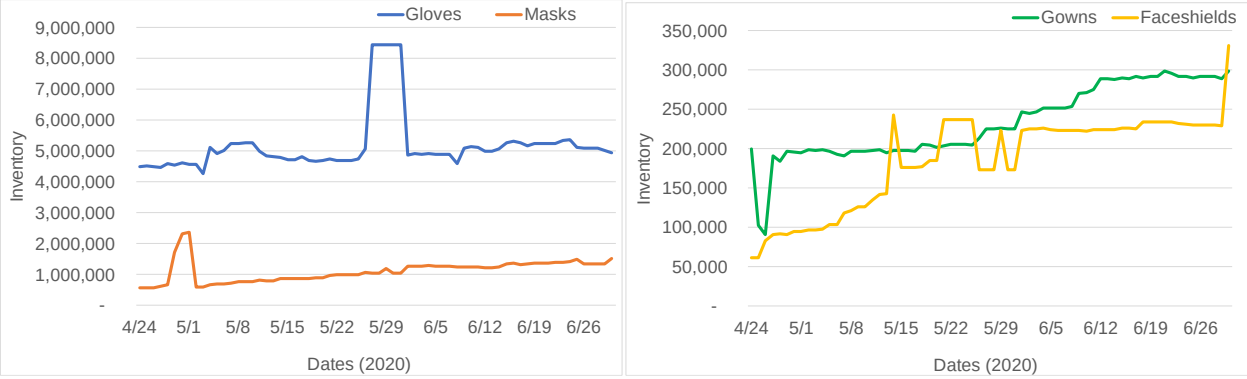
Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Calvicide	-	-	400	-
Cloth Mask	81,000			
Face Shield	20,000	-	698	-
Foot Cover	-	-	305	-
Glove	30,000	-	19,860	-
Gown	44,600	-	260	-
Hair Bouffant	-	-	305	-
Hand Sanitizer	-	-	1,099	-
Hemodialysis Unit (Tablo)	2	-	-	-
Isolation Gown	-	-	15,400	-
N95 Respirator	-	-	560	-
Non-Surgical Mask	-	-	12,800	-
Oxygen Concentrator	-	-	25	-
PAPR	-	-	1	-
Surgical Mask	20,000	-	-	-
Ventilator	5	-	-	-

Source: Response to Data Call, VISN 4, VHA, 7/14/2020.

Figure 7.26 provides an overview of VISN 4 PPE inventory over time. VISN 4's PPE inventory fluctuated at different points of the response. From late April 2020 to late June 2020, face shield inventory increased from approximately 50,000 face shields to nearly 350,000 face shields. The week of May 29, 2020, gown inventory began to

increase and by late June 2020 VISN 4 had stockpiled nearly 100,000 additional gowns. Mask and glove inventory experienced temporary spikes in April 2020 and May 2020, respectively.[653]

Figure 7.26 *VISN 4 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

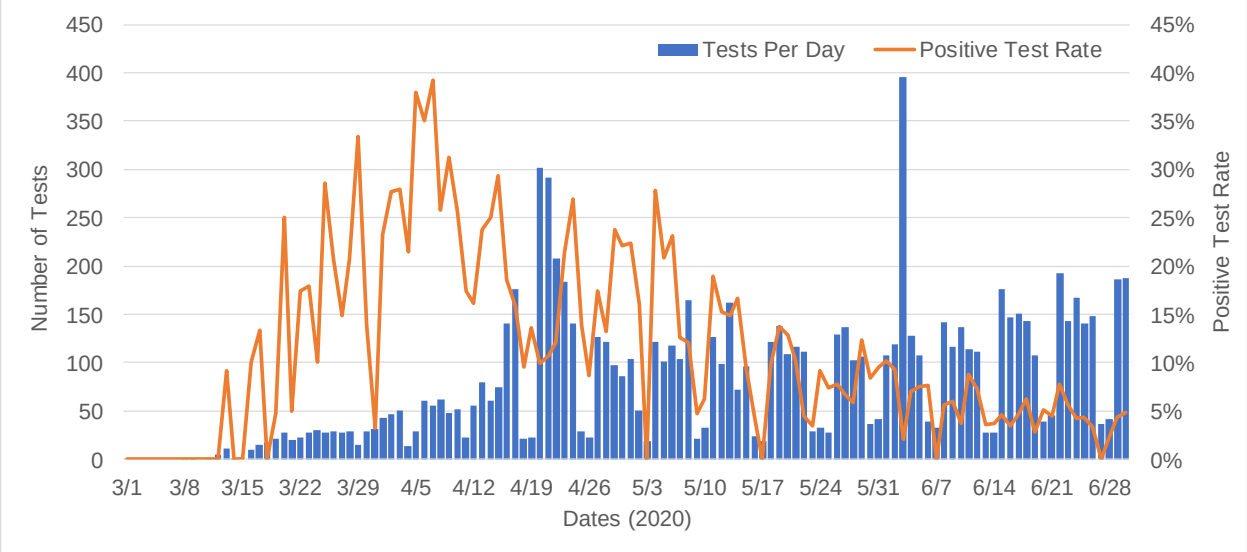


Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

Figure 7.27 provides a comprehensive overview of VISN 4 testing over time. VISN 4 completed up to approximately 50 COVID-19 tests a day in March 2020. In April 2020, the number of tests per day spiked to up to 300 tests per day. During that two-month period, the daily positive test rate fluctuated significantly, ranging from 0% to more than 35%. Throughout May 2020 and June 2020, the number of tests per day held steady at an average of approximately 100 tests per day. One day in early June 2020 saw more than 400 tests were completed. According to VISN 4 leadership, testing was the network's most limiting factor during its response. The network's positive test rate began trending down in late April 2020. By mid-May 2020, the daily positive test rate stabilized between 0% and 15%.[654]

Figure 7.27 *VISN 4 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Table 7.20 provides an overview of VISN 4 Veteran testing. Within VISN 4, 9,439 of 279,249 (3.4%) Veterans Using VHA Services received testing for COVID-19 by June 30, 2020. VISN 4 identified 1,106 positive cases, representing 0.4% of the total Veterans Using VHA Services population. VISN 4 tested 540 of 545 (99.0%) of its CLC residents by June 30, 2020. Of the total CLC resident population, 7.7% (42 residents) tested positive for COVID-19.[655]

Table 7.20 *VISN 4 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	279,249	545
Population Tested	9,439	540
% of Population Tested	3.4%	99.0%
Population Positive	1,106	42
% of Population Positive	0.4%	7.7%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VA COVID-19 RESPONSE IN ACTION: VISN 4

Wilmington VAMC Nurse Deploys to CNH to Help Vulnerable Residents

Photo caption: VA nurses from around the country took part in VA's Fourth Mission by deploying to community nursing homes in New Jersey.

Wilmington VAMC nurse Bridget Kirkner deployed to a CNH in Absecon, NJ as part of the VA's Fourth Mission. She expressed gratitude for being able to support this particular population of vulnerable residents. "I felt the need to help care for arguably the most vulnerable population, who has truly had their whole world turned upside down due to COVID-19," she said. "My grandfather is currently in a long-term care facility, and we are unable to visit. Just from talking on the phone with him, we know he's devastated by the isolation. Since I can't work directly with my Poppy, I wanted to be able to help ease the anxiety somewhere else in the local community," she said.

Ms. Kirkner noted that this particular Fourth Mission Assignment provided her an opportunity to contribute to the community. "I feel blessed to be a part of this Fourth Mission deployment, as it presents a unique opportunity to work alongside our civilian counterparts," she said. "I am very grateful for this opportunity. I have tremendous appreciation for how difficult care for patients is in this type of environment."

Source: "VA Nurses Share Stories About Fighting COVID-19," Wilmington VAMC, VA, 6/15/2020, https://www.wilmington.va.gov/features/Veterans_Affairs_Nurses_Share_Front_Line_Stories_A.asp, accessed 10/14/2020.

VISN 5: Capitol Health Care Network

Description of the Network and Population Served

The VA Capitol Health Care Network (VISN 5) serves Veterans from Maryland, the District of Columbia and portions of Virginia, West Virginia and Pennsylvania.[656] VISN 5 delivers health care at 9 VAHCS / VAMCs, 6 CLCs and 31 outpatient clinics including 29 CBOCs.[657] Over 765,000 Veterans reside in the VISN 5 catchment area.[658]

Within its expansive network of over 198,000 Veterans Using VHA Services, VISN 5 provided COVID-19 testing for both employees and patients. As show in Table 7.21, VISN 5 identified 827 COVID-19 Veteran cases and 125 employee cases through June 30, 2020. Of these cases, 94 Veteran and 2 employee deaths were associated with positive tests for COVID-19.

Table 7.21 *VISN 5 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	198,958
Veteran COVID-19 Cases	827
Veteran COVID-19 Inpatients	163
Veteran Deaths (COVID-19 related)	94
VISN Employees	11,935
Employee COVID-19 Cases	125
Employee Deaths (COVID-19 related)	2

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

The Washington D.C. metropolitan area first detected COVID-19 cases in early March 2020; slow and steady spread across the area followed through early April 2020.[659] Early in its response, VISN 5 instituted an area-wide command model that included Incident Command teams at every facility. These teams helped with daily communication in order to provide information and understand resourcing needs. Initially, the greatest demand for patient care was at VISN 5's Washington D.C. VAMC. Cases subsequently began to spread throughout the network, spreading next to the

VA Maryland HCS and then to the Martinsburg VAMC in West Virginia.[660] Demand initially remained low in the Clarksburg, Huntington and Beckley facilities in West Virginia.

VISN 5 provided staffing support to SVHs in the network and the 350-person SVH in Charlotte Hall, Maryland represented its largest Fourth Mission engagement. Charlotte Hall SVH initially requested an urgent two-week mission for personnel to provide infection control risk assistance training. Due to the quick turnaround, VISN 5 noted that it did not have time to go through the formal DEMPS process; instead, VISN 5 quickly solicited 38 nursing volunteers from within the network and deployed them in under five days. The personnel provided PPE training, support and education in infection control and patient safety. By the end of the requested two weeks, Charlotte Hall SVH reported high positive COVID-19 rates among residents; at one point the positive rate eclipsed 50% of the resident population. VISN 5 requested an additional 2 week mission of 55 personnel through DEMPS and DEMPS was able to fill the request. The deployed VHA team created three additional COVID-19 units and staffed 60% of the night shifts at Charlotte Hall SVH. Upon completion of the deployment, fewer Charlotte Hall residents tested positive for COVID-19 and no VHA employees tested positive.

VISN 5 leadership indicated that two outstanding issues emerged during its Charlotte Hall SVH mission. First, VISN 5 reported staffing challenges when utilizing the DEMPS system. From a scheduling and coordination standpoint, VISN 5 had no full-time Emergency Manager. VISN 5 relied on one resource who was splitting time between multiple roles. VISN 5 noted that dedicating full time equivalents to emergency management could streamline the DEMPS process and better prepare employees for pending deployments. VISN 5 also noted that a DEMPS challenge was staffing deployments. VISN 5 stated that the DEMPS process was not agile enough to be responsive to urgent and protracted requests when rapid response was critical to save lives, as with the Charlotte Hall SVH. VISN 5 reported that a system (DEMPS or otherwise) that allows for intra-VISN movements would expedite staffing compared to traditional HR processes. Additionally, VISN 5 leadership reported that the coordination and response processes could be expedited if more personnel preregistered in the system.

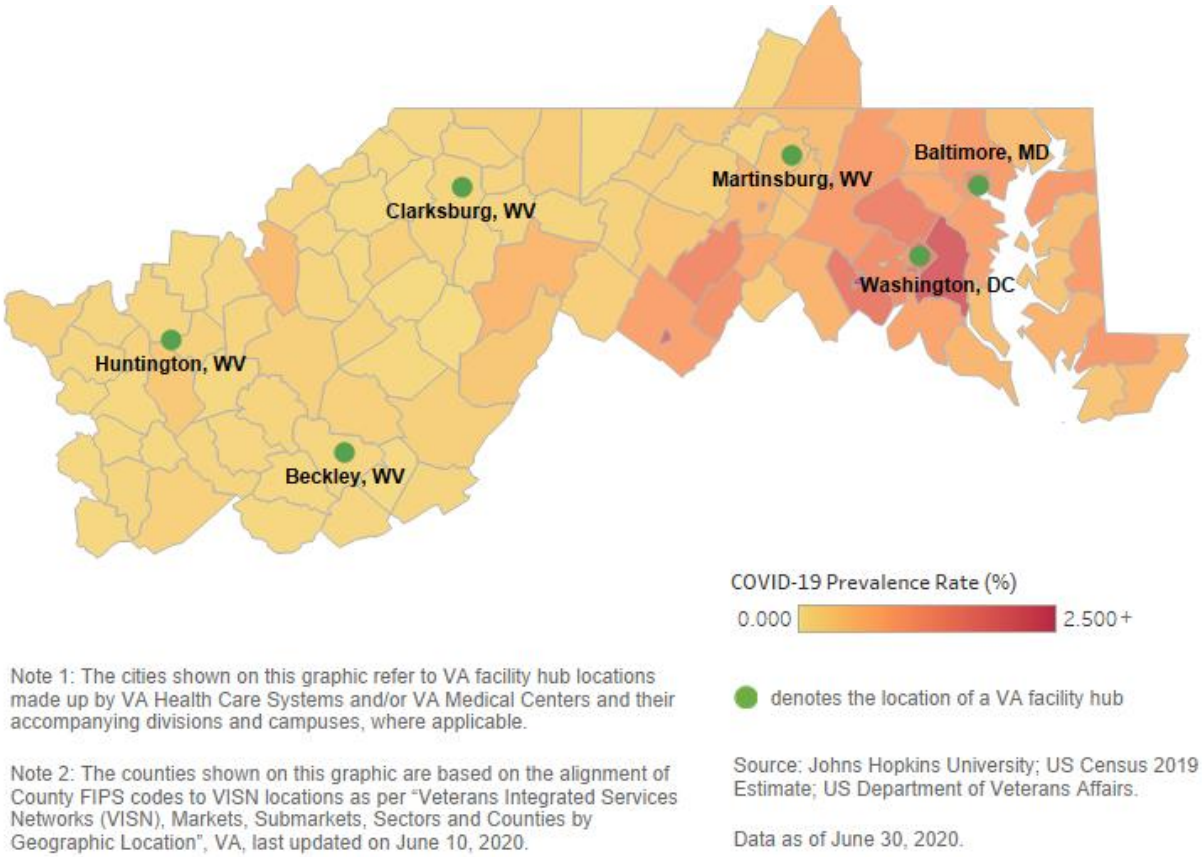
Second, VISN 5 leadership described challenges getting rapid test results in a timely manner as employees not tested prior to deployment could only get tested at the Washington D.C. VAMC. Delays in test processing impacted employees starting shifts at Charlotte Hall SVH. Outside of SVHs, VISN 5 noted that delays in testing impacted emergency rooms; following local guidelines in effect at the time, VISN 5 admitted

PUIs until test results were received. Overall, VISN 5 leadership noted that the issue of slow test results was the most limiting factor in its response.[661]

Community Prevalence and VISN Case Statistics

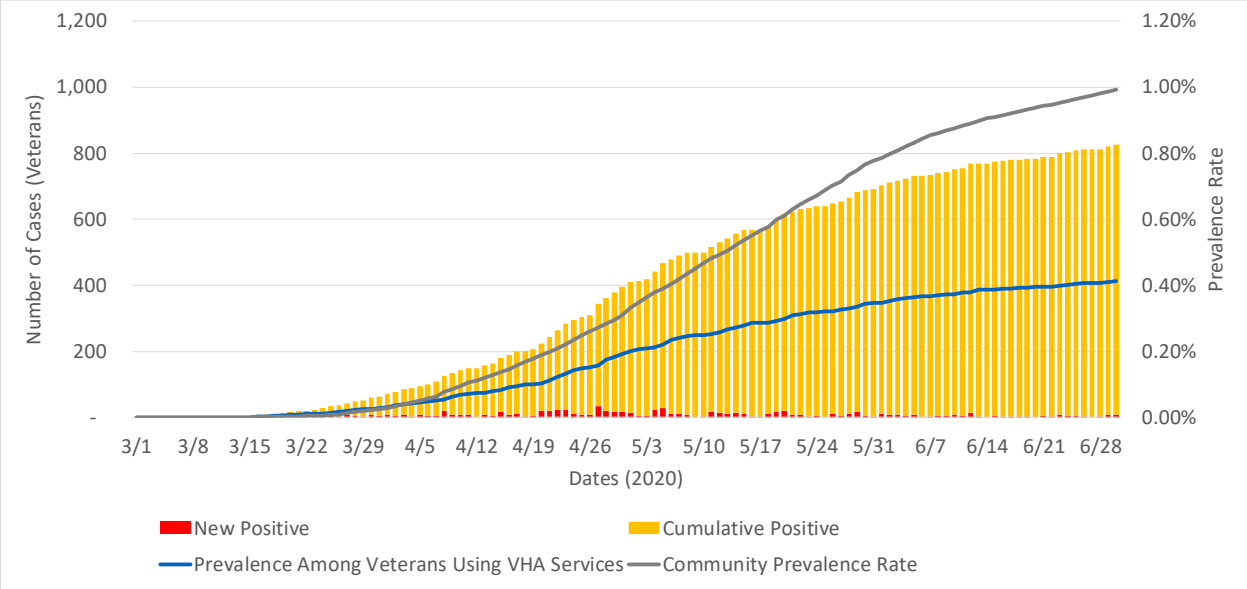
As shown in Figure 7.28, COVID-19 community prevalence rates remained low across Beckley, Huntington and Clarksburg VAMC catchment areas of West Virginia (all below 0.15% as of June 30, 2020).[662] Moving east towards more metropolitan areas, community prevalence rates reached 0.91% and 1.4%, respectively, as of June 30, 2020, in the VA Maryland HCS and Washington D.C. catchment areas.[663]

Figure 7.28 *VISN 5 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



During the first few months of the response, the prevalence rate among Veterans Using VHA Services within VISN 5 closely mirrored that of the community, as illustrated in Figure 7.29. VISN 5 reached peak new cases across its network by the end of April 2020 and prevalence among Veterans Using VHA Services slowed through the end of June 2020; however, community prevalence continued to increase during this time.

Figure 7.29 *VISN 5 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

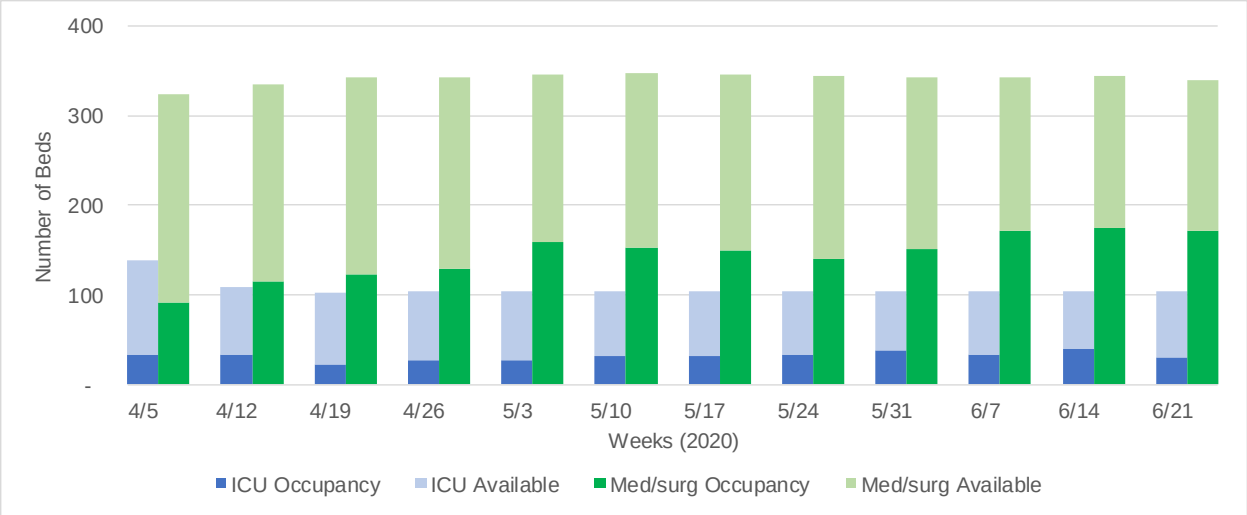
Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 5 developed surge plans to accommodate increases in ICU and Med/surg bed demand. VISN 5 reported the creation of additional negative pressure rooms as the network's primary initial challenge. VISN 5 noted that engineering personnel helped mitigate this challenge in part through negative pressure machines that the network had in supply or purchased from external sources. Each VISN 5 facility worked to seal off a block of rooms, or an entire ward, with the use of large plastic film that can be used to create airtight barriers. VISN 5 placed the negative pressure machines in each room and vented through the window to create the airflow needed for isolation. VISN 5 activated 22 surge beds within the VA Maryland HCS, but never needed to use those beds. VISN 5 also preemptively reallocated ventilators within the network and sent several to the Washington D.C. VAMC; however, the facility did not have to utilize the

additional equipment. Through June 30, 2020, VISN 5 never exceeded bed capacity as shown in Figure 7.30.

Figure 7.30 *VISN 5 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Photo caption: Navy Veteran Jamal Thomas is ready for discharge after spending over a month at the Baltimore VA while being treated for COVID-19.

Source: "Navy Veteran going home after 30 days with the virus," VA, 6/24/2020, https://www.blogs.va.gov/VAntage/76175/navy-veteran-going-home-30-days-virus, accessed 10/14/2020.

HR / Staffing

As shown in Table 7.22, VISN 5 had a net gain of 231 personnel from February 2020 through June 2020. In total, VISN 5 hired 577 personnel and had 11,935 employees on June 30, 2020. From February 2020 to June 2020, 346 VISN 5 personnel became no longer employed by VA. The network saw notable net gains with Nurses (+72) and a net loss with Psychology (-1).

Table 7.22 *VISN 5 Key HR Statistics (February - June 2020)*

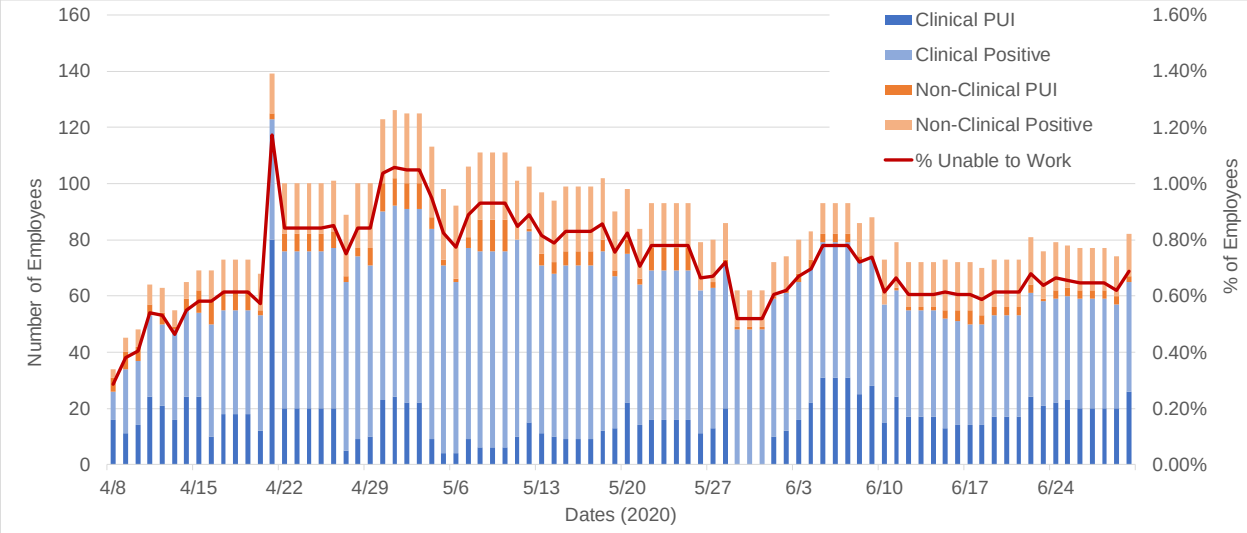
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	33	18	15	919
Nurse	122	50	72	2,598
Practical Nurse	39	13	26	478
Nursing Assistant	49	13	36	544
Medical Support Assistance	38	30	8	798
Pharmacist	7	4	3	292
Psychology	4	5	(1)	201
Social Work	14	5	9	520
Custodial Worker	58	37	21	513
All Other Occupations	213	171	42	5,072
Totals	**577**	**346**	**231**	**11,935**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

In late April 2020, approximately 1.0% of the workforce was unable to work due to circumstances related to COVID-19, as shown in Figure 7.31. Unavailability rates declined through May 2020 and June 2020 and leveled off to approximately 0.7% by June 30, 2020.

Figure 7.31 *VISN 5 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 5 participated in nine Fourth Mission engagements as shown in Table 7.23. Within its own network, VISN 5 reported that the Charlotte Hall SVH Mission required an additional 10 VISN 5 Nurses by week two of the deployment to assist with day shifts in addition to the ongoing evening and night shifts. As the mission progressed, VISN 5 employees provided infection control training for personnel across the SVH. Charlotte Hall leadership was responsive and appreciative of VISN 5's staffing support. The Maryland Secretary of Veteran Affairs was also aware of the deployment and actively supported the process. According to VISN 5 leadership, the SVH and the Maryland Secretary were sensitive to the increased demands placed on VISN 5 and quickly worked with VISN 5 leads to bring on additional personnel as needed. VISN 5 also provided support to Connecticut, New Jersey and other facilities within its own network as shown in Table 7.23, Table 7.24 and Table 7.25.

Table 7.23 *VISN 5 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Menlo Park, NJ	Menlo Park SVH	4/26/2020	6/2/2020	Staffing Supplement	Provided 4 employees to assist the Menlo Park SVH

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Charlotte Hall, MD	Charlotte Hall SVH	5/25/2020	6/22/2020	Staffing Supplement	Provided Quality Management Officer, 8 Nurse Managers, 31 Registered Nurses, 24 Licensed Practical Nurses and 17 Nursing Assistants across two waves of support
Charlotte Hall, MD	Charlotte Hall SVH	5/25/2020	6/22/2020	Facility Safety, Logistics and Infection Control Review	Provided Tiger Team (including Logistics, Infection Control and Safety staff) to perform assessment
Charlotte Hall, MD	Charlotte Hall SVH	5/25/2020	6/22/2020	Supplies and Testing Support	Provided testing support for 90+ tests as well as 500 swabs, 50 Cephid cartridges, 6000 gowns, 16,600 gloves, 3,816 masks, 300 face shields, 600 shoe covers, 200 hair covers, 20 disposable stethoscopes, 90 hand sanitizers, 5 no touch thermometers and 10 PAPRs
Middletown, CT	Water's Edge Healthcare and Rehabilitation	6/2/2020	6/30/2020	Staffing Supplement	Provided 1 Registered Nurse to support mission in Middletown
Washington, D.C.	Armed Forces Retirement Home	6/10/2020	6/11/2020	Testing Support	Provided testing support to 30 residents and 5 personnel
Washington, D.C.	US Vets Grant and Per Diem Housing Facility	6/24/2020	6/24/2020	Testing Support	Provided testing support to 26 patients and 6 personnel
Martinsburg, WV	Berkeley Medical Center	*N/A*	*N/A*	Supplies Support	Provided a Sumbro Med/surg Shelter to Berkeley Medical Center
Baltimore, MD	Project PLASE and Baltimore Station	*N/A*	*N/A*	PPE Support	Provided 28 boxes of latex gloves

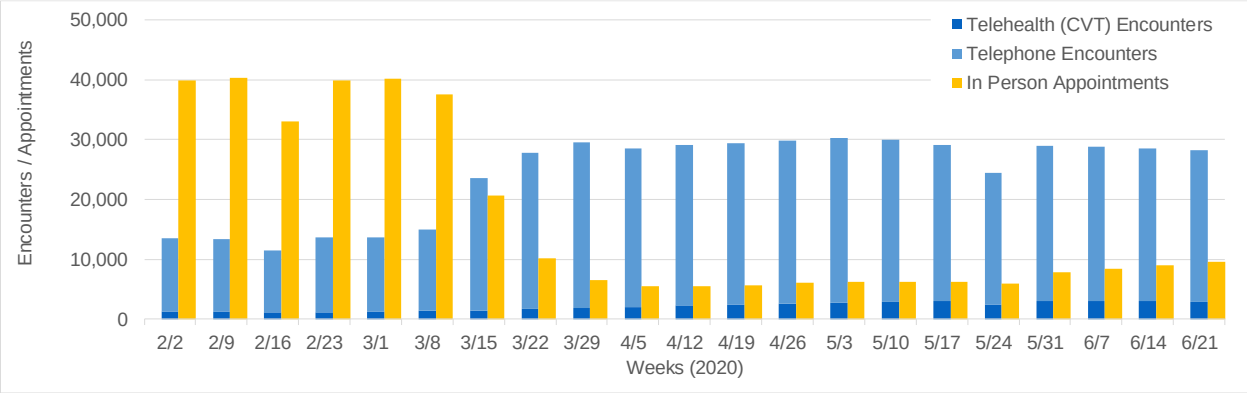
Source: Response to Data Call, VISN 5, VHA, 7/9/2020.

Patient Care by Visit Type

As shown in Figure 7.32, from February 2, 2020 to March 8, 2020, VISN 5 primarily delivered in-person patient care as providers conducted approximately 36,000 in-person appointments versus 13,000 virtual encounters. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020 patient care modalities were relatively balanced at approximately 23,000 each; only one week later most encounters were conducted virtually. Through April 2020 and May 2020, VISN 5 conducted approximately 29,000 virtual encounters per week while in-person

appointments hovered around 6,000. As facilities began to reopen in June 2020, in-person appointments nearly doubled from April 2020.

Figure 7.32 *VISN 5 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

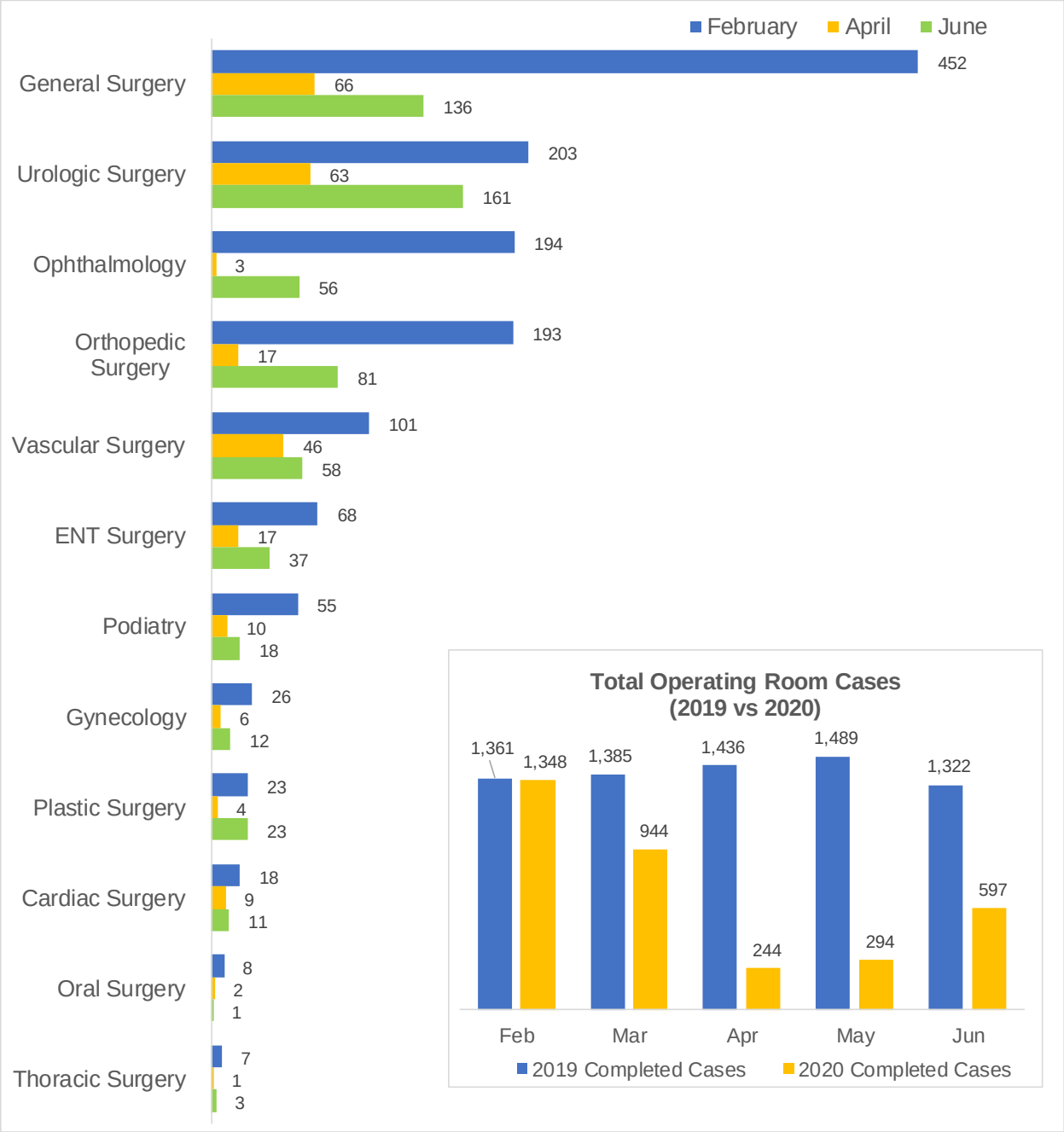
Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As shown in Figure 7.33, VISN 5 OR cases decreased significantly throughout the response in comparison to February 2020 to June 2019 cases. VISN 5 saw 244 OR cases in April 2020 compared to 1,436 in April 2019. OR cases increased in June 2020 when VISN 5 began to more fully open facilities. The largest net loss of OR cases was in General Surgery, with a decrease of 386 cases between February 2020 and April 2020; however, nearly all specialties increased their OR count from April to June 2020.

Resource Movement / Inventory

VISN 5 reported only one staffing shortage through the course of its response, Medical Technologists at Baltimore, and it was able to address the shortage by reallocating personnel from within the VISN. As shown in Table 7.24**,** VISN 5 required Registered Nurses and received 14 from other VISNs; VISN 5 also sent 32 Registered Nurses to non-VHA entities and reallocated 18 within the network. VISN 5 provided support to non-VHA entities, sending twice as many nurses (Licensed Practical Nurse, Assistants, Managers and Registered Nurses) to these facilities than it reallocated within its own network (81 and 40, respectively).

Figure 7.33 *VISN 5 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Table 7.24 *VISN 5 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Health Care Technician	4	1	-	-
Licensed Practical Nurse	7	-	24	9
Microbiologist	1	-	-	-
Nursing Assistant	9	2	17	2
Nurse Manager	6	-	8	1
Quality Management Officer	1	-	1	-
Registered Nurse	18	2	32	14
Respiratory Therapist	4	-	-	2
Tiger Team	-	-	1	-
Timekeeper	-	1	-	2

Source: Response to Data Call, VISN 5, VHA, 7/9/2020.

As documented in Table 7.25, VISN 5 reallocated supplies within the network, most notably in large reallocations of isolation gowns, which the network cited as an initial procurement challenge. Maryland created a policy mandating isolation gowns for all CLC employees, initially creating a burden on the system. However, VISN 5 was able to procure gowns from VHACO, as well as the open market, and reallocate within the network to ensure coverage. In total, VISN 5 received 10,000 gowns from other VISNs and reallocated 26,000 gowns within the network, as shown in Table 7.25. VISN 5 also sent thousands of units of supplies to non-VHA entities.

Table 7.25 *VISN 5 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
3M Respirator	1,100	-	-	-
Body Bag	12 Units			
Cepheid Cartridge	-	-	-	-
Cepheid Test Kit	445	-	50	-
Continuous Renal Replacement Therapy Machine	-	1	-	-
Disposable Stethoscope	-	-	20	-
Draeger Flow Sensor	-	-	-	6
Face Shield	-	-	300	-
Glove	-	-	16,600	-
Gown	-	-	6,000	-
Hair Cover	-	-	200	-

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Hand Sanitizer (4 oz.)	960	-	90	-
ICU Ventilator	3	-	-	-
Isolation Gown	26,000	-	-	10,000
Mask	-	-	3,816	-
No Touch Thermometer	-	-	5	-
PAPR	-	-	10	-
Procedure Mask	2,500	-	-	-
Shoe Cover	-	-	600	-
Surgical Glove	20,000	-	-	-
Surgical Mask	-	10,000	-	-
Swab	1,125	-	500	-
Vapotherm	4	-	-	-

Source: Response to Data Call, VISN 5, VHA, 7/9/2020.

VISN 5 increased its supply of masks by several hundred thousand over the course of its response, as shown in Figure 7.34. Similarly, VISN 5 increased its supply of face shields over time from approximately 18,000 in late April 2020 to 50,000 by late June 2020.

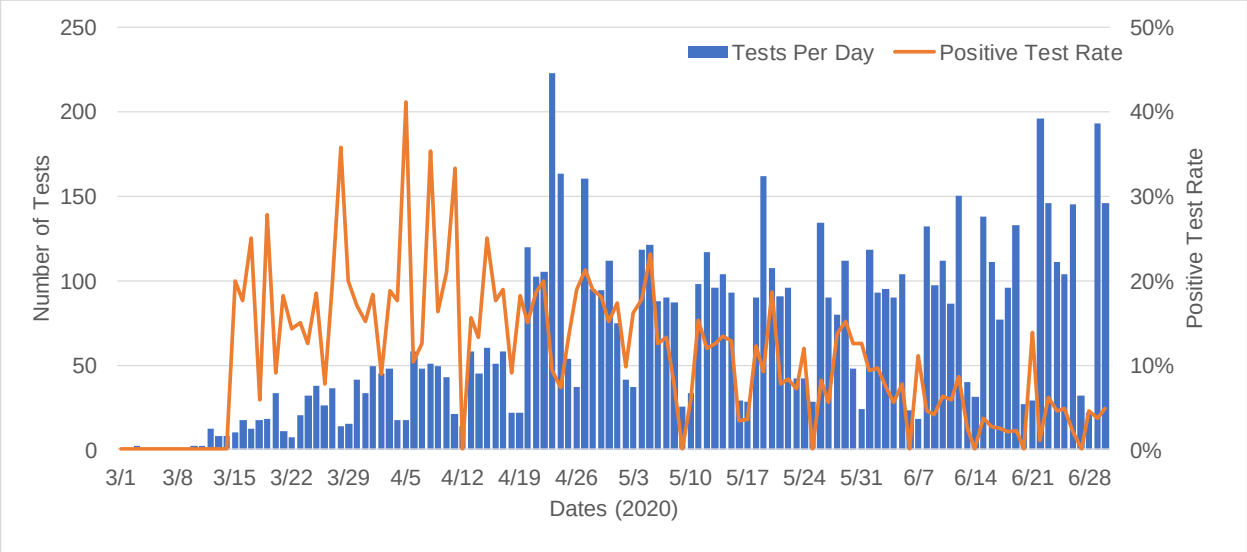
Figure 7.34 *VISN 5 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

As illustrated in Figure 7.35, VISN 5 ran approximately 10 to 100 tests a day in March 2020 and early April 2020; many of the tests returned as positive for COVID-19. The network reached a steadier state in early May 2020, running approximately 100 tests per day; testing capacity soon increased to up to 200 per day by the end of June 2020.

Figure 7.35 *VISN 5 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

VISN 5 tested 3.9% of its Veterans Using VHA Services population and 99% of CLC residents as of June 30, 2020. Testing across both groups resulted in similar positive rates (0.4% for Veterans and 0.6% for CLC residents) as shown in Table 7.26.

Table 7.26 *VISN 5 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	198,958	315
Population Tested	7,778	312
% of Population Tested	3.9%	99.0%
Population Positive	827	2
% of Population Positive	0.4%	0.6%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 6: Mid-Atlantic Health Care Network

Description of the Network and Population Served

The VA Mid-Atlantic Health Care Network (VISN 6) serves Veterans across North Carolina and Virginia. VISN 6 provides care across 7 VAMCs, 5 Health Care Centers and 32 CBOCs.[664] VISN 6 serves over 390,000 Veterans annually across its network.[665]

During its response, VISN 6 provided COVID-19 testing for both employees and patients. As shown in Table 7.27, VISN 6 identified 819 COVID-19 cases among Veterans Using VHA Services and 97 employee cases through June 30, 2020. Of these cases, 70 Veteran and 1 employee deaths were associated with positive COVID-19 tests.

Table 7.27 *VISN 6 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	393,884
Veteran COVID-19 Cases	819
Veteran COVID-19 Inpatients	115
Veteran Deaths (COVID-19 related)	70
VISN Employees	19,895
Employee COVID-19 Cases	97
Employee Deaths (COVID-19 related)	1

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

North Carolina recorded its first case of COVID-19 on March 3, 2020 from an individual exposed to the virus in a long-term nursing facility in Washington State in February.[666] Shortly thereafter, Virginia recorded its first case.[667] In the first week of March 2020, VISN 6 began its COVID-19 response, including creating surge plans across each of its seven VAMCs, as cases began to spread quickly through Virginia. VISN 6 registered its first Veteran case on March 13, 2020.[668] North Carolina saw an increase in new cases for 139 straight days as of June 30, 2020, making it the only state with

a continuous rise in new cases without yet reaching a peak. Across both North Carolina and Virginia, as of June 30, 2020, community prevalence was highest in the Richmond VAMC catchment area with prevalence exceeding 2% in several neighboring counties, as illustrated in Figure 7.36.

Despite elevated community prevalence in some areas, VISN 6 did not exceed full capacity in any of its medical centers. Hampton VAMC reached capacity for a two week period when it saw a sudden influx of patients in its 13-bed ICU. The Hunter Holmes McGuire VAMC (Richmond, VA) provided training and education for its nurses so that it could quickly repurpose the nurses assigned to closed clinics and move them into areas of need. According to VISN 6 leadership, VISN 6 monitored beds and staffing daily to ensure proper coverage. As of June 30, 2020, VISN 6 had the capacity to surge to at least 15 beds at the Asheville VAMC and at least 160 at the Hunter Holmes McGuire VAMC. VISN 6 also created separate COVID-19 units at VHA facilities in Richmond, Salisbury, Fayetteville, Hampton, Durham and Salem which have not met capacity as of June 30, 2020.

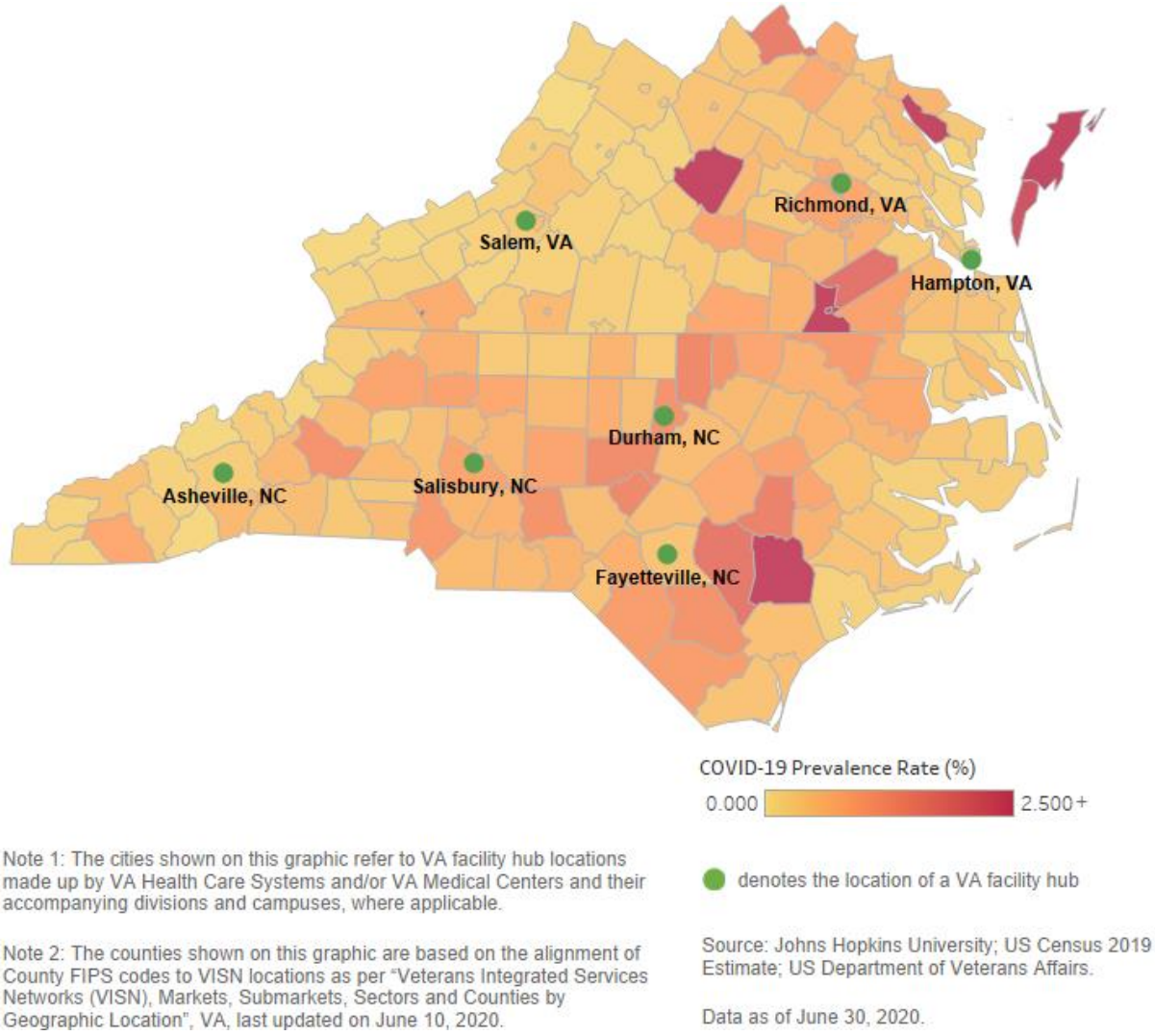
For VISN 6, adjusting facility process and infrastructure to increasing patient demand was the most critical issue during its response. For example, the Durham VAMC changed the routing system for everyone entering the building through just two entrance doors. On the first day, the facility screened 6,100 people including patients, hospital personnel and guests. It continued this 6,000-person screening process daily through the course of its response. Converting rooms to accommodate patient positives also required VISN 6 to adapt quickly. Network engineers quickly created an anteroom for each room of the Hospice House SVH in Salisbury, NC to allow for admission of COVID-19 patients.

VISN 6 noted initial challenges using the DEMPS system. In one instance, VISN 6 had 254 employees entered in DEMPS but none were deployed. VISN 6 leadership suggested this delay was potentially related to the management of the DEMPS system by the OHT rather than the EMCC. VISN 6 leadership worked with OHT to resolve this issue and, shortly thereafter, VISN 6 employees deployed using the DEMPS system. VISN 6 leadership noted that overall the DEMPS system worked for a national initiative of this scale.

Despite some initial challenges, the Network Director underscored the VISN 6’s pride in its work and people: “I'm so absolutely proud of the national, the VISN and the facility responses. And I don't think any health care system did it better than we did (VHA)…there is no way that I can see that private industry would have been able to respond to this pandemic the way that the VA has.”

Community Prevalence and VISN Case Statistics

Figure 7.36 *VISN 6 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs.

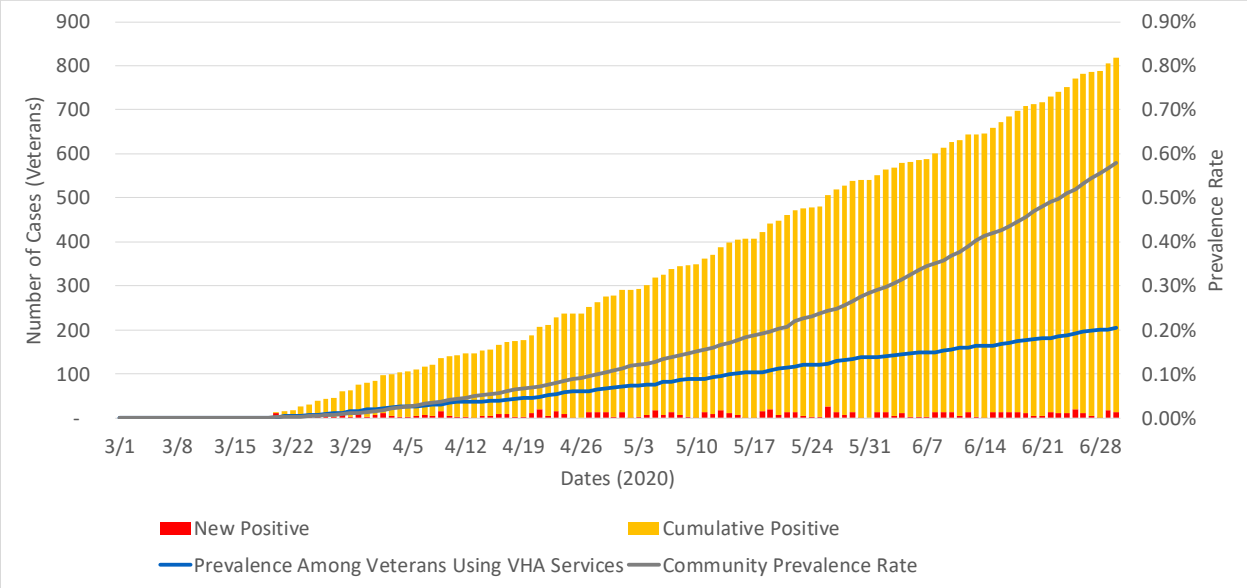
Data as of June 30, 2020.

COVID-19 community prevalence rates remained relatively low across VISN 6 as each facility catchment area remained below 1% prevalence on June 30, 2020.[669] As shown in Figure 7.36, western Virginia and North Carolina counties remained low compared to some central and eastern counties. While new COVID-19 community cases increased throughout North Carolina, they did not for the population of Veterans Using VHA Services within VISN 6.[670]

New confirmed Veteran COVID-19 cases slightly increased throughout April 2020; afterwards, they remained consistent through June at approximately 10 per day, as

illustrated in Figure 7.37.[671] Through April 9, 2020 both community and VISN 6 prevalence held the same trajectory, but then community prevalence began to increase at a faster rate.

Figure 7.37 *VISN 6 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

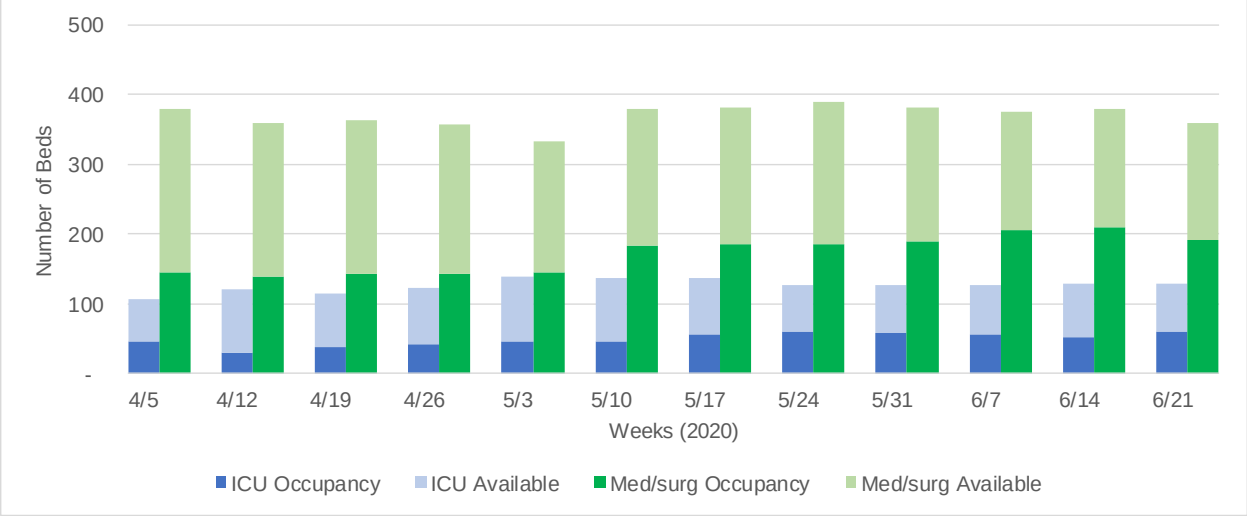
Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 6 had enough bed capacity to address significant surges in patient demand; it did not exceed overall capacity in any of its facilities. As shown in

Figure **7.38**, from April 2020 through June 2020, VISN 6 had more than twice the bed capacity needed to service ICU or Med/surg patients. In general, VISN 6 had between 50 to 75 ICU beds available and approximately 150-200 Med/surg beds available.

Figure 7.38 *VISN 6 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

As shown in Table 7.28, VISN 6 had a net gain of 353 personnel from February 2020 through June 2020. In total, VISN 6 hired 925 personnel and had 19,895 employees on June 30, 2020; the network made most notable net gains with Nurses (+98). VISN 6 saw 572 personnel depart the VA from February 2020 to June 2020.

Table 7.28 *VISN 6 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	49	41	8	1,704
Nurse	203	105	98	4,648
Practical Nurse	33	32	1	1,023
Nursing Assistant	63	37	26	851
Medical Support Assistance	103	60	43	1,932
Pharmacist	15	5	10	482
Psychology	8	7	1	380
Social Work	28	11	17	808
Custodial Worker	108	44	64	673
All Other Occupations	315	230	85	7,394
Totals	**925**	**572**	**353**	**19,895**

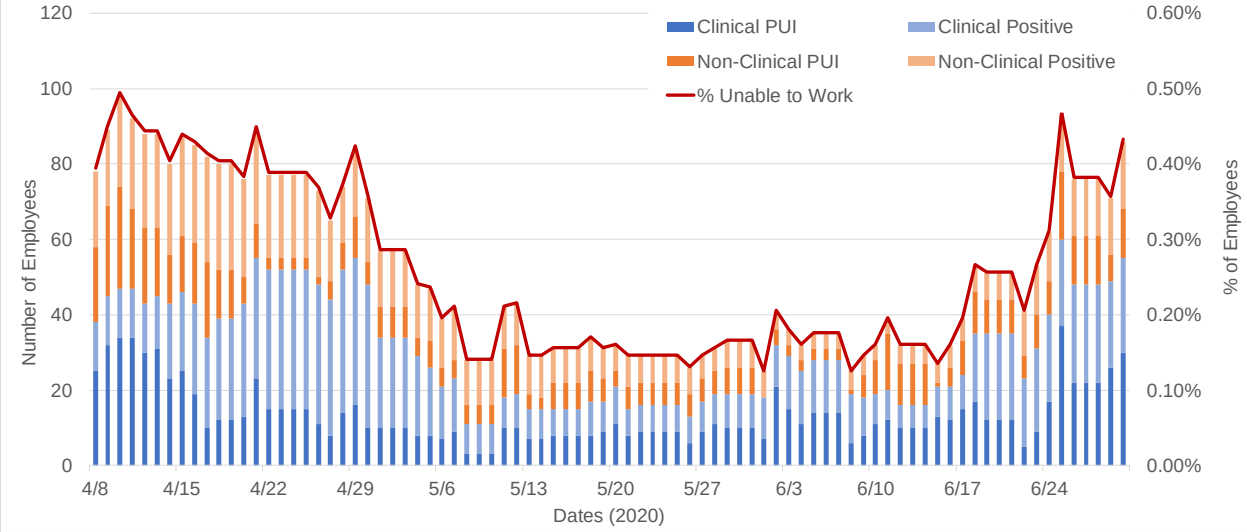
Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason;

and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

In early April 2020, up to 0.50% of the VISN 6 workforce was unable to work due to circumstances related to COVID-19, as indicated in Figure 7.39. Unavailability rates declined through May 2020 and June 2020 to approximately 0.15% but began to rise again though late June 2020.

Figure 7.39 *VISN 6 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 6 participated in a series of Fourth Mission engagements, all within its network. The network provided PPE, testing and personnel support to various SVHs and CNHs across Virginia and North Carolina as shown in Table 7.29.

Table 7.29 *VISN 6 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Richmond, VA	Canterbury Rehabilitation Center	3/20/2020	3/20/2020	Testing Support	Provided 20 test kits
Fayetteville, NC	Fayetteville SVH	3/30/2020	Ongoing as of 6/30	Infection Control Consultation & Education	Provided one Industrial Hygienist to provide SVH Infection Control and PPE education

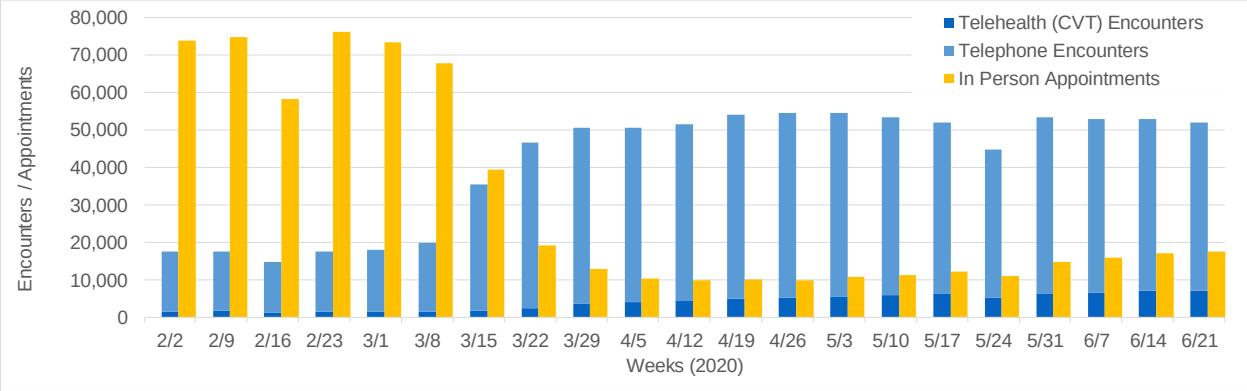
Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Richmond, VA	Sitter-Barfoot SVH	4/1/2020	4/1/2020	Testing Support	Provided 6 test kits
Black Mountain, NC	Black Mountain SVH	4/14/2020	4/14/2020	Testing Support and Subject Matter Expertise	Provided 16 Cepheid swabs and provided consultations for Infectious Disease, Engineering, Logistics and Safety
Roanoke, VA	Virginia SVH	4/15/2020	Ongoing as of 6/30	PPE and Testing Support, Subject Matter Expertise	Provided 100 face shields, 1 FIT Testing kit, 2 bottles of FIT testing solution and consultations covering Infection Control, FIT testing instruction and Infectious Disease
Salisbury, NC	Salisbury SVH	5/11/2020	6/9/2020	Testing Support and PPE Support	Provided 3,200 gowns and 460 N95 respirators as well as Fit testing support
Kinston, NC	Caswell Development Center	5/15/2020	5/18/2020	Testing Support	Provided 32 employees to perform testing
Salisbury, NC	Salisbury SVH	6/2/2020	Ongoing as of 6/30	Testing Support	Provided 434 tests kits
Multiple Locations, NC and VA	Long Term Care and Skilled Nursing Facilities	6/22/2020	7/25/2020	Staffing Supplement and PPE Support	Provided 21 Registered Nurses, 2 Licenses Practical Nurses, 2 IH and 2 Administrative personnel; also provided approximately 3360 N95 respirators, 3360 gowns, 5,000 gloves and 3360 surgical masks

Sources: Response to Data Call, VISN 6, VHA, 7/10/2020; Response to Data Call, VISN 6, VHA, 8/21/2020.

Patient Care by Visit Type

As shown in Figure 7.40, from February 2, 2020 to March 8, 2020, VISN 6 primarily delivered in-person patient care, as network providers conducted approximately 70,000 in-person appointments versus 28,00 virtual encounters. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020 in-person versus virtual visits were relatively balanced (approximately 40,000 each) and only one week later most encounters were conducted virtually. From April 2020 through June 2020, VISN 6 conducted approximately 50,000 virtual encounters per week while in-person appointments hovered around 10,000. Telehealth encounters rose dramatically over time, nearly tripling from the end of March 2020 through the end of June 2020.

Figure 7.40 *VISN 6 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*

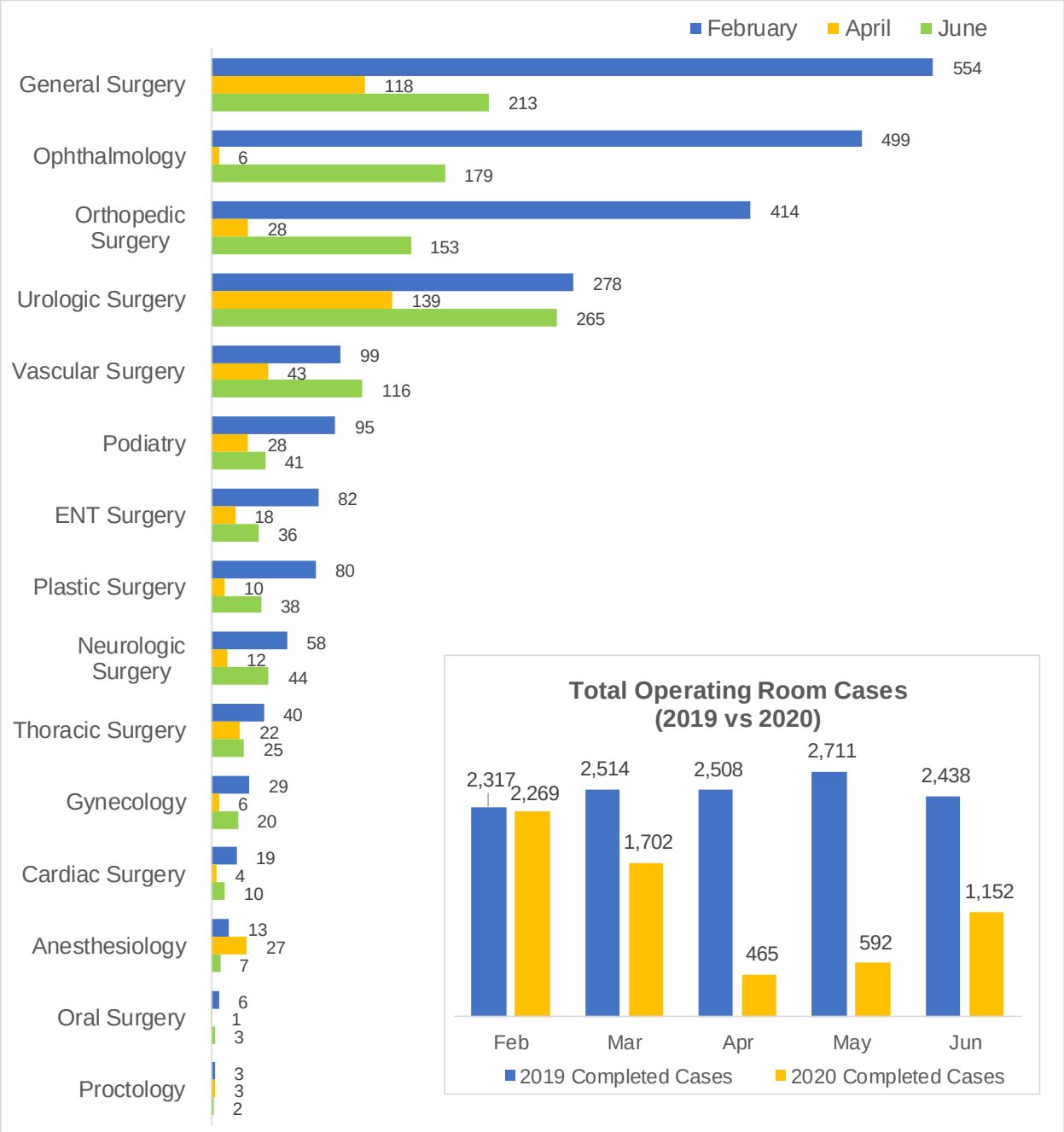


Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As shown in Figure 7.41, during the response VISN 6 OR cases decreased significantly in comparison to its February 2019 to June 2019 cases. VISN 6 saw 592 OR cases in May 2020 compared to 2,711 in May 2019. OR cases began to increase in June 2020 when VISN 6 began to more fully open facilities. The largest net loss in OR cases was in Ophthalmology, with a decrease of 493 cases between February 2020 and April 2020; however, nearly all OR specialties increased their OR case count from April 2020 to June 2020.

Figure 7.41 *VISN 6 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

VISN 6 deployed 57 personnel to support other VISNs and 58 personnel to support Mission Assignments in SVHs and CNHs, as seen in Table 7.30. Registered Nurse support was of greatest need in terms of movement of personnel within and outside of VISN 6.

VISN 6 leadership was proactive in ensuring that it had no critical shortfalls. The Network Director cited vigilance as a key factor in having PPE, noting, “it was constantly being on it and really ensuring that our inventories were where they needed to be.” Table 7.31 documents all of the VISN 6 movement of supplies both within the network and with other entities. Masks had the largest volume of reallocation, as VISN 6 moved approximately 49,000 within the VISN. In instances where it believed it might run short on masks, VISN 6 worked with prisons whose inmates created homemade masks, partnered with a seamstress in Salem and acquired commercial masks developed by Hanes Brands and My Pillow. In each case, VISN 6 reached out to VHACO, which provided guidance or approval in under 30 days. VISN 6 also received air cleaning units procured nationally and procured face shields at the VISN-level; VISN 6 subsequently distributed the face shields to facilities across the network.

Table 7.30 *VISN 6 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	1	2	-
Certified Nursing Assistant	-	-	2	-
Certified Occupational Therapy Assistant	-	-	1	-
Health Care Technician	-	1	-	-
Industrial Hygienist	-	-	3	-
Licensed Practical Nurse	-	5	2	-
Nurse Practitioner	-	1	1	-
Physical Therapist	-	-	3	-
Physical Therapy Assistant	-	-	6	-
Physician		2	2	-
Registered Nurse	-	46	34	-
Registered Respiratory Therapist	-	1	-	-
Surgical Technician	-	-	2	-

Sources: Response to Data Call, VISN 6, VHA, 7/10/2020; Response to Data Call, VISN 6, VHA, 8/21/2020.

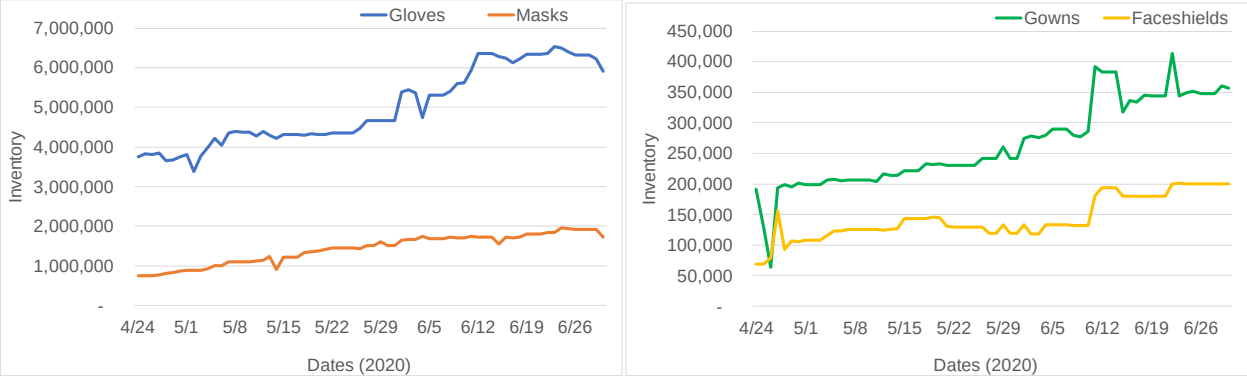
As Table 7.31 shows, VISN 6 increased its supply of gloves, masks, gowns and face shields over the course of its response. The largest increase was for gloves as VISN 6 increased its supply by over 2 million over the course of two months.

Table 7.31 *VISN 6 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
3M PAPR Hood	25	-	-	-
Air Cleaning Unit	-	-	30-	
Controlled Air-Purifying Respirator	22	-	-	-
COVID-19 Testing Kit (Cepheid or Other)	150	-	461	-
Disposable Gown	21,520	-	-	-
Face Shield		-	100	
Fit Test Solution (Bottle)	-	-	2	-
Gown	-	-	3,200	-
Hair Net		-	-	-
Humidifier	-	2	-	-
Mask	49,390	-	-	-
N95 Respirator	4,024	-	460	-
Other Testing Swab	500	-	-	-
Surgical Mask	4,050	-	-	-
Swab (Puritan, Cepheid, or Fit)	2,500	-	16	-
Thermometer	-		-	-
Unicore Cloth Mask	4,000	-	-	-
Ventilator	-	5	-	-

Source: Response to Data Call, VISN 6, VHA, 7/10/2020.

Figure 7.42 *VISN 6 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

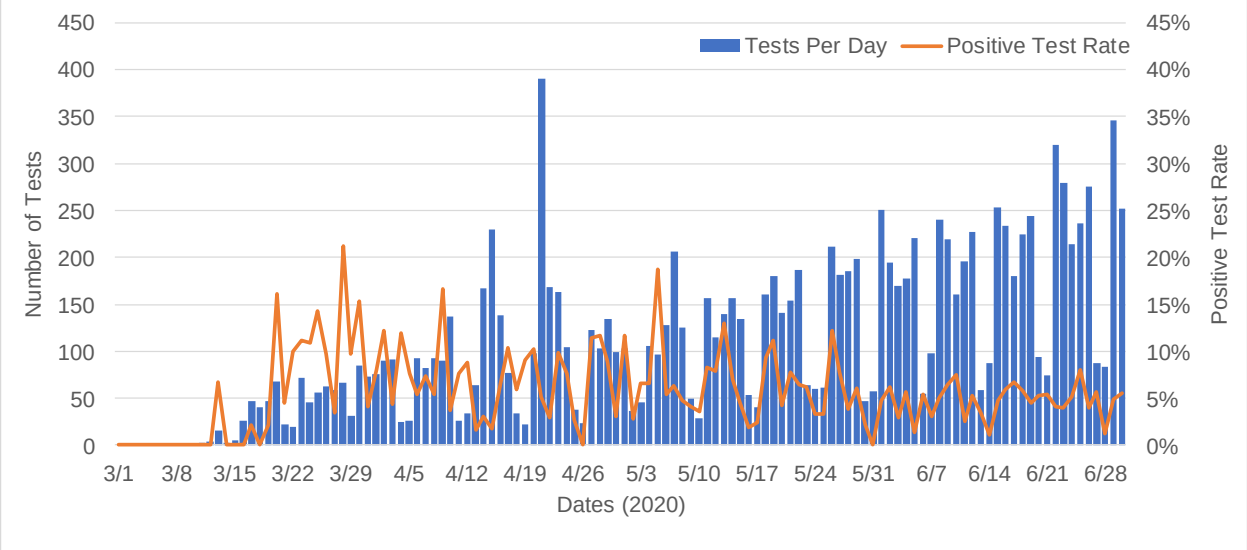
Testing

VISN 6 noted a few challenges securing tests very early in the response, but indicated it had adequate supplies by mid-March 2020. As shown Figure 7.43, over the course of its response VISN 6 more than tripled the number of daily tests administered. Through June 30, 2020, VISN 6 indicated that it had enough Cepheids and Abbott testing capabilities, would be securing one Panther Fusion System COVID-19 diagnostic test in July and will eventually have Panthers at every facility, which will significantly increase its testing capabilities.

VISN 6 noted that while it had enough testing in place by mid-March 2020, its next step was prioritizing individuals for testing based on test capabilities and turnaround times. To address this VISN 6 held daily calls with top infectious disease doctors, tertiary care leads, lab chiefs and other personnel. VISN 6 followed a four-group hierarchy to patient and employee prioritization:

1. Patients or employees (including CLC and SCI/D staff) who are symptomatic – rapid test, same day
2. Asymptomatic patients - point-prevalence testing in place since May 2020
3. Asymptomatic employees (including CLC and SCI/D staff)
4. Patient Pre-procedural and pre-admission testing beginning in June 2020

Figure 7.43 *VISN 6 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Over the course of the COVID-19 response, VISN 6 observed a decrease in the positive test rate within its network. The positive rate hovered around 12% early in the response and decreased to around 5% into the end of June 2020, as shown in Figure 7.43.

VISN 6 tested 3.4% of its Veterans Using VHA Services and 96% of CLC residents. Veteran patient positives were 0.2% while CLC patient positives were 2.9%, as shown in Table 7.32.

Table 7.32 *VISN 6 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	393,884	276
Population Tested	13,250	265
% of Population Tested	3.4%	96.0%
Population Positive	819	8
% of Population Positive	0.2%	2.9%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 7: VA Southeast Network

Description of the Network and Population Served

VA Southeast Network (VISN 7) operates in three core states of Alabama, Georgia and South Carolina and provides health care services to more than 455,000 Veterans Using VHA Services, as shown in Table 7.33. VISN 7 consists of 8 VAMCs, 8 CLCs and 71 outpatient clinics.[672]

VISN 7 had 1,585 Veteran COVID-19 cases and reported 77 Veteran deaths associated with positive COVID-19 tests. During its response, VISN 7 identified 128 VA employees who tested positive and 1 VA employee death related to COVID-19, as shown in Table 7.33.

Table 7.33 *VISN 7 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	456,156
Veteran COVID-19 Cases	1,585
Veteran COVID-19 Inpatients	260
Veteran Deaths (COVID-19 related)	77
VISN Employees	21,539
Employee COVID-19 Cases	128
Employee Deaths (COVID-19 related)	1

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

The first confirmed case of COVID-19 in VISN 7 occurred the week of March 8, 2020.[673] By March 14, 2020, the governors of Alabama, Georgia and South Carolina each declared a State of Emergency.[674] As state leaders took official public health action, VISN 7 leaders activated response measures across the network and closely monitored for signs of COVID-19 spread. From March 2020 through June 2020, significant outbreaks emerged in the catchment areas of VA facilities located in Montgomery, Tuscaloosa, Dublin, Columbia, Decatur and Charleston.

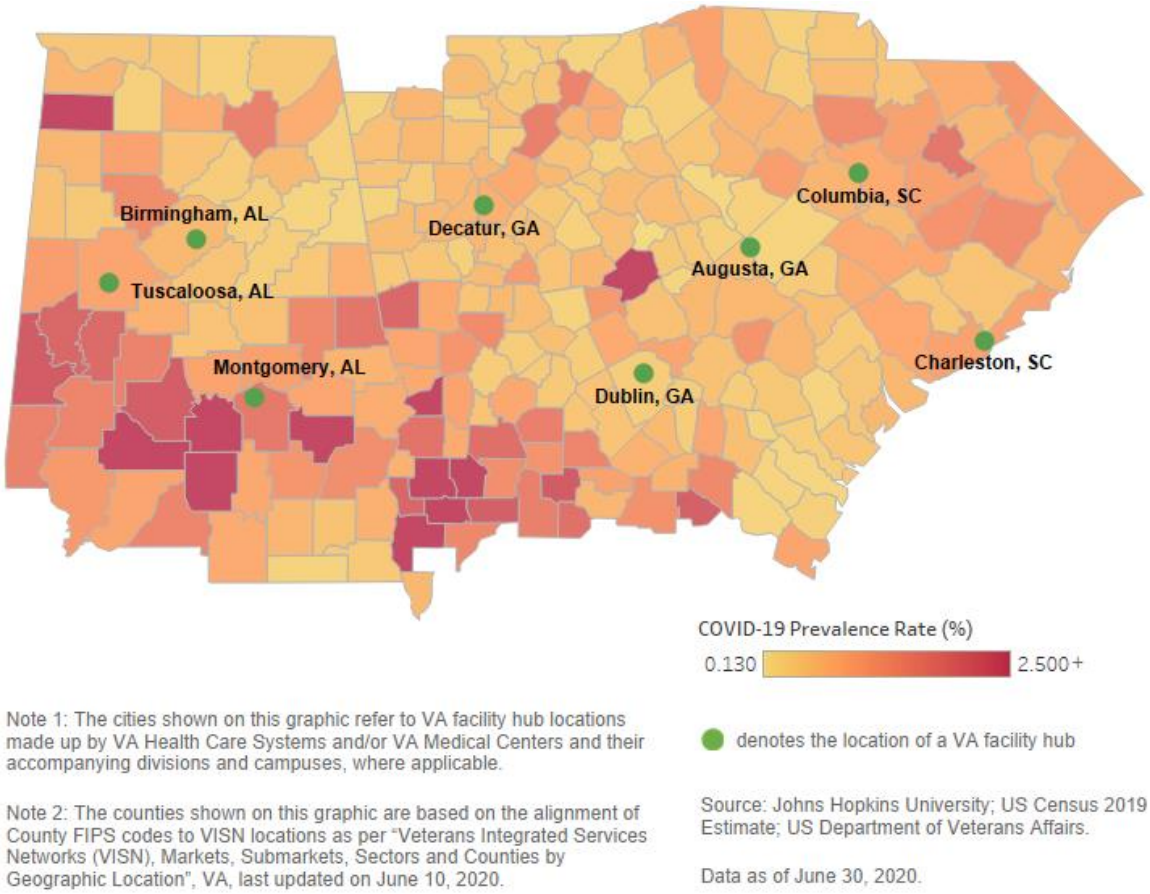
Although the eight facilities in VISN 7 planned for surges differently based on their size and scope, they all worked together to synergize efforts in response to surges. Patients in CLCs were transferred to VAMCs across the VISN, creating Med/surg and ICU capacity in the VAMCs facing higher demand for COVID-19 treatment. Additionally, VISN 7 proactively deployed personnel, supplies and equipment to support the response efforts.

In May 2020, confirmed cases started to rise in several counties in VISN 7 catchment areas. The resurgence impacted the Charleston, SC area and VISN 7 shuttered plans to resume services as facilities enacted surge planning measures.

Community Prevalence and VISN Case Statistics

At the onset of COVID-19, Atlanta VAHCS was on high alert and performed a lot of work to prepare for a surge in the area. From April 2020 to June 2020, the Atlanta VAHCS's catchment area saw community prevalence of confirmed cases gradually increase to over 43,000, or 0.68% community prevalence.[675]

Figure 7.44 *VISN 7 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*

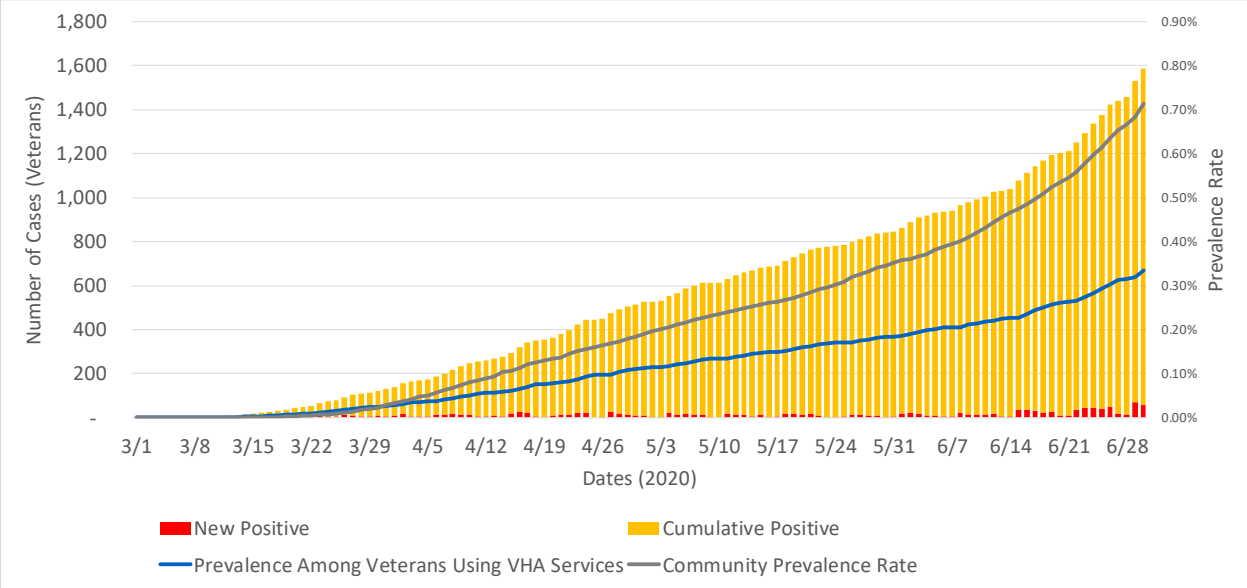


In the state of Alabama, several VAMCs (including Birmingham VAMC, Central Alabama Veterans HCS East and West Campuses and Tuscaloosa VAMC experienced sporadic resurgence from March 2020 to June 2020.[676] Counties surrounding Tuscaloosa and Montgomery VA sites saw notable COVID-19 increases with prevalence of confirmed cases exceeding 1% in VA facility catchment areas.[677]

VISN 7 reported its first confirmed Veteran cases the week of March 8, 2020.[678] From there, prevalence of confirmed COVID-19 among Veterans Using VHA Services gradually reached 0.35% by the end of June 2020, representing 1,585 Veterans.[679]

Figure 7.44 provides a visualization of VISN 7 community prevalence and Figure 7.45 provides an overview of confirmed cases in VISN 7.

Figure 7.45 *VISN 7 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

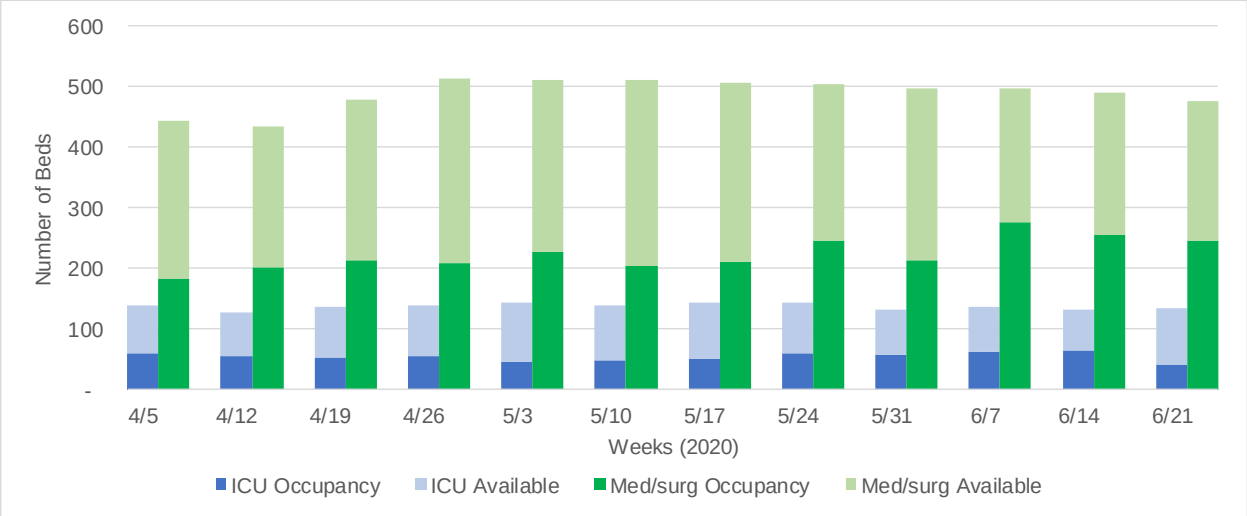
Capacity Management

Each of VISN 7's eight VAMCs built surge plans based on their capabilities. In South Carolina, the Columbia VAHCS' plan focused on creating additional Med/surg beds. The Ralph H. Johnson VAMC in Charleston, SC plan aimed to create Med/surg capacity by developing additional negative pressure rooms and transferring CLC patients to Charlie Norwood VAMC in Augusta, GA and Carl Vinson VAMC in Dublin, GA. The VAMC in Dublin, GA provided support and expertise in CLC patient care by accepting patients from VA facilities in Atlanta and Charleston. At the Charlie Norwood VAMC in Augusta, GA, CLC capacity allowed the facility to receive patients from the Georgia War Veterans Home and the Ralph H. Johnson VAMC in Charleston, SC.

Further west, VISN 7 leadership reported that the Atlanta VAHCS prepared to take on COVID-19 positive Med/surg and ICU patients by transferring all of its CLC patients to the Carl Vinson VAMC in Dublin, GA and Central Alabama Veterans HCS East and West Campuses in Alabama. The Atlanta VAHCS was identified as a resource for patient transfers from Dublin, Augusta and Central Alabama (Montgomery/Tuskegee).

From March 2020 to June 2020, VISN 7 operated at lower than 70% Med/surg and ICU occupancy. VISN 7 leaders attributed the network's success to a synchronized surge response strategy and effectively leveraging each facility's assets. In Alabama, the Birmingham VAMC created capacity for Veterans and Fourth Mission support; this allowed the facility to support the community when a local SVH needed assistance. The Tuscaloosa VAMC was poised to support Birmingham VAMC with personnel when demand surged. The Central Alabama Veterans HCS East and West Campuses in Tuskegee and Montgomery and the Carl Vinson VAMC in Dublin, GA supported the Atlanta CLC by receiving CLC patients when their campuses had more capacity. The Carl Vinson VAMC and the Charlie Norwood VAMC supported the Ralph H. Johnson VAMC in Charleston, SC by accepting CLC patients.

Figure 7.46 *VISN 7 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

From April 2020 to June 2020, VISN 7 expanded its capacity to 513 Med/surg beds and 145 ICU beds at its peak.[680] In Georgia, the Atlanta VAHCS increased its peak Med/surg and ICU bed counts to 150 and 39, respectively.[681] In Alabama, the Birmingham VAMC and Central Alabama Veterans HCS West Campus increased their peak Med/surg bed counts to 82 and 51, respectively, and increased their peak ICU bed counts to 29 and 9, respectively.[682] In South Carolina, the Ralph H. Johnson VAMC and Columbia VAHCS increased their peak Med/surg bed counts to 63 and 68, respectively, and increased their peak ICU bed counts to 20 and 26, respectively.[683] Figure 7.46 provides an overview of VISN 7 bed occupancy and capacity over time.

HR / Staffing

During the COVID-19 response, VISN 7 leadership maintained daily contact with facility leaders on matters relating to staffing in order to help monitor impacted areas and redistribute resources to ensure appropriate staffing levels at each facility.

Table 7.34 provides a summary of personnel attrition and hiring. From February 2020 to June 2020, VISN 7 hired 650 clinical personnel including Medical Officers, Nurses, Practical Nurses, Nursing Assistants and Medical Support Assistants. VISN 7 brought on over 700 other personnel including Pharmacists, Social Workers, Custodial Workers and other personnel during the same period. Nursing, Medical Support and all other occupations experienced the most growth in VISN 7. As of June 30, 2020, VISN 7 had 21,539 total onboard personnel.[684]

Table 7.34 *VISN 7 Key HR Statistics (February - June 2020)*

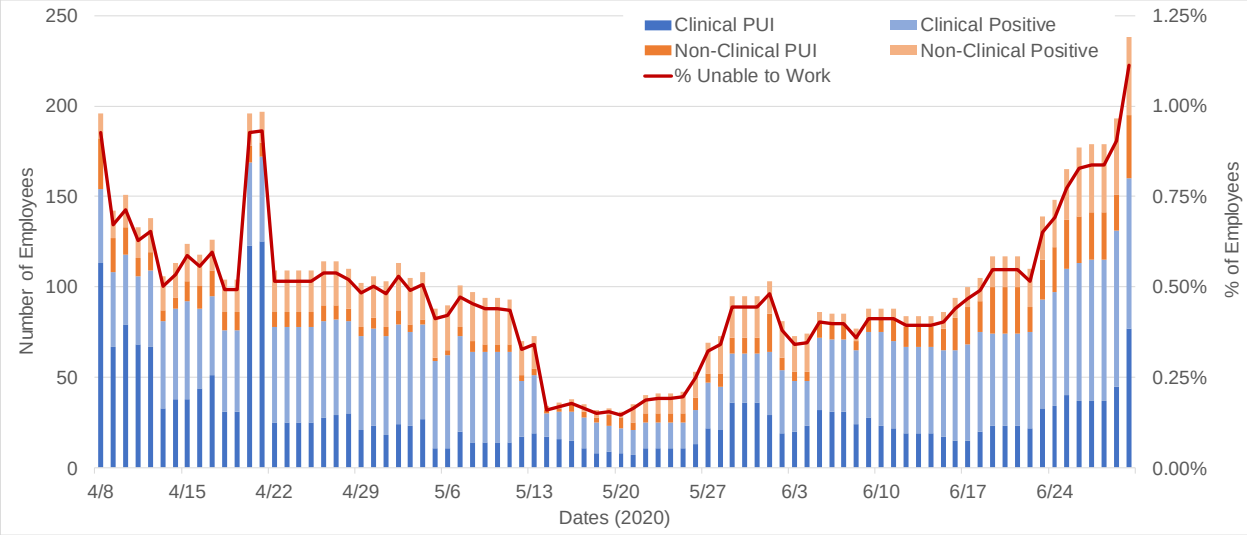
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	66	34	32	1,643
Nurse	247	134	113	4,420
Practical Nurse	86	36	50	1,046
Nursing Assistant	96	13	83	1,088
Medical Support Assistance	258	43	215	2,054
Pharmacist	12	1	11	593
Psychology	11	8	3	380
Social Work	30	18	12	1,001
Custodial Worker	85	47	38	730
All Other Occupations	479	305	174	8,584
Totals	**1,370**	**639**	**731**	**21,539**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

Figure 7.47 provides an overview of VISN 7 employees unable to work due to circumstances related to COVID-19. In VISN 7, the number of employees unable to work due to circumstances related to COVID-19 demonstrated a “U-shape” trend from April 2020 to June 2020. In April 2020, as many as 200 employees a day were unable to work due to circumstances related to COVID-19. By mid-May 2020, the number of employees unable to work trended below 50 employees. As the response matured into June 2020, more employees were unable to work due to circumstances related to COVID-19 and by mid-June 2020, over 100 employees per day were unable to work. The number of clinical and non-clinical employees unable to work due to circumstances related to COVID-19 significantly increased the last week of June 2020 from approximately 150 employees to almost 250 employees.

Figure 7.47 *VISN 7 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 7 carried out six Fourth Mission taskings between April 2020 and June 2020, as shown in Table 7.35. VISN 7 leadership shared that one of the most significant Fourth Missions taskings completed by VISN 7 took place in April 2020 when the Bill Nichols SVH in Alexander City, AL requested support from Birmingham VAMC. The Birmingham VAMC sent three rotations of personnel including Registered Nurses, Licensed Practical Nurses and Nursing Assistants to assist Bill Nichols SVH. Additionally, VISN 7 provided infection control consultation to the SVH.

In June 2020, Veterans Victory House SVH in Walterboro, SC requested personnel to supplement operations. VISN 7 provided Registered Nurses, Licensed Practical Nurses and Nursing Assistants to assist Veterans Victory House SVH. VISN 7 also provided infection control consultation to the SVH.

Following the 2020 Memorial Day holiday, VISN 7 provided infection control consultation to Georgia War Veterans Home located in Augusta, GA. As of June 30, 2020, VISN 7 also provided testing support for multiple SVHs located throughout the Southeast.

Table 7.35 *VISN 7 Fourth Mission and Community Support (as of June 30, 2020)*

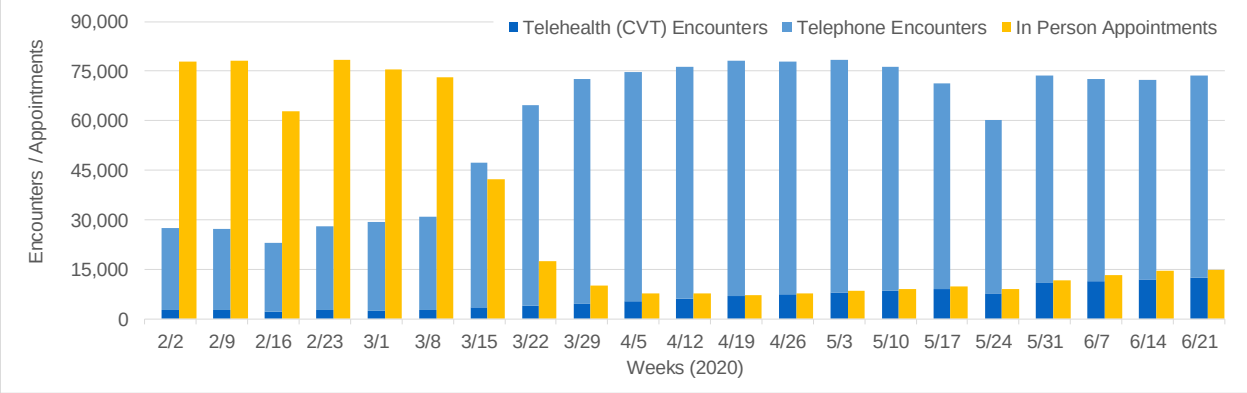
Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Alexander City, AL	Bill Nichols SVH	4/10/20	Ongoing	Infection Control Consultation	Provided Infection Control Consultation
Alexander City, AL	Bill Nichols SVH	4/20/20	06/06/20	Staffing Supplement	Provided 12 Registered Nurses and 12 Licensed Practical Nurse / CAN / Nursing Assistants across 3 waves
Augusta, GA	Georgia War Veterans Home	5/26/20	Ongoing	Infection Control Consultation	Provided Infection Control Consultation
Walterboro, SC	Veterans Victory House SVH	6/04/20	Ongoing	Infection Control Consultation	Provided Infection Control Consultation
Walterboro, SC	Veterans Victory House SVH	6/06/20	7/19/20	Staffing Supplement	Provided 12 Registered Nurses and 12 Licensed Practical Nurse / CAN / Nursing Assistants across 3 waves
Multiple Locations	Southeast SVHs	Varies	Ongoing	Testing Support	Provided testing support for thousands of samples for Southeast SVHs

Source: Response to Data Call, VISN 7, VHA, 7/14/2020.

Patient Care by Visit Type

Figure 7.48 provides an overview and graphic of VISN 7 patient care by visit type. Throughout February 2020, VISN 7 in-person appointments outweighed telephone and telehealth encounters. The week of March 15, 2020, virtual encounters surpassed in-person appointments. VISN 7 utilized virtual and telehealth modalities as much as possible, especially when prevalence of confirmed cases was elevated in micro-regions. In-person appointments reached a bottom of approximately 7,000 appointments the week of April 19, 2020. From that point on, in-person appointments gradually started to uptick; however, the number of appointments remained far below pre-COVID-19 levels. Meanwhile, telephone and telehealth encounters remained elevated. The week of June 21, 2020, VISN 7 completed over 70,000 telephone and telehealth encounters and more than 10,000 in-person appointments. Overall, patient appointments and encounters in VISN 7 aligned with the cross-VISN trend of shifting from in-person care to virtual care.

Figure 7.48 *VISN 7 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.
Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

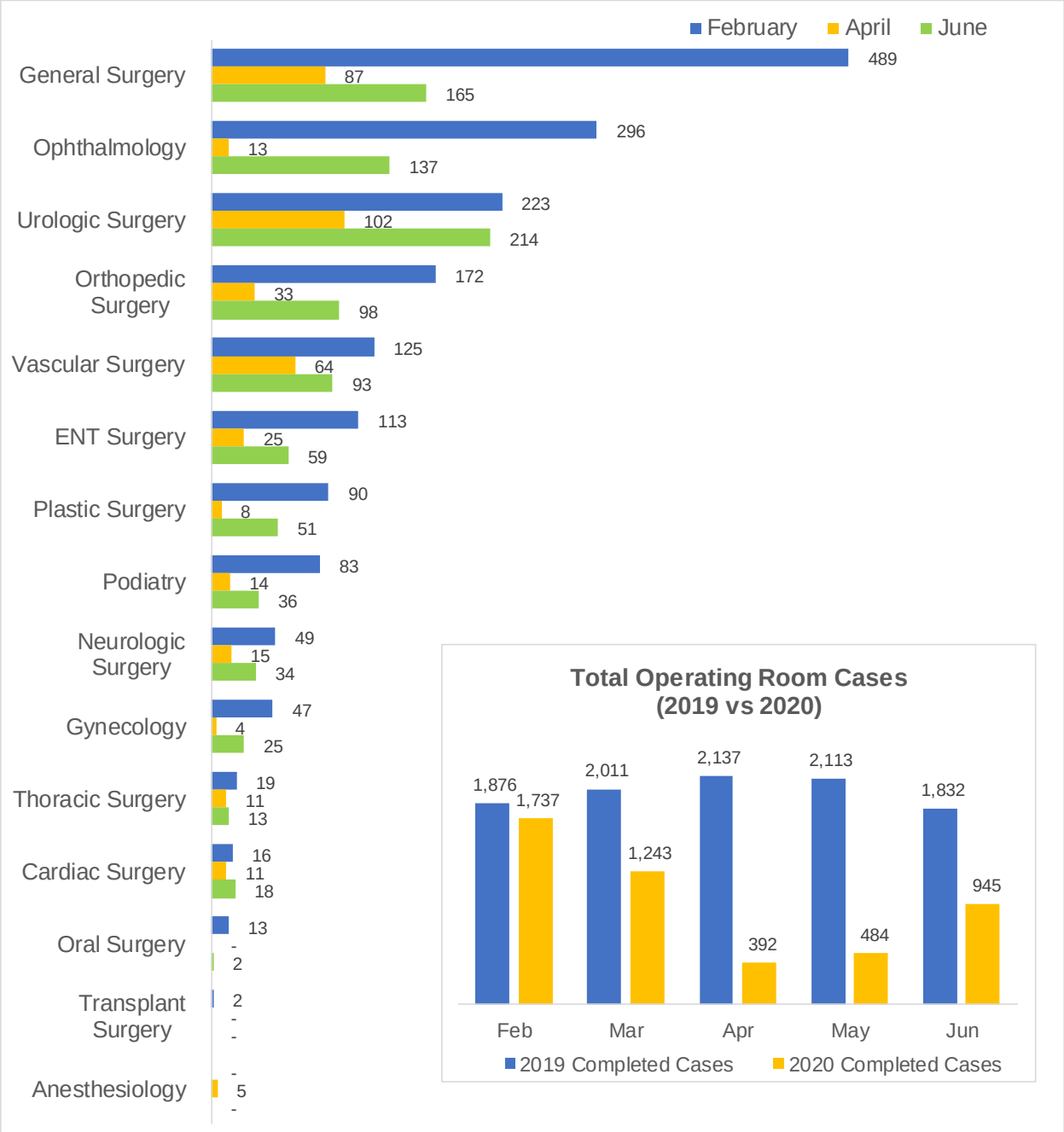
Figure 7.49 provides an overview of VISN 7 completed OR cases. From February 2020 to June 2020, the number of completed OR cases decreased across most specialties in VISN 7. In one instance, cardiac surgery, the number of completed OR cases increased from February 2020 to June 2020 but saw a dip in April 2020.

Completed OR cases were lower in 2020 compared to 2019 every month from February to June. April 2020 and May 2020 experienced the most significant decreases in completed OR cases. By June 2020, completed case were down approximately 50% of where they were the prior year.

Resource Movement / Inventory

Table 7.36 provides an overview of VISN 7 supply movement. VISN 7 rebalanced supplies, equipment and personnel across the VISN as necessary throughout the response. According to VISN 7 leadership, the most critical and limiting factors throughout the response were PPE supplies and testing materials. VISN 7 was able to rebalance PPE supplies and testing materials across the network. By June 30, 2020, VISN 7 rebalanced 6,500 isolation gowns, 5,000 N95 respirators, 5,000 face shields and 400 culture swabs within the VISN. Additionally, VISN 7 rebalanced other miscellaneous supplies and equipment throughout the VISN. Outside of the network, VISN 7 sent 50 test kits to other VISNs.

Figure 7.49 *VISN 7 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Table 7.36 *VISN 7 Movement of Supplies (as of June 30, 2020)*

Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Portable X-Ray Unit	1	-	-	-
Portable Dialysis Unit	1	-	-	-
Disinfectant Wipe (Case)	4	-	-	-
Isolation Gown	6,500	-	-	-
N95 Respirator	5,000	-	-	-
PAPR	27	-	-	-
Culture Swab	400	-	-	-
Face Shield	5,000	-	-	-
Cepheid Test Kit	-	50	-	-

Source: Response to Data Call, VISN 7, VHA, 8/3/2020.

Table 7.37 provides an overview of VISN 7 personnel movement. VISN 7 sent Registered Nurses, Licensed Practical Nurses and Nursing Assistants to the Bill Nichols SVH in Alexander City, AL and to the Veterans Victory House SVH in Walterboro, SC. According to VISN 7 leadership, the network utilized DEMPS to some effectiveness during its response; however, it was challenging to find DEMPS volunteers open to cross-country travel. For example, VISN 7 leadership noted it was difficult to find volunteers willing to travel from VISN 7 to destinations in Arizona and New Mexico.

Table 7.37 *VISN 7 Movement of Personnel (as of June 30, 2020)*

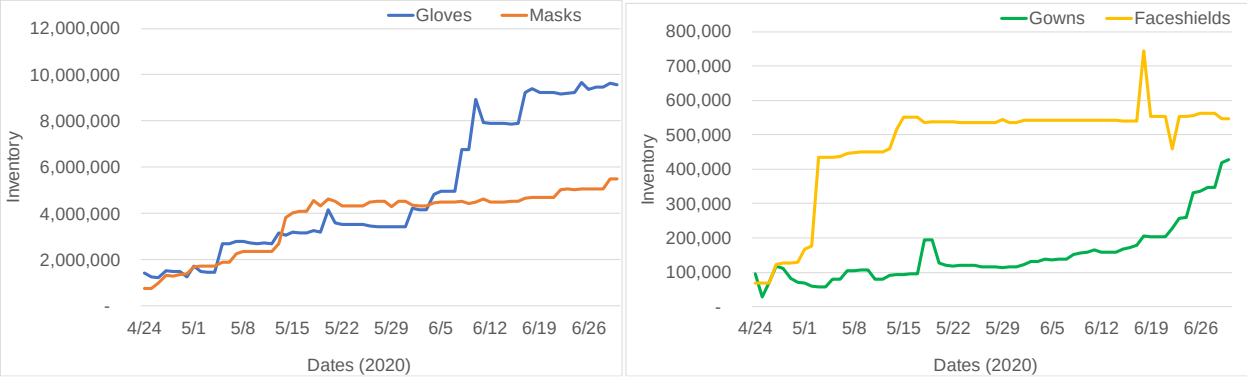
Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Registered Nurse	-	-	24	-
Licensed Practical Nurse / Certified Nursing Assistant / Nursing Assistant	-	-	24	-

Source: Response to Data Call, VISN 7, VHA, 8/3/2020.

Figure 7.50 provides an overview of VISN 7 PPE inventory over time. PPE inventory including gloves, gowns and face shields fluctuated from late April 2020 to late June 2020. Gloves and gowns experienced significant inventory level changes beginning in June 2020. The week of June 5, 2020, gloves increased sharply from approximately 5,000,000 to more than 8,000,000 and then increased to nearly 10,000,000 by late June 2020. Gowns increased steadily during June 2020, from approximately 100,000 to more than 400,000. Face shield inventory increased significantly the week of May 1, 2020, from less than 200,000 to more than 400,000. From the week of May 15, 2020 through the end of June 2020, face shield inventory remained fairly constant around

550,000, excluding a spike and dip the week of June 19, 2020. From late April 2020 to mid-May 2020, mask inventory ranged between approximately 1,500,000 and 4,000,000. By June 2020, mask inventory steadily increased to approximately 6,000,000.

Figure 7.50 *VISN 7 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



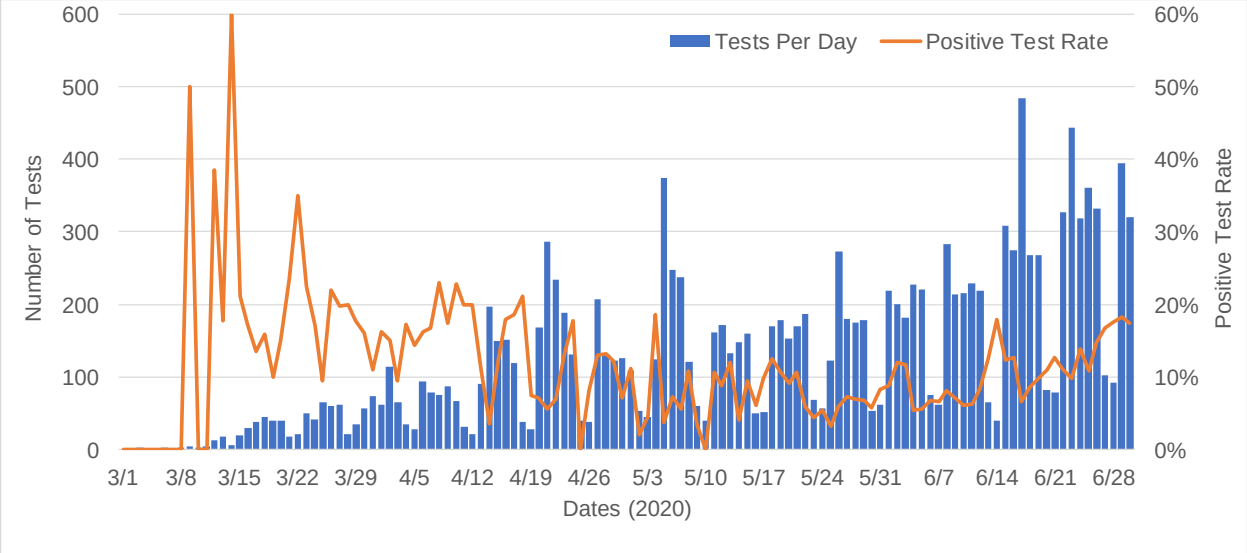
Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

Figure 7.51 provides the volume of testing and positivity rates for VISN 7 Veteran testing over time. Throughout March 2020, VISN 7 completed between 0 and 100 tests per day and the positive test rate reached as high as 60%. From April 2020 to May 2020, VISN 7 regularly completed between 50 and 200 tests per day, with some days nearing or exceeding 300. In June 2020, VISN 7 regularly completed more than 200 tests per day. The positive test rate did not exceed 20% after mid-April 2020.

Each of VISN 7's VAMCs had testing capabilities, but surges in demand pressed the available capacity of testing according to VISN 7 leadership. Initially, VISN 7 relied on the Palo Alto testing station for additional capacity and support. As the response matured, the Columbia VAHCS in South Carolina assumed a lead role in testing for VISN 7, SVHs during Fourth Missions taskings and sister VISNs such as VISN 8. The change expanded testing capacity in the region and reduced turnaround time significantly. The Columbia VAHCS leveraged multiple testing capabilities in combination with overnight shipping and station shuttles to get test materials to testing machines faster. These expanded capabilities were helpful; however, VISN 7 continued to have difficulties sourcing testing supplies as testing demand outpaced supply around the country.

Figure 7.51 *VISN 7 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Table 7.38 provides an overview of VISN 7 Veteran testing. Of the 456,156 Veterans Using VHA Services in VISN 7, 15,140 (3.3%) were tested for COVID-19 as of June 30, 2020. 0.3% of the total Veterans Using VHA Services population in VISN 7 tested positive for COVID-19. All CLC residents in VISN 7 were tested for COVID-19 and nine, or 2.2% of, CLC residents tested positive for COVID-19 as of June 30, 2020.

Table 7.38 *VISN 7 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Patients
Population	456,156	417
Population Tested	15,140	417
% of Population Tested	3.3%	100.0%
Population Positive	1,585	9
% of Population Positive	0.3%	2.2%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 8: Sunshine Healthcare Network

Description of the Network and Population *Served*

The VA Sunshine Healthcare Network (VISN 8) is the nation's largest system of hospitals and clinics, serving a population of more than 1.6 million Veterans spread across 79 counties in Florida, South Georgia, Puerto Rico and the U.S. Virgin Islands.[685] VISN 8 provides health care services through 10 VAHCS / VAMCs , 7 CLCs and 62 outpatient clinics.[686]

Within its expansive network of over 578,000 Veterans Using VHA Services, VISN 8 provided COVID-19 testing for both employees and patients, as shown in Table 7.39. VISN 8 identified 1,548 COVID-19 Veteran cases and 273 employee cases. Of these Veteran cases, 43 Veteran and 2 employee deaths were associated with positive COVID-19 tests.

Table 7.39 *VISN 8 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	578,681
Veteran COVID-19 Cases	1,548
Veteran COVID-19 Inpatients	272
Veteran Deaths (COVID-19 related)	43
VISN Employees	30,754
Employee COVID-19 Cases	273
Employee Deaths (COVID-19 related)	2

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

Florida announced its first presumptive cases of COVID-19 on March 1, 2020.[687] In response, VISN 8 began to formulate surge plans for each facility based on an aggregate of several predictive models based on prior outbreaks such as Wuhan, Italy and South Korea. The models provided a series of patient and facility projections, with bed expansion targets as one of the most salient. The modeling enabled VISN 8 to create accurate bed targets and anticipate bed capacity needs for potential patients,

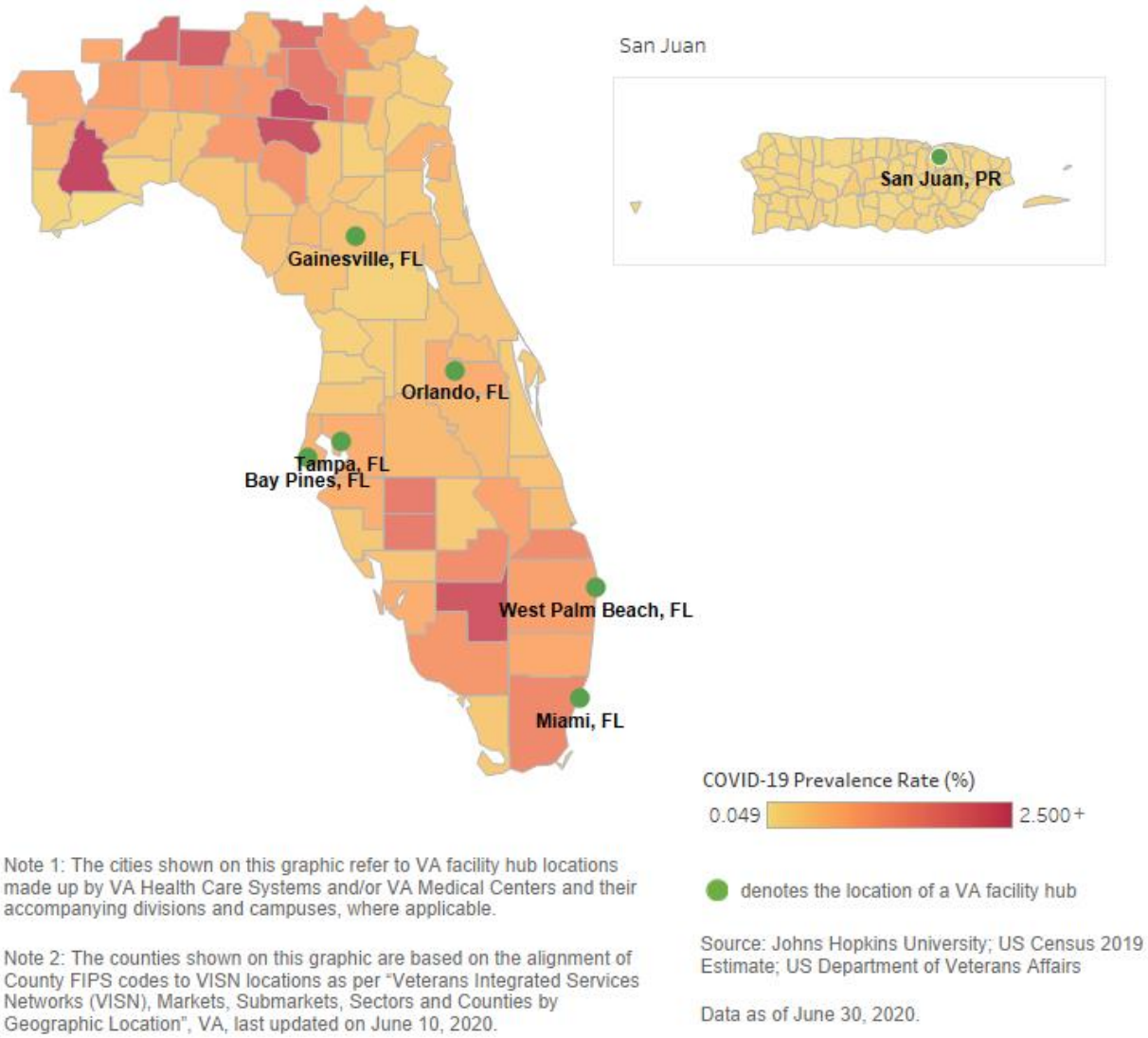
even as new cases among Veterans Using VHA Services rose over 400% through June 2020. New cases rose from 103 new confirmed cases on June 7, 2020 to 418 new confirmed cases on June 21, 2020, as shown in Figure 7.53. Community cases rose even quicker across Florida through June 2020, from 667 new confirmed cases on June 1, 2020 to 6,093 confirmed cases on June 30, 2020.[688] Despite significant outbreaks across the state, VISN 8 prevalence rates remained low compared to community prevalence as illustrated in Figure 7.53.

To address potential surge in patient demand across the network, VISN 8 cross-trained ambulatory care clinicians to help support ICU or Med/surg beds. VISN 8 also hired hundreds of employees across its network to help meet staffing requirements. With adequate staffing, VISN 8 leadership noted that its primary and most critical concern was test shortages. In late June 2020, VISN 8 had the capacity to test 8,000 people a week, but its testing demand was much greater at nearly 11,000 tests per week. VISN 8 noted that turnaround time for testing results increased from two to five days given these limitations. To address testing gaps, VISN 8 implemented a series of steps that included sending tests outside of the VISN for analysis (first to Palo Alto, then Columbia, Lexington and Nashville) and building its internal testing capabilities. VISN 8 purchased BioFire, Abbot M2000 and Cepheid testing machines, which increased its internal testing capacity. VISN 8 leadership also requested that VHACO reallocate testing equipment based on areas of need, which was approved and resulted in increasing VISN 8's daily capacity from 240 tests to approximately 488 tests. With these measures, VISN 8 overcame its weekly testing shortages of approximately 3,000 tests and met patient demand. Additionally, VISN 8 reduced testing turnaround time back to 48 hours.

Community Prevalence and VISN Case Statistics

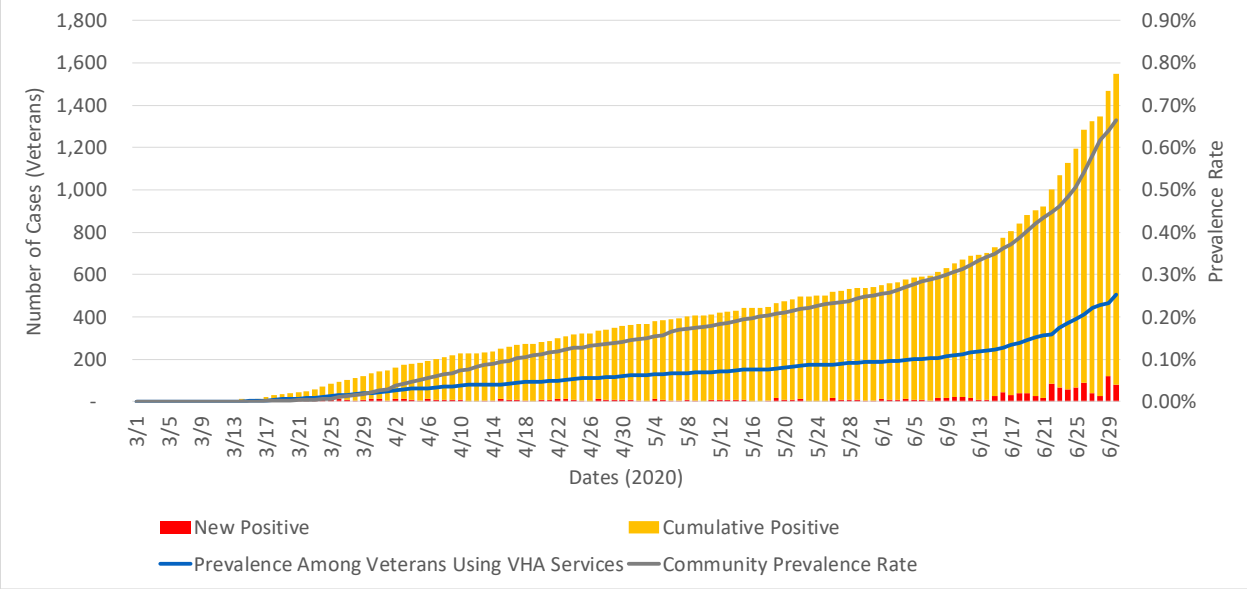
As shown in Figure 7.52, pockets of counties in northern and southern Florida experienced greater spread of COVID-19, leading to elevated prevalence of 2.0% or more. Comparatively, central Florida and Puerto Rico did not develop elevated prevalence. As of June 30, 2020, counties in the West Palm Beach, Miami and Bay Pines catchment areas had higher prevalence that in other VISN 8 locales in Florida (Tampa, Gainesville and Orlando).[689] During the month of June 2020, weekly new cases in the Miami catchment area nearly doubled and new cases in the Tampa and Orlando areas more than tripled; however, overall the VISN 8 catchment areas did not exceed 0.8% community prevalence as of June 30, 2020, as seen in Figure 7.53.[690]

Figure 7.52 *VISN 8 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



VISN 8 confirmed its first COVID-19 positive Veteran case on March 13, 2020.[691] During the early stages of the response, prevalence among Veterans Using VHA Services within VISN 8 slightly exceeded that of the community.[692] As shown Figure 7.53, beginning on April 2, 2020, community prevalence outpaced VISN 8 prevalence among Veterans Using VHA Services and this trajectory continued through the end of June 2020. In the last weeks of June 2020, VISN 8 experienced an increase in COVID-19 cases from previous weeks; the number of new positives more than tripled between June 8, 2020 and June 29, 2020, as also shown in Figure 7.53.

Figure 7.53 *VISN 8 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



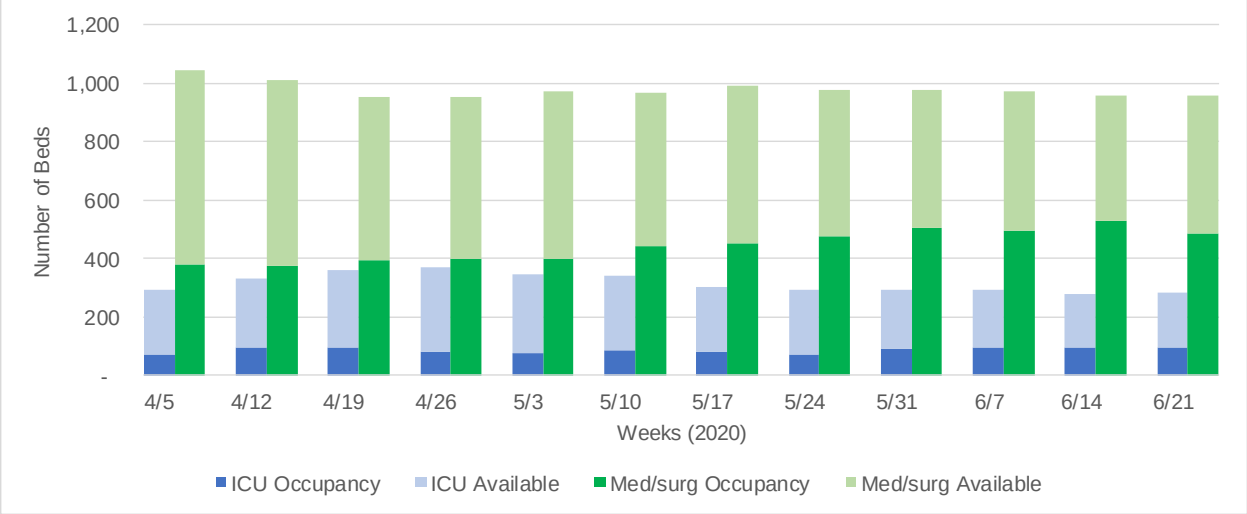
Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 8 used predictive analytics to approximate bed requirements in the events of a potential surge in patient demand. Based on those projections, VISN 8 expanded bed capacity at certain sites across the network. VISN 8 had enough bed capacity to address surges in patient demand and it did not exceed overall capacity in any of its facilities as of June 30, 2020. As illustrated in Figure 7.54, from April 2020 through June 2020, VISN 8 had more than twice the bed capacity needed to service ICU or Med/surg patients. In general, VISN 8 had between 200 to 300 ICU beds available and approximately 400 to 600 Med/surg beds available. As seen in the visual, over the course of the response Med/surg occupancy increased steadily.

Figure 7.54 VISN 8 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, 7/28/2020.

HR / Staffing

VISN 8 hired over 1,700 employees across the VISN, as shown in Table 7.40, which was made possible by streamlined processes to bring on new personnel and supplemental funds allocated by Congress. As shown in Table 7.40, VISN 8 had a net gain of 863 personnel from February 2020 through June 2020. VISN 8 had 30,754 employees on June 30 and 897 VISN 8 personnel became no longer employed by VA between February 2020 and June 2020. The network made most notable net gains with Nurses (+232), Medical Support Assistance (+183) and Nursing Assistants (+155). According to VISN 8 leadership, VISN 8 also effectively cross-trained employees to be able to work across disciplines.

Table 7.40 *VISN 8 Key HR Statistics (February - June 2020)*

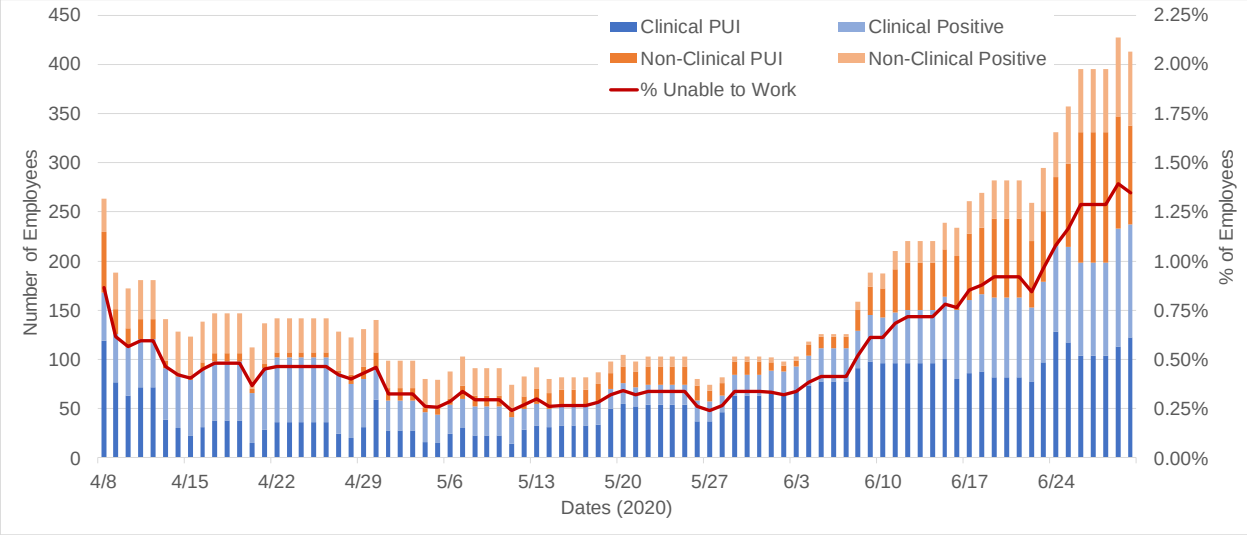
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	67	58	9	2,606
Nurse	379	147	232	6,844
Practical Nurse	88	39	49	1,545
Nursing Assistant	196	41	155	1,251
Medical Support Assistance	281	98	183	2,777
Pharmacist	14	10	4	843
Psychology	7	11	(4)	488
Social Work	29	21	8	1,135
Custodial Worker	224	84	140	1,050

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
All Other Occupations	475	388	87	12,215
Totals	**1,760**	**897**	**863**	**30,754**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.
Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

In May 2020, employee unavailability remained at or below 0.40%, as show in Figure 7.55. As COVID-19 prevalence began to increase within the network in June 2020, employee unavailability more than tripled, notably with increases in non-clinical personnel who were designated PUIs. Clinical employee PUIs and positives also increased and contributed to the approximately 1.4% employee unavailability rate by the end of June 2020.

Figure 7.55 *VISN 8 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 8 has been active in the community supporting SVHs and CNHs, as shown in Table 7.41. VISN 8 participated in a weekly call with the Florida Department of Veterans Affairs to help track residents testing positive for COVID-19 in SVHs. VISN 8 utilized 195 personnel to assist approximately 6,500 patients across 61 SVHs or CNHs in Florida. As of June 30, 2020, no significant outbreak occurred in VISN 8

network SVHs; VISN 8 leadership partially attributed this fact to its proactive coordination and collaboration.

Table 7.41 *VISN 8 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Multiple Locations, FL	61 Florida SVHs and CNHs	4/21/20	Ongoing	Staffing Supplement & Education	Provided 195 VHA personnel to assist approximately 6,500 patients across 61 SVHs / CNHs in Florida

Source: Response to Data Call, VISN 8, VHA, 7/23/2020.

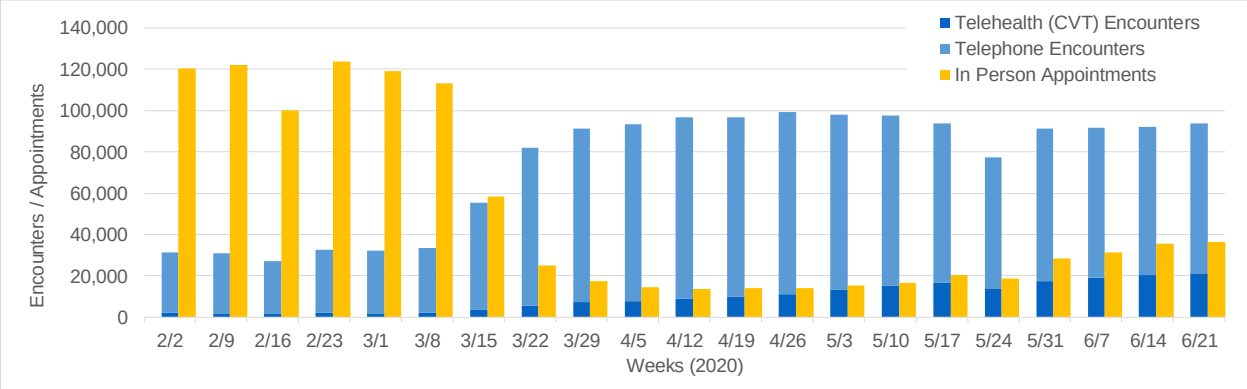
Photo caption: Clinical staff from VISN 8 deploy to support community and state Veteran nursing homes across Florida.

Source: Jason Dangel, "VA Nurses Make Positive Impact on COVID-19," James A. Haley Veterans' Hospital, VA, 5/14/2020, https://www.tampa.va.gov/TAMPA/features/VA_Nurses_Make_Positive_Impact_on_COVID_19.asp, accessed 10/14/2020.

Patient Care by Visit Type

As shown in Figure 7.56, from February 2, 2020 to March 8, 2020, VISN 8 primarily delivered in-person patient care; providers conducted approximately 115,000 weekly in-person appointments versus approximately 32,00 virtual encounters. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020, patient service modalities were relatively balanced (~55,000 for both in-person and virtual), and only one week later most encounters were conducted virtually. Through May 31, 2020, VISN 8 conducted approximately 90,000 virtual encounters per week while in-person appointments hovered around an average of 20,000. As facilities began to reopen in June 2020, both in-person and virtual encounters began to increase.

Figure 7.56 *VISN 8 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*

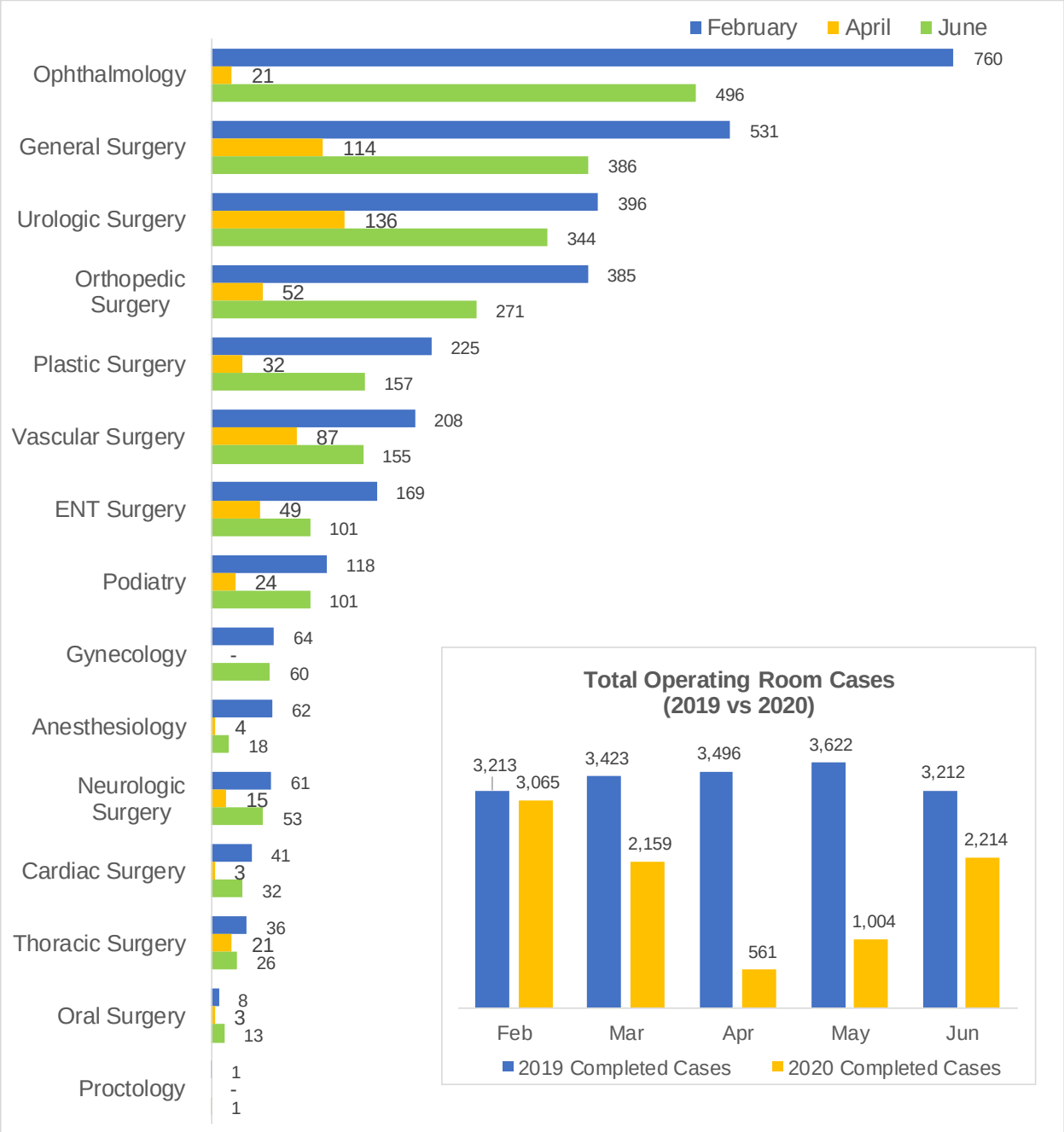


Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As shown Figure 7.57, during its response VISN 8 OR cases decreased significantly in comparison to its February 2019 to June 2019 numbers. VISN 8 saw 561 OR cases in April 2020 compared to 3,496 in April 2019. OR cases began to increase in June 2020 when VISN 8 began to progress through phases of its Moving Forward Plan. The largest net loss in OR cases was in Ophthalmology, with a decrease of 739 cases between February 2020 and April 2020; however, all specialties increased their OR case count from April 2020 to June 2020.

Figure 7.57 *VISN 8 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

VISN 8 never experienced critical PPE shortages throughout its response to COVID-19. One of its largest concerns was gown shortages as its 28-day supply fell short of its 90-day target. To mitigate potential shortages, VISN 8 actively sourced PPE within VISN 8, across other VISNs and from the open market. VISN 8 reported that it

effectively reallocated supplies within the network, most notably in large reallocations of N95 respirators (23,000) and isolation gowns (50,000), as seen in Table 7.42. VISN 8 also sent these supplies to other VISNs who requested assistance. VISN 8 leadership noted that an initial challenge was calculating the burn rate within VISN 8's existing generic inventory system; as a result, VISN 8 created an excel spreadsheet, separate from the Power BI Dashboard, that helped accurately capture PPE burn rate.

Table 7.42 *VISN 8 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Swab/Media Specimen Collection Kit	10,950	-	-	-
Fit Test Solution for N95 Respirator (Bottle)	16	-	-	-
Flex Vinyl Examination Glove (Case)	1	-	-	-
Nitrile Glove	295,000	-	-	-
Isolation Gown	60,000	12,000	-	-
Level 4 Surgical Gown	5,000	-	-	-
Mask with Shield	5,000	-	-	-
N95 Respirators	35,580	5,000	-	-
Shoe Cover (Case)	10	-	-	-
Level 3 Surgical Mask	21,000	-	-	-

Sources: Response to Data Call, VISN 8, VHA, 7/23/2020; Response to Vetting Draft, VISN 8, 8/28/2020.

In terms of personnel, VISN 8 reallocated 18 employees within its network, 10 of whom were Registered Nurses, as outlined in Table 7.43. VISN 8 sent 28 employees to help support other VISNs and over 200 clinical personnel to support non-VHA entities.

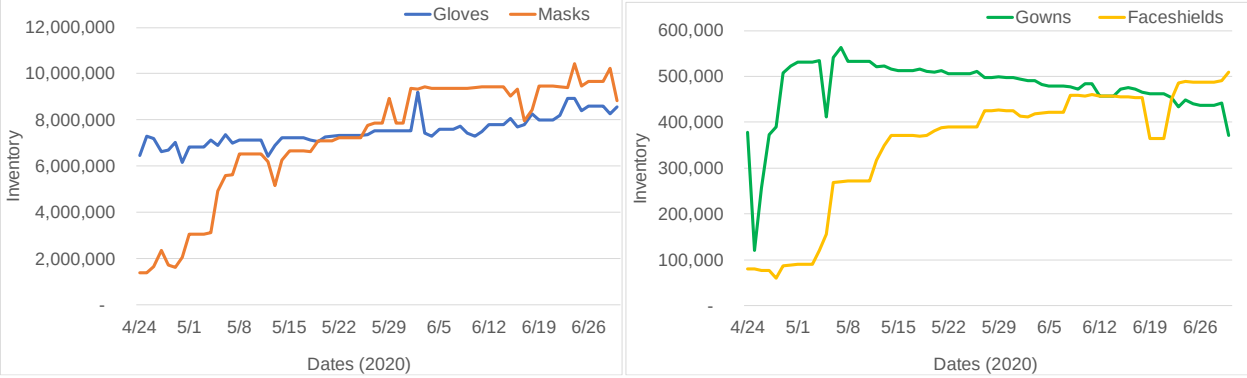
Table 7.43 *VISN 8 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Clinical Support / Medical Technician	1	7	16	-
Housekeeping Aid	1	1	-	-
Licensed Practical Nurse	3	-	51	-
Nursing Assistant	1	1	-	-
Physician	1	1	32	-
Registered Nurse	10	17	91	-
Respiratory Therapist	1	1	9	-
Nurse Practitioner	-	-	2	

Sources: Response to Data Call, VISN 8, VHA, 7/23/2020; Response to Data Call, VISN 8, VHA, 8/14/2020.

As illustrated in Figure 7.58, VISN 8 increased its supply of masks and face shields over the course of its response to COVID-19. It also increased its supply of gloves and it had a slight decline in gowns over the course of its response.

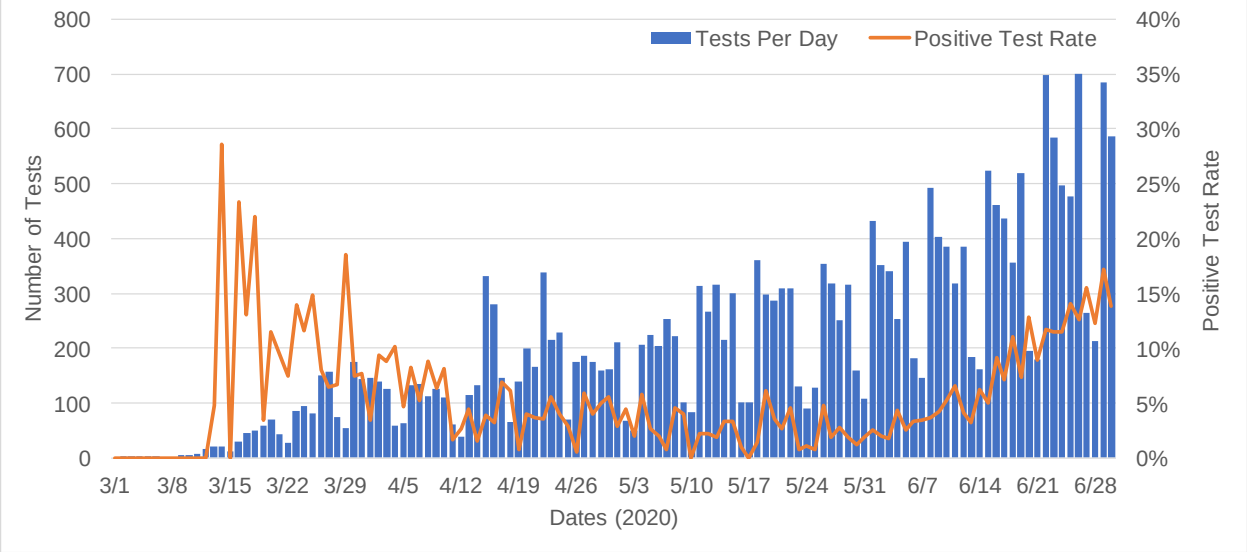
Figure 7.58 *VISN 8 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

Figure 7.59 *VISN 8 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

VISN 8 initially mitigated testing delays by sending samples outside of the network for processing (first at Palo Alto, then Columbia, Lexington and then Nashville) and by purchasing additional testing capabilities. With BioFire, Abbot M2000 and Cepheid tests in place, VISN 8 increased its internal testing capacity. As illustrated in Figure

7.59, VISN 8 was able to increase its testing capacity over time, completing an average of approximately 500 daily tests in the last seven days of June 2020. In late June 2020, nearly 15% of individuals tested by VISN 8 were positive, similar to the positive rates seen in March 2020.

As of June 30, 2020, as shown in Table 7.42, VISN 8 tested 4.2% of its Veterans Using VHA Services population and 100% of CLC residents. The proportion of VISN 8 Veterans that tested positive for COVID-19 was 0.3% while 6.0% of CLC residents tested positive.

Table 7.44 *VISN 8 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	578,681	498
Population Tested	24,408	498
% of Population Tested	4.2%	100.0%
Population Positive	1,548	30
% of Population Positive	0.3%	6.0%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 9: Mid-South Veterans Healthcare Network

Description of the Network and Population Served

The VA Mid-South Veterans Healthcare Network (VISN 9) is an integrated health care delivery system with services spanning Tennessee and Kentucky. VISN 9 provides medical services across 8 VAHCS / VAMCs, 3 CLCs and 52 outpatient clinics, which include 39 CBOCs.[693] Over one million Veterans reside in the VISN 9 catchment area.[694]

Within its expansive network of over 275,000 Veterans Using VHA Services, VISN 9 provided COVID-19 testing for both employees and patients during its response. As shown in Table 7.45, VISN 9 identified 457 COVID-19 Veteran cases and 26 employee cases through June 30, 2020. Of these cases, 25 Veteran deaths were associated with positive COVID-19 tests.

Table 7.45 *VISN 9 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	275,569
Veteran COVID-19 Cases	457
Veteran COVID-19 Inpatients	124
Veteran Deaths (COVID-19 related)	25
VISN Employees	14,008
Employee COVID-19 Cases	26
Employee Deaths (COVID-19 related)	0

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

Tennessee recorded its first cases of COVID-19 on March 5, 2020 and Kentucky reported its first on March 6, 2020.[695] Shortly thereafter, VISN 9 hosted daily planning meetings with its emergency operations center to address the pandemic within its network. Like other networks, VISN 9 cited early challenges in accurately predicting models for bed expansion and equipment; however, according to VISN 9 leadership,

VISN 9 effectively developed enough capacity to meet potential surge demands. VISN 9 never experienced critical shortages of PPE or manpower.

According to VISN 9 leadership, through June 2020 there were three small outbreaks in VISN 9 catchment area, including one outbreak at a meatpacking plant and two in the prison system. Memphis experienced a significant increase in cases through the latter portion of June 2020. VISN 9 implemented response actions, including VISN 9's participation in the Joint Task Force for Memphis and Shelby County. VISN 9, as part of the Joint Task Force, provided advisory services to the Unified Command of the State of Tennessee and the Army Corps of Engineers ("Corps") to help expand health care capacity throughout the Memphis metropolitan area. As a part of these efforts the Corps renovated a large, vacant commercial building in the Medical District of Memphis; the building was transformed into a 400-bed alternate care site to handle patient surge throughout the city if needed. Community cases also began to rise in Nashville in late June 2020; however, there was not an increased demand for Veteran care at the Tennessee Valley HCS in Nashville during the same period.

VISN 9 leadership cited availability of testing as the most critical challenge early in its response, notably testing turnaround times. With limited testing capabilities and turnaround times up to 14 days, VISN 9 noted it kept PUIs for days prior to receiving test results; however, as VISN 9 headed into July 2020, it was acquiring additional testing capabilities (for example, Abbott m2000, BioFire, Cepheid and Hologic testing system) that VISN 9 leadership anticipated would help maintain turnaround times between 24 to 48 hours heading into fall 2020. VISN 9 also supported testing needs of other VISNs through its Lexington facility. VISN 9 plans to use 3D printers at each facility to manufacture swabs and other testing supplies once the FDA provides approval. VISN 9 leadership noted that these printing capabilities will expedite testing and decrease VISN 9's reliance on the supply chain and foreign entities.

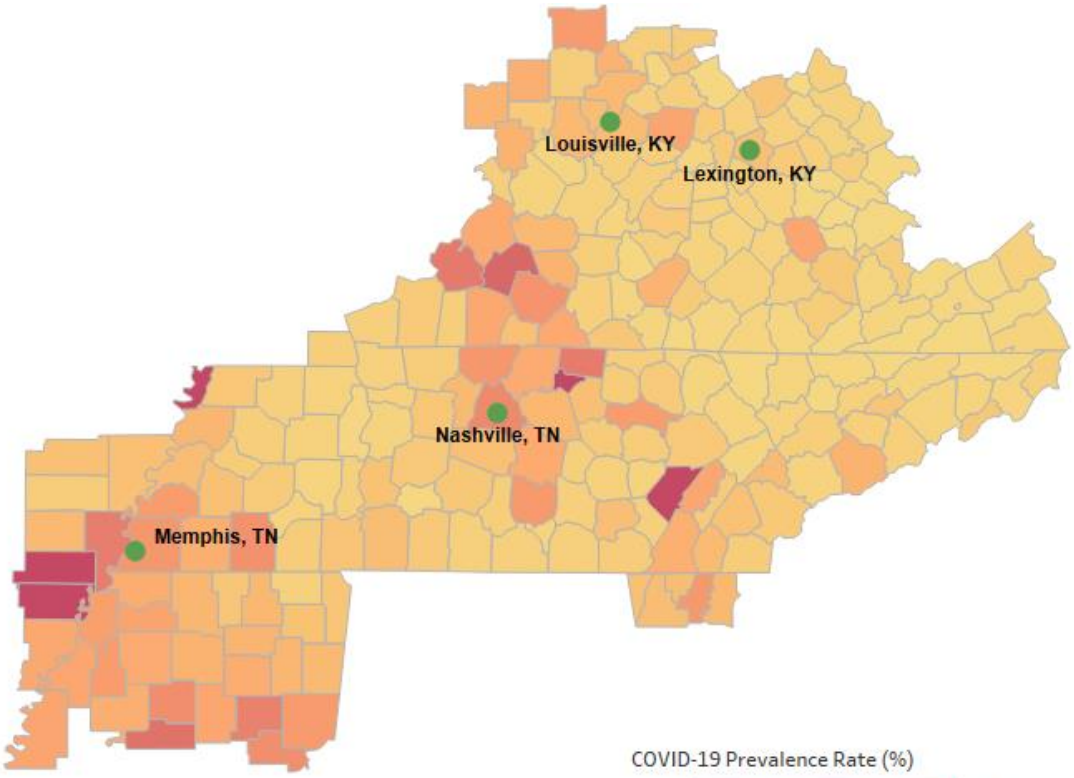
VISN 9 has been involved in the local community, providing staffing support to the IHS and an SVH in Rhode Island, as shown in Table 7.47. Given this work, VISN 9 developed guidance on assessment of SVH outbreaks, PPE requirements, isolation of positive residents and identification of placement options for COVID-19 patients. VISN 9 leadership stated that its guidance was adapted nationwide as best practice on May 12, 2020 as part of a COVID-19 surge planning tool kit developed by VHACO.

Community Prevalence and VISN Case Statistics

As shown in Figure 7.60, COVID-19 community prevalence rates remained relatively low across VISN 9 catchment areas through June 30, 2020 as the vast majority of counties fell at or below 1% prevalence.[696]

The counties that fall within the VISN 9 network never exceeded an aggregate 0.6% community prevalence through June 30, 2020, as shown in Figure 7.61. Counties in the Memphis and Nashville areas had slightly higher aggregate prevalence rates at 0.85% and 0.71%, respectively.[697]

Figure 7.60 *VISN 9 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

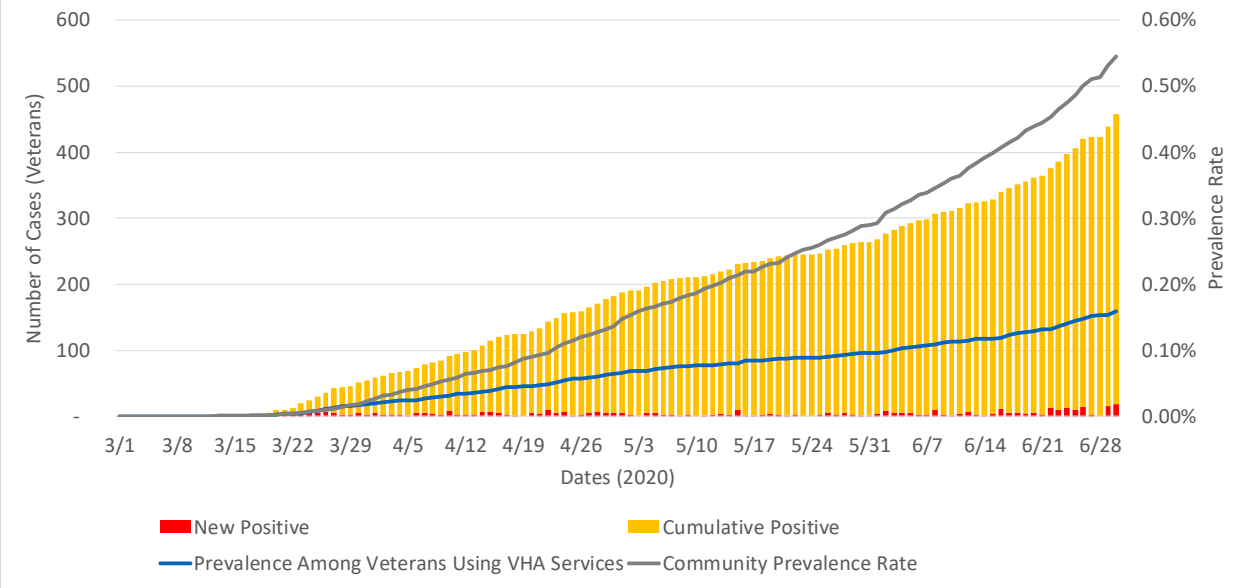
Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs.

Data as of June 30, 2020.

VISN 9 identified its first Veteran with COVID-19 on March 16, 2020.[698] Following this encounter and during the first few weeks of its response, VISN 9 prevalence among Veterans Using VHA Services matched or slightly exceeded that of the community.[699] VISN 9 prevalence among Veterans Using VHA Services increased 0.1% from May 1, 2020 to June 30, 2020 while community prevalence had a sharper increase during this time, from 0.15% to 0.54%, as seen in Figure 7.61. VISN 9 attributed lower prevalence among Veterans Using VHA Services relative to the community partially to its early directives to close VISN 9 CBOCs and to implement a universal masking policy by

April 2, 2020. Following April 2, 2020, 26 employees contracted COVID-19 and the VISN maintained adequate staffing throughout its response, as shown in Table 7.45 and Figure 7.63.

Figure 7.61 *VISN 9 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

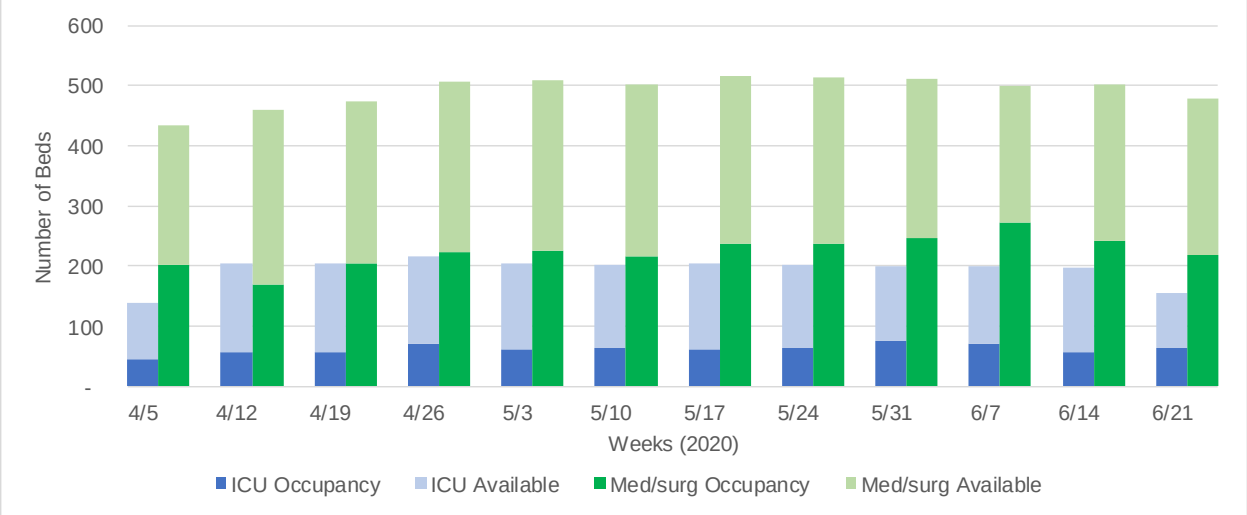
VISN 9 noted challenges creating accurate predictive models for bed expansion early in its response as the models did not accurately predict the number of ICU beds needed; however, VISN 9 noted that VHACO's initial bed targets were helpful to inform benchmarking and future decision making.

With more accurate targets in place, VISN 9 leadership indicated that VISN 9 needed adequate staffing for beds. VISN 9 leadership stated that it focused new allocations of funding to solve this issue and rapidly hire new personnel. VISN 9 also cross-trained employees from closed outpatient clinics to backfill vacancies as needed.

VISN 9 leadership reported that the network experienced minimal challenges transitioning rooms to negative pressure. It reported that converting entire wards was much easier than converting stand-alone rooms. VISN 9 signed a blanket purchase agreement for beds a year prior which enabled the network to purchase beds and make expansions quickly.

Through June 28, 2020, VISN 9 maintained sufficient bed capacity to meet demand during the response, as shown in Figure 7.62.

Figure 7.62 *VISN 9 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

As shown in Table 7.46, VISN 9 had a net gain of 66 personnel from February 2020 through June 2020. In total, VISN 9 hired 545 personnel and had just over 14,000 employees on June 30, 2020. Additionally, 479 VISN 9 personnel become no longer employed by VA from February 2020 to June 2020. The network made most notable net gains with Nursing Assistants (+17) and Medical Support Assistance (+11).

Table 7.46 *VISN 9 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	37	30	7	1,143
Nurse	119	110	9	3,244
Practical Nurse	35	33	2	606
Nursing Assistant	38	21	17	581
Medical Support Assistance	55	44	11	1,100

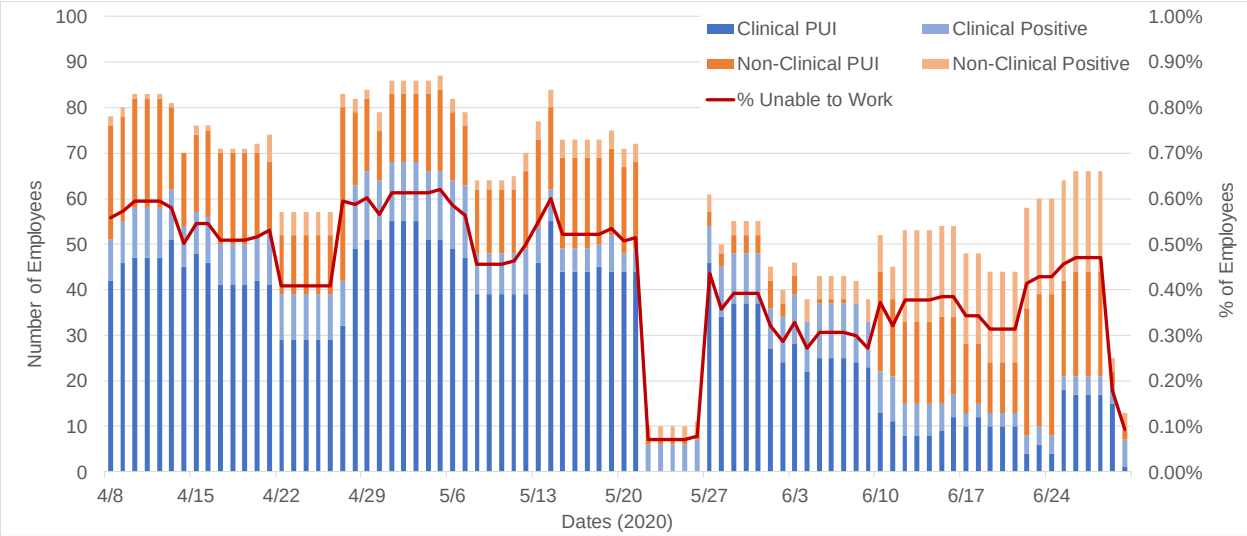
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Pharmacist	6	2	4	373
Psychology	3	2	1	252
Social Work	13	12	1	630
Custodial Worker	69	41	28	495
All Other Occupations	170	184	(14)	5,584
Totals	**545**	**479**	**66**	**14,008**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

As shown in Figure 7.63, in early May 2020 approximately 0.60% of the workforce was unable to work due to circumstances related to COVID-19. Unavailability rates declined through early June 2020 but began to spike later in the month. During this later period, PUIs among non-clinical employees drove the increased numbers. Compared to other categories shown, clinical positives remained relatively low throughout the duration of VISN 9's response.

Figure 7.63 *VISN 9 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

According to VISN 9 leadership, VISN 9 did not receive a formal FEMA Fourth Mission Assignment as of June 30, 2020; however, it worked closely with the IHS and a SVH in Rhode Island where it provided nursing support as shown in Table 7.47.

Table 7.47 *VISN 9 Fourth Mission and Community Support (as of June 30, 2020)*

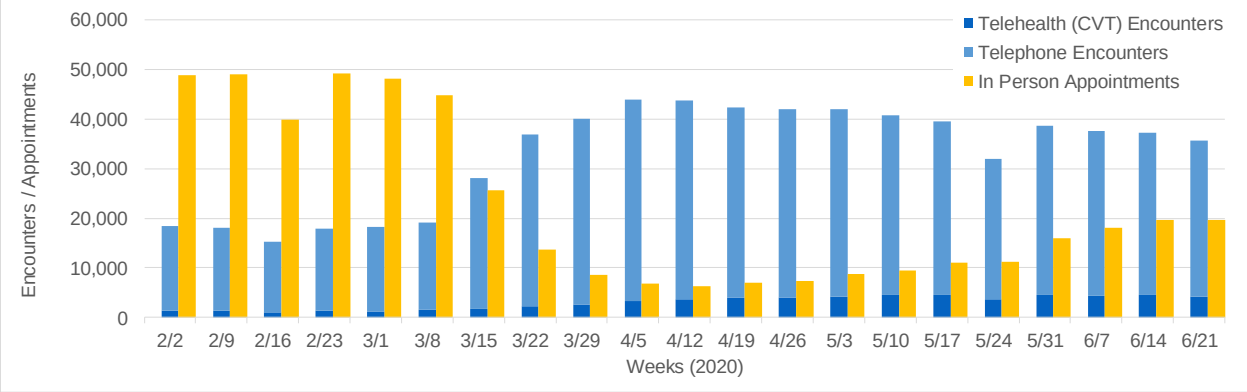
Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
White River, AZ	IHS	6/21/2020	7/4/2020	Staffing Supplement	Provided Registered Nurses
Bristol, RI	Rhode Island SVH	6/21/2020	7/4/2020	Staffing Supplement	Provided Registered Nurses

Source: Response to Data Call, VISN 9, VHA, 7/14/2020.

Patient Care by Visit Type

As shown in Figure 7.64, from February 2, 2020 to March 8, 2020, VISN 9 primarily delivered in-person patient care, as network providers conducted approximately 45,000 in-person versus 18,000 virtual encounters. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020, encounter types were relatively balanced (~27,000 each) and only one week later most encounters were conducted virtually. Through April and May 2020, VISN 9 conducted approximately 40,000 virtual encounters per week while in-person appointments hovered around 8,000. As facilities began to reopen in June 2020, in-person appointments more than doubled what was seen in April 2020 and May 2020.

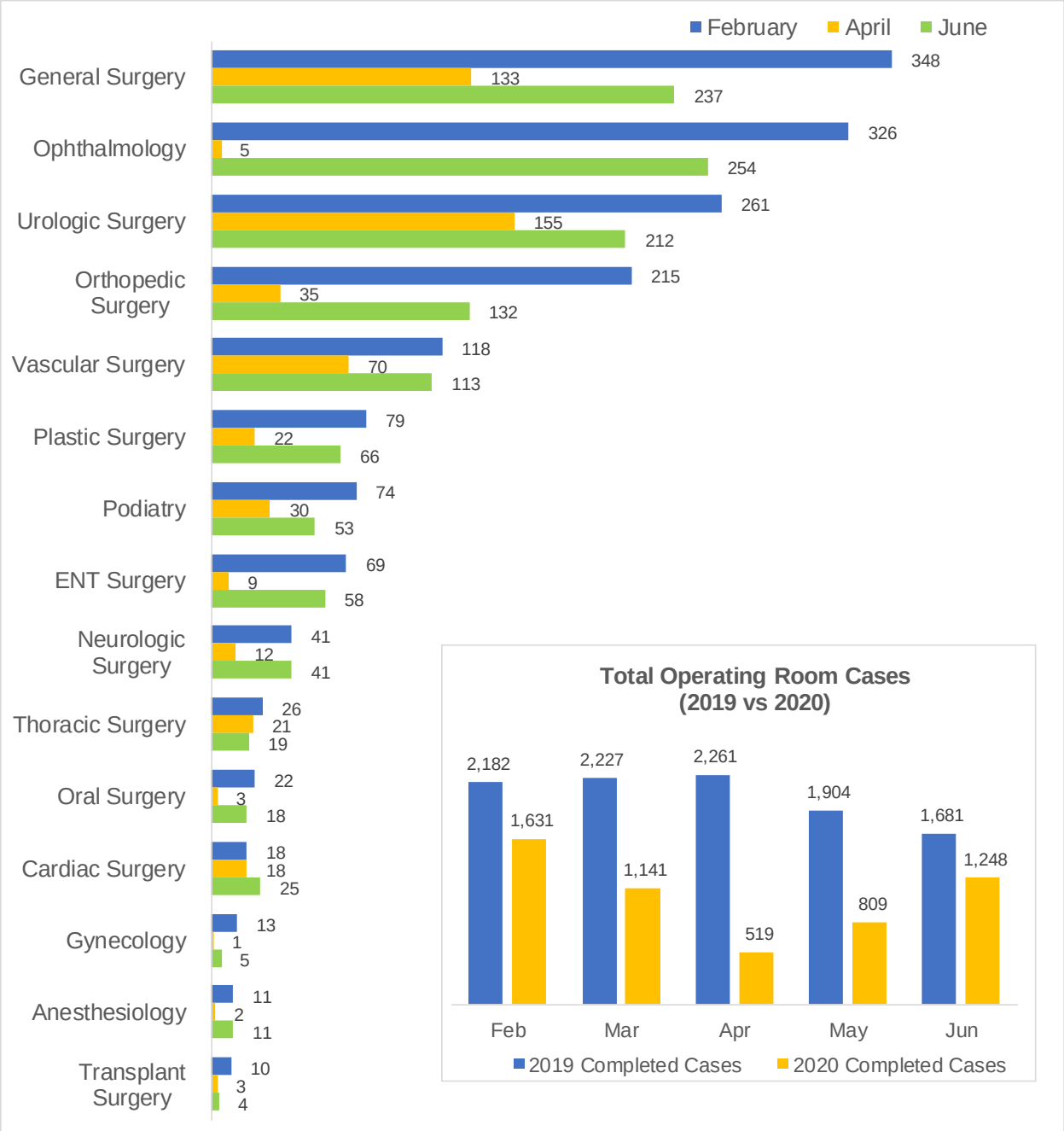
Figure 7.64 *VISN 9 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.65 *VISN 9 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

As shown in Figure 7.65, during VISN 9's COVID-19 response OR cases decreased significantly in comparison to February 2019 to June 2019 cases. VISN 9 saw 519 OR

cases in April 2020 compared to 2,261 in April 2019. OR cases began to increase in June 2020 when VISN 9 began to more fully open facilities. The largest net loss of OR cases was in ophthalmology, with a decrease of 321 cases when comparing February 2020 and April 2020; however, nearly all specialties increased their OR case count from April 2020 to June 2020.

Resource Movement / Inventory

VISN 9 reallocated numerous supplies within the network, including gowns, which VISN 9 cited as its only PPE concern. As seen in Table 7.49, VISN 9 reallocated approximately 600 Level 4 gowns across the network and more than 800,000 procedural masks. VISN 9 also deployed Registered Nurses to other VISNs and non-VHA entities, as seen in Table 7.48.

Table 7.48 *VISN 9 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Registered Nurse	0	2	2	0

Source: Response to Data Call, VISN 9, VHA, 7/14/2020.

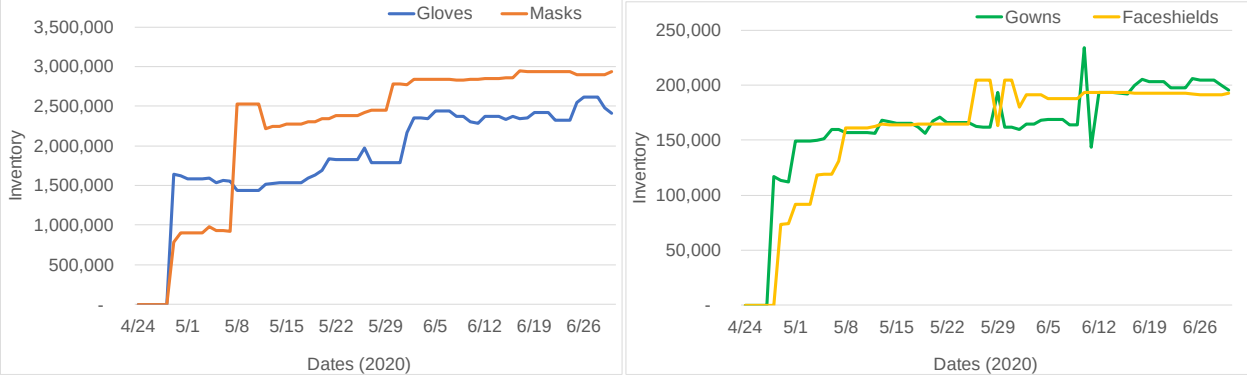
Table 7.49 *VISN 9 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Ambulance	1	-	-	-
Bleach Wipe (Case)	10	-	-	-
Envo Mask	1,128	-	-	-
Envo Mask Filter	15,000	-	-	-
Gown (Level 4)	600	-	1000	-
Hill-Rom Centrella Med/surg Bed	12	-	-	-
N95 Respirator	200	-	-	-
Optim 1 Wipe (Case)	36	-	-	-
Procedure Mask	800,000	-	-	-
Glove (Small)	10,000	-	-	-
Swab	3,900	-	-	-
Test Kit	-	3,020	57	-

Source: Response to Data Call, VISN 9, VHA, 7/14/2020.

VISN 9 increased its supply of masks, gloves, gowns and face shields over the course of its response, as shown Figure 7.66.

Figure 7.66 *VISN 9 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

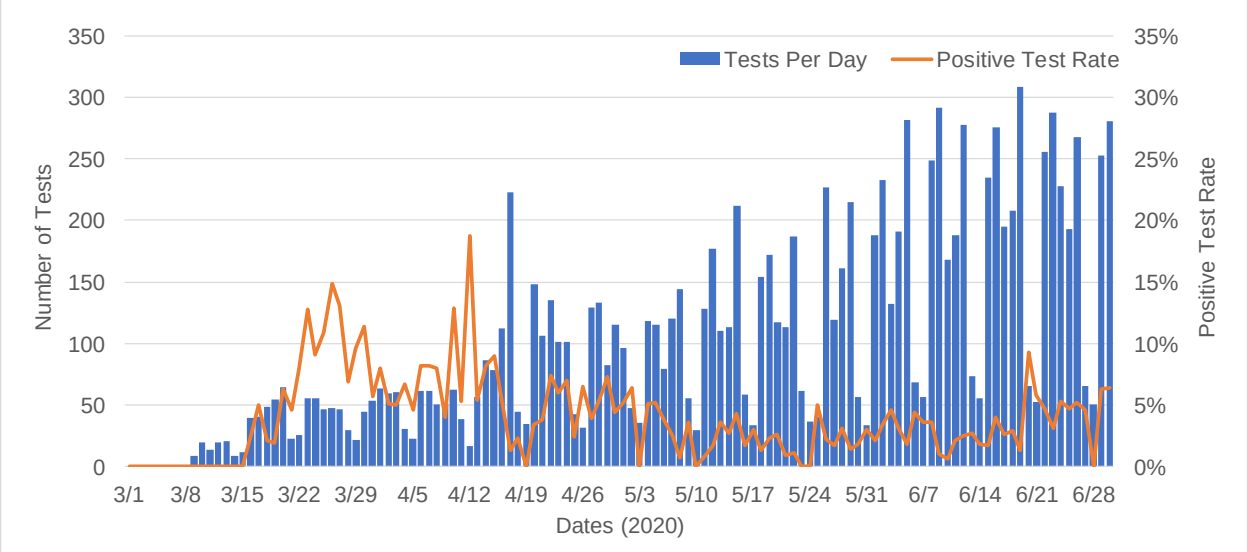


Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

As seen in Figure 7.67, VISN 9 increased its testing capacity over time, frequently performing over 200 daily tests throughout the month of June 2020. Positive tests rates slowly increased though June 2020, which can also be seen in the slowly increasing prevalence among Veterans Using VHA Services through the network as illustrated in Figure 7.61. In the last days of June 2020, approximately 4% of Veterans tested were positive, similar to the end of April 2020, as illustrated in Figure 7.67.

Figure 7.67 *VISN 9 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

VISN 9 tested 4.4% of its Veterans Using VHA Services population and 100% of its CLC residents as of June 30, 2020; testing across both groups resulted in patient positives at or below 0.2%, as shown in Table 7.50.

Table 7.50 *VISN 9 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population[1]	275,569	211
Population Tested[2]	12,152	211
% of Population Tested	4.4%	100.0%
Population Positive	457	0
% of Population Positive	0.2%	0.0%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 10: VA Healthcare System

Description of the Network and Population Served

The VA Healthcare System (VISN 10) operates in four core states including Michigan, Ohio, Kentucky and Indiana, and provides health care services to nearly 490,000 Veterans Using VHA Services, as shown in Table 7.51. VISN 10 consists of 10 VAMCs, 1 Health Care Center, 9 CLCs and 74 outpatient clinics including 61 CBOCs.[700]

As shown in Table 7.51, VISN 10 had 1,573 Veteran COVID-19 cases and reported 178 Veteran deaths attributed to COVID-19. During its response, VISN 10 identified 165 VA employee cases and 5 VA employee deaths related to COVID-19.

Table 7.51 *VISN 10 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	489,201
Veteran COVID-19 Cases	1,573
Veteran COVID-19 Inpatients	328
Veteran Deaths (COVID-19 related)	178
VISN Employees	25,831
Employee COVID-19 Cases	165
Employee Deaths (COVID-19 related)	5

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

COVID-19 first appeared in VISN 10 in the Indianapolis area during the week of March 8, 2020.[701] Almost immediately, Governors in surrounding states declared a State of Emergency.[702] VISN 10 leadership began contingency planning with facility leaders and tracking COVID-19 community spread long before any Veteran cases were reported in the network. Plans included shifting priorities of care, leveraging virtual care technologies, completing tabletop exercises for critical care preparedness, building Med/surg bed capacity and evaluating critical supplies and equipment such as ventilators, testing kits and PPE.

According to VISN 10 leadership, the network's preparation proved essential for several areas in the VISN. Detroit and the tri-county area east of Ann Arbor experienced VISN 10's first significant outbreak; as prevalence of confirmed cases in the community increased, VISN 10 leadership activated bed expansion and moved ventilators to where demand was highest. VISN 10 also reallocated personnel to help sites impacted by the escalating surge.

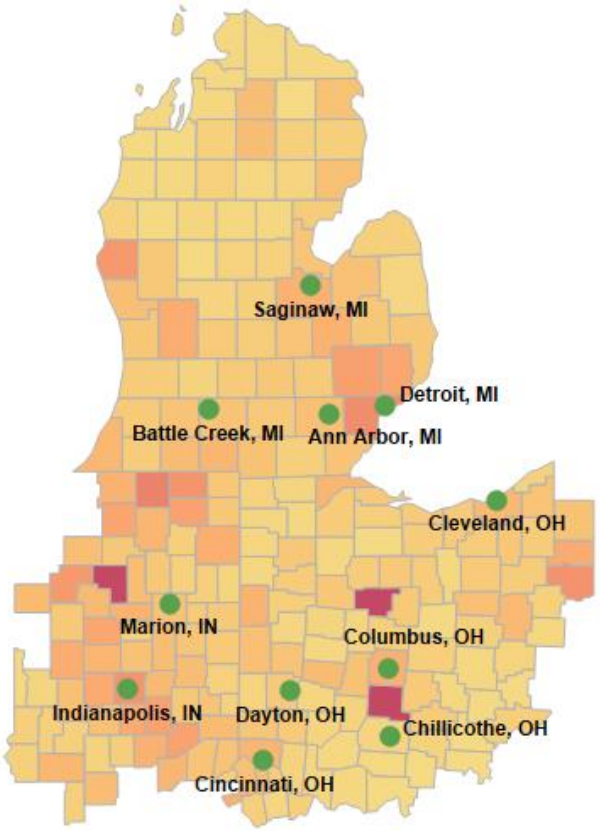
VISN 10's innovation and adaptability played a major role in its response to the pandemic. Faced with a shortage of ICU Nurses, VISN 10 pioneered a team concept that spread responsibilities across personnel and freed Nurses to attend to more acute patients. This team nursing method became invaluable when ICUs were stretched to maximum capacity.

Community Prevalence and VISN Case Statistics

Figure 7.68 and Figure 7.69 provide an overview and graphic of VISN 10 prevalence and evolution of cases over time. According to VISN 10 leadership, COVID-19 spread in the counties adjacent to Detroit and Ann Arbor (Macomb, Oakland, Wayne and Washtenaw) early in the response.[703] COVID-19 prevalence of confirmed COVID-19 in Michigan reached 1.30% in Wayne County, 0.95% in Oakland County and 0.84% in Macomb County by June 30, 2020. The John D. Dingell VAMC. located in close proximity to the three counties, reported community prevalence of confirmed COVID-19 above 1% in its catchment area by the end of June 2020.[704]

Shortly after the Detroit area confirmed outbreaks, counties in Indiana, Ohio and Kentucky flared up.[705] Outbreaks in Cass County, IN, Marion County, OH and Pickaway County, OH saw prevalence of confirmed COVID-19 increase to more than 3.5% by June 30, 2020.[706] The remaining areas in Michigan, Indiana, Ohio and parts of Kentucky experienced less than 2% prevalence of confirmed COVID-19 by June 30, 2020.[707] The first confirmed Veterans Using VHA Services case was reported on March 9, 2020. By June 30, 2020, a total of 1,573 Veterans Using VHA Services tested positive for COVID-19.[708] At the VISN level, community prevalence of confirmed COVID-19 pushed to 0.58% by June 30, 2020 and prevalence among Veterans Using VHA Services tracked a similar trajectory, reaching 0.32% by June 30, 2020.[709]

Figure 7.68 *VISN 10 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



COVID-19 Prevalence Rate (%)

0.046 — 2.500+

denotes the location of a VA facility hub

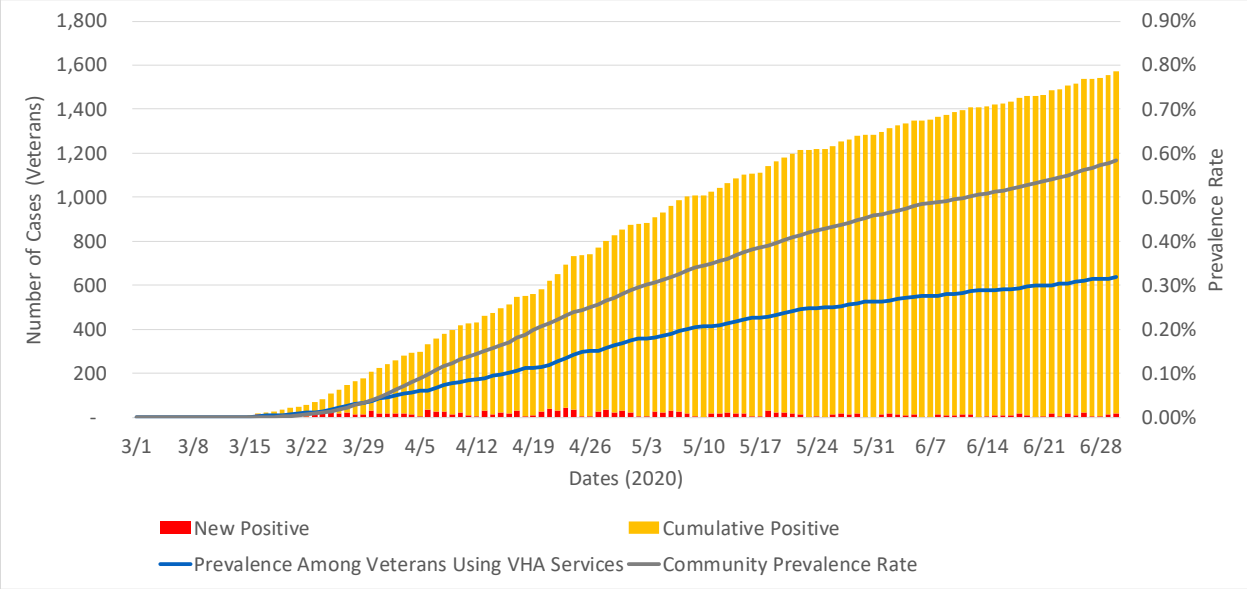
Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs.

Data as of June 30, 2020.

Figure 7.69 *VISN 10 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

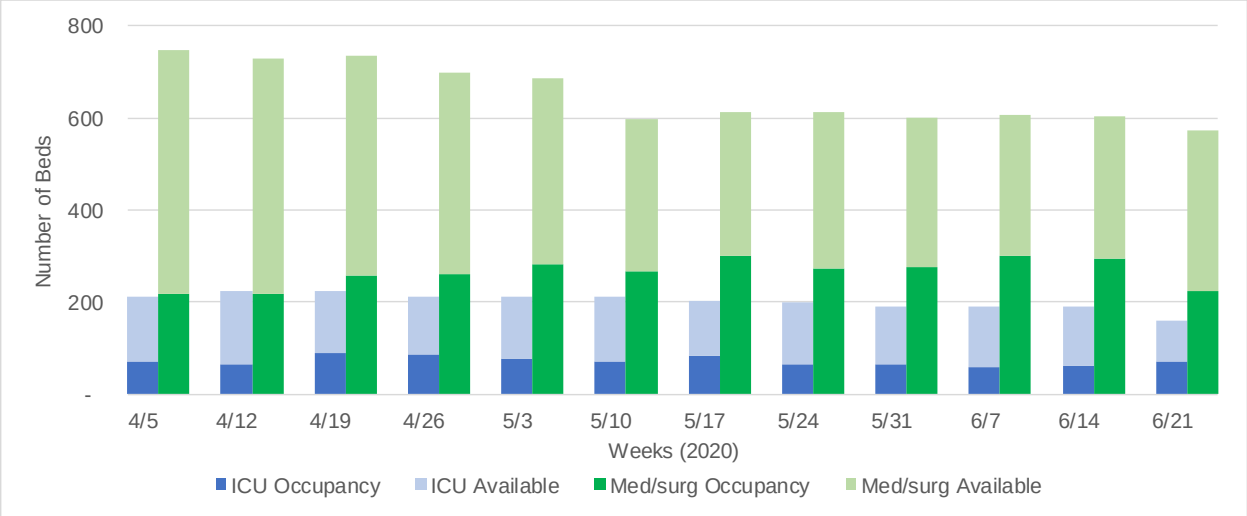
Capacity Management

VISN 10 countered COVID-19 surge demand by transferring patients to create capacity in locations experiencing outbreaks. The VAMCs in Detroit, Ann Arbor and Saginaw reside in relatively close proximity to one another and patients could be transferred between the facilities. As part the network's approach, in late March 2020, VISN 10 moved CLC patients to Aleda E. Lutz VAMC in Saginaw, Michigan to create additional space for acute COVID-19 patients in the Detroit and Ann Arbor VAMCs. To expand CLC capacity at Aleda E. Lutz VAMC, VISN 10 transferred hospital beds from Chillicothe VAMC and Dayton VAMC in Ohio to the Saginaw facility. By late March 2020, Saginaw CLC facilities were dedicated to long-term patients, which allowed the Aleda E. Lutz VAMC to focus on critical safety measures such as screening and isolation to protect the more vulnerable Veterans.

The CLC expansion in Saginaw allowed VA Ann Arbor HCS in Ann Arbor and John D. Dingell VAMC in Detroit to convert CLC beds to Med/surg and ICU beds. Additionally, at the end of March 2020, John D. Dingell VAMC in Detroit was designated as a COVID-19 hospital. Personnel at the John D. Dingell VAMC tested arriving patients for COVID-19. VISN 10 transferred negative cases to VA Ann Arbor HCS to reserve space at the John D. Dingell VAMC for positive COVID-19 patients only. As a precautionary measure, VA Ann Arbor HCS facilities prepared to support John D. Dingell VAMC in case demand at the dedicated COVID-19 hospital exceeded capacity.

VISN 10 evaluated capacity data daily and stood ready to activate the next level of surge planning if capacity met or exceeded 80%. From March 2020 to June 2020, VISN 10 Med/surg and ICU bed capacity was adequately expanded and no facility exceeded 80% occupancy throughout the response. In Detroit, the hardest hit area according to VISN 10 leadership, VISN 10 successfully expanded bed capacity well beyond predictions. At peak surge capacity, John D. Dingell VAMC operated 70 Med/surg beds and 38 ICU beds. Nearby, the VA Ann Arbor HCS increased to 111 Med/surg beds and 42 ICU beds.

Figure 7.70 *VISN 10 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

In Indiana, the Indianapolis VAMC reached 108 Med/surg and 45 ICU beds at peak capacity. At the Louis Stokes VAMC in Cleveland, OH, Med/surg reached 163 beds while ICU bed capacity topped out at 28. At Cincinnati VAMC in Ohio, Med/surg and ICU bed peak capacity extended to 118 and 56, respectively. Across VISN 10, Med/surg and ICU capacities peaked at 746 beds and 225 beds, respectively, as shown in Figure 7.70.

HR / Staffing

As Table 7.52 shows, VISN 10 hired 1,241 new personnel from February 2020 to June 2020. During that same time, 804 VISN 10 employees left the VA. Of the new hires, 570 were clinical personnel including Medical Officers, Nurses, Practical Nurses, Nursing Assistants and Medical Support Assistants.

VISN 10 also hired 671 new Pharmacists, Psychologists, Social Workers, Custodial Workers and other personnel. Overall, Nursing, Custodial Workers, Medical Support Assistants and all other occupations experienced the most growth in VISN 10 from February 2020 to June 2020. As of June 30, 2020, VISN 10 had nearly 26,000 active personnel.

VISN 10 relied primarily on reallocation of internal personnel during the response and the redeployment of outpatient clinic workers to support acute inpatient needs as DEMPS volunteers proved difficult to find. This tactic required ample training, communication and incentives to be successful. First, outpatient workers were trained to reinforce the skillsets required for inpatient care. Second, daily leadership meetings were held at each facility to set expectations and listen to concerns. Last, similar to the DEMPS program, monetary incentives were offered to encourage contribution to the COVID-19 response.

During the response, VISN 10 experienced a shortage of ICU Nurses and Respiratory Therapists. To overcome this, VISN 10 created a team nursing concept that was later shared nationally. During periods of maximum surge capacity, ICU Nurses and Respiratory Therapists would receive additional help from support personnel such as Advanced Practice Nurses, Med/surg Nurses, Pharmacists and Anesthesiologists. Personnel were uptrained to assist the ICU team in patient care to allow the ICU team to focus on the most critical needs of the patient. For example, the Advanced Practice Purses and Anesthesiologists could assist in airway management, augmenting the Respiratory Therapist. Additionally, Pharmacists administered medications, which freed dedicated ICU Nurses to support additional patients. Together, the team could maximize treatment for the patients under its care.

Table 7.52 *VISN 10 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	50	59	(9)	1,869
Nurse	244	175	69	5,724
Practical Nurse	61	42	19	1,280
Nursing Assistant	103	30	73	994

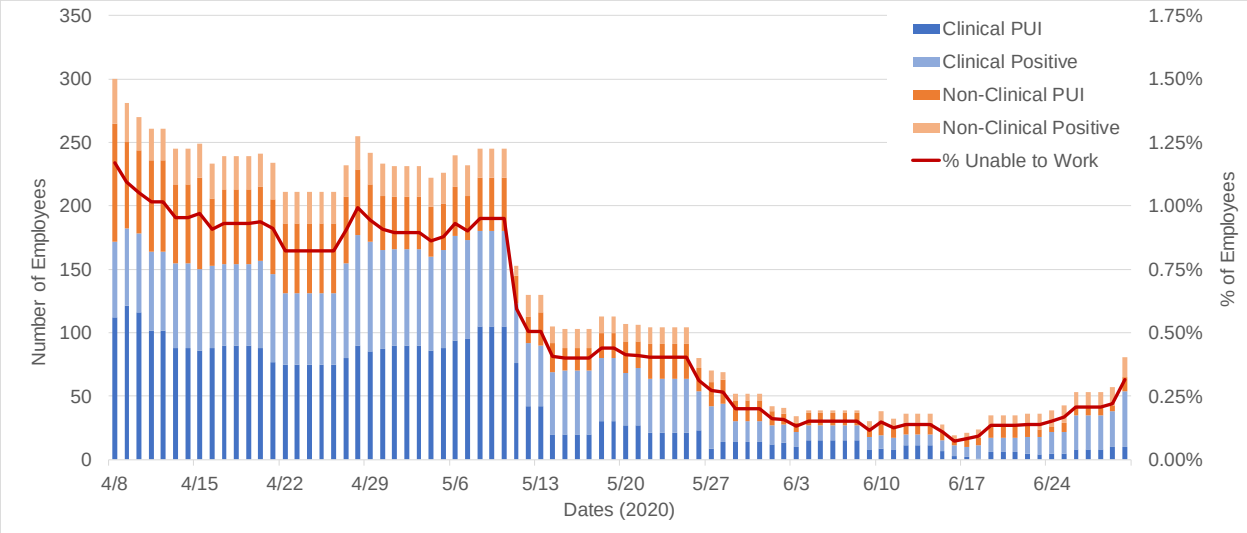
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Support Assistance	150	75	75	2,184
Pharmacist	17	9	8	677
Psychology	8	5	3	432
Social Work	59	22	37	1,251
Custodial Worker	191	66	125	993
All Other Occupations	358	321	37	10,427
Totals	**1,241**	**804**	**437**	**25,831**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

Figure 7.71 provides an overview and graphic of VISN 10 employees unable to work due to circumstances related to COVID-19 over time. From April 8, 2020 to May 10, 2020, between 0.80% and 1.20% of VISN 10's workforce was unable to work due to circumstances related to COVID-19. That percentage started to decline on May 11, 2020, eventually reaching approximately 0.35% by the end of June 2020. The majority of those reporting unable to work were clinical employees.

Figure 7.71 *VISN 10 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

Table 7.53 provides an overview of VISN 10's Fourth Mission activities during its response. VISN 10 completed four Fourth Mission taskings between April 8, 2020 and June 6, 2020. The contributions made to Fourth Missions in Michigan and Ohio included the provision of VA beds, VA personnel to a non-VA facility and other support including PPE.

From April 8, 2020 to May 27, 2020, John D. Dingell VAMC in Detroit and VA Ann Arbor HCS in Ann Arbor provided 35 Med/surg beds and 15 ICU beds to the community. Additionally, VISN 10 deployed a mobile pharmacy unit and one person to support the Detroit Federal Medical Station for approximately three weeks.

Throughout May 2020, VISN 10 supplied an Ohio SVH and Grand Rapids Senior Veterans Home with 3,000 and 700 isolation gowns, respectively.

Table 7.53 *VISN 10 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Detroit, MI and Ann Arbor, MI	Community Health Care Facilities	4/8/2020	5/27/2020	Community Bed Capacity	Provided 15 ICU and 35 Acute Care beds to the community
Cleveland, OH	Ohio SVH	5/7/2020	5/7/2020	PPE Support	Provided 3,000 Isolation gowns
Ann Arbor, MI and Battle Creek, MI	Grand Rapids SVH	5/14/2020	5/14/2020	PPE Support	Provided 700 Isolation gowns
Detroit, MI	Detroit Federal Medical Station	5/18/2020	6/6/2020	Pharmacy Support and Staffing Supplement	Provided Mobile Pharmacy Unit and 1 personnel member to Detroit Federal Medical Station

Source: Response to Data Call, VISN 10, VHA, 7/10/2020.

Patient Care by Visit Type

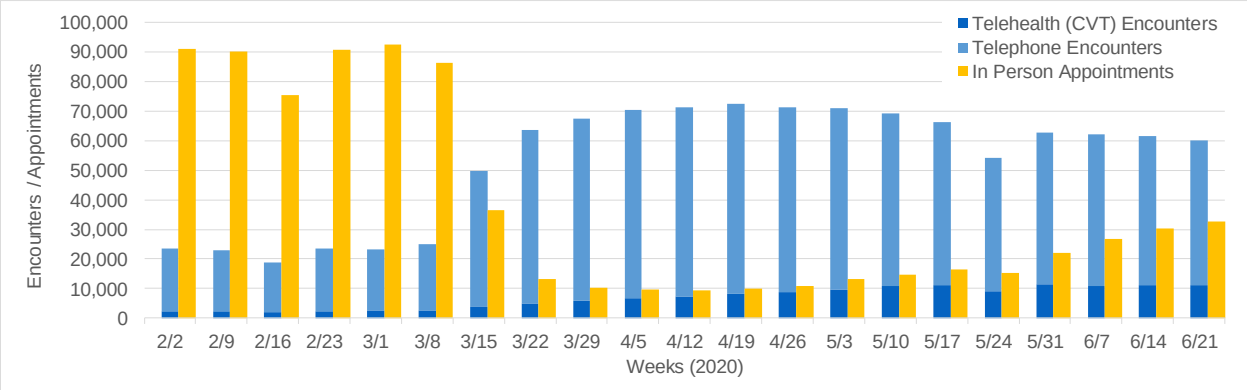
Figure 7.72 provides a comprehensive overview and graphic of VISN 10 patient appointments and encounters over time. From February 2, 2020 to March 8, 2020, VISN 10 primarily delivered in-person care to patients. During the week of March 8,

2020, VISN 10 scheduled approximately 85,000 in-person appointments and completed nearly 25,000 telehealth and telephone encounters.

In March 2020, VISN 10 began tracking the cross-VISN shift from in-person care to virtual care. By the week of March 15, 2020, telephone and telehealth visits increased to 50,000 encounters per week, a trend that continued for the next three weeks. By the week of April 5, 2020, telephone and telehealth encounters plateaued around 55,000 to 70,000 encounters per week.

From mid-March 2020 to mid-April 2020, in-person appointments decreased to approximately 10,000 appointments per week, then started increasing again. By late June 2020, in-person appointments reached more than 30,000 appointments per week, roughly 30% of pre-COVID-19 levels.

Figure 7.72 *VISN 10 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



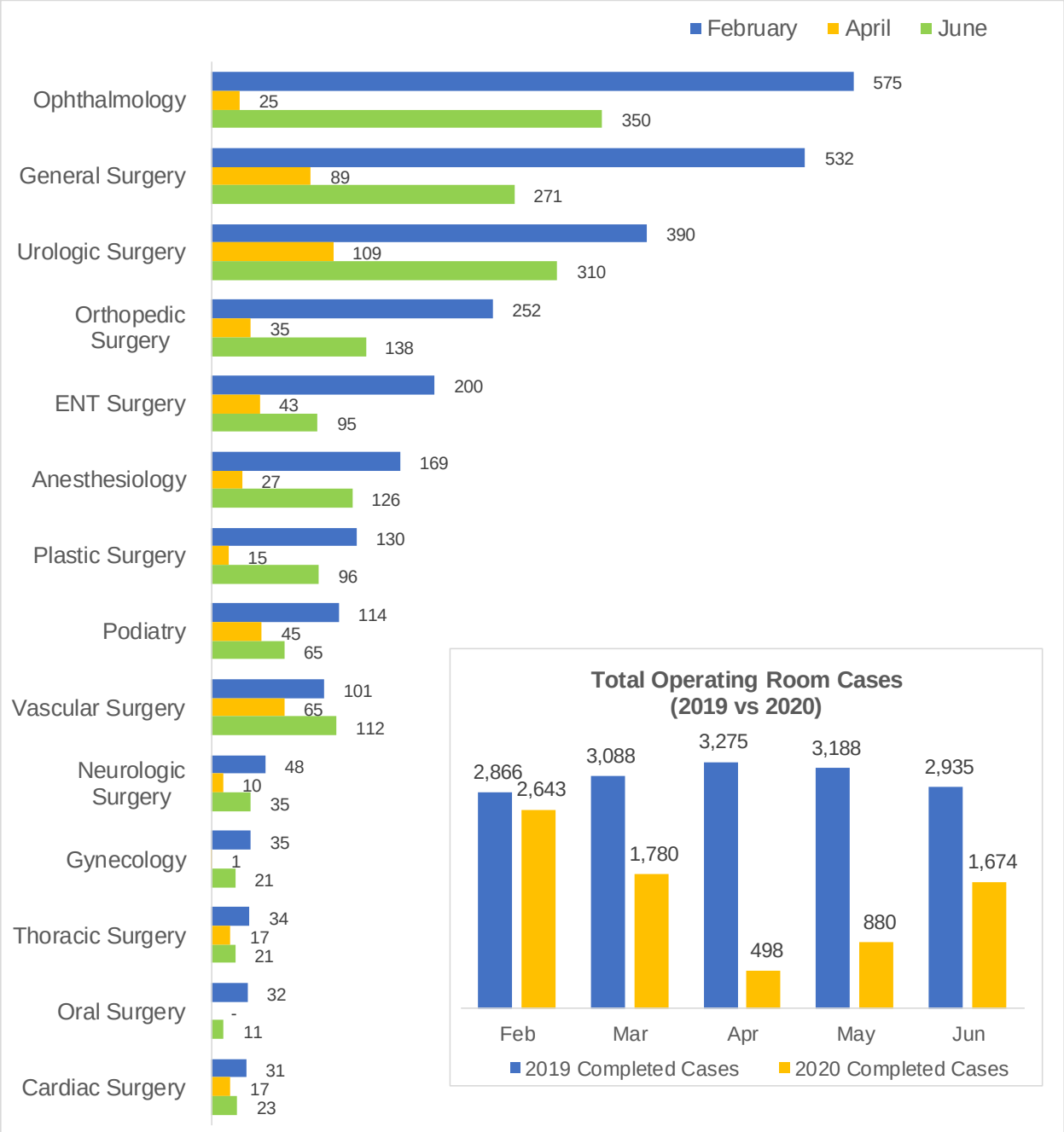
Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.73 provides an overview of VISN 10 completed OR cases over time. Early in the response, VISN 10 total completed OR cases declined from 2,643 in February 2020 to 498 in April 2020. Significant decreases occurred in ophthalmology, general surgery, orthopedic surgery and anesthesiology.

By May 2020, total OR cases in VISN 10 increased to 880 cases, approximately 25% of the May 2019 total. As the response matured, total OR cases across all service lines started to trend upward. In June 2020, total OR cases rose to 1,674, approximately 60% of their June 2019 totals. As of June 2020, OR cases across most service lines remained lower than February 2020 totals. Vascular surgery cases increased approximately 10% from 101 cases in February 2020 to 112 cases in June 2020.

Figure 7.73 *VISN 10 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

Table 7.54 provides an overview of VISN 10 personnel movement during the response. As of June 30, 2020, VISN 10 reallocated nearly 120 clinical personnel within the network. According to VISN 10 leadership, for deployments within VISN the DEMPS program was not used and the network moved personnel outside of the

DEMPS system. This was done primarily because personnel that were needed were not already established in DEMPS and there was not time to get them through the required process. For deployments outside the VISN, the DEMPS program was used and VISN 10 sent clinical teams to New Orleans, New Jersey, Charlotte and Detroit during its response.

Table 7.54 *VISN 10 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Biomedical Staff	-	2	-	-
Licensed Practical Nurse	21	2	2	-
Nursing Assistant	10	4	1	-
Nurse	63	3	5	-
Various Clinical Support	119	2	0	-

Source: Response to Data Call, VISN 10, VHA, 7/14/2020.

Table 7.55 provides an overview of VISN 10 supply and equipment movement during the response. As noted by VISN 10 leadership, the network was able to respond proactively to the surges in Michigan and Indiana as it completed preparation in the early weeks of the pandemic. As described by VISN 10 leadership, ventilator inventory was the most critical issue throughout the network's response. VISN 10 shifted ventilators to southeast Michigan prior to and during the COVID-19 peak, and then again to support the outbreak in Indiana. On one occasion, the University of Michigan donated 10 ventilators to VISN 10 in March.

Early on, VISN 10 leadership reported that they struggled to get accurate counts of ventilator inventory and corresponding reporting. VISN 10 requested Supply Chain Management Chiefs at each facility manually count ventilators and backup units such as anesthesia machines. As the network identified inventory gaps, the VISN rebalanced and scoured markets to procure needed parts.

The network also tasked Supply Chain Management Chiefs with maintaining and reporting PPE inventory. They identified two issues with PPE inventory management: a lack of standardized terminology and a limited ability to monitor stock on hand. The network corrected both of these issues with a daily report as well as improvements to count and monitoring processes.

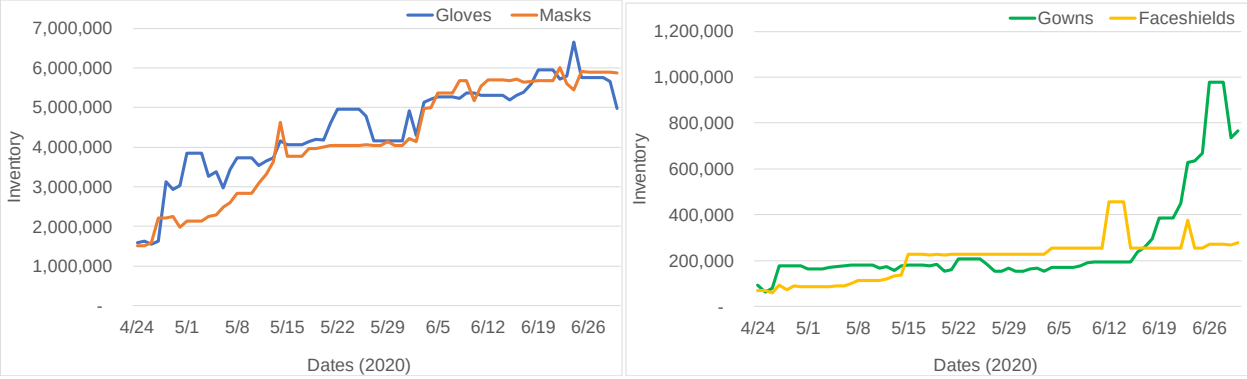
Table 7.55 *VISN 10 Movement of Supplies (as of June 30, 2020)*

Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Mobile Pharmacy Unit	0	0	1	0
Isolation Gown	0	0	3,700	0

Source: Response to Data Call, VISN 10, VHA, 7/14/2020.

Figure 7.74 provides an overview of VISN 10 PPE inventory over time. PPE inventory including gloves, masks, gowns and face shields fluctuated from April 2020 to June 2020. Face shield inventory levels remained between approximately 100,000 to 300,000 from April 2020 to June 2020. In two instances in June 2020, face shield inventory spiked above and below 400,000. Gown inventory was steady from late April 2020 to mid-June 2020, hovering around 200,000. The week of June 19, 2020, gown inventory started to climb and by June 30, 2020 increased nearly fourfold to approximately 800,000. From late April 2020 to late June 2020, inventory of gloves and masks increased to roughly 5,000,000 and 6,000,000, respectively.

Figure 7.74 *VISN 10 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



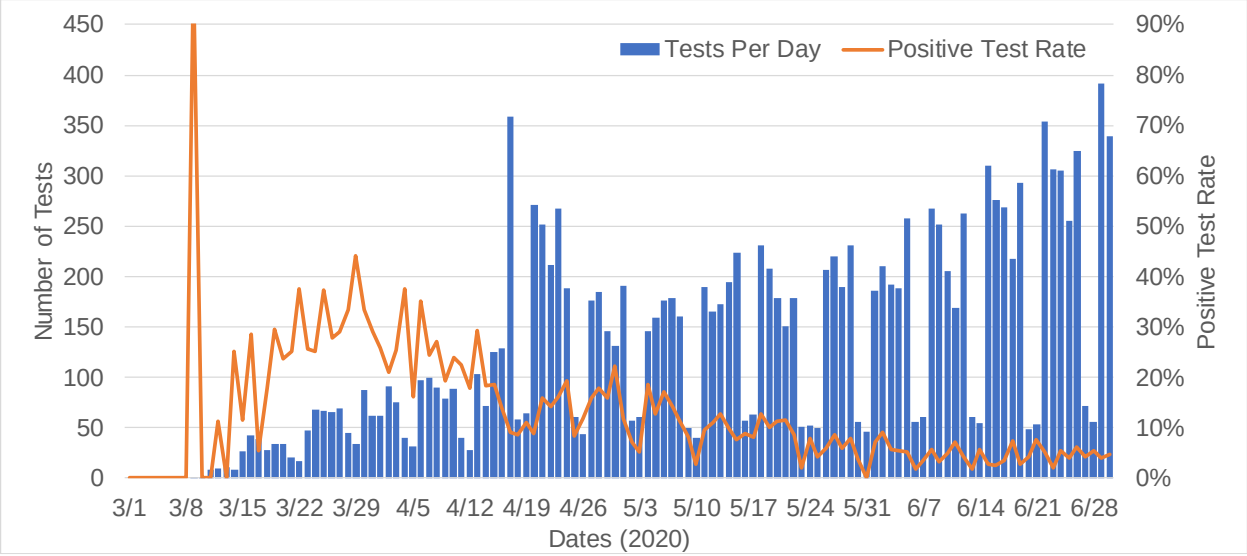
Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

Figure 7.75 provides a comprehensive overview and graphic of VISN 10 testing. During its response, VISN 10 ramped up testing from March 2020 to June 2020. In March 2020, the network completed between 0 and 100 tests per day and in April 2020 completed between approximately 25 and 250 tests per day, with a few days exceeding 250. During that two-month period, positive rates varied significantly, with positive rates ranging primarily between 0% and 50%.

In May 2020 and June 2020, completed tests ranged between approximately 50 and 400 tests per day, while positivity rates ranged between 0% and 20%. By late June 2020, increased testing produced a lower average positivity rate around 5%.

Figure 7.75 *VISN 10 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

As shown in Table 7.56, VISN 10 tested 99% (527 of 532) of its CLC residents by June 30, 2020. Of the total CLC resident population, 1.9% of CLC residents tested positive for COVID-19.

Table 7.56 *VISN 10 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	489,201	532
Population Tested	15,081	527
% of Population Tested	3.1%	99.0%
Population Positive	1,573	10
% of Population Positive	0.3%	1.9%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 12: VA Great Lakes Health Care System

Description of the Network and Population Served

VA Great Lakes Health Care System (VISN 12) operates in three core states including Michigan, Illinois and Wisconsin and provides health care services to nearly 267,000 Veterans Using VHA Services, as seen in Table 7.57. VISN 12 operates 8 VAMC, 8 CLCs and 41 outpatient clinics.

As Table 7.57 illustrates, VISN 12 had 1,176 Veteran COVID-19 cases and reported 70 Veteran deaths associated with positive COVID-19 tests. During its response through June 2020, VISN 12 identified 102 VA employee cases and 1 VA employee death related to COVID-19.

Table 7.57 *VISN 12 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	266,970
Veteran COVID-19 Cases	1,176
Veteran COVID-19 Inpatients	333
Veteran Deaths (COVID-19 related)	70
VISN Employees	18,964
Employee COVID-19 Cases	102
Employee Deaths (COVID-19 related)	1

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

VISN 12 was proactive in its actions to address surge planning and workforce assessment to respond to COVID-19. On March 3, 2020, VISN 12 leadership established Incident Command across the entire VISN 12 coverage area, including all eight VAMCs in Upper Peninsula of Michigan, Illinois and Wisconsin. Incident command established daily communication with medical centers to oversee the COVID-19 response. On March 8, 2020, the State of Illinois confirmed seven cases of COVID-19 in the community and the Governor declared the State of Illinois a disaster area.[710]

Incident Command established two calls per day; one functioned as a VISN-level leadership call and the other was with Medical Center Directors. Incident Command focused on implementing CDC guidelines on screening for COVID-19 and reallocating core surge response components such as PPE, ventilators, dialysis machines and workforce to manage the outbreaks. The medical branch of Incident Command, in conjunction with the CMO and facility Chiefs of Staff, developed protocols, identified areas of need and determined locations for testing. All information was captured to provide updates on daily VHACO calls with the EIC.

VISN 12's surge plan focused on the facilities as a Northern Tier (Upper Peninsula Michigan and Wisconsin) and Southern Tier (Illinois). The surge plan had two primary aspects, phased surge plans at each facility to increase beds in response to a COVID-19 wave and effective coordination, led by a dedicated triage team, to decompress stable patients to ensure available bed capacity. These two initiatives allowed VISN 12 to manage capacity efficiently, helping the network throughout its response.

In late March 2020 and early April 2020, VAMCs in the Chicago area and Milwaukee VAMC began to see COVID-19 positive inpatients. At the same time, Chicago community hospitals experienced high demand and neared ICU capacity above 85%. The Governor of Illinois requested Federal assistance to increase community bed capacity. VISN 12 responded to a Fourth Mission Assignment by accepting ICU and Med/surg patients from the community. In May 2020, because of a looming nursing home strike, the State of Illinois requested additional support via long-term care beds in anticipation of a strike. Utilizing the New England Journal of Medical article "Clinical Characteristics of Coronavirus Disease 2019 in China," VISN 12 developed and implemented a proactive surge plan.

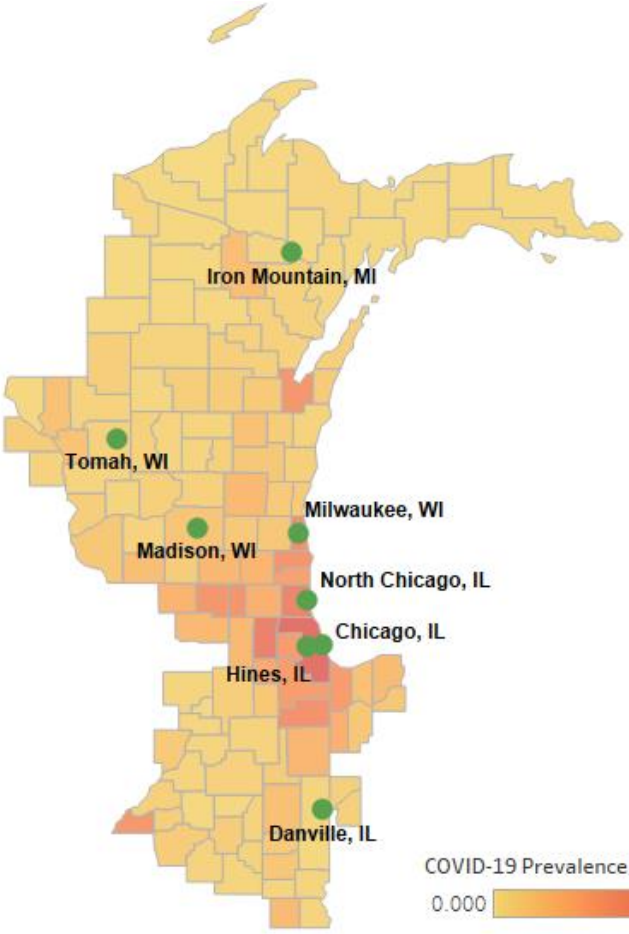
VISN 12 leadership considered communication of guidance and data management/interpretation two limiting factors during the network's response. Communication of guidance from VHACO was sometimes delayed, which led to different interpretations of guidance; for example, the field frequently saw CDC or Federal guidance before VHA determined how to apply the guidance throughout VA. At times, this led to differing interpretations. Some examples of this scenario include guidance for employee leave, long-term care and mental health. To improve consistency and standardization, VISN 12 leadership created channels to categorize national guidance and disseminated guidance across the VISN accordingly.

VISN 12 leadership and VHACO relied on data to make decisions; however, centralized data utilized throughout the response was not always representative of the regional, local and facility level. In addition, the centralized data varied as definitions changed, leading to a need to reeducate and rework data reporting. According to VISN

12 leadership, these limiting factors did not impact the network's ability to take appropriate actions but did, in some cases, require additional time to mitigate.

Community Prevalence and VISN Case Statistics

Figure 7.76 *VISN 12 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs.

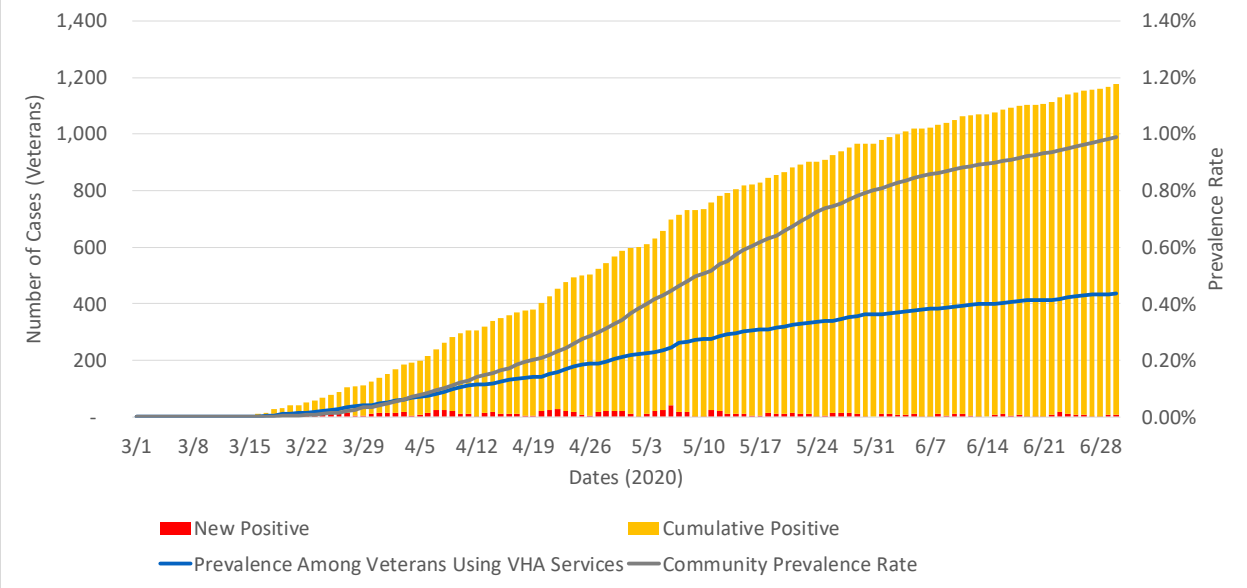
Data as of June 30, 2020.

Community prevalence of confirmed COVID-19 cases accelerated in VISN 12's catchment areas in late March 2020 through June 2020; however, the majority of counties community prevalence rates remained at or below 1% as of June 30, 2020.[711] Some areas, such as the catchments areas of Jesse Brown VAMC in Chicago, Captain James A. Lovell Federal Health Care Center in North Chicago and Hines VA Hospital

in Maywood (Chicago Suburb), had a notable COVID-19 prevalence at 1.62%, 1.13% and 0.98%, respectively.[712]

According to VISN 12 leadership, the network saw its first PUI and confirmed Veteran case at Milwaukee VAMC the week of March 8, 2020. Initially, Veteran prevalence of COVID-19 tracked higher than the community.[713] By the end of June 2020, VISN 12 saw a lower prevalence among Veterans Using VHA Services compared to the community, with Veterans using VHA series at 0.44% prevalence and 1,176 total cases.[714] Figure 7.76 and Figure 7.77 provide an overview and graphic of VISN 12's community and Veterans Using VHA Services prevalence of confirmed cases.

Figure 7.77 *VISN 12 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

Leveraging research available at the time, VISN 12 managed the capacity of multiple components of health care infrastructure needed in the treatment of COVID-19. VISN 12 was proactive in planning for the potential need for negative pressure rooms to treat COVID-19 patients and developed plans to transition rooms to negative pressure. VISN 12's engineers were able to expand negative pressure capacity.

Facility leaders also adapted to regional demand by creating flex wards that could accommodate ICU or Med/surg patients. To help make room for critical COVID-19 patients, William S. Middleton Memorial Veterans Hospital in Madison, WI and Jesse Brown VAMC in Chicago, IL converted short-term CLCs to Med/surg units and moved their CLC patients to other locations. As VISN 12 learned more about the treatment of COVID-19 it established COVID-19 cohort units.

VISN 12 developed a phased approach to each facility surge plan to decompress occupancy. The medical branch of Incident Command and CMO worked with Chiefs of Staffs to design an incremental plan to expand capacity when the VAMCs crossed predetermined thresholds to trigger needed decompression. VISN 12 worked with facilities and utilized consultant projected data to prepare proper surge plans and ready facilities for the influx of Med/surg and ICU patients prior to a COVID-19 surge. The medical branch of the Incident Command reviewed CDC and VHACO guidance to ensure that the medical center clinicians understood the guidance and implemented it with standardization across the VISN.

VISN 12 implemented a solution to decompress hospitals, both within VISN 12 and in the community (Fourth Mission), with the triage team comprised of clinical experts to direct patient flow to the right level of acuity.

The Patient Movement Section of Incident Command established frequent calls with each facility to discuss current bed capacity and staffing. These efforts were focused on establishing smooth transfers from one facility to another in order to decompress VISN 12 VAMCs experiencing COVID-19 surges. Over 40 internal transfers were carried out related to COVID-19 response.

VISN 12 met the needs of the Fourth Mission using the triage team. The triage team included a Physician, Case Manager and BMS coordinator. The team's responsibility included addressing each inbound call, finding an available bed, handling administrative paperwork and processing billing for every COVID-19 patient. The triage team facilitated each patient's movement through the system.

A community hospital could request a bed by completing a form provided by VISN 12 and submitting via email to the triage team. This form included pertinent patient information, such as whether the patient been tested for COVID-19, and a patient consent to transfer facilities. After the triage team evaluated each patient and directed them to the appropriate VA hospital, transfer teams at each facility took over.

During the end of April 2020 and beginning of May 2020, the city of Chicago maintained occupancy rates above 75%. In order to support the city of, the VA began accepting private sector patients through the Fourth Mission Assignment. In an effort to increase the VISN's ICU capacity, VISN 12 opted to test the FORTS mobile medical unit to be utilized if occupancy rates continued to climb. The FORTS unit deployed to the Hines VA Hospital campus on May 19, 2020. This untested surge measure underwent stress testing while located at Hines VA Hospital before it could be deployed for clinical utilization.

VISN 12 conducted two phases of testing, ICU and Med/surg testing, of the mobile medical unit. During the ICU testing phase, VISN 12 conducted operational tests, complete with ventilators and mannequins, to simulate an ICU environment. Pressure testers pushed the FORTS unit to its limits to see if it could handle the heat, medical gases and other critical aspects for a medical environment with ICU capability.

In the Med/surg testing phase, VISN 12 replaced mannequins with stable, volunteer Med/surg patients and pushed the FORTS unit to the highest level for 24-48 hours to test how the unit would perform for patients and personnel. VISN 12 leadership detailed the following findings from testing:

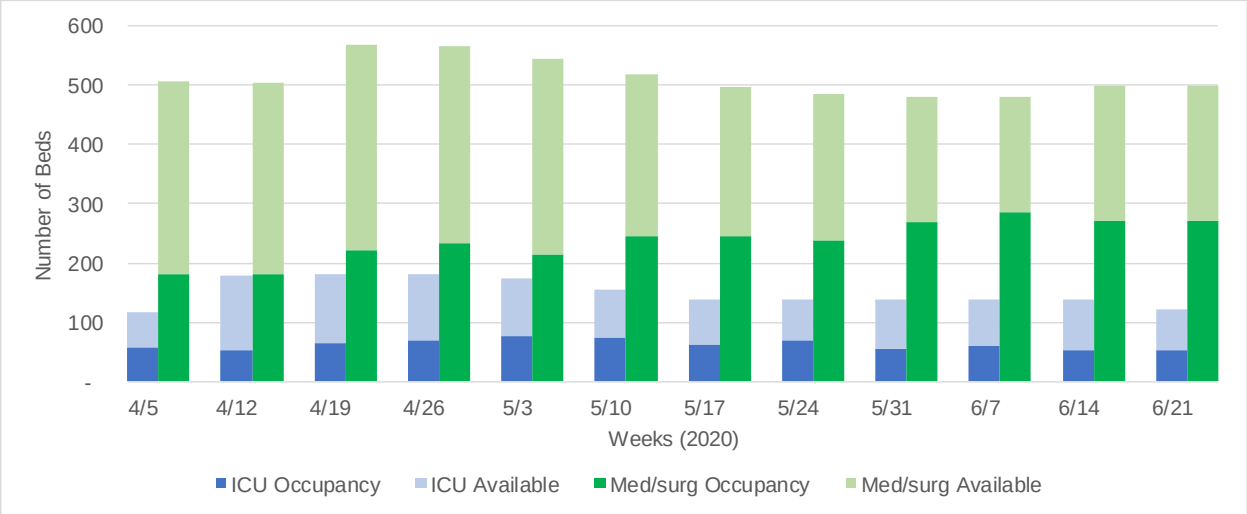
- The FORTS doors were too narrow to fit hospital beds; this required personnel to transport patients in and out of the unit on stretchers.
- Storage space was insufficient to hold the necessary medications for COVID-19 patients.
- Personnel found the pre-supplied medical equipment unfamiliar.
- Personnel felt cramped in a space without a place of respite to congregate and rejuvenate.
- Patients complained about the lack of television in the FORTS unit.
- Most importantly according to VISN 12 leadership, physical distancing was impossible due to the limited space in the FORTS unit.

Based on these results, VISN 12 determined FORTS was not a viable option for COVID-19 patients and instead recommended it be used as a surge measure for non-COVID-19 patients. The network deployed FORTS as a precaution at Edwards Hines Jr. VA Hospital in Hines, IL with the recommendation that it be accompanied by a

pharmaceutical mobile unit to house medications. In the end, the mobile FORTS unit expanded Hines flex Med/surg and ICU capacity by 14 beds. Following the recommendations from the feasibility test, the manufacturer made adjustments to the unit and it was later deployed to the Oklahoma City VAMC.

Figure 7.78 provides an overview and graphic of VISN 12's bed occupancy and capacity statistics. In Illinois, Edward Hines Jr. VA Hospital, Jesse Brown VAMC and Captain James A. Lovell Federal Health Care Center increased their peak Med/surg bed counts to 135, 119 and 68, respectively; they also increased their peak ICU bed counts to 61, 40 and 15, respectively. Similarly, William S. Middleton Memorial Veterans Hospital and Clement J. Zablocki Veterans Affairs Medical Center in Wisconsin increased their peak Med/surg bed counts to 82 and 75, respectively, and increased their peak ICU bed counts to 23 and 76, respectively. At peak surge, and as illustrated in Figure 7.78, VISN 12 expanded Med/surg capacity to 565 beds and ICU capacity to 182 beds, respectively.[715]

Figure 7.78 *VISN 12 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

Table 7.58 provides an overview of VISN 12 staffing statistics. VISN 12 hired 1,049 personnel and 620 VISN 12 personnel left the VA from February 2020 to June 2020. Of the new hires, 468 were clinical personnel including Medical Officers, Nurses, Practical Nurses, Nursing Assistants, Psychologists and Medical Support Assistants. Overall, nursing and all other occupations experienced the most growth in VISN 12 from February 2020 to June 2020. As of June 30, 2020, VISN 12 had nearly 19,000 active personnel.

VISN 12 centralized its HR Department years prior to the pandemic and benefited from many of the expanded COVID-19 authorities, including expedited security clearance processes that facilitated hiring and onboarding. The suspension of nursing boards increased the speed to hire and allowed VISN 12 to hire nurses temporarily. VISN 12 was challenged by a shortage of Respiratory Therapists and ICU Nurses. The workforce branch of Incident Command and VISN Contracting helped sites in need of these critical positions fill the vacancies and gaps. VISN 12 also solicited temporary personnel dedicated to Med/surg and ICU settings, with recruitments incentives specifically for ICU positions. As a result, an influx of temps converted to permanent roles.

Table 7.58 *VISN 12 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	53	36	17	1,565
Nurse	228	127	101	4,174
Practical Nurse	38	22	16	643
Nursing Assistant	103	48	55	882
Medical Support Assistance	104	43	61	1,361
Pharmacist	18	8	10	489
Psychology	5	7	(2)	276
Social Work	25	13	12	809
Custodial Worker	83	52	31	729
All Other Occupations	392	264	128	8,036
Totals	**1,049**	**620**	**429**	**18,964**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

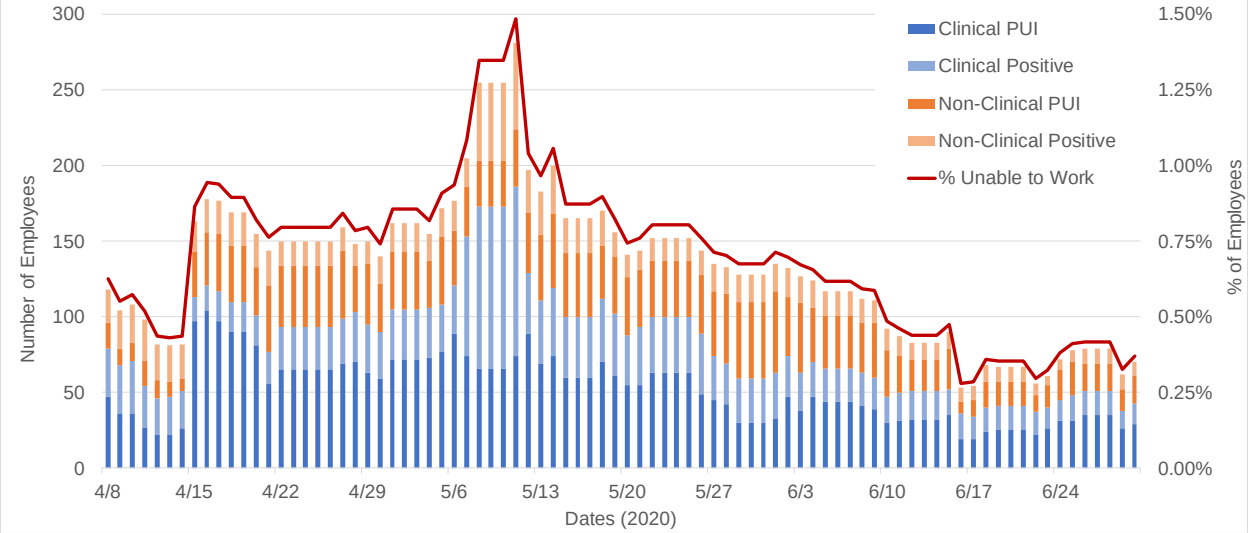
Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

As indicated in Figure 7.79, from April 2020 to mid-May 2020, between 0.75% and 1.50% of VISN 12's workforce was unable to work due to circumstances related to COVID-19. The percentage of employees unable to work due to circumstances related to COVID-19 sharply fell after May 10, 2020 and steadily declined throughout June 2020, reaching approximately 0.30% by June 30, 2020.

Clinical employees made up the majority of the employees who could not work due to circumstances related to COVID-19 from April 2020 to June 2020. The proportion of clinical and non-clinical employees unable to work due to circumstances related to

COVID-19 remained constant, excluding several days in late May 2020 when non-clinical employees made up approximately half of the employees. Figure 7.79 provides an overview of VISN 12 employees unable to work due to circumstances related to COVID-19 over time.

Figure 7.79 *VISN 12 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 12 contributed to three Fourth Mission taskings during the response, as indicated in Table 7.59. The Fourth Mission taskings took place in Illinois and Wisconsin. In April 2020, VISN 12 provided 45 Med/surg beds and 15 ICU beds to increase community bed capacity in Chicago area. Additionally, Jesse Brown VAMC, Edward Hines Jr. VA Hospital and VA Illiana HCS made 60 skilled nursing home beds available to community health care facilities located throughout Chicago in preparation for a looming statewide nursing home strike. According to VISN 12 leadership, state administrators successfully negotiated a resolution and avoided the strike. As part of Fourth Mission efforts, VISN 12 received 41 community patients, 21 patients at Jesse Brown VAMC in Chicago and 20 patients at Edward Hines Jr. VA Hospital in Hines. The patients included a mixture of ICU and Med/surg.

To ensure SVHs and CNHs were aware of VAMC support, VISN 12 SVH/CNH liaisons proactively contacted every SVH and CNH daily. VISN 12 also provided consultative support to nursing homes on topics including isolation of COVID-19 patients, utilization of PPE and processes for accessing help from FEMA or state governments.

Table 7.59 *VISN 12 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Chicago, IL	Community Health Care Facilities	4/9/2020	6/24/2020	Community Bed Capacity	Provided 45 Med/surg beds and 15 ICU beds to the community
Milwaukee, WI	Milwaukee Alternate Care Facility Site	4/26/2020	5/24/2020	Staffing Supplement	Provided two Respiratory Therapists and two Pharmacists
Chicago, IL	Community Health Care Facilities	5/1/2020	6/2/2020	Community Skilled Nursing Home Bed Capacity	Provided 60 Skilled Nursing Home beds to the community

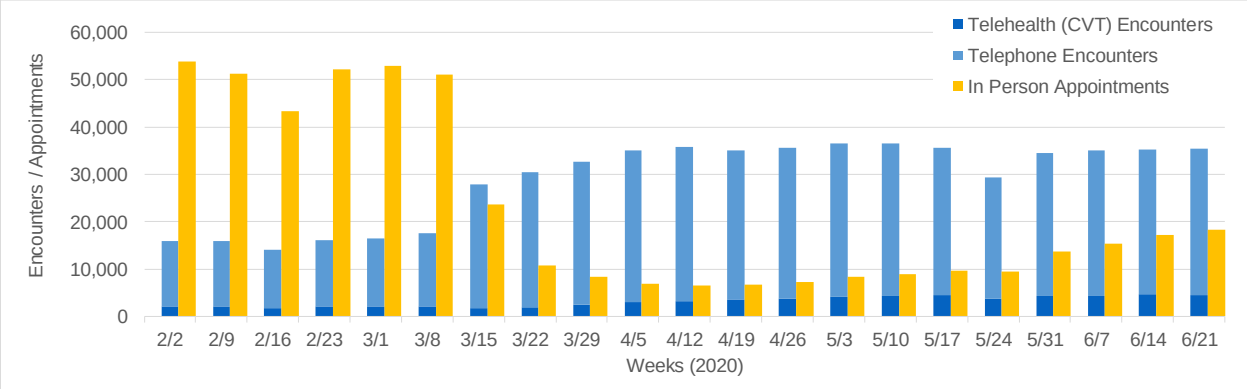
Source: Response to Data Call, VISN 12, VHA, 7/28/2020.

Patient Care by Visit Type

Modalities of patient care changed in VISN 12 as a result of the COVID-19 pandemic. Figure 7.80 provides an overview of VISN 12 patient appointments and encounters over time. From the week of February 2, 2020 through week of March 8, 2020, VISN 12 delivered in-person care to patients with an average of over 40,000 and only 18,000 telehealth and telephone encounters per week. By mid-March 2020, VISN 12 began tracking along the overall cross-VISN trend of shifting from in-person care to virtual care. During the week of March 15, 2020, telephone and telehealth encounters increased to nearly 30,000 encounters per week and continued to trend upward over the following four weeks. By the week of April 12, 2020, telephone and telehealth encounters reached a steady state of between 30,000 and 40,000 encounters per week.

Between mid-March 2020 and April 2020, in-person appointments decreased to approximately 6,000 appointments per week, then started trending upward. By late June 2020, in-person appointments reached nearly 19,000 appointments per week, approximately 40% pre-COVID-19 levels.

Figure 7.80 *VISN 12 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

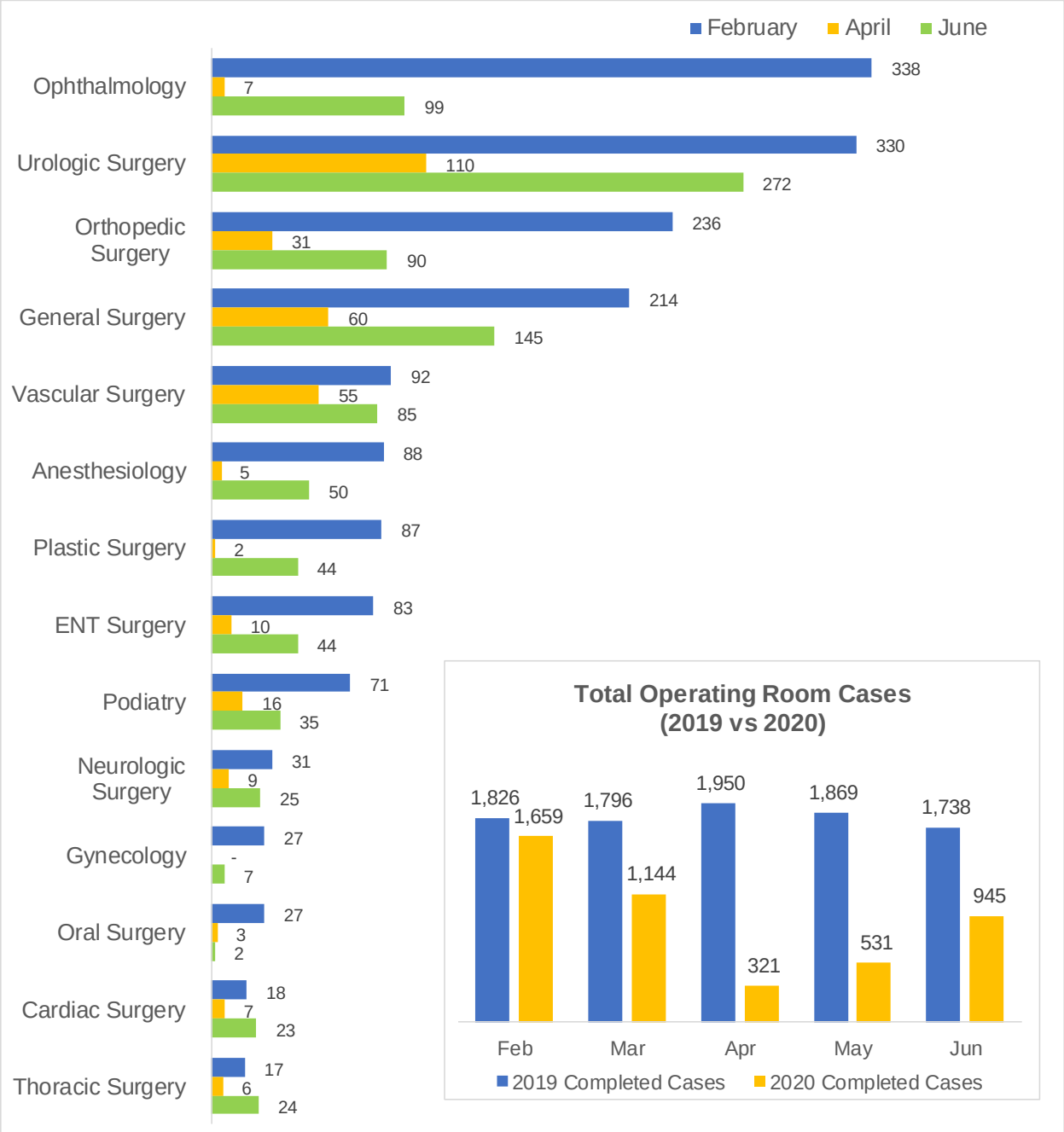
Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.81 provides an overview of VISN 12 completed OR cases. Early in the response, VHACO directed VAMCs to decrease elective surgical procedures and only perform urgent and emergent cases out of safety and conservation of PPE. VISN 12 total OR cases declined from 1,659 in February 2020 to 321 cases in April 2020. The most significant decreases in OR cases occurred in ophthalmology, orthopedic surgery and plastic surgery. By May 2020, total VISN-wide OR cases began to increase and reached 531 cases, approximately 30% of May 2019 total OR cases. Total OR cases increased to 945 cases in June 2020, approximately 50% of June 2019 total cases. As of June 2020, OR cases across most of VISN 12's service lines remained below where they were before the response started in February 2020; however, thoracic surgery and cardiac surgery increased 41% and 28%, respectively.

Resource Movement / Inventory

VISN 12's Workforce branch of Incident Command moved personnel to facilities within the VISN, other VISNs and non-VA entities to support VAMCs and areas heavily impacted by COVID-19. Table 7.60 provides an overview of VISN 12 personnel movement during the response. From February 2020 to June 2020, VISN 12 detailed 25 Nurses, 4 Licensed Practical Nurses, 3 Nursing Assistants and 1 Clinical Nurse Specialist within the network. Additionally, the network detailed two Respiratory Therapists within VISN 12. VISN 12 also sent personnel to support other VISNs and non-VHA entities throughout the response; by the end of June 2020, VISN 12 sent two Physician Assistants and two Administrative personnel to other VISNs. Two Pharmacists and two Respiratory Therapists deployed to a non-VA entity, Milwaukee Alternate Care Site in Wisconsin.

Figure 7.81 *VISN 12 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

During its COVID-19 response, VISN 12 received clinical personnel from other VISNs. Notably, VISN 12 received 39 Registered Nurses and 12 Respiratory Therapists. Other personnel provided by other VISNs included two Licensed Practical Nurses and one Allied Health Clinician.

VISN 12 is a member of the Midwest Consortium, which consists of VISNs 10, 12, 15 and 23. The Midwest Consortium worked together to maximize its workforce and reallocate staffing as needed. The Midwest Consortium worked together to develop an ICT, ensure credentialing and privileging were completed quickly at the destination site and facilitate collaboration between the workforce Incident Commander and the informatics officer to get personnel access to CPRS for electronic medical charting.

Internally, VISN 12 shifted personnel between VAMCs and the workforce branch of Incident Command held daily nurse executive call to discuss VAMC needs. When a CLC outbreak occurred at Captain James A. Lovell Federal Health Care Center, the workforce branch of Incident Command detailed and deployed personnel from less impacted sites such as Tomah VAMC and VA Illiana HCS to provide support.

Overall, VISN 12 primarily used its own processes for moving personnel rather than using DEMPS. As described in the Cross-VISN Summary section of this report, VISN 12 leadership noted delays experienced using DEMPS processes. VISN 12 leadership found the network's internal processes faster than DEMPS, which leadership noted was limited by a long registration process and limited personnel enrollment.

Table 7.60 *VISN 12 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	2	-	-
Allied Health Clinician	-	-	-	1
Clinical Nurse Specialist	1	-	-	-
Nurse	1	-	-	-
Licensed Practical Nurse/Licensed Vocational Nurse	4	-	-	2
Nurse Practitioner	2	-	-	-
Nursing Assistant	3	-	-	-
Pharmacist	-	-	2	-
Physician Assistant	-	2	-	-
Registered Nurse	24	-	-	39
Respiratory Therapist	2	-	2	12

Source: Response to Data Call, VISN 12, VHA, 7/28/2020.

In addition to personnel, VISN 12 rebalanced supplies within the VISN; Table 7.61 provides an overview of VISN 12 supplies movement. VISN 12 rebalanced approximately 20,000 generic masks, 20,000 gloves, 8,125 face shields and 6,000 N95 respirators to facilitate the treatment of patients during the COVID-19 response.

Other supplies that rebalanced and monitored include isolation gowns, face masks, CaviWipes (disinfectant towelettes) and testing swabs.

As supplies became scarce and demand rose, VISN 12 invested in 3D capability to foster self-sufficiency and purchased 3D printers at Clement J. Zablocki Veterans Affairs Medical Center in Milwaukee, Wisconsin. The VISN was able to ensure adequate inventory of swabs and face shields with the new 3D printing capability. In addition, VISN 12 worked directly with Consortium and EMCC to cover any supply gaps.

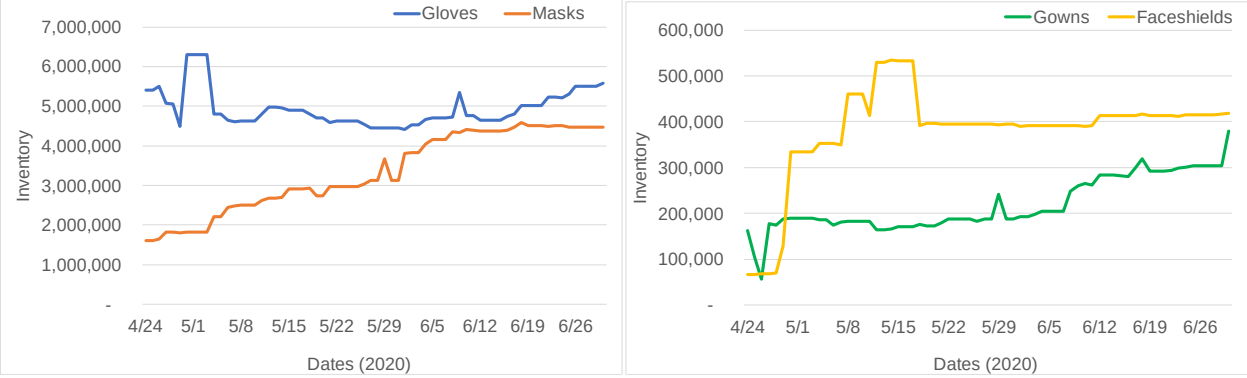
Table 7.61 *VISN 12 Movement of Supplies (as of June 30, 2020)*

Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Body Bag	100	-	-	-
CaviWipe	1,120	-	-	-
EnFit Syringe	-	-	-	-
Face Mask	1,000	-	-	-
Face Shield	8,125	-	-	-
Feed & Flush TF Bag	-	-	-	30
Generic Mask	20,000	-	-	-
Glidescope Laryngoscope	20	-	-	-
Glove	20,000	-	-	-
Isolation Gown	3,000	-	-	-
N95 Respirator	6,000	-	-	76,800
PAPR	-	-	-	100
Surgical Gown	200	-	-	-
Surgical Mask	250	-	-	-
Swab	700	-	-	-
Thermometer	6	-	-	-
Ventilator Filter	7	-	-	-

Source: Response to Data Call, VISN 12, VHA, 7/28/2020.

VISN 12's PPE inventory fluctuated at different points of the response, as shown in Figure 7.82. From late April 2020 to late June 2020, mask inventory increased from approximately 1,700,000 to approximately 4,500,000. The week of April 24, 2020, face shield inventory increased rapidly and by mid-May 2020 VISN 12 had stockpiled over 500,000 face shields. Gown inventory gradually increased from April 2020 to June 2020, up to nearly 400,000 by the June 30, 2020. Gloves inventory experienced temporary spikes in May 2020 and June 2020, respectively.

Figure 7.82 *VISN 12 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

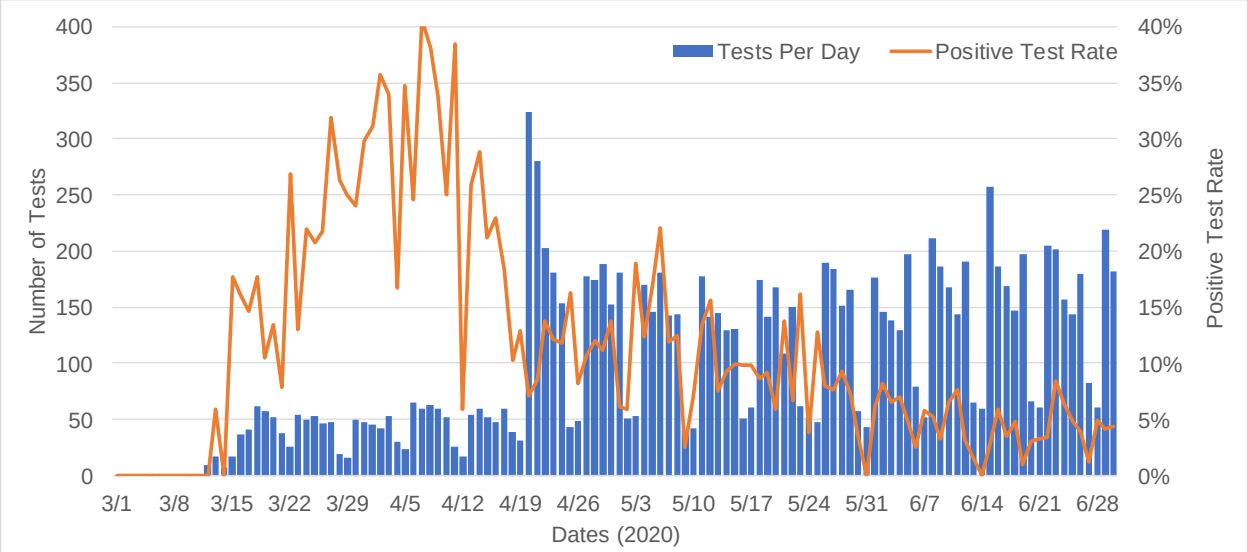
Figure 7.83 shows the volume of testing and positivity rate at VISN 12 over time. VISN 12 completed approximately 0 to 50 daily COVID-tests in March 2020 and early April 2020. During that period, the positive test rate fluctuated significantly, oscillating from 0% to 40%. On April 19, 2020, the number of tests per day climbed to more than 300 and remained above 150 for several days. From May 2020 to June 2020, VISN 12 completed between 150 and 200 tests per day on most days and the positive rate stabilized between 0% and 20%. Overall, by late June 2020, the number of tests per day increased and the positive test rate decreased since March 2020.

According to VISN 12 leadership, VISN 12 devised and deployed two strategies that prevented major testing issues. First, VISN 12 decided to keep multiple testing machines on hand so that backup units were available when primary units could not be used or supplied. As a backup, a second instrument made by a different manufacturer was installed as part of VISN 12's multifaceted testing strategy. Second, VISN 12 leveraged partnerships to increase testing capabilities. The William S. Middleton Memorial Veterans Hospital in Madison, Wisconsin, connected to the University of Wisconsin, offered its testing lab as a supplement. VISN 12 even arranged a shuttle service from VISN 12 facilities to the William S. Middleton Memorial Veterans Hospital. A similar arrangement occurred in Chicago, IL at Jesse Brown VAMC and Loyola Medical College to expand testing capabilities.

Table 7.62 provides an overview of VISN 12 Veteran testing results. Within VISN 12, 11,246 of 266,970 (4.4%) Veterans Using VHA Services received a COVID-19 test by June 30, 2020. The network identified 1,176 positive cases among Veterans Using VHA Services, representing 0.4% of the total Veterans Using VHA Services population. VISN 12 tested 448 of 448 (100%) of its CLC residents by June 30, 2020.

In total 34 CLC residents, or 7.6% of the CLC population, tested positive for COVID-19.

Figure 7.83 *VISN 12 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Table 7.62 *VISN 12 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	266,970	448
Population Tested	11,686	448
% of Population Tested	4.4%	100.0%
Population Positive	1,176	34
% of Population Positive	0.4%	7.6%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 15: VA Heartland Network

Description of the Network and Population Served

VA Heartland Network (VISN 15) operates in three core states: Missouri, Kansas and Illinois. As shown in Table 7.63, VISN 15 provides health care services to more than 240,000 Veterans Using VHA Services and consists of 10 VAMCs, 7 CLCs, 58 outpatient clinics including 53 CBOCs.[716]

As Table 7.63 illustrates, VISN 15 had 439 Veteran COVID-19 cases and reported 26 Veteran deaths associated with positive COVID-19 tests. During its response, VISN 15 identified 64 VHA employee cases and there were no VHA employee deaths related to COVID-19.

Table 7.63 *VISN 15 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	240,902
Veteran COVID-19 Cases	439
Veteran COVID-19 Inpatients	74
Veteran Deaths (COVID-19 related)	26
VISN Employees	13,336
Employee COVID-19 Cases	64
Employee Deaths (COVID-19 related)	0

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

The first confirmed community case of COVID-19 appeared in VISN 15 during the week of March 8, 2020.[717] By the second week of March 2020, the governors of Missouri, Kansas and Illinois declared a State of Emergency due to the novel virus.[718] During its response, VISN 15's catchment areas saw relatively moderate impact from COVID-19 compared to the coasts as all catchment areas experienced less than 0.6% prevalence of COVID-19 as of June 30, 2020.[719] Gradually, urban areas like St. Louis, Kansas City, Columbia and St. Joseph began to see an increase in cases; however,

the rate of increase remained steady and manageable according to VISN 15. Many of VISN 15's VAMCs reported fewer than five COVID-19 patients at any particular time.

VISN 15 leadership noted that it adopted some initiatives, and pioneered others, to prevent outbreaks in the region. For example, VISN 15 was one of the first networks to implement universal masking despite facing nationwide shortages of face masks. In early April 2020, the VISN organized its own sewing clubs to make cloth masks. The sewing clubs enlisted community volunteers and displaced personnel to produce thousands of cloth masks for nonclinical use by people within network facilities. Given this additional stock of cloth masks, VISN 15 reserved N95 respirators for ICUs, clinical procedure areas and other higher risk areas.

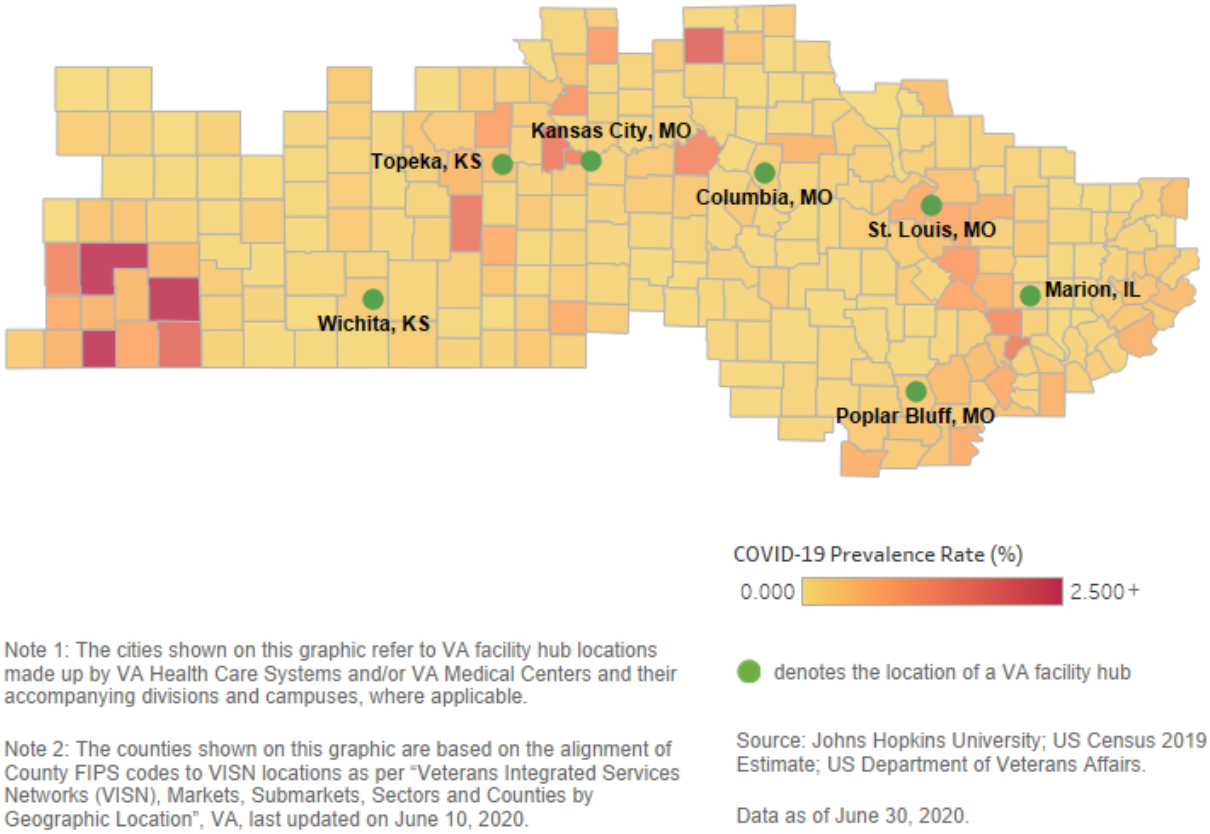
VISN 15 attributes the containment of COVID-19 in the network to preventative measures and the network's collaboration with SVHs and CLCs. VISN 15 held regular calls with VAMCs and SVHs to discuss reported cases, encourage transparency around issues and share best practices. Additionally, VISN 15 worked closely with network CLCs to enact active screening measures for residents and employees, limit access points in and out of the facilities and redesign isolation rooms to treat COVID-19 patients at the CLC facilities.

VISN 15 leadership stated that it planned to be a force multiplier throughout the response when COVID-19 activity was low. By reallocating personnel and equipment to outbreaks in New Orleans, Chicago, Arizona and New Mexico, VISN 15 helped reinforce VISNs 16, 12 and 22 during their responses to COVID-19.

Community Prevalence and VISN Case Statistics

In the week of March 29, 2020, COVID-19 began to accelerate in the St. Louis VA HCS's catchment area. [720] The sudden increase in confirmed community cases raised concern among VISN 15 leadership and became VISN 15's primary activity point during the response. By June 30, 2020, community prevalence of confirmed COVID-19 in the St Louis area reached 0.51%, almost double what some other metropolitan areas in the VISN reported.[721] By contrast, two other metropolitan areas in Missouri, Kansas City and Columbia, experienced lower prevalence and lower hospitalization rates at VA facilities than St. Louis.[722]

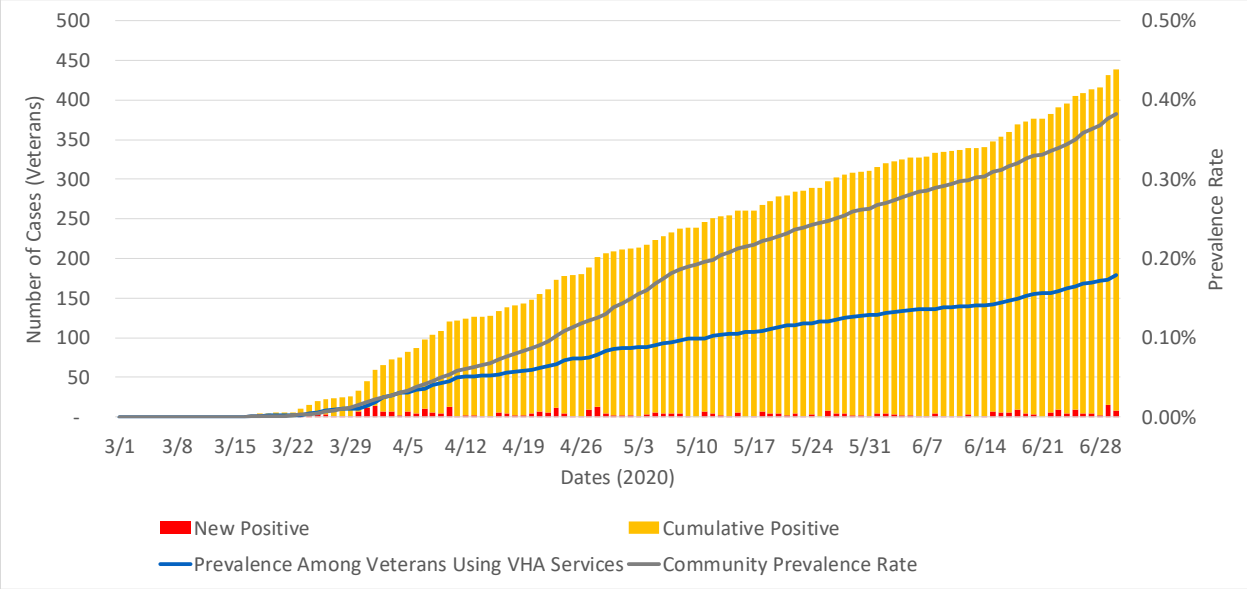
Figure 7.84 *VISN 15 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



COVID-19 also flared up in rural parts of Kansas during the response.[723] Lyon County, which is near Colmery-O'Neil VAMC in Topeka, Kansas, reached a community prevalence rate of 1.47%[724] Additionally, three rural counties west of Robert J. Dole VAMC in Wichita, Kansas reported a community prevalence rate of more than 4.0%.[725]

The first Veteran case of COVID-19 in VISN 15 was identified on March 16, 2020.[726] By June 30, 2020, 439 Veterans Using VHA Services had tested positive for COVID-19.[727] Prevalence of confirmed COVID-19 among Veterans Using VHA Services remained relatively low at 0.18% on June 30, 2020, compared to the community prevalence of confirmed COVID-19 of 0.38%.[728] Figure 7.84 and Figure 7.85 provide an overview and graphic of VISN 15 prevalence and cases.

Figure 7.85 *VISN 15 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

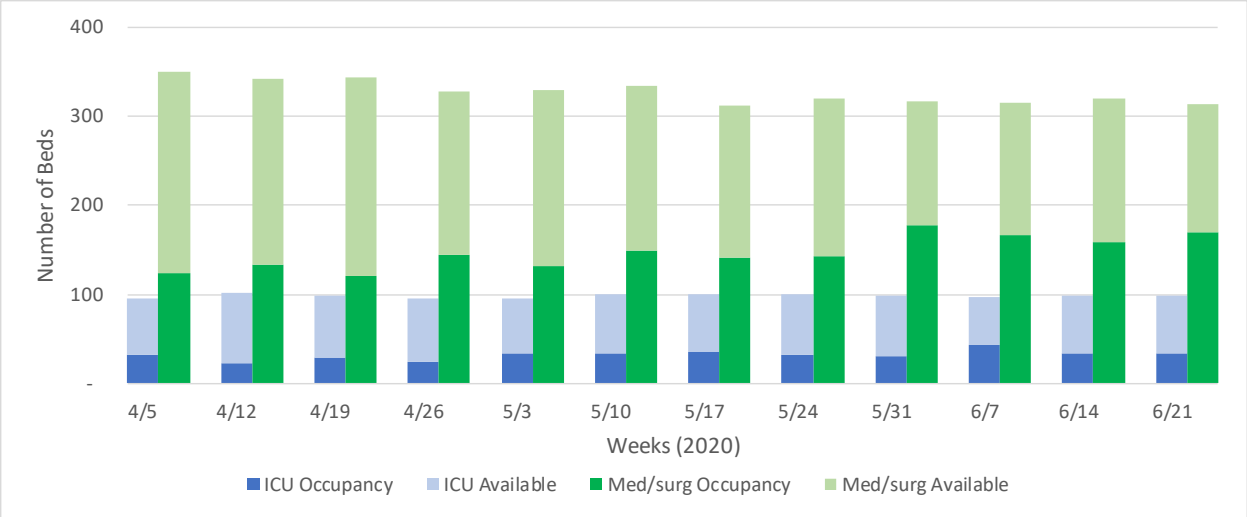
Capacity Management

On June 26, 2020, the VA St. Louis HCS in Missouri reached 94% capacity. In response, nursing leadership implemented surge measures that were previously prepared by the facility. As a result, ICU capacity at St. Louis VAHCS was significantly expanded within 24 hours. According to VISN 15 leadership, a St. Louis VAHCS Nurse Executive was empowered to activate the plan without permission from the VAMC Medical Director, which saved critical time during peak demand.

At peak capacity, VISN 15 operated 101 ICU beds and 347 Med/surg beds across the network, as shown in Figure 7.86. In Missouri, St. Louis VAMC John Cochran Division, Kansas City VAMC and Harry S. Truman Memorial increased their peak Med/surg bed counts to 82, 78 and 64, respectively; they also increased their peak ICU bed counts

to 23, 35 and 14, respectively.[729] Figure 7.86 provides an overview of VISN 15 bed occupancy and capacity over time.

Figure 7.86 *VISN 15 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

As shown in Table 7.64, from February 2020 to June 2020 VISN 15 hired 379 clinical personnel including Medical Officers, Nurses, Psychologists, Practical Nurses, Nursing Assistants and Medical Support Assistants. Additionally, VISN 15 hired 456 other personnel including Pharmacists, Social Workers, Custodial Workers and other occupations during the same period. Nursing, Medical Support Assistance and all other occupations experienced the most growth in VISN 15. In total, VISN 15 had 13,336 active personnel as of June 30, 2020. Table 7.64 provides a summary of personnel attrition and hiring.

Table 7.64 *VISN 15 Key HR Statistics (February - June 2020)*

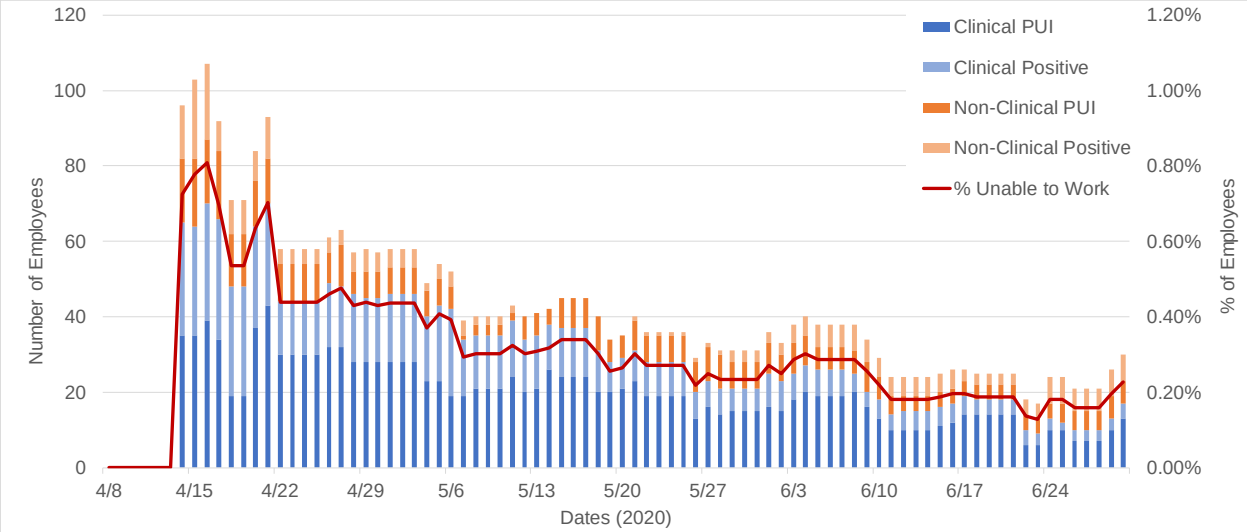
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	40	33	7	914
Nurse	145	85	60	3,156
Practical Nurse	34	18	16	644
Nursing Assistant	43	14	29	394
Medical Support Assistance	143	61	82	1,249
Pharmacist	3	7	(4)	325
Psychology	5	2	3	192

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Social Work	24	12	12	537
Custodial Worker	90	53	37	571
All Other Occupations	308	202	106	5,354
Totals	**835**	**487**	**348**	**13,336**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

Figure 7.87 *VISN 15 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

As shown in Figure 7.87, in mid-April 2020 over 100 clinical and non-clinical employees reported they were unable to work due to circumstances associated with COVID-19. From mid-April 2020 to late April 2020, the number of employees unable to work due to circumstances related to COVID-19 trended downward to approximately 60 employees. That trend continued throughout May 2020, reaching below 40 employees by May 30, 2020. The first week of June 2020 saw a slight uptick in employees unable to work due to circumstances related to COVID-19, reaching 40 employees on June 4, 2020. By the end of June 2020, fewer than 30 employees were unable to work due to circumstances associated with COVID-19. Notably, throughout May 2020, clinical employees comprised the majority of instances where employees were unable to work due to circumstances related to COVID-19. Figure 7.87 provides

an overview of VISN 15 employees unable to work due to circumstances associated with COVID-19.

Fourth Mission

Table 7.65 provides an overview of VISN 15 Fourth Mission activity. VISN 15 carried out multiple Fourth Mission taskings during the COVID-19 response. Notably, VISN 15 sent clinical personnel to non-VHA facilities to Arizona and New Mexico. In May 2020, IHS requested staffing support at Gallup Indian Medical Center, located on the border of the Navajo Reservation in Gallup, New Mexico. VISN 15 provided four Registered Nurses to supplement personnel at the IHS facilities in Gallup, New Mexico. In June 2020, VISN 15 responded to additional requests by IHS. Additionally, VISN 15 provided four Registered Nurses to Kayenta Health Center in Kayenta, Arizona. Approximately 70 miles away, four Registered Nurses deployed to Chinle Comprehensive Health Care Facility in Chinle, Arizona.

In the Phoenix area, IHS requested personnel support at Whiteriver Indian Hospital in Whiteriver, Arizona. VISN 15 provided 15 Registered Nurses on June 22, 2020 to supplement IHS personnel through August 5, 2020.

Additionally, VISN 15 deployed personnel to a range of facilities located throughout the East Coast. In June 2020, VISN 15 provided two Registered Nurses, one Licensed Practical Nurse and one Nursing Assistant to supplement personnel at Charlotte Hall SVH in Charlotte Hall, Maryland. Around the same time, Rhode Island SVH in Bristol, Rhode Island needed staffing support and VISN 15 sent one Registered Nurse and one Licensed Practical Nurse. In late June 2020, VISN 15 sent clinical personnel to facilities in New Jersey, Pennsylvania and Virginia to support state entities.

Table 7.65 *VISN 15 Fourth Mission and Community Support (as of June 30, 2020)*

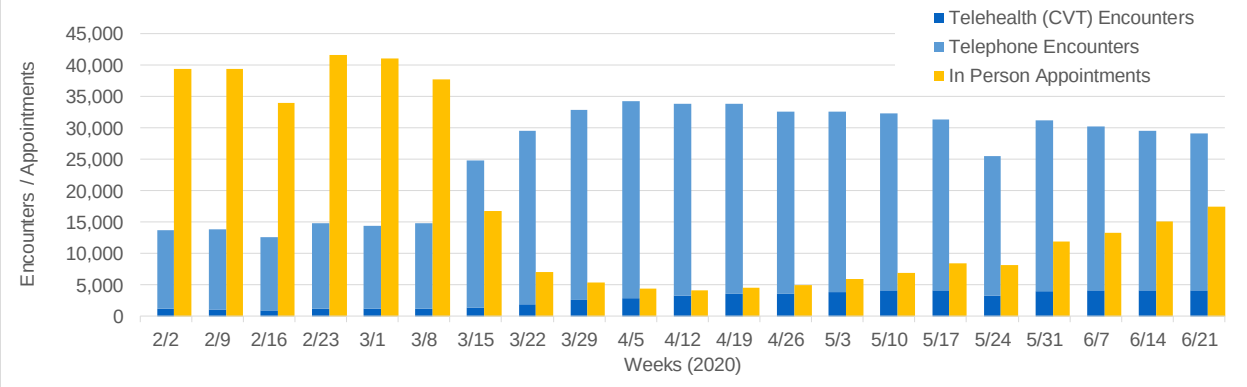
Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Gallup, NM	IHS	5/23/2020	7/7/2020	Staffing Supplement	Provided 4 Registered Nurses
Chinle, AZ	IHS	6/5/2020	7/7/2020	Staffing Supplement	Provided 4 Registered Nurses
Kayenta, AZ	IHS	6/5/2020	7/3/2020	Staffing Supplement	Provided 4 Registered Nurses
Charlotte Hall, MD	Charlotte Hall SVH	6/7/2020	6/23/2020	Staffing Supplement	Provided 2 Registered Nurses, 1 Licensed Practical Nurse and 1 Nursing Assistant

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Bristol, RI	Rhode Island SVH	6/8/2020	6/22/2020	Staffing Supplement	Provided 1 Registered Nurse and 1 Licensed Practical Nurse
Multiple Locations, NJ	New Jersey Department of Health	6/17/2020	6/30/2020	Staffing Supplement	Provided 1 Licensed Practical Nurse
Spring Hill, PA	Southeastern Veterans Center SVH	6/17/2020	6/30/2020	Staffing Supplement	Provided 1 Registered Nurse
Whiteriver, AZ	IHS	6/22/2020	8/5/2020	Staffing Supplement	Provided 15 Registered Nurses
Multiple Locations, VA	Virginia Department of Health	6/23/2020	7/7/2020	Staffing Supplement	Provided 1 Registered Nurse

Sources: Response to Data Call, VISN 15, VHA, 8/13/2020; Response to Data Call, VISN 15, VHA, 8/19/2020.

Patient Care by Visit Type

Figure 7.88 *VISN 15 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



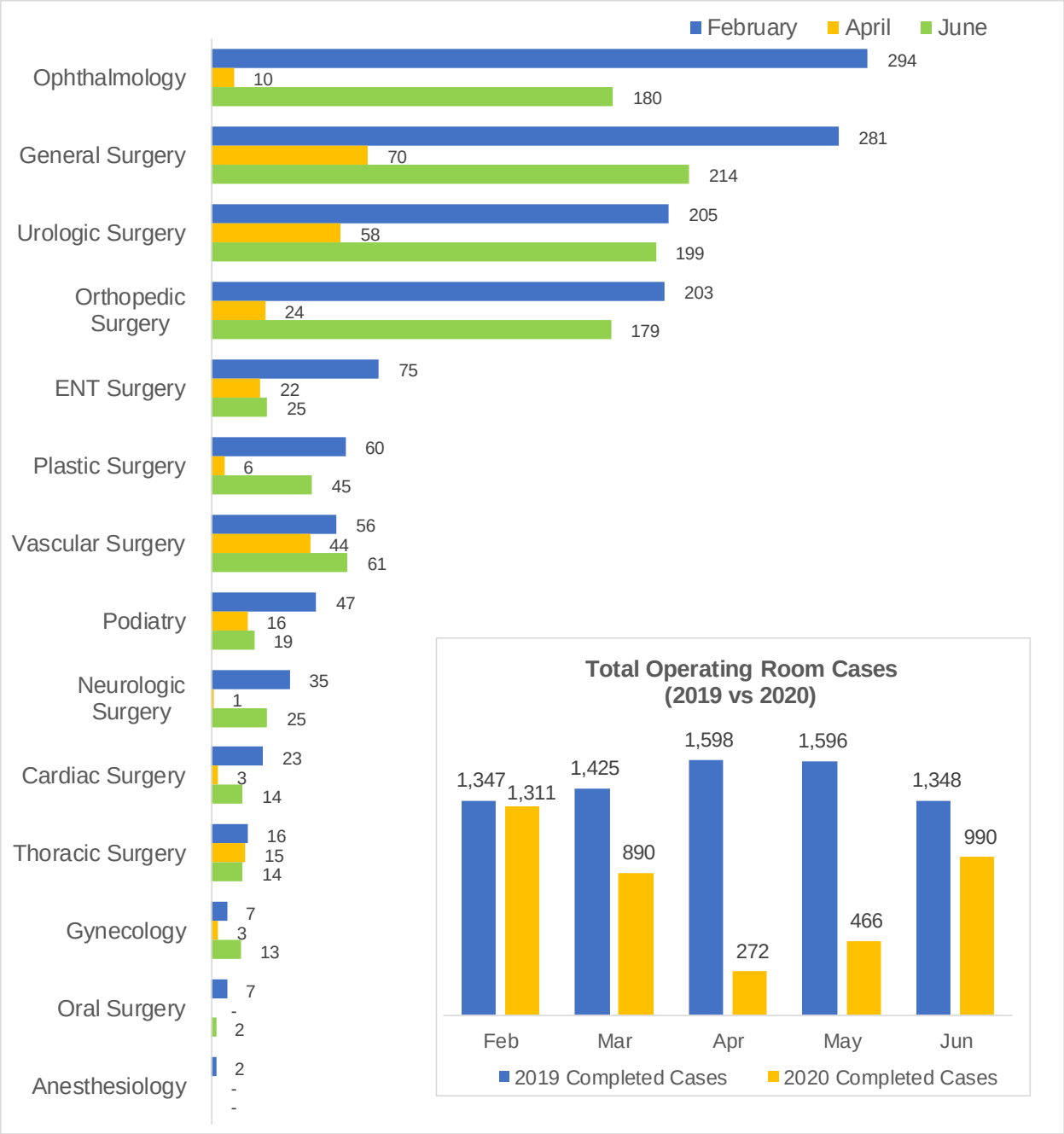
Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

VISN 15 leveraged telehealth and telephone modalities to support the COVID-19 response. Throughout February 2020, as shown in Figure 7.88 VISN 15 in-person appointments overshadowed telephone and telehealth encounters. During the week of March 15, 2020, in-person appointments abruptly declined from over 35,000 appointments per week to less than 20,000 appointments per week. That same week, telehealth and telephone encounters ramped up by approximately 10,000 encounters to ensure Veterans had access to health care professionals. From the week of March

22, 2020 to the week of June 21, 2020, virtual encounters ranged between 25,000 and 35,000 encounters. By June 2020, in-person appointments rebounded to nearly half their pre-COVID-19 levels, which was relatively high compared to the cross-VISN trend.[730]

Figure 7.89 *VISN 15 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

As illustrated in Figure 7.89, the number of completed OR cases decreased across most VISN 15 specialties from February 2020 to June 2020. Vascular surgery and gynecology were two exceptions as the number of completed OR cases increased from February 2020 to June 2020.

Completed OR cases were lower in 2020 compared to 2019 every month from February to June. April 2020 and May 2020 experienced the most significant decreases in completed OR cases. By June 2020, completed case had decreased approximately 25% from June 2019. Figure 7.89 provides an overview of VISN 20 completed OR cases.

Resource Movement / Inventory

As seen in Table 7.66, during the response VISN 15 sent Registered Nurses, Licensed Practical Nurses, Nursing Assistants and Respiratory Therapists to locations across the country. By June 30, 2020, five Registered Nurses and six Respiratory Therapists deployed to other VISNs. Additionally, VISN 15 sent clinical personnel to non-VHA entities ranging from SVHs to IHS facilities. VISN 15 utilized DEMPS processes to deploy volunteers throughout the response. As described in the Cross-VISN Summary section of this report, VISN 15 leadership recognized delays in the DEMPS processes early in the response. According to VISN 15 leadership, the DEMPS program worked well once the process was reduced from a week or more to a matter of days. Table 7.66 provides an overview of VISN 15 personnel movement.

Table 7.66 *VISN 15 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Licensed Practical Nurse	-	-	3	-
Nursing Assistant	-	-	1	-
Registered Nurse	-	5	32	-
Respiratory Therapist	-	6	-	-

Source: Response to Data Call, VISN 15, VHA, 8/13/2020.

VISN 15, given its central location in the country and low COVID-19 activity, intended to serve as a force multiplier for other VISNs that needed supplies, equipment and staffing. According to VISN 15 leadership, ensuring the network was well stocked and meeting par inventory levels were the most challenging aspects of the response. Early on, however, a critical issue became apparent as VISN 15 reported it was unable to rely on supply chain logistics or PPE data. VISN 15 indicated it solved these supply chain and inventory issues through a daily Incident Command Center call with facility teams and the centralized logistics team, a variety of ad hoc manual inventory trackers and the national Power BI Dashboard. This internal process allowed VISN 15 to

rebalance and track critical supplies during the response. As a result, and as shown in Table 7.67, VISN 15 was able to support VISN 16 with ventilators and VISN 5 with supplies for its surge response.

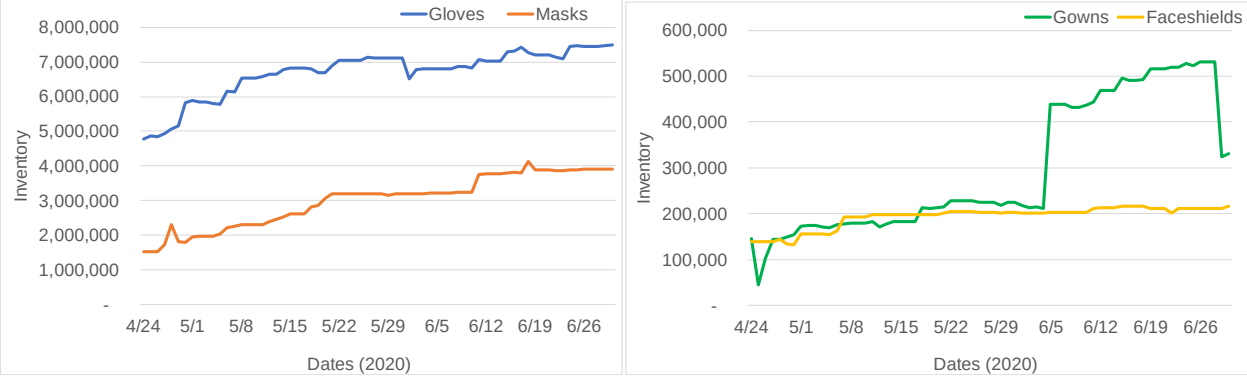
Table 7.67 *VISN 15 Movement of Supplies (as of June 30, 2020)*

Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Expendable Ventilator Supplies (Days)	-	9	-	-
Humidifier	-	2	-	-
Ventilator	-	5	-	-

Source: Response to Data Call, VISN 15, VHA, 8/21/2020.

As illustrated in Figure 7.90, PPE inventory, with the exception of gowns, steadily increased from April 2020 to June 2020. Gown inventory more than doubled from 200,000 to over 400,000 the week of June 5, 2020. The week of June 26, 2020, gown inventory decreased from approximately 500,000 to 300,000.

Figure 7.90 *VISN 15 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

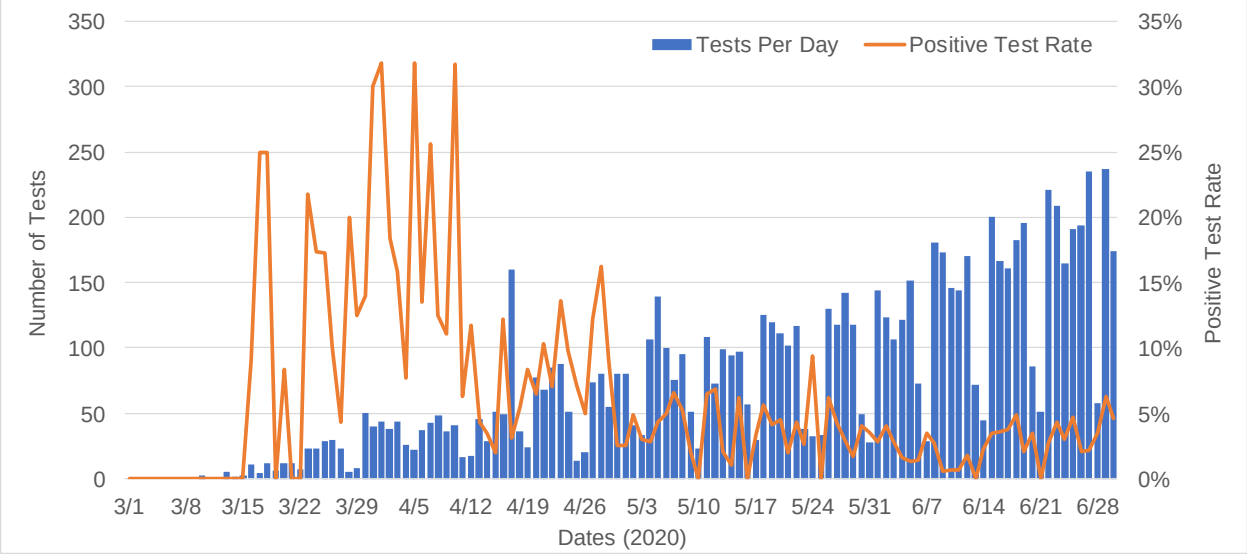


Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

As shown in Figure 7.91, VISN 15 ramped up testing from March 2020 to June 2020. Throughout March 2020, VISN 15 completed between 0 and 50 tests per day. From April 2020 to May 2020, VISN 15 completed an average of 67 tests per day. In June 2020, VISN 15 was regularly completing more than 100 tests per day, sometimes exceeding 200 per day. The positive test rate in VISN 15 reached over 30% early in the response and then held steady under 10% from May 2020 through June 2020. Figure 7.91 provides an overview of VISN 15 testing over time.

Figure 7.91 *VISN 15 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Table 7.68 provides an overview of VISN 15 Veteran testing results. Of the 240,902 Veterans Using VHA Services in VISN 15, the network tested 8,779, or 3.6%, for COVID-19 as of June 30, 2020. 0.2% of the population tested positive for COVID-19. VISN 15 tested all CLC residents for COVID-19. Two, or 2.1% of, CLC residents tested positive for COVID-19 as of June 30, 2020.

Table 7.68 *VISN 15 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Patients
Population	240,902	97
Population Tested	8,779	97
% of Population Tested	3.6%	100.0%
Population Positive	439	2
% of Population Positive	0.2%	2.1%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VA COVID-19 RESPONSE IN ACTION: VISN 15

Empowered VA Personnel at St. Louis VAMC Solve Capacity Challenges

> *"Leadership knew staff were the experts and quickly got them together. We said, 'You know what? You are the experts. You are empowered…Tell us what obstacles there are, what mountains need to be moved in short periods of time and we will help you do that. But you decide what needs to be done and how best to do it."*
>
> *Medical Center Director Keith Repko*

In late June 2020, the St. Louis VAMC faced the challenge of how to expand ICUs and create additional capacity within the facility. To source solutions, medical center leadership facilitated an open discussion with employees across various departments, included Nursing, Engineering, Infection Prevention, Patient Care and others to brainstorm ideas. In describing this approach, Medical Center Director Keith Repko stated, "Leadership knew staff were the experts and quickly got them together. We said, 'You know what? You are the experts. You are empowered…Tell us what obstacles there are, what mountains need to be moved in short periods of time and we will help you do that. But you decide what needs to be done and how best to do it."

The Associate Director of Patient Care Services, Dr. Patricia Hendrickson, noted that the cross-department exercise helped spur different thinking and ultimately helped to cultivate a solution. Instead of the typical approach of finding ways to add individual negative pressure rooms, the group developed a solution that enabled them to convert an entire floor to negative pressure. "Once we had the initial intent of okay let's do this, create negative pressure space on an entire floor, then it was really the staff that then figured out by determining everyone that needed to go in and out of the space," Dr. Hendrickson said.

Source: Interview with the Medical Center Director and the Associate Director of Patient Care Services, St. Louis VAMC, conducted on 8/13/2020.

VISN 16: South Central VA Health Care Network

Description of the Network and Population Served

The South Central VA Health Care Network (VISN 16) serves a population of 1.4 million Veterans across Arkansas, Louisiana, Mississippi and parts of Texas, Missouri, Alabama, Oklahoma and Florida.[731] Veterans can receive care at 10 VAHCS / VAMCs, 6 CLCs and 54 outpatient clinics including 53 CBOCs.[732]

Within its expansive network of over 421,000 Veterans Using VHA Services as shown in Table 7.69, VISN 16 provided COVID-19 testing for both employees and patients. VISN 16 identified 1,806 COVID-19 Veteran cases and 113 employee cases through June 30, 2020. Of these cases, 123 Veteran and 3 employee deaths were associated with positive COVID-19 tests.

Table 7.69 *VISN 16 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	421,656
Veteran COVID-19 Cases	1,806
Veteran COVID-19 Inpatients	302
Veteran Deaths (COVID-19 related)	123
VISN Employees	21,409
Employee COVID-19 Cases	113
Employee Deaths (COVID-19 related)	3

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

VISN 16 leadership reported that it has well-developed Incident Command structures and experienced emergency management systems due to frequent responses to hurricanes in the region; however, given the unpredictable onset and spread of COVID-19, planning for this incident was particularly challenging. The demand for services within VISN 16 began in early March 2020 when the first case was reported on March 9, 2020, in New Orleans, LA. In response, VISN 16 activated its Incident Command Center to provide emergency preparedness to the network.

COVID-19 spread rapidly throughout New Orleans and the community health care system was taxed quickly. By late March 2020 the community 7-day rolling average of new cases per day exceeded 100 and a week later the 7-day rolling average more than quadrupled, at approximately 450 new cases per day. In response, VISN 16 put out a request for ventilators, as it was concerned it may run short, and other VISN's responded quickly; VISN 16 reported that VISNs 8, 15, 17, 22 and 23 responded to its request with ventilators. The Southeast Louisiana Veterans HCS in New Orleans experienced a surge in patient demand in early March 2020; VISN 16 leadership stated it was able to accommodate this influx in new patients due to the agility of its new facility in which each room had the same functionality. As a result, personnel were able to change Med/surg beds to ICU beds rapidly to ensure there was no break in patient care.

VISN 16 reported that staffing the newly converted beds remained one of its early critical challenges. The network reached to other VISNs for support and shifted approximately 50 employees within its network to augment Southeast Louisiana Veterans HCS personnel. Leadership noted this was faster and more efficient than using the DEMPS process during the initial surge as intra-network shifting took two to three days, on average, while DEMPS took seven days.[733] VISN 16 eventually relied more upon DEMPS and the Traveling Nurse Corps for employee augmentation. The network also relied on hiring new employees; it brought on 895 new personnel by the end of June 2020, as shown in Table 7.70.

VISN 16 leadership reported that the availability of testing supplies was as equally a critical issue as staffing across the VISN, particularly within the Southeast Louisiana Veterans HCS. Leadership noted that at one point the HCS had 90 tests on hand and leadership felt it needed a minimum of 300 on hand. While VISN 16's testing shortages never impeded its ability to test a prioritized employee or patient anywhere in the network, shortages did limit its ability to contact trace employees. Additionally, leadership noted that reallocating testing supplies across the network was time consuming. VISN 16 leadership stated, "We get a number [of tests] that makes us all incredibly anxious and makes us spend quite a bit of time, seven days a week working to rebalance the testing within the network."

This issue was particularly challenging as VISN 16 considered how to expand services in its facilities. "What's going on right now is that we're caught between trying to open up more services at all of our VA medical centers around the country which requires pretesting. And then we're also getting hit with the surge," VISN 16 leadership stated. "So, it's that balancing that was really hard. Balancing currently is very challenging."

Arkansas / Mississippi / Alabama

Through June 30, 2020, there was a rise in COVID-19 cases across much of Arkansas, due in part to outbreaks in prisons, meatpacking plants and CNHs. VISN 16 began to open its first Moving Forward site (Little Rock, AR) on May 18, 2020, though the facility remained at Level 1 of the reopening plan through the end of June 2020 as numbers across the state remained elevated. VISN 16 was on alert to increase capacity and open more surge beds if needed. VISN 16 cited specific concern over its facilities in Mississippi, noting that the state numbers are increasing, the community is largely underserved and the facilities do not have much flexibility in maneuvering beds as the facilities in Houston and New Orleans do.

Houston, Texas

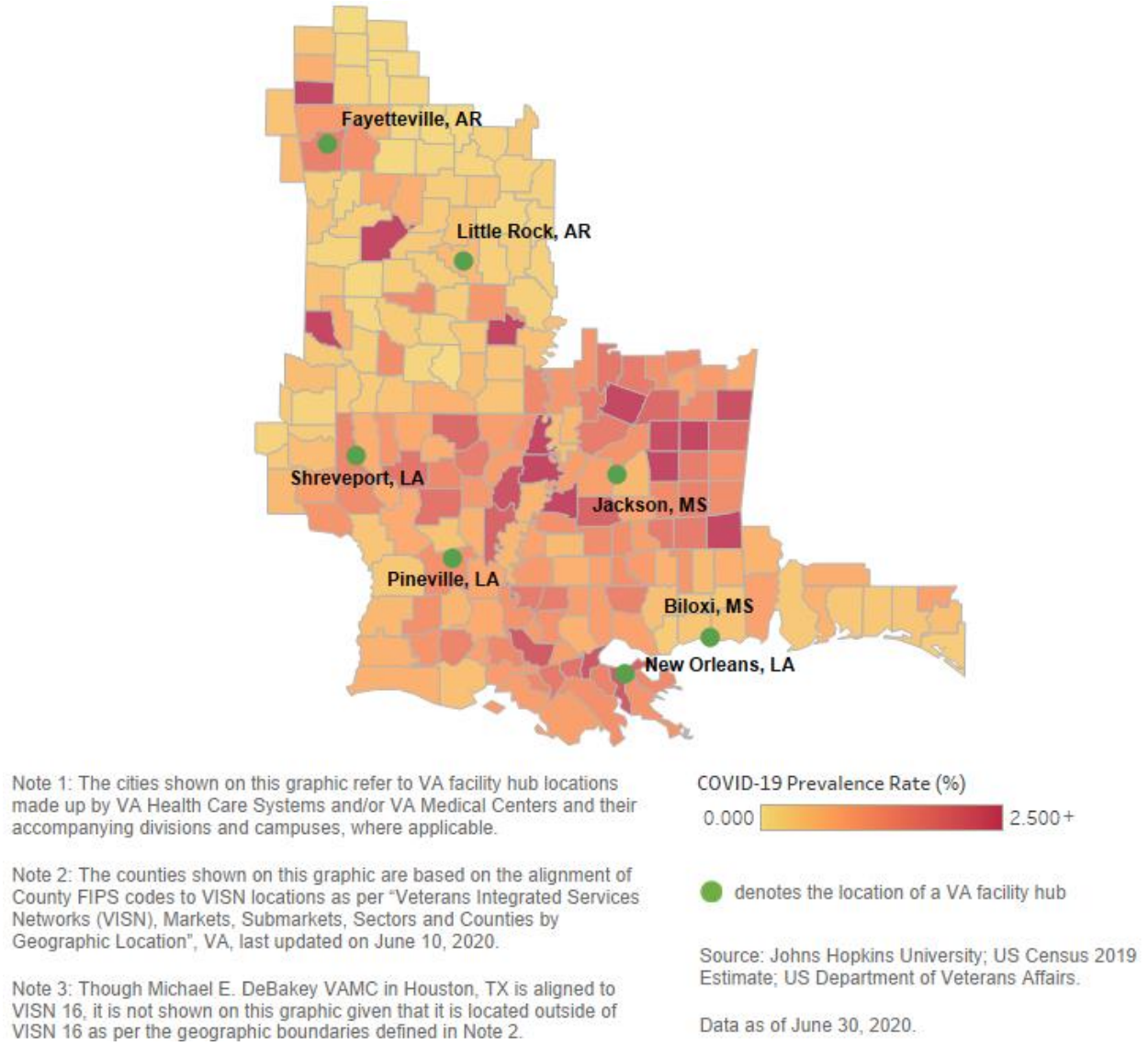
While the initial spread of COVID-19 was relatively slow and controlled across Texas, cases began to rise more rapidly in June 2020.[734] On June 15, 2020, there were 1,254 new daily cases in Texas communities; by June 30, 2020, new daily cases neared 7,000 across the state.[735] Given VISN 16's experience in New Orleans, it reported that it was much better prepared and had more time for advanced planning to expand capacity at the Michael E. DeBakey VAMC in Houston, TX. In preparation, Houston VAMC never opened services beyond time-sensitive procedures to allow for a potential surge in capacity. Houston has Abbott ID testing capabilities and VISN 16 helped the Houston facility augment testing demands through reallocating testing capabilities when needed.

Community Prevalence and VISN Case Statistics

COVID-19 community prevalence rates varied across the network as some areas experienced consistently low rates while others experienced rapid spread and multiple peaks; as shown in Figure 7.92, some areas reached prevalence rates above 2.0% as of June 30, 2020.[736] For example, the Veterans HCS of the Ozarks (Fayetteville, AR) catchment area experienced slow and steady growth through May 2020 and then more accelerated growth through June 2020.[737] Despite this, as seen in Figure 7.92, community prevalence remained at 0.78% on June 30, 2020.[738] In the New Orleans catchment area, rapid community spread began in mid-March 2020, slowed from April 19, 2020 to June 7, 2020 and began to accelerate again with total community prevalence of 1.4% on June 30, 2020, almost triple that of the regions in neighboring Arkansas.[739] Spread was slower through the Houston catchment area than in New Orleans during March 2020 through May 2020; however, the virus spread quickly beginning June 14, 2020.[740] The Houston catchment area had a community prevalence of 0.62% as of June 30, 2020. Jackson, MS experienced a sustained

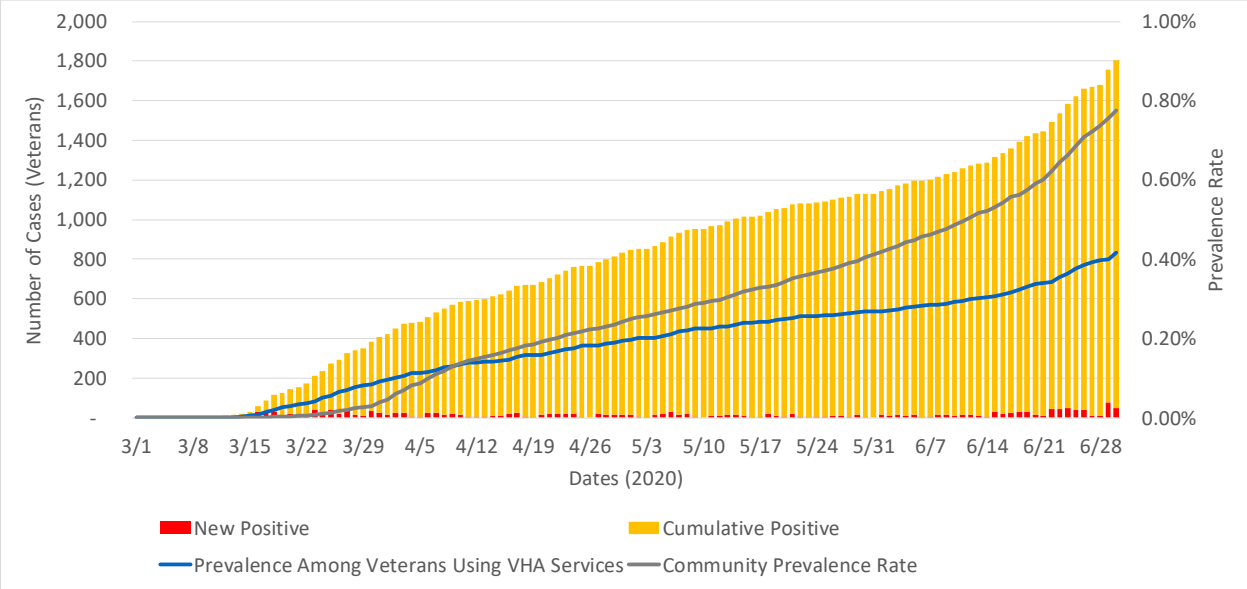
continual incline through the duration of its response, resulting in 1.2% total community prevalence on June 30, 2020.[741]

Figure 7.92 *VISN 16 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



VISN 16 saw its first Veteran case of COVID-19 on March 8, 2020.[742] Until April 10, 2020, VISN 16 prevalence for Veterans Using VHA Services outpaced community prevalence.[743] As VISN 16 positive cases among Veterans Using VHA Services decreased in May 2020 and early June 2020, network prevalence began to level off.[744] Subsequently, due to the growth of new cases in Houston, New Orleans and the Alexandria catchment areas in late June 2020, prevalence among Veterans Using VHA Services across the network again began to increase at a steeper slope, as illustrated in Figure 7.93.

Figure 7.93 *VISN 16 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



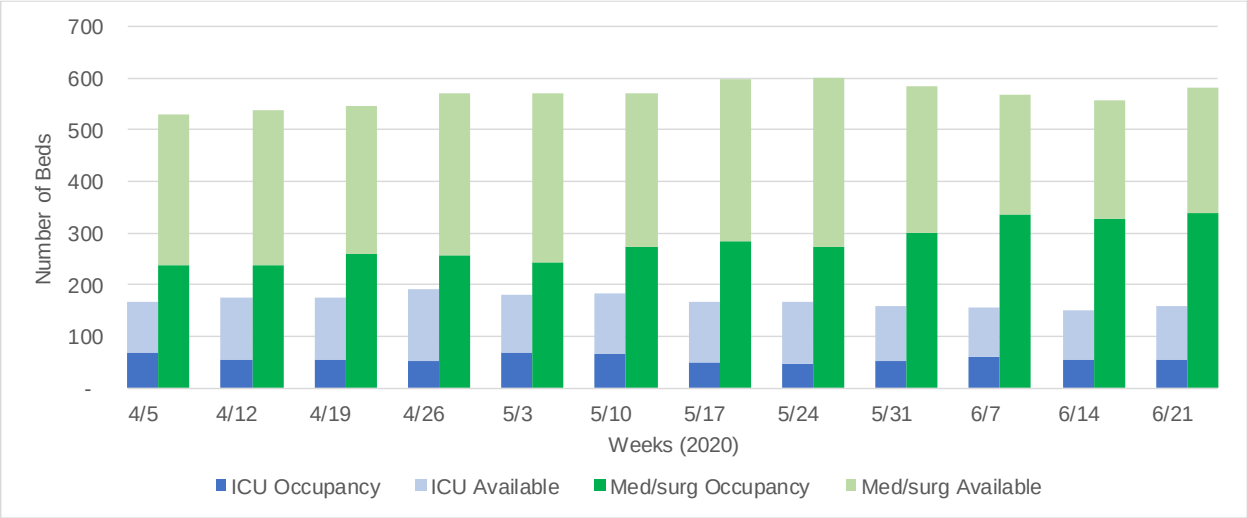
Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 16 had enough bed capacity to address surges in patient demand and it did not exceed overall capacity within its network, as shown in Figure 7.94. Notable in its response was its ability to convert all beds within the newly designed Southeast Louisiana Veterans HCS in New Orleans to ICU beds. As a result, the New Orleans facility never reached full bed occupancy. As shown in Figure 7.94, during most weeks from April 2020 through June 2020, VISN 16 had more than twice the bed capacity needed to service ICU or Med/surg patients.

Figure 7.94 *VISN 16 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, 7/28/2020.

HR / Staffing

VISN 16 employees were affected by the various outbreaks across Louisiana and VISN 16 leadership noted that adequate staffing was most challenging in June 2020 due to increased community spread impacting employees at greater levels. For example, both urgent care providers at the VAMC in Alexandria, LA tested positive, which completely shut down its urgent care capabilities. The VAMC pivoted quickly to arrange tele-urgent care with providers in New Orleans; however, filling key roles during the pandemic remained a challenge impacting most locations within VISN 16.

As shown in Table 7.70, VISN 16 had a net gain of 309 personnel from February 2020 through June 2020. In total, VISN 16 hired 895 personnel and had just over 21,400 employees on June 30. Additionally, 586 VISN 16 personnel became no longer employed by VA from February 2020 to June 2020. The network made most notable net gains with Nurses (+116) and Medical Support Assistance (+88).

Table 7.70 *VISN 16 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	39	38	1	1,585
Nurse	234	118	116	4,966
Practical Nurse	40	21	19	1,033
Nursing Assistant	54	18	36	891
Medical Support Assistance	140	52	88	1,750
Pharmacist	10	7	3	534

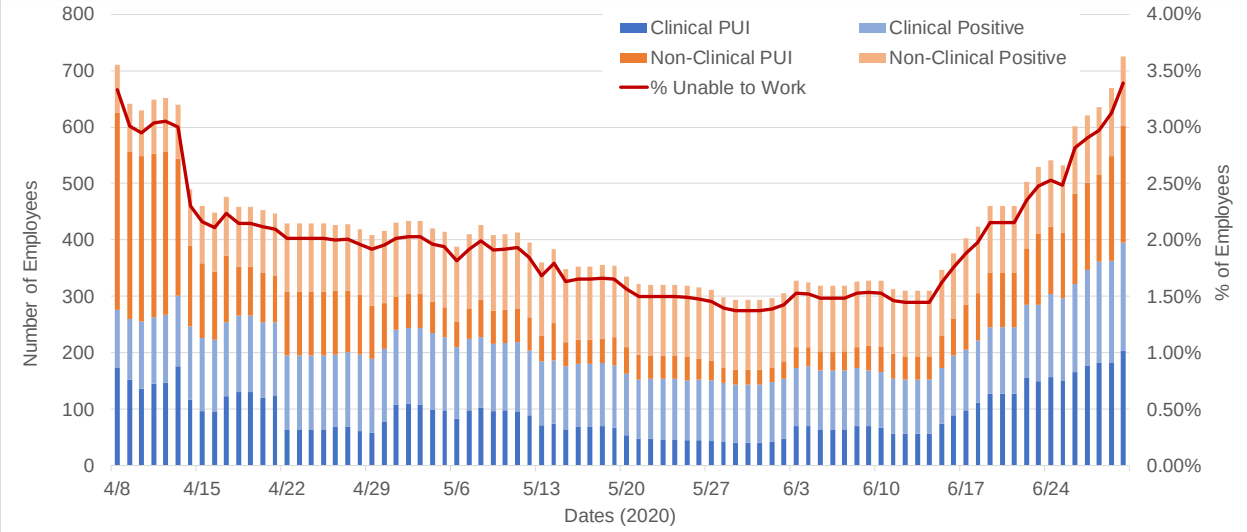
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Psychology	4	6	(2)	306
Social Work	31	18	13	921
Custodial Worker	103	68	35	769
All Other Occupations	240	240	-	8,654
Totals	**895**	**586**	**309**	**21,409**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

In early April 2020, just under 3.5% of the workforce was unable to work due to circumstances related to COVID-19, as shown in Figure 7.95. The majority of those instances are attributable to clinical and non-clinical employees designated as PUIs. Over time, PUIs decreased to a point by June 15, 2020 that overall unavailability was cut in half to approximately 1.5% of the workforce. These numbers increased across the last few weeks of June as prevalence across the network increased. On June 30, 2020 VISN 16 had its highest single day of unavailability at approximately 3.4%.

Figure 7.95 *VISN 16 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 16 contributed to multiple Fourth Mission engagements across FL, MD, LA and AR. As shown in Table 7.71, VISN 16 supported the Charlotte Hall SVH Mission in Maryland where it provided nursing staffing support. VISN 16 also sent multiple personnel and supplies to support CNHs in Florida.

Table 7.71 *VISN 16 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Shreveport, LA	State of LA	4/10/2020	5/8/2020	Community Bed Capacity	Provided 16 Med/surg beds and 2 ICU beds at the Shreveport VAMC
Little Rock, AR	Arkansas Department of Health	4/19/2020	Ongoing	Testing Support	Over 6,500 tests performed by Little Rock VAMC
Multiple Locations, FL	Multiple Florida CNHs	4/21/2020	5/21/2020	Staffing Supplement and Education	Provided 15 Physicians (or Advanced Registered Nurse Practitioners), 30 Registered Nurses, 30 Nursing Assistants and 15 Therapists (Occupational Therapist, Respiratory Therapist, or Physical Therapist); also provided 500 gowns
North Little Rock, AR	Arkansas SVH	4/13/20	Ongoing	Testing Support	Over 495 tests performed by Little Rock VAMC
Reserve, LA	Southeast Louisiana SVH	4/14/2020	4/14/2020	PPE Support	Provided 500 surgical gowns and 500 face masks
Shreveport, LA	Barksdale Air Force Base	4/22/2020	4/22/2020	Supplies Support	Provided 4 thermometers
Charlotte Hall, MD	Charlotte Hall SVH	6/10/2020	6/24/2020	Staffing Supplement	Provided 5 Registered Nurses, 2 Licensed Practical Nurses and 4 Nursing Assistants

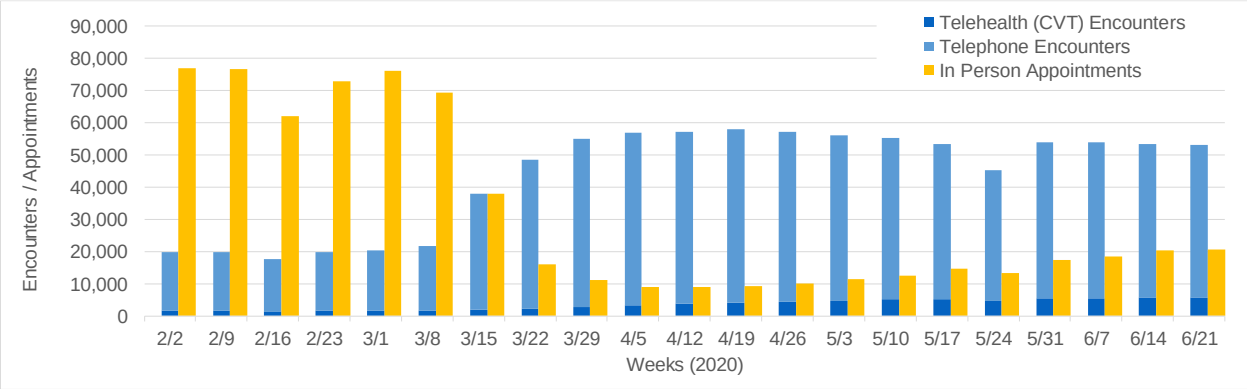
Source: Response to Data Call, VISN 16, VHA, 7/21/2020.

Patient Care by Visit Type

As shown in Figure 7.96, from February 2, 2020 to March 8, 2020, VISN 16 primarily delivered in-person patient care; providers conducted approximately 75,000 in person visits weekly versus 20,000 virtual visits. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020, in-person appointments and virtual encounters were evenly split at approximately 38,000; only one week later, most visits were conducted virtually. During May 2020, VISN 16 conducted an average of approximately 52,000 virtual encounters per week while in-person appointments

hovered around an average of 13,000. As facilities began to reopen in June 2020, both in-person and CVT encounters began to increase.

Figure 7.96 *VISN 16 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

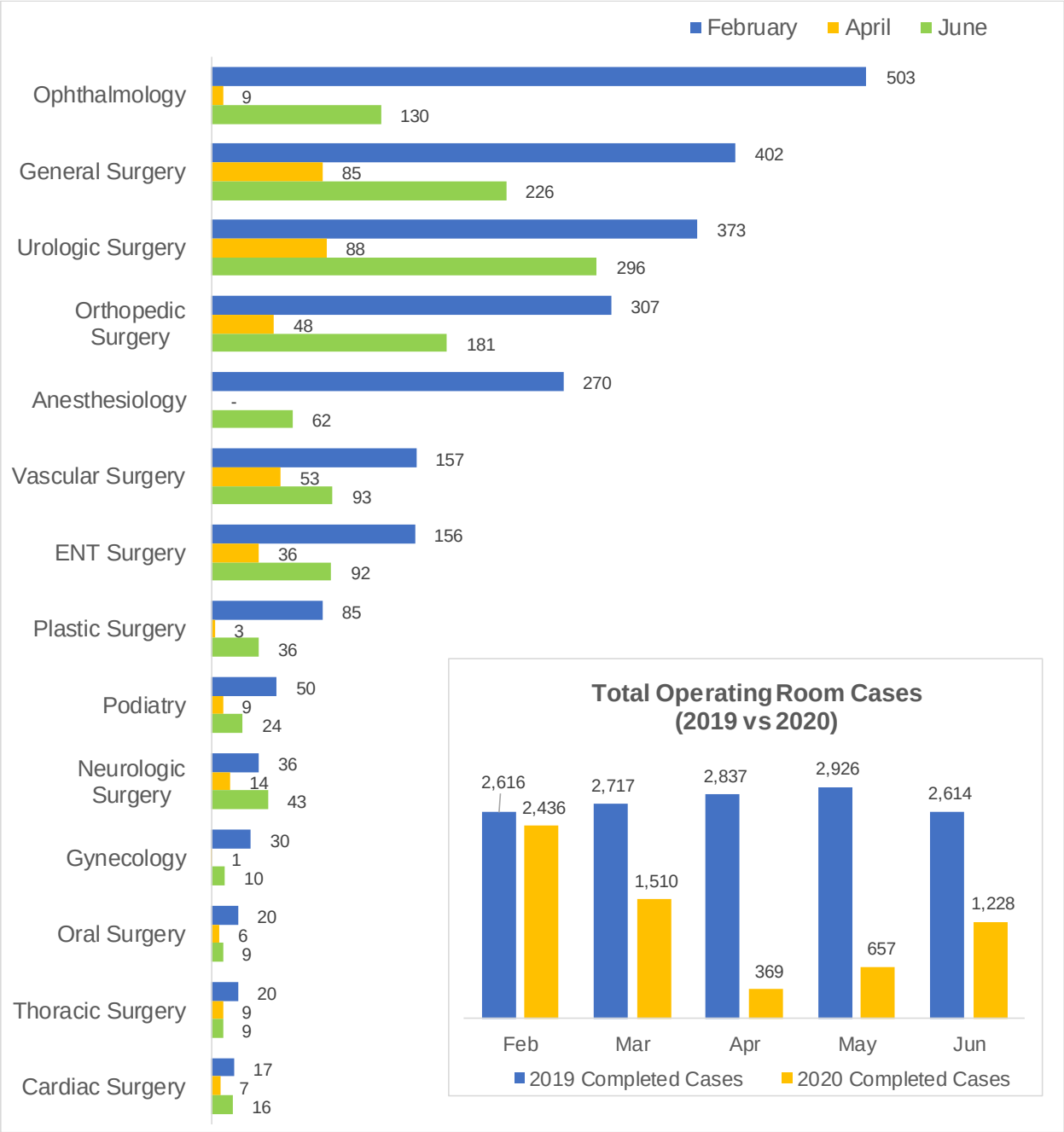
Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As shown in Figure 7.97, during its response VISN 16 OR cases decreased significantly in comparison to its February 2019 to June 2019 cases. VISN 16 saw 369 OR cases in April 2020 compared to 2,837 in April 2019. OR cases began to increase in June 2020 when VISN 16 began to more fully open facilities. The largest net loss in OR cases was in ophthalmology, with a decrease of 494 cases between February 2020 and April 2020; however, all specialties increased their OR case count from April 2020 to June 2020.

Resource Movement / Inventory

VISN 16 shifted supplies across the network and purchased inventory as needed. Leadership noted that having enough supply of the correct PPE, for example gloves and gowns, on hand was at times challenging. VISN 16 engaged in an organized process to mitigate any potential PPE gaps. It first relied on reallocating within the VISN; for example, VISN 16 it reallocated 72 infusion pumps across its network, as seen in Table 7.72. If the network was short on critical supplies, the Chief Supply Chain Officer worked with supply chain managers at each facility to understand if shortages were an artifact in the data. If not, the supply chain managers identified the area of the facility experiencing the increased burn rate. The CMO would then speak with the facility to understand its process and to ensure it was following CDC guidelines on PPE use. There were also instances when VISN 16 sought help though the EMCC or purchased small orders through external vendors.

Figure 7.97 *VISN 16 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

VISN 16 also reported that tracking PPE was a challenge. Prior to the pandemic, VISN 16 reported that the supply chain was not designed to give managers real-time views of supply levels, but rather it was meant to manage supplies over a longer term. With the input of Chief Supply Chain Officers and executive leadership at each hospital, VISN 16 developed a tool to track inventory and contingency stocks. As of June 30, 2020, VISN 16 uses both its tool and the national Power BI tool.

VISN 16 noted that PPE guidance on COVID-19 procedures from the CDC at times was unclear. VISN 16 leadership indicated that an individual would need to go directly to the CDC website to find changes and return frequently to see if there was updated guidance. VISN 16 also noted that guidance on testing requirements from the CDC for employees was conflicting and very frequently changing. To communicate these updates and changes, VHACO regularly sent out guidance through the EOCs to networks, who would pass on to each facility. In addition, VISN 16 used a series of channels to communicate with employees including Public Affairs messaging, daily leadership conference calls, executive leadership councils and communities of practices within the network.

Table 7.72 *VISN 16 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
5 Bank Charger	1	-	-	-
Air Purification	4	-	-	-
Anesthesia Machine	-	-	-	5
Bed (Electric)	-	-	-	12
Cepheid Test Kit	500	-	-	-
Face Mask	-	-	500	-
Face Mask with Shield	500	-	-	-
Face Shield	1,100	-	-	-
Generic Mask	12,000	-	-	-
Glove (Box)	2	-	-	-
Goggles	25	-	-	-
Gown	57	-	500	-
Hood	40	-	-	-
Hose	20	-	-	-
Humidifier	-	-	-	-
Infusion Pump	72	-	-	-
Isolation Gown	11,000	-	-	-
Lab Kit	24	-	-	-
Monitor (B450)	2	-	-	11
N95 Respirator	340	-	-	-
Negative Air Machine	30	-	-	-
Other Pump	-	-	-	3
PAPR	20	-	-	-
PAPR Kit	5	-	-	-
Patient Data Module	2	-	-	-

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Pulmonary Filter	100	-	-	-
Pump with Pole	10	-	-	-
Puritan Bennet 840 Ventilator	10	-	-	-
Puritan Bennet 840 Ventilator Supplies	15	-	-	-
Recreational Vehicle	1	-	-	-
Sani-Wipe	24	-	-	-
Shoe Cover (Box)	3	-	-	-
Shoe Cover (Case)	2	-	-	-
Stethoscope	200	-	-	-
Surgical Gown	-	-	500	-
Surgical Mask	3,000	-	-	-
Thermometer	-	-	4	-
VentHeat Moisture Exchange	20	-	-	-
Ventilator	20	-	-	29
Ventilator Circuit	12	-	-	-
Ventilator Heater and Supplies	69	-	-	-
Ventilator Humidifier	10	-	-	-
Ventilator Tubing	20	-	-	-

Source: Response to Data Call, VISN 16, VHA, 7/21/2020.

In terms of movement of personnel, VISN 16 reallocated 65 employees within its VISN to meet mission needs, 33 of whom were ICU and Med/surg Nurses, as seen in Table 7.73. VISN 16 sent 101 employees to support Fourth Mission engagements and VISN 16 received 46 Nurses from other VISNs to support its mission.

Table 7.73 *VISN 16 Movement of Personnel (as of June 30, 2020)*

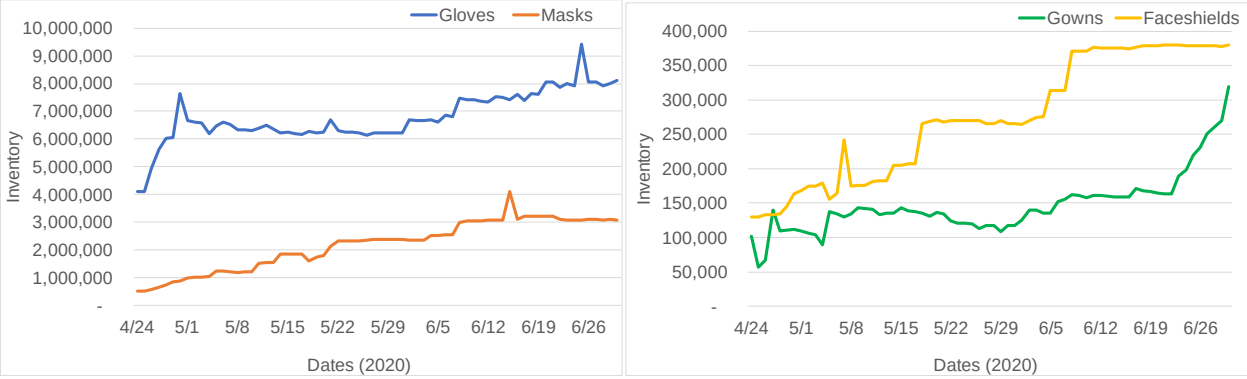
Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	-	-	5
Equipment Support Specialist	-	-	-	2
Certified Nursing Assistant	-	-	-	-
Certified Registered Nurse Anesthetist	1	-	-	-
Clinical Support	-	-	-	1
Driver	4	-	-	-
Engineer	-	-	-	1
Hospitalist	-	-	-	1

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Licensed Practical Nurse	3	-	2	2
Nurse (ICU)	20	-	-	2
Nurse (Med/surg)	13	-	-	-
Nursing Assistant	2	-	34	-
Nurse Practitioner	2	-	-	-
Physician / Advanced Registered Nurse Practitioner	-	-	15	3
Physician Assistant	-	-	-	1
Public Affairs	1	-	-	-
Registered Nurse	-	-	35	51
Respiratory Therapist	-	-	-	1
Therapist (Occupational Therapist, Respiratory Therapist, or Physical Therapist)	-	-	15	1
Timekeeper	5	-	-	-
Trade / Craft	-	-	-	6
Virtual Pharmacist	14	-	-	-

Source: Response to Data Call, VISN 16, VHA, 7/21/2020.

VISN 16 increased its supply of masks by over 2 million over the course of its response. Similarly, VISN 16 increased its supply of face shields over time, from approximately 150,000 in late April 2020 to over 350,000 by late June 2020, as shown in Figure 7.98.

Figure 7.98 *VISN 16 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

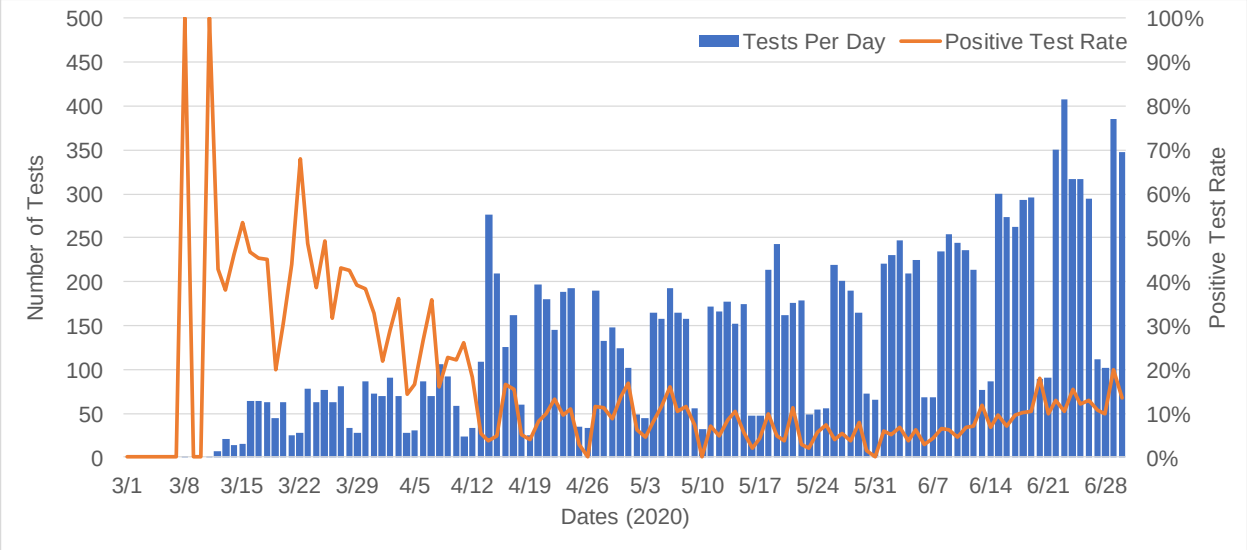
Testing

VISN 16 did not have any critical testing shortages through June 30, 2020 that impacted a prioritized patient or employee. All VISN 16 facilities have the Cepheid platform for testing in addition to Roche machines in Little Rock and Abbott ID in Houston. Outside of the VISN, the Palo Alto and Lexington VHA facilities were used to augment testing capabilities when needed.

As seen in Figure 7.99, VISN 16 increased testing capacity over time, eclipsing 400 daily tests on June 23, 2020. Over the course of its response, VISN 16 observed a general decrease in the positive test rate within its network, with an approximate positive rate of 40% in the last weeks of March 2020 and 15% into the end of June 2020.

As of June 30, 2020, VISN 16 tested 3.6% of its Veterans Using VHA Services population and 100% of CLC residents. The proportion of VISN 16 Veterans that tested positive was 0.4% while 1.9% of CLC residents tested positive, as shown in Table 7.74.

Figure 7.99 *VISN 16 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Table 7.74 *VISN 16 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	421,656	315
Population Tested	15,221	315
% of Population Tested	3.6%	100.0%
Population Positive	1,806	6
% of Population Positive	0.4%	1.9%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VA COVID-19 RESPONSE IN ACTION: VISN 16

Teaming Together During Crisis: Lessons from the Front Lines at Michael E DeBakey VAMC

> *"In the time of COVID-19, despite how stressed and stretched we each are, we still have the ability to make that one Veteran in front of us the center of all our efforts."*
>
> *Dr.SreyRam Kuy*

The emergence of COVID-19 required hospitals to be innovative and agile in how they adapt services to meet patient demand. The burden of responsibility to accommodate many of these changes falls on administrators, staff and providers. Dr. SreyRam Kuy, a General Surgeon at the Houston Michael E DeBakey VAMC, recounted her experience adapting services based on available resources: "When we needed to conserve sterile surgical gowns and medical students could no longer scrub into surgeries, Houston VA residents…helped me host an impromptu dry suture lab, teaching our Baylor College of Medicine students suturing techniques on improvised simulators."

She also discussed the dedication of staff to the Veterans they serve. "I've seen firsthand our Houston VA staff show their deep commitment to caring for our nation's heroes," said Dr Kuy. "In the time of COVID-19, despite how stressed and stretched we each are, we still have the ability to make that one Veteran in front of us the center of all our efforts." And such service is not limited to health care providers. Dr. Kuy shared a story where she thanked an environmental service employee who she observed disinfecting surfaces in the hospital. The employee's response: "I'm doing my part." In reflection, Dr. Kuy noted service to Veterans requires all staff's involvement. "Whether you're a Nurse, a Janitor, a Secretary or a Surgeon, we're all doing our part to protect our Veterans in the fight against COVID-19." She added, "even though we're apart, we're together in this fight. This gives me hope and pride in our country and our VA."

Source: Dr. SreyRam Kuy, "Reports from the Frontlines at Houston VA Medical Center," 4/13/2020, article located on Internal VHA Communications intranet, https://leaf.va.gov/NATIONAL/VHA/Communications/.

VA COVID-19 RESPONSE IN ACTION: VISN 16

Houston VA Nurses Answering the Call to Serve

Photo caption: Seven critical care nurses from the Houston VAMC traveled to New Orleans to care for Veterans with COVID-19. Photo by New Orleans VAMC.

In late March 2020, when the COVID-19 pandemic first hit, seven Critical Care Nurses from the Houston VAMC traveled to the New Orleans VA to care for Veterans diagnosed with COVID-19. Jennie Clark, a Registered Nurse in Houston VA's critical care unit and an Army Veteran, was one of those volunteers. "I think that the adaptability and commitment to a mission that I learned in the military helped me so much when I found myself caring for COVID-19 patients just a few weeks into the pandemic," Ms. Clark said. "I think when you join the military and when you become a nurse, you make a decision to preserve life and complete your mission, sometimes by putting yourself at risk. It's just part of the job."

Most of the Veterans the nurses treated in New Orleans were very ill and being able to help aid in their recovery encouraged the nurses. "One of my patients, a younger man with a school-aged daughter, was so ill," said Crystal Morris. "I remember seeing the fear and tears in his eyes when he looked at me, but I just kept encouraging him to keep fighting. When we left New Orleans, he was being taken off the breathing tube and things were looking so much better. It was very uplifting."

The Houston VA nurses left New Orleans after learning many new lessons on how to care for COVID-19 patients. "I feel like I gained so many valuable skills in caring for these Veterans that I will be able to use when caring for patients at our Houston VA," Morris said. "I also came back truly impressed by our New Orleans VA colleagues. They did an amazing job caring for the Veterans there." Morris even volunteered for a second deployment to travel to Arizona through VA's DEMPS program to care for patients on an Indian Reservation. "I love my job and I love my Veterans," Morris said. "It is my honor and privilege to care for them whenever and wherever I am needed."

Source: VAntage Point, "Houston VA nurses answering the call to serve," 6/19/2020, VA, https://www.blogs.va.gov/VAntage/76088/houston-va-nurses-answering-call-serve/, accessed 10/14/2020.

VISN 17: VA Heart of Texas Health Care Network

Description of the Network and Population Served

The VA Heart of Texas Health Care Network (VISN 17) serves Veterans over a geographical area that spans urban centers including Dallas/Fort Worth, San Antonio and Austin as well as rural areas including Bonham, Kerrville and the Lower Rio Grande Valley.[745] Veterans can receive care at 11 VAHCS / VAMCs , 8 CLCs, 49 outpatient clinics including 32 CBOCs.[746]

As shown in Table 7.75, VISN 17 has an expansive network of over 426,000 Veterans Using VHA Services and has provided COVID-19 testing for both employees and patients. As of June 30, 2020, VISN 17 identified 1,324 COVID-19 Veteran cases and 65 cases among employees. Of these cases, 45 Veterans and 1 employee death was associated with positive COVID-19 tests.

Table 7.75 *VISN 17 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	426,697
Veteran COVID-19 Cases	1,324
Veteran COVID-19 Inpatients	201
Veteran Deaths (COVID-19 related)	45
VISN Employees	19,559
Employee COVID-19 Cases	65
Employee Deaths (COVID-19 related)	1

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

The incidence of daily new cases across Texas remained relatively flat at approximately 2,000 daily cases through June 9, 2020.[747] From June 15, 2020 to June 30, 2020 cases across the state nearly tripled to approximately 6,000 new cases per day.[748] The South Texas Veterans HCS in San Antonio had a parallel surge in patients (256% increase) which required them to request an augmentation of a Hospitalist, Critical Care Physicians, Critical Care Nurses and Respiratory Therapists to meet the

surge in cases. The addition of the new 200-bed Garland VAMC outside of Dallas also increased VISN 17's surge capacity. The facility was a donation to the VA of the former Baylor Scott and White Medical Center. After substantial updates and modifications, the facility was opened to the Veteran community on June 23, 2020.

VISN 17 reported that the most limiting factor in its response was initial problems with the global supply chain and PPE availability; however, it noted several response actions to combat these shortcomings. Due to the short domestic and global PPE supply, VISN 17 provided good communication and reallocation within the network to ensure adequate resources. VISN 17 required its facilities to identify their current inventory, including status and volume, and then worked with clinical personnel on how to appropriately use PPE in patient care settings. VISN 17 asked facilities to control their PPE commodities, plan for what they needed and identify additional supply sources. VISN 17 supply chain team were persistent with vendors and called frequently to check on supply sources. Ultimately, VISN 17 leadership noted that hospital operations were never impacted by supply chain issues or PPE availability.

Similarly, VISN 17 noted challenges with tracking contingency supplies. VISN 17 reported that it had limited visibility into supply and projections, or current supply versus a rolling benchmark of supplies based on network demands. To mitigate this challenge, VISN 17 identified supplies considered essential and supplies that required a minimum of 60-day supply to prioritize its inventory accordingly. Leadership reached out to facilities daily to track numbers. VISN 17 noted that frequent communication and prioritizing inventory helped to project shortages and plan for future demand.

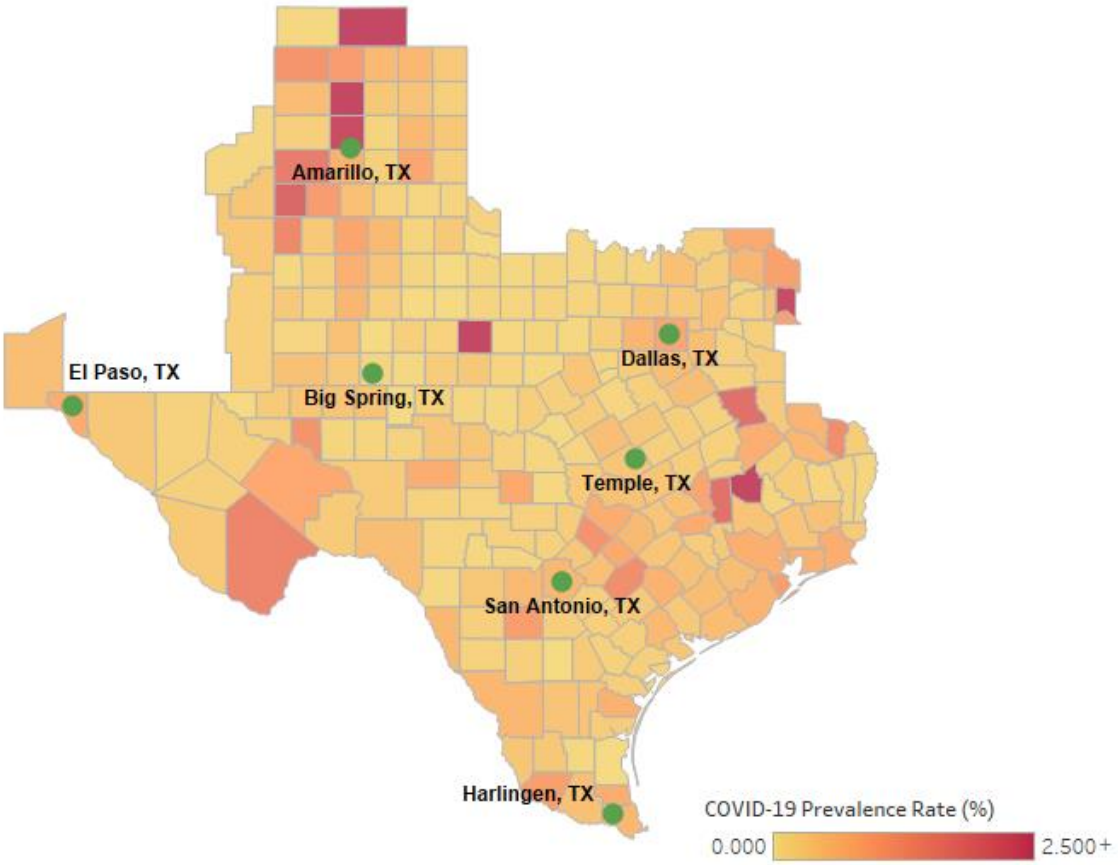
VISN 17 also cited that it was initially challenged by what it viewed as a slow procurement process. VISN 17 noted that traditional VHACO processes slowed down purchase orders during a time where rapid decision making was needed; for example, a situation in which the VISN only had an hour to complete a purchase of 20,000 gowns. However, throughout the response, the EIC and VHACO developed new processes to procure goods and services faster. VISN 17 noted that VHACO granting increased purchase card limits and approval to sole source contracts allowed it to more expediently meet increased clinical and operational needs. VISN 17 indicated it "would not have been able to sustain operations" without these temporary flexibilities.

Community Prevalence and VISN Case Statistics

As seen in Figure 7.100, COVID-19 community prevalence rates on June 30, 2020, remained relatively low across VISN 17 catchment areas; all seven VISN 17 catchment areas fell below 1% community prevalence. The Amarillo, TX catchment area prevalence was 0.94% while the other six areas were below 0.60% community

prevalence. The counties within VISN 17 did not exceed an aggregate 0.6% prevalence on June 30, 2020, as seen in Figure 7.101.

Figure 7.100 *VISN 17 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

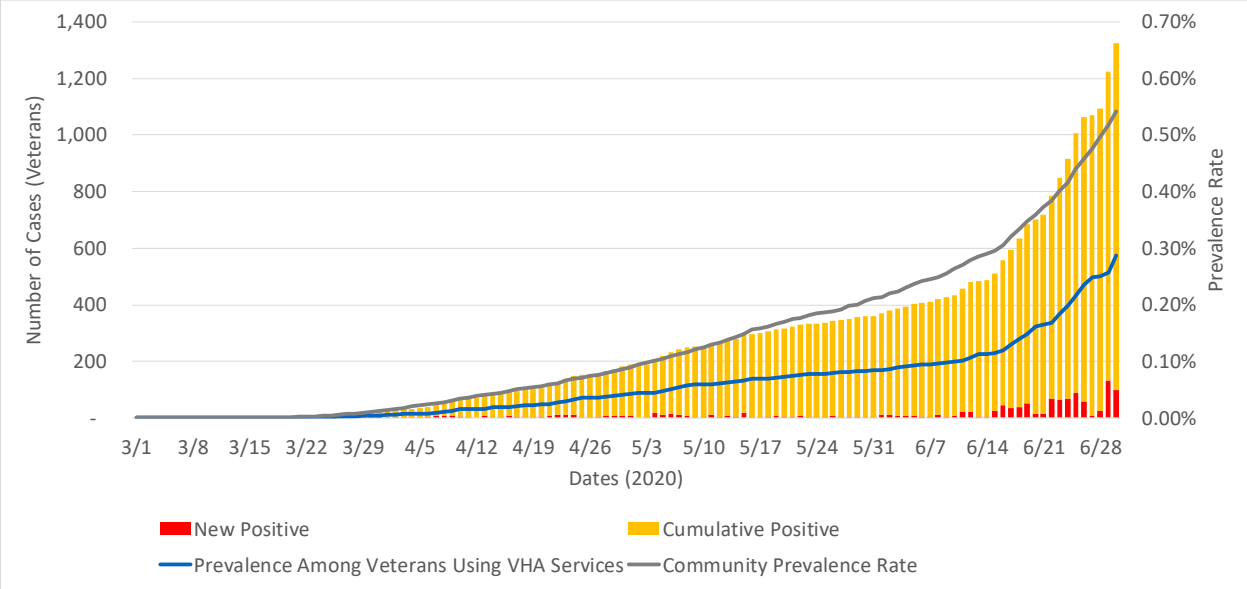
Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs.

Data as of June 30, 2020.

At the start of the pandemic, community prevalence in VISN 17 exceeded prevalence among Veterans Using VHA Services and this trend continued through June 30, 2020, as seen in Figure 7.101. Between June 17, 2020 and June 30, 2020, VISN 17 new cases began to rise sharply, leading to an approximate 0.19% increase in VISN 17 prevalence among Veterans Using VHA Services by June 30, 2020. Similarly, over the same two-week period, community prevalence increased by 0.22%.[749]

Figure 7.101 *VISN 17 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



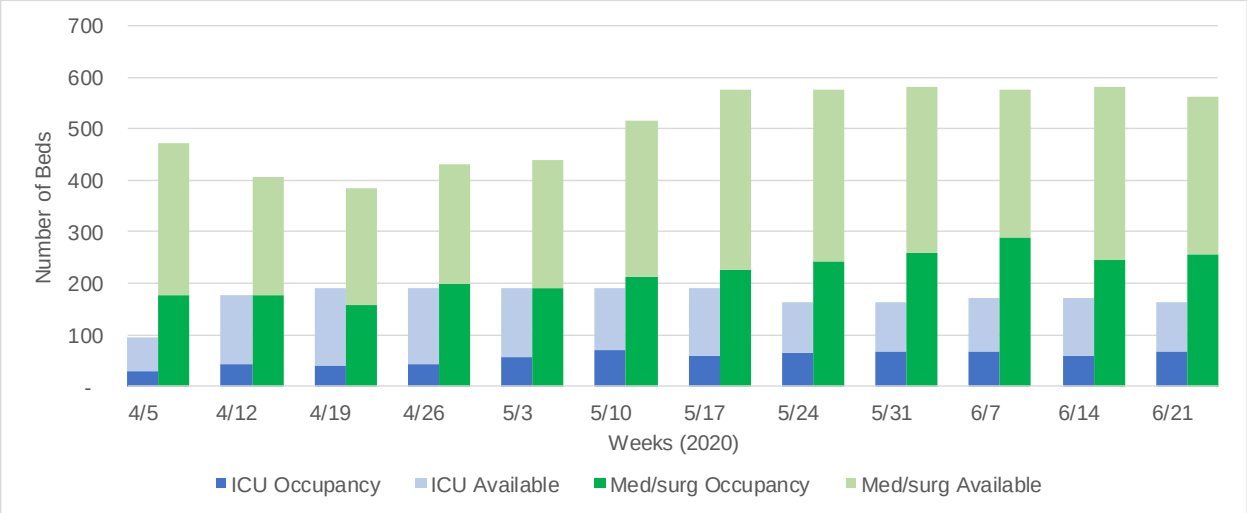
Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 17 indicated that its largest capacity challenge was finding facility space for patient care. The network remained agile and noted that it was able to convert administrative space to medical space as it had done it previously and adjustments were straightforward. The network encountered some challenges with HVAC systems due to the age of its facilities, but it noted that engineering did a great job in updating the systems. Also, its new facility in Garland helped increase capacity within the network. Through June 27, 2020, VISN 17 never exceeded Med/surg or ICU capacity, as shown in Figure 7.102.

Figure 7.102 *VISN 17 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

As shown in Table 7.76, VISN 17 had a net gain of 661 personnel from February 2020 through June 2020. In total, VISN 17 hired 1,275 personnel and had 19,559 employees on June 30, 2020. Additionally, 614 VISN 17 personnel became no longer employed by VA from February 2020 to June 2020. The network made most notable net gains with Nurses (+207).

Table 7.76 *VISN 17 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	82	35	47	1,341
Nurse	309	102	207	4,171
Practical Nurse	63	42	21	1,108
Nursing Assistant	76	32	44	958
Medical Support Assistance	121	59	62	1,815
Pharmacist	11	5	6	539
Psychology	10	6	4	330
Social Work	41	14	27	793
Custodial Worker	138	76	62	680
All Other Occupations	424	243	181	7,824
Totals	**1,275**	**614**	**661**	**19,559**

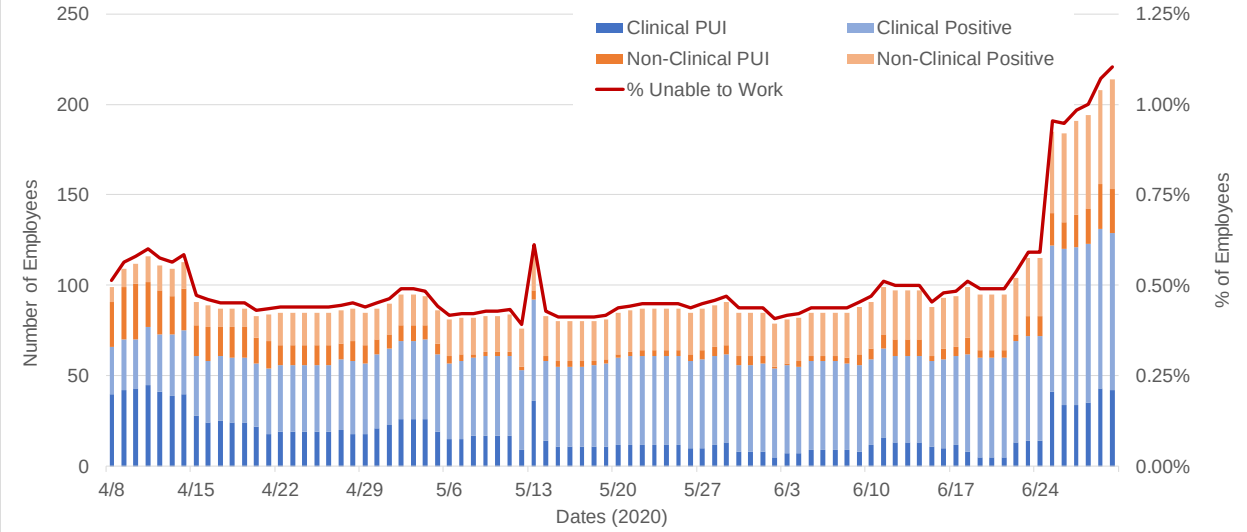
Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason;

and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

By the end of June 2020, approximately 1.0% of the workforce was unable to work due to circumstances related to COVID-19, as shown in Figure 7.103. This was VISN 17's largest unavailability rate during its response. Confirmed cases among clinical and non-clinical personnel largely drive the 1% unavailability rate.

Figure 7.103 *VISN 17 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 17 supported a series of Fourth Mission SVH engagements across its network with notable engagements in El Paso and San Antonio. VISN 17 cited long-standing and historically strong relationships with SVHs across the state as a key factor for its successful engagements. VISN 17 leadership commented that its process of cultivating and maintaining relationships with SVHs for years prior to the pandemic could serve as a model for other VISNs. VISN 17 leadership noted that it met with SVH personnel three to four times per year for over 10 years. During these meetings, network leadership highlighted major changes that could impact the SVHs, including changes in key personnel, facility changes (for example, a CBOC opening or relocating), occupancy rates, pharmacy issues, training, telemedicine and quality review findings. VISN 17 also established a series of cooperative agreements that detailed roles and responsibilities between VISN and SVH personnel.

Between state and FEMA requirements, VISN 17 noted that it often did not receive formal Fourth Missions taskings in a timely manner. In some cases, the network acted prior to a formal assignment in order to meet urgent patient demands. VISN 17 leadership noted that reducing the time to receive formal assignments or creating a more local (VISN or region specific) assignment process may be helpful in the future. In the SVHs that VISN 17 supported, the network primarily provided testing and lab kits, as outlined in Table 7.77.

Table 7.77 *VISN 17 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Multiple Locations, TX	Texas SVHs	4/1/2020	8/30/2020	Testing Support	Provided 1,415 viral test kits and 180 separate lab tests

Source: Response to Data Call, VISN 17, VHA, 8/12/2020.

Photo caption: Twenty-three nurses from South Texas Veterans HCS who responded to a call for mass COVID-19 testing at Frank M. Tejeda SVH.

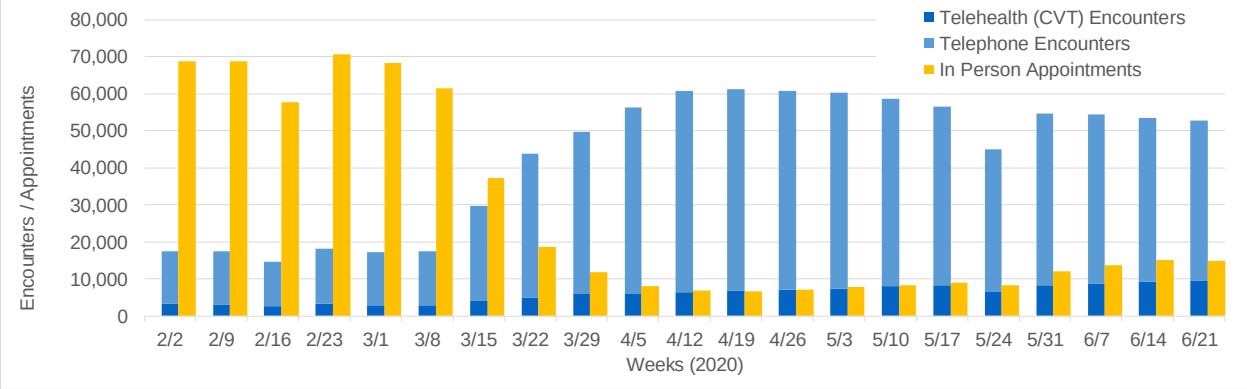
Source: Judith Ruiz, "'Swab Squad' assists senior Texas Veterans," South Texas Veterans Health Care System, VA, 6/2/2020, https://www.southtexas.va.gov/features/Swab_Squad_assists_senior_Texas_Veterans.asp, accessed 10/14/2020.

Patient Care by Visit Type

As show in Figure 7.104, from the week of February 2, 2020 to the week of March 8, 2020, VISN 17 primarily delivered in-person patient care; providers conducted an average of approximately 63,000 in-person appointments versus 18,000 virtual encounters. These numbers began to shift as the pandemic spread throughout the

network. By the week of March 15, 2020, in-person and virtual patient visits were relatively balanced (approximately 35,000 each) and only one week later most visits were conducted virtually. Through April 2020 and May 2020, VISN 17 conducted approximately 55,000 virtual encounters per week while in-person appointments hovered around 8,000 per week. As facilities began to reopen in early June 2020, in-person appointments slowly increased.[750]

Figure 7.104 *VISN 17 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*

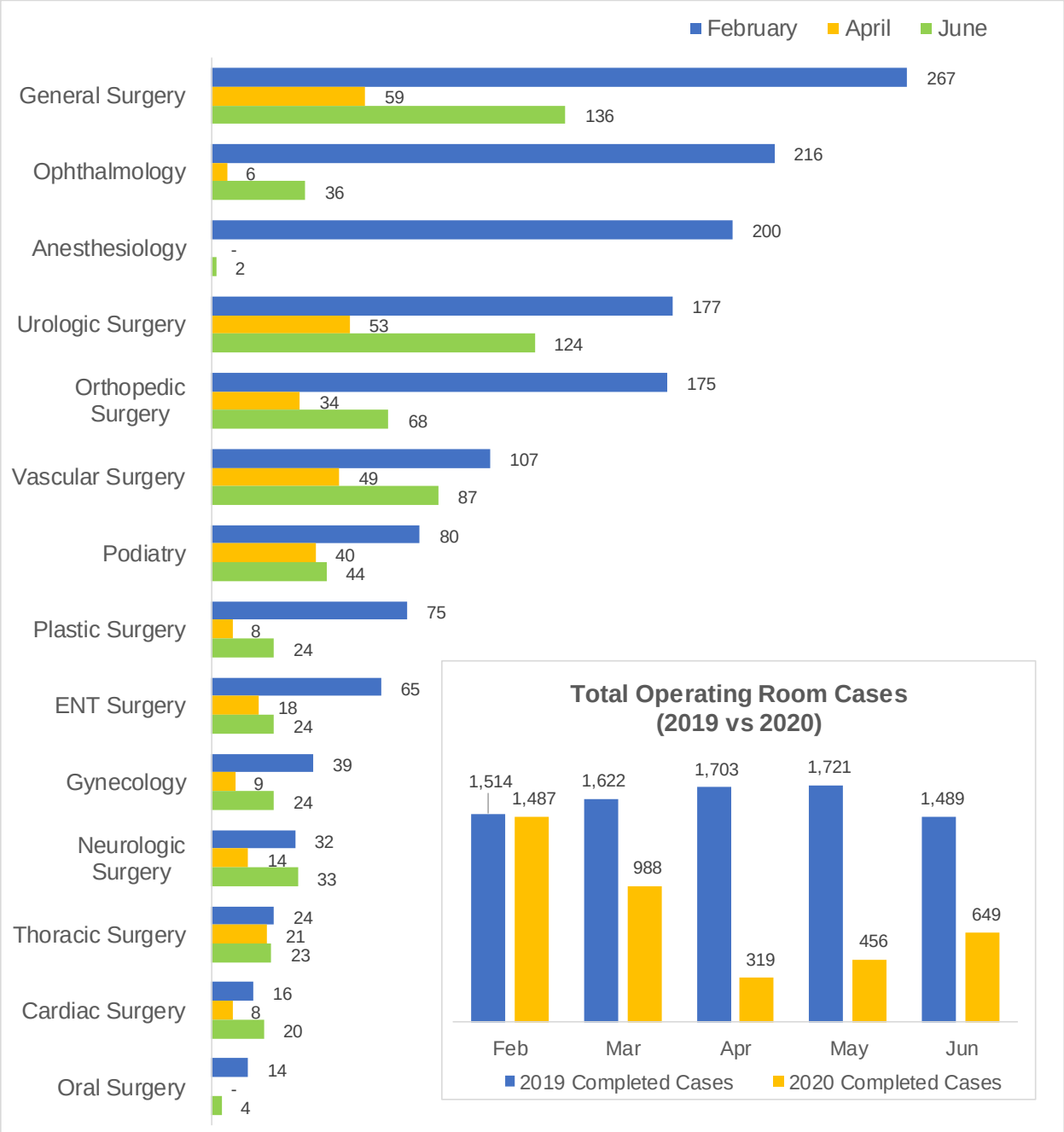


Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As shown in Figure 7.105, during its response VISN 17 OR cases decreased significantly in comparison to its February 2019 to June 2019 cases. VISN 17 saw 319 OR cases in April 2020 compared to 1,703 in April 2019. OR cases began to increase in June 2020 when VISN 17 began to progress in its Moving Forward Plans. VISN 17 had its largest net losses in surgical cases of more than 200 between February 2020 and April 2020 in general surgery, ophthalmology and anesthesiology; however, nearly all OR specialties increased their OR case count from April 2020 to June 2020.[751]

Figure 7.105 *VISN 17 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

VISN 17 reallocated numerous supplies within the network, most notably Face Shields (10,000) and Viral Transport Media (2,000). As seen in Table 7.78, VISN 17 also sent 30 ventilators to other VISNs and sent supplies to other VHA entities (180 other labs tests and 1,415 viral test kits).[752]

Table 7.78 *VISN 17 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Cepheid Test Kit	700	-	-	-
Face Shield	10,000	-	-	-
Other Lab Test	-	-	180	-
Pulse Oximeter	25	-	-	-
Sled 2 GO Sanitizer (Pallet)	-	1	-	-
Surgical Gown	1,144	-	-	-
Ventilator	-	30	-	-
Viral Test Kit	-	-	1,415	-
Viral Transport Media	2,000	-	-	-

Source: Response to Data Call, VISN 17, VHA, 8/12/2020.

As shown in Table 7.79, VISN 17 did not reallocate personnel within its network leading up to June 30, 2020. Instead, it sent 12 personnel to other VISNs, six Registered Nurses to non-VHA entities and received three Allied Health Clinicians from other VISNs.[753]

Table 7.79 *VISN 17 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	1	-	-
Allied Health Clinician	-	-	-	3
Nurse	-	2	-	-
Nurse Practitioner	-	2	-	-
Physician	-	2	-	-
Registered Nurse	-	4	6	-
Trade / Craft	-	1	-	-

Source: Response to Data Call, VISN 17, VHA, 8/12/2020.

VISN 17 increased its supply of masks by almost two million over the course of its response. Similarly, it increased its supply of Face Shields through March 15, 2020, until it leveled out to 150,000 Face Shields. This number jumped to 400,000 the last week of June 2020, as seen in Figure 7.106.[754]

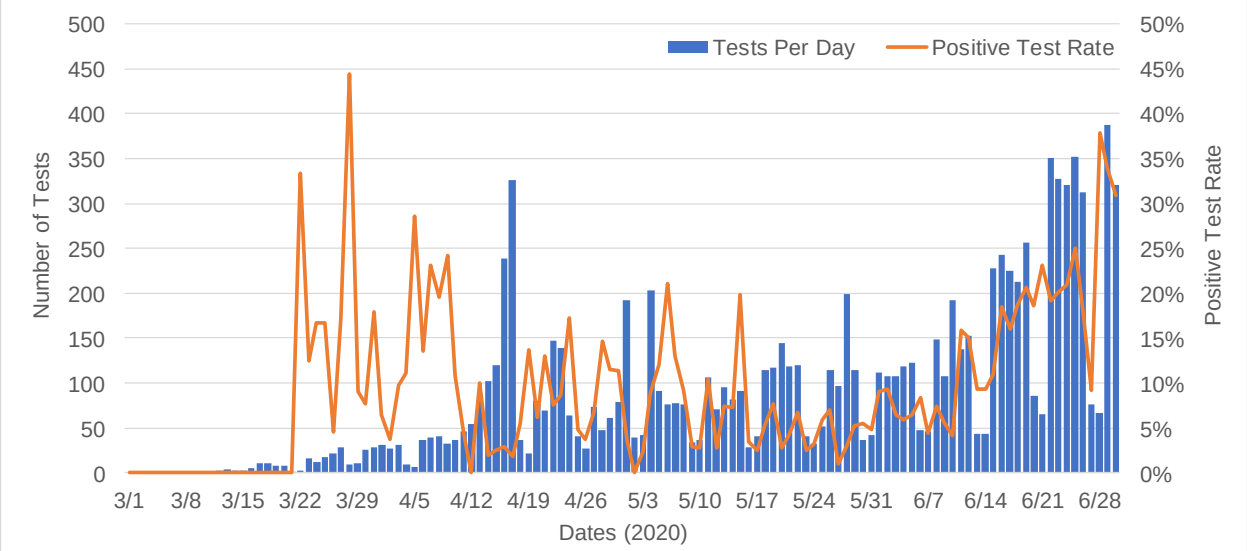
Figure 7.106 *VISN 17 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing During Response

As seen in Figure 7.107, on average, VISN 17 increased weekly tests over the course of its response, ranging from single digit tests in late March 2020, to frequently over 300 a day by the end of June 2020. As prevalence among Veterans Using VHA Services increased through the network in June 2020, the positive tests rates for Veterans Using VHA Services also increased.[755]

Figure 7.107 *VISN 17 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

VISN 17 tested 2.4% of its Veterans Using VHA Services population and 100% of its CLC residents. Testing across both groups resulted in patient positives at or below 0.3%, as shown in Table 7.80.[756]

Table 7.80 *VISN 17 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	426,697	482
Population Tested	10,413	482
% of Population Tested	2.4%	100.0%
Population Positive	1,324	1
% of Population Positive	0.3%	0.2%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VA COVID-19 RESPONSE IN ACTION: VISN 17

Opening the New Garland VAMC During COVID-19

Photo caption: The 470,000 square foot facility donated by Baylor, Scott & White Medical Center will serve as an outpatient and specialty care clinic for some of the 184,000 North Texas area Veterans enrolled in VA health care.

Baylor Scott & White and Tenet Medical Center donated one of their hospitals that was no longer in use to VA to support Veterans in the North Texas region of VISN 17. In order to expedite retrofitting and open the 140-bed hospital, VA rapid deployment teams coordinated critical infrastructure and operations. The teams put systems in place to support clinical staff, including supplying equipment like laptops, desktops and monitors and outfitting local, as well as wide area, network connections and IT equipment.

Territory 2 Director of Operations, Robert J. Finigan, shared how various departments worked together to open the hospital quickly. “Every part of [the department] engaged in this effort has given us outstanding support and service to establish initial operations at the Garland VAMC. Standing up the hospital within weeks will allow us to respond quickly to area needs and care for Veterans infected with COVID-19,” he said. Over 184,000 Veterans in North Texas and enrolled in VA health care and the Garland VAMC will offer Veterans another option to receive health care within VISN 17.

Source: “VA fast-tracks North Texas donated medical center,” VA, 8/28/2020, https://www.blogs.va.gov/VAntage/78250/va-fast-tracks-north-texas-donated-medical-center, accessed 10/14/2020.

VISN 19: Rocky Mountain Network

Description of the Network and Population Served

The VA Rocky Mountain Network (VISN 19) is headquartered in Glendale, CO and operates across 10 states in the mountain region, covering the largest geographic area of any VISN in the 48 contiguous states.[757] VISN 19 operates 8 VAHCS / VAMCs, 6 CLCs and 82 total outpatient clinics across a geographic service area that covers one million Veterans.[758]

Within its expansive network of over 312,000 Veterans Using VHA Services as shown in Table 7.81, VISN 19 provided COVID-19 testing for both employees and patients. VISN 19 identified 625 COVID-19 Veteran cases and 58 employee cases through June 30, 2020. Of these cases, 58 Veteran and 1 employee deaths were associated with positive COVID-19 tests.

Table 7.81 *VISN 19 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	312,907
Veteran COVID-19 Cases	625
Veteran COVID-19 Inpatients	113
Veteran Deaths (COVID-19 related)	58
VISN Employees	14,941
Employee COVID-19 Cases	58
Employee Deaths (COVID-19 related)	1

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

On March 4, 2020, VISN 19 stood up its Incident Command Center and began a series of daily communications to coordinate surge plans across all medical centers. On March 5, 2020, VISN 19 received its first COVID-19 patient in the VA Eastern Colorado HCS in Denver, CO.[759] Cases began to grow throughout the network, spreading to Oklahoma and Utah and then more slowly to Wyoming and Montana. Each VISN 19 medical center tailored its surge strategy based on prevalence in surrounding

communities. During times of increased community prevalence, VAMCs in an active catchment area would reduce inpatients to approximately 30-40% capacity and reduce elective surgeries in order to accommodate COVID-19 patients. As of June 30, 2020, VISN 19 executed a surge plan only for the Oklahoma City VA HCS in response to community outbreaks at the end of June 2020.

VISN 19 experienced no staffing shortages during its response. The network created iterative staffing, clinical care and operational plans that it updated weekly. Leadership also assigned a dedicated Surge Coordinator to each medical center who was available 24 hours a day to address critical issues. For example, if a medical center had a staffing or equipment challenge, the coordinator would contact other medical centers and facilitate reallocation of equipment or personnel as needed. VISN 19 never needed to augment personnel from other VISNs as of June 30, 2020.

VISN 19 cited that some services at the facilities were initially scaled back due to PPE shortages; however, VISN 19 redistributed supplies across the network to meet the needs of each facility.[760] VISN 19 leadership noted several challenges acquiring PPE, including increased prices for PPE that it could not get through the Prime Vendor, overpriced or poor quality products from the open market, expired FEMA products and N95 respirators that did not pass the fit test. In response, VISN 19 increased its vigilance for quality control through the Clinical Product Review Boards, conducting daily PPE reporting and inventories, shifting inventory between facilities and working with the National Contracting Office (“NCO-19”) Small Business liaison to identify open market vendors with products. VISN 19 also established a PPE forecasting tool based on bed surge requirements and potential new PPE demand. As of June 30, 2020, Fort Harrison VAMC in Montana was open to 50% capacity and the network placed limits on opening further until community cases steadily declined, its facilities have appropriate PPE on hand and its facilities have a plan to resupply if they ran low.

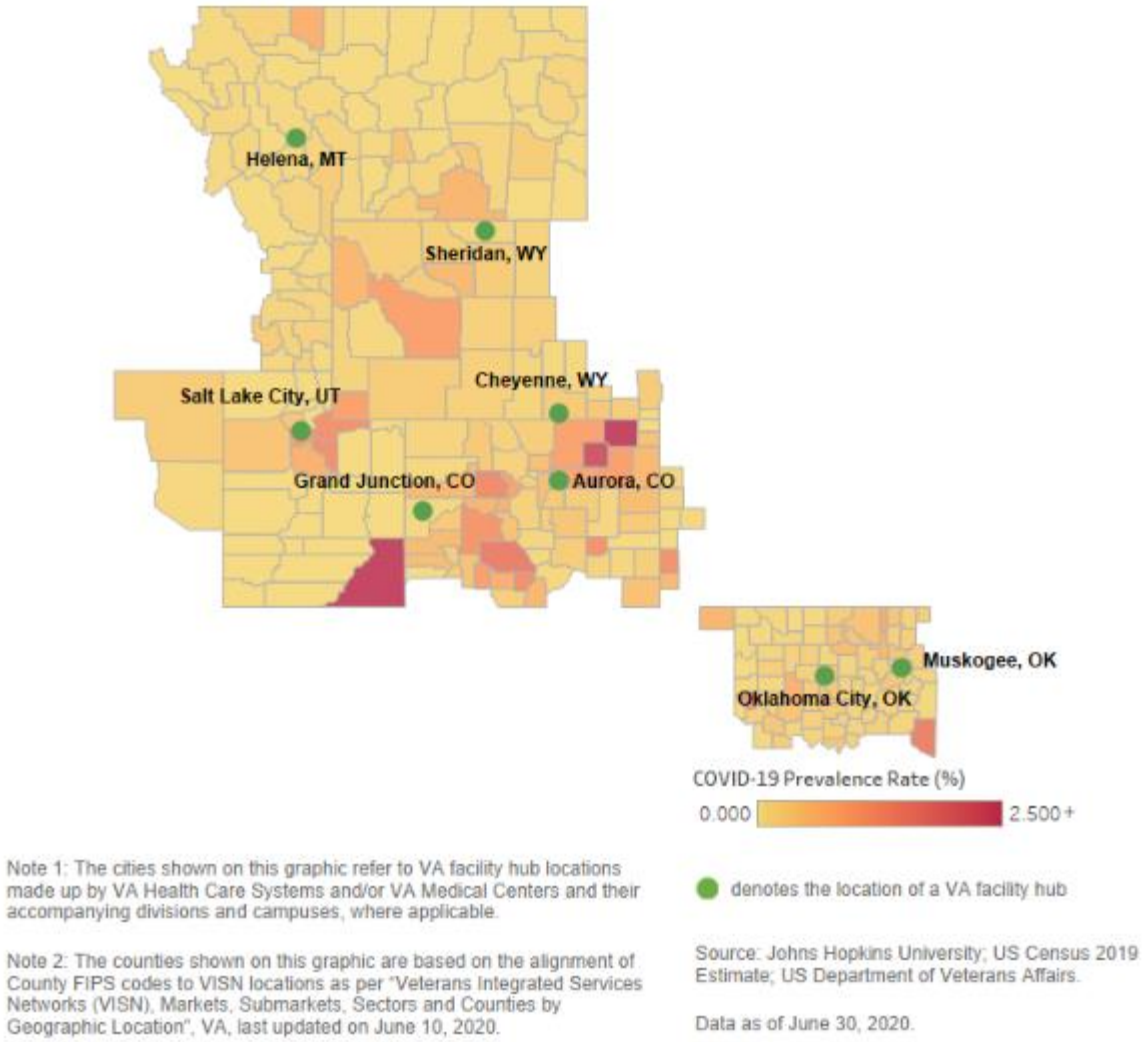
VISN 19 reported tracking PPE as another challenge. When ordering items from the NCRT, VISN 19 cited that there was often less PPE available than what is reflected in the tool. VISN 19 has attempted to overcome this challenge by ordering PPE through Prime Vendor and the open market, though these options introduced quality, cost and timeliness concerns. VISN 19 encountered instances where external vendors promised products they did not have, required payments upfront and would often send the wrong, or damaged, products. Through this process, VISN 19 found some success with some vendors, though there continued to be conflict over what was considered a fair and reasonable price during a pandemic.

VISN 19 reported that testing wait time was initially the most limiting factor as it could not confirm COVID-19 positive results in a timely manner. In Oklahoma, testing results

initially took anywhere from 1 to 13 days to return, which slowed patient discharge and restricted the number of open beds. The nationwide backlog on testing supplies like swabs, transports, mediums and tubes impacted the rate and volume at which VISN 19 could test employees and patients. Despite initial limitations in testing and turnaround times, VISN 19 rebalanced supplies within its network.[761] VISN 19 testing capabilities improved over time, especially when facilities could request swabs and viral media directly through the NCRT. VISN 19 leadership noted that that the network was the first to go live with in-house testing for COVID-19.[762] As of June 30, 2020, with increased nationwide cases and unresolved testing capacity and PPE supply issues, VISN 19 was unable to project when it would open its facilities more fully.

Community Prevalence and VISN Case Statistics

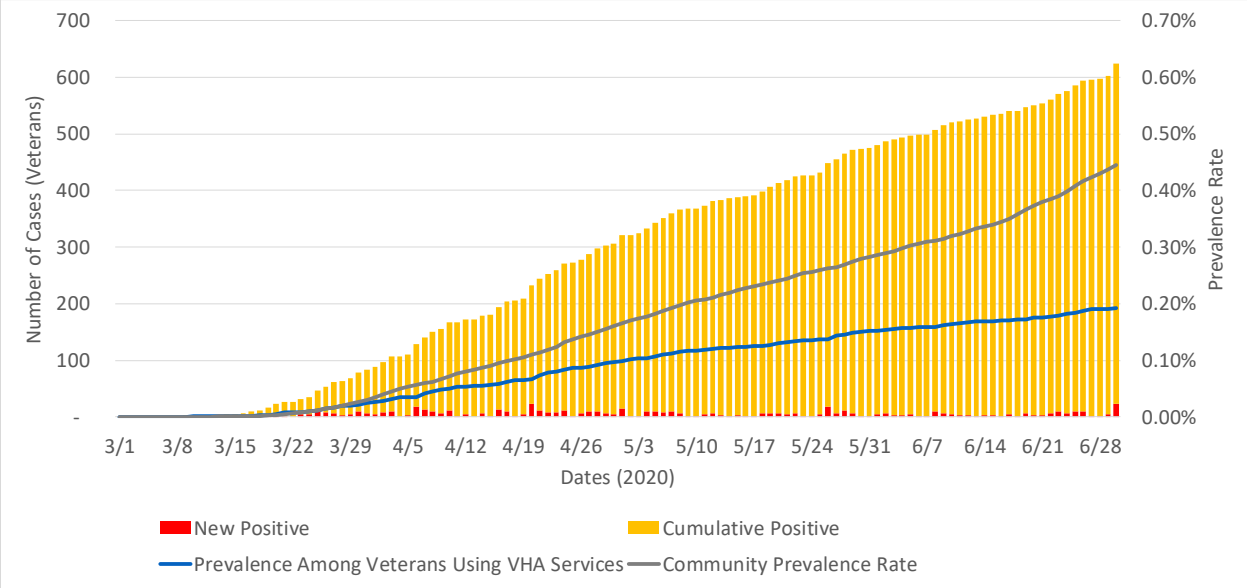
Figure 7.108 *VISN 19 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



As shown in Figure 7.108, COVID-19 community prevalence rates in the Montana, Oklahoma City and Sheridan HCS catchment areas were lower (below 0.30%) in comparison to the other five HCS catchment areas (between 0.40% and 0.60%).[763]

VISN 19 prevalence among Veterans Using VHA Services increased from approximately 0.10% on May 1, 2020 to 0.19% on June 30, 2020; community prevalence had a sharper increase during this time, increasing from approximately 0.16% to 0.45%, as seen in Figure 7.109. VISN 19 Veterans Using VHA Services averaged five new cases per week through the month of June 2020.

Figure 7.109 *VISN 19 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

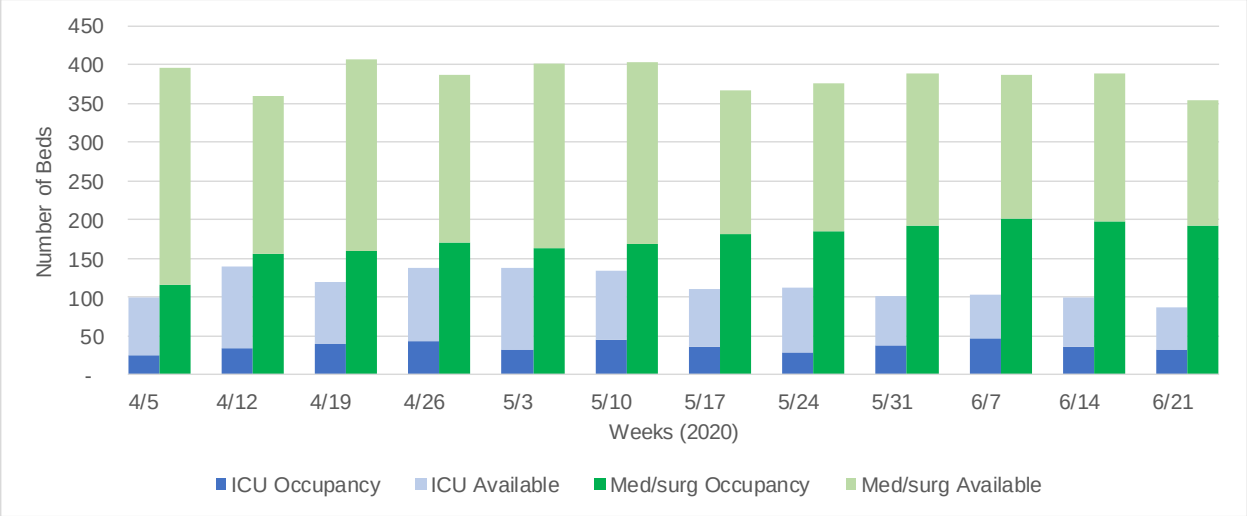
Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 19 never had a shortage of beds and was able to expand bed capacity, as shown in Figure 7.110. The network initially estimated inpatient surge needs on the Italian model estimating infection growth, hospitalizations, ICU admissions and length of

stay. The network combined this data with Veteran populations to estimate inpatient bed requirements at each facility for each level of care. VISN 19 created beds through several mechanisms including converting pre-existing spaces (for example, pre/post-op beds and gastrointestinal procedure rooms), doubling rooms and adding temporary beds within tents. VISN 19 planned for 30% surge capacity with active beds or beds that could be activated within 14 days and by identifying post-acute care needs based on acute care admissions and convalescent care data. Due to the geographical expanse of VISN 19, outbreaks have not occurred concurrently at multiple sites. This enabled the network to shift resources including staff, testing supplies and medical equipment to areas of need.

Figure 7.110 *VISN 19 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

As shown in Table 7.82, VISN 19 had a net gain of 275 personnel from February 2020 through June 2020. In total, VISN 19 hired 834 personnel and had nearly 15,000 employees on June 30, 2020. Additionally, 559 VISN 19 personnel became no longer employed by VA from February 2020 to June 2020. The network made notable net gains with Medical Support Assistance (+110) and Nurses (+60).

Table 7.82 *VISN 19 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	51	47	4	1,295
Nurse	156	96	60	3,243

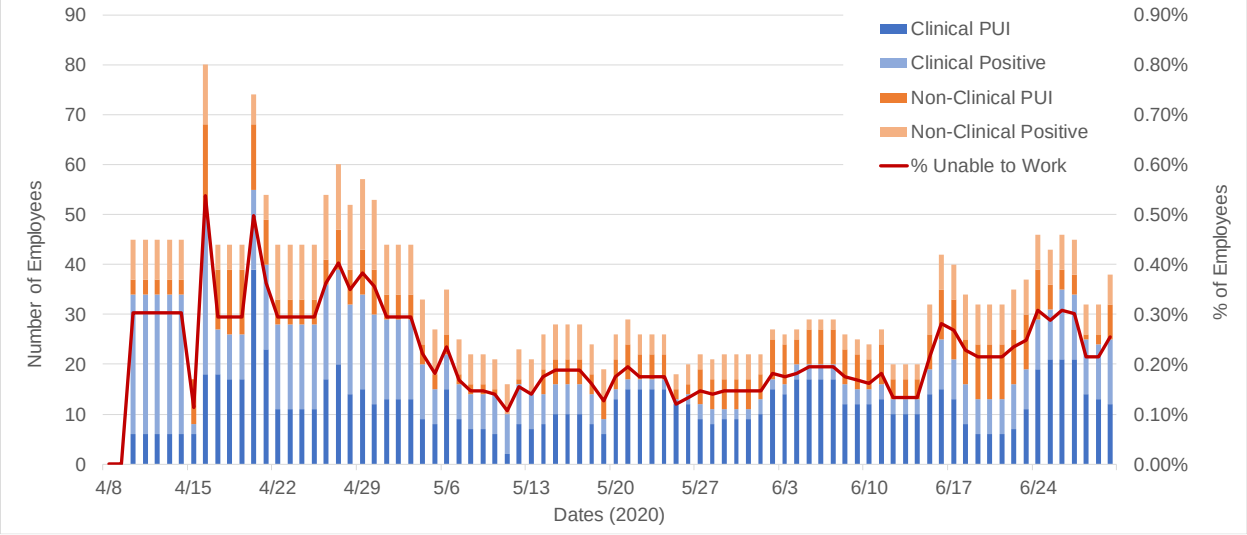
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Practical Nurse	27	27	-	498
Nursing Assistant	55	29	26	399
Medical Support Assistance	110	64	46	1,382
Pharmacist	12	10	2	446
Psychology	6	4	2	320
Social Work	43	20	23	738
Custodial Worker	47	29	18	411
All Other Occupations	327	233	94	6,209
Totals	**834**	**559**	**275**	**14,941**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

In the last week of April 2020, approximately 0.3% to 0.4% of the workforce was unable to work due to circumstances related to of COVID-19, as shown in Figure 7.111. Unavailability rates declined through May 2020 and early June 2020, then rose to approximately 0.25% by June 30, 2020.

Figure 7.111 *VISN 19 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 19 participated in five Fourth Mission engagements as detailed in Table 7.83. The network provided PPE support to a community hospital in Sheridan, WY. It also provided staffing support to assist in the Charlotte Hall SVH engagement and IHS missions in AZ and NM.

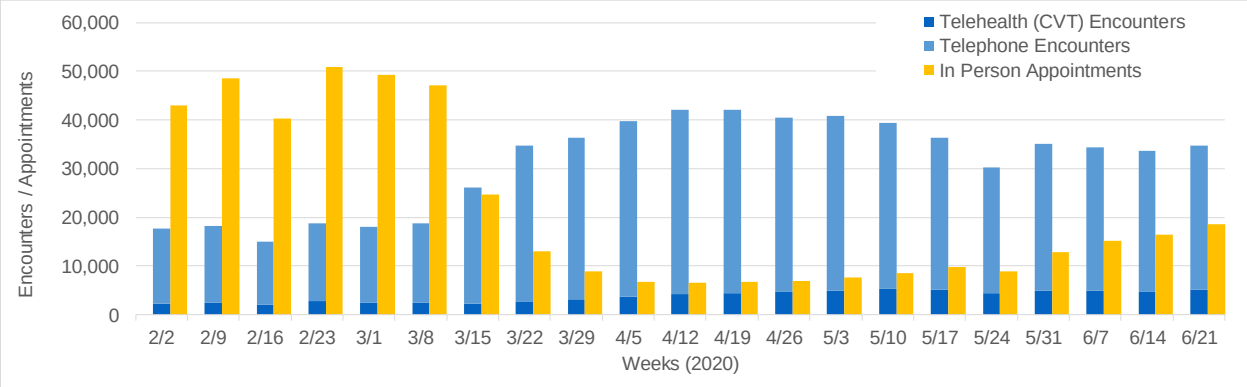
Table 7.83 *VISN 19 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Sheridan, WY	Sheridan Memorial Hospital	4/7/2020	5/7/2020	PPE Support	Provided 60 N95 respirators and 100 face shields
Chinle, AZ	IHS	5/7/2020	5/20/2020	Staffing Supplement	Provided 2 Registered Nurses
Gallup, NM	IHS	5/8/2020	5/22/2020	Staffing Supplement	Provided 1 Registered Nurse
Charlotte Hall, MD	Charlotte Hall SVH	6/7/2020	6/7/2020	Staffing Supplement	Provided 2 Registered Nurses
Whiteriver, AZ	IHS	6/21/2020	7/4/2020	Staffing Supplement	Provided 1 Registered Nurse

Sources: Response to Data Call, VISN 19, VHA, 8/14/2020; Response to Data Call, VISN 19, VHA, 8/19/2020.

Patient Care by Visit Type

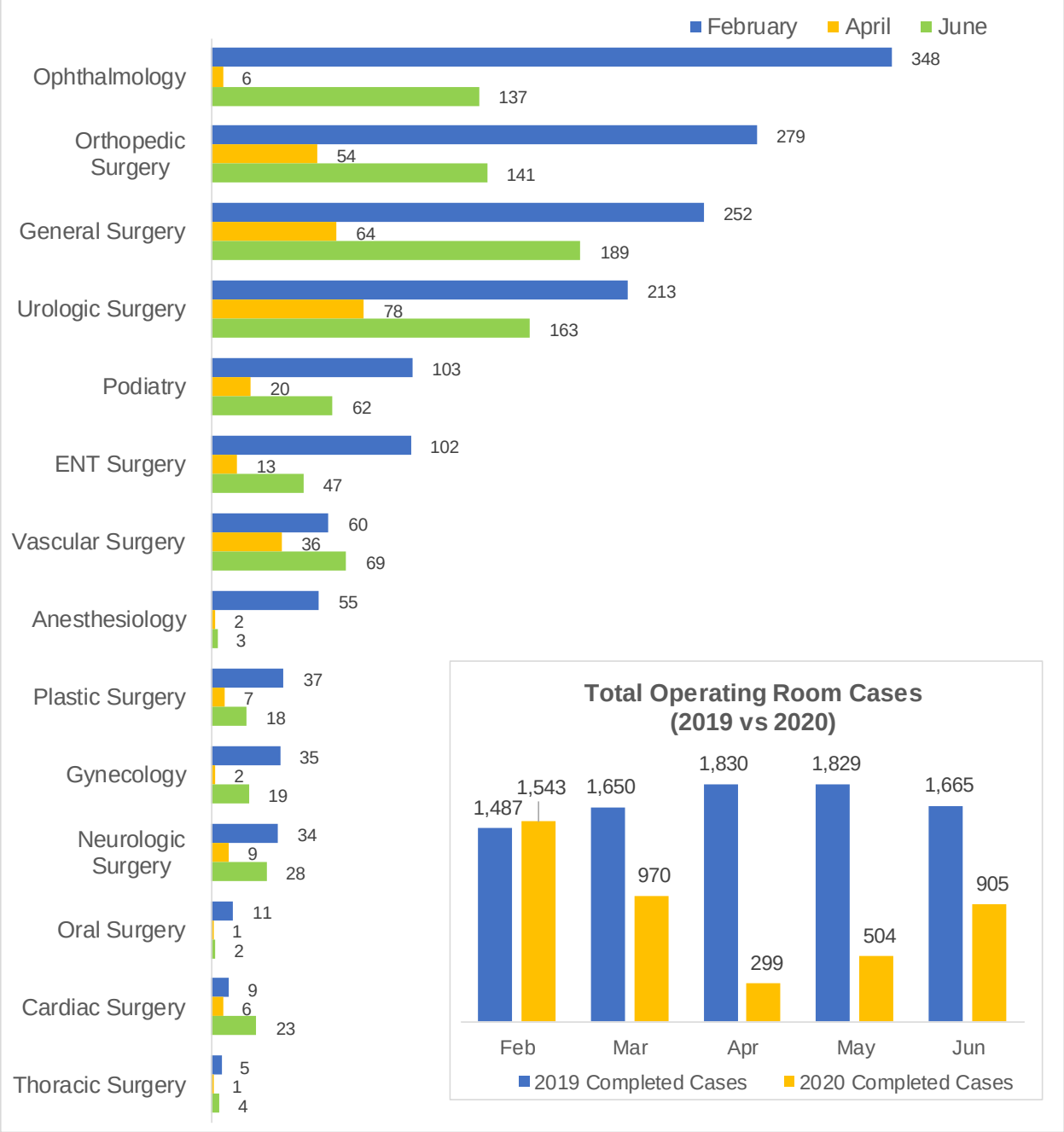
Figure 7.112 *VISN 19 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.113 *VISN 19 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

As shown in Figure 7.112, from February 2, 2020 to March 8, 2020, VISN 19 primarily delivered in-person patient care as providers conducted approximately 45,000 in-person appointments versus 18,000 virtual encounters. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020, in-person and virtual services were relatively balanced (~25,000 each) and only one week later most

encounters were conducted virtually. Through April 2020 and May 2020, VISN 19 conducted approximately 37,000 virtual encounters per week while in-person appointments hovered around 8,000. As facilities began to reopen in June 2020, in-person appointments nearly doubled through April 2020 and May 2020.

As shown in Figure 7.113, during its response VISN 19 OR cases decreased significantly in comparison to its February 2019 to June 2019 cases. VISN 19 saw 299 OR cases in April 2020 compared to 1,830 in April 2019. OR cases began to increase in June 2020 when VISN 19 began to more fully open facilities. The largest net loss in OR cases was in ophthalmology, with a decrease of 342 cases between February 2020 and April 2020; however, all specialties increased their OR case count from April 2020 to June 2020.

Resource Movement / Inventory

As shown in Table 7.84, VISN 19 moved personnel within its network and between other networks; VISN 19 reallocated four clinicians within the VISN, sent four employees to other VISNs and sent seven nurses to non-VHA entities.

Table 7.84 *VISN 19 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Anesthesiologist	2	-	-	-
HVAC Engineer	-	1	-	-
Licensed Practical Nurse	-	-	2	-
Registered Nurse	-	-	6	-
Respiratory Therapist	2	3	-	-

Sources: Response to Data Call, VISN 19, VHA, 8/14/2020; Response to Data Call, VISN 19, VHA, 8/19/2020.

As illustrated in Table 7.85, VISN 19 reallocated supplies within the network, most notably in large reallocations of N95 respirators (41,500) and surgical masks (6,000). It also allocated supplies to other VISNs (body bags) and non-VHA entities (face shields and N95 respirators).

Table 7.85 *VISN 19 Movement of Supplies (as of June 30, 2020)*

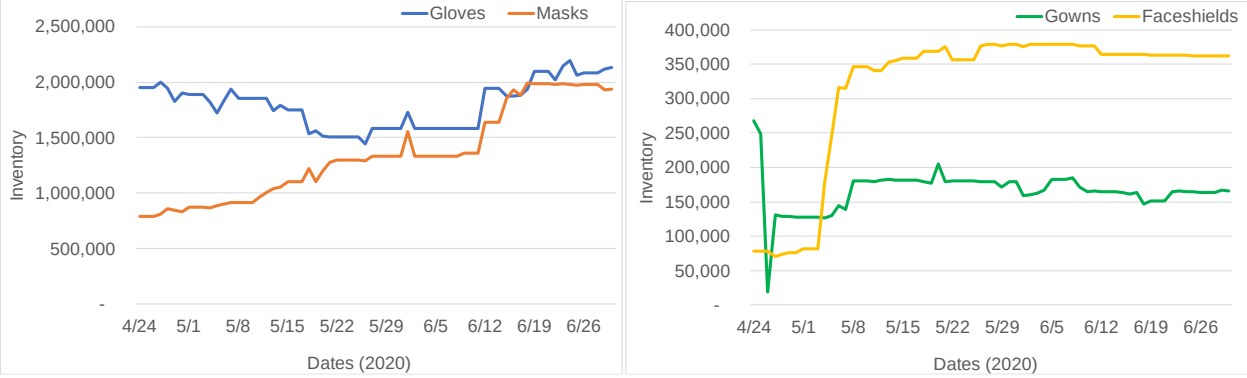
Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Body Bag	-	10	-	-
Bouffant Cap	1,000	-	-	-
Face Shield	-	-	100	-

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Hand Sanitizer	250	-	-	-
N95 Respirator	41,500	-	60	-
Post-Mortem Kit	50	-	-	-
Surgical Mask	6,000	-	-	-
ZVERSE Face Shield (Case)	72	-	-	-

Source: Response to Data Call, VISN 19, VHA, 8/14/2020.

VISN 19 increased its supply of masks by more than one million and face shields by approximately 275,000 over the course of its response, as seen in Figure 7.114. VISN 19's supply of gloves decreased for four weeks in May 2020 and June 2020 then increased above its supply level in April 2020 to approximately two million. After an initial drop in the supply of gowns, inventory leveled off and remained between 155,000 and 200,000 consistently.

Figure 7.114 *VISN 19 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

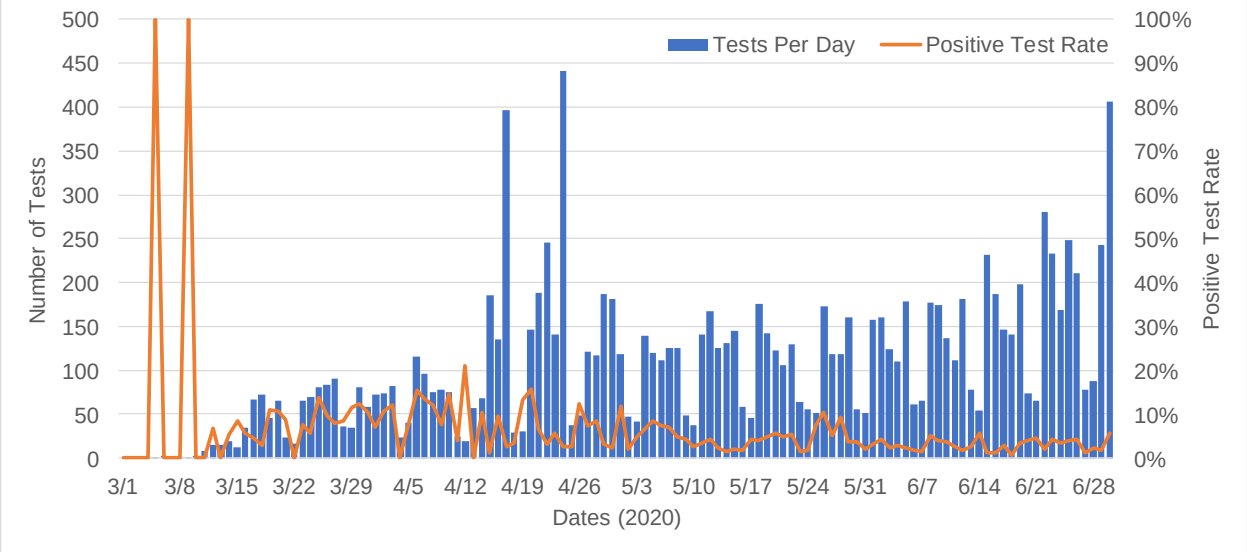


Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

As seen in Figure 7.115, VISN 19 initially performed up to approximately 50-100 tests per day through the week of April 12, 2020 and up to approximately 100-150 per day through the end of May 2020. In June 2020, VISN 19 incrementally administered more daily tests and eclipsed 400 tests on June 30, 2020. Despite increased testing, positive test rates remained primarily under 10% after April 26, 2020.

Figure 7.115 *VISN 19 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Through June 30, 2020, VISN 19 tested 4.0% of its Veterans Using VHA Services population and 99% of CLC residents as shown in Table 7.86. Testing across both groups resulted in similar outcomes, with 0.2% of Veterans Using VHA Services testing positive and 0.7% of CLC residents testing positive.

Table 7.86 *VISN 19 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	312,907	134
Population Tested	12,553	133
% of Population Tested	4.00%	99.00%
Population Positive	625	1
% of Population Positive	0.20%	0.70%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 20: VA Northwest Health Network

Description of the Network and Population Served

The VA Northwest Health Network (VISN 20) operates in four core states including Washington, Oregon, Alaska and Idaho and provides health care services to more than 320,000 Veterans Using VHA Services, as shown in Table 7.87. VISN 20 consists of 8 VAMCs, 6 CLCs, 43 outpatient clinics including 34 CBOCs.[764]

VISN 20 identified 394 Veteran COVID-19 cases and reported 27 Veteran deaths associated with positive COVID-19 tests as of June 30, 2020. During its response, VISN 20 identified 85 VA employee cases; however, there were no VA employee deaths related to COVID-19 in VISN 20, as shown in Table 7.87.

Table 7.87 *VISN 20 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	321,734
Veteran COVID-19 Cases	394
Veteran COVID-19 Inpatients	89
Veteran Deaths (COVID-19 related)	27
VISN Employees	15,074
Employee COVID-19 Cases	85
Employee Deaths (COVID-19 related)	0

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

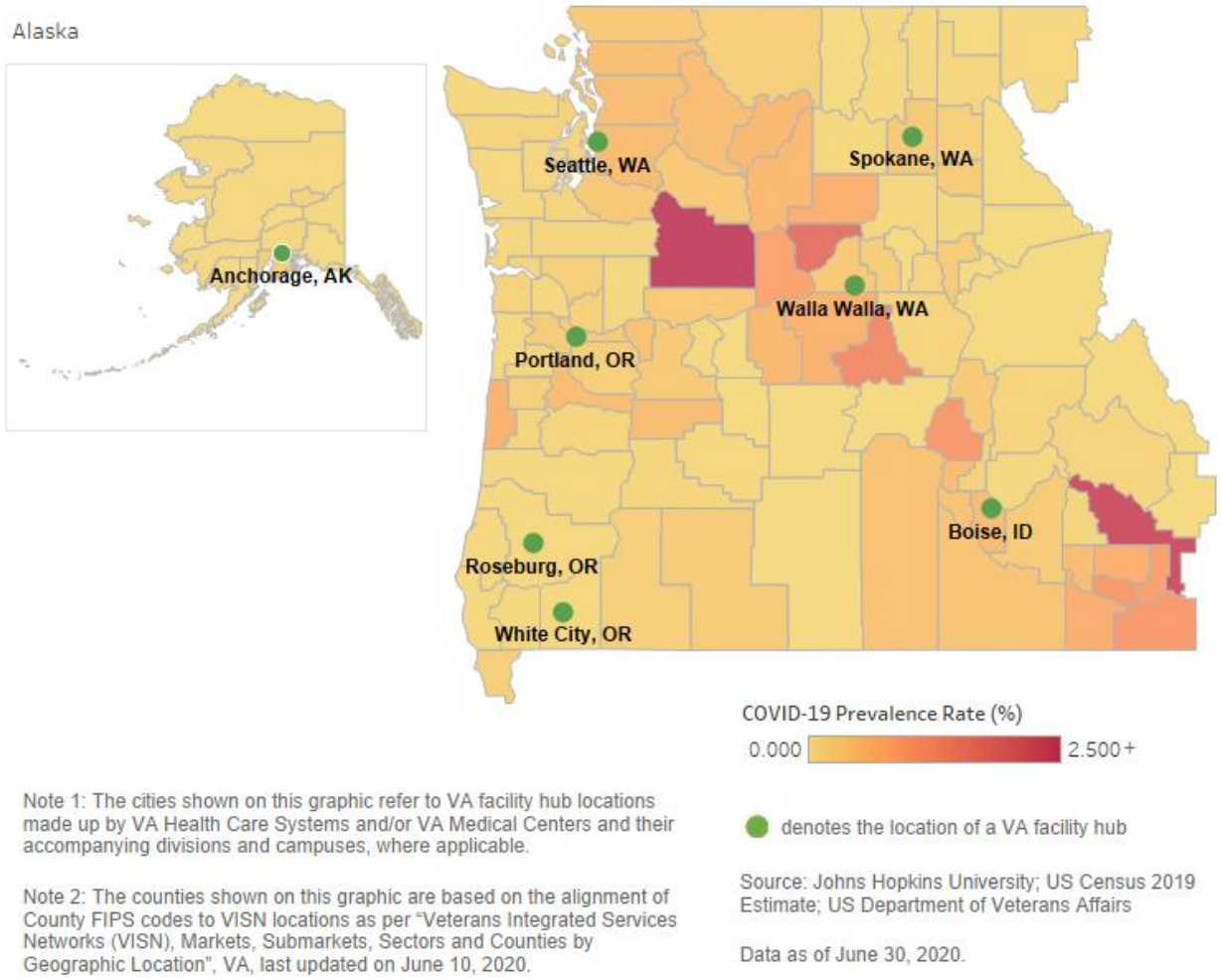
The first confirmed case of COVID-19 in the United States occurred on January 20, 2020 in Snohomish County, located in VISN 20's service area.[765] In February 2020, the first known COVID-19 death occurred in King County, WA.[766] The Washington Governor declared a State of Emergency shortly afterward in late February 2020.[767] Significant outbreaks followed in King County, signaling the potential magnitude of the spread.[768]

According to VISN 20 leadership, by late March 2020 prevalence of confirmed cases in King County became cause for concern. The initial community outbreak thrust VHA and community health care providers into the national spotlight as Puget Sound nursing homes reported several cases.[769] VHA leadership quickly put nursing homes operated by VHA on high alert by implementing and enforcing robust screening measures, especially in Washington state.[770]

At the Spokane Veterans Home in Spokane, WA, the virus infected personnel and patients in April 2020.[771] The Spokane Veterans Home transferred patients to the Mann-Grandstaff VAMC in Spokane, WA and the facility became one of VISN 20's major activity points.[772]

Community Prevalence and VISN Case Statistics

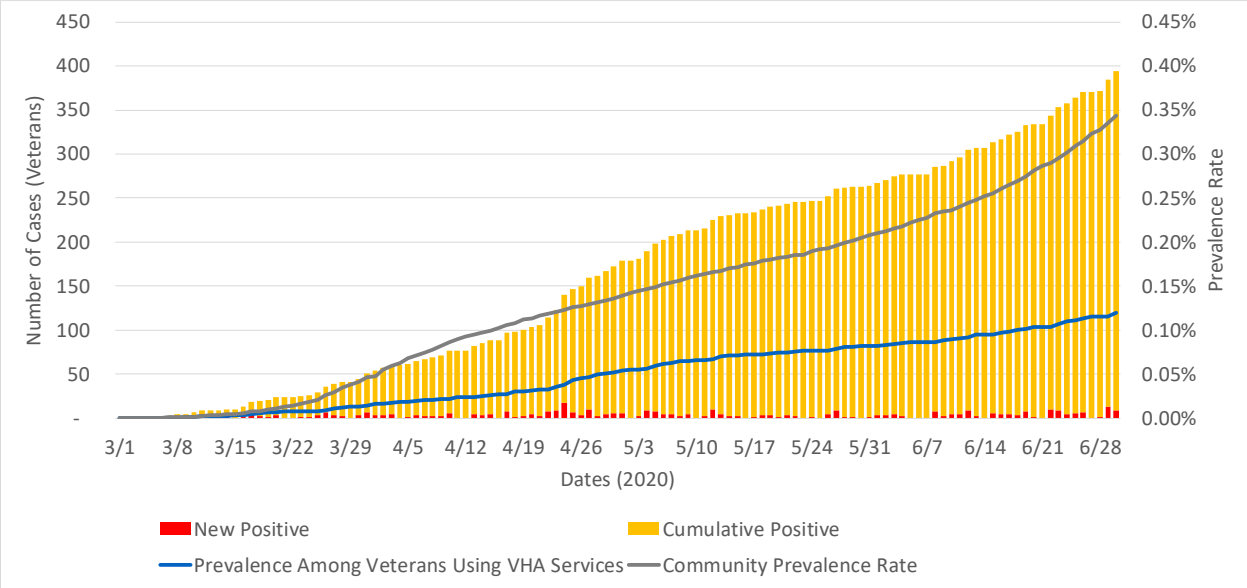
Figure 7.116 *VISN 20 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



COVID-19 activity in Snohomish County and King County demonstrated the propensity of COVID-19 to spread. In VA Puget Sound HCS's catchment area, where VISN 20 experienced high demand early in the response, community prevalence of confirmed COVID-19 began increasing in mid-March 2020 and reached nearly 0.35% by the end of June 2020.[773]

In eastern Washington, an outbreak flared at the Spokane Veterans Home.[774] However, prevalence of confirmed cases in the community did not exceed 1%.[775] The counties in the catchment area surrounding the Jonathan M. Wainwright Memorial VAMC in Walla Walla, WA experienced accelerated community spread of confirmed cases in June 2020 and reached a prevalence of confirmed COVID-19 of 1.28% by June 30, 2020.[776] Several additional rural counties in VISN 20 experienced high prevalence of confirmed cases in the community; for example, by June 30, 2020, Yakima County in Washington and Blaine County in Idaho reached over 2% community prevalence of confirmed COVID-19.[777]

Figure 7.117 *VISN 20 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed

7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Prevalence of confirmed COVID-19 among Veterans Using VHA Services was initially equal to community prevalence in VISN 20 from March 1, 2020 to March 22, 2020.[778] As Figure 7.117 shows, as COVID-19 spread, it penetrated the general population at a faster pace than the Veterans Using VHA Services population.[779] By late June 2020, nearly 0.30% of the community tested positive, compared to roughly 0.20% of the Veterans Using VHA Services.[780] By June 30, 2020, 394 Veterans Using VHA Services tested positive with COVID-19.[781] Figure 7.116 and Figure 7.117 provide an overview of VISN 20 confirmed prevalence and cases.

Capacity Management

According to VISN leadership, planning for catastrophes or disasters in the pacific northwest historically focused on seismic activities rather than public health crises and the unique challenges created by COVID-19. To meet these unique challenges, VISN 20 leadership worked with each VAMC to create surge plans based on each facility's capabilities. VAMCs with Med/surg and ICU functionality became the VISN's activity points for treating acute patients while VAMCs without acute care functionality focused on creating space to accept lower severity patients from the acute VAMCs.

Daily reports helped forecast the number of Med/surg and ICU beds needed, as well as specific targets to be met. Anticipating a surge in cases after the initial community outbreak in Kirkland, WA, VISN 20 leadership expanded beds and capacity quickly. Later in the response, VISN 20 activated additional measures, such as:

1. Accelerated recruiting, hiring and onboarding of additional personnel
2. Greater use of telework, where feasible
3. Retention incentives for employees in critical clinical positions
4. Robust screening processes across all sites
5. Purchasing of critical supplies under VISN-wide contracts to maintain ample stock on hand

As the response matured and COVID-19 penetrated the network, facility reconfiguration proved critically important according to VISN 20 leadership. Facility management built temporary solutions to enhance facility functions for COVID-19 patients; for example, HEPA-filtered exhaust fans were ducted through the windows at several of the oldest facilities to help generate the necessary airflow conditions. The improvised modifications were especially helpful at the Mann-Grandstaff VAMC during the outbreak in Spokane, WA. Additionally, surge plans at the Mann-Grandstaff VAMC entailed relocating respiratory services to a different floor; installing drive-through

medication pickup; dedicating an entire floor to COVID-19 positive ICU, Acute Care Units (ACU) and Med/surg patients; repurposing a CLC unit to a COVID-19 surge unit with 60 beds; and reallocating a floor for non-COVID-19 ICU, ACU and Med/surg patients.[782]

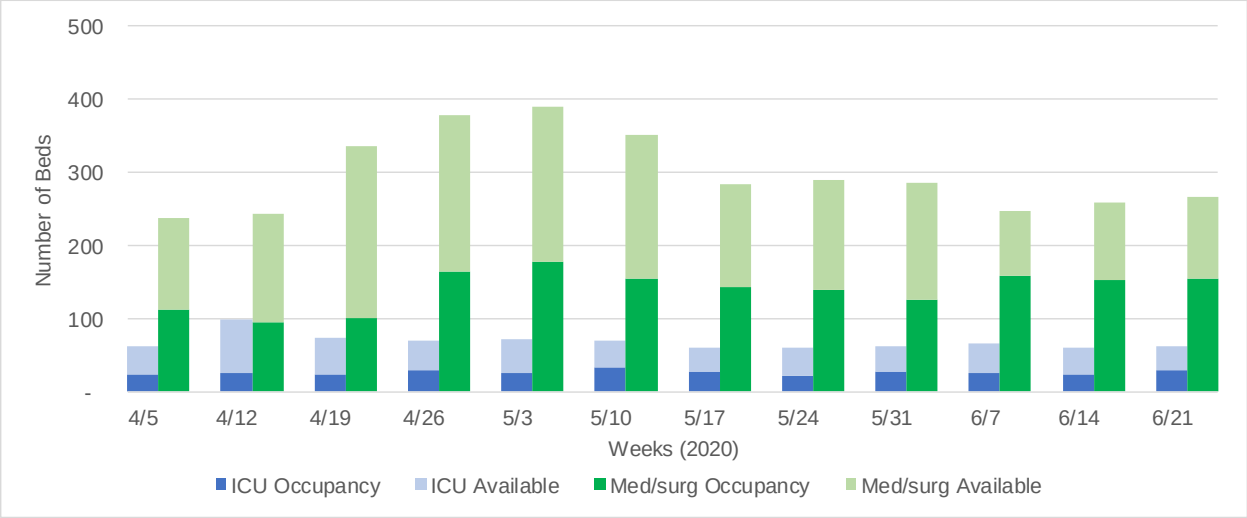
The implemented surge measures at the Mann-Grandstaff VAMC allowed VISN 20 to assist SVH patients.[783] To help stem the significant outbreak at the Spokane SVH, the SVH transferred more than 30 COVID-19 positive residents to Mann-Grandstaff VAMC for inpatient care.[784] The network also accepted three COVID-19 positive residents from the Spokane SVH who were hospitalized in the community, according to survey responses from leadership.[785]

VISN 20 implemented a different strategy in rural locations where COVID-19 was less prevalent. Many of the rural facilities lack Med/surg functionality, so VISN 20 leadership worked with the private health care community to make accommodation plans that provided Veterans the option to receive care at community facilities. For example, in White City and Roseburg, the Southern Oregon VA Rehabilitation Center and Roseburg VAHCS focused on a surge plan layering in community provider capacity.

Facilities in VISN 20's most populated metropolitan areas, VA Puget Sound HCS in Washington and Portland VAMC in Oregon, were able to keep pace with surging demand. Mann-Grandstaff, facing the SVH cluster, was able to meet surge demand following the outbreak in April 2020.[786] According to VISN 20 leadership, key reported success factors of Mann-Grandstaff VAMC's surge response were utilization of telework and telehealth, collaboration with the community, implementation of drive thru pharmacy and screening processes, configuration of a sizable Veteran COVID-19 isolation unit, development of the HERT team and oversight provided by ICT.[787]

As shown in Figure 7.118, VISN 20 expanded its bed capacity to 391 Med/surg beds and 99 ICU beds at the height of its response. In Washington, VA Puget Sound HCS and Mann-Grandstaff VAMC increased their peak Med/surg bed counts to 98 and 115, respectively, and increased their peak ICU bed counts to 35 and 14, respectively.[788] In Oregon, Portland VAMC increased its peak Med/surg and ICU bed counts to 157 and 67, respectively.[789]

Figure 7.118 *VISN 20 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

VISN 20 leadership supported facilities on staffing activities throughout the COVID-19 response. To help streamline and shorten the process during the response, VHA and Population Health provided exceptions and flexibilities related to hiring and onboarding, such as a three-day hire process, as detailed in the HR section of this report; VISN 20 leadership noted that VISN 20 utilized the new processes to get new hires onboarded quickly.

As show in Table 7.88 from February 2020 to June 2020, VISN 20 hired over 399 clinical personnel including Medical Officers, Nurses, Nursing Assistants, Psychologists and Medical Support Assistants. Other personnel hires, including Pharmacists, Social Workers, Custodial Workers and other occupations accounted for 569 of new hires from February 2020 to June 2020. Nursing, Medical Support and all other occupations experienced the most growth in VISN 20. Table 7.88 provides an overview of VISN 20 HR statistics.

Table 7.88 *VISN 20 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	36	26	10	1,058
Nurse	135	79	56	3,298
Practical Nurse	42	17	25	655
Nursing Assistant	29	13	16	437

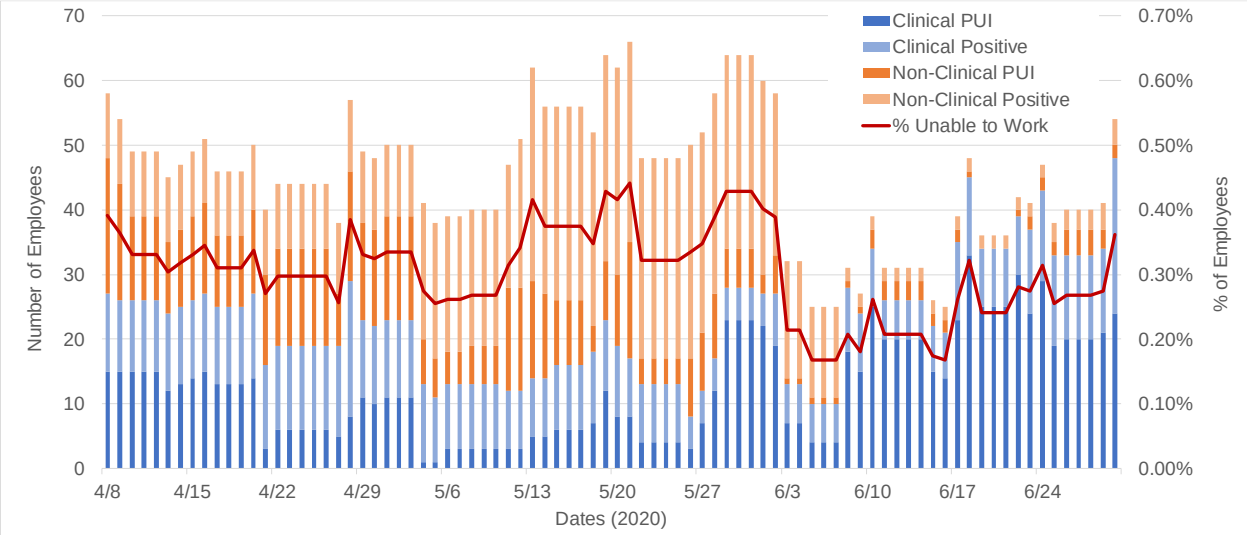
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Support Assistance	233	58	175	1,672
Pharmacist	8	8	-	404
Psychology	4	2	2	306
Social Work	42	14	28	736
Custodial Worker	75	23	52	480
All Other Occupations	365	175	190	6,028
Totals	**969**	**415**	**554**	**15,074**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

The percentage of employees unable to work due to circumstances related to COVID-19 fluctuated from April 2020 to June 2020, as shown in Figure 7.119. VISN 20's self-reported employee data captured a series of notable increases in the number of employees unable to work due to circumstances related to COVID-19, especially in May 2020, as depicted in Figure 7.119. As the response matured into June 2020, the majority of employees unable to work due to circumstances related to COVID-19 were clinical.

Figure 7.119 *VISN 20 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

As shown in Table 7.89, VISN 20 contributed to seven Fourth Mission taskings from April 2020 to June 2020 in response to COVID-19. Mission goals ranged from testing support, bed capacity for SVHs and communities and PPE decontamination.

Table 7.89 *VISN 20 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Boise, ID	ID Boise Department of Health Lab testing (3467EM-ID-VA-01 changed to 4534DR-ID-VA-01	03/29/20	10/31/20	Testing Support	VA supported laboratory testing to include staff, necessary medical equipment and supplies to support life sustaining efforts for confirmedCOVID-19 patients that require hospitalization
State of Washington	WA Dept of Veterans Affairs (4481DR-WA-VA-01)	3/20/20	9/23/20	Testing Support	VHA assisted the Washington State Department of Veterans Affairs with COVID-19 testing and analysis for patients and personnel of four SVHs. Processed 762 tests and provided 897 test kits
Spokane, WA	FEMA and HHS (4481DR-WA-VA-02)	3/22/20	9/23/20	Community and SVH Bed Capacity	VHA provided up to 25 acute care (Med\surg) and/or 5 Intensive Care Unit (ICU) beds at the Spokane VAMC for immediate and short-term medical treatment
Roseburg, OR	State of Oregon (4494DR-OR-VA-01/06)	4/14/20	12/13/20	Community Bed Capacity	Provided 25 beds for the community at Roseburg VAMC
Roseburg, OR	Mercy Medical Center	4/8/20	12/12/20	PPE Decontamination	Decontaminated 61 N95 respirators
Portland, OR	Portland Area Hospital Coalition (4494DR-OR-VA-03)	4/20/20	11/30/20	Community Bed Capacity	Provide 25 Med/surg and 5 ICU beds for community use if needed
State of Oregon	Oregon Health Department	6/8/20	9/5/20	Non-VA Nursing Home Testing and Training	VHA provided personnel to visit nursing homes state-wide and provide testing of staff and residents and training

Source: Response to Data Call, VISN 20, VHA, 7/29/2020.

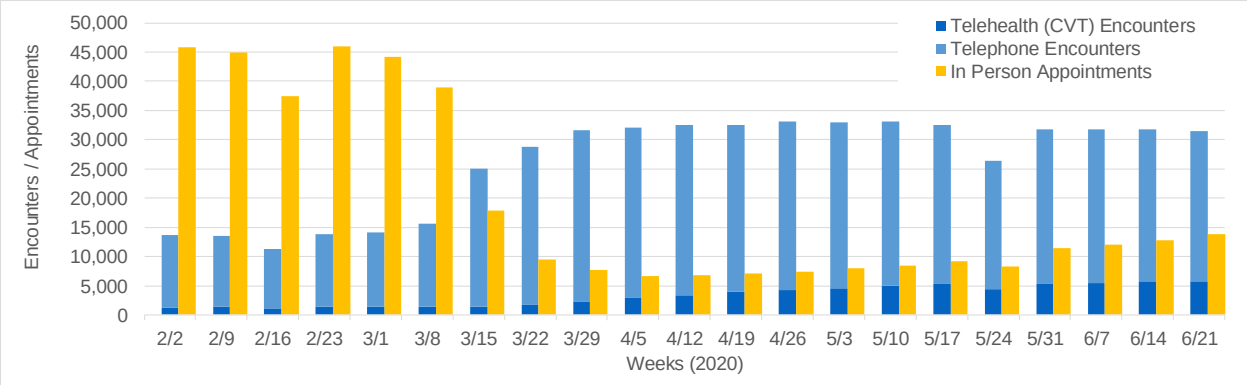
Patient Care by Visit Type

Prior to the COVID-19 crisis, VISN 20 performed far more in-person appointments relative to telehealth or telephone encounters. On March 8, 2020, those numbers began to change. By the week of March 15, 2020, telephone encounters represented a significant portion of encounter activity and exceeded in-person appointments in total, as shown in Figure 7.120. The accelerated growth in prevalence of COVID-19 and VHA infection control guidance were two factors driving the shift. For example, Mann-Grandstaff VAMC curtailed routine care and elective procedures following VHA guidance. The robust transition to virtual care helped mitigate the impact.[790]

In-person appointments reached its lowest level of around 6,000 per week during the week of April 12, 2020. As VISN 20 met surges in demand and spread of COVID-19 receded, in-person appointments started to trend up toward normal levels. By late June 2020, VISN 20 was performing approximately double the virtual visits relative to pre-pandemic operations as depicted in Figure 7.120. Overall, patient appointments and encounters in VISN 20 aligned with the cross-VISN trend of shifting from in-person care to virtual care.

VISN 20 leadership noted limited PPE and testing supplies as a factor hindering the return to normal operations at select facilities in VISN 20. In one of VISN 20's most impacted areas, Spokane, limited PPE and testing supplies required VISN 20 to closely scrutinize the resumption of in-person appointments and procedures. Mann-Grandstaff VAMC monitored access to care and necessary in-person appointments and procedures closely.[791]

Figure 7.120 *VISN 20 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*

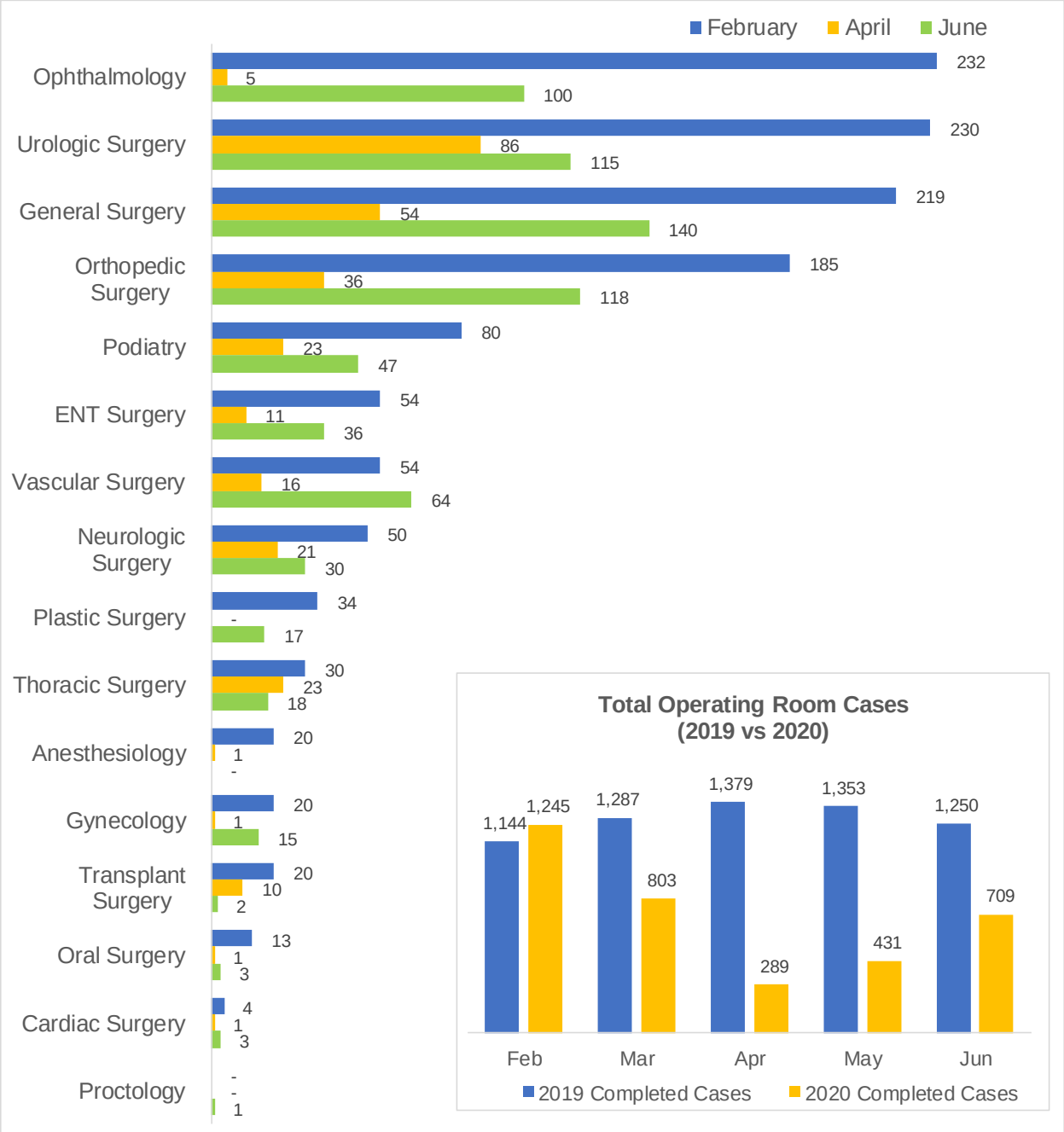


Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.121 shows that from February 2020 to June 2020, the number of OR cases VISN 20 completed decreased across most specialties. Vascular surgery saw the number of completed OR cases increase from February 2020 to June 2020.

Figure 7.121 *VISN 20 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Completed OR cases were lower in 2020 compared to 2019 every month from February to June. During April 2020 and May 2020, the network saw the most

significant decreases in completed OR cases. By June 2020, completed case were down approximately 50% from where they were the prior year.

Resource Movement / Inventory

VISN 20 cross trained personnel to provide clinical and administrative coverage during the COVID-19 response. VISN 20 also utilized the DEMPS system to deploy additional personnel to Mann-Grandstaff VAMC and other facilities. According to VISN 20 leadership, the DEMPS program was effective during the response, particularly following initial feedback and process improvements. To further streamline the process, VISN 20 helped volunteers prepare for deployments as formal DEMPS assignments were formulated.

By June 30, 2020, VISN 20 reallocated 36 clinical personnel within the VISN and sent 47 clinical personnel to other VISNs, as show in Table 7.90; in addition, VISN 20 sent personnel to non-VHA entities throughout the response. For example, an interdisciplinary team based out of Mann-Grandstaff VAMC provided consultation to long-term care facilities located in Washington and Idaho. The team visited the facilities onsite, shared resources and made recommendations to support nursing home patients.[792] As of June 30, 2020, VISN 20 sent a total of 52 personnel to non-VHA entities. VISN 20 reported that they received no personnel from other VISNs during the response.

Table 7.90 *VISN 20 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	-	8	-
Admin / Management / Support	-	-	8	-
Allied Health Clinician	8	1	-	-
Clinical Nurse Specialist	-	-	1	-
Clinical Support	-	2	-	-
Nursing Assistant	5	1	2	-
Licensed Practical Nurse / Licensed Vocational Nurse	5	10	5	-
Nurse Manager	-	2	5	-
Nurse Practitioner	-	1	1	-
Physician	5	5	-	-
Physician Assistant	-	1	-	-

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Registered Nurse	13	24	22	-
Trade / Craft	9	1	-	-

Source: Response to Data Call, VISN 20, VHA, 7/29/2020.

VISN 20's PPE supply became critically threatened when its prime vendor could not meet the VISN's requirements, highlighting a vulnerability in the network's supply chain. According to VISN 20 leadership, in order to ensure a breakdown like this wouldn't happen again, VISN 20 leadership and the Western States Network Consortium evaluated centralized PPE stockpiling. Later in the response, VISN 20 decided to start manufacturing PPE and supplies using 3D printing, with the intent to eliminate its PPE supply chain vulnerability altogether.

According to VISN 20 leadership, some aspects of supply chain management, such as PPE inventory tracking, posed particular challenges. Adopting the national Power BI Dashboard early in the response helped, but issues persisted including manual data input, lack of standardization and inconsistent metric calculations. As a result, VISN 20 decided to develop its own PPE internal tracking tool. This internal analytics tool calculated a fourteen-day moving average of supply usage, improving the accuracy of burn rate and other key performance indicators. It also tracked purchases tagged with a COVID-19 identifier, making it useful for tracking other supplies besides PPE.

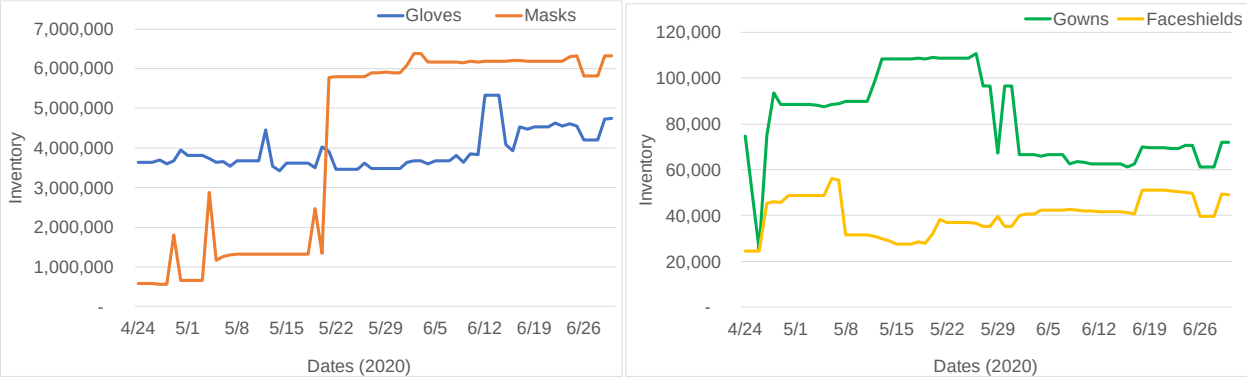
Table 7.91 *VISN 20 Movement of Supplies (as of June 30, 2020)*

Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Generic Mask	72,000	-	-	-
N95 Respirator	11,040	-	-	-
PAPR Hood	-	100	-	-
Surgical Mask	1,000	-	-	10,000
Test Kit	-	-	897	-

Sources: Response to Data Call, VISN 20, VHA, 7/29/2020; Response to Data Call, VISN 20, VHA, 8/20/2020.

Figure 7.122 provides an overview of VISN 20 PPE supplies inventory over time. PPE inventory, including gloves, masks, gowns and face shields, fluctuated from late April 2020 to late June 2020. Masks and gowns experienced the most significant inventory level changes. The week of April 24, 2020, gowns decreased sharply from roughly 80,000 to about 20,000, increased to over 100,000 by mid-May 2020, dropped to around 60,000 by the end of May 2020. The week of May 22, 2020, inventory of masks increased significantly from 1,000,000 to nearly 6,000,000; inventory stayed at this level through late June 2020.

Figure 7.122 *VISN 20 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

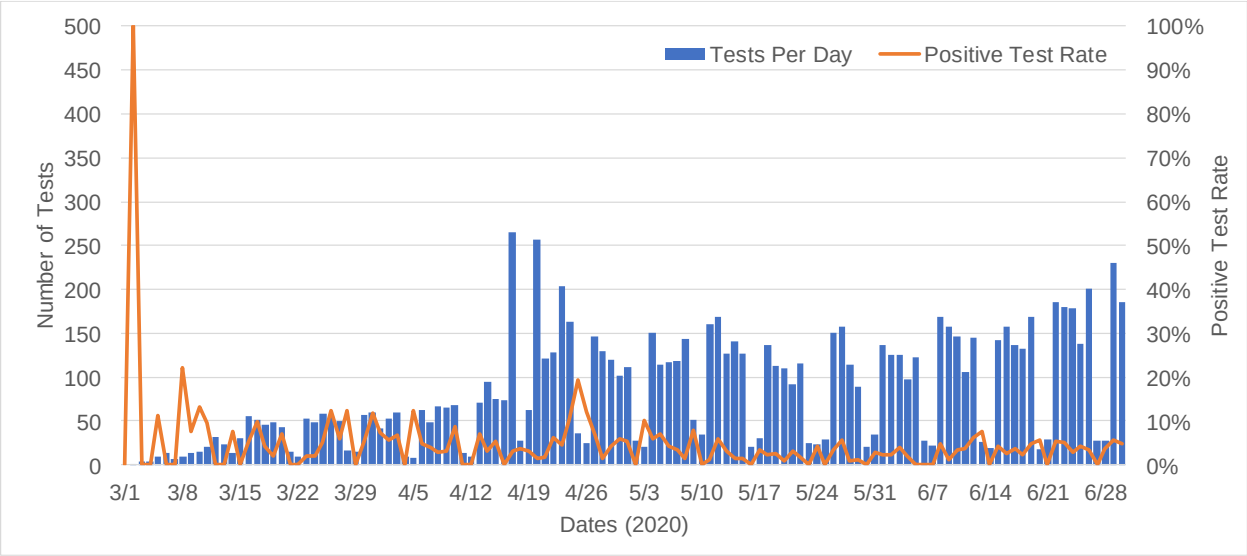


Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

As Figure 7.123 shows, VISN 20 significantly increased testing in mid-April 2020. From that point forward, testing volume ranged from approximately 25 to 250 tests per day. According to VISN 20 leadership, individual facilities were largely left to manage resources to the best of their ability. Occasionally, tests would be sent to the VA Puget Sound HCS in Washington on weekdays or VA Palo Alto HCS in California on weekends. According to VISN 20 leadership, variations in testing capabilities by site became a challenge. Reallocating testing supplies helped partially, but testing swabs were in high demand across the country and proved scarce throughout the response as they were generally only accessible through VHACO procurement.

Figure 7.123 *VISN 20 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

Table 7.92 provides an overview of VISN 20 Veteran testing results during the response. Of the 321,734 Veterans Using VHA Services in VISN 20, the network tested 9,913, (3.1%) for COVID-19 as of June 30, 2020. The percentage of the total population that tested positive for COVID-19 was 0.1%. Practically all CLC residents in VISN 20 were tested for COVID-19 (176 of 177, or 99.4%). No CLC residents tested positive for COVID-19 as of June 30, 2020.

Table 7.92 *VISN 20 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	321,734	177
Population Tested	9,913	176
% of Population Tested	3.1%	99.4%
Population Positive	394	0
% of Population Positive	0.1%	0.0%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VA COVID-19 RESPONSE IN ACTION: VISN 20

VA Video Connect (VVC) App Connects Vietnam Veteran with a VA Mental Health Provider

Photo caption: William Vaugh, while serving in the United States Army during the Vietnam War.

William Vaughn is a United State Army Veteran who has a 90% service-connected disability associated with injuries he incurred during his service in the Vietnam War, including posttraumatic stress disorder (PTSD), chronic back pain and peripheral neuropathy. Due to challenges associated with traveling to in-person appointments, VHA referred Mr. Vaugh to Dr. Erika Shearer, a Clinical Psychologist within the VISN 20 VA Puget Sound HCS, who offers virtual telemental health services through the VVC app. The app enables Veterans like Vaughn to connect with their care providers on mobile web-based technologies such as a mobile phone, computer or tablet.

Mr. Vaughn has valued his time connecting virtually with his provider. “Dr. Shearer is able to help me from her office in Portland in a comfortable, private setting,” he said. “And I’m able to receive the help I need in a comfortable setting without the stress of traffic and hospital waiting rooms. She brings me back into focus and helps me deal with a very dark time.” Mr. Vaughn also credits virtual visits and VA telehealth technologies with helping him stay healthy while following COVID-19 social distancing guidelines and stay-at-home orders.

Source: “VA telehealth connects Vietnam Veteran to pain management resources,” 7/9/2020, VAntage Point, VA, https://www.blogs.va.gov/VAntage/76636/va-telehealth-connects-vietnam-veteran-pain-management-resources/.

VISN 21: Sierra Pacific Network

Description of the Network and Population Served

The VA Sierra Pacific Network (VISN 21) serves Veterans in northern and central California, Nevada, Hawaii, the Philippines and U.S. Territories in the Pacific Basin. VISN 21 provides health care delivery across 9 VAMC or VAHCS locations, 13 CLCs and 50 outpatient clinics including 24 CBOCs.[793]

Within its expansive network of over 329,000 Veterans Using VHA Services, as shown in Table 7.93, VISN 21 provided COVID-19 testing for both employees and patients. VISN 21 identified 503 COVID-19 Veteran cases and 91 employee cases through June 30, 2020. Of these cases, 30 Veteran and 3 employee deaths were associated with positive COVID-19 tests.

Table 7.93 *VISN 21 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	329,656
Veteran COVID-19 Cases	503
Veteran COVID-19 Inpatients	98
Veteran Deaths (COVID-19 related)	30
VISN Employees	19,719
Employee COVID-19 Cases	91
Employee Deaths (COVID-19 related)	3

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

Northern California is highly vulnerable to natural hazards such as earthquakes, wildfires, flooding, mudslides and other severe weather. As a result, VISN 21 emergency management teams have established communication lines locally, regionally and nationally in response to crisis. One of the first COVID-19 cases detected in the United States occurred in California in late January 2020.[794] On March 2, 2020, VISN 21 was the first to admit a COVID-19 positive Veteran into the VA system.[795] Two days later, California declared a state of emergency.[796] In parallel,

VISN 21 implemented a pandemic surge plan, coordinated through the VISN incident management team, that included network, regional, national and emergency management personnel, as well as key personnel from the network's seven medical centers. VISN 21 worked with territory governments in Guam and American Samoa to create drafts of Mission Assignments in coordination with the EMCC. The drafts enumerated potential staffing requests, but ultimately the territories did not need to submit the requests.

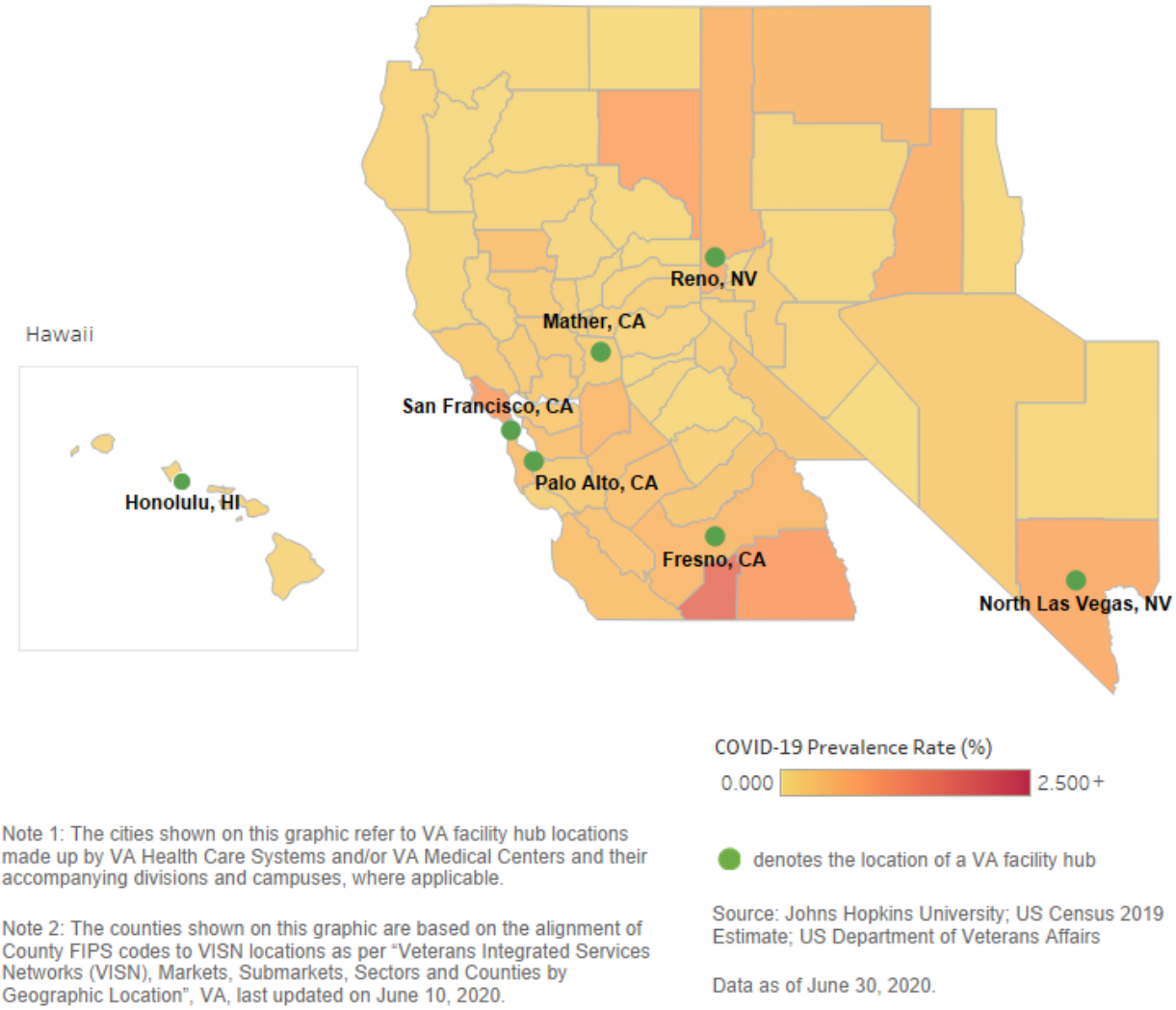
From March 2020 through June 2020, the virus spread in a slow and controlled fashion across California with no significant outbreaks, leading to low community and VISN 21 prevalence among Veterans Using VHA Services; both stayed under 0.35% through June 30, 2020, as illustrated in Figure 7.125.[797] VISN 21 credited its academic partnerships in playing a large role in flattening the peak and eventually controlling the spread. Through these partnerships and advisement with clinical communities at University of California Davis, Stanford and University of California San Francisco, VISN 21 drafted a memorandum to stop elective surgeries and in-person appointments early in the response.

VISN 21 leadership noted that regulatory relief was the most critical area in its response, as it provided the flexibility to expedite HR processes, procure supplies and take care of employees.[798] For example, the discontinuation of Professional Standards Boards for Title 38 positions streamlined the process for filling these positions; expedited VetPro credentialing process allowed providers to onboard more quickly; electronic conversation of the I-9 process (Employment Eligibility Verification) allowed for a remote (rather than in-person) verification process; approval for non-contract purchases through Amazon Business with a VA Purchase Card (with an increased $20,000 limit) allowed for quicker access to medical supplies and PPE during national shortages; and reimbursement of lodging and subsistence for certain direct care providers who lived closer than the regulatory 50 miles allowed workers in high-risk clinical areas to stay in local housing so they would not risk carrying the virus home to their families.[799]

VISN 21 also encountered some initial challenges with the BMS and recognized that the BMS was not intended to address the magnitude of surge care required with this pandemic. Since there was no official responsibility for the BMS at the VISN level, there was minimal oversight of the accuracy of facility bed data. As a result, the system did not always reflect up-to-date data, which made it challenging to plan for occupancy rates and bed capacity. For example, the limitations on available data made it challenging to understand where VISN 21 could convert single rooms to double rooms or where non-clinical space could be converted to inpatient space. Over the course of the response, VISN 21 was able to attain accurate bed counts via the BMS.

VISN 21 leadership noted that another challenge was that the BMS was typically used only in inpatient settings. Many of the VISN 21 facilities needed to convert outpatient locations into ICUs. VISN 21 leadership noted there was limited early VHACO guidance on targets for bed expansion, so network medical centers approximated targets based on estimated occupancy rates. VISN 21 set a target of a 20% increase in ICU and 15% for Med/surg capacity. Demand in VISN 21 never exceeded Med/surg or ICU capacity through June 30, 2020, as shown in Figure 7.126.

Figure 7.124 *VISN 21 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*

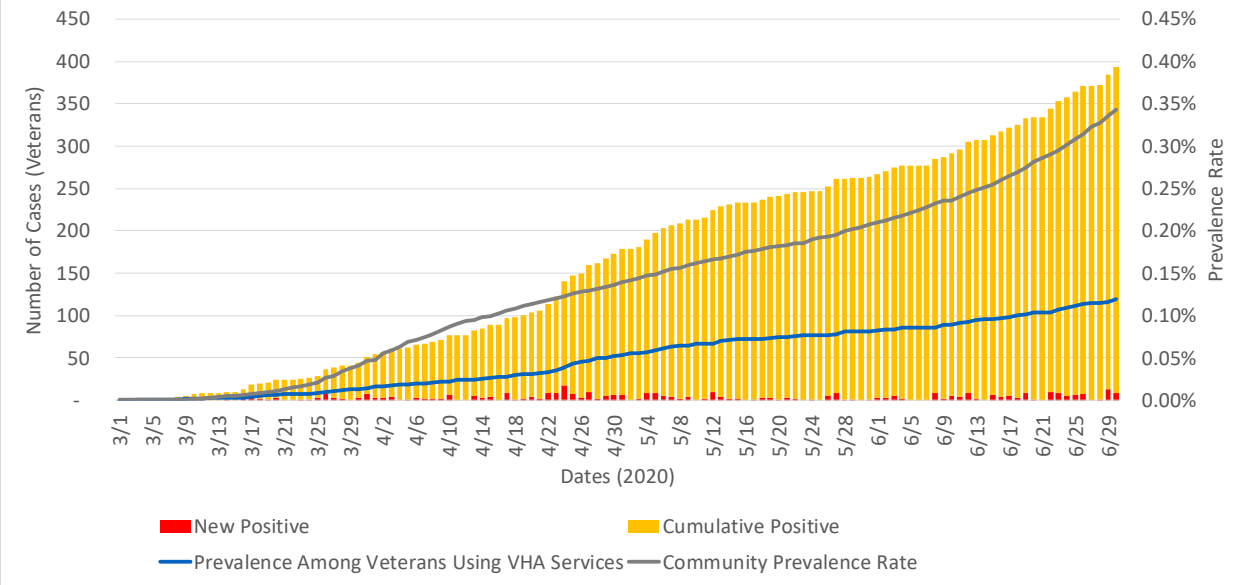


Community Prevalence and VISN Case Statistics

As shown in Figure 7.124, COVID-19 community prevalence remained below 0.65% across each of the seven VISN 21 catchment areas through June 30, 2020.

As Figure 7.125 depicts, prevalence among Veterans Using VHA Services had a slow, but consistent, increase through June 2020, never reaching 0.15% prevalence. In the middle of June 2020, community prevalence began a sharper incline comparative to prevalence among Veterans Using VHA Services and ended the month at just under 0.35% prevalence. There was no consistent pattern among COVID-19 new cases in VISN 21 over the course of its response.

Figure 7.125 *VISN 21 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

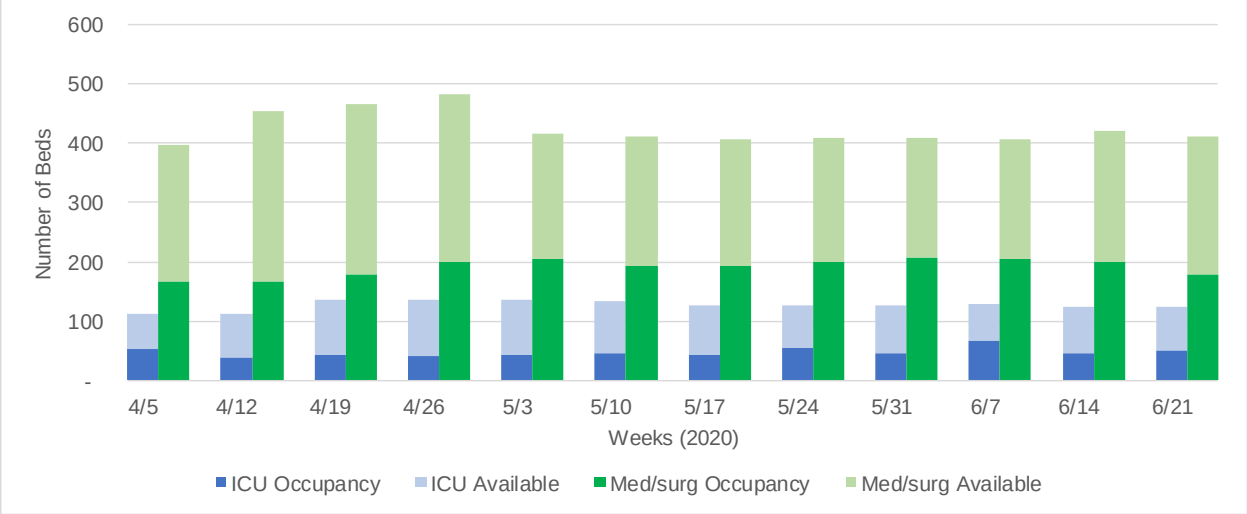
Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 21 held a daily call to report bed and general facility capacity. Through initial conversations, VISN 21 leadership recognized a need to expand capacity by enclosing certain units to create negative pressure rooms. Triage teams initially sent all PUIs to negative pressure rooms. As demand for rooms increased, personnel triaged PUIs in isolation rooms and moved the patients to negative pressure rooms if they screened positive. VISN 21 had plans in place to double patients in negative pressure rooms,

but VISN 21 never reached that demand level through June 30, 2020. Through June 30, 2020, VISN 21 never exceeded Med/surg or ICU capacity, as shown in Figure 7.126.

Figure 7.126 *VISN 21 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

According to VISN 21 leadership, the network experienced only minimal staffing challenges through the course of its response. In fact, network hospitals were overstaffed in several areas and had to refuse some personnel offered from other VISNs, such as traveling Nurses. The network reallocated certain disciplines to fill critical roles, such as using administrative employees to screen patients, or preparing clinicians like Anesthesiologists and Certified Registered Nurses to augment critical care personnel. There were a few instances where the network used rapid hiring to bring on personnel to fill vacancies, such as Security and Cleaning personnel. As shown in Table 7.94, VISN 21 had a net gain of 570 personnel from February 2020 through June 2020. In total, VISN 21 hired 1,207 personnel and had 19,719 employees on June 30, 2020. Additionally, 637 VISN 21 personnel became no longer employed by VA between February 2020 and June 2020. The network made most notable net gains with Medical Support Assistance (+117) and Nurses (99); net losses include Medical Officers (-3), Pharmacists (-2) and Psychology (-1).

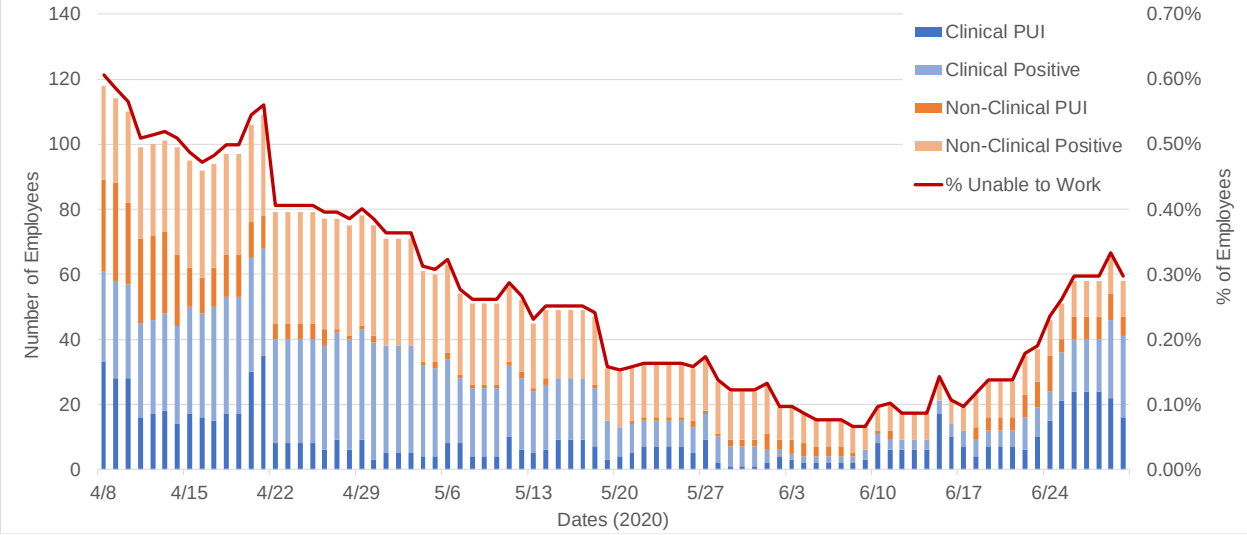
Table 7.94 *VISN 21 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	42	45	(3)	1,690
Nurse	239	140	99	4,298
Practical Nurse	70	29	41	869
Nursing Assistant	81	19	62	837
Medical Support Assistance	161	44	117	1,440
Pharmacist	8	10	(2)	580
Psychology	10	11	(1)	348
Social Work	59	29	30	1,054
Custodial Worker	82	54	28	666
All Other Occupations	455	256	199	7,937
Totals	**1,207**	**637**	**570**	**19,719**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

Figure 7.127 *VISN 21 Employees Unable to Work Due Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

On April 8, 2020, approximately 0.60% of the workforce was unable to work due to circumstances related to COVID-19, as shown in Figure 7.127. Unavailability rates declined through May and early June 2020 to low of under 0.10%; however, rates began to increase again beginning June 10, 2020 through the remainder of the month. Much of this increase was attributable to both clinical personnel positives and PUIs.

Fourth Mission

VISN 21 participated in five Fourth Mission engagements through June 30, 2020, as shown in Table 7.95. Within its own network in Nevada, VISN 21 provided PPE and testing material to Spring Valley Hospital SVH in Las Vegas. VISN 21 also provided personnel in support of Fourth Mission engagements for VISN 4, 5 and 22.

Table 7.95 *VISN 21 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Las Vegas, NV	Nevada SVH (Las Vegas)	06/23/20	06/23/20	PPE and Testing Support	Provided 100 N95 respirators, 100 PAPR filters and 237 COVID-19 tests
Charlotte Hall, MD	Charlotte Hall Veterans Home	06/07/20	06/23/20	Staffing Supplement	Deployed two Licensed Practice Nurses
Gallup, NM	Gallup Indian Medical Center (IHS)	06/06/20	07/07/20	Staffing Supplement	Deployed four Registered Nurses
Cherry Hill, NJ	Premier Cadbury of Cherry Hill	05/18/20	06/15/20	Staffing Supplement	Deployed five Registered Nurses
Tuba City, AZ	Tuba City Regional Health Care (IHS)	06/22/20	07/06/20	Staffing Supplement	Deployed one Registered Nurses

Source: Response to Data Call, VISN 21, VHA, 7/10/2020.

Patient Care by Visit Type

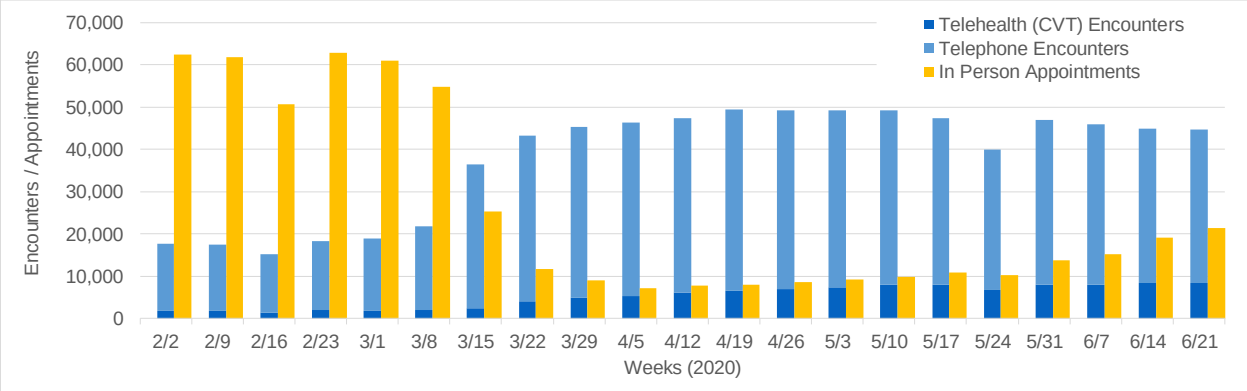
As shown in Figure 7.128, from February 2, 2020 to March 8, 2020, VISN 21 in-person patient care predominated; providers conducted approximately 55,000 in-person appointments versus 18,000 virtual encounters. These numbers began to shift as the pandemic spread throughout the network. By March 15, 2020, patient visit modalities were more closely balanced and only one week later most visits were conducted virtually. Through April 2020 and May 2020, VISN 21 conducted approximately 45,000 virtual encounters per week while in-person appointments remained at approximately 10,000 per week.

Photo caption: VA Southern Nevada Healthcare System (VASNHS) social worker Jim Powers assists recovering COVID-19 patient Ronald Pipkins with a virtual visitation with his children.

Source: John Archiquette, “VA Social Workers Arrange Virtual Family Reunion,” VA Southern Nevada HCS, VA, 4/9/2020, https://www.lasvegas.va.gov/LASVEGAS/features/VA_Social_Workers_Arrange_Virtual_Family_Reunion.asp, accessed 10/14/2020.

Prior to the pandemic, VISN 21 had a strong telehealth infrastructure in place. As concern about in-person services increased providers and patients began to use telehealth services more frequently. Within VISN 21, telehealth encounters increased by over 400% from early February 2020 through the end of June 2020, as shown in Figure 7.128. Much of the growth was due to video visits with Veterans in their homes. VISN 21 saw growth of over 1400% in video visits to the home during this period as both telehealth visits from VA locations and in-person services were transitioned to allow Veterans to receive video care at home.[800]

Figure 7.128 *VISN 21 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*

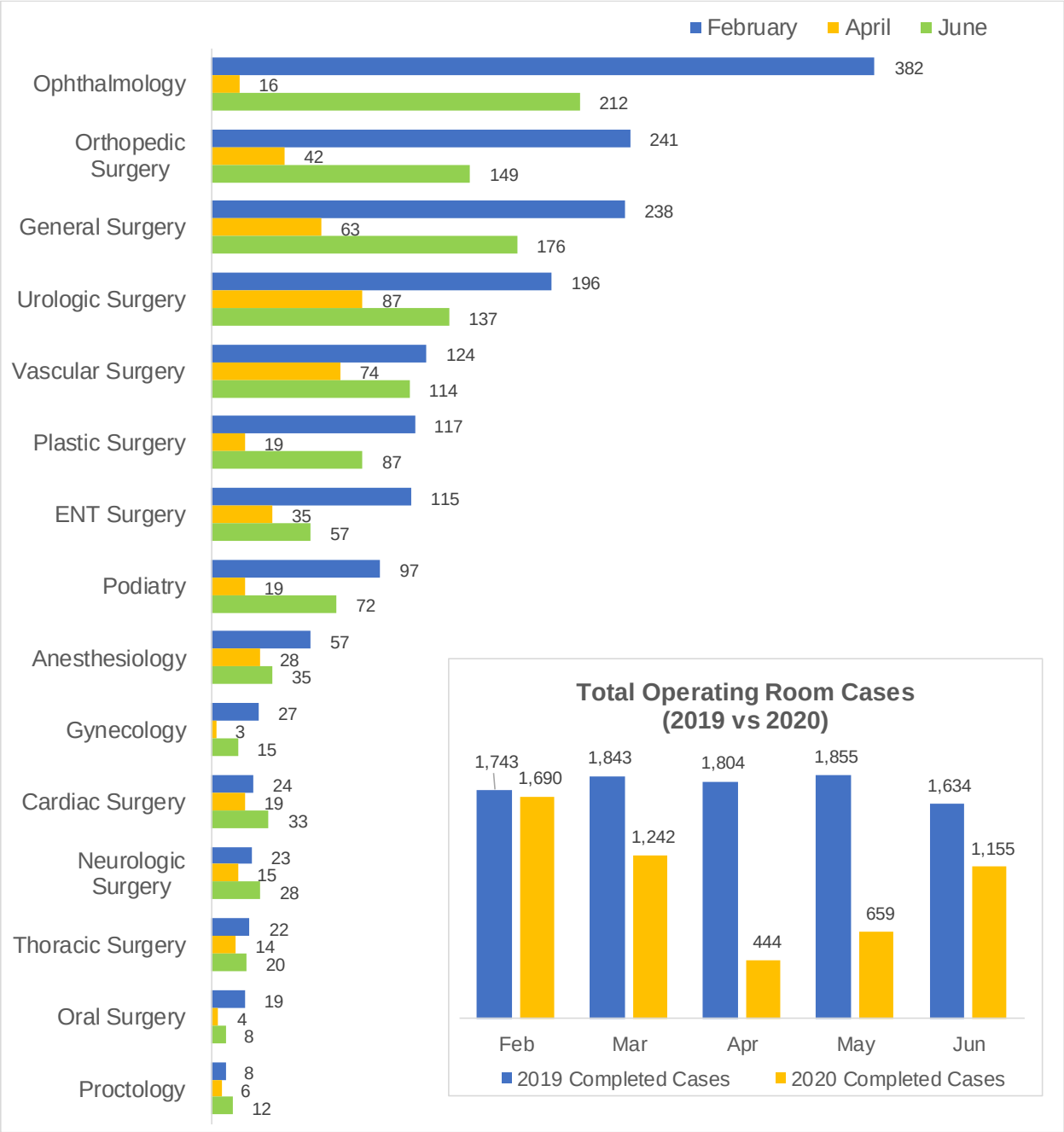


Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

As shown in Figure 7.129, during its response VISN 21 OR cases decreased significantly in comparison to commensurate months in 2019. VISN 21 completed 444 OR cases in April 2020 compared to 1,804 in April 2019. The volume of OR cases began to increase in June 2020 as VISN 21 began resumption of a broader spectrum of surgical care. The largest net loss in OR cases was in ophthalmology, with a decrease of 366 cases between February 2020 and April 2020; however, nearly all specialties increased their OR case count from April to June 2020.

Figure 7.129 *VISN 21 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

Through June 30, 2020, VISN 21 did not experience personnel shortages and reallocated few personnel within its network. It sent 12 personnel to non-VHA entities over the course of its response through June 30, 2020, as seen in Table 7.96.

Table 7.96 *VISN 21 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Licensed Practical Nurse	-	-	2	-
Registered Nurse	-	-	10	-

Source: Response to Data Call, VISN 21, VHA, 7/10/2020.

As shown in Figure 7.97, VISN 21 reallocated supplies within the network, including large reallocations of N95 respirators (3,600) and isolation gowns (3,000). VISN 21 also received 40 units of suction kits and over 7,000 units of hand sanitizer from other VISNs.

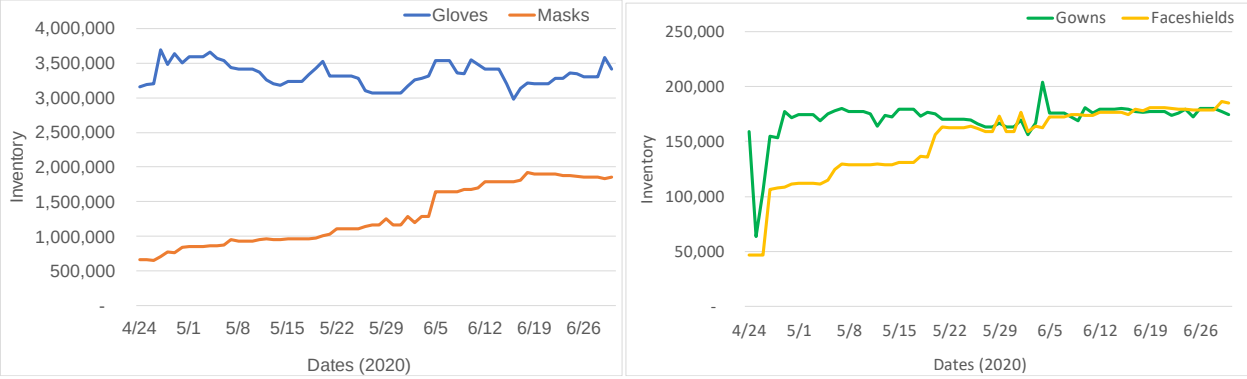
Table 7.97 *VISN 21 Movement of Supplies (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Body Bag	12	-	-	-
Disposable Face Shield for PAPR	80	-	-	-
Glove (Case)	5	-	-	-
Chemo Gown	-	-	-	79
Isolation Gown	3,000	-	-	
Isolation Gown (Case)				15
Surgical Gown (Case)	4	-	-	-
Hand Sanitizer	100	-	-	7,002
Lens Cuff Disposable (Box)	1	-	-	-
Generic Mask	2,000	-	-	-
N95 Respirator	3,600	-	100	-
PAPR Filter	-	-	100	-
Precision Flow Plus/Vapotherm Units	4	-	-	-
Scrubs (Cases)	17	-	-	-
Suction Kit 14 Fr	-	-	-	40
Surgical ST Sheet, Drape (Case)	-	10	-	-
Swab	500	-	-	-
Ventilator Circuit	50	-	-	-

Source: Response to Data Call, VISN 21, VHA, 7/10/2020.

As illustrated in Figure 7.130, VISN 21 increased its supply of masks by several hundred thousand by June 30, 2020. Similarly, VISN 21 increased its supply of face shields over time, from approximately 100,000 in early May 2020 to 175,000 by late June 2020.

Figure 7.130 *VISN 21 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*

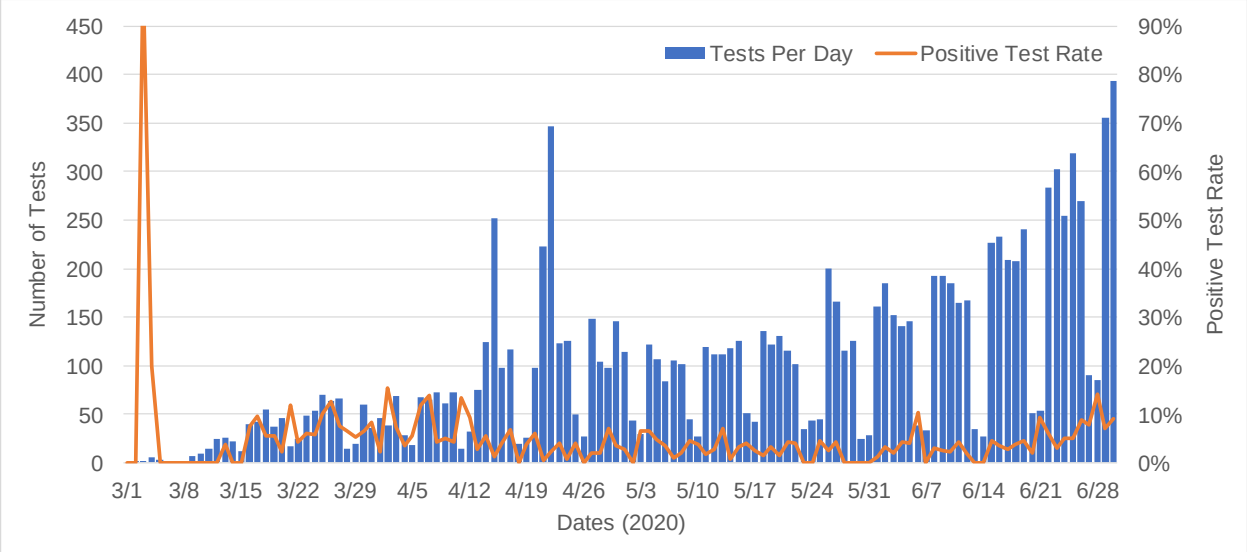


Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

VISN 21 did not experience testing shortages through June 30, 2020. VISN 21 leadership noted its primary challenge with testing was limited visibility into the timing and quantity of provided testing supplies. Abbott Lab testing at Palo Alto was a backstop for testing across the VISN and the lab could run testing day and night; however, the network never needed to engage in this contingency plan as testing demand never exceeded testing capacity. As seen in Figure 7.131, since the middle of May 2020 VISN 21 has incrementally administered more tests per week.

Figure 7.131 *VISN 21 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

VISN 21 tested 3.6% of its Veterans Using VHA Services population and 99% of CLC residents, as shown in Table 7.98. Within these groups, 0.2% of Veterans Using VHA Services returned positive and 1.1% of CLC residents returned positive.

Table 7.98 *VISN 21 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	329,657	470
Population Tested	11,846	466
% of Population Tested	3.6%	99.0%
Population Positive	503	5
% of Population Positive	0.2%	1.1%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 22: VA Desert Pacific Healthcare Network

Description of the Network and Population Served

VA Desert Pacific Healthcare Network (VISN 22) operates in three core states, including Arizona, New Mexico and California, and provides health care services to nearly 500,000 Veteran patients, as shown in Table 7.99. VISN 22 consists of 8 medical centers, 4 CLCs and 70 outpatient clinics including 59 CBOCs.[801]

VISN 22 had 1,773 Veteran COVID-19 cases and reported 79 Veteran deaths associated with positive COVID-19 tests as of June 30, 2020. During its response, VISN 22 identified 171 VA employee cases and 4 VA employee deaths related to COVID-19, as shown in Table 7.99.

Table 7.99 *VISN 22 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	498,028
Veteran COVID-19 Cases	1,773
Veteran COVID-19 Inpatients	364
Veteran Deaths (COVID-19 related)	79
VISN Employees	26,664
Employee COVID-19 Cases	179
Employee Deaths (COVID-19 related)	4

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

Communities in VISN 22's service area confirmed several of the earliest cases of COVID-19 in the country.[802] During the week of February 2, 2020, Phoenix, Los Angeles and Long Beach reported community cases.[803] By the first two weeks of March 2020, governors in California, Arizona and New Mexico declared States of Emergency to prepare for COVID-19.[804] Additionally, on March 13, 2020, the Navajo Nation declared a State of Emergency.[805]

As one of its first actions, VISN 22 surveyed infrastructure at every facility and asked facility leaders to develop plans for negative pressure rooms and expanding inpatient areas. Early response actions also focused on equipping personnel and facilities with the proper equipment and supplies. As VISN 22 processed inventory, it found a number of different ventilator models in service, many of which used replacement parts that were difficult to find. VISN 22 solved this problem by standardizing ventilator inventory and reducing the number of ventilator models across the network down to two, including one primary ventilator model and another secondary model as backup.

Shortly after the Los Angeles outbreak appeared, another outbreak surfaced in Northern Arizona and New Mexico, including impact to the Navajo Nation.[806] Sensing urgency, VISN 22 leadership proactively reached out to IHS' leadership in March 2020 to ask if the VISN could be of assistance in impacted areas. Two weeks later, IHS formally approached VISN 22 leadership and requested Fourth Mission assistance in New Mexico.

Two months into the crisis, VISN 22 prepared to resume normal operations. VISN 22 gradually started to ramp down its surge capabilities by taking critical care beds created under surge plans offline. Southern Arizona VAHCS in Tucson, AZ and VA Greater Los Angeles HCS in Los Angeles, CA made notable progress resuming a percentage of their normal volume of in-person appointments and surgeries; other VAMCs' scope and volume of care varied depending on COVID-19 activity and surge demand.

As operations normalized in early June 2020, COVID-19 reemerged across VISN 22, especially in Arizona and Southern California. VISN 22 reinstituted surge measures to prepare for more Veteran cases and Fourth Mission support.

Community Prevalence and VISN Case Statistics

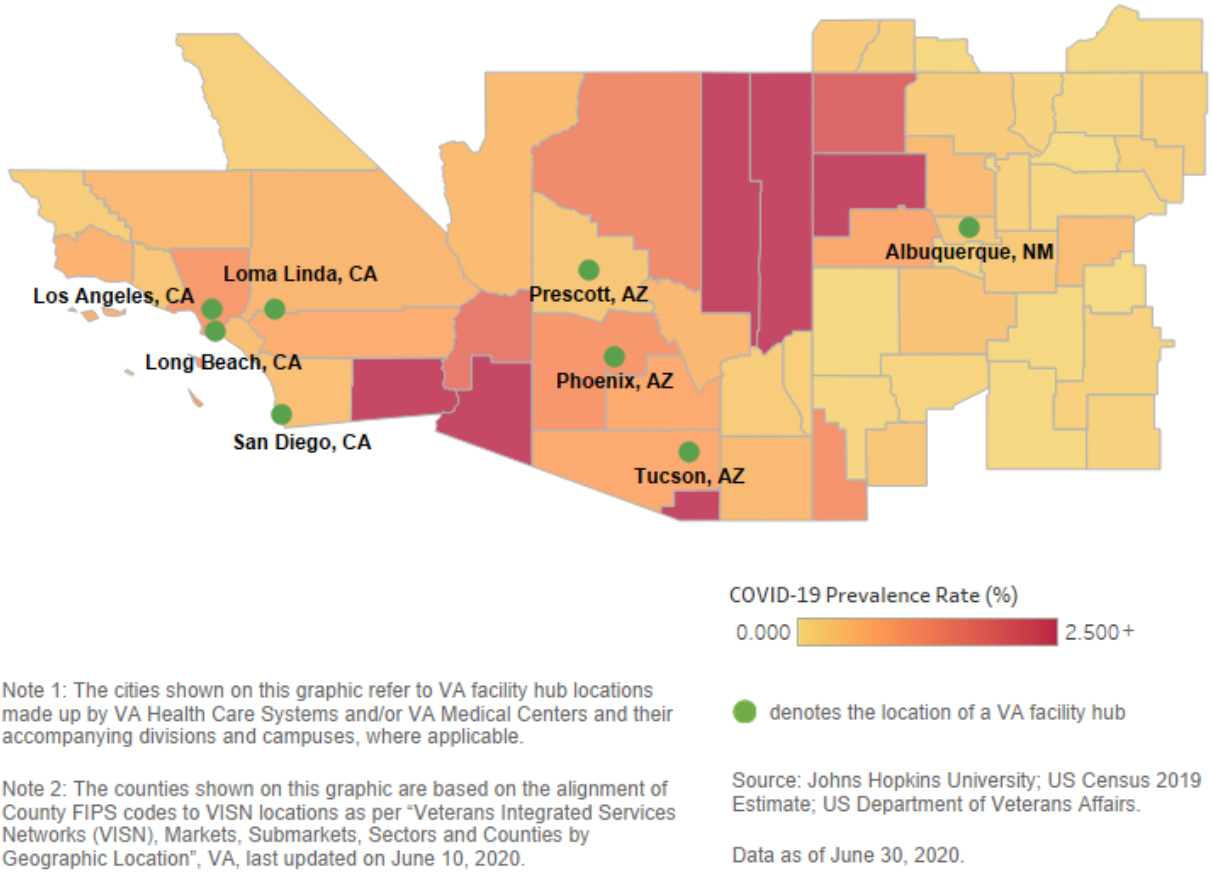
COVID-19 spread slowly across VISN 22's catchment areas until the end of March 2020.[807] The week of March 29, 2020 marked a notable change when confirmed cases in the community accelerated in Los Angeles, CA and continued to climb over the next three months. This acceleration placed VA Greater Los Angeles HCS in the middle of one of the most active micro-markets in terms of spread of COVID-19.[808] By June 30, 2020, community prevalence of confirmed cases reached 0.91% in VA Greater Los Angeles HCS' catchment area.[809]

Navajo Nation experienced some of the harshest effects of COVID-19 as many people in the area deal with underlying health conditions, lack electricity and do not have access to running water.[810] Navajo County reported 3.27% community prevalence of confirmed COVID-19 on June 30, 2020, comparable to the hardest-hit borough in

NYC, the Bronx, which reported community prevalence of confirmed COVID-19 of 3.47%[811] Northeastern Arizona and northwestern New Mexico counties, which include Navajo Nation land, reached high prevalence levels of confirmed COVID-19 ranging from 2% to almost 5% in some communities.[812]

Following the initial COVID-19 outbreaks in California and the Navajo Nation, VISN 22 leadership noted that it identified several additional alarming outbreaks in Arizona. From February 2020 to May 2020, the virus entered and steadily grew throughout the Phoenix and Tucson metropolitan areas.[813] June 2020 saw rapid growth in both markets as the virus resurged.[814] Community prevalence of confirmed COVID-19 reached over 1% in Phoenix VAHCS and Southern Arizona VAHCS catchment areas by June 30, 2020.[815]

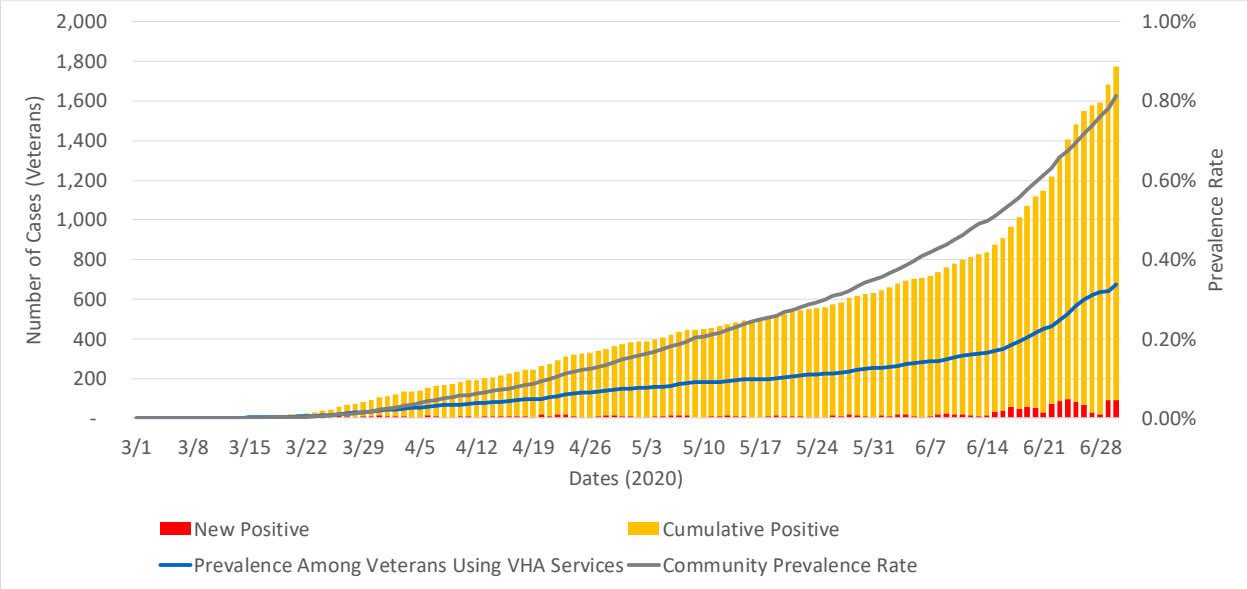
Figure 7.132 *VISN 22 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



VISN 22 confirmed its first Veteran case on March 6, 2020.[816] Afterward, new positive Veteran cases increased every week until the first week of May 2020 when they finally started to decrease.[817] The trend did not last long, however, and by the end of May 2020 new positive cases among Veterans increased through the last week of June

2020.[818] By June 30, 2020, VISN 22 diagnosed a total of 1,773 Veterans Using VHA Services with COVID-19.[819] Prevalence of confirmed COVID-19 among Veterans Using VHA Services on June 30, 2020 reached 0.36%, approximately half the prevalence of the general population (0.81%).[820] Figure 7.132 and Figure 7.133 illustrate community and Veterans Using VHA Services cases and prevalence over the course of the response.

Figure 7.133 *VISN 22 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

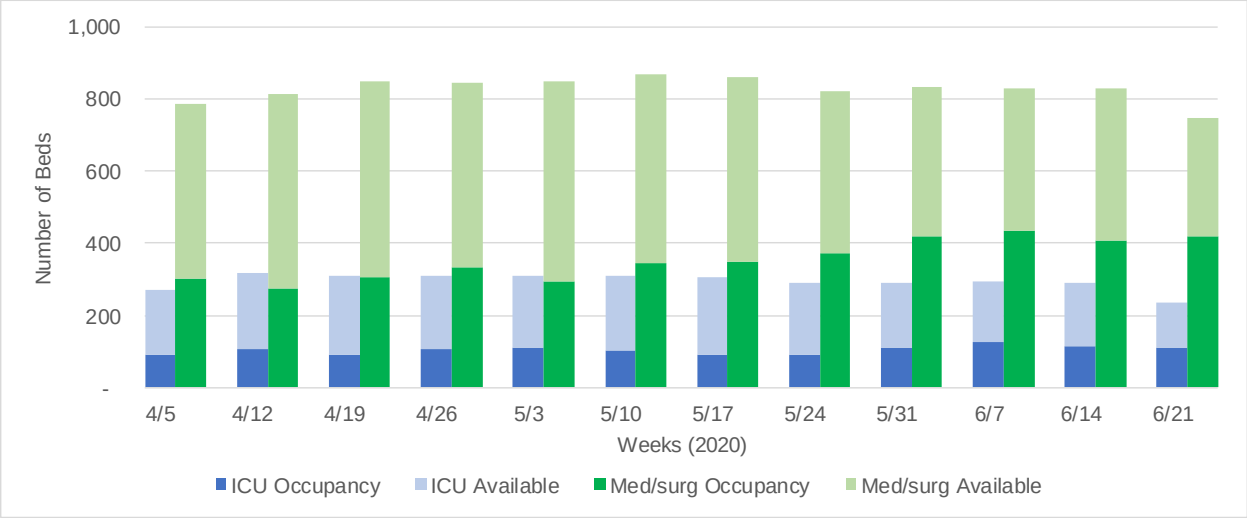
According to VISN 22 leadership, the network acted quickly to monitor outbreaks and prevent capacity overload. The network immediately activated surge measures, such as shifting nursing home personnel from non-essential clinical settings and retraining to cover acute care Med/surg and ICU Nurse roles. To help staff the expanded inpatient areas, VISN 22 provided incentives to existing inpatient care employees and

outpatient Nurses retrained for inpatient settings. The resurgence in July 2020 also left VISN 22 relying heavily on temporary staffing contracts. Phoenix VAHCS and Southern Arizona VAHCS in Arizona were particularly affected given the rapid onset of prevalence in the state and the number of active humanitarian missions underway. The VISN 22 Director personally reached out to sister networks, VISNs 15 and 20, to solicit support for additional personnel. Additionally, VISN 22 reallocated personnel from several VA facilities in California to Phoenix VAHCS, as well as from Northern Arizona VAHCS in Prescott, AZ to Southern Arizona VAHCS in Tucson, AZ during peak resurgence.

In March 2020, VISN 22 decided to deploy tent structures on the campuses of the VA Long Beach HCS in California and the Phoenix VAHCS in Arizona. VA Long Beach HCS used the tents to facilitate screening, complete check-ins and expand capacity. Phoenix VAHCS expanded capacity using the tents as well. A month later, in April 2020, New Mexico VAHCS in Albuquerque, NM also deployed tents to expand capacity. The climate-controlled tents housed lower acuity patients, freeing facility beds for higher acuity cases. As a result, bed capacity increased by 40, 30 and 40 in, Phoenix, Albuquerque and Long Beach respectively.

In Arizona, Phoenix VAHCS and Southern Arizona VAHCS increased their peak Med/surg bed counts to 117 and 130, respectively, and increased their peak ICU bed counts to 50 and 38, respectively.[821] In California, VA Greater Los Angeles HCS and VA Long Beach HCS increased their peak Med/surg bed counts to 163 and 125, respectively, and increased their peak ICU bed counts to 90 and 48, respectively.[822] Raymond G. Murphy VAMC in Albuquerque, NM increased their peak Med/surg and ICU bed counts to 123 and 30, respectively.[823] At peak capacity, VISN 22 increased the total number of Med/surg beds to 863 and the total number of ICU beds to 318, as shown in Figure 7.134.[824]

Figure 7.134 *VISN 22 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

Table 7.100 provides an overview of VISN 22 staffing statistics. VISN 22 hired 1,580 personnel and 802 VISN 22 personnel left the VA from February 2020 to June 2020. Of the new hires, 709 were clinical personnel including Medical Officers, Nurses, Practical Nurses, Psychologists, Nursing Assistants and Medical Support Assistants. Other hired personnel, 871 in total included Pharmacists, Social Workers, Custodial Workers and other occupations. Overall, Nursing, Medical Support and all other occupations experienced the most growth in VISN 22 from February 2020 to June 2020. As of June 30, 2020, VISN 22 had nearly 27,000 active personnel.

According to VISN 22 leadership, while repurposing and retraining existing personnel was the primary focus of the initial surge, hiring new personnel became the linchpin of the second surge. VHA streamlined new hire processes, which helped orient new hires more efficiency and get them deployed in time for the second surge; however, the uncertainty of the novel coronavirus caused concern among VISN 22 personnel and managing those concerns grew into one of VISN 22's critical issues.

VISN 22 took a multifaceted approach to support employees throughout the crisis. First, VISN 22 leadership visited sites to recognize personnel resilience and reliability. VISN leaders also noted they made themselves available to answer questions from personnel; for example, facility directors regularly conducted virtual employee town halls. Additionally, VISN 22 brought on new hires to backfill employees out on sick leave.

Table 7.100 *VISN 22 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	82	56	26	2,291
Nurse	316	173	143	6,124
Practical Nurse	87	25	62	1,185
Nursing Assistant	85	27	58	1,043
Medical Support Assistance	194	61	133	2,230
Pharmacist	12	5	7	689
Psychology	15	16	(1)	494
Social Work	75	19	56	1,350
Custodial Worker	100	68	32	844
All Other Occupations	614	352	262	10,414
Totals	**1,580**	**802**	**778**	**26,664**

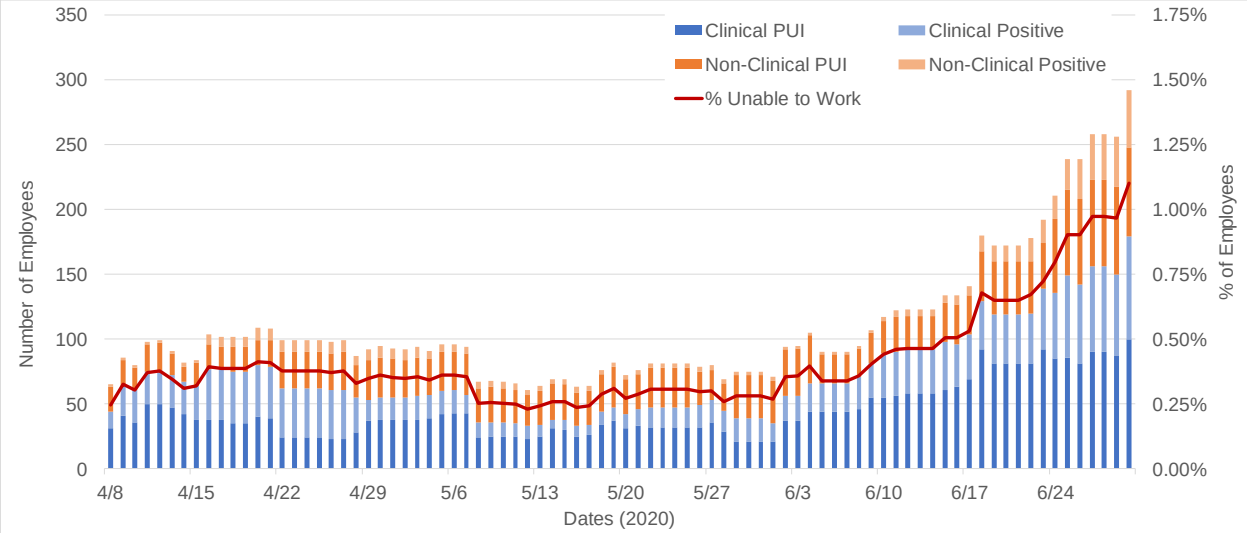
Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

As indicated in Figure 7.135, from April 8, 2020 to June 8, 2020, approximately 0.40% of VISN 22's workforce were unable to work due to circumstances related to COVID-19. On June 9, 2020, VISN 22 saw the beginning of a rapid increase in the percentage of employees unable to work due to circumstances related to COVID-19. By June 30, 2020, nearly 1.50% of VISN 22's employees were unable to work, a significant increase from 0.40% in the prior months.

Clinical employees made up the majority of employees unable to work due to circumstances related to COVID-10 from April 2020 to June 2020, as show in Figure 7.135. Generally, the proportion of clinical and non-clinical employees unable to work remained constant. Figure 7.135 provides an overview of VISN 22 employees unable to work due to circumstances related to COVID-19 over time.

Figure 7.135 *VISN 22 Employees Unable to Work Due to Circumstances Related toCOVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

As shown in Table 7.101, VISN 22 contributed to multiple Fourth Mission taskings during the COVID-19 response. Notably, VISN 22 sent clinical personnel to non-VHA facilities scattered throughout the Navajo Area where COVID-19 was widespread. Mission Assignments in the Navajo Area also included providing bed capacity to the community.

VISN 22 began lending support to the Navajo Area IHS in early April 2020. IHS requested bed capacity support at Gallup Indian Medical Center, located on the border of the Navajo Reservation in Gallup, NM. VISN 22 provided Gallup Indian Medical Center with Med/surg and ICU bed capacity to accept transfers at Raymond G. Murphy VAMC in Albuquerque, NM. From April 2020 to July 2020, Raymond G. Murphy VAMC provided eight acute care beds and received over 20 patients from Navajo Nation.

In May 2020, VISN 22 deployed 15 Health and Medical Task Force Nurses across four IHS sites in Navajo Area: Chinle Comprehensive Health Care Facility, Kayenta Health Center, Gallup Indian Medical Center and Shiprock-Northern Navajo Medical Center. The VA Nurses deployed on two-week rotations for 60 days to supplement personnel at the IHS facilities in the Navajo Area. Around the same time in May 2020, VISN 22 deployed 16 Health and Medical Task Force Nurses to Tuba City Regional Health Care every two weeks for 60 days.

In Arizona, IHS requested personnel support at Whiteriver Indian Hospital in Whiteriver, AZ. VISN 22 provided up to 20 national-level volunteers on June 20, 2020 to supplement IHS personnel through August 17, 2020. The volunteers provided support over two-week waves for 60 days.

Additionally, VISN 22 provided staffing support and expanded community bed capacity as requested by Arizona and California state agencies. From April 30, 2020 to June 29, 2020, VISN 22 deployed four nursing strike teams of six Nurses each to long-term care facilities in Los Angeles. The Nurses provided nursing consultation support to the nursing homes. In Arizona, Phoenix VAHCS and Southern Arizona VAHCS each provided 10 acute care beds for community patients from June 27, 2020 to August 14, 2020.

Table 7.101 *VISN 22 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Multiple Locations	IHS	4/7/2020	8/6/2020	Community Bed Capacity	Provided 8 acute care beds at Albuquerque for community patients.
Multiple Locations, CA	California CNHs[1]	4/30/2020	6/29/2020	Staffing Supplement	4 six-person strike teams of six Nurses per team every two weeks for 60 days. (Total of 59 VISN 22 staff: 14 Registered Nurses, 37 Licensed Vocational Nurses and 8 Nursing Assistants)
Multiple Locations, Navajo Nation	IHS	5/4/2020	8/19/2020	Staffing Supplement	Health and Medical Task Force of 15 Nurses split up to four different locations (Chinle AZ, Kayenta AZ, Gallup NM, Shiprock NM) every two weeks for 60 days. 3 TNS (contract) Nurses deployed to support Chinle for public health functions on a 90-day assignment until August 19, 2020. (Total of 59 VA Registered Nurses. Of the 59 Registered Nurses, 20 Registered Nurses from VISN 22)
Navajo Nation	Tuba City Regional Health Care	5/5/2020	7/6/2020	Staffing Supplement	Health and Medical Task Force of 16 nurses to the Tuba City Regional Health Care every two weeks for 60 days. (Total of 64 Total of 64 Registered Nurses, 62 Registered Nurses from VISN 22, 1 Registered Nurse from VISN 21 and 1 Registered Nurse from VISN 8, augmented existing nursing staffing in the Emergency Department, Intensive Care Unit (ICU) and Medical/ Surgical Units)

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Phoenix, AZ	Whiteriver Indian Hospital, IHS	6/20/2020	8/17/2020	Staffing Supplement	Provided, at the national level, up to 20 volunteers for two-week waves for 60 days
Tucson and Phoenix, AZ	State of AZ	6/27/2020	8/14/2020	Community Bed Capacity	Provided 10 acute care beds in Tucson and 10 acute care beds in Phoenix for community patients

Note: [1] California CNHs include Affinity Healthcare Center (Paramount, CA), Astoria Nursing Rehab Center (Sylmar, CA), Stoney Point Healthcare Center (Chatsworth, CA), South Pasadena Care Center (South Pasadena, CA), Legacy Healthcare (Pasadena, CA), Olympia Convalescent Hospital (Los Angeles, CA) and Leisure Glen Post-Acute Center (Glendale, CA).

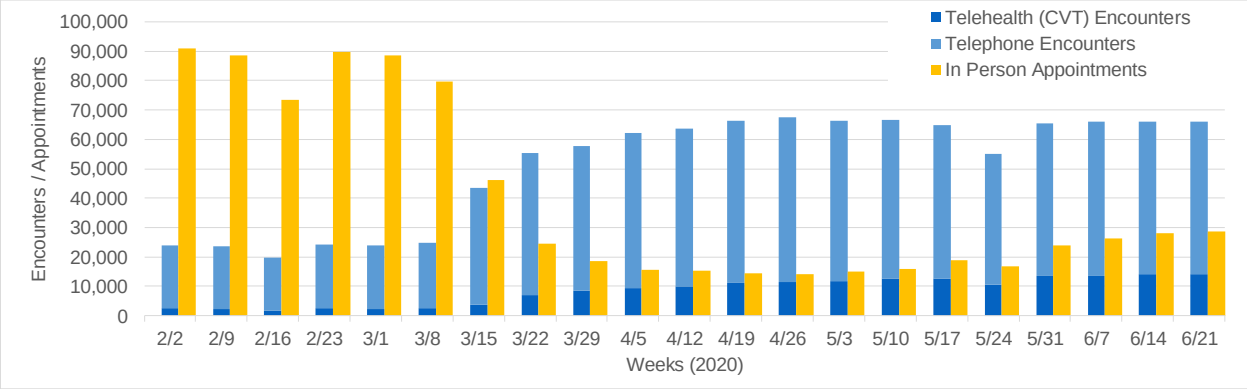
Sources: Response to Data Call, VISN 22, VHA, 8/11/2020; Response to Data Call, VISN 22, VHA, 9/4/2020.

Patient Care by Visit Type

Figure 7.136 provides an overview and graphic of VISN 22 patient appointments and encounters over time. From the week of February 2, 2020 to March 8, 2020, VISN 22 primarily delivered in-person care to patients. The week of March 8, 2020, VISN 22 scheduled nearly 80,000 in-person appointments and completed approximately 25,000 telehealth and telephone encounters per week. By mid-March 2020, VISN 22 began tracking along the overall cross-VISN trend of shifting from in-person care to virtual care. During the week of March 22, 2020, telephone and telehealth encounters increased to approximately 55,000 encounters per week and continued to trend upward over the following four weeks. By the week of April 26, 2020, telephone and telehealth encounters reached a steady state of between 55,000 and 70,000 encounters per week.

Between mid-March 2020 and mid-April 2020, in-person appointments decreased to approximately 13,000 appointments per week and then started trending upward. By late June 2020, in-person appointments reached nearly 30,000 appointments per week, approximately 30% pre-COVID-19 levels.

Figure 7.136 *VISN 22 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*

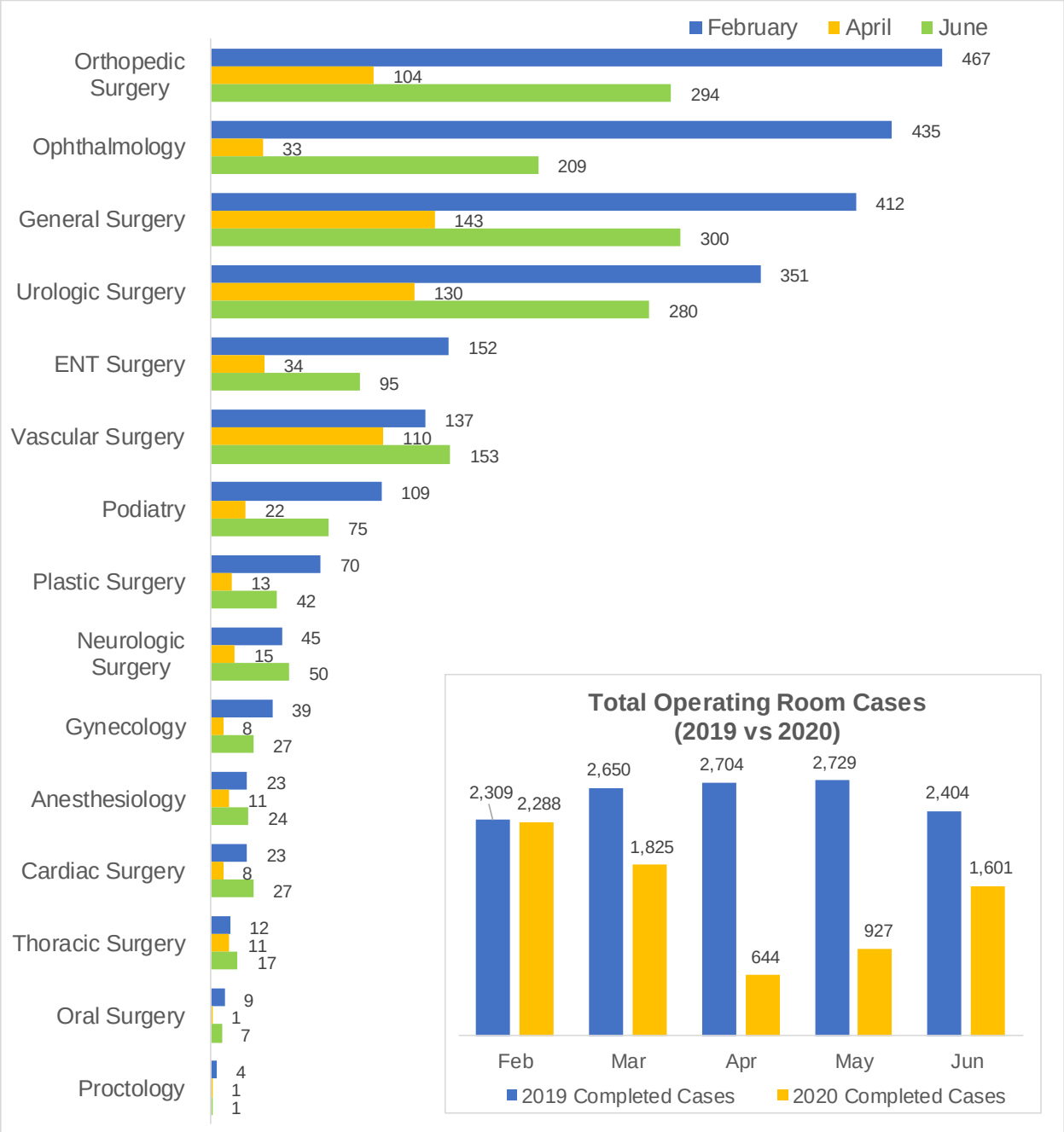


Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.137 provides an overview and graphic of VISN 22 completed OR cases over time. Early in the response, VISN 22 total OR cases declined from 2,288 cases in February 2020 to 644 cases in April 2020. The most significant decreases in OR cases occurred in orthopedic surgery, ENT surgery and ophthalmology service lines. By May 2020, total OR cases VISN-wide began to increase and reached 927 cases, approximately 35% of May 2019 total OR cases. As the response matured, total OR across all service lines started to recover from April 2020 lows. Total OR cases increased to 1,601 cases in June 2020, approximately 65% of June 2019 total operating cases. As of June 2020, OR cases across most of VISN 22's service lines remained below the levels seen before the response started in February 2020, although thoracic surgery, cardiac surgery, vascular surgery and neurologic surgery increased 42%, 17%, 12% and 11%, respectively.

Figure 7.137 *VISN 22 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

Table 7.102 provides an overview of VISN 22 personnel movement. VISN 22 sent personnel to support non-VHA entities throughout the response; by the end of June 2020, VISN 22 deployed a total of 157 clinical personnel including 112 Registered Nurses, 37 Licensed Vocational Nurses and 8 Nursing Assistants to assist a range of

destination sites including hospitals operated by Federal health agencies and non-VHA long-term care facilities. As described in the Cross-VISN Summary section of this report, delays experienced in DEMPS processes were noted by VISN 22 leadership. Within VISN 22, the network reallocated over 50 clinical personnel to VISN 22 sites. As of June 30, 2020, VISN 22 received six Registered Nurses from other VISNs.

Table 7.102 *VISN 22 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Registered Nurse	47	1	112	6
Licensed Vocational Nurse	1	1	37	0
Nursing Assistant	4	0	8	0
Respiratory Therapist	2	0	0	0

Sources: Response to Data Call, VISN 22, VHA, 8/11/2020; Response to Data Call, VISN 22, VHA, 9/4/2020.

In addition to staff, VISN 22 rebalanced supplies and equipment during the response as shown in Table 7.103. Notably, VISN 22 sent ventilators and ventilator supplies to other VISNs including VISN 16 when New Orleans experienced a severe outbreak and needed support to meet surge demand.

Table 7.103 *VISN 22 Movement of Supplies (as of June 30, 2020)*

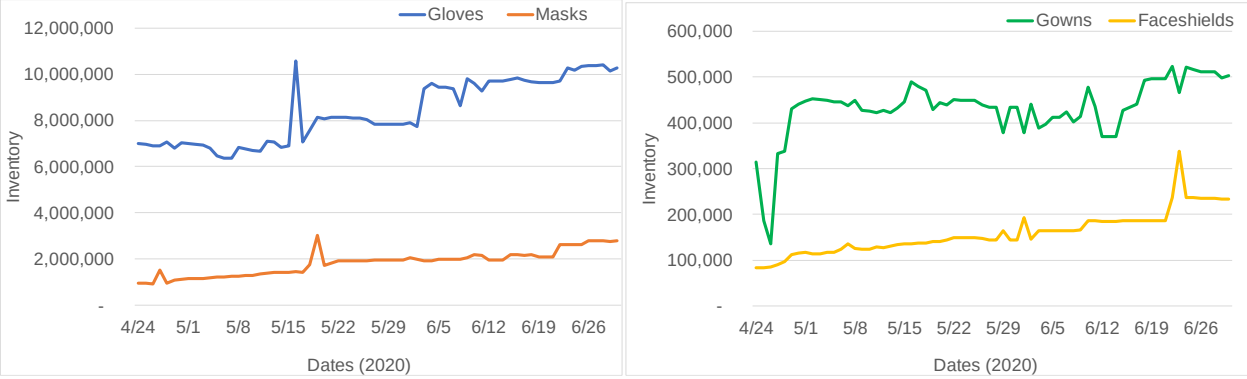
Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Face Shield	12,400	500	60	0
Glove	230,500	0	6,000	0
Hair Cover	12,000	0	2,000	0
Isolation Gown	122,000	18,000	1,800	7,000
N95 Respirator	230,500	12,000	7,200	4,800
Puritan Ventilator Supplies (Set)	0	10	0	0
Sani-Wipe	2,400	0	60	0
Shoe Cover	44,000	0	2,000	0
Ventilator	0	5	0	0

Sources: Response to Data Call, VISN 22, VHA, 8/11/2020; Response to Data Call, VISN 22, VHA, 9/4/2020.

Figure 7.138 provides an overview of VISN 22 PPE inventory over time. VISN 22's PPE inventory fluctuated as the response progressed. From late April 2020 to late June 2020, mask, face shield and glove inventory gradually increased to approximately 3,000,000, 250,000 and 10,000,000, respectively. Temporary spikes in mask, face shield and glove inventory occurred in May 2020 and June 2020. The week of April 24, 2020, gown inventory sharply decreased from 300,000 to approximately

150,000 and then rebounded to more than 400,000 by the week of May 1, 2020. From May 2020 to June 2020, gown inventory ranged between approximately 350,000 to 500,000.

Figure 7.138 *VISN 22 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

Figure 7.139 provides an overview of VISN 22 testing over time. VISN 22 completed between 1 to 786 COVID-19 tests a day between March 2020 and June 2020.

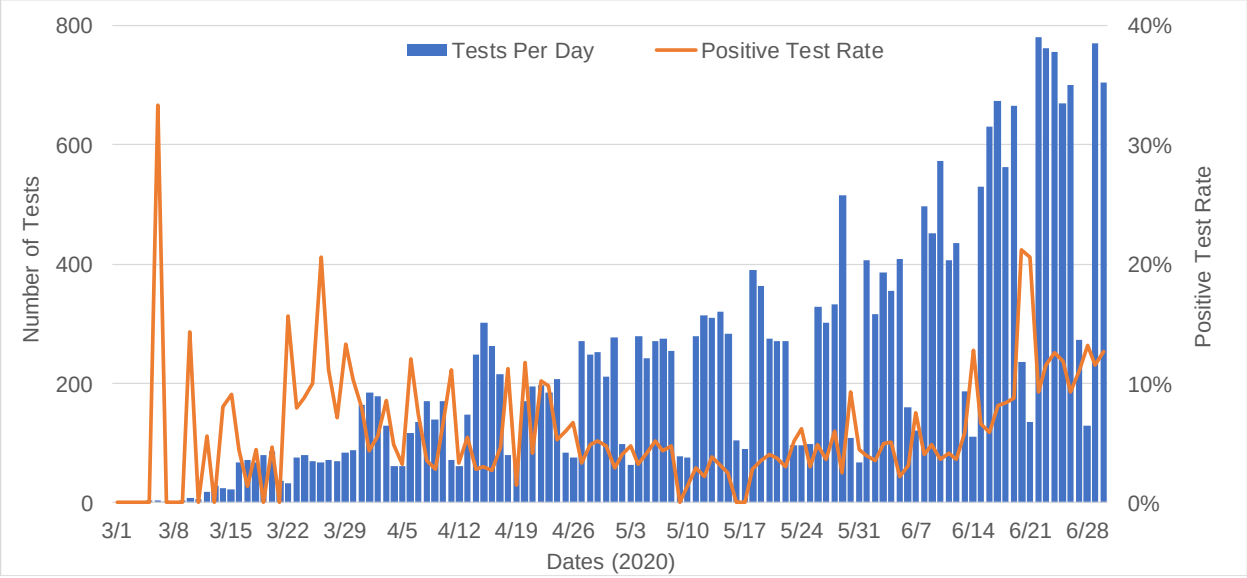
During these months the positive test rate fluctuated significantly, primarily ranging from 0% to 20% and averaging 5%. The positive test rate trended downward in May 2020, ranging between 1% and 10%, before climbing again in late June 2020, where it oscillated between approximately 5% and 20%. Overall, from March 2020 to June 2020, the number of tests per day increased and the positive test rate demonstrated a cyclic trend.

According to VISN 22 leadership, the most limiting factor initially during VISN 22's response was the availability of COVID-19 testing. Testing turnaround times for some of VISN 22's facilities were over one week in select cases. In this challenging scenario, VISN 22 had to consider all admissions potentially COVID-19 positive; this placed increased anxiety on personnel and created resource inefficiencies.

An effective testing program is the underpinning that allowed VISN 22 to quickly respond to high risk and high prevalence Veteran populations as well as provide isolation and treatment to contain the spread of the disease. Realizing early on that the testing platforms throughout the country was inadequate due to limited availability and prolonged turnaround times, VISN 22 leadership responded by setting up an in-house molecular COVID-19 testing at VA Greater Los Angeles in March 2020. Subsequently, VISN 22 established two consolidated testing stations for automated,

high-throughput and batch testing at VA Long Beach HCS and Southern Arizona VAHCS, as well as set up each facility's in-house testing using the VHACO national contract. Through these response measures, VISN 22 secured two to three day testing turnaround for all of the network's facilities and was able to expand testing to VISN 22 personnel.

Figure 7.139 *VISN 22 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

When the virus re-emerged in VISN 22's catchment area, especially in Arizona, VISN 22's testing machine manufacturer faced extraordinary demand in other parts of the country; however, VISN 22 leadership continued to be able to procure necessary test supplies and meet the testing demand without delay in turnaround time for patient care (2 days). To manage the situation, VISN 22 leadership procured advanced allotments of high-throughput testing supplies for Long Beach and Southern Arizona and re-distributed in-house testing supplies weekly throughout VISN 22 facilities. The network also obtained approval from VHACO to increase in-house testing capability from the national contract. Similar to the rest of the country, intermittent limited testing supply has remained a challenge throughout the pandemic. To add to the testing program, all VISN 22 laboratories validated in-house COVID-19 antibody testing on site in May and June 2020.

Table 7.104 provides an overview of VISN 22 Veteran testing results. By June 30, 2020, VISN 22 tested 27,126 of 498,028 (5.4%) Veterans Using VHA Services for COVID-19. There were 1,773 positive cases among Veterans Using VHA Services, representing 0.4% of the population. VISN 22 tested 389 of 389 (100%) of its CLC

residents by June 30, 2020. Of the total CLC resident population, 42 (10.8%) tested positive for COVID-19.

Table 7.104 *VISN 22 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	498,028	389
Population Tested	27,126	389
% of Population Tested	5.4%	100.0%
Population Positive	1,773	42
% of Population Positive	0.4%	10.8%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VISN 23: VA Midwest Health Care Network

Description of the Network and Population Served

The VA Midwest Health Care Network (VISN 23) operates in five core states of Minnesota, Nebraska, North Dakota, South Dakota and Iowa and provides health care services to more than 318,000 Veterans Using VHA Services. VISN 23 consists of 10 VAMC or VAHCS locations, 8 CLCs, 60 outpatient clinics including 58 CBOCs.[825]

As Table 7.105 illustrates, VISN 23 had 672 Veteran COVID-19 cases and reported 84 Veteran deaths associated with positive COVID-19 tests as of June 30, 2020. During its response, VISN 23 identified 48 VA employee cases and there were no VA employee deaths related to COVID-19.

Table 7.105 *VISN 23 Key COVID-19 Statistics (as of June 30, 2020)*

Category	Number
Veterans Using VHA Services	318,561
Veteran COVID-19 Cases	672
Veteran COVID-19 Inpatients	105
Veteran Deaths (COVID-19 related)	84
VISN Employees	15,850
Employee COVID-19 Cases	48
Employee Deaths (COVID-19 related)	0

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests, confirmed positives and deaths figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

Sources: Veterans Using VHA Services Data, ARC, VHA, 8/31/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed 8/3/2020.

Summary

VISN 23 began preparing for COVID-19 in January 2020 by allocating funds across sites, drafting surge plans and securing PPE to ensure Veterans were cared for should an outbreak occur. COVID-19 spread to VISN 23 the week of March 8, 2020 and the first confirmed COVID-19 cases in VISN 23 presented in Minneapolis VAHCS in Minnesota and Omaha VAMC in Nebraska.[826] By mid-March 2020, governors in states corresponding with VISN 23's catchment areas declared States of Emergency.[827] According to VISN 23 leadership, the network did not face a surge in cases through June 30, 2020.

VISN 23 worked with 13 SVHs across the six states to track caseloads, support testing and monitor for outbreaks. According to VISN 23 leadership, notable community outbreaks occurred in Minneapolis, Omaha and four industrial areas with operating meat processing facilities and a wind turbine plant.

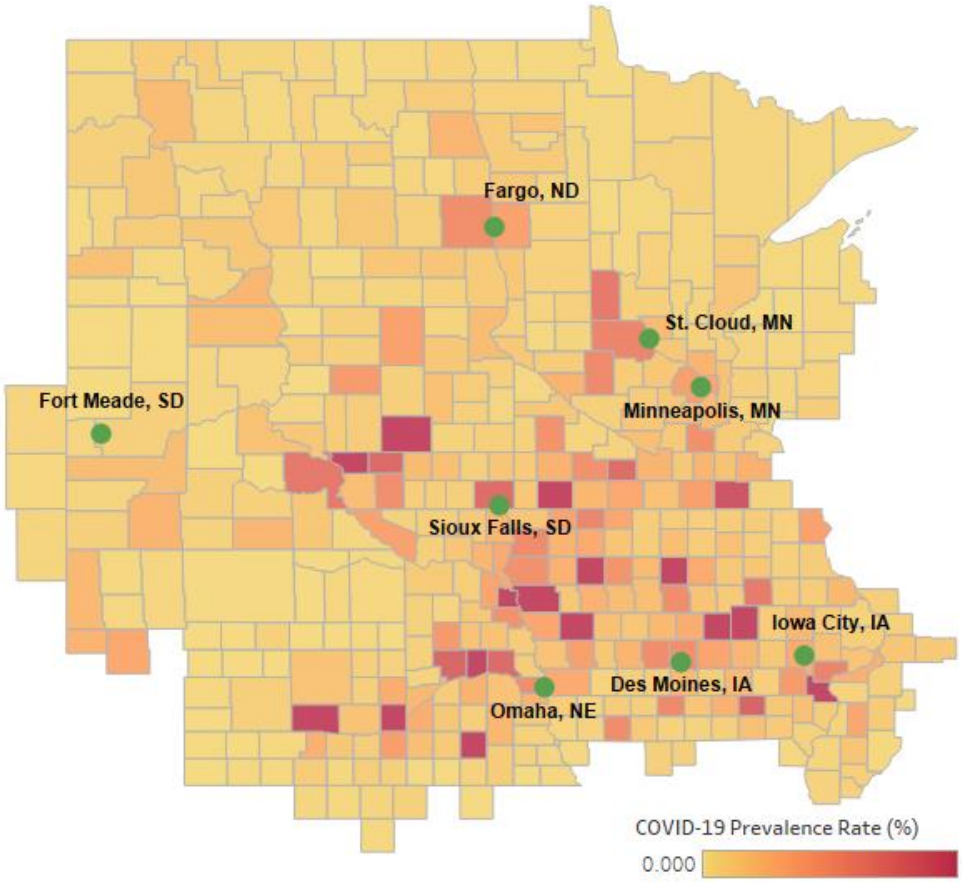
Absent the forecasted surge at VISN 23 sites, VISN 23 did not close any facilities with the exception of one CBOC in Wagner, SD. In compliance with the VHA COVID-19 Response Plan and PPE policy, VISN 23 facilities conducted patient screenings prior to accessing facilities for in-person care and emphasized telehealth appointments where appropriate.

VISN 23 leadership noted that significant effort went into preparation, training and bed expansion early in the response; however, VISN 23's leadership found it challenging to maintain personnel morale during lulls in COVID-19 cases when care for non-COVID-19 was reduced. To boost morale, VISN 23 leadership created opportunities for its personnel to help other geographic areas.

Community Prevalence and VISN Case Statistics

Figure 7.140 and Figure 7.141 provide an overview of VISN 23 prevalence and cases over time. During the week of March 8, 2020, VISN 23 confirmed the first two Veteran cases of COVID-19 in its network.[828] New confirmed cases among Veterans gradually increased until the week of May 24, 2020; subsequently. new cases started to decline and eventually plateaued as shown in Figure 7.141. By June 30, 2020, 672 Veterans Using VHA Services were diagnosed with COVID-19.[829] Prevalence of confirmed COVID-19 among Veterans Using VHA Services reached 0.21% compared to 0.72% among the general community.[830]

Figure 7.140 *VISN 23 Prevalence of Confirmed COVID-19 Cases Among the General Population in US Counties (June 30, 2020)*



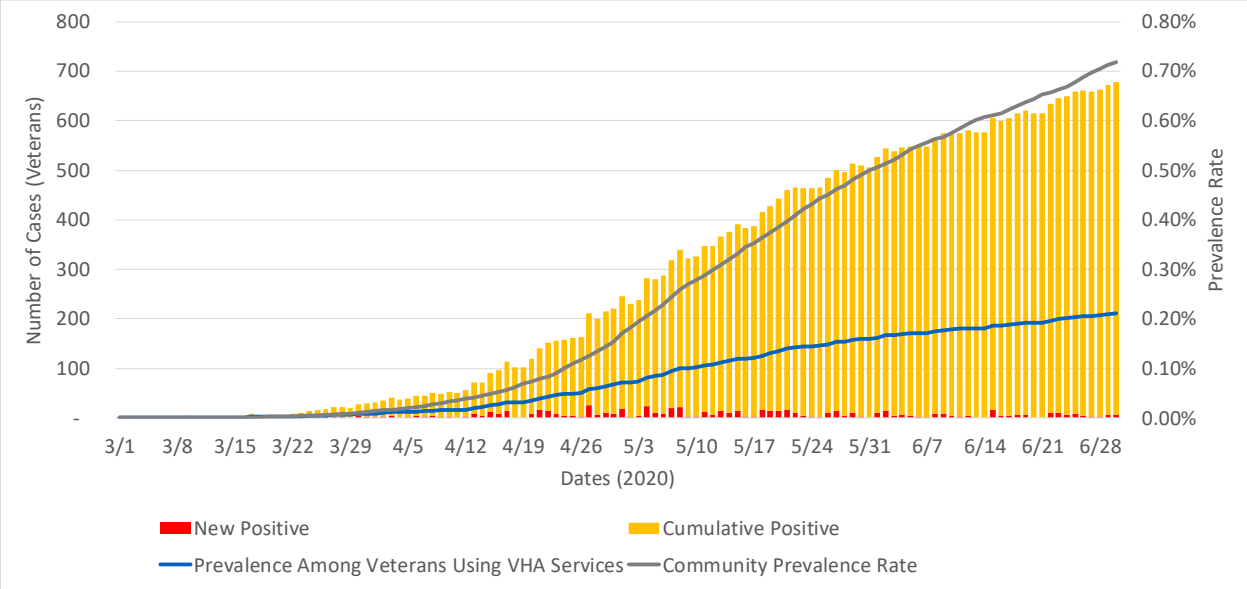
Note 1: The cities shown on this graphic refer to VA facility hub locations made up by VA Health Care Systems and/or VA Medical Centers and their accompanying divisions and campuses, where applicable.

Note 2: The counties shown on this graphic are based on the alignment of County FIPS codes to VISN locations as per "Veterans Integrated Services Networks (VISN), Markets, Submarkets, Sectors and Counties by Geographic Location", VA, last updated on June 10, 2020.

Source: Johns Hopkins University; US Census 2019 Estimate; US Department of Veterans Affairs.

Data as of June 30, 2020.

Figure 7.141 *VISN 23 COVID-19 Confirmed Case Statistics (Daily, March 1 to June 30, 2020)*



Notes: See Cross-VISN Summary for a discussion on considerations for comparing the Veteran and Community prevalence. Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran confirmed positives figures exclude Veteran-Employees. Employee tests, confirmed positives and deaths include both Veteran-Employees and Non-Veteran Employees.

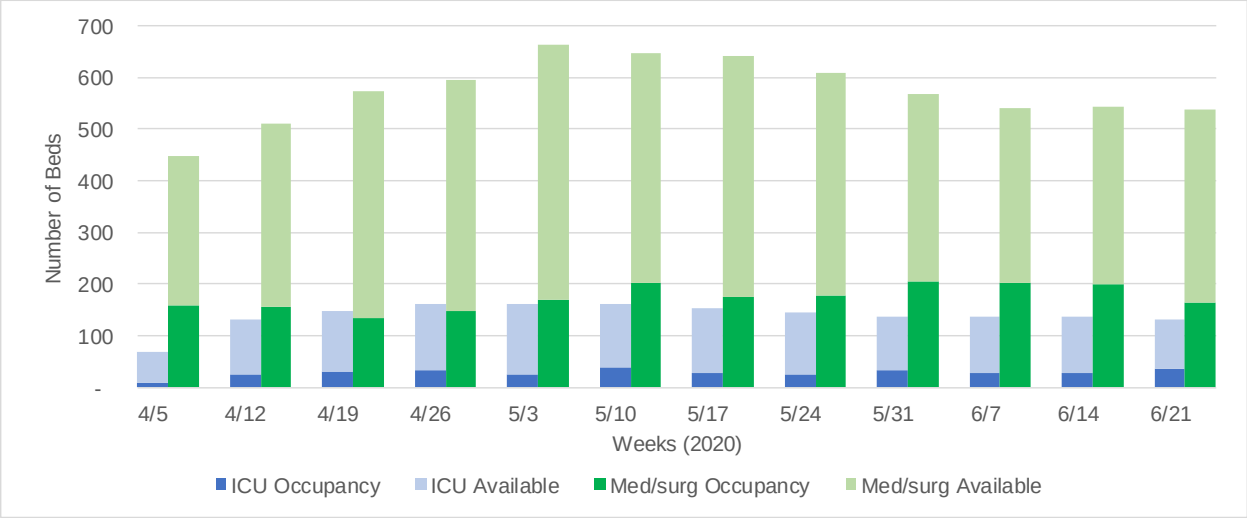
Sources: NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, accessed 7/10/2020; Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

Capacity Management

VISN 23 carried out surge planning measures across the network in preparation of COVID-19 outbreaks. At peak surge capacity, VISN 23 operated 270 Med/surg beds and 59 ICU beds at Minneapolis VAHCS in Minnesota.[831] In Nebraska, VISN 23's second most COVID-19 active area per VISN 23 leadership, Omaha VAMC operated 97 Med/surg beds and 41 ICU beds at peak surge capacity.[832] At VA Central Iowa HCS Des Moines Division in Iowa, Med/surg and ICU bed peak capacity extended to 97 and 9, respectively.[833]

Overall, VISN 23's peak capacity for Med/surg beds and ICU beds was 664 and 161, respectively. Figure 7.142 provides an overview and graphic of VISN 23 bed occupancy and capacity over time.

Figure 7.142 *VISN 23 Bed Occupancy and Capacity Statistics (Weekly, April to June 2020)*



Note: Visual represents a 7-day week starting on the date indicated.

Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

HR / Staffing

As shown in Table 7.106, VISN 23 hired 758 new personnel from February 2020 to June 2020. During that same time, 603 VISN 23 employees left the VA. Of the new hires, 317 were clinical personnel including Medical Officers, Nurses, Practical Nurses, Nursing Assistants, Medical Support Assistants and Psychologists.

VISN 23 also hired 441 new Pharmacists, Social Workers, Custodial Workers and other occupations. Overall, Nursing, Medical Support Assistance and all other occupations experienced the most growth in VISN 23 from February 2020 to June 2020. As of June 30, 2020, VISN 23 had nearly 16,000 active personnel. Table 7.106 provides an overview of VISN 23 staffing.

Table 7.106 *VISN 23 Key HR Statistics (February - June 2020)*

Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Medical Officer	32	31	1	1,108
Nurse	147	103	44	3,725
Practical Nurse	32	43	(11)	840
Nursing Assistant	35	25	10	463
Medical Support Assistance	99	49	50	1,398
Pharmacist	7	4	3	465
Psychology	2	5	(3)	230

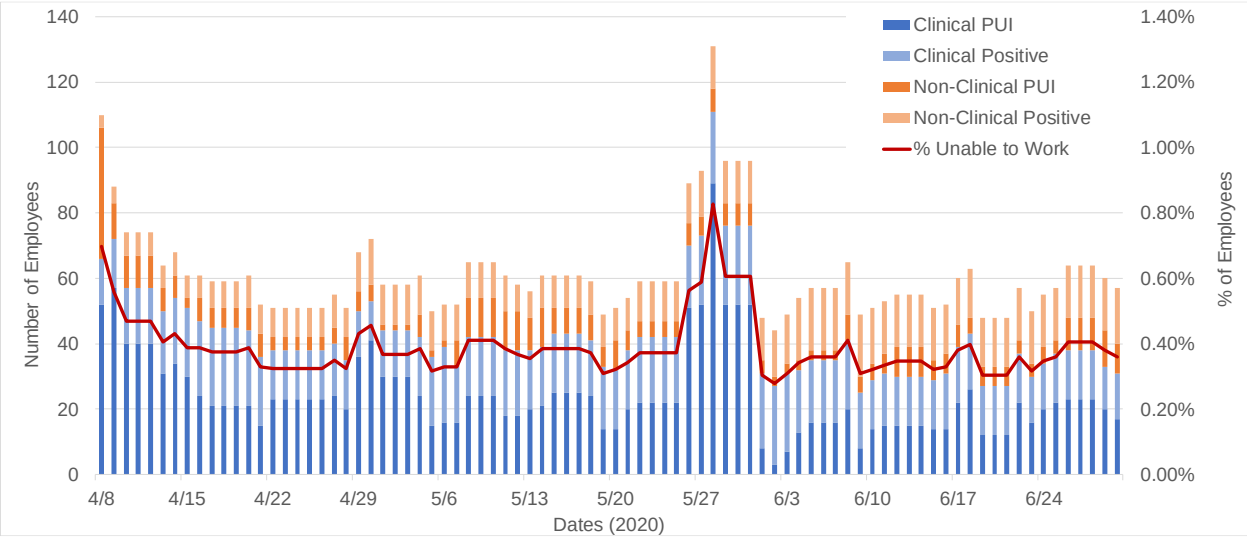
Occupations	New Hires	Total Loss	Net Change	Total Staff Onboard (as of June 30, 2020)
Social Work	22	17	5	631
Custodial Worker	75	49	26	562
All Other Occupations	307	277	30	6,428
Totals	**758**	**603**	**155**	**15,850**

Notes: New Hires represents unique external hires, which is exclusive of transfers from other VA entities; Total Loss represents all employees who have been removed from, or departed, the VA for any reason; and Total Staff Onboard represents total positions filled as of 6/30/2020. All Other Occupations include all administrative, clinical and other occupations not independently identified in the table above.

Sources: HR Employee Cube, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube, VSSC, VHA, accessed 8/5/2020.

As indicated in Figure 7.143, on April 8, 2020 more than 1.00% of VISN 23's workforce was unable to work due to circumstances related to COVID-19. That percentage started to decline throughout mid-April 2020 and reached a steady state between approximately 0.50% and 0.70% from April 21, 2020 to May 25, 2020. Around the same time as the 2020 Memorial Day holiday, the percentage of employees unable to work due to circumstances related to COVID-19 increased significantly, from less than 0.60% to more than 1.30%. That percentage started to decline on June 1, 2020, fluctuating between 0.40% and approximately 0.70% throughout the month and eventually reached approximately 0.60% by June 30, 2020.

Figure 7.143 *VISN 23 Employees Unable to Work Due to Circumstances Related to COVID-19 (Daily, April 8 - June 30, 2020)*



Sources: Self-Reported Employee Data, Rapid COVID-19 Database, VHA, accessed 8/7/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

Fourth Mission

VISN 23 carried out numerous Fourth Mission taskings between April 2020 and June 2020, as shown in Table 7.107. The contributions made to Fourth Missions in Iowa, Nebraska, Minnesota Louisiana, South Dakota, Virginia and the Navajo Nation included the community bed expansion, VA personnel to non-VA facilities, supplies and testing.

In late April 2020, VISN 23 provided clinical personnel, lab testing support and gowns to Iowa Veterans Home and several Nebraska SVHs. Additionally, VA Central Iowa HCS and Iowa City VAHCS opened 20 beds to community patients.

Throughout May 2020 and June 2020, VISN 23 sent N95 respirators and deployed clinical and non-clinical personnel to long-term care facilities scattered throughout Minnesota. Minneapolis VAHCS provided 10 Med/surg beds and 8 ICU beds for community patients as requested by the state of Minnesota.

Outside of VISN 23, the network provided non-VHA entities with personnel and supplies. In Louisiana and South Dakota, VISN 23 sent PPE to Southeast Louisiana War Veterans Home and Indian Tribal Reservations. During its response, VISN 23 deployed Registered Nurses to IHS facilities and CNHs located in Virginia.

VISN 23 leadership noted that it was challenging to coordinate with FEMA and ensure VA personnel were well prepared and adequality trained for Fourth Mission taskings. VISN 23 leadership indicated that it overcame these coordination obstacles with FEMA by maintaining a frequent and consistent communication cadence with FEMA through VHA AEMs, who served as liaisons between VHA VISNs and FEMA. VISN 23's coordinated efforts focused on Fourth Mission activity, equipping VA personnel with proper PPE, supporting deployed personnel as they treated COVID-19 positive patients and providing immediate care when inured or tested positive themselves.

Table 7.107 *VISN 23 Fourth Mission and Community Support (as of June 30, 2020)*

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Marshalltown, IA	Iowa Veterans Home	4/26/2020	6/29/2020	Staffing Supplement	Provided 61 total staff, including 28 Licensed Practice Nurses and 100 gowns
Multiple Locations, NE	Nebraska SVHs	4/28/2020	6/1/2020	Testing and PPE Support	Provided lab testing support as well as 800 gowns
Des Moines and Iowa City, IA	State of Iowa	4/29/2020	6/24/2020	Community Bed Capacity	Provided 20 beds for the community

Location	Entity Supported	Start	End	Mission Goal(s)	Support Provided
Multiple Locations, MN	Minnesota Long Term Care Facilities	5/17/2020	6/24/2020	Staffing Supplement, Testing and PPE Support	Provided 90 Registered Nurses, 12 Nursing Assistants, 31 Licensed Practice Nurses, 9 Nurse Managers, 1 Health Care Technician and 1 Admin / Support Staff as well as 750 N95 respirators
Minneapolis, MN	State of Minnesota	6/4/2020	7/4/2020	Community Bed Capacity	Provided 18 beds for the community, including 8 ICU and 10 Med/surg beds
Reserve, LA	Southeast Louisiana War Veterans Home	6/24/2020	6/24/2020	PPE Support	Provided 500 surgical gowns and 500 masks
Sioux Falls and Black Hills, SD	Indian Tribal Reservations	Unspecified	Unspecified	PPE Support	Provided 100 masks
Unspecified, VA	Virginia CNH	Unspecified	Unspecified	Unspecified	Provided 4 Registered Nurses
Unspecified	IHS	Unspecified	Unspecified	Unspecified	Provided 1 Registered Nurse

Sources: Response to Data Call, VISN 23, VHA, 7/16/2020; Response to Data Call, VISN 23, VHA, 8/18/2020.

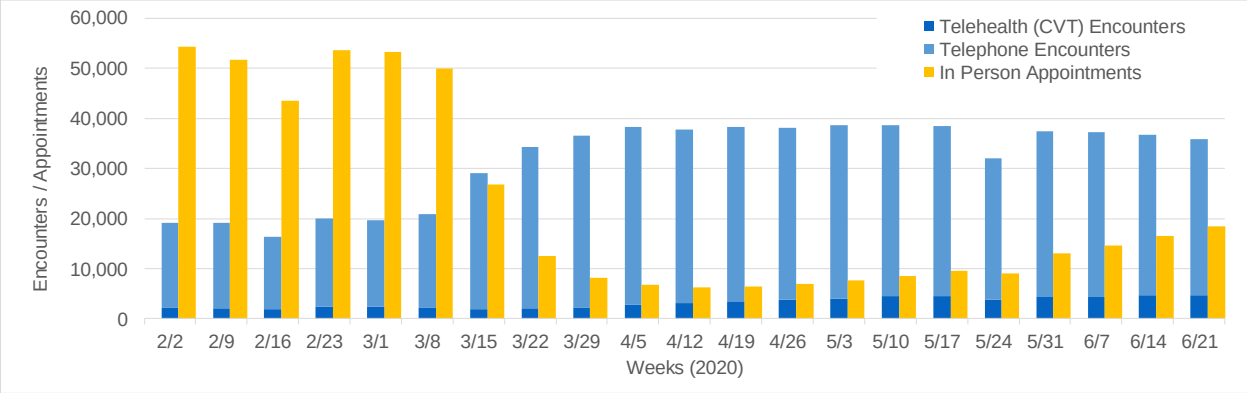
Patient Care by Visit Type

As depicted in Figure 7.144, from February 2, 2020 to March 8, 2020, VISN 23 primarily delivered in-person care to patients. During the week of March 8, 2020, VISN 23 scheduled approximately 50,000 in-person appointments and completed approximately 20,000 telehealth and telephone encounters.

In March 2020, VISN 23 began tracking the cross-VISN shift from in-person care to virtual care. By the week of March 15, 2020, telephone and telehealth visits increased to more than 25,000 encounters per week, a trend that continued for the next three weeks. By the week of April 5, 2020, telephone and telehealth encounters plateaued around 30,000 to 40,000 encounters per week.

From mid-March 2020 to mid-April 2020, in-person appointments decreased to approximately 6,000 appointments per week, then started increasing. By late June 2020, in-person appointments reached nearly 20,000 appointments per week, roughly 40% of pre-COVID-19 levels.

Figure 7.144 *VISN 23 Virtual Encounters vs. In-Person Appointments (Weekly, February to June 2020)*



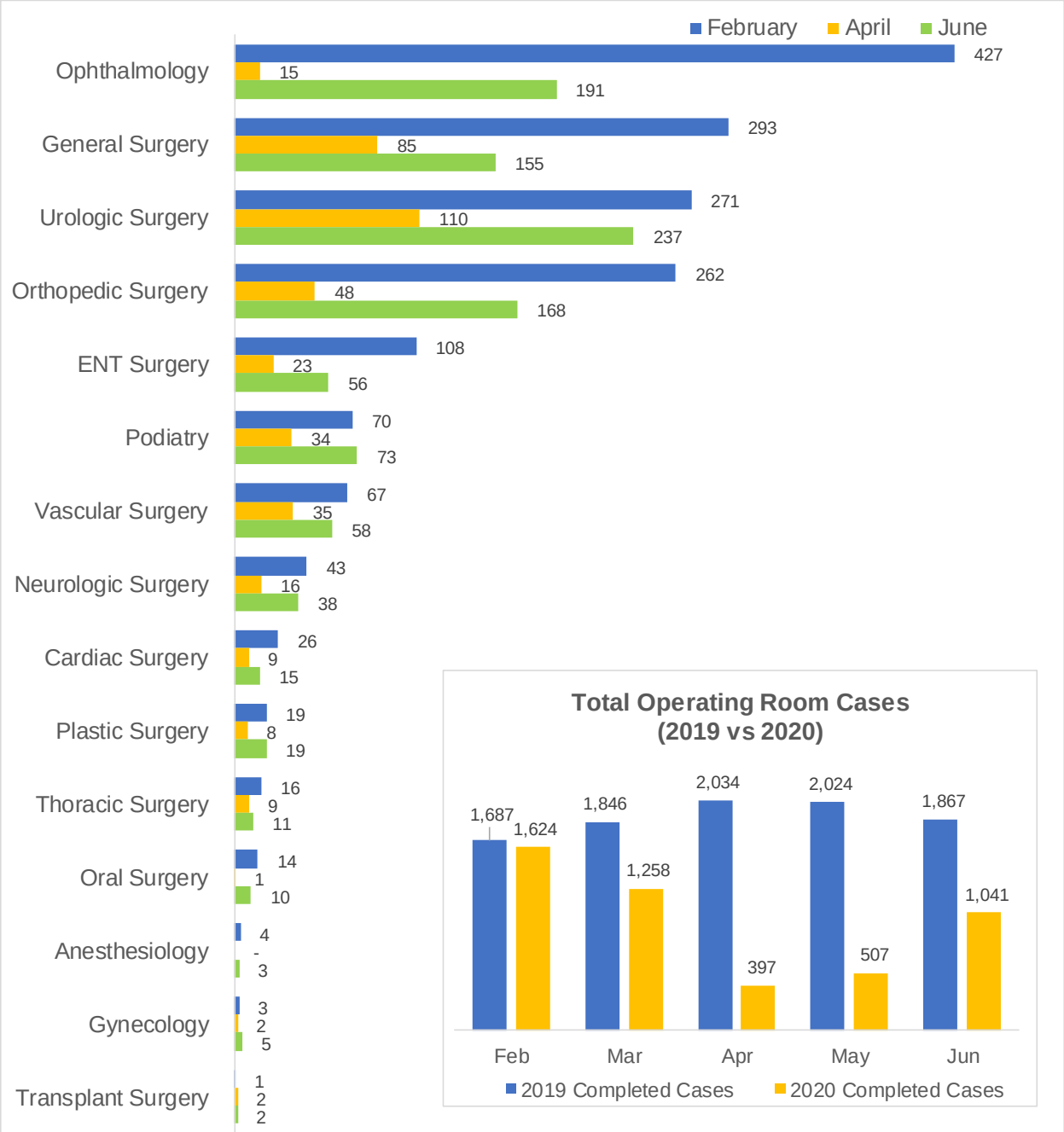
Notes: "Telehealth (CVT)" refers to unique encounters that are attributed to CVT. Visual represents a 7-day week starting on the date indicated.

Sources: Telehealth Cube, VSSC, VHA, accessed 7/30/2020; Encounters Cube, VSSC, VHA, accessed 7/30/2020; Appointments Cube, VSSC, VHA, accessed 7/30/2020.

Figure 7.145 provides an overview of VISN 23 completed OR cases over time. Early in the response, VISN 23 total OR cases declined from 1,624 cases in February 2020 to 397 cases in April 2020. Notable decreases occurred in ophthalmology, general surgery, urologic surgery, orthopedic surgery and ENT surgery.

By May 2020, total OR cases in VISN 23 increased to 507 cases, approximately 25% of the May 2019 total. As the response matured, total OR cases across all service lines started to trend upward. In June 2020, total OR cases rose to 1,041, approximately 55% of VISN 23's June 2019 totals. As of June 2020, OR cases across most service lines remained lower than pre-pandemic totals. Podiatry cases increased approximately 5% from 70 cases in February 2020 to 73 cases in June 2020.

Figure 7.145 *VISN 23 Completed OR Cases (Monthly, February to June 2020)*



Source: 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

Resource Movement / Inventory

VISN 23 sent personnel to support other VISNs and non-VHA entities throughout the response, as indicated by Table 7.108. By the end of June 2020, VISN 23 sent 39 Registered Nurses, 2 Allied Health Clinicians and 1 Licensed Practical Nurse to other VISNs.

VISN 23 also supported non-VHA entities with personnel. Notably, VISN 23 deployed 101 Nurses, 59 Licensed Practical Nurses, 16 Nursing Assistants and 10 Nurse Managers to non-VHA entities. Personnel from Administration, Health Care Technicians and Rehab Technicians were also deployed to non-VHA entities from February 2020 to June 2020.

VISN 23 sent more than 250 personnel to other VISNs and non-VHA entities during its response. The majority of VISN 23's personnel movement activity was initially informal: executed without FEMA Mission Assignment and outside of the DEMPS processes. Retroactively, those missions were formalized with FEMA and volunteers were added to the DEMPS database. VISN 23 leadership stated three tactics that enabled VISN 23 to provide informal staffing support where needed. First, VISN 23 formed close partnerships with neighboring VISNs 9, 12 and 15 to minimize cross-country travel. Second, VISN 23 worked with local hospitals and SVHs within the VISN to identify needs for assistance and deploy resources. Third, VISN 23 connected staffing pool coordinators to streamline volunteer screening and book travel.

Table 7.108 *VISN 23 Movement of Personnel (as of June 30, 2020)*

Category	Reallocated Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Admin / Management / Support	-	-	3	-
Allied Health Clinician	-	2	-	-
Clinical Support	-	-	1	-
DOM Rehab Technician	-	-	2	-
DOM Tech	-	-	1	-
Health Care Tech/Certified Nursing Assistant	-	-	2	-
Health Care Technician	-	-	9	-
Licensed Practical Nurse / Licensed Vocational Nurse	-	1	59	-
Medical Lab Tech	-	-	1	-
Nurse Manager	-	-	10	-
Nursing Assistant	-	-	16	-
Program Support Assistant	-	-	1	-
Registered Nurse	-	39	101	-
Rehab Technician	-	-	4	-

Sources: Response to Data Call, VISN 23, VHA, 8/18/2020.

In addition to personnel, VISN 23 sent supplies to non-VHA entities during the response; Table 7.109 provides an overview of VISN 23 supplies movement. By June

2020, VISN 23 sent 900 generic gowns, 750 N95 respirators, 600 generic masks and 500 surgical gowns to non-VHA entities.

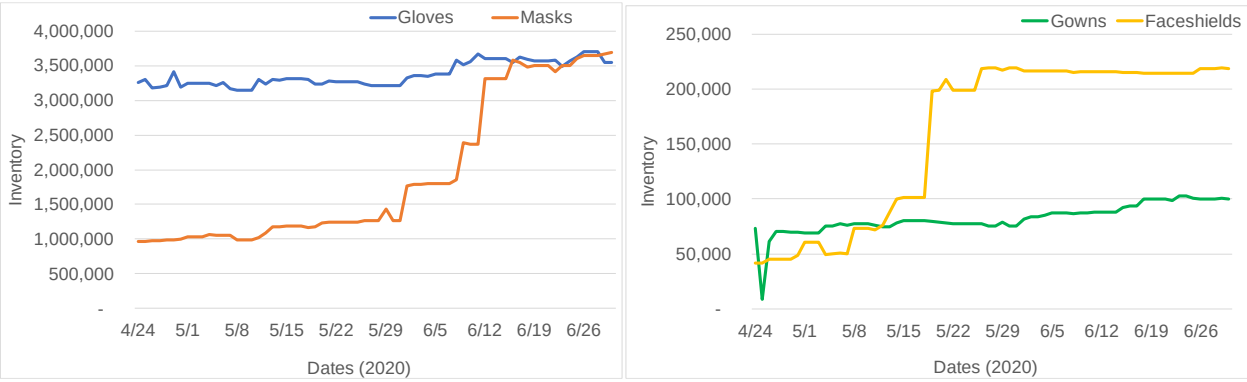
Table 7.109 *VISN 23 Movement of Supplies (as of June 30, 2020)*

Category	Rebalanced Within VISN	Sent to Other VISN	Sent to Non-VHA Entity	Received from Other VISNs
Generic Gown	-	-	900	-
Generic Mask	-	-	600	-
N95 Respirator	-	-	750	-
Surgical Gown	-	-	500	-

Source: Response to Data Call, VISN 23, VHA, 7/16/2020.

Figure 7.146 provides an overview of VISN 23 PPE inventory over time. VISN 23's PPE inventory fluctuated at different points of the response. From late April 2020 to mid-May 2020, face shield inventory doubled from approximately 50,000 to 100,000 face shields. The week of May 22, 2020, inventory doubled again, reaching more than 200,000 face shields. Similarly, mask inventory hovered around 1,000,000 from late April 2020 to late May 2020, then increased to more than 3,500,000 the week of June 12, 2020. Gown inventory remained between approximately 75,000 and 100,000 from April 2020 to June 2020, with a temporary dip to nearly 0 the week of April 24, 2020. Inventory of gloves remained between 3,000,000 and 375,000,000 throughout VISN 23's response.

Figure 7.146 *VISN 23 PPE Supplies Inventory (Daily, April 24 - June 30, 2020)*



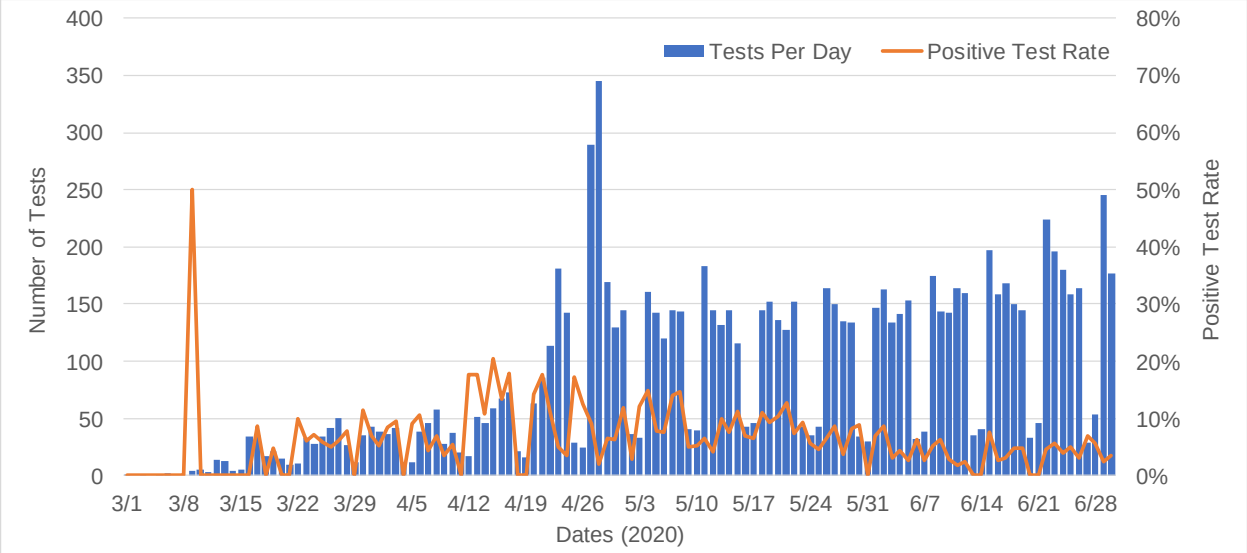
Source: Rapid COVID-19 Database, VHA, accessed 7/28/2020.

Testing

Figure 7.147 provides a comprehensive overview and graphic of VISN 23 testing during the response. Testing in VISN 23 ramped up in the early months of the pandemic. In March 2020, between 0 and 50 tests per day were completed, and in April 2020, between 25 and 350 tests per day were completed. During that two-month

period, positive test rates primarily varied between 0% and 20%, with one early day spiking to 50%. As noted by VISN 23 leadership, the network's access to testing swabs emerged as an issue during the response. VISN 23 negotiated outside contracts with the University of Iowa and the Mayo Clinic to expand its testing capabilities.

Figure 7.147 *VISN 23 COVID-19 Tests and Positive Test Rate (Daily, March 1 to June 30, 2020)*



Source: NST Dataset, HOC, VHA, accessed 8/1/2020.

In May 2020, completed tests held steady between 25 and 150 tests per day, while positive rates decreased to approximately 15% at its pinnacle and 0% at its nadir. Throughout June 2020, VISN 23 completed between approximately 75 and 250 tests per day and testing was producing a slightly lower positivity rate since testing began in March 2020.

Table 7.110 provides an overview of VISN 23 Veteran testing. Within VISN 23, 10,059 of 288,579 (3.5%) Veterans Using VHA Services received testing for COVID-19 by June 30, 2020. There were 672 positive cases among Veterans Using VHA Services, representing 0.2% of the total Veterans Using VHA Services population.

VISN 23 tested 373 of 376 (99.2%) of its CLC residents by June 30, 2020. Of the total CLC resident population, 5 residents (1.3%) tested positive for COVID-19.

Table 7.110 *VISN 23 Veteran Testing (as of June 30, 2020)*

Category	Veterans Using VHA Services	CLC Residents
Population	318,561	376
Population Tested	10,059	373
% of Population Tested	3.2%	99.2%
Population Positive	672	5
% of Population Positive	0.2%	1.3%

Notes: Veterans Using VHA Services are Veterans who used VHA services between October 1, 2018 and June 30, 2020. Veterans who died prior to February 1, 2020 were excluded from the Veterans Using VHA Services definition for this report in order to quantify Veterans at risk for COVID-19. Counts by location are based on a pro-rated method proportional to the cost of care. Veteran tests and confirmed positives figures exclude Veteran-Employees. The Population of CLC Residents reflects the current CLC census as of June 30, 2020. The Population Tested for CLC Residents is calculated based on the % of Population Tested reported by VHA.

Sources: Current Enrollment Cube, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; Daily Leadership Briefing Presentation, 7/1/2020, VHA; Veterans Using VHA Services Data, ARC, VHA, 8/31/2020.

VA COVID-19 RESPONSE IN ACTION: VISN 23

101-Year-Old Veteran Overcomes COVID-19 with Support of the Minneapolis VAHCS

Mr. Samuel Nilva is a 101-year-old World War II Veteran who overcame COVID-19 through his support and treatment at the Minneapolis VAHCS in April 2020. He was discharged from the hospital on April 29, 2020, which also happened to be his 101st birthday; however, before he left, Nilva's caregivers in Ward 3E threw him a party. They sang "Happy Birthday," hung a birthday sign over his bed, signed a birthday card and cheered as he was wheeled down the hall on his way out of the hospital. "Wonderful," Nilva said, as Nurses and staff sang to him.

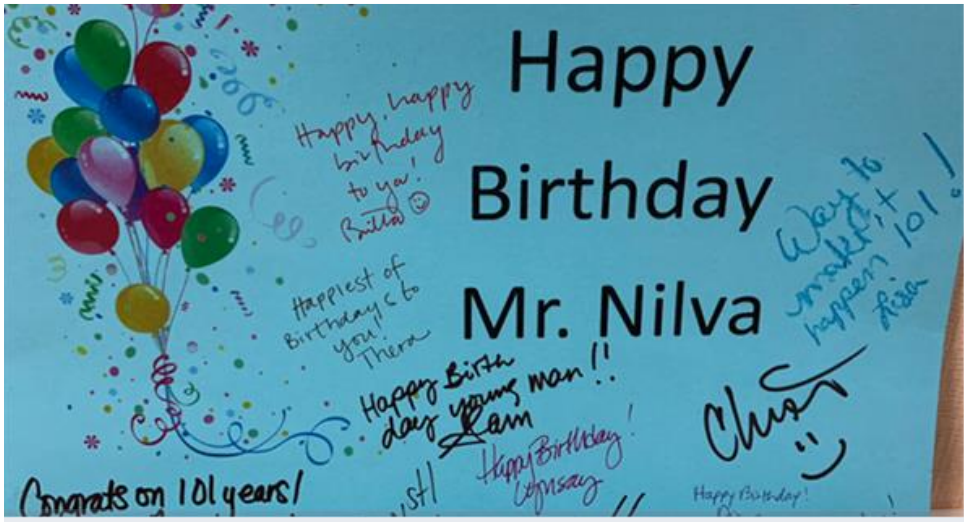


Photo caption: Birthday card from Minneapolis VA HCS staff to Mr. Samuel Nilva, WWII Veteran, to celebrate his 101st birthday.

"Today was a great day. We were able to celebrate a Veteran turning 101 and going home after surviving COVID," Brenna Eam, a Registered Nurse at the hospital, said in a short video posted on the Minneapolis VAHCS' Facebook page. "It's days like today that keep our spirits up because it's so nice to hear that there are people out there who are getting better and able to recover at home."

Source: "Veteran Turns 101 and Beats COVID-19!" 4/29/2020, Minneapolis VA HCS Facebook Page, https://www.facebook.com/VAMinneapolis/videos/veteran-turns-101-and-beats-covid-19/1625551564250665/, accessed 10/14/2020.

DISCUSSION AND CONCLUSIONS

An indelible element of humanity runs throughout this crisis and VHA's response. The experiences of the Veterans, the people in communities that received VHA support and the people of VHA are core to every aspect of the response. While this report focuses on the threat posed by COVID-19 along with strategies, execution and issues within the response, we must acknowledge the human elements inherent to the experience and the effort. Those human elements include tragedy, triumph, commitment, perseverance and courage. Veterans and the people of VHA experienced and demonstrated these elements throughout the response to COVID-19.

The reader should note that VHA expects to develop further reports to document the evolution of VHA's response to the pandemic and consider additional strategic follow-up actions informed by the ongoing experience.

Overall Response

Finding: The effectiveness and agility of the comprehensive VHA response to a historic crisis of unprecedented scope and scale is the fundamental finding of this report.

Context: The COVID-19 pandemic brought a health, economic and social crisis to the Nation and required a coordinated response of unprecedented scope and scale. The challenges within the response were extraordinary for every aspect of U.S. society and industry. As the Nation's largest health care system, VHA confronted the need for rapid and comprehensive action to protect the health of Veterans and support the Federal support to states. Meeting these challenges mandated that VHA act with unity of effort and agility across 18 networks containing 170 medical centers.

Conclusions: The Secretary of VA and the EIC aligned responsibilities, communicated with stakeholders and employed an operational concept that produced an effective response in support of Veterans and U.S. communities. Leaders in VHACO and the networks carried out their responsibilities and engaged with agility to mitigate challenging issues such that networks and VAMCs effectively cared for Veterans and supported U.S. communities. The provision of health services to Veterans during the period covered by this report, extending from January 2020 through June 2020, required enterprise adaptation of clinical services, expansion of inpatient capacity by over 2,000 beds and response to an unprecedented number and scope of FEMA Mission Assignments, with VHA personnel deployed to more than 45 states. The sum total of the evidence reflects a very effective, coordinated system-wide response to

the pandemic while delineating some issues that presented major challenges. VHA was agile in addressing major challenges such that responses, in all aspects of its mission, were fully effective; however, some of the mitigating actions involve interim solutions and some issues could not be fully mitigated. Some issues were linked to nationwide shortfalls in supplies essential for response to a pandemic. Several of the issues align with the existing VHA Modernization Plan and have prompted consideration of new or accelerated modernization actions.

This response demonstrates VHA's role under Title 42 of the U.S. Code as a health care "safety net" for the states and communities. The impact of the COVID-19 pandemic has been disproportionately severe among residents in the nation's elder care facilities. VHA has effectively responded to outbreaks across the Nation in SVHs and CNHs. VHA's success in preventing outbreaks among residents in VHA CLCs, following initial CLC outbreaks in the Northeast, provides a template for protecting those in elder care facilities nationally.

Recognition of the Threat and Planning

Finding: The full-time presence of a VHA liaison in HHS facilitated early recognition of the pandemic threat and enabled monitoring of the threat with preparation for planning.

Finding: The absence of a national framework tailored to available health intelligence on COVID-19 specifying VHA's role under Title 42 increased the uncertainty for VHA leaders and planners in mapping the VHA response.

Context: The primary challenge for VHA in planning for the COVID-19 pandemic pertained to forecasting the required capacity and types of care for the Veteran population and community response. Without national analytics of data from outbreaks in other nations, and without planning detailing VHA's role, forecasting demand for VHA inpatient services under the Fourth Mission required assumptions with a high degree of uncertainty.

Conclusion: VHA's planning was based upon sound assumptions, including an appropriate mix of SMEs, and provided a sound framework for initiation of VHA's response. VHA recognized the threat posed by the novel coronavirus infection outbreak in China, informed the Secretary of VA and initiated preparations for planning before a national response was initiated. This early recognition was enabled by an embedded OEM liaison in HHS, and VHA initiated planning for a potential pandemic reaching the U.S. In January 2020, VHA was not part of interagency communications

on a national response framework. VHA's response plan was built as an annex to the existing VHA HCI Base Plan.

See Recommendations 1a-b in the Recommendations section.

National and Interagency Coordination

Finding: Early incorporation of VHA into the planning and execution of the interagency response would enhance forecasting of requirements and preparations for support to states and community health organizations.

Finding: State agencies were not consistently aware of the option or the process to request support from VHA via FEMA.

Context: The national response was focused on containment in January and February of 2020 with a focus on public health actions. Once it became evident COVID-19 was not contained in the U.S. and was spreading widely, the national response required greater focus on meeting health care demand. VHA's capabilities available under Title 42 were not fully integrated into the national and interagency approach to the early response. Within state governments, awareness of VHA's role under Title 42 varied.

Conclusions: VA and VHA were assertive in making their capabilities' readiness known to those leading the national response as they recognized the importance of VHA capabilities to the effort. The Secretary of VA recognized VA should be on the U.S. Coronavirus Task Force after it was established without VA representation. The Secretary requested and received a position on the Task Force. The EIC inserted liaisons into HHS and FEMA, as well as into the FEMA Supply Chain Task Force. The Secretary of VA and the EIC continued their engagements with interagency counterparts. As the response progressed, VHA's role under Title 42 in support of the states and the IHS grew, demonstrating that VHA's capabilities are an important safety net to communities during a public emergency. As the nation's largest health care system, VHA brings health care expertise to the national and interagency response that is distinct from public health expertise. Additionally, VHA brings nationwide Federal health care capacity to the interagency response. The lack of recurring Federal health interagency leadership interactions focused on coordinated response planning and sharing of global health intelligence prior to the crisis delayed a coordinated Federal health response. Additionally, the delayed incorporation of VHA into the planning and execution of the interagency response impeded forecasting and preparations for support to states and community health organizations. VHA liaisons

to ESF #8 in HHS and the FEMA NRCC have yielded strong benefits to the response through coordination of capabilities to accept Mission Assignments. A lesson of the COVID-19 response is that sustainment of these interagency relationships with recurrent interactions focused on readiness would be instrumental in future responses.

The Federal health agencies VHA, DOD, ASPR, PHS, CDC, FDA, NIH, Bureau of Prisons and the IHS all participated in the response. VHA worked with each of these agencies on various aspects of VHA's response. Among these systems, IHS received direct support from VHA in response to outbreaks in tribal populations. The response to NYC included large quantities of DOD medical assets and great expansion of VHA inpatient care capacity. The EIC was in contact with the appropriate DOD official discussing the coordination of the response to NYC but the discussions were preempted when DOD assets were committed from a higher level. A key lesson from the COVID-19 response is that a formal response framework among Federal health agencies is needed to enhance readiness for a national response by blending capabilities for a coordinated provision of support. The pandemic has highlighted the challenges the IHS faces in responding to a public health contingency and the need for continuous preemptive support, which could be enabled by a national framework. A partnership between VHA and PHS could provide benefits to VHA's readiness strategy while also providing PHS with an expanded force of clinically active officers.

State agencies were not consistently aware of the option or the process to request support from VHA via FEMA. VA and VHA communication directly with the states effectively mitigated this issue during the response but a lesson learned is that FEMA disaster response processes need to make this option and process more visible to state governments for future responses to public health emergencies. The Secretary of VA's direct and frequent engagement with multiple governors played a vital role in facilitating requests for VHA assistance. Local engagement by VAMC Directors, Network Directors and VHA AEMs played a beneficial role as well.

See related Recommendations 2a-h detailed in the Recommendations section.

Emergency Management and Readiness

Finding: The VHA processes for deployment sourcing and staff deployment were not sufficiently adaptable to the broader array of scenarios and degrees of urgency in a complex national contingency.

Finding: The COVID-19 response highlighted the importance of incorporation of readiness into strategies for all VHA functions, networks and facilities.

Context: OEM with its EMCC had considerable experience generating and managing responses to regional and local contingencies, most often due to natural disaster. The nationwide response required by a pandemic, the national shortage of supplies, urgent requests for VA response and safety concerns about air travel imposed new challenges.

Conclusions: OEM's processes for contingency response were beneficial to VHA's readiness for movement of resources and deployment of staff. The acquisition of a deployable alternate site of care suitable for critical care proved to be important to this response for VHA. The modular critical care structures were generally transportable by truck and operational within 24 hours of arrival, providing augmented critical care capacity for VAMCs at sites of surges in demand during the response. The operational experience with the critical care assemblage identified modifications and enhancements that will improve its capabilities. The initial experience for VHA with a deployable critical care assemblage has provided valuable insight that will be important to sustained readiness for this capability. Timely sourcing and movement of registered volunteer staff, often to sites outside the VA system, were particular challenges that required adjustments to the DEMPS process. The networks responded to a significant number of requests for assistance by deploying personnel using local processes, rather than DEMPS, out of concern for timely response to urgent requests. The movement of personnel to non-VA sites without use of DEMPS raised concern among some VA leaders about preparation of personnel for deployed subsistence and operations. Such preparations included health protection measures, financial support, training for deployed operations, lodging and transportation. The scale and scope of the COVID-19 response highlighted the need for additional adaptability of deployment sourcing and execution processes to a broader array of scenarios. The range of scenarios encountered in this response, in prior regional responses and in daily operations provide the spectrum for adaptation of processes.

The COVID-19 response has demonstrated the essential role of readiness processes and capabilities in VHA's contingency support to Veterans and the states. The COVID-19 response highlighted the importance of incorporating readiness into strategies for all VHA functions, networks and facilities.

See recommendations 3a-h in the Recommendations section.

Strategic Communication

Finding: VA senior leader communication and engagement with external and internal stakeholders facilitated timely requests from states for VHA support and enhanced staff response to meet a challenging mission.

Context: The Secretary of VA, EIC and their leadership teams were highly experienced in coordinated strategic communication to internal and external stakeholders.

Conclusions: The Secretary of VA, the Acting Deputy Secretary of VA and the EIC were each very active and effective in strategic communications during the response. The EIC focused primarily on internal communications to VHA staff, interagency communication and Congressional interaction. The Secretary and Acting Deputy Secretary communications included national leaders, the public, internal VHA staff, Members of Congress and Governors. The frequent short videos for front line staff from the EIC received wide circulation with information about the response.

The VHA Office of Communications managed communications effectively with Veterans, VHA staff and external audiences across a variety of media. The communications effectively and addressed issues of high interest and concern among all audiences.

The VISN Network Directors reported the use of video town halls for communication with staff became a frequently used tool with large numbers of staff connecting. These town halls focused on issues of concern voiced by the staff as well as updates on response processes. When availability of PPE was a concern early in the response, VHA used the town halls to discuss PPE guidelines.

Leadership and Organization

Finding: A central strategy with execution authority in the networks, informed by analytics and a common operating picture, facilitated an agile and collaborative response to a complex threat.

Context: During 2019, VHA established a Governance Board including the VISN Network Directors and senior VHACO staff.[834] This change in governance moved VHA to an operational model of shared decisions on execution within strategic frameworks aligned to a central strategy. The model placed decision authority for daily operations and execution with the Network Directors. The governance and operational model proved effective in 2019 with the implementation of the Mission Act. VHA completed

a planned reorganization of the VHACO staff during the pandemic response. That reorganization realigned responsibilities for functional effectiveness.

Conclusions: The alignment of responsibilities, organization of the response and frequent communications produced unity of effort and agility in a system-wide response involving a multitude of challenges. The EIC aligned responsibilities with emphasis on keeping decision authority for execution in the networks with central focus on strategy, communications, support and data management. Daily leadership calls during the response conducted by the HOC focused on analytics reports on the pandemic, leadership updates on health care operations and network updates on the response. Network Directors report the alignment of responsibilities, frequent communications tempo and the access to leadership enhanced the response.

In addition to the EIC, the Secretary of VA and the Acting Deputy Secretary of VA were frequent participants in the HOC daily updates from the Network Directors. Their participation often enhanced the coordination of communications with state and local government officials about VHA response to SVHs and community health care facilities.

Data and Analytics

Finding: Consolidated data management enabling a common operating picture and predictive analytics proved essential to effective response to the pandemic.

Context: While VHA had a strong legacy of using clinical data to assess performance and outcomes, disparate collections of data pertaining to several aspects of VHA health care operations was a major concern for VHA leaders at the outset of the response. The recognized importance of a common operating picture in all phases of the response heightened the concern among VHA leaders.

Conclusion: The creation of the NST complemented the HOC as substantive steps toward reliable data quality for the common operating picture for VHA. The data quality will also facilitate a broad array of research pertinent to the health of Veterans and continued progress toward a national biosurveillance capability. The biosurveillance capability merging medical and non-medical data will focus on early identification of future biologic threats to public health. This ties into the VHA governance model implemented in 2019 by providing reliable data and analytics to inform decisions at every level. The establishment of the NST was tightly linked to innovative research initiatives with the DOE, HHS and DOD wherein VHA data enabled published scientific research.

VHA began using daily analytic products focused on the pandemic at the outset of the response. As VHA and the nation gained experience with COVID-19 the analytic products leveraged evolving knowledge to provide forecasts of demand for inpatient care for COVID-19 in specific locations based on leading indicators. This enabled VHA to progress to a concept of operations in the response whereby VHA activated facility surge plans in alignment with forecasted demand and shifted resources to match forecasted demand. This enabled VHA to more precisely focus resources such as supplies, staff and testing reagents. It also enabled the networks to adjust the rebalancing of health care operations under the Moving Forward Plan to manage risk to Veterans and sustain availability of 20% of bed capacity for Fourth Mission transfers at sites with surge demand.

Capacity and Facilities

Finding: Standard processes, standard definitions of care capabilities and an integrated information system were essential to managing capacity to provide care in a contingency.

Finding: Facility design for ready adaptation of spaces to critical care proved to be a valuable asset in the response to a surge in COVID-19.

Context: The age of infrastructure in VHA health facilities extended across a span of decades. The adaptability of facility spaces to negative pressure and expansion of critical care varied with the age of the facility. Data in the BMS required manual updates and lacked currency and standardization of bed types at the outset of the response.

Conclusions: VHA produced integrated surge plans that generated sufficient additional inpatient capacity to meet the needs of Veterans while supporting communities in multiple locations of sustained accelerated spread of COVID-19. VHA accurately forecasted that critical care capacity would be the primary concern in locations experiencing a surge in demand for inpatient COVID-19 care. An enterprise bed expansion goal of 3,000 additional beds, including 1,500 ICU beds, set by the EIC early in the response effectively generated executable surge plans in each VAMC. Sites with early surge in demand for COVID-19 care were successful in expanding quickly before expansion toolkits were available. VHA's COVID-19 Bed Expansion IPT produced a Surge Response Toolkit and VAMCs added over 2,000 additional beds during the response. While VHA initially planned to reach 3,000 additional beds, it was not required as VHA moved to a model in which surge plans were activated in accordance with analytic forecasts of demand.

The data in the BMS became more accurate in mid-March 2020 via emphasis on manual updates using standard definitions of bed types at regular intervals at each VAMC.

The experience with facility modifications to create critical care space and negative pressure treatment areas highlighted the benefit of facility design and modern HVAC systems. The relatively new facility in New Orleans was converted to 100% ICU beds with negative pressure treatment units by virtue of its designed flexibility for contingencies.

See recommendation 4a-b in the Recommendations section.

Supply Chain

Finding: System-wide interim solutions were required during the response for VHA supply chain management processes that lacked standardization and lacked integrated information systems.

Finding: International disruption of access to manufactured supplies imposed operational impacts that interim VHA readiness and supply chain management processes mitigated sufficiently to sustain the mission.

Context: VHA developed a Supply Chain Transformation Plan in 2019 due to known deficiencies in VHA supply chain management processes and systems. VHA lacked enterprise visibility of inventories. Supply chain management information systems lacked integration with other systems and lacked standardization. Supply chain management for VA facilities utilized prime vendors in accordance with health care industry efficiency standards, utilizing JIT delivery and maintaining relatively low levels of owned inventory. As concern about the approaching pandemic grew, health care systems throughout the U.S. began submitting orders to prime vendors for greater quantities of supplies for anticipated COVID-19 care. Shipments from manufacturers located primarily outside the U.S. diminished due to global demand and the availability of critical supplies for pandemic response in the U.S. plummeted. The U.S. SNS was depleted of pandemic supplies in early April 2020.

Conclusions: While the supply chain issues (external and internal to VHA) were major, VHA's interim mitigating actions succeeded in providing sufficient supplies and equipment to meet all demand for care and Fourth Mission responses. Due to disrupted access to manufactured supplies essential to pandemic response and lack of visibility of enterprise inventory levels, VHA implemented manual daily inventory processes for PPE with reporting to a central site. VHA also created a central

procurement function for PPE and other supplies to give VAMCs an alternative source of supplies. The central procurement function has proven successful in procuring large volumes of PPE, primarily from foreign manufacturers meeting FDA requirements. The efficiencies of central procurement coupled with the marketplace power of large orders demonstrated the value of central or e-commerce procurement of selected items. National shortages in access to PPE required that VHA employ contingency PPE guidance in accordance with CDC guidelines. The interim mitigating actions did require careful management with an ongoing high level of effort in the VAMCs, at the VISNs and within VHACO functions.

Assured access to critical supplies, such as PPE, remains a concern when manufacturers are primarily outside the U.S. HHS ASPR said, “We cannot stockpile our way out of this problem.” The absence of a statute-driven program, such as the DOD Warstopper Program, places VHA in the same market circumstance as all health systems when procuring supplies essential to response.[835] The VHA innovation initiative, which is producing PPE and testing supplies via 3D printing, is demonstrating a promising concept for supply surge capacity.

VHA has identified the need to embark upon major revisions of supply chain management processes and systems to gain the efficiencies and resilience that is important to health care operations and readiness for future response including the Fourth Mission. The plans for establishment of Readiness Centers will provide essential contributions to the resilience and readiness of VHA’s supply chain. The Readiness Centers will provide assured access to months of critical supplies for response to a public health emergency, thereby assuring emergency care to Veterans and capacity for emergency health care support to impacted communities. VHA has also identified the importance of a new approach to prime vendor contracts to accommodate surge requirements. Incorporation of these revisions into a strategy for supply chain resilience, including rotating contingency stocks and additive manufacturing (such as 3D printing), is a key lesson learned during the COVID-19 response and will be important to future readiness and efficient health care operations.

See recommendations 5a-c in the Recommendations section.

Testing

Finding: National shortages in testing supplies impeded VHA capacity to fully utilize testing devices for detection of SARS-CoV-2.

Context: VHA, along with all U.S. health care systems and public health agencies, entered the pandemic response with very low capacity for COVID-19 testing and had to adjust guidelines for testing as national availability of devices, supplies and reagents gradually increased.

Conclusions: VHA effectively managed and adapted its utilization of COVID-19 testing as national availability gradually grew. Limited national availability of testing devices for acute COVID-19 constrained VHA capability to confirm infection early in the response by limiting testing to symptomatic individuals. An early exception was implemented for testing of asymptomatic individuals in order to protect CLC residents and SCI/D patients. As the number of testing devices in VA facilities increased, availability of supplies and reagents became the limiting factor. VHA is making testing swabs via 3D printing and conducting research in coordination with FDA to confirm the effectiveness of the swabs.

The discovery that spread of COVID-19 by asymptomatic staff or patients is a threat in CLCs led to the use of recurrent mass testing of staff and residents in CLCs. This highlights the importance of testing capacity to protection of vulnerable populations. As described in the VHA Moving Forward Plan, testing capacity will be important to infection control in VHA health care operations until herd immunity is attained.

HR

Finding: Retraining of ambulatory care clinicians to augment critical care teams and other inpatient teams proved important to expansion of VHA capacity for inpatient care in the pandemic response.

Finding: Concerted recruitment, hiring and streamlined onboarding of new staff facilitated flexibility and enabled expanded VHA capacity to provide care for COVID-19.

Context: The requirements to increase capacity for inpatient care with a focus on critical care and respond to Mission Assignments by deploying staff made addition of personnel with clinical skill sets essential. VHA leaders were mindful of the possibility of increased movement of staff out of the workforce during a pandemic and recognized the need to outpace attrition. As ambulatory care diminished considerably throughout health care in the early months of the response, a large number of health care workers were laid off and available for employment. VHA's facilities had ambulatory clinicians available early in the response for retraining to augment inpatient care units.

Conclusions: The policy waivers that expedited VHA hiring and onboarding processes during the response, coupled with supplemental funding, enabled a significant net gain in clinical staff at VAMCs. This, along with retraining of existing staff, has been essential to the expansion of capacity to provide care. Network Directors endorse making the new streamlined processes permanent. A review in progress of the extent to which the expedited processes have been utilized and second order impacts of the processes should inform decisions about which parts of the processes can become permanent.

See recommendation 6a in the Recommendations section.

Finance

Context: When planning the COVID-19 response, VHA identified new requirements that included: increased capacity for inpatient care, hiring of additional staff, procurement of supplies and equipment, expansion of virtual care capacity, augmentation of Clinical Contact Centers and acceleration of certain modernization initiatives.

Conclusions: The supplemental funding provided by the CARES Act proved essential to VHA's response to COVID-19. The supplemental funding enabled VHA leaders and Network Directors to take assertive action in the response. VHA leaders report the funds are enabling acceleration and modification of modernization initiatives important to the ongoing response.

Clinical Operations

Finding: Integration of an array of clinical experts into planning the response, assimilating new information and formulating guidelines enhanced the response to a pandemic stemming from a newly emerged infectious disease.

Finding: Clinical Contact Centers lacked the integration needed for agile management of demand fluctuations during the pandemic response.

Finding: Accelerated adoption of telehealth proved important to sustaining health services for Veterans during the pandemic response.

Finding: Processes developed by VHA during the pandemic response for protecting vulnerable populations, such as CLC residents and SCI/D patients, proved effective.

Context: VHA entered the response with strong clinical processes focused on evidence-based guidelines and bolstered by affiliations with academic medical centers across the networks. The recent establishment of ICCs as a modernization initiative contributed to the VHA legacy of strong clinical leadership. Clinical Call Centers were managed by facilities with only a portion of them operating within an integrated network.

Conclusions: VHA adjusted clinical processes effectively during the response in accordance with the VHA COVID-19 Response Plan. This included the postponement or shift to telehealth of non-urgent care and elective procedures. The actions to increase capacity, access and utilization of telehealth generated an 18x increase in telehealth encounter volume. Despite the large increase in telehealth encounters, telephone encounters remained the predominant form of virtual care by a large margin, highlighting the opportunity for broader use of virtual care tools. The accelerated use of telehealth presents an opportunity for VHA to move forward with incorporation of an integrated suite of virtual care tools in accordance with the Connected Care Strategy. The use of tele-critical care in VAMCs was expanded during the response using tele-critical care carts as an interim tool at new sites. VHA's plans to fully implement of tele-critical care at these additional sites will provide those VAMCs with the full benefit of tele-critical care support.

VHA identified the threat to CLC residents and SCI/D patients posed by asymptomatic spread in early in the response. VHA processes for surveillance and infection control have been effective in prevention of nursing home outbreaks. VHA responses to SVHs and CNHs have been effective in bringing outbreaks among vulnerable populations under control.

VHA's use of the Integrated Clinical Teams and the ORD to assimilate published scientific information into guidelines for clinicians has been an important activity for accelerating the application of new knowledge in a rapidly evolving pandemic. Clinical teams began work early in response to determine how to capture rapidly evolving clinical information and deliver guidelines to busy front line teams. The clinical teams used the VHA National Simulation Center to develop standard processes associated with new guidelines.

The emphasis on the team collaborative techniques and tools of High Reliability has been prominent in leader messaging during the response, including toolkits for leader engagement and video messages from the EIC. This has kept High Reliability as a focus area in VHA through the response, thereby sending the message that High Reliability is core to every process in VHA. The principles of High Reliability are also essential to the approach to staff safety in the provision of care.

The Clinical Contact Centers became a concern during the response. The movement to virtual care placed a higher call volume onto the Clinical Contact Centers, some of which could not keep pace with the demand. VHA responded to augment capacity and shift calls for some Clinical Contact Centers known to have persisting shortfalls in meeting demand; however, the extent to which Clinical Contact Centers across VHA were successfully meeting performance standards under increased demand could not be determined. As many of the Clinical Contact Centers are not on a networked system, issues and performance factors such as abandonment and waiting time are not centrally visible for all centers. As virtual care adoption accelerates, it will be important to assure Clinical Contact Centers are networked and operating on a common set of standards to enable timely, managed distribution of calls matching capacity to demand.

See recommendations 7a-e in the Recommendations section.

Fourth Mission

Finding: VHA demonstrated the value of deployable advanced care assemblages to the mission.

Finding: VHA processes for generating sufficient numbers of volunteers for a broad range of deployments in locations throughout the Nation proved effective.

Finding: VHA demonstrated the essential role and capabilities of VHA under Title 42 in providing a healthcare “safety net” for the states.

Context: VHA entered the response with considerable experience deploying staff in support of state requests to FEMA, generally in local or regional natural disaster contingencies. VHA conducted deployments of volunteer staff registered in DEMPS. VHA entered the response with concern about the generation of a sufficient number of volunteers for deployment in a pandemic.

Conclusions: Overall, the Fourth Mission response was timely and effective at the greatest scale and scope in VA's history. VHA provided rapid response to multiple Mission Assignments where circumstances involved patients that were critically ill or at risk for becoming critically ill. VHA generated timely responses with volunteer staff possessing the requisite skills to a high number of FEMA Mission Assignments involving deployment of VHA staff to over 45 states plus selected tribal health systems. VHA also received COVID-19 patients in transfer from other health systems at multiple locations experiencing severe outbreaks while sustaining inpatient care to the Veteran population.

VHA arrived at an effective process for identifying the capacity to be offered for patient transfers from community hospitals stressed by high demand for COVID-19 inpatient care. The process consistently assured VHA sustained capacity to fully meet the needs of the Veteran population while providing support to the community.

VHA developed an effective process for coordination with ESF #8 and FEMA on state requests for assistance via its representation by the DUSH on the HHS ESF #8 Coordinating Council. In this role, the DUSH worked in close coordination with OEM's EMCC. Communication between the Secretary of VA and Governors proved helpful as states formulated the response to accelerating spread of COVID-19. Network Directors and VAMC Directors were in communication with state and local officials, health systems and SVHs as outbreaks developed.

VHA's primary issues in fulfilling the Mission Assignments were timely identification of staff volunteers to deploy and provision of sufficient supplies (PPE) and equipment (ventilators) for expanded operations. VHA did generate enough volunteers to fulfill all deployments but found they need a more agile process for sourcing and preparing volunteers to deploy to sites outside the VHA system as described above under Emergency Management and Readiness. Despite the many supply chain shortfalls, VHA effectively shifted staff, supplies and equipment to areas of forecasted surges in demand for COVID-19 care. This was accomplished with agility by shifting resources between facilities and often between networks.

The Travel Nurse Corps has functioned as a national pool for temporary mitigation of staffing shortfalls. The experience in this response raises the opportunity to consider an expanded Travel Nurse Corps as a response capability under the Fourth Mission, which an IPT is considering at the time of this report.

Research

Finding: Sustained research capacity enhances readiness through generation of new knowledge concerning mitigation of health impacts to Veterans.

Context: VHA had a well-organized capacity for research with staff experienced in conduct of research at many facilities throughout the system. Academic affiliations and experience in conducting clinical trials with industry provided a strong capability for the response. A formal program focused on innovation provided additional strength when confronting new challenges posed by an emerging infectious disease.

Conclusions: In this effort, VHA's research has demonstrated its value to the national response in discovery, evaluation and implementation of new therapeutics and vaccines. VHA research has likewise demonstrated its importance to VHA's service to Veterans as a learning health care system. The VHA research contributions to the response featured collaboration with VHA operational leaders, attention to process requirements on the front lines of clinical research, and establishment of key capabilities, such as the initiative to create a Veteran registry of prospective volunteers. VHA's organized system for supporting research and the affiliations between VAMCs and institutions engaged in active medical research enabled VHA to engage in a high volume of research focused on COVID-19. This included conduct of clinical trials and participation in multi-center clinical trials of therapeutic agents for COVID-19. It included preparations for participation in a multi-center clinical trial for a COVID-19 vaccine developed by industry in conjunction with the national initiative, Operation Warp Speed. VHA research included multiple studies focused on the mental health, risks to Veterans with dementia and overall health impacts of COVID-19 on Veterans. VHA participation brought the diversity of the Veteran population to clinical trials which is important to assessing epidemiology, risk factors, environmental factors, access to care and therapeutic efficacy across a full demographic and socioeconomic range. This diversity is particularly important for clinical trials of newly developed vaccines, given the elevated CDC rate rations of COVID-19 cases and hospitalizations among Black, Hispanic, Native American and Native Alaskan populations in comparison to White populations in the U.S. The extensive volume of longitudinal health data VHA maintains provides an important avenue to new knowledge about an emerging disease such as COVID-19. The COVID-19 response illuminated the importance of continued refinement of VHA data management and continued support to VHA's capacity to conduct research throughout the remainder of the COVID-19 response and future responses.

While initial data is suggestive of effective VHA care for Veterans with COVID-19 during this response, detailed analysis of population and health data will be required to arrive at definitive conclusions. VHA's work to consolidate data management will enable the important research to follow.

See recommendations 8a-d in the Recommendations section.

Moving Forward

Finding: VHA produced an effective framework for rebalancing health services during an ongoing response to a pandemic with leadership balancing the health needs of Veterans, safety and forecasted demand for COVID-19 care.

Context: As was true for all health systems, sudden adjustments to health care operations followed by phased resumption of in-person care in an ongoing pandemic was an uncharted journey. VHA's strong clinical leadership positioned the system to rebalance health services in accordance with the best available evidence

Conclusions: The VHA Moving Forward Plan provided a framework for VAMCs to rebalance the provision of health services to Veterans, including the phased resumption of non-urgent, in-person care and elective procedures. Among U.S. health systems, VHA is unique in its requirement to sustain readiness for response under its Fourth Mission. The gates identified in the Moving Forward Plan provide guidelines for VISN decisions about the pace at which individual VAMCs progress. The ongoing spread of COVID-19 nationwide will require continuous vigilance for accelerating community spread as the VAMCs progress toward resumption of the full scope of services. Continued progression while managing risk will be required to mitigate health impacts to Veterans from deferred procedures and deferred evaluations requiring in-person visits.

Modernization

Finding: The VHA Modernization Plan provided a strong foundation for advancing VHA capabilities but issues mitigated during this pandemic response are not entirely addressed in the plan.

Context: VHA was executing an ambitious Modernization Plan with multiple lanes of effort as the response began. Every lane of effort had relevance to pandemic response although some were early in execution and unable to deliver the full benefit.

Conclusions: Several of the primary issues and opportunities VHA encountered during the response fall within lanes of the VHA Modernization Plan. Some issues were not in the VHA Modernization Plan but warrant serious consideration as additions, such as modernization of the Clinical Contact Centers and expansion of virtual care processes and tools. Additionally, the importance of consolidated data management in this response warrants consideration of continued progress in data management into the Modernization Plan. The EIC has emphasized the importance of VHA functioning as a learning organization, prompting reexamination of the plan. At the time of this report, VHA was in the process of amending and modifying lanes of the Modernization Plan based on lessons learned and opportunities identified during the COVID-19 response. The lessons from this response related to readiness, virtual care and Clinical Call Centers should prompt consideration of additional lanes of effort within the VHA Modernization Plan.

See recommendations 9a-d in the Recommendations section.

RECOMMENDATIONS

The reader should note that some recommended actions are already in progress but included as endorsement of the requirement. The reader should also note that VHA expects to develop further reports to document the evolution of VHA's response to the pandemic and consider additional strategic follow-up actions informed by the ongoing experience. Appendix E provides suggested offices of primary responsibility for the recommended actions.

1. Recognition of the Threat and Planning

It is recommended that VHA expand its presence and relationships with selected Federal agencies and organizations to enable recurring interactions beneficial to planning and recognition of public health threats. Suggested actions are as follows.

a) Establish a permanent, full-time VHA liaison to HHS for planning activities and to serve as the VHA representative on the ESF #8 Emergency Support Function Leadership Group.
b) Request support from DOD or HHS for periodic global health intelligence briefings to VHA leaders focused on infectious disease epidemiologic trends and emerging infectious disease.

2. National and Interagency Coordination

It is recommended that VA and VHA pursue interagency relationships and standing processes that enable a coordinated interagency response to public health crises. The aim of this coordinated interagency response would be to integrate Federal health capabilities in order to enhance the national readiness. Suggested actions are as follows.

a) Pursue an assessment of the interagency COVID-19 response with VA, DHS, HHS and DOD to identify lessons learned to-date that are relevant to a facile and coordinated future response.
b) Identify the VHA DUSH as VHA's standing representative to HHS ASPR ESF #8 Council.
c) Secure a full-time VHA liaison to FEMA NRCC.
d) Pursue a joint task force with PHS to develop options for accession and integration of PHS personnel into VHA operations as focal points for the readiness of VHA clinical teams and SMEs in disaster medicine.
e) Establish a VHA function focused on development of expanded partnerships with IHS and selected Tribal Health Systems to enhance the performance,

readiness and resilience of Indian Country health care systems while expanding opportunities for VHA staff development. Conduct a study of existing processes among the VISNs to provide accessible, quality care to Native Americans. Use the study to identify opportunities to streamline and gain greater standardization of care processes. Include consideration of legislative proposals to enable resource sharing between VHA and IHS health facilities and inclusion of Urban Tribal Health Systems in the initiatives. Consider partnership objectives focused on public health, health care administration, High Reliability, virtual care, quality of care, education, training, improvement collaboratives, emergency management, rural health, mental health, suicide prevention, research, health equities, data management, graduate medical education and professional development.

f) Establish permanent liaisons with HHS ESF #8 and FEMA NRCC for regular interaction and familiarity with operations.

g) Propose a joint after-action conference with DOD ASD for Health Affairs and DASD for Homeland Defense Integration and Defense Support of Civil Authorities upon completion of the MHS after-action review.

h) Explore options for coordinated response with DOD to national contingencies upon completion of the joint MHS-VHA after-action conference.

3. Emergency Management and Readiness

It is recommended that VHA develop readiness and response processes for deploying personnel balancing agile response with preparation and support within the range of operational scenarios. Suggested actions are as follows.

a) Consider establishing cadres of specialized deployers (such as critical care teams) in rotating tasking windows trained to use VHA equipment sets and sustained in readiness for rapid deployment; also consider options for securing committed availability for this cadre.

b) Consider incentives for volunteer personnel in particular skill sets maintaining current readiness to deploy.

c) Perform a study of deployment after-action reports with VISN inputs and develop risk-stratified, scenario-based deployment processes for the full range of potential contingencies to which VHA may respond.

d) Identify a process and system to capture information on all deployed staff providing current visibility at the local, network and enterprise level.

e) Identify a mission manager in the tracking system to monitor operations within each deployed mission.

f) Establish a process, led by OEM, for consultation with clinical readiness SMEs when building solution sets for complex scenarios.

g) Develop and implement post-deployment processes to assure logistical support, health and well-being of each deployer.

h) Conduct a study of the Travel Nurse Corps participation in the response to develop recommendations for the future role of the Corps in contingency response.

4. Data and Analytics

It is recommended that VHA lead operational integration of Federal medical data to enable a national biosurveillance capability for early detection of threats to public health

a) Establish a timeline with milestones for medical data integration for biosurveillance purposes in partnership with DHS, HHS, CDC, DOD and other agencies

5. Capacity and Facilities

It is recommended that VHA acquire a system to facilitate management of enterprise inpatient capacity and adopt facility design requirements facilitating expansion of inpatient services in response to contingencies.

a) Implement a VHA information technology system for contingency management of capacity for inpatient care integrated with the electronic health record, with logistics systems, and capable of interfacing with the national disaster medical system

b) Incorporate features into design of new facilities that enable contingency expansion of critical care and Med/surg inpatient capacity.

6. Supply Chain

It is recommended that VHA modify the VHA Supply Chain Modernization Plan by incorporating elements of supply chain contingency resilience and accelerating transformation of management practices. Suggested actions are as follows.

a) Develop a supply chain contingency resilience strategy including plans for Readiness Centers, owned inventory reserves, revised prime vendor contracts and pursuit of additive manufacturing capacity.

b) Pursue accelerated implementation of the DMLSS in conjunction with optimal standard processes for supply chain management.

c) Consider pursuit of DOD and Congressional support for a partnership with DLA to assure access to critical supplies for future response based upon the DOD War Stopper Program.

7. HR

It is recommended that VHA assess the outcomes and effectiveness of processes for expedited hiring and onboarding of new employees to determine what processes should be incorporated into permanent policy and guidance. Suggested action is as follows.

a) Study outcomes from utilization of streamlined and expedited hiring and onboarding processes to quantify risks and benefits to inform permanent policy.

8. Clinical Operations

It is recommended that VHA accelerate incorporation of virtual care into clinical processes enabled by accelerated implementation of integrated virtual care tools. It is also recommended that VHA develop a modernization strategy for Clinical Contact Centers to gain reliability, central visibility, agile surge adaptation, efficiency and integration of virtual care processes. Suggested actions are as follows.

a) Employ Integrated Clinical Teams and specialty clinician leaders to develop clinical processes integrating virtual care into clinical processes to give Veterans a broad spectrum of options for interacting with VHA clinical teams.
b) Accelerate implementation of an integrated array of virtual care tools informed by clinical expertise and inclusive of disaster response and rural outreach capabilities.
c) Establish a strategy for networked Clinical Contact Centers enabling dynamic matching of demand to capacity with enterprise visibility of performance measures.
d) Include integration of Clinical Contact Centers with other VA call centers such that first call resolution for Veterans is assured via “warm handoffs.”
e) Incorporate evolving virtual care options into Clinical Contact Center processes.

9. Research

It is recommended that VHA remain active in research generating new knowledge about COVID-19 among Veterans and contributing to new knowledge about communities to

which Veterans are integral; additionally, that enterprise research capabilities continue to be established. Suggested actions are as follows.

a) Conduct a review of processes for initiating clinical trials in response to an urgent national public health priority to assess all aspects of effectiveness and compliance to determine if adjustments would be beneficial to future response.
b) Pursue research to expand the evidence base for virtual care in delivery of care for specific health conditions.
c) Engage in research using VHA data to understand the epidemiology and natural history of COVID-19 in Veteran populations.
d) Engage in research using VHA data to gain new insights into correlations between individual characteristics (such as demographics, race, ethnicity, social circumstances, chronic medical conditions, lifestyle) and outcomes.
e) Remain active in multi-center research to determine the effectiveness of therapeutic agents and vaccines for COVID-19.

10. Modernization

It is recommended that VHA conduct a review of the VHA Plan for Modernization to identify adjustments to the lanes of effort important to moving forward with rebalanced health services for Veterans and enhanced readiness for future national response. Suggested actions are as follows.

a) Consider a Modernization lane of effort fully integrating virtual care processes and tools into VHA health services. Linking this lane of effort with the ICCs initiative could engage clinical expertise in development of standard virtual care processes and as advisors on development of requirements for an integrated suite of virtual care tools.
b) Pursue a Modernization lane of effort focused on readiness with integrated initiatives pertaining to deployable equipment sets, deployable critical care teams, cadres of rapid deployers and adaptable processes for deployment sourcing.
c) Incorporate the supply chain resilience strategy (see recommendation 2a) into the Supply Chain transformation lane of effort.
d) Explore additional initiatives for active surveillance and outreach to Veterans at elevated risk for health consequences from economic hardship under the Modernization Plan lane of effort named Engaging Veterans in Life-Long Health, Well-Being and Resilience.

This page was intentionally left blank.

APPENDIX

A. Stakeholder Interviews

Table 10.1 below outlines the interviews completed by the VHA COVID-19 Response Report Cell that contributed to the creation of the VHA COVID-19 Response Report.

Table 10.1 *Stakeholder Interviews Performed for VHA COVID-19 Response Report*

Date	Interviewee	Interviewee Role
Multiple	Dr. Richard Stone	Executive in Charge, VHA
May 11, 2020	Hon. Robert Wilkie & Pamela Powers	Secretary of VA, Acting Deputy Secretary of VA
May 11, 2020	Renee Oshinski	AUSH for Operations, VHA
May 12, 2020	Dr. Carolyn Clancy	Deputy Under Secretary for Discovery, Education and Affiliate Networks, VHA
May 12, 2020	Larry Connell	Chief of Staff, VHA
May 12, 2020	Christina Hubble & James Tranoris	Supervisory Program Specialist and Program Manager, OHT, VHA
May 19, 2020	Dr. Teresa Boyd	Assistant DUSH for Clinical Operations, VHA
May 19, 2020	Dr. Christine Bader	Senior Advisor to Under Secretary for Health, VHA
May 19, 2020	Deb Kramer	Acting AUSH-S, VHA
May 20, 2020	Andrew Centineo	Executive Director of Procurement and Logistics, VHA
May 21, 2020	Dr. Paul Kim	Executive Director, OEM, VHA
May 26, 2020	Dr. Larry Mole	Executive Director, Office of Public Health, VA
May 26, 2020	Dr. Steven Lieberman	Acting DUSH, VHA
May 26, 2020	VISN 20 Leadership	VISN 20 Director and VISN 20 Selected Functional Staff
May 27, 2020	VISN 21 Leadership	VISN 21 Director, Deputy Director, CMO and Chief Nursing Officer
June 8, 2020	Andrew Bartlett	Director of Monitoring & Analytics, HOC, VHA
June 9, 2020	Dr. Jenn McDonald & Aimee Scanlon	Chief Consultant to the DUSH & Portfolio Manager, OHT, VHA
June 9, 2020	Dr. Kevin Galpin	Executive Director of Telehealth Services, VHA
June 10, 2020	Dr. Chad Kessler	Deputy Clinical Director, VHA

Date	Interviewee	Interviewee Role
June 10, 2020	VISN 1 Leadership	VISN 1 Network Director, Deputy Director and CMO
June 11, 2020	VISN 17 Leadership	VISN 17 Network Director, Deputy Director and CMO
June 12, 2020	Beth Taylor	Chief Nursing Officer, VHA
June 12, 2020	VISN 21 Follow-Up	VISN 21 Leadership Team & Functional Leaders
June 15, 2020	VISN 23 Leadership	VISN 23 Network Director
June 19, 2020	VISN 20 Follow-Up	VISN 20 Leadership Team & Functional Leaders
June 22, 2020	VISN 4 Leadership	VISN 4 Network Director and Leadership Team
June 22, 2020	Maura Catano	Executive Director, OHT, VHA
June 22, 2020	Tammy Czarnecki	Assistant DUSH for Administrative Operations, VHA
June 23, 2020	VISN 10 Leadership	VISN 10 Network Director and Leadership Team
June 24, 2020	VISN 17 Follow-Up	VISN 17 Leadership Team & Functional Leaders
June 26, 2020	VISN 2 Leadership	VISN 2 Network Director and Leadership Team
June 26, 2020	VISN 9 Leadership	VISN 9 Network Director and Leadership Team
June 29, 2020	VISN 15 Leadership	VISN 15 Network Director and Leadership Team
June 29, 2020	VISN 16 Leadership	VISN 16 Network Director and Leadership Team
June 29, 2020	VISN 23 Follow-Up	VISN 23 Leadership Team & Functional Leaders
June 30, 2020	Dr. Thomas Klobucar	Executive Director, ORH, VA
June 30, 2020	VISN 19 Leadership	VISN 19 Network Director and Leadership Team
June 30, 2020	VISN 6 Leadership	VISN 6 Network Director and Leadership Team
July 1, 2020	Tammy Czarnecki	Assistant DUSH for Administrative Operations, VHA
July 1, 2020	VISN 8 Leadership	VISN 8 Network Director and Leadership Team
July 1, 2020	Dr. Ernest Moy	Executive Director, OHE, VHA
July 6, 2020	VISN 22 Leadership	VISN 22 Network Director and Leadership Team
July 7, 2020	VISN 1 Follow-Up	VISN 1 Leadership Team & Functional Leaders

Date	Interviewee	Interviewee Role
July 7, 2020	Ricky Upton	Acting Director, Operations, Plans and Readiness for AUSH for Support Services
July 8, 2020	Dr. Susan Kirsh	Acting Assistant DUSH for Access, VHA
July 8, 2020	VISN 7 Leadership	VISN 7 Network Director and Leadership Team
July 10, 2020	Jon Jenson	Chief of Staff, VHA
July 13, 2020	VISN 23 Follow-Up Interview	VISN 23 Leadership Team & Functional Leaders
July 14, 2020	VISN 15 Follow-Up Interview	VISN 15 Leadership Team & Functional Leaders
July 15, 2020	VISN 5 Leadership Interview	VISN 5 Network Director and Leadership Team
July 15, 2020	Jessica Bonjorni	Chief, Human Capital Management, VHA
July 16, 2020	VISN 4 Follow-Up Interview	VISN 4 Leadership Team & Functional Leaders
July 16, 2020	VISN 10 Follow-Up Interview	VISN 10 Leadership Team & Functional Leaders
July 16, 2020	VISN 12 Leadership Interview	VISN 12 Network Director and Leadership Team
July 17, 2020	VISN 2 Follow-Up Interview	VISN 2 Leadership Team & Functional Leaders
July 17, 2020	Adam Bearden	Acting Executive Director, Logistics, VHA
July 21, 2020	VISN 6 Follow-Up Interview	VISN 6 Leadership Team & Functional Leaders
July 21, 2020	VISN 8 Follow-Up Interview	VISN 8 Leadership Team & Functional Leaders
July 21, 2020	Robert Salasses	DASD for Homeland Security Integration and Defense Support of Civil Authorities, DOD
July 22, 2020	Dr. Robert Kadlec	ASPR, HHS
July 22, 2020	Trisha Lodde (VISN 17 Vignette)	Chief Experience Officer, South Texas Veterans HCS
July 22, 2020	Mitchell Mirkin	Senior Writer and Editor, VA ORD, VA
July 22, 2020	Andrew Centineo	Executive Director of Procurement and Logistics, VHA
July 23, 2020	Bryan Snyder	Supervisory HR Specialist, WMC, VHA
July 24, 2020	VISN 16 Follow-Up Interview	VISN 16 Leadership Team & Functional Leaders
July 24, 2020	VISN 9 Follow-Up Interview	VISN 9 Leadership Team & Functional Leaders

Date	Interviewee	Interviewee Role
July 24, 2020	Joe Francis and Tami Box	Executive Director, API, VHA and Director of Clinical Systems Development and Evaluation, VHA
July 27, 2020	Barbara Rogers and Joyce Deters	Director, WMC HR Development, VHA and Director, WMC, VHA
July 28, 2020	Grant Huang	Director, Cooperative Studies Program, VA
July 29, 2020	VISN 22 Follow-Up Interview	VISN 22 Leadership Team & Functional Leaders
July 29, 2020	Deb Kramer	Acting AUSH-S, VHA
July 30, 2020	VISN 7 Follow-Up Interview	VISN 7 Leadership Team & Functional Leaders
July 31, 2020	Dr. Lisa Kearney	Deputy Director for Suicide Prevention and Acting Director of the VCL, VHA
August 3, 2020	Dr. Teresa Boyd	Assistant DUSH for Clinical Operations
August 4, 2020	Dr. Larry Mole	Executive Director of Public Health, Dept. of VA
August 4, 2020	Nathan Turnipseed	Director of VA Medical Supply Program
August 6, 2020	Dr. Patrick Malloy and Martina Parauda (VISN 2 Vignette)	Executive Chief of Staff and Director, VA NY Harbor HCS
August 10, 2020	Deb Kramer	Acting AUSH-S, VHA
August 10, 2020	Group Discussion 1 – Leadership Engagement in Support of Staff During the COVID-19 Response	VHA Network Directors
August 10, 2020	Dr. Cristina Byrne	Manager, Data Analytics Team, Workforce Management and Consulting, VHA
August 10, 2020	Stephanie Murray (VISN 22 Vignette)	Registered Nurse, Tucson, AZ (Supported Navajo Nation)
August 12, 2020	Rachel Romani	Chief Research and Development Officer, VA
August 12, 2020	Group Discussion 2 – Leadership Engagement in Support of Staff During the COVID-19 Response	VHA Network Directors
August 13, 2020	Group Discussion 3 – Leadership Engagement in Support of Staff During the COVID-19 Response	VHA Network Directors
August 13, 2020	Patricia Hendrickson (VISN 15 Vignette Interview)	Associate Director Patient Care Services, St. Louis VAMC
August 13, 2020	Juan Cosme	Deputy Executive Director, Logistics, VHA
August 19, 2020	Dr. Gerry Cox	DUSH for Organizational Excellence, VA

Date	Interviewee	Interviewee Role
August 19, 2020	Dr. Sophia Califano	Deputy Chief Consultant for Preventative Medicine, National Center for Health Promotion and Disease Prevention, VHA
August 25, 2020	Dr. Jackie Cook	Medical Advisor, Office of Occupational Safety & Health, VHA
August 27, 2020	Dr. Carolyn Clancy	Deputy Under Secretary for Discovery, Education and Affiliate Networks, VHA
August 27, 2020	Scott Ballard and Storm Morgan	Acting Director, Clinical Contact Centers, VHA and Special Projects Officer, VHA
September 1, 2020	Dr. Kevin Galpin	Executive Director of Telehealth Services, VHA
September 3, 2020	Jon Rychalski and Laura Duke	Assistant Secretary for Management / Chief Financial Officer, VA and Chief Financial Officer, VHA
September 17, 2020	Dr. Steven Lieberman	Acting DUSH, VHA
September 28, 2020	Dr. Kameron Matthews	Assistant Under Secretary for Health for Clinical Services, VHA
September 29, 2020	Dr. Thomas Klobucar	Executive Director, ORH, VA
October 13, 2020	Gerald (Jerry) Michaud	Executive Director, Office of Communications, VHA
October 14, 2020	Dr. Maureen Marks	Executive Director, National Center for Organizational Development, VHA

B. Timeline of Key Events and Actions

Table 10.2 below provides a timeline of events related to the emergence and outbreak of COVID-19 to illustrate how VHA's response developed in the context of the global pandemic outbreak. Please see the Overview of VHA COVID-19 Response section in this report for further context surrounding key VHA response actions.

Table 10.2: *Timeline of Contextual Global, National and VHA Events*

Date	Event Scope	Event
December 8, 2019	Global	First COVID-19 patient falls sick (retroactively diagnosed).[A]
December 21, 2019	Global	Approximately three dozen patients in China display COVID-19 symptoms (retroactively diagnosed).[A]
December 30, 2019	Global	Unofficial reports surface of an infectious disease outbreak in Wuhan, China.[A]
December 31, 2019	Global	Chinese authorities confirm treatment of dozens of cases of pneumonia of unknown cause.[B]
January 4, 2020	Global	WHO announces pneumonia cases of unknown cause.[C]
January 4, 2020	VHA	OEM begins tracking the disease in China.[D]
January 8, 2020	United States	CDC issues health advisory.[E]
January 11, 2020	United States	CDC notes appearance of novel coronavirus outbreak in Wuhan City, Hubei Province, China.[F]
January 11, 2020	Global	China reports its first death.[G]
January 17, 2020	United States	CDC announces enhanced screenings for those traveling to the United States.[H]
January 20, 2020	VHA	EMCC holds first internal meeting.[D]
January 21, 2020	United States	Washington State Department of Health announces first case of COVID-19.[I]
January 21, 2020	VHA	OEM and Population Health officially activate the EMCC.[D]
January 23, 2020	Global	Wuhan, China is closed.[B]
January 27, 2020	VHA	VHA begins daily continuous engagement with HHS on the COVID-19 response, internal assessment of PPE supplies and work with HHS on messaging about the supply chain and use of PPE.[J]
January 28, 2020	United States	Repatriation of U.S. diplomats and citizens from China and other countries begins.[J]

Date	Event Scope	Event
January 29, 2020	United States	President Trump announces the formation of the Coronavirus Task Force.[K]
January 30, 2020	Global	WHO declares "Public Health Emergency of International Concern."[L]
January 30, 2020	United States	CDC confirms first case of person-to-person transmission in the United States.[M]
January 31, 2020	United States	Secretary Azar Declares Public Health Emergency for United States for 2019 Novel Coronavirus, setting quarantines of Americans who have recently been to certain parts of China. CDC officials said it was the first quarantine order issued by the Federal government in over 50 years.[N] All flights from China to the U.S. are directed to one of seven airports designated as ports of entry: New York, San Francisco, Seattle, Honolulu, Los Angeles, Chicago and Atlanta.[J]
January 31, 2020	VHA	VHA issues memorandum designating OEM and Population Health as Co-Leads in adaption of Pandemic Flu Plan to nCoV2019 and other preparedness efforts.[D]
February 4, 2020	Japan	The quarantine of the 700 passengers aboard the Diamond Princess cruise ship begins in Yokohama, Japan.[J]
February 6, 2020	United States	The first death associated with a positive COVID-19 test in the U.S is retroactively confirmed on April 21, 2020 to have occurred on this date in February. Autopsies on the bodies of two people who died at home on February 6, 2020 and February 17, 2020 showed they had COVID-19, a California county announced. The autopsy findings revealed that the virus may have spread in U.S. communities earlier than previously known.[J]
February 11, 2020	Global	WHO announces name for new coronavirus disease: COVID-19.[O]
February 11, 2020	VHA	VHA agrees to provide daily information to the CDC and HHS to ensure the Federal government can monitor stresses that COVID-19 might place on the health care system.[J]
February 17, 2020	United States	Diamond Princess cruise ship US passengers are flown home.[P]
February 18, 2020	VHA	VHA issues memorandum on COVID-19 Table-Top Exercises to VISNs and VAMCs.[Q]
February 19, 2020	Global	Outbreak in Iran.[B]
February 21, 2020	CDC	Dr. Nancy Messonnier, director of the CDC's National Center for Immunization and Respiratory Diseases, tells reporters that U.S. health officials are preparing for the coronavirus to become a pandemic. "We're not seeing community spread here in the United States, yet, but it's very possible, even likely, that it may eventually happen," she said.[J]
February 23, 2020	Global	Italy reports over 150 cases of COVID-19.[B]

Date	Event Scope	Event
February 28, 2020	United States	Evidence surfaces of COVID-19 community spread in Washington state.[R]
February 28, 2020	VHA	The first VISN (VISN 17) activates its Incident Command System.[D]
February 28, 2020	CDC	Dr. Messonnier tells reporters that the CDC has taken steps to address problems with flawed test kits mailed to state and local labs. The agency has also expanded criteria for coronavirus testing.[J]
February 29, 2020	United States	The first known COVID-19 death (at the time) occurs in Seattle, WA.[B]
February 29, 2020	FDA	In an effort to increase testing, the FDA announces it will open up its emergency authorization process to allow new testing technologies at hospitals and health care facilities nationwide.[J]
February 29, 2020	United States	Governor Inslee of Washington declares State of Emergency.[S]
March 2, 2020	VHA	The Palo Alto VAMC receives the first Veteran COVID-19 patient, a passenger from the Diamond Princess cruise ship.[J]
March 3, 2020	United States	The second case of COVID-19 in New York is confirmed in New Rochelle.[T]
March 3, 2020	VHA	VHA internally releases the COVID-19 Strategic Response Plan; OEM briefs the VISNs on the plan on a national teleconference.[U]
March 3, 2020	VHA	VHA EIC directs activation of the Incident Command System.[V]
March 5, 2020	VHA	VHA limits visitors to CLCs and SCI/D centers.[W]
March 5, 2020	VHA	VHA issues memorandum on VISN / VAMC Coronavirus Communication Plan.[D]
March 11, 2020	Global	WHO declares novel coronavirus outbreak a pandemic.[X]
March 11, 2020	United States	President Trump blocks most visitors from continental Europe.[Y]
March 13, 2020	United States	President Trump issues proclamation on declaring a National Emergency concerning the novel coronavirus disease (COVID-19) outbreak.[Z]
March 13, 2020	United States	States across the U.S. announce plans to close schools over the coronavirus concerns.[J]
March 15, 2020	United States	The CDC releases guidelines recommending "that for the next 8 weeks, organizers (whether groups or individuals) cancel or postpone in-person events that consist of 50 people or more throughout the United States."[B]
March 15, 2020	HHS (ASPR)	HHS SNS begins deliveries to States.[J]
March 16, 2020	United States	President Trump issues coronavirus guidelines for the public.[AA]
March 16, 2020	VHA	VA begins deploying Mobile Vet Centers to help reach Veterans who need counseling during the outbreak but are unable to visit a medical facility.[J]

Date	Event Scope	Event
March 16, 2020	Canada	Canada announces plans to close the border to noncitizens, as the country's number of confirmed cases rose to 339 with one death. The border restrictions include some exceptions, including for U.S. citizens.[J]
March 17, 2020	Global	The E.U. bars most travelers from outside the bloc.[BB]
March 17, 2020	United States	NYC informs residents to prepare to shelter in place in the next 48 hours, much like northern California.[J]
March 17, 2020	VHA	McKinsey projections of COVID-19 demand across the country begin.[J]
March 18, 2020	United States	President Trump signs executive order on prioritizing and allocating health and medical resources to respond to the spread of COVID-19.[CC]
March 18, 2020	United States	The FFCRA is signed Into law.[DD]
March 18, 2020	United States	U.S. and Canada agreed to close the 5,500-mile border between the two countries for all non-essential visits/travel.[J]
March 19, 2020	Global	China reports zero local infections.[EE]
March 21, 2020	United States	The Attorney General issues a memorandum on Federal Employee Exemption from State-imposed Shelter-in-Place Orders.[J]
March 22, 2020	VHA	OEM deploys AEMs to all FEMA Regional Response Coordination Center.[J]
March 23, 2020	VHA	HOC initiates twice daily calls seven days a week with VHACO, Network and VAMC leadership to discuss COVID-19 planning and response.[FF]
March 23, 2020	VHA	VHA issues a memorandum releasing the VHA COVID-19 Strategic Response Plan.[J]
March 23, 2020	United States	New York state is now the epicenter of the coronavirus outbreak in the United States.[J]
March 23, 2020	VHA	VHA begins to accept non-Veterans at VA medical facilities (VISN 22).[J]
March 25, 2020	VHA	VHA AEMs supporting repatriation centers Travis and Lackland begin demobilizing, with plans for continued demobilization at Dobbins and Miramar on March 26, 2020.[J]
March 26, 2020	United States	The U.S. passes China as the country with the highest number of confirmed COVID-19 cases.[J]
March 26, 2020	FEMA/HHS	"Airbridge" flights begin under the direction of the Supply Chain Task Force.[J]
March 27, 2020	United States	The CARES Act is signed into law.[GG]
March 27, 2020	VHA	VA releases COVID-19 Response Plan to the public.[HH]
March 27, 2020	United States	New areas of concern emerge across the country, including Louisiana (New Orleans), Michigan (Detroit) and Illinois (Chicago).[J]

Date	Event Scope	Event
March 28, 2020	United States	The CDC issues a travel advisory for the New York region.[II]
March 29, 2020	VHA	VHA works to surge staff support to New Orleans and New York requirements.[J]
March 29, 2020	United States	President Trump extends stay at home guidelines.[JJ]
March 30, 2020	FDA	FDA approves use of anesthesia machines as alternative ICU ventilators as a back-up option.[J]
March 31, 2020	United States	The USNS Comfort begins providing care in NYC.[D]
April 1, 2020	United States	The USNS Comfort, NYC, has 2 beds filled and the USNS Mercy, Los Angeles, has 12 beds filled.[J]
April 1, 2020	CDC	CDC releases guidance on decontamination and reuse of filtering face piece respirators.[J]
April 2, 2020	CDC	The SNS is in the process of deploying all remaining PPE (N95 respirators, surgical/face masks, face shields, gloves, coveralls and gowns) in its inventory. A small percentage (10%) is retained for critical needs of frontline health care workers serving in Federal response efforts.[J]
April 2, 2020	CDC	CDC releases Strategies for Optimizing PPE and Equipment.[J]
April 2, 2020	VHA	VAMCs directed to plan and report bed expansion projections.[KK]
April 3, 2020	CDC	CDC advises people to start wearing face masks in public to stop the spread of the coronavirus, a reversal on previous guidance that urged people not to wear masks.[J]
April 4, 2020	United States	More than 150 crew members of a U.S. Navy aircraft carrier, whose captain was relieved of command after raising concerns about the coronavirus, test positive. More than 1,500 sailors on the USS Theodore Roosevelt moved ashore after a letter written by Capt. Brett Crozier is leaked.[J]
April 5, 2020	United States	Frustration regarding the PPE supply chain continues, in part due to several governors who refer to their attempts to compete with the Federal government on the open market as a “bidding war.”[J]
April 7, 2020	FDA	FDA approves the investigational use of convalescent plasma for COVID-19 patients (transfusion of antibodies from the blood of people who have recovered from COVID-19).[J]
April 7, 2020	VHA	Three COVID-19 patients are on ventilators, and one on a converted anesthesia machine, at Gallup Indian Medical Center, a Federal IHS facility. VA agrees to accept the 4 critical patients for transfer down to the Albuquerque VA.[J]
April 8, 2020	China	The city of Wuhan, China lifts the 76-day lockdown.[J]
April 8, 2020	VHA	A DEMPS National staffing conference call is held to provide assistance with the DEMPS process. The LEAF process allows for virtual credentialing and computer access at the gaining site within the DEMPS deployment. A $5,000 incentive for a 14-day deployment is offered.[J]

Date	Event Scope	Event
April 9, 2020	CDC	The CDC indefinitely extends the government's March 14 no-sail order for cruise ships.[J]
April 10, 2020	VHA	HCI Workgroups are demobilized and SMEs are transitioned to new workgroups.[J]
April 11, 2020	CDC	CDC reports the United States is in the accelerated phase of the COVID-19 pandemic; COVID-19 has been detected in all 50 states, District of Columbia, Puerto Rico, Guam, the Northern Mariana Islands and the U.S. Virgin Islands.[J]
April 11, 2020	VHA	VISN to VISN staffing support begins.[J]
April 12, 2020	VHA	EMCC begins coordination with DOD on the activation of VA/DOD contingency systems for the reception of military personnel with COVID-19 coming from overseas.[J]
April 13, 2020	VHA	EMCC hosts a call with the President of the National Association of State Directors of Veterans Affairs and the State Directors on how they receive support from their states and VHA.[J]
April 13, 2020	United States	New York state's coronavirus death toll surpasses 10,000 after the daily fatality count rose by 671.[J]
April 13, 2020	VA	VA publishes 'Fourth Mission' actions to help America respond to COVID-19.[J]
April 15, 2020	VHA	VHA EIC instructs the organization to continue hiring in preparation for second wave.[LL]
April 15, 2020	VHA	EMCC reviews a Memorandum of Agreement establishing a framework under which IHS can draw upon the resources of the VA to support mission-essential and emergency response activities.[J]
April 16, 2020	United States	The White House releases guidelines for relaxing social distancing restrictions.[MM]
April 16, 2020	DOD	U.S. Northern Command designates Kirtland Air Force Base in Albuquerque, NM as an Isolation Support Facility to isolate DOD personnel who are exposed to COVID-19, symptomatic or test positive.[J]
April 19, 2020	HHS	HHS announces new transparency measures requiring the disclosure of coronavirus cases in nursing homes to patients' families and public health officials.[J]
April 20, 2020	United States	The Navajo Nation, which sprawls across three states, reports 1,197 positive coronavirus cases, a per capita infection rate 10 times higher than Arizona and the third-highest infection rate in the country, behind New York and New Jersey.[J]
April 20, 2020	VHA	The newly established CCC process structure now provides daily COVID-19 guidance and decision-making resources to Leadership, Program Offices, VISN and Facility Directors. VHA COVID-19 Planning Cell hosts kick-off to develop and maintain a shared planning perspective throughout pandemic response.[NN]
April 25, 2020	China	China announced that there are no remaining coronavirus cases in the hospitals in Wuhan, China.[J]

Date	Event Scope	Event
April 26, 2020	Global	Global death toll surpasses 200,000.[B]
April 29, 2020	Global	U.S. becomes first country with 1 million confirmed cases of COVID-19.[OO]
April 30, 2020	DOD	The USNS Comfort departs NYC a month after it was sent to relieve stress on local hospitals. The Comfort treated just 182 people as a surge in cases in the city fell short of the worst-case projections.[J]
April 30, 2020	VHA	The Moving Forward Plan Toolkit (Chapter 1) provided to VISNs.[PP]
May 1, 2020	VHA	The Moving Forward Plan Communications Toolkit provided to field.[PP]
May 1, 2020	FDA	The FDA grants emergency use authorization for remdesivir, a drug that has shown promise in early clinical trials to help people with severe COVID-19.[J]
May 4, 2020	VHA	The VHA Moving Forward Plan is approved by the Secretary of VA.[QQ]
May 7, 2020	VHA	VHA's 30-Bed ICU FORTS mobile hospital in Orlando, FL is completed.[QQ]
May 8, 2020	VHA	The VHA Moving Forward Plan is provided to VISNs and briefed to Congress.[QQ]
May 18, 2020	VHA	VHA Moving Forward use-case sites begin phased reintroduction of services.[RR]
May 20, 2020	United States	CDC provides guidance as states begin to reopen.[SS]
May 21, 2020	Global	Global COVID-19 cases reach 5 million.[TT]
May 28, 2020	United States	COVID-19 deaths in United States reach 100,000.[UU]
June 4, 2020	United States	The CDC Director expresses concerns about resonation of public health message.[VV]
June 9, 2020	VHA	The VHA Moving Forward Guidebook is released to host regulations, policy and guidance associated with expanded services at VA sites of care.[WW]
June 19, 2020	VA	VA issues Chartering the Course: Maintaining Continuous Services to Veterans and Resuming Normal, Pre-COVID-19 Operations.[J]
June 20, 2020	United States	Southern U.S. states see sharp rise in cases.[B]
June 28, 2020	Global	Global COVID-19 cases reach 10 million and death toll reaches 500,000.[XX]

Sources:

A Jeremy Page, Wenxin Fan, Natasha Khan, "How It All Started: China's Early Coronavirus Missteps," The Wall Street Journal, 3/6/2020, https://www.wsj.com/articles/how-it-all-started-chinas-early-coronavirus-missteps-11583508932, accessed 9/25/2020.

B Derrick Bryson Taylor, "A Timeline of the Coronavirus Pandemic", New York Times, updated 8/6/2020, https://www.nytimes.com/article/coronavirus-timeline.html, accessed 8/28/2020.

C WHO tweet, 1/4/2020, https://twitter.com/WHO/status/1213523866703814656.

D VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

E "Outbreak of Pneumonia of Unknown Etiology (PUE) in Wuhan, China," CDC, 1/8/2020, https://emergency.cdc.gov/han/han00424.asp, accessed 9/25/2020.

F “Novel Coronavirus 2019, Wuhan, China,” Centers for Disease Control and Prevention (CDC), updated 1/11/2020, https://stacks.cdc.gov/view/cdc/84177/cdc_84177_DS1.pdf?, accessed 9/25/2020.https://stacks.cdc.gov/view/cdc/84177/cdc_84177_DS1.pdf?

G Amy Qin, Javier C. Hernandez, “China Reports First Death From New Virus," The New York Times, updated 1/21/2020, https://www.nytimes.com/2020/01/10/world/asia/china-virus-wuhan-death.html, accessed 9/25/2020.

H "Public Health Screening to Begin at 3 U.S. Airports for 2019 Novel Coronavirus (“2019-nCoV”)," Centers for Disease Control and Prevention (CDC), 1/17/2020, https://www.cdc.gov/media/releases/2020/p0117-coronavirus-screening.html, accessed 9/25/2020.

I "Case of 2019 novel coronavirus confirmed in Washington state resident," Washington State Department of Health, 1/21/2020, https://www.doh.wa.gov/Newsroom/Articles/ID/1068/Case-of-2019-novel-coronavirus-confirmed-in-Washington-state-resident-20-006, accessed 9/25/2020.

J Response to Vetting Draft, OEM, VHA, 9/14/2020.

K "Statement from the Press Secretary Regarding the President’s Coronavirus Task Force," White House, 1/29/2020, https://www.whitehouse.gov/briefings-statements/statement-press-secretary-regarding-presidents-coronavirus-task-force/, accessed 9/25/2020.

L "Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)," WHO, 1/30/2020, https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov), accessed 9/25/2020.

M "CDC Confirms Person-to-Person Spread of New Coronavirus in the United States," CDC, 1/30/2020, https://www.cdc.gov/media/releases/2020/p0130-coronavirus-spread.html, accessed 9/25/2020.

N "Secretary Azar Declares Public Health Emergency for United States for 2019 Novel Coronavirus," HHS, 1/31/2020, https://www.hhs.gov/about/news/2020/01/31/secretary-azar-declares-public-health-emergency-us-2019-novel-coronavirus.html, accessed 9/25/2020.

O "WHO Director-General's remarks at the media briefing on 2019-nCoV on 11 February 2020," WHO, 2/11/2020, https://www.who.int/dg/speeches/detail/who-director-general-s-remarks-at-the-media-briefing-on-2019-ncov-on-11-february-2020, accessed 9/25/2020.

P Motoko Rich, Edward Wong, "They Escaped an Infected Ship, but the Flight Home Was No Haven," The New York Times, 2/17/2020, https://www.nytimes.com/2020/02/17/world/asia/japan-cruise-ship-coronavirus.html, accessed 9/25/2020.

Q "Coronavirus Disease 2019 (COVID-19) Response Historical Report: February 17-23, 2020," VHA, accessed 7/15/2020.

R Elise Takahama, "2 new coronavirus cases emerge in Washington, in King and Snohomish counties," The Seattle Times, updated 2/29/2020, https://www.seattletimes.com/seattle-news/health/2-new-coronavirus-cases-emerge-in-washington-in-king-county-and-snohomish-county/, accessed 9/25/2020.

S "Proclamation by the Governor 20-05," State of Washington Office of the Governor, 2/29/2020, https://www.governor.wa.gov/sites/default/files/proclamations/20-05%20Coronavirus%20%28final%29.pdf, accessed 9/25/2020.

T Joseph Spector, Jon Campbell, "Coronavirus timeline in New York: Here's how we got here and where we're headed," The Journal News, updated 3/15/2020, https://www.lohud.com/story/news/politics/2020/03/13/coronavirus-timeline-new-york-how-we-got-here-and-where-were-headed/5045463002/, accessed 9/25/2020.

U "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 2-8, 2020," VHA, accessed 7/15/2020; Conference Call between OEM and VISNs conducted on 3/3/2020, VHA.

V Conference Call between EIC and VISN Directors conducted on 3/3/2020, VHA.

W "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 2-8, 2020," VHA, accessed 7/15/2020.

X "Virtual press conference on COVID-19 – 11 March 2020," WHO, 3/11/2020, https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-full-and-final-11mar2020.pdf?sfvrsn=cb432bb3_2, accessed 9/25/2020.

Y Peter Baker, "U.S. to Suspend Most Travel From Europe as World Scrambles to Fight Pandemic," The New York Times, 3/11/2020, https://www.nytimes.com/2020/03/11/us/politics/anthony-fauci-coronavirus.html, accessed 9/25/2020.

Z "Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak," White House, 3/13/2020, https://www.whitehouse.gov/presidential-actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/, accessed 9/25/2020.

AA "Coronavirus Guidelines for America," White House, 3/16/2020, https://www.whitehouse.gov/briefings-statements/coronavirus-guidelines-america/, accessed 9/25/2020.

BB Matina Stevis-Gridneff, Richard Perez-Pena, "Europe Barricades Borders to Slow Coronavirus," The New York Times, 3/17/2020, https://www.nytimes.com/2020/03/17/world/europe/EU-closes-borders-virus.html, accessed 9/25/2020.

CC "Executive Order on Prioritizing and Allocating Health and Medical Resources to Respond to the Spread of Covid-19," White House, 3/18/2020, https://www.whitehouse.gov/presidential-actions/executive-order-prioritizing-allocating-health-medical-resources-respond-spread-covid-19/, accessed 9/25/2020.

DD "President Donald J. Trump Is Providing Economic Relief to American Workers, Families, and Businesses Impacted by the Coronavirus," White House, 3/27/2020, https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-providing-economic-relief-american-workers-families-businesses-impacted-coronavirus/, accessed 9/25/2020.

EE Javier Hernandez, "China Hits a Coronavirus Milestone: No New Local Infections," The New York Times, updated 4/14/2020, https://www.nytimes.com/2020/03/18/world/asia/china-coronavirus-zero-infections.html, accessed 9/25/2020.

FF "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 23-29, 2020," VHA, accessed 7/15/2020.

GG "Remarks by President Trump at Signing of H.R.748, The CARES Act," White House, 3/27/2020, https://www.whitehouse.gov/briefings-statements/remarks-president-trump-signing-h-r-748-cares-act/, accessed 9/25/2020.

HH "VA Releases COVID-19 Response Plan," VA Office of Public and Intergovernmental Affairs, 3/27/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5405, accessed 9/1/2020.

II "CDC Issues Domestic Travel Advisory for New York, New Jersey, and Connecticut," CDC, 3/28/2020, https://www.cdc.gov/media/releases/2020/s038-travel-advisory.html, accessed 9/25/2020.

JJ "Remarks by President Trump, Vice President Pence, and Members of the Coronavirus Task Force in Press Briefing," White House, 4/23/2020, https://www.whitehouse.gov/briefings-statements/remarks-president-trump-vice-president-pence-members-coronavirus-task-force-press-briefing-31/, accessed 9/25/2020.

KK "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 30 - April 5, 2020," VHA, accessed 7/15/2020.

LL "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 13 - 19, 2020," VHA, accessed 7/15/2020.

MM "President Donald J. Trump Announces Guidelines for Opening Up America Again," White House, 4/16/2020, https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-announces-guidelines-opening-america/, accessed 9/25/2020.

NN "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 20 - 26, 2020," VHA, accessed 7/15/2020.

OO "Cases in the U.S.," St. Louis Federal Reserve, updated 4/29/2020, https://fraser.stlouisfed.org/files/docs/historical/cpt/images/20200429_CDC_casesinUS.JPG, accessed 9/25/2020.

PP "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 27 - May 3, 2020," VHA, accessed 7/15/2020.

QQ "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 4 - 10, 2020," VHA, accessed 7/15/2020.

RR "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 18 - 24, 2020," VHA, accessed 7/15/2020.

SS "CDC releases resources to assist states to open," CDC, 5/20/2020, https://www.cdc.gov/media/releases/2020/s0520-cdc-resources-open.html, accessed 9/25/2020.

TT Noah Higgins-Dunn, "Global coronavirus cases surpass 5 million," CNBC News, 5/21/2020, https://www.cnbc.com/2020/05/21/global-coronavirus-cases-surpass-5-million-johns-hopkins-data-shows.html, accessed 9/25/2020.

UU "Cases in the U.S.," St. Louis Federal Reserve, updated 4/29/2020, https://fraser.stlouisfed.org/files/docs/historical/cpt/images/20200429_CDC_casesinUS.JPG, accessed 5/28/2020.

VV Tina Reed, "CDC director 'concerned that our public health message isn't resonating' on masks, social distancing," Fierce Healthcare, 6/5/2020, https://www.fiercehealthcare.com/hospitals-health-systems/cdc-s-robert-redfield-testifies-about-covid-19-response, accessed 9/25/2020.

WW "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 8 - 14, 2020," VHA, accessed 7/15/2020.

XX Lisa Du, Michelle Fay Cortez, "Pandemic Tops 10 Million Cases, 500,000 Deaths as Momentum Grows," Bloomberg, updated 6/29/2020, https://www.bloomberg.com/news/articles/2020-06-28/global-covid-19-cases-hit-10-million-as-pandemic-gains-momentumy, accessed 9/25/2020.

C. COVID-19 Clinical Trials

The following Tables list the COVID-19 clinical trials occurring within VA as of June 30, 2020, split out by VHA-funded studies (Table 10.3), Federal-led studies (Table 10.4) and Industry-led studies (Table 10.5). Not included in these tables below but as noted in the Research Innovation section, VHA also participated in a Mayo Clinic/Biomedical Advanced Research and Development Authority study titled "Expanded Access to Convalescent Plasma for the Treatment of Patients with COVID-19."

Table 10.3 *VHA-Funded COVID-19 Studies as of July 6, 2020*

Study Name	Description
Hormonal Interventions for the Treatment in Veterans with COVID-19 Requiring Hospitalization (HITCH): A Multicenter, Phase 2 Randomized Controlled Trial of Best Supportive Care (BSC) vs. BSC plus Degarelix	Study of the effectiveness of Degarelix (a prostate cancer drug) as a treatment for COVID-19. A randomized controlled trial aims to reduce bias in a study by randomly assigning whether participants receive the intervention.[836]
Epidemiology, Immunology, and Clinical Characteristics of COVID-19 (EPIC^3)	Study of biospecimens, such as throat swabs and blood, to learn how the virus that causes COVID-19 has affected Veterans. Parallel study conducted by DOD.[837]
Predictive Immune and Airway Monitoring in Healthcare workers and Hospitalized COVID-19 patients	Study of immune system and airway characteristics as potential risk factors for multiorgan complications from COVID-19.
3D printed respirator mask performance with and without virus inactivation	Study of the impact of repeated disinfection on the filtration effectiveness of 3D respirators.
Virus inactivation of 3D printed respirator mask material	Study of the effectiveness of various disinfection processes in eliminating pathogens from 3D printed respirators.
Viral and immune dynamics of SARS-CoV2 infection in moderate and severe CoVID19	Study of more specific SARS-CoV-2 RNA assay, measurement of immune/inflammatory markers and genetic variation in patients with COVID-19 of varying degrees of severity.
A Safe Validation to Test the Efficacy of Disinfectants on Reusable 3D Printed Face Masks During the COVID-19 Pandemic	Study of the effectiveness of disinfection processes on 3D printed respirators to identify the most suitable process. Development of an instructional video on disinfection of the respirators.
Leukocyte rewiring as a mechanism of COVID-19-ARDS	Study of cellular processes associated with acute respiratory distress syndrome as a complication of COVID-19.

Study Name	Description
Master Protocol on treatments for hospitalized Veterans	Now known as VA CURES-1, this study will assess the therapeutic efficacy of convalescent plasma in patients with COVID-19.
For Inflammatory and Mental Health Sequelae of COVID-19 in Veterans	Study of inflammatory biomarkers in blood to assess correlation with mental health consequences of COVID-19.
An Integrative Technology Approach to Home-Based Conjoint Therapy for PTSD	COVID-19 stress measure added to existing project.
Combining Topiramate and Prolonged Exposure for PTSD and Alcohol Use Disorder	COVID-19 stress measure added to existing project.
Enhancing Community Integration for Homeless Veterans	Study on the effects of COVID-19 on community integration of recently-housed, previously homeless Veterans.
Impact of COVID-19 On Mental Health, Relationship Functioning and VA Telemental Health Service Use in a Longitudinal Cohort Study	Study over time of mental health function and tele-mental health utilization among a group of patients with COVID-19.
Disseminate Tele-PCMHI Implementation Tools and Expertise	Supports continued delivery of telehealth-enhanced Primary Care-Mental Health Integration through dissemination and further evaluation of the tools and processes we have developed for our tele-PCMHI service delivery model.
Impact of COVID-19 and Social Distancing on Mental Health and Suicide Risk in Veterans	Investigate the impact of changes to one's social support system, due to social distancing, on mental health and suicide risk, as well as moderators of this association (for example, social cognition, expressed emotion, coping, psychological inflexibility).
Veterans' Experiences During the COVID-19 Pandemic	Study of challenges and facilitators of physical distancing in a Veteran population and psychosocial predictors. Assess access to care within VHA and the community during the pandemic for non-COVID-19 conditions. Assess the mental health impact of social isolation during the pandemic.
Piloting a Self-Help Intervention to Improve Veteran Mental Health During the COVID-19 Pandemic	Study assessing outcomes, feasibility of self-help intervention (MEDIC) in comparison with individual or group support during the COVID-19 pandemic.

Study Name	Description
Identify and Develop Methods for Monitoring the Sequelae of COVID-19 Disease and Treatment	Study the correlation of various health, social and lifestyle factors with COVID-19 course and outcome in a primary care population of Veterans.
Applying the After-Action Review Methodology to Examine Mental Health Residential Rehabilitation and Treatment Programs' Response to the COVID-19 Crisis	After-action review of mental health residential rehab and treatment during the COVID-19 pandemic.
Mixed-Methods Pilot Study of the Impacts of Telemental Healthcare for High-Risk Veterans with Opioid Use Disorder During COVID-19	Study impacts and trends among Veterans with opioid use disorder through a period of changes in access to care and medication management during the COVID-19 pandemic.
Impact of Social Distancing During the COVID-19 Pandemic on Cognitive, Physical, and Mental Health in Urban and Rural Veterans in the Pacific Northwest	Study of the correlation of social distancing with physical or psychological disorders during the COVID-19 pandemic. Assessment for protective factors and correlation of biomarkers of physical activity with physical and psychological disorders.
Adapting Caring Contacts to Counteract Adverse Effects of Social Distancing among High-Risk Veterans During the COVID-19 Pandemic	Study of an adapted crisis intervention approach among a group of high-risk Veterans during the COVID-19 pandemic.
COVID-19 Impact on Biopsychosocial Factors of Loneliness in Rural Older Veterans and Caregivers	Study impacts of social distancing on older Veterans in rural settings during the COVID-19 pandemic.
Expanding VA Peer Support Workforce Capacity to Facilitate Increased Access to VHA Mental Health Services and Continuity of Care for Veterans with Mental Illness During the COVID-19 Pandemic	Study of the expansion of VA peer support as a means to improve access to mental health care with continuity during the COVID-19 pandemic.
Virtual Pain Care for High-Risk Veterans on Opioids During COVID-19 (and Beyond)	Study feasibility and effectiveness of Video Telecare Collaborative Pain Management during the COVID-19 pandemic.
Impacts of COVID-19 on African American Veterans with Chronic Pain	Study of the impacts of COVID-19 on the health and wellness of Black Veterans and identify mitigation strategies.
Changes in the Delivery of Evidenced-Based Psychotherapies for Depression and PTSD as the Result of the COVID-19 Pandemic	Study the impact of the COVID-19 pandemic on the provision of psychotherapy to Veterans with major depressive disorder and PTSD. Study of the impact to outcomes of therapy.

Notes: Some ORD-led COVID-19 studies are supplements or modifications to existing projects. Research studies information were obtained from the weekly ORD newsletters dated June 29, 2020 and July 6, 2020 respectively.

Sources: "ORD COVID-19 Update NRAC," VHA, 6/3/2020; "ORD COVID-19 Update – June 29, 2020", VHA, 6/29/2020; "ORD COVID-19 Update – July 6, 2020", VHA, 7/6/2020; "VA conducts deep-dive study into effects of COVID-19 on Veterans," VHA, 5/28/2020, https://www.va.gov/opa/pressrel/includes/viewPDF.cfm?id=5457, accessed 8/18/2020; "VA launches clinical trial for Veterans with COVID-19 based on prostate cancer drug," 5/15/2020, VHA, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5452, accessed 9/4/2020.

Table 10.4 *Federal-led COVID-19 Studies in which VHA was participating, as of June 30, 2020*

Partner / Funder	Study Title	Diagnostic, Vaccine, or Therapeutic
National Institute of Allergy and Infectious Diseases	Adaptive COVID-19 Treatment Trial	Therapeutic - Remdesivir
National Institute of Allergy and Infectious Diseases	Adaptive COVID-19 Treatment Trial II	Therapeutic - Remdesivir, Baricitinib
DOD	Epidemiology, Immunology and Clinical Characteristics of COVID-19 (EPIC3) within the Veterans Health Administration	Not Applicable – observational study
NIH (under Operation Warp Speed)	A Study to Evaluate Efficacy, Safety, and Immunogenicity of mRNA-1273 Vaccine in Adults Aged 18 Years and Older to Prevent COVID-19	Vaccine - mRNA-1273

Source: Response to Vetting Draft, ORD, VHA, 9/28/2020.

Table 10.5 *Industry-led COVID-19 Studies in which VHA was participating as of June 30, 2020*

Partner / Funder	Study Title	Diagnostic, Vaccine, or Therapeutic
Gilead	Study to Evaluate the Safety and Antiviral Activity of Remdesivir (GS-5734™) in Participants With Moderate Coronavirus Disease (COVID-19) Compared to Standard of Care Treatment	Therapeutic - Remdesivir
Gilead	Study to Evaluate the Safety and Antiviral Activity of Remdesivir (GS-5734™) in Participants With Severe Coronavirus Disease (COVID-19)	Therapeutic - Remdesivir
Regeneron	Evaluation of the Efficacy and Safety of Sarilumab in Hospitalized Patients With COVID-19	Therapeutic -Sarilumab
Hoffman-La Roche	A Study to Evaluate the Safety and Efficacy of Tocilizumab in Patients With Severe COVID-19 Pneumonia (COVACTA)	Therapeutic - Tocilizumab

Alexion	A Phase 3 Open-label, Randomized, Controlled Study to Evaluate the Efficacy and Safety of Intravenously Administered Ravulizumab Compared with BSC in Patients with COVID-19 Severe Pneumonia, Acute Lung Injury, or Acute Respiratory Distress Syndrome	Therapeutic - Ravulizumab
Genentech-Roche	Randomized, Double-Blind, Placebo-Controlled, Multicenter Study to Evaluate the Safety and Efficacy of Tocilizumab in Hospitalized Patients with COVID-19 Pneumonia	Therapeutic - Tocilizumab
Romark Medical Institute	A Randomized, Double-Blind, Placebo Controlled, Trial to Evaluate the Efficacy and Safety of Nitazoxanide (NTZ) for Post- Exposure Prophylaxis of COVID-19 and other Viral Respiratory Illnesses in Elderly Residents of Long Term Care Facilities	Therapeutic - Nitazoxanide

Source: Response to Vetting Draft, ORD, VHA, 9/28/2020.

D. COVID-19 Policies and Directives

Table 10.6 below outlines the references to offices that issued policies and directives impactful to VHA throughout the response to COVID-19. This table can be used as a reference of Issuing Office abbreviations used in Table 10.7. Please note that the originating office for guidance and the issuing office may differ.

Table 10.6 *Issuing Office References and Office Names*

Issuing Office Reference[A]	Office Name[B]
00	Secretary of VA
05	VA Office of the Chief Human Capital Officer
005	VA Assistant Secretary for Information Technology
006	VA Assistant Secretary for Human Resources and Administration/Operations, Security, and Preparedness
10	VHA Office of the Under Secretary for Health (USH)
10A1	VHA Office of Nursing Services
10A2	VHA Office of Human Capital Management *(Formerly known as VHA Office of Workforce Services)*
10A2A	VHA Office of Workforce Management and Consulting
10A2B	VHA Office of Employee Education System
10B2	VHA Office of Communications
10D	VHA Office of Community Care *(Formerly known as VHA Office of the Deputy Under Secretary for Health for Community Care)*
10D1B	Office of Delivery Operations
10E	VHA Office of Quality and Patient Safety *(Formerly known as VHA Office of Organizational Excellence)*
10N	VHA Office of Operations[C] *(Formerly known as VHA Office of the Deputy Under Secretary for Health for Operations and Management)*
10NA1 / OEM	VHA Office of Emergency Management
10NC	VHA Office of Clinical Services *(Formerly known as VHA Office of the Assistant Deputy Under Secretary for Health for Clinical Operations)*
10NC5	VHA Office of Mental Health and Suicide Prevention
10NG	VHA Office of Access
NCPS	VHA National Center for Patient Safety
EMCC	VHA Emergency Management Coordination Cell

Issuing Office Reference[A]	Office Name[B]
OAG	U.S. Office of the Attorney General
OMB	U.S. Office of Management and Budget
OPM	U.S. Office of Personnel Management
VHACO	VHA Central Office
VHA BRS	VHA Blind Rehabilitation
VHA PBM	VHA Pharmacy Benefits Management Services

Notes:

[A] The Issuing Office Reference is based on the information provided through VHA Historical Logs as shown in Table 10.7. In some instances, this reference can be the same as the FY2020 VHACO Mail Codes.

[B] The Office Names are based on the current naming convention of VHA Offices that align to the FY2021 VHACO Mail Codes. Where applicable, a former Office Name is provided that aligns to the FY2020 VHACO Mail Codes.

[C] In some cases, guidance issued by 10N may have originated in a different office but was issued by 10N for streamlining purposes.

Sources: "VHA Organization Chart," VHA, 1/31/2020; "Key Staff," VHA, 7/8/2020, https://www.va.gov/directory/guide/keystaff.cfm?id=2001, accessed 10/4/2020; "VHACO Crosswalk", VHA, 10/1/2020.

Table 10.7 outlines select policies and directives issued by, or impactful to, VHA and its response to COVID-19.

Table 10.7 *Policies and Directives Issued During COVID-19*

Date	Document	Issuing Office	Description
January 22, 2020	VHA Directive 0320.02 – VHA Continuity Program	10NA1	Updated disaster recovery and operation plans issued [A]
January 30, 2020	Request for DEMPS Volunteers to support HHS Response to 2019-nCOV	10N	Volunteer support requested for Department of Health and Human Services (HHS) screening response [A]
January 31, 2020	Cleaning Guidance for Re-Usable Medical Equipment and Patient Rooms	10N	Updated guidance issued on proper cleaning methods [A]
January 31, 2020	VHACO Program Responsibilities for Novel Coronavirus in China	10N	Notice provided of VHA's initiation of a Coronavirus response plan [A]
February 5, 2020	Memorandum: Managing Local Requests for Assistance related to Coronavirus (nCoV2019)	10N	Guidance provided to VISNs/facilities on steps to take if a healthcare-related request for assistance is received from a non-VA entity under a declared Public Health Emergency [B]

Date	Document	Issuing Office	Description
February 5, 2020	Guidance: HR Flexibilities 2019 Novel Coronavirus (2019-nCoV)	10A2A	Guidance provided to supervisors on actions for an employee who appears symptomatic and indicating possible infection versus an employee who has known contact or exposure to others with Coronavirus but is still capable of working [B]
February 11, 2020	02112020 Standardization of Laboratory Reporting	10N	Guidance provided to VISNs and facilities regarding what type of test to use to identify COVID-19 and to create a data tag to report findings [C]
February 12, 2020	02122020 HHS Request for Support to Novel Coronavirus Outbreak Task Order 5.7 RELOAD	007	Request made from HHS to VHA for virus screening support at Travis Air Force Base [C]
February 12, 2020	Memorandum: Authority to Approve Weather & Safety Leave for Employees Affected by 2019-nCoV, Coronavirus	10N	Delegation of authority to local officials to approve Weather & Safety Leave for employees under their supervisor, on a case-by-case basis up to the 15-day limit [D]
February 14, 2020	01142020 Personal Protective Equipment	10N	Report given to the Emergency Management Coordination Cell (EMCC) regarding stock levels of personal protective equipment (PPE) at facilities [C]
February 18, 2020	COVID-19 Table-Top Exercise (TTX)	10N	Each VISN and VA Medical Center directed to conduct an emergency preparedness table-top exercise by March 6, 2020 [E]
March 2, 2020	Surveillance and Virtual Resource Utilization Planning for Coronavirus Disease 2019 (COVID-19)	10N	Baseline standard of care established to enable robust surveillance and virtual care resource readiness [F]
March 2, 2020	Request for Disaster Emergency Medical Personnel System (DEMPS) Volunteers to Support COVID-19	10N	Request made of Disaster Emergency Medical Personnel System (DEMPS) personnel to provide 4 police officers to VA Palo Alto [F]
March 2, 2020	Coronavirus (COVID-19) Protection	10N	Guidance provided on steps each VHA location should take to protect Veterans and staff from COVID-19 protection [F]
March 3, 2020	Veterans Health Administration COVID-19 Strategic Response Plan	EMCC	4 Phases of VHA's COVID-19 Strategic Response Plan outlined: Contingency Planning and Training; Initial Response; Establishing Alternate Sites of Care; and Sustainment and Recovery [F]

Date	Document	Issuing Office	Description
March 5, 2020	VA Response to COVID-19: Guidance for VA Community Living Centers	10N	Guidance provided to Community Living Centers (CLCs) and State Veterans Homes (SVHs) [F]
March 5, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: *Updated* VA Leave Guidance During Novel Coronavirus (COVID-19)	05	This OCHCO Bulletin provides Human Resources offices information on various leave options that may be utilized by employees during COVID-19 [G]
March 6, 2020	Postponement of Long-Term Care Surveys	10N through 10NC	Recommendation provided to pause external review surveys in VA Community Living Centers and State Veterans Homes for 30 days [F]
March 6, 2020	VHA COVID-19 Communications Toolkit	10B2	VHA COVID-19 Communications Toolkit provided to assist VISNs and Facilities in communicating to patients and staff about the COVID-19 response [F]
March 9, 2020	Memorandum: Mission Critical Travel	10	All VHA travel except for mission critical travel canceled for 30 days [H]
March 10, 2020	Memorandum: COVID-19 Guidance for the VA Spinal Cord Injuries and Disorder (SCI/D) Centers	10N through 10NC	Guidance given to limit admissions; postpone elective admissions; use virtual care; and avoid group settings, sharing of equipment and visitors in Spinal Cord Injuries and Disorder (SCI/D) [H]
March 11, 2020	Memorandum: Homeless Program Office (HPO) Coronavirus Disease 2019 (COVID-19) Response Suggestions	10N through 10NC	Homeless program response suggestions provided while waiting CDC or World Health Organization (WHO) guidance [H]
March 11, 2020	Memorandum: COVID-19: Protecting Veterans and the VA Workforce by Leveraging Video Telehealth for VA Clinics and Home	10N	Guidance provided on establishing capability of Tier 1 health care professionals to deliver video telehealth using VA Video Connect (VVC) [H]
March 12, 2020	HR Emergency Preparedness - Frequently Asked Questions (FAQs)	05	Human Resources (HR) guide which addresses a wide range of HR flexibilities in response COVID-19
March 12, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: COVID-19 HR Emergency Preparedness FAQs - Version 1	05	Announcement sent to notify employees of the Office of Personnel and Management's (OPM) memorandum and questions and answers issued on March 7, 2020 [J]

Date	Document	Issuing Office	Description
March 14, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: COVID-19 HR Emergency Preparedness FAQs - Version 2	05	Announcement sent to notify employees of the Office of Management and Budget's (OMB) memorandum issued on March 12, 2020 [K]
March 13, 2020	Memorandum: Available Supportive Services for Veteran Families (SSVF) Resources to Place Homeless Veterans at High Risk of COVID-19	10N through 10NC	Supportive Services for Veteran Families (SSVF) allowed to offer emergency housing even if other temporary housing options are available if they would place high-risk Veterans in congregate living environment [H]
March 14, 2020	Memorandum: COVID-19 Guidance for Mental Health Residential Rehabilitation Treatment Programs (MHRRTP)	10N through 10NC	Admissions to Mental Health Residential Rehabilitation Treatment Programs (MHRRTP) that require long-distance or interstate travel curtailed until VA travel ban is lifted [H]
March 14, 2020	HR Emergency Preparedness - Frequently Asked Questions (FAQs) - Version 2	05	Version 2 of the Human Resources (HR) guide added and revised guidelines from Version 1. Changes include approval process for leave of absences; telework requirements, resources, and approval; screening policies [L]
March 15, 2020	HR Emergency Preparedness - Frequently Asked Questions (FAQs) - Version 3	05	Version 3 of the Human Resources (HR) guide added and revised guidelines from Version 2. Changes include leave and telework flexibilities for employees in the National Capital Region (NCR) [M]
March 15, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: COVID-19 HR Emergency Preparedness FAQs - Version 3	05	Updated announcement sent to notify employees of the Office of Management and Budget's (OMB) memorandum issued on March 15, 2020 [N]
March 15, 2020	Memorandum: Coronavirus (COVID-19) Personal Protective Equipment (PPE) Use	10N through 10NC	Notification provided and request made of VISNs to redistribute supplies in accordance with updated CDC personal protective equipment (PPE) recommendations [H]
March 15, 2020	Memorandum: Ensuring Continuity in Suicide Prevention while Managing COVID-19	10N through 10NC	Request made of VISNs and local protocol inclusions outlined to ensure continuity in suicide prevention protocols and in supporting the mental health of Veterans via virtual care [H]
March 15, 2020	Memorandum: Coronavirus (COVID-19) - Guidance for Elective Procedures	10N through 10NC	Network Directors informed that VHA facilities will cease non-urgent elective procedures by March 18, 2020 [H]

Date	Document	Issuing Office	Description
March 15, 2020	Memorandum: Coronavirus (COVID-19) - Guidance for Work Recommendations for Asymptomatic Healthcare Personnel after Exposure to a COVID-19 Patient	10N	Process outlined for self-referral or supervisor referral of employees with exposure to a COVID-19 patient to occupational health for consultation and for ceasing patient care should symptoms develop [H]
March 15, 2020	COVID-19 Action Plan for Blind Rehabilitation Centers	VHA BRS	Blind Rehabilitation Centers (BRCs) instructed to suspend admitting patients and evaluate and manage current inpatients for proper discharge planning [H]
March 16, 2020	Memorandum: COVID-19 Guidance for Department of Veteran Affairs (VA) Health Care Systems	10N	Guidance provided to limit facility access and implement screening procedures prior to entry [O]
March 16, 2020	Memorandum: COVID-19 Guidance for Geriatrics and Extended Care Home and Community Based Services Programs	10N	New safeguards required of all Geriatric and Extended Care (GEC) Home and Community and Purchased Care programs to limit COVID-19 exposure risk for Veterans [O]
March 16, 2020	Memorandum: Implementation of an Episodic Special Patient Icon in Bed Management Solution	10N through 10NC	Patient specific Episodic Icon deployed to be added to a patient to indicate a PUI [O]
March 16, 2020	Memorandum: Waiver of the Biweekly Pay Limitation – Coronavirus Disease	006	Employees permitted to be paid overtime in excess of the biweekly limitation of premium pay for employees performing duties in response to COVID-19 [O]
March 16, 2020	Memorandum: Coronavirus (COVID-19) – Guidance for Telework, Scheduling, and Duty Location	10	Guidance provided on telework, scheduling and duty location for clinical and non-clinical staff [O]
March 16, 2020	PPE Conservation Strategies for Laboratory Compounding	VHA PBM	Guidance provided by VHA Pharmacy Benefits Management (PBM) on how best to conserve PPE in controlled environment [O]
March 17, 2020	Memorandum: Guidance for Community Living Centers - Revised	10N	Guidance given that effective immediately, CLCs will only admit Veterans already in a VA facility; no admissions are permitted from the community [O]
March 17, 2020	Memorandum: Revised Standardization of Laboratory Testing	10N	Requirements outlined for reporting and naming conventions for COVID-19 lab results in VistA [O]

Date	Document	Issuing Office	Description
March 17, 2020	Memorandum: Emergency Credentialing and Privileging	10E through 10N	Notification given of emergent credentialing and privileging guidance to address anticipated clinical staffing shortages O
March 18, 2020	Memorandum: Colonoscopy Screening Guidance	10N through 10NC	Colonoscopy screening guidance given for Veterans at average or higher than average risk for colorectal cancer O
March 18, 2020	Memorandum: Radiology and Nuclear Medicine Clarification Guidance	10N through 10NC	Clarification given that each medical center should establish local policy that defines which procedures are categorized as urgent/ emergent or non-urgent/elective and reschedule accordingly O
March 18, 2020	COVID-19 Supporting ICU Operations with Tele-Critical Care	10N	Facilities with an intensive care unit (ICU) and no Tele-Critical Care services asked to establish at least one temporary VA Video Connect capable mobile cart for every 10 ICU beds O
March 18, 2020	Appendix A: Draft Tele-Critical Care Support Workflow	10N	Attachment to above O
March 19, 2020	Memorandum: REVISED Guidance for Dialysis	10N through 10NC	Updated guidance provided for dialysis provided in VHA facilities O
March 19, 2020	Appendices for Expanding Telehealth Capabilities	10N	Defines Tier 1 healthcare professionals and requirements to become telehealth capable O
March 19, 2020	Memorandum: Recommendations for Pulmonary/ Sleep Ambulatory Services, use of Telehealth Services, Non-urgent Procedures and Screening	10N through 10NC	Guidance given that pulmonary/ sleep ambulatory services traditionally provided through in-person visits should be transitioned to telehealth wherever possible O
March 19, 2020	COVID-19 Guidance for Department of Veterans Affairs (VA) Fisher Houses	10N	New Fisher House admissions postponed, and access restricted for to unnecessary guests O
March 19, 2020	Memorandum: COVID-19 Definition of Bed Categories	10N	Definitions and minimum requirements given for creating or converting beds to negative pressure, Med/surg or ICU types O
March 20, 2020	Memorandum: UPDATED Managing Operations of Mental Health Unit While Managing COVID-19	10N through 10NC	Guidance issued to VA providers and pharmacies on modifications in monitoring requirements related to clozapine O

Date	Document	Issuing Office	Description
March 20, 2020	Memorandum: Use of Video Communication Technology under COVID-19	10N	Guidance provided for the use of video communication technology O
March 20, 2020	Memorandum: Changes to Online Scheduling (VAOS) Related to Coronavirus	10N	Notification given that VA will disable direct self-scheduling for VA and care in the community appointments O
March 20, 2020	Memorandum: Primary Care Guidance	10N through 10NC	Guidance given that primary care appointments should be reviewed and converted to virtual modalities where available and appropriate O
March 20, 2020	Spotlight: US Multi-Society Task Force on Colorectal Cancer Recommendations for Follow-up After Colonoscopy and Polypectomy	10N through 10NC	Attachment to above O
March 20, 2020	COVID-19 Primary Care Resources and Information	10N through 10NC	Attachment to above O
March 20, 2020	Memorandum: Guidance on Inspections, Fire Drills, and Routine Maintenance	10N	Guidance issued regarding proper safety inspection and fire drill procedures O
March 20, 2020	COVID-19 Guidance on Inspections, Fire Drills, and Routine Equipment Maintenance	10N	Attachment to above O
March 20, 2020	Memorandum: Mandatory Implementation of Bed Management System (BMS) In VA CLCs	10N	All CLCs directed to fully implement and deploy the use of the BMS O
March 20, 2020	Memorandum: Guidance on Access Standards	10N	Notification provided that VHA will temporary pause Mission Act access standards O
March 20, 2020	Guidance on Community Care Access Standards	10N	Attachment to above O
March 20, 2020	Memorandum: Updated guidance - Managing Local Requests for Assistance	10N	Approved message provided should a VHA facility receive a request for assistance from a non-VA entity O
March 20, 2020	Memorandum: Clarification - Guidance for Work Recommendations for Asymptomatic Healthcare Personnel after Exposure	10N through 10NC	Clarification provided that asymptomatic healthcare personnel (HCP) should be evaluated by occupational health to determine appropriateness of return to work practices and work restrictions O
March 20, 2020	Managing Federal Contract Performance Issues	OMB	Provides direction for working with contractors and identifies steps to help

Date	Document	Issuing Office	Description
	Associated with the Novel Coronavirus (COVID-19)		ensure this safety while maintaining continued contract performance in support of agency missions, wherever possible and consistent with the precautions issued by the Centers for Disease Control and Prevention (CDC) [P]
March 20, 2020	HR Emergency Preparedness - Frequently Asked Questions (FAQs) - Version 4	05	Version 4 of the Human Resources (HR) guide added and revised guidelines from Version 3. Additions included White House guidance and references to memos from other departments [Q]
March 20, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Remote/Virtual Verification of Employment Eligibility Verification (Form I-9) and Oath of Office Due to COVID-19	05	This OCHCO Bulletin gives Human Resources Offices (HROs) the discretion to defer the physical presence requirements associated with Employment Eligibility Verification (Form I-9) under Section 274A of the Immigration and Nationality Act (INA). This Bulletin also provides HROs with flexibility to administer the Oath of Office remotely or virtually [R]
March 20, 2020	Memorandum: Attorney General Memo of Federal Employee Exemption from State-imposed Shelter-in-Place orders	OAG	Office of the Attorney General (OAG) direction given for ensuring Federal employees can continue to provide official services to the public [O]
March 21, 2020	Memorandum: Continuity in Mental Health Services and Suicide Prevention Activities	10N	Actions outlined for Intensive Community Mental Health Recovery and Psychosocial Rehabilitation and Recovery Center programs to take [O]
March 21, 2020	Memorandum: Controlled Substance Prescribing using Telehealth	10N	Guidance provided on controlled substance prescribing through telehealth during the COVID-19 public health emergency [O]
March 21, 2020	Obtaining Informed Consent through Telehealth for Long-Term Opioid Therapy for Pain during the COVID-19 Public Health Emergency	10N	Attachment for above [O]
March 21, 2020	Memorandum: Use of Standard Audio Care Messaging	10N	Standard approved Audio Care message provided as an introductory message consistent with other Veteran-facing information [O]

Date	Document	Issuing Office	Description
March 21, 2020	Memorandum: Interim Guidance for the Medical Management of Hospitalized COVID Patients	10N	Guidance provided on medical management for patients hospitalized with COVID-19 [O]
March 21, 2020	Standard Operating Procedure (SOP): Interim Guidance for Medical Management of Hospitalized COVID-19 Patients	10N	Attachment for above [O]
March 21, 2020	Memorandum: Coronavirus COVID-19 UPDATED Guidance for Telework, Scheduling, and Duty Location	10	Guidance provided encouraging managers and supervisors are encouraged to maximize telework during business hours [O]
March 23, 2020	Memorandum: Guidance for Limiting Hydroxy-chloroquine Prescriptions to 30-day supplies	10N	Guidance given for Consolidated Mail Outpatient Pharmacies (CMOP) to limit all prescriptions for Hydroxy-chloroquine to 30 days [S]
March 23, 2020	Memorandum: Preparedness for Mechanical Ventilation of COVID-19 Patients during Pandemic	10N through 10NC	All facilities directed to assess and verify the sufficiency of ventilators to cover all intensive care unit (ICU) beds [S]
March 23, 2020	Spreadsheet: Preparedness for Mechanical Ventilation of COVID-19 Patients during Pandemic	10N through 10NC	Attachment to above [S]
March 23, 2020	VHA Office of Emergency Management COVID-19 Response Plan	OEM, VHACO	VHA Office of Emergency Management (OEM) Response plan provided to outline activities VHA will conduct to protect Veterans and staff and ensure continuity of care [S]
March 23, 2020	Memorandum: Authority to Approve Weather & Safety Leave for Employees Affected by COVID-19	10	Delegation of authority to approve Weather & Safety Leave in excess of 7 consecutive days expanded to allow local officials to approve leave in increments up to 15 days [S]
March 23, 2020	Memorandum: Essential Health Care Operations Allowed to Continue During Shelter in Place	10	Guidance provided for essential VHA employees and contractors to carry PIV badge, memo and letter when traveling to and from work during shelter-and-place orders [S]

Date	Document	Issuing Office	Description
March 23, 2020	Delegated Authority To Waive Salary Offset - Novel Coronavirus Disease (COVID-19) National Emergency	05	This memorandum provides guidance on dual compensation (salary offset) waivers for reemployed annuitants hired in support of COVID-19 national emergency [T]
March 23, 2020	On-boarding Processes for New Employees During the COVID-19 Emergency	OPM	Provides agencies with additional guidance related to on-boarding processes for new employees during the COVID-19 emergency [U]
March 22, 2020	Harnessing Technology to Support Mission Continuity	OMB	The Administration directs that agencies utilize technology to the greatest extent practicable to support mission continuity [V]
March 24, 2020	Memorandum: COVID-19 Guidance for Nutrition and Food Services	10N	COVID-19 guidance issued for Nutrition and Food Services (NFS) provided in VHA facilities [S]
March 24, 2020	Virtual NFPE Tool	10N	Attachment for above [S]
March 24, 2020	Memorandum: COVID-19: Guidance for Elective Gastroenterology and Hepatology Procedures	10N through 10NC	Clarification provided on postponing and rescheduling elective (non-urgent) gastroenterology and hepatology procedures [S]
March 24, 2020	Appendix A: Guidance for Identifying Non-Urgent or Elective Gastroenterology Procedures; Appendix B: Guidance for Performance of Gastroenterology Procedures	10N through 10NC	Attachment for above [S]
March 24, 2020	Memorandum: COVID-19 Safeguards for Military Environmental Registry Exams to Protect Veterans	10N	VISN and Medical Center Directors given responsibility to make determinations for continuation of military environmental health registry exams during COVID-19 [S]
March 24, 2020	Office of the DUSHOM Communications: COVID-19 Dual Compensation Waiver Guidance for VHA	10N	Guidance provided on use of the COVID-19 dual compensation waiver to hire reemployed annuitants to address the COVID-19 emergency and fill a temporary critical need [S]
March 24, 2020	Veterans Health Administration (VHA) Approved Direct Hire Authority (DHA) in Response to COVID-19	05	This memorandum provides guidance on the Office of Personnel Management's (OPM) approval of a Direct Hire Waiver for VHA in support of the COVID-19 national emergency [W]
March 24, 2020	Office of the Chief Human Capital Officer (OCHCO)	05	This OCHCO Bulletin notifies Human Resources (HR) offices of the temporary

Date	Document	Issuing Office	Description
	Bulletin: Temporary Authorization to Delay Pre-Placement and Recurring Physical Examinations		authorization to delay pre-placement and recurring physical examinations and for individuals employed by or appointed to positions in the VA. Federal regulation (5 CFR 339.103) allows required preemployment or recurring medical exams only for those who apply for or occupy a position "that has medical standards and/or physical requirements [X]
March 24, 2020	Memorandum: Guidance for Establishment of Emergency Child Care Centers to Support Continuing Operations during COVID-19	10A2A	Guidance issued outlining procedures Medical Center Directors (MCDs) may take to establish emergency childcare centers [S]
March 24, 2020	Memorandum: Personal Liability of VA Healthcare Workers	02	Advisement given that there is no increased exposure to liability for VA staff from altered assignments or standards of care that become necessary to deal with the pandemic [S]
March 25, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Travel restriction guidance due to shelter in place and lockdown orders	05	This OCHCO Bulletin notifies Human Resources (HR) of directions from the Attorney General's office to U.S. Attorneys, who are permitted to inform state and local law enforcement leaders in their geographic areas of responsibility of Federal agency procedures in cities with shelter in place and lockdown orders or other travel restrictions [Y]
March 25, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Temporary Postponement of Applicant Drug Testing during COVID-19 Pandemic	05	This OCHCO Bulletin notifies Human Resources (HR) offices of the temporary postponement of pre-employment applicant drug testing for testing designated positions (TDP) [Z]
March 25, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Extension of Certification Date for Current Certified Delegated Examining Human Resources Practitioners	05	This OCHCO bulletin notifies HR practitioners performing examining functions that OPM has extended the certification expiration date to June 30, 2020. This extension only applies to current DE certified HR practitioners [AA]
March 25, 2020	Memorandum: Emergent Credentialing and	10E through 10N	Emergent credentialing and privileging guidance provided [S]

Date	Document	Issuing Office	Description
	Privileging to Address COVID-19 Needs #2		
March 25, 2020	Memorandum: COVID-19: Supporting Critical Care Demand Surges Through Tele-Critical Care	10N	VISN action requested in support of the COVID-19 Telehealth Critical Care Consultation community (C5) initiative [S]
March 25, 2020	Appendix A/B: Becoming Telehealth/ Telework Capable for Tele-Critical Care	10N	Attachment for above [S]
March 25, 2020	Memorandum: Interim Guidance in Consideration of COVID-19 Pandemic: Environmental Validation of Engineering Controls for Prevention of Legionella Growth	10N	Guidance provided on flexibility in quarterly water sampling for Legionella testing during the COVID-19 emergency [S]
March 25, 2020	Temporary Procedures for Personnel Vetting and Appointment of New Employees during Maximum Telework Period due to Coronavirus COVID-19	OPM	Institutes temporary procedures for personnel vetting during telework period due to COVID-19 [BB]
March 25, 2020	Memorandum: Payment Operations & Management Directorate (POM) Continuing Operations Plan during COVID-19	10D1B	Payment Operations and Management (POM) strategies implemented to allow continuity of operations during COVID-19 [S]
March 25, 2020	Temporary Procedures for Personnel Vetting and Appointment of New Employees during Maximum Telework Period due to Coronavirus COVID-19	005 and 006	Outlines implementation guidance for personnel security vetting and appointment of new employees, and alternative personal identity verification (PIV) credentials for eligible users during COVID-19 [GG]
March 26, 2020	Memorandum: Use of Government Purchase Card with Amazon for Personal Protective Equipment and Other Emergency Medical Supplies in Support of COVID-19 Response	10N	Guidance provided for sourcing of PPE and medical supplies from non-contracted sources available through Amazon [S]
March 26, 2020	Memorandum: Office of Nursing Services	10N through 10A1	Outreach campaign launched to hire additional nurses, the first wave of which

Date	Document	Issuing Office	Description
	Recruitment – Retired Annuitant and Travel Nurse Corps		will be from the pool of retired VA nurses [S]
March 26, 2020	Memorandum: Recruitment, Hiring, and Organizational Changes During COVID-19	10	Notification provided of the priorities for approval of recruitment, hiring and staff reorganization [S]
March 26, 2020	Memorandum: Delegation of Authority – Group Recruitment and Retention Incentives for Title 38 Employees	10	Authority delegated to GS-15 VISN and WMC Human Resource Officers to approve group recruitment and retention incentives up to 50% for Title 38 employees [S]
March 26, 2020	Memorandum: Establishment of New Hire Processing Timeline	10	Interim measures provided for new hire processing, including inputting all new hires into HR Smart and submitting to DFAS the same day the employee onboards [S]
March 26, 2020	Memorandum: COVID-19 VHACO Clinician Request – COB March 27, 2020	10	Requirement established for all VHACO clinical staff to enroll in DEMPS by March 27, 2020 [S]
March 26, 2020	Use and Disclosure of Employee PHI During COVID-19	VHA Privacy Office	Guidance provided on use and disclosure of employee protected health information (PHI) during COVID-19 [S]
March 26, 2020	Privacy Fact Sheet	VHA Privacy Office	Privacy Fact Sheet provided as a reminder of the instances in which PHI or personally identifiable information (PII) may be disclosed [S]
March 27, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Coronavirus (COVID-19) Schedule A Hiring (Temporary) Authority	05	Under this authority, VA administrations and facilities, may temporarily appoint qualified individuals nationwide, at any grade level, to any positions needed in direct response to the effects of COVID-19 [CC]
March 28, 2020	Memorandum: VANTS Use for Group Patient Care Related to Coronavirus	10N	Guidance provided on use of VANTS teleconference for group patient care sessions [S]
March 28, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Temporary Authorization to Delay Preplacement and Recurring Physical Examinations	05	Update to the Temporary Authorization to Delay Preplacement and Recurring Physical Exams: Additions to mandate Tuberculosis Assessment for all new employees [DD]

Date	Document	Issuing Office	Description
March 29, 2020	Memorandum: Leveraging Capacity to Support Surges in Demand for COVID-19	10N	Actions outlined in support of an enterprise-wide plan to optimize the VHA workforce for COVID-19 related surges in care [S]
March 29, 2020	Appendices: Leveraging Capacity to Support Surges in Demand for COVID-19	10N	Attachment for above [S]
March 30, 2020	Memorandum Coronavirus (COVID-19) – Guidance for Urgent and Emergent Surgical Procedures	10N through 10NC	Guidelines clarified for determining which procedures are urgent/non-urgent and procedures prioritized for life-threatening conditions [EE]
March 30, 2020	Radiology/ Nuclear Medicine Scheduling Guidance – COVID-19 Pandemic: Appendix A	10N through 10NC	Attachment for above [EE]
March 30, 2020	Radiology/ Nuclear Medicine Scheduling Guidance – COVID-19 Pandemic: Appendix B	10N through 10NC	Attachment for above [EE]
March 30, 2020	Process for Scheduling Radiology Orders during COVID-19 Pandemic: Appendix C	10N through 10NC	Attachment for above [EE]
March 30, 2020	Memorandum Guidance on Access Standards in response to Coronavirus (COVID-19) Updated	10N	Guidance provided on Veteran access to care for direct services and community care during COVID-19 [EE]
March 30, 2020	Access COVID-19 Toolkit	10N	Attachment for above [EE]
March 30, 2020	Guidance on Access to Care for Veterans	10N	Attachment for above [EE]
March 30, 2020	Memorandum: Suspension of Registered Nurse Transition to Practice Residency Program	10N through 10A1	Temporary suspension placed on requirements outlined in VHA Directive 1077, RNTTP Residency Program [EE]
March 30, 2020	Memorandum: Supplemental Information: Radiology and Nuclear Medicine Scheduling and Orders Management During the COVID-19 Pandemic	10N through 10NC	Workflows, Computerized Patient Record System (CPRS) notes and flow maps provided to supplement local policies defining non-urgent exams and procedures for radiology and nuclear medicine [EE]
March 30, 2020	Office of the DUSHOM Communication:	10N	Clarification given that monthly reporting to the Legionella Clinical Information Module is suspended, while reporting to

Date	Document	Issuing Office	Description
	Clarification on IPEC Legionella Reporting		the Legionella Case Report Module will continue [EE]
March 30, 2020	Veterans Affairs Approved Direct-Hire Authority in Response to COVID-19 - VA 003	05	This memorandum provides guidance on the Office of Personnel Management's (OPM) approval of a Direct-Hire Authority (DHA) for the Veterans Affairs (VA) in support of the COVID-19 national emergency. [FF]
March 31, 2020	Memorandum: Guidance to Avoid All Routing or Non-urgent Face to Face Visits	10N	Guidance given to review and convert all but urgent outpatient appointments to virtual modalities [EE]
March 31, 2020	Coronavirus (COVID-19) – Transplantation Care	10N through 10NC	Guidance provided for transplant care during COVID-19 [EE]
March 31, 2020	Memorandum: Guidance for the Hiring, Compensation and Utilization of Alternate Nurse and Unlicensed Assistive Personnel Staffing	10N through 10A1	Guidance issued on recruitment, hiring, compensation and utilization of alternative types of nurse staffing [EE]
March 31, 2020	Attachment A: Guidance for the Hiring, Compensation, and Utilization of Alternate Nurse and Unlicensed Assistive Personnel Staffing	10N through 10A1	Attachment for above [EE]
March 31, 2020	Attachment B: Guidance for the Hiring, Compensation, and Utilization of Alternate Nurse and Unlicensed Assistive Personnel Staffing	10N through 10A1	Attachment for above [EE]
March 31, 2020	Memorandum: Veterans Health Administration (VHA) Communications via Internet and Social Media related to COVID-19	10N	Guidance provided for communications by internet and social media related to COVID-19 [EE]
March 31, 2020	Memorandum: Coronavirus (COVID-19) – Process for Cancellation of Non-urgent Operating Room Procedures	10N through 10NC	Guidance, information and documentation provided for the cancellation and management of non-urgent, elective operating room procedures [EE]
March 31, 2020	Memorandum: Cardiology Operations During the COVID-19 Outbreak	10NC	Guidance provided for cardiology services during the COVID-19 outbreak [EE]

Date	Document	Issuing Office	Description
March 31, 2020	Memorandum: Interim COVID-19 Infection Prevention and Control Precautions for VHA Radiology and Nuclear Medicine Services	10NC	Guidance provided regarding appropriate COVID-19 infection control measures in radiology and nuclear medicine [EE]
March 31, 2020	Appendix A: Interim COVID-19 Infection Prevention and Control Precautions for VHA Radiology and Nuclear Medicine Services	10NC	Attachment for above [EE]
March 31, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: COVID-19 Schedule A Hiring Authority for Temporary Appointments	05	Under this authority, VA administrations and facilities, may temporarily appoint qualified individuals nationwide, at any grade level, to any positions needed in direct response to the effects of COVID-20 [HH]
April 1, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Waiver of the Exclusion of Temporary Appointments to Receive Recruitment, Relocation and Retention Incentives During the COVID-19 Pandemic	05	This bulletin notifies VA Human Resources Offices (HRO) of the Chief Human Capital Officer's waiver of the exclusion of temporary appointments and those on intermittent schedules to receive recruitment, relocation and retention incentives during this national emergency [II]
April 1, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Federal employee leave provisions under the Families First Coronavirus Response Act (H.R. 6201, Public Law 116-127)	05	This OCHCO Bulletin notifies Human Resources (HR) offices of the Federal employee leave provisions under the Families First Coronavirus Response Act (FFCRA) and the requirement to post the Families First Coronavirus Response Act notice at VA facilities [JJ]
April 1, 2020	Memorandum: Temporary Waiver for American Heart Association Vendor Specific Resuscitation Certifications for Newly Appointed Direct Care Staff	10N	Requirement for American Heart Association Basic Life Support and Advanced Cardiovascular Life Support certifications waived for direct care staff for 120 days [EE]
April 1, 2020	Memorandum: Update to COVID-19 Scheduling Instructions	10N	Updated cancellation reason instructions and guidance given for scheduling telehealth appointments [EE]
April 1, 2020	Attachment A: Scheduler Instructions	10N	Attachment for above [EE]

Date	Document	Issuing Office	Description
April 1, 2020	Attachment B: COVID-19 Appointment Management Notice for Providers	10N	Attachment for above [EE]
April 1, 2020	Memorandum: Changes to In-Person Identity Verification for the My HealtheVet Website	10N	Changes to the in-person identity verification process for the My HealtheVet website Premium account level communicated [EE]
April 1, 2020	Memorandum: Authorization to Pay for Lodging and Meals	10	Guidance and authorization provided on the EIC of the Under Secretary for Health's and Network Directors' authority to approve lodging and meal expenses for certain direct patient care staff [EE]
April 2, 2020	Memorandum: Community Nursing Home Program Transition to Health Share Referral Manager and Electric Claims Administration Management System Update	10N	Four tasks given to complete prior to implementation of the Health Share Referral Manager and Electronic Claims Administration System for the Community Nursing Home (CNH) program [EE]
April 2, 2020	Memorandum: COVID-19 Bed Expansion Planning Guidance and Reporting	10N	Guidance provided on bed expansion (surge) planning and reporting across VISNs and facilities for COVID-19 [EE]
April 2, 2020	Memorandum: Managing Donations of Personal Protective Equipment (PPE) related to COVID-19	10N	Guidance given that PPE donations must be evaluated and approved by a Medical Center Director appointed infection control committee [EE]
April 2, 2020	Memorandum: Contracted Outpatient Sites of Care COVID-19 Virtual Care Information and Document Updates	10N through 10NC	Virtual care information provided and procedures outlined to ensure contracts for contracted outpatient sites of care are updated [EE]
April 2, 2020	Memorandum: Dissemination of Mandatory Templates for Contracting Health Care Services	10N through 10NC	Attachment for above [EE]
April 2, 2020	VA Directive 1663 – Health Care Resources (HCR) Certification Approval Memo	10N through 10NC	Attachment for above [EE]
April 2, 2020	Sample Memorandum to COR for Option Renewal	10N through 10NC	Attachment for above [EE]

Date	Document	Issuing Office	Description
April 2, 2020	Memorandum: MOVE! Weight Management Program Guidance for COVID-19 Pandemic Response	10N	Guidance provided that all MOVE! in-person appointments should be suspended for at least 30 days [EE]
April 2, 2020	Memorandum: COVID-19 Temporary/ Expedited Appointment Credentialing Process	10E through 10N	Guidance issued for steps specific to the temporary appointment process and expedited appointment process for credentialing [EE]
April 2, 2020	Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19	05	This memorandum provides guidance on the Office of Personnel Management's (OPM) approval of a Direct Hire Authority (DHA) for the Veterans Affairs (VA) in support of the COVID-19 national emergency [KK]
April 2, 2020	Memorandum: COVID-19 Priorities during Transition to VA's New Electronic Health Record System	10	VHA clinical and administrative staff excused from participating in Electronic Health Record Modernization (EHRM) activities [EE]
April 3, 2020	Memorandum: Guidance for Notifications Surrounding Exposures to Health Care Personnel (HCP) with Confirmed COVID-19	10N through 10NC	Guidance provided for patient notification of exposure to COVID-19 [EE]
April 3, 2020	Memorandum: Temporary Pause of My HealtheVet In-Person Authentication due to COVID-19	10N through 10NC	Facilities instructed to cease in-person authentication requirements for Veterans to upgrade to a My HealtheVet Premium account [EE]
April 3, 2020	Memorandum: Release of Updated Fiscal Year (FY) 2020 and New FY 2021 Basic and Prevailing State Home Per Diem Rates for State Veteran Homes	10N	Fiscal Year (FY) 2020 and 2021 State Home Per Diem (SHPD) Program new basic and prevailing rates for care provided to eligible Veterans updated [EE]
April 3, 2020	State Veterans Home Program: FY20 and FY21 Per Diem Rates for Selected Veterans	10N	Attachment for above [EE]
April 3, 2020	Memorandum: FPPE and OPPE Process during Presidential Declared State of Emergency – COVID-19	10E through 10N	Guidance issued that use of Focused and Ongoing Professional Practice Evaluation (FPPE and OPPE) forms and indicators may be waived during COVID-19 [EE]
April 3, 2020	Memorandum: COVID-19 Employee Deployment –	10	VISNs requested to identify and approve employees are ready, willing and able to deploy to an area of priority need [EE]

Date	Document	Issuing Office	Description
	Special Contributions Award (SCA) Guidance		
April 4, 2020	Memorandum: Homeless Program Office (HPO) Guidance on Face to Face Visits	10N through 10NC	Guidelines provided for VHA Homeless Programs, including removal of in-person home and community visit requirements [EE]
April 4, 2020	Memorandum: On-Hand Inventory Reporting Requirements for Critical Care and Coronavirus Drugs	10N	VPEs directed to report "on-hand" inventory levels of critical care drugs [EE]
April 4, 2020	Select Critical Care and COVID-19 Treatment Drugs Tracker	10N	Attachment for above [EE]
April 4, 2020	Memorandum: COVID-19: Outsourcing of Veterans Managed in VHA Outpatient Dialysis Units in Anticipation of Surge in Inpatient Dialysis Needs	10NC	VHA maintenance dialysis programs asked to consider outsourcing Veterans with end stage renal disease or resolving acute kidney injury who have ongoing dialysis needs [EE]
April 5, 2020	Bed Expansion Talking Points	10N	Talking Points provided to support Bed Expansion reporting [EE]
April 5, 2020	COVID-19 ICU Bed Staffing Model 2	10N	Worksheet provide to assist VISNs in developing their staffing models [EE]
April 5, 2020	COVID-19 Med/surg Staffing Model – v5	10N	Worksheet provided to assist VISNs in developing their staffing models [EE]
April 5, 2020	COVID-19 Med/surg Staffing Model 2 8 beds	10N	Worksheet provided to assist VISNs in developing their staffing models [EE]
April 6, 2020	Memorandum: Guidance on Anticoagulation Use and Monitoring for VHA Anticoagulation Programs during VHA's COVID-19 Emergency Response	10N	Guidance provided and request made for facility action plans to encourage social distancing, reduce patient traffic, and reduce disruptions to anticoagulation therapy [LL]
April 6, 2020	Memorandum: Continuity in Mental Health Services and Suicide Prevention Activities during COVID-19	10N	Guidance provided to assist facilities in maintaining continuity in mental health services and suicide prevention activities through virtual care and remote monitoring modalities [LL]
April 6, 2020	Memorandum: Clinical Laboratory Improvement Amendments (CLIA) Compliance Inspection	10N through 10NC	Notification provided to inform VHA Pathology and Laboratory Medicine Service of National Enforcement Office (P&LMS NEO) of revised compliance actions during COVID-19 [LL]

Date	Document	Issuing Office	Description
	during the COVID-19 Pandemic		
April 6, 2020	Memorandum: COVID-19 Public Housing Closure Supportive Services for Veteran Families Assistance	10N	Guidance provided on Supportive Services for Veteran Families resources to assist participants of Housing and Urban Development-VA Supportive Housing (HUD-VASH) LL
April 6, 2020	Memorandum: 2020 United States Census Participation for Veterans in VA Residential Settings	10N	Statement directs facilities to work with Census Bureau representatives to ensure Veterans residing in VA facilities can participate LL
April 6, 2020	Memorandum: COVID-19 VHA Guidance for Tuberculosis Testing of New Employees	10	Guidance provided on tuberculosis (TB) testing for all new employees following expedited onboarding procedures LL
April 6, 2020	Memorandum: COVID-19 Child Care Subsidy Program Temporary Total Family Income Limit Increase	006	Notification provided of temporary increase in annual total family income limit to participate in VA Child Care Subsidy Program LL
April 7, 2020	Memorandum: Updated: Coronavirus (COVID-19) Facemask and N95 Respirator Use	10N	Patient Safety Notice provided to permit extended use and limited re-use of facemasks and N95 respirators in specific circumstances LL
April 7, 2020	Memorandum: Guidance for Academic Detailing Services during COVID-19 Outbreak	10N	Guidance provided for conducting educational outreach and academic detailing activities using virtual modalities and flexible arrangements LL
April 8, 2020	Memorandum: Implementation of an Episodic Special Patient Icon in Bed Management Solution	10N	Reinforcement provided for use of new Bed Management System (BMS) icons to designate status as PUI, Positive, or Humanitarian LL
April 8, 2020	Memorandum: HUD-VASH Funding for the December 2019 Voucher Allocation	10N	Guidance provided on 38 VA Medical Centers eligible for funding to hire permanent staff to support new HUD-VASH vouchers LL
April 8, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Waiver for Cumulative Special Contribution Awards Approval Related to COVID-19 Pandemic and Special Coding Instructions	05	This bulletin notifies Human Resources (HR) Offices that VA Handbook 5017, Employee Recognition and Awards, Part I, paragraph 5.a.(7) is not required for special contribution awards in recognition of the COVID-19 pandemic. It specifies new reason codes to be used for special

Date	Document	Issuing Office	Description
			acts awards in connection with the COVID-19 pandemic [MM]
April 8, 2020	Memorandum: Crisis Standards of Care in VHA during the COVID-19 Pandemic	10	Authorization given for establishment and implementation of crisis standards of care when specified conditions are met [LL]
April 9, 2020	Memorandum: Engineering Information for Assessment of Medical Gas System Capacity in Support of Treating Patients with COVID-19	10N	Reinforcement provided for VHA Directive 7515 (1) and NFPA 99 requirements for medical gas systems; Criteria provided for assessing medical air and oxygen systems capacity [LL]
April 9, 2020	Memorandum: Process for Providing Resources to State and Federal Partners via FEMA Mission Assignments	10N	Guidance provided for offering resources to State and Federal partners and the process by which VHA accomplishes this activity [LL]
April 9, 2020	Memorandum: Coronavirus: Prioritizing Testing to Maximize Value to the Pandemic Response	10N	Guidance provided to prioritize testing for CDC Priority 1 and 2 groups and avoid testing for Priority 3 or Non-Priority groups [LL]
April 9, 2020	Memorandum: Updated – Donations of Personal Protective Equipment and Supplies related to COVID-19	10N	Clarification provided that all donated PPE and supplies must be evaluated, approved, sanitized and tracked before use [LL]
April 9, 2020	Memorandum: Emergency Credentialing and Privileging to Address Coronavirus Disease (COVID-19) Needs - #3	10E through 10N	Standardized COVID-19 General Medicine Privileges forms provided for physicians and advance practice nurses; Standardized general medicine Scope of Practice provided for Physician Assistants [NN]
April 10, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: COVID-19 HR Emergency Preparedness FAQs - Version 5	05	Updated announcement sent to notify Human Resources (HR) offices about updated information in Frequently Asked Questions - Version 5. The update adds two new HR topics—Federal Contracting and The Office of Workers' Compensation [OO]
April 10, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Expansion of Limited Conditions for Deferring a Random Drug	05	This OCHCO Bulletin notifies Human Resources (HR) offices of flexibilities to defer random drug testing in certain conditions due to the impact of the coronavirus (COVID-19) pandemic [PP]

Date	Document	Issuing Office	Description
	Test during COVID-19 Pandemic		
April 13, 2020	Memorandum: Purchased Long Term Services and Supports COVID19 Frequently Asked Questions	10N	Guidance provided regarding Purchased Long Term Services and Supports (LTSS) available via the Office of Geriatrics and Extended Care [QQ]
April 13, 2020	Memorandum: Continuity in Mental Health Services and Suicide Prevention Activities During COVID-19: Suicide Prevention Population Risk Identification and Tracking for Exigencies (SPPRITE), Somatic Treatments, Inpatient Mental Health Care	10N through 10NC	Guidance provided to inform facility policy for prevention, screening and surveillance in inpatient mental health units; Dashboard updated to help prioritize and track outreach efforts to those at highest risk of suicide during pandemic; Guidance provided on continuity of somatic treatments [QQ]
April 13, 2020	Memorandum: Use of Automated or Mechanical Chest Compression Devices to Reduce Healthcare Provider Exposure to COVID-19	10N through 10NC	Updated guidance provided on use of automated or mechanical chest compression devices as part of cardiopulmonary resuscitation (CPR) [QQ]
April 13, 2020	Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19	05	This memorandum provides guidance on the Office of Personnel Management's (OPM) approval of a Direct Hire Authority (DHA) for the Veterans Affairs (VA) in support of the COVID-19 national emergency. [RR]
April 14, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Annual Employee Notification of the United States (U.S.) Flag Recognition Benefit for Deceased Federal Civilian Employees	05	This OCHCO Bulletin serves as the required annual notification of the Department of Veterans Affairs' United States (U.S.) Flag Recognition Benefit for Deceased Federal Civilian Employees [SS]
April 14, 2020	National Guidance on Decedents and Mailing Personal Effects	10N	Guidance provided on safe handling of decedents and personal effects, mortuary care and final salute [QQ]
April 14, 2020	Memorandum: Coronavirus Patient Room Cleaning Guidance Update	10N	Updated guidance provided on proper cleaning/ disinfection of all non-critical Reusable Medical Equipment (RME) and

Date	Document	Issuing Office	Description
			rooms used to treat suspected and confirmed COVID-19 cases [QQ]
April 14, 2020	Memorandum: COVID-19 Tele-Critical Care Consultation Community (C5) Support Activation	10N	Guidance provided on how to activate C5 support services for facility ICUs, emergency departments, or other areas needing critical care support [QQ]
April 14, 2020	Memorandum: Coronavirus (COVID-19) Community Living Center (CLC) and Spinal Cord Injury and Disorder Unit (SCI/D) Veteran and Staff Testing	10N	Guidance provided to implement population-based testing of all Veterans, patients received under a Fourth Mission assignment and employees working in CLCs and spinal cord injury/disorder (SCI/D) units [QQ]
April 14, 2020	Memorandum: Temporary Moratorium for Non-COVID-19 VHA Required Training	10A2B	120-day moratorium given for non-COVID-19 related training; Authority delegated to training administrators regarding local mission-critical training requirements [QQ]
April 15, 2020	Memorandum: COVID-19 Nursing Documentation Standard Operating Procedure for Inpatient Acute Care Settings	10N through 10A1	Standard Operating Procedure provided to establish inpatient acute nursing documentation requirements for abbreviated nursing notes for admission and shift re-assessments [QQ]
April 15, 2020	Memorandum: Workplace Violence Prevention Program Reporting Extensions	10N through 10NC	Extension provided effective immediately for specified Workplace Violence Prevention Program reporting requirements [QQ]
April 15, 2020	Memorandum: Veterans Health Administration (VHA) Equipment Recertification and Management of Surge Capacity for COVID-19	10N	Program established for recertification, repair and deployment of equipment currently stored as excess inventory or obtained from external sources [QQ]
April 16, 2020	Memorandum: Update: Coronavirus (COVID-19) Return to a Contingency Strategy for Facemask and N95 Respirator Use	10N	Guidance provided for facilities to follow CDC-based contingency strategies for mask and respirator supply management [QQ]
April 17, 2020	Primary Care Continuation of Care throughout COVID-19 Field Guide	10N	Recommendation provided for Patient Aligned Care Teams on staffing structure, changes in workflows and processes, surrogate coverage, and strategies for identifying and supporting high-risk and at-risk Veterans [QQ]

Date	Document	Issuing Office	Description
April 17, 2020	Memorandum: Reporting Personal Protective Equipment (PPE) Levels and Daily Consumption	10N	Guidance provided for reporting critical PPE levels and daily consumption in the COVID-19 Response Monitoring Tool [QQ]
April 17, 2020	Memorandum: Ordering VA iPads for Patient and Provider Use	10N	Ordering procedures provided for how VA facilities can order iPads for patient and provider use [QQ]
April 17, 2020	Memorandum: Homeless Program Office (HPO) COVID-19 Staffing Surge	10N	Guidance provided on necessary operational requirements for homeless programs during COVID-19 pandemic [QQ]
April 17, 2020	Memorandum: COVID-19 Emergency Supplemental Travel Nurse Corp Staffing	10N through 10A1	Guidance provided for ensuring the enhancement of current nurse staffing in anticipation of COVID-19 outbreaks via the VA Travel Nurse Corp (TNC) [QQ]
April 17, 2020	Memorandum: National Surveillance Tool for Veterans Health Administration (VHA) COVID-19 Operations	10N	The VA NST established as the authoritative data source, operational dashboard and clinical monitoring platform for COVID-19 to be used by VHA [QQ]
April 18, 2020	Memorandum: Guidance for Recommendations for Return-to-Work for Healthcare Personnel with Confirmed or Suspected COVID-19 Illness	10N	Two options provided for returning healthcare personnel to work following confirmed or suspected COVID-19 illness: a test-based strategy (preferred) and a non-test-based strategy [QQ]
April 20, 2020	Increase in Annual Hour Limitation for Part-Time/Intermittent Title 38 Registered Nurses/Advanced Practice Nurses, Certified Registered Nurse Anesthetists and Physician Assistants (VIEWS 2656398)	10	This memo provides authorization for Registered Nurses/Advanced Practice Nurses (all assignments under 0610 occupational series), Certified Registered Nurse Anesthetists (0605 occupational series), and Physician Assistants (0603 occupational series) on part-time or intermittent appointments under Title 38 7405(a)(1) to be scheduled for up to 1,872 hours, or 0.9 of full-time employment, during a service year [TT]
April 21, 2020	Memorandum: Technical Recommendations for Teleradiology during COVID-19 and/or Other National Emergencies	10N through 10NC	Minimum technical requirements and toolkit established for teleradiology workstations that may be deployed for staffing contingency planning during COVID-19 and other national emergencies [UU]
April 21, 2020	COVID-19 Employee Testing	10N	FAQs appended to April 14, 2020 memorandum Coronavirus (COVID-19) Community Living Center (CLC) and

Date	Document	Issuing Office	Description
			Spinal Cord Injury and Disorder (SCI/D) Veteran and Staff Testing to specify mandatory testing for employees in CLC/ SCI/D units [UU]
April 21, 2020	Memorandum: COVID-19 Pandemic Pre-Approved Deployable Personnel	10N	Guidance provided on inter-VISN personnel movement and deployment of deployable personnel responding to a surge in COVID-19 and staffing needs [UU]
April 21, 2020	Memorandum: CRNA Practice during the COVID-19 National Emergency	10	Guidance provided on utilization of Certified Registered Nurse Anesthetists (CRNA) full practice authority in response to the national emergency caused by COVID-19 [UU]
April 22, 2020	Memorandum: Instructions for Admitting State Home Veterans during the COVID-19 Pandemic	10N	VA Medical Center Business Implementation Managers (BIMS) guidance provided for admitting patients transferred to a VA facility from a State Veteran Home due to COVID-19 [UU]
April 22, 2020	Memorandum: Mandated Implementation of Coronavirus Disease (COVID-19) CPRS Tools	10N	Mandatory implementation of nationally released COVID-19 CPRS tools and guidance announced [UU]
April 22, 2020	Memorandum: Hosting Blood Drives at Department of Veterans Affairs (VA) Medical Centers	10N	Request made and guidance provided to VA facilities to sponsor a blood drive with the Red Cross or regional blood collection agencies [UU]
April 22, 2020	Office of the DUSHOM Communications: COVID-19 Mental Health Care Media Pitch	10N	Request made and guidance provided to VA Public Affairs Officers (PAOs) to distribute a news release highlighting VA's response to COVID-19 [UU]
April 22, 2020	Memorandum: Requesting Permission to Fund and Promote VA Palliative Telemental Health Services for Veterans on Home Hospice	10NC	$70,000 salary support provided to five facilities for community access to VA palliative telemental health providers and VA's PTSD Consultation Program for Veterans on home hospice and training of community hospice staff in care of Veterans [UU]
April 22, 2020	Memorandum: Increase in Annual Hour Limitation for Part-time/ Intermittent Title 38 Registered Nurses/Advanced Practice Nurses, Certified Registered Nurse	10	Authorization given for Registered Nurses/Advanced Practice Nurses, Certified Registered Nurse Anesthetists and Physician Assistants on part-time or intermittent appointments under Title 38 7405(a)(1) to be scheduled for up to 1,872 hours, or 0.9 full-time employment [UU]

Date	Document	Issuing Office	Description
	Anesthetists, Physician Assistants		
April 22, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Expedited Onboarding for COVID-19 Hires	05	This OCHCO bulletin provides a consolidated checklist of required steps for expediting onboarding for new VA hires, as steps have been streamlined to meet urgent staffing needs created by the coronavirus disease 2019 (COVID-19) pandemic [VV]
April 22, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Performance Pay Disbursement Deadline Extension - COVID-19 Pandemic	05	Due to the emerging nature of the COVID-19 response, some FY 2019 performance payments may not have made the usual VA deadline of March 31st. Given the severity of this unique circumstance, the Chief Human Capital Officer has extended the internal VA deadline to allow performance payments to be made through August 31, 2020 [WW]
April 23, 2020	Tip Sheet: Caregiver Support Program Information for Caregivers during COVID-19	10N	Updated Tip Sheet provided to support caregivers in providing support to Veterans [UU]
April 23, 2020	Delegation of Authority to Exclude an Employee from Application of the Emergency Paid Sick Leave Act, Division E, and the Emergency Family and Medical Leave Expansion Act, Division C, of the Families First Coronavirus Response Act (VIEWS 2671671)	00	This memorandum delegates to the VA Under Secretaries, Assistant Secretaries, and Other Key Officials at equivalent level of authority, the authority to exclude an employee, who is a health care provider or emergency responder, from application of the Emergency Paid Sick Leave Act, Division E, and the Emergency Family and Medical Leave Expansion Act, Division C, of the Families First Coronavirus Response Act (FFCRA). [XX]
April 23, 2020	Memorandum: Suspension of VHA Collection Activities and Extension of VHA Claim and Appeal Filing Deadlines	10	Guidance provided on providing additional flexibility to claimants and suspending VHA collection action on Veteran debts affected by COVID-19 [UU]
April 24, 2020	Memorandum: COVID-19: Telehealth to Community Living Centers and State Veterans Homes	10N	Direction given that VA facilities will ensure telehealth capabilities are available to Veterans at their CLCs and State Veterans Homes (SVH) in their catchment area by May 4, 2020 [UU]

Date	Document	Issuing Office	Description
April 24, 2020	Memorandum: COVID-19: Increased Remote Patient Monitoring-Home Telehealth Staffing Needs to Expand Care to COVID-19 Patients	10N through 10NC	Guidance provided for expanding Remote Patient Monitoring-Home Telehealth (RPM-HT) services for high-risk Veterans with suspected or diagnosed infectious illness during COVID-19 pandemic who do not otherwise require hospitalization [UU]
April 27, 2020	Memorandum: Use of Automated or Mechanical Chest Compression Devices to Reduce Healthcare Provider Exposure to COVID-19	10N through 10NC	Updated guidance provided for basic life support only patient care areas to provide hands-only CPR in patients with suspected or known COVID-19 [YY]
April 27, 2020	Office of the DUSHOM Communications: VISN Surge Plan Expansions	10N	Request made of VISNs to expand surge plans to include creating or converting beds for post-acute care for COVID-19 patients [YY]
April 27, 2020	Memorandum: Authorization to Waive Certain Limitations on Pay During the COVID-19 Public Health Emergency	05	Guidance provided on waiving certain limitations on pay for work done in support of the COVID-19 response [YY]
April 27, 2020	Memorandum: Delegation of Authority of Authorization to Waive Certain Limitations on Pay during the COVID-19 Public Health Emergency	00	Delegation given to VA Under Secretaries, Assistant Secretaries and Other Key Officials the authority to waive certain limitations on pay for work done in support of the COVID-19 response [YY]
April 28, 2020	Primary Care Continuation of Care throughout COVID-19 Field Guide	10N	Field guide recommendations provided for staffing structure, workflows and processes, surrogate coverage, and identifying and supporting high-risk and at-risk Veterans [YY]
April 28, 2020	Memorandum: Bed Management Solution (BMS) Beds Out of Service for Bed Expansion	10N through 10NC	Guidance provided on proper procedures for applying bed out of service reasons within the Bed Management System (BMS) [YY]
April 28, 2020	Memorandum: Supporting Virtual Care in Mental Health Services and Suicide Prevention Activities during COVID-19	10N	Facility actions required to identify telemental health (TMH) champions to increase TMH/ VVC spread and integration of virtual care into all mental health providers' clinical practice [YY]
April 28, 2020	Office of the DUSHOM Communications: Memorandum:	10N	Postponement dates for long-term care surveys in Community Living Centers (CLCs) and State Veterans Homes

Date	Document	Issuing Office	Description
	Postponement of Long-Term Care Surveys		(SVHs) updated to include the month of May [YY]
April 28, 2020	Memorandum: Delegation of Authority – Authorization to Waive Certain Limitations on Pay during the COVID-19 Public Health Emergency	10	Delegation given to members of the Senior Executive Service (SES) or title 38 appointed SES-equivalents at VHACO or Network Directors the authority to waive a basic rate of pay limitations for work done in support of the COVID-19 response [YY]
April 29, 2020	Memorandum: VHA – Implementation Guidance: Coronavirus Aid, Relief, and Economic Security Act (CARES) Act, Public Law 116-136	10A2	Further guidance provided on procedures and scenarios for waiving certain limitations on pay for work done in support of the COVID-19 response [YY]
April 29, 2020	Memorandum: Changes to the VA Online Scheduling (VAOS) Mental Health Appointment Requests during Coronavirus	10N	Requirement given to all facilities with VA Online Scheduling (VAOS) capability to implement online scheduling of mental health appointments [YY]
April 30, 2020	Memorandum: Contingency Plans for Staffing Shortages in Mental Health and Suicide Prevention	10N through 10NC	Guidance provided on contingency plans to ensure sufficient mental health and suicide prevention program staff to meet Veteran needs throughout the continuum of care [YY]
April 30, 2020	Memorandum: Guidance for Urgent/ Emergent Operating Room Procedures for COVID-19 Patients	10NC	Guidance provided on urgent/emergent emergency room procedures and considerations for COVID-19 patients [YY]
May 1, 2020	Memorandum: Coronavirus (COVID-19): Store and Forward Telehealth in the Home	10N through 10NC	Protocol provided for delivering store and forward telehealth services to a Veteran's home during COVID-19 [YY]
May 1, 2020	Memorandum: Coronavirus (COVID-19) Mask Use in VHA Facilities	10N	Guidance provided on instituting source control masking measures in VHA facilities by May 7, 2020 [YY]
May 5, 2020	Office of the DUSHOM Communication: Network Surveillance	10N	Notification given and questions answered on how to use the revised NST [ZZ]
May 5, 2020	Memorandum: Mission Critical Travel	10	Direction given that only mission critical travel is approved and all other VHA travel is canceled for an additional 30 days [ZZ]

Date	Document	Issuing Office	Description
May 8, 2020	Memorandum: Remdesivir Distribution for Department of Veterans Affairs (VA) Patients	10N	Notification given of approval of Remdesivir for management of COVID-19; Process established for equitable distribution of limited supply [ZZ]
May 8, 2020	Memorandum: Veterans Health Administration (VHA) Moving Forward Plan	10	Release of VHA's Moving Forward Plan announced, and direction given for each VISN to select one facility as a Use Case Site to be the first to implement the phased approach in the plan [ZZ]
May 8, 2020	Veterans Health Administration (VHA) Moving Forward Plan	10	Standardized guidelines provided that can be tailored to VISNs and VA Medical Centers for the phased reintroduction of Veteran services [ZZ]
May 11, 2020	Memorandum: Personal Protective Equipment (PPE) in the Magnetic Resonance Imaging (MRI) Environment	10N through 10NC	Guidance given on use of PPE when performing Magnetic Resonance Imaging (MRI) for known or suspected COVID-19 patients [AAA]
May 11, 2020	Office of the DUSHOM Communication: Clarification for VISN Reports of Positive and PIU Veterans	10N	Clarification made that VISNs should report only active cases for COVID-19 persons under investigation (PUI) and positive daily reporting to provide a real-time "on-the-ground" view of active cases [AAA]
May 12, 2020	Memorandum: Updated Guidance on Screening Procedures and Facility Access for VA Health Care Systems	10N	Updated guidance provided on visitors' screening and access to VA facilities [AAA]
May 12, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Temporary Authorization to Extend Three Year Grace Period to Obtain License for Unlicensed GS-9/11 Social Workers and GS-9 Marriage and Family Therapists	05	This bulletin notifies Human Resources (HR) Offices of a temporary authorization to extend the grace period to obtain licenses for currently unlicensed or uncertified GS-9/11 Social Workers (SW) and GS-9 Marriage and Family Therapists(MFT) [BBB]
May 12, 2020	Patient Safety Notice: Patient Safety Aspects of Using Infusion Pumps Outside of Patient Rooms	NCPS	Guidance provided by VA's National Center for Patient Safety (NCPS) on use of infusion pumps outside of patient rooms during COVID-19 [AAA]
May 13, 2020	VHA COVID-19 Surge Planning Toolkit	10N	Updated guidance provided to support VISN and facility surge planning [AAA]

Date	Document	Issuing Office	Description
May 13, 2020	Memorandum: COVID-19 Documentation in the Homeless operations Management and Evaluation System (HOMES)	10N	Guidance provided to homeless program staff on identification and tracking of COVID-19 among homeless and formerly homeless Veterans within the Homeless Operations Management and Evaluation System (HOMES) [AAA]
May 13, 2020	Memorandum: Authority to Approve Weather & Safety Leave for Employees Affected by COVID-19	10	Delegation of authority given to Senior Executive Service (SES)/ Title 38 appointed SES-equivalent VHACO employees, Network Directors and Medical Center Directors to approve Weather & Safety Leave in increments of up to 15 days [AAA]
May 14, 2020	Opioid Treatment Program (OTP) Guidance	10NC5	Updated Opioid Treatment Program (OTP) Guidance released to OTP Medical Directors [AAA]
May 14, 2020	Memorandum: COVID-19 Updated Guidance on Testing for Veterans and Employees	10N	Guidance provided on preparing to offer COVID-19 diagnostic viral testing by May 18, 2020, to Veterans and employees who are asymptomatic and request testing [AAA]
May 14, 2020	Memorandum: COVID-19 Requirements for the Caregiver Support Program: Identification of High-Risk Veterans Participating in the PCAFC	10N	Guidance provided on outreach to primary family caregivers of Veterans on the at-risk list and completion of tracking sheet no later than June 5, 2020 [AAA]
May 14, 2020	Memorandum: Funding for Homeless Veterans Stand Downs	10N	Recommendation provided that all Stand Down events be postponed during COVID-19 [AAA]
May 15, 2020	Memorandum: National Contract for Automated Discharge Planning Software in VA Medical Facilities	10N	Announcement made that National Social Work Program plans to establish national contract to support use of Automated Discharge Planning Software; Request made of interested VA medical facilities to respond [AAA]
May 18, 2020	Memorandum: VHA Workers' Compensation Program (WCP) Guidance for Workplace Exposure and Employee Workers' Compensation Claims during COVID-19	10N	Guidance provided on workers' compensation claim for benefits due to COVID-19 workplace exposure and infection [CCC]

Date	Document	Issuing Office	Description
May 18, 2020	Memorandum: Update to COVID-19 Scheduling Instructions – Update #2	10N	Scheduling instructions updated to include management of appointments and clinician teleworking guidance related to COVID-19 [CCC]
May 18, 2020	Memorandum: Emergency Leave Provisions of the Families First Coronavirus Response Act (FFCRA)	10	VHA policy established for addressing leave requests under Families First Coronavirus Response Act (FFCRA) [CCC]
May 18, 2020	Memorandum: Delegation of Authority to Exclude an Employee from Application of the Emergency Paid Sick Leave Act, Division E of the FFCRA	10	Authority further delegated to Senior Executive Service (SES) and Title 38-appointed SES-equivalent employees within VHACO, Network Directors, and Medical Center Directors to exclude VHA employees from certain provisions under EPSLA [CCC]
May 18, 2020	Memorandum: National Deployment of Consult Toolbox 1.9.0063 and 1.9.0065 – COVID-19 Upgrades	10N	Notification provided of the release of changes to the Consult Toolbox (CTB) to add COVID-19 tabs [CCC]
May 19, 2020	Memorandum: Coronavirus (COVID-19) Non-Clinical Screening for Entry into Health Care Facility	10N	Guidance given on infection prevention and control measures for non-clinical COVID-19 screening of persons seeking VHA facility entry [CCC]
May 19, 2020	Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19	05	This memorandum provides guidance on the Office of Personnel Management's (OPM) approval of a Direct-Hire Authority (DHA) for the Veterans Affairs (VA) in support of the COVID-19 national emergency. [DDD]
May 20, 2020	Memorandum: Updated Guidance for Return-to-Work Recommendations for Healthcare Personnel after Exposure to Infection or with Confirmed or Suspected Infection from COVID-19	10N	Updated strategies for returning health care personnel to work provided for exposures, suspected, and confirmed COVID-19 cases for asymptomatic and symptomatic individuals [CCC]
May 20, 2020	Clinical Strong Practice: Types of Respirators and Mass Available in the Health Care Setting for COVID-19	10NC	Information provided about various types of respiratory protection available in VA facilities to protect health care providers from exposure while caring for COVID-19 patients [CCC]

Date	Document	Issuing Office	Description
May 21, 2020	Memorandum: Deployed Personnel Reporting Requirements for COVID-19	10N	Daily reporting requirements established for all deployed personnel across VHA [CCC]
May 22, 2020	Memorandum: Moving Forward: Guidance for Resumption of Procedures for Non-Urgent and Elective Indications	10N	Guidance provided for resuming non-urgent procedures in alignment with VHA's Moving Forward Plan [CCC]
May 22, 2020	Moving Forward Medical Center and CBOC Cleaning Matrix	10N	Guidance provided on cleaning and disinfection requirements, trainings, chemicals and considerations [CCC]
May 26, 2020	Memorandum: COVID-19 Requirements for Providing Personal Protective Equipment (PPE) for Selected Home Health Care Services: MFH, CSP and SCI/D	10N	Guidance provided on utilization of appropriate PPE and supplies for Medical Foster Homes (MFH), the Caregiver Support Program (CSP) and Spinal Cord Injuries and Disorders (SCI/D) [EEE]
May 27, 2020	Memorandum: Implementation of COVID-19 Aid, Relief, and Economic Security (CARES) Act Telehealth Requirements in the HUD-VASH Program	10N	Guidance given for implementing COVID-19 Aid, Relief, and Economic Security (CARES) Act telehealth requirements in the Housing and Urban Development-VA Supportive Housing (HUD-VASH) Program [EEE]
May 27, 2020	Memorandum: Update: COVID-19 Guidance on Inspections, Fire Drills, and Routine Equipment Maintenance	10N	Guidance provided on how to conduct routine tasks required by VHA policy or established accreditation standards in restricted/isolation areas established during COVID-19 [EEE]
May 28, 2020	Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19	05	This memorandum provides guidance on the Office of Personnel Management's (OPM) approval of a Direct-Hire Authority (DHA) for the Veterans Affairs (VA) in support of the COVID-19 national emergency. [FFF]
May 29, 2020	Memorandum: Discontinuation of Transmission-Based Precautions for Patients with Confirmed COVID-19 in Healthcare Settings	10N	Guidance provided for discontinuation of Transmission-Based Precautions (TBP) for patients with COVID-19 [EEE]

Date	Document	Issuing Office	Description
June 2, 2020	Memorandum: 2020 Hurricane Season Preparation, Disaster Emergency Medical Personnel System (DEMPS)	10N	Expectations and requirements outlined for VISN support of the DEMPS in preparation for hurricane season [GGG]
June 2, 2020	Memorandum: Department Bargaining Guidance during Coronavirus Disease (COVID-19) Pandemic	00	Guidance provided that where VA has a bargaining obligation, unions should be notified of the change and given an opportunity to bargain post-implementation as soon as practical [GGG]
June 3, 2020	Memorandum: Disaster Response during a Pandemic	10N	Plan provided to respond to and manage an emerging crisis while simultaneously managing ongoing COVID-19 operations [GGG]
June 5, 2020	Memorandum: Housing and Urban Development-Veterans Affairs Supportive Housing (HUD-VASH) Admissions during COVID-19 Response	10N	Guidance provided on HUD-VASH admissions during COVID-19; Programs encouraged to utilize all available vouchers to serve those who are ready to engage and appropriate for program [GGG]
June 8, 2020	Important Announcement: COVID-19 Referral Extension	10N	All community care referrals in HSRM except those in a cancelled or EoC complete status that have a March 1 to July 31, 2020 expiration date are extended to expire September 30, 2020 [HHH]
June 8, 2020	Memorandum: Updated Guidance, due to COVID-19 Response Operations, for Information and Instructions for Fiscal Year 2020 Reusable Medical Equipment Program Audits	10N	National Program Office for Sterile Processing (NPOSP) instructional guidance updated for remaining Fiscal Year 2020 VISN-led audits of reusable medical equipment (RME) [HHH]
June 9, 2020	Veterans Health Administration Moving Forward Guidebook	10N	Guidebook provided for regulations, policy and guidance associated with expanding services at VA sites of care [HHH]
June 9, 2020	Memorandum: Veterans Health Administration (VHA) Transportation Guidance during Coronavirus (COVID-19)	10N	Information provided by the Veterans Transportation Program (VTP) on VHA-provided transportation and COVID-19 [HHH]

Date	Document	Issuing Office	Description
June 9, 2020	Memorandum: Primary Care Guidance for Coronavirus (COVID-19) Pandemic Response Update	10N through 10NC	Updated guidance provided on primary care appointments and continuation of care throughout COVID-19 [HHH]
June 9, 2020	Memorandum: Onsite Volunteer Engagement in Veterans Health Administration (VHA) Facilities	10N	Guidance outlined on safe re-entry of VA's volunteer workforce and suspension of onsite Summer Youth Volunteer Programs [HHH]
June 9, 2020	Memorandum: Mission Critical Travel	10	Notification provided that for an additional 30 days, only mission critical VHA travel is approved [HHH]
June 11, 2020	Memorandum: COVID-19: Guidance on COVID-19 Testing for Community Living Centers and Spinal Cord Injury and Disorder Units	10N	Testing guidance provided for CLCs and Spinal Cord Injury and Disorder (SCI/D) units to endorse and build off three CDC goals for protecting nursing homes [HHH]
June 16, 2020	Memorandum: Reporting Operating Room (OR) Pending Cases	10N through 10NC	VISNs requested to report current pending operating room case volumes by surgery programs using the Pending Operating Room Case tool [III]
June 16, 2020	Memorandum: Veterans Integrated Service Network (VISN) Clinical Contact Center Modernization	10N	Guidance given on VHA plans to enhance care delivery through the virtual "front door" of VISN-led Clinical Contact Centers [III]
June 19, 2020	Memorandum: Creation of Temporary Community Living Center Beds to Meet Post-Acute Care Needs	10N through 10NC	Guidance given on identification of community living center (CLC) post-acute care beds, creation of temporary CLC beds and processes to follow based on bed location [III]
June 24, 2020	Memorandum: Referral Coordination Initiative (RCI) Restart Within the Moving Forward Plan and the Decision Support Tool and Eligibility Review	10N	Guidance given about the restart of the Referral Coordination Initiative (RCI) and use of the Decision Support Tool to determine, review and capture Best Medical Interest community care eligibility [JJJ]
June 24, 2020	The Referral Coordination Initiative Transition Guide to Moving Forward	10N	RCI Transition Guide modified to provide staff with the tools they need to implement the RCI during COVID-19 [JJJ]
June 25, 2020	Memorandum: Continuity in Mental Health Services and Suicide Prevention Activities during	10N	Guidance given on management of substance use disorders (SUD), development of local policies and procedures for continuity of care for

Date	Document	Issuing Office	Description
	Coronavirus (COVID-19): Substance Use Services		Veterans with SUD, and responding to overdoses and administering breathalyzer tests during COVID-19 [JJJ]
June 26, 2020	Office of the Chief Human Capital Officer (OCHCO) Bulletin: Restoration of Time-off Awards	05	This OCHCO Bulletin notifies human resources (HR) offices that due to the COVID-19 pandemic all time-off awards granted from March 13, 2019, through September 30, 2020, will be restored in VA's Time and Attendance System (VATAS) if the hours were unused prior to expiration. These restored time-off award hours will have no expiration date [KKK]
June 26, 2020	VHA Moving Forward Guidebook	10NC, 10NG, 10D	Second iteration of VHA's Moving Forward Guidebook released [JJJ]

Note: Document title and description were taken verbatim from source; in some cases a description was not available and a summary description was created for the purposes of this report.

Sources:

[A] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: January 27-February 2, 2020," VHA, accessed 7/15/2020.

[B] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: February 3-9, 2020," VHA, accessed 7/15/2020.

[C] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: February 10-16, 2020," VHA, accessed 7/15/2020.

[D] "Authority to Approve Weather and Safety Leave for Employees Affected by 2019-nCoV, Coronavirus," Assistant Under Secretary for Health for Operations (10N), 2/12/2020.

[E] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: February 17-23, 2020," VHA, accessed 7/15/2020.

[F] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 2-8, 2020," VHA, accessed 7/15/2020.

[G] "*Updated* VA Leave Guidance During Novel Coronavirus (COVID-19)," VA Office of the Chief Human Capital Officer, 3/5/2020.

[H] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 9-15, 2020," VHA, accessed 7/15/2020.

[I] "COVID-19 HR Emergency Preparedness FAQs - Version 1," VA Office of the Chief Human Capital Officer, 3/12/2020.

[J] "COVID-19 HR Emergency Preparedness FAQs - Version 1," VA Office of the Chief Human Capital Officer, 3/12/2020.

[K] "COVID-19 HR Emergency Preparedness FAQs - Version 2," VA Office of the Chief Human Capital Officer, 3/14/2020.

[L] "COVID-19 HR Emergency Preparedness FAQs - Version 2," VA Office of the Chief Human Capital Officer, 3/14/2020.

[M] "COVID-19 HR Emergency Preparedness FAQs - Version 3," VA Office of the Chief Human Capital Officer, 3/15/2020.

[N] "COVID-19 HR Emergency Preparedness FAQs - Version 3," VA Office of the Chief Human Capital Officer, 3/15/2020.

[O] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 16-22, 2020," VHA, accessed 7/15/2020.

[P] "Managing Federal Contract Performance Issues Associated with the Novel Coronavirus (COVID-19)," Deputy Director for Management, Office of Management of Budget, 3/20/2020.

[Q] " "COVID-19 HR Emergency Preparedness FAQs - Version 4," VA Office of the Chief Human Capital Officer, 3/20/2020.

[R] "Remote/Virtual Verification of Employment Eligibility Verification (Form I-9) and Oath of Office Due to COVID-19," VA Office of the Chief Human Capital Officer (OCHCO), 3/20/2020.

[S] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 23-29, 2020," VHA, accessed 7/15/2020.

[T] "Delegated Authority To Waive Salary Offset - Novel Coronavirus Disease (COVID-19) National Emergency," VA, 3/23/2020.

[U] "On-boarding processes for new employees during the COVID-19 emergency," OPM, 3/23/2020.

[V] "Harnessing Technology to Support Mission Continuity," Deputy Director for Management, Office of Management and Budget, 3/22/2020.

[W] "VHA Approved Direct Hire Authority in Response to COVID-19," Chief Human Capital Officer, VA, 3/24/2020.

[X] "Temporary Authorization to Delay Pre-Placement and Recurring Physical Exams," VA Office of the Chief Human Capital Officer, 3/24/2020.

[Y] "Travel restriction guidance due to shelter in place and lockdown orders," VA Office of the Chief Human Capital Officer, 3/25/2020.

[Z] "Temporary Postponement of Applicant Drug Testing during COVID-19 Pandemic," VA Office of the Chief Human Capital Officer, 3/25/2020.

[AA] "Extension of Certification Date for Current Certified Delegated Examining Human Resources Practitioners," VA Office of the Chief Human Capital Officer, 3/25/2020.

[BB] "Temporary Procedures for Personnel Vetting and Appointment of New Employees during Maximum Telework Period due to Coronavirus COVID-19," OPM, 3/25/2020.

[CC] "Coronavirus (COVID-19) Schedule A Hiring (Temporary) Authority," VA Office of the Chief Human Capital Officer, 3/27/2020.

[DD] "Temporary Authorization to Delay Pre-Placement and Recurring Physical Exams," VA Office of the Chief Human Capital Officer, updated 4/28/2020.

[EE] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 30- April 5, 2020," VHA, accessed 7/15/2020.

[FF] "Veterans Affairs Approved Direct-Hire Authority in Response to COVID-19 - VA 003," Chief Human Capital Officer, VA, 3/30/2020.

[GG] "COVID-19 Schedule A Hiring Authority for Temporary Appointments," VA Office of the Chief Human Capital Officer, 3/31/2020.

[HH] "COVID-19 Schedule A Hiring Authority for Temporary Appointments," VA Office of the Chief Human Capital Officer, 3/31/2020.

[II] "Waiver of the Exclusion of Temporary Appointments to Receive Recruitment, Relocation and Retention Incentives During the COVID-19 Pandemic," VA Office of the Chief Human Capital Officer, 4/1/2020.

[JJ] "Federal employee leave provisions under the Families First Coronavirus Response Act," VA Office of the Chief Human Capital Officer, 4/1/2020.

[KK] "Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19," VA, 4/2/2020.

[LL] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 6- 12, 2020," VHA, accessed 7/15/2020.

[MM] "Waiver for Cumulative Special Contribution Awards Approval Related to COVID-19 Pandemic and Special Coding Instructions," VA Office of the Chief Human Capital Officer, 4/8/2020.

[NN] "Emergent Credentialing and Privileging to Access COVID-19 Needs - #2 (VIEWS #02596666)," Deputy Under Secretary for Health for Organizational Excellence, VA, 3/25/2020.[OO] "OCHCO Bulletin - HR Emergency Preparedness FAQ- Version 5 04-10-2020", VHA, VHA WMC SharePoint, accessed 8/4/20

[PP] ""COVID-19 HR Emergency Preparedness FAQs - Version 5," VA Office of the Chief Human Capital Officer, 4/10/2020.

[QQ] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 13- 19, 2020," VHA, accessed 7/15/2020.

[RR] "Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19," VA, 4/13/2020.

[SS] "Annual Employee Notification of the United States (U.S.) Flag Recognition Benefit for Deceased Federal Civilian Employees, VA Office of the Chief Human Capital Officer, 4/14/2020.

[TT] "Increase in Annual Hour Limitation for Part-Time/Intermittent Title 38 Registered Nurses/Advanced Practice Nurses, Certified Registered Nurse Anesthetists and Physician Assistants," VA Office of the Under Secretary for Health, 4/20/2020.

[UU] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 20- 26, 2020," VHA, accessed 7/15/2020.

[VV] "Expedited Onboarding Processes for COVID-19 Hires," VA Office of the Chief Human Capital Officer, 4/22/2020.

[WW] “Performance Pay Disbursement Deadline Extension - COVID-19 Pandemic," VA Office of the Chief Human Capital Officer, 4/22/2020.

[XX] "Delegation of Authority to Exclude an Employee from Application of the Emergency Paid Sick Leave Act, Division E, and the Emergency Family and Medical Leave Expansion Act, Division C, of the Families First Coronavirus Response Act (VIEWS 2671671)," Secretary of Veterans Affairs, 4/23/2020.

[YY] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 27 - May 3, 2020," VHA, accessed 7/15/2020.

[ZZ] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 4-10, 2020," VHA, accessed 7/15/2020.

[AAA] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 11-17, 2020," VHA, accessed 7/15/2020.

[BBB] "Temporary Authorization to Extend Three Year Grace Period to Obtain License for Unlicensed GS-9/11 Social Workers and GS-9 Marriage and Family Therapists," VA Office of the Chief Human Capital Officer, 5/12/2020.

[CCC] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 18-24, 2020," VHA, accessed 7/15/2020.

[DDD] "Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19," VA, 5/19/2020.

[EEE] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 25-31, 2020," VHA, accessed 7/15/2020.

[FFF] "Veterans Affairs (VA) Approved Direct Hire Authority (DHA) in Response to COVID-19," VA, 5/28/2020.

[GGG] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 1-7, 2020," VHA, accessed 7/15/2020.

[HHH] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 8-14, 2020," VHA, accessed 7/15/2020.

[III] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 15-21, 2020," VHA, accessed 7/15/2020.

[JJJ] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: June 22-28, 2020," VHA, accessed 7/15/2020.

[KKK] "Restoration of Time-off Awards," VA Office of the Chief Human Capital Officer, 6/26/2020.

E. Suggested Offices of Primary Responsibility for Recommended Actions

Recommendations	Suggested Office of Primary Responsibility
1. Recognition of the Threat and Planning	
a) Establish a permanent, full-time VHA liaison to HHS for planning activities and to serve as the VHA representative on the ESF #8 Emergency Support Function Leadership Group.	AUSH for Operations
b) Request support from DOD or HHS for periodic global health intelligence briefings to VHA leaders focused on infectious disease epidemiologic trends and emerging infectious disease.	USH
2. National and Interagency Coordination	
a) Pursue an assessment of the interagency COVID-19 response with VA, DHS, HHS and DOD to identify lessons learned to-date that are relevant to a facile and coordinated future response	USH
b) Identify the VHA DUSH as VHA's standing representative to HHS ASPR ESF #8 Council	USH
c) Secure a full-time VHA liaison to FEMA NRCC	USH
d) Pursue a joint task force with PHS to develop options for accession and integration of PHS personnel into VHA operations as focal points for the readiness of VHA clinical teams and SMEs in disaster medicine	DUSH
e) Establish a VHA function focused on development of expanded partnerships with IHS and selected Tribal Health Systems to enhance the performance, readiness and resilience of Indian Country health care systems while expanding opportunities for VHA staff development. Conduct a study of existing processes among the VISNs to provide accessible, quality care to Native Americans. Use the study to identify opportunities to streamline and gain greater standardization of care processes. Include consideration of legislative proposals to enable resource sharing between VHA and IHS health facilities and inclusion of Urban Tribal Health Systems in the initiatives. Consider partnership objectives focused on public health, health care administration, High Reliability, virtual care, quality of care, education, training, improvement collaboratives, emergency management, rural health, mental health, suicide prevention, research, health equities, data management, graduate medical education and professional development	DUSH (OCR: AUSH for Operations)
f) Establish permanent liaisons with HHS ESF #8 and FEMA NRCC for regular interaction and familiarity with operations	USH

Recommendations	Suggested Office of Primary Responsibility
g) Propose a joint after-action conference with DOD Assistant Secretary of Defense for Health Affairs and DASD for Homeland Defense Integration and Defense Support of Civil Authorities upon completion of the MHS after-action review	USH
h) Explore options for coordinated response with DOD to national contingencies upon completion of the joint MHS-VHA after-action conference	USH
3. Emergency Management and Readiness	
a) Consider establishing cadres of specialized deployers (such as critical care teams) in rotating tasking windows trained to use VHA equipment sets and sustained in readiness for rapid deployment; also consider options for securing committed availability for this cadre	AUSH for Operations
b) Consider incentives for volunteer personnel in particular skill sets maintaining current readiness to deploy	AUSH for Operations
c) Perform a study of deployment after-action reports with VISN inputs and develop risk-stratified, scenario-based deployment processes for the full range of potential contingencies to which VHA may respond	AUSH for Operations
d) Identify a process and system to capture information on all deployed staff providing current visibility at the local, network and enterprise level	AUSH for Operations
e) Identify a mission manager in the tracking system to monitor operations within each deployed mission	AUSH for Operations
f) Establish a process, led by OEM, for consultation with clinical readiness SMEs when building solution sets for complex scenarios	AUSH for Operations
g) Develop and implement post-deployment processes to assure logistical support, health and well-being of each deployer	AUSH for Operations
h) Conduct a study of the Travel Nurse Corps participation in the response to develop recommendations for the future role of the Corps in contingency response	AUSH for Patient Care Services (OCR: AUSH for Operations)
4. Data and Analytics	
a) Establish a timeline with milestones for medical data integration for biosurveillance purposes in partnership with DHS, HHS, CDC, DOD and other agencies	Office of Biosurveillance
5. Capacity and Facilities	

Recommendations	Suggested Office of Primary Responsibility
a) Implement a VHA information technology system for daily and contingency management of utilization and capacity for inpatient care (bed management) integrated with clinical and logistics systems with enterprise visibility	AUSH for Operations
b) Incorporate features into design of new facilities that enable contingency expansion of critical care and Med/surg inpatient capacity	AUSH for Support Services
6. Supply Chain	
a) Develop a supply chain contingency resilience strategy including plans for Readiness Centers, owned inventory reserves, revised prime vendor contracts and pursuit of additive manufacturing capacity	AUSH for Support Services
b) Pursue accelerated implementation of the DMLSS in conjunction with optimal standard processes for supply chain management	AUSH for Support Services
c) Consider pursuit of DOD and Congressional support for a partnership with DLA to assure access to critical supplies for future response based upon the DOD War Stopper Program	AUSH for Support Services
7. Human Resources	
a) Study outcomes from utilization of streamlined and expedited hiring and onboarding processes to quantify risks and benefits to inform permanent policy	ADUSH for Human Capital
8. Clinical Operations	
a) Employ Integrated Clinical Teams and specialty clinician leaders to develop clinical processes integrating virtual care into clinical processes to give Veterans a broad spectrum of options for interacting with VHA clinical teams	ADUSH for Clinical Services
b) Accelerate implementation of an integrated array of virtual care tools informed by clinical expertise and inclusive of disaster response and rural outreach capabilities	ADUSH for Patient Care Services
c) Establish a strategy for networked Clinical Contact Centers enabling dynamic matching of demand to capacity with enterprise visibility of performance measures	AUSH for Operations
d) Include integration of Clinical Contact Centers with other VA call centers such that first call resolution for Veterans is assured via “warm handoffs	AUSH for Operations
e) Incorporate evolving virtual care options into Clinical Contact Center processes	AUSH for Operations (OCR: AUSH for Patient Care Services)

Recommendations	Suggested Office of Primary Responsibility
9. Research	
a) Conduct a review of processes for initiating clinical trials in response to an urgent national public health priority to assess all aspects of effectiveness and compliance to determine if adjustments would be beneficial to future response	AUSH for Discovery, Education and Affiliate Networks
b) Pursue research to expand the evidence base for virtual care in delivery of care for specific health conditions	AUSH for Discovery, Education and Affiliate Networks
c) Engage in research using VHA data to understand the epidemiology and natural history of COVID-19 in Veteran populations	AUSH for Discovery, Education and Affiliate Networks
d) Engage in research using VHA data to gain new insights into correlations between individual characteristics (such as demographics, social circumstances, chronic medical conditions, lifestyle) and outcomes	AUSH for Discovery, Education and Affiliate Networks
e) Remain active in multi-center research to determine the effectiveness of therapeutic agents and vaccines for COVID-19	AUSH for Discovery, Education and Affiliate Networks
10. Modernization	
a) Consider a Modernization lane of effort fully integrating virtual care processes and tools into VHA health services. Linking this lane of effort with the Integrated Clinical Communities initiative could engage clinical expertise in development of standard virtual care processes and as advisors on development of requirements for an integrated suite of virtual care tools	AUSH for Patient Care Services
b) Pursue a Modernization lane of effort focused on readiness with integrated initiatives pertaining to deployable equipment sets, deployable critical care teams, cadres of rapid deployers and adaptable processes for deployment sourcing	AUSH for Operations
c) Incorporate the supply chain resilience strategy (see recommendation 2a) into the Supply Chain transformation lane of effort	AUSH for Support Services
d) Explore additional initiatives for active surveillance and outreach to Veterans at elevated risk for health consequences from economic hardship under the Modernization Plan lane of effort named Engaging Veterans in Life-Long Health, Well-Being and Resilience	AUSH for Patient Care Services

F. Endnotes

[1] "COVID-19 Response Plan," U.S. Department of Veterans Affairs (VA) Office of Public and Intergovernmental Affairs, 3/27/2020.

[2] "Coronavirus disease 2019 (COVID-19) Situation Report – 94," World Health Organization (WHO), 4/23/2020, https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200423-sitrep-94-covid-19.pdf?sfvrsn=b8304bf0_4, accessed 8/11/2020.

[3] "Timeline of the WHO's Response to COVID-19," WHO, https://www.who.int/news-room/detail/29-06-2020-covidtimeline, accessed 8/11/2020.

[4] *Ibid.*

[5] "First Travel-related Case of 2019 Novel Coronavirus Detected in United States," CDC, 1/21/2020, https://www.cdc.gov/media/releases/2020/p0121-novel-coronavirus-travel-case.html, accessed 10/12/2020.

[6] "Timeline of the WHO's Response to COVID-19," WHO, updated 9/9/2020, https://www.who.int/news-room/detail/29-06-2020-covidtimeline, accessed 8/11/2020; "Case of 2019 novel coronavirus confirmed in Washington state resident," Washington State Department of Health, 1/21/2020, https://www.doh.wa.gov/Newsroom/Articles/ID/1068/Case-of-2019-novel-coronavirus-confirmed-in-Washington-state-resident,%20accessed%208/24/20, accessed 10/1/2020.

[7] Lidia Kelly, "Australia declares first confirmed case of coronavirus," Reuters, 1/24/2020, https://www.reuters.com/article/uk-china-health-australia/australia-declares-first-confirmed-case-of-coronavirus-idINKBN1ZO02K, accessed 10/1/2020; "Coronavirus disease 2019 (COVID-19) Situation Report – 26," WHO, 2/15/2020, https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200215-sitrep-26-covid-19.pdf?sfvrsn=a4cc6787_2, accessed 8/11/2020.

[8] Derrick Bryson Taylor, "A Timeline of the Coronavirus Pandemic," New York Times, updated 8/6/2020, https://www.nytimes.com/article/coronavirus-timeline.html, accessed 8/11/2020.

[9] *Ibid.*

[10] *Ibid.*

[11] *Ibid.*

[12] "Coronavirus disease (COVID-19) Situation Report – 162," WHO, 6/30/20, https://www.who.int/docs/default-source/coronaviruse/20200630-covid-19-sitrep-162.pdf?sfvrsn=e00a5466_2, accessed 8/11/2020.

[13] "Case of 2019 novel coronavirus confirmed in Washington state resident," Washington State Department of Health, 1/21/2020, https://www.doh.wa.gov/Newsroom/Articles/ID/1068/Case-of-2019-novel-coronavirus-confirmed-in-Washington-state-resident,%20accessed%208/24/20, accessed 10/1/2020.

[14] "CDC Confirms Person-to-Person Spread of New Coronavirus in the United States," Centers for Disease Control and Prevention (CDC), 1/30/2020, https://www.cdc.gov/media/releases/2020/p0130-coronavirus-spread.html, accessed 10/1/2020; Elise Takahama, "2 new coronavirus cases emerge in Washington, in King and Snohomish counties," The Seattle Times, updated 2/29/2020, https://www.seattletimes.com/seattle-news/health/2-new-coronavirus-cases-emerge-in-washington-in-king-county-and-snohomish-county/, accessed 10/1/2020.

[15] "During Coronavirus Briefing, Governor Cuomo Signs $40 Million Emergency Management Authorization for Coronavirus Response," Office of Governor Andrew Cuomo, 3/3/20, https://www.governor.ny.gov/news/during-coronavirus-briefing-governor-cuomo-signs-40-million-emergency-management-authorization, accessed 8/19/2020.

[16] Joseph Spector, Jon Campbell, "Coronavirus timeline in New York: Here's how we got here and where we're headed," The Journal News, updated 3/15/2020, https://www.lohud.com/story/news/politics/2020/03/13/coronavirus-timeline-new-york-how-we-got-here-and-where-were-headed/5045463002/, accessed 8/11/2020; "Latest coronavirus updates in New York: Tuesday, June 30, 2020," PIX11 Web Team, PIX11, 6/30/2020, https://www.pix11.com/news/coronavirus/latest-coronavirus-updates-in-new-york-tuesday-june-30-2020, accessed 8/11/2020.

[17] *Ibid.*

[18] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020.

[19] Jacob Gershman, "A Guide to State Coronavirus Reopenings and Lockdowns," The Wall St. Journal, updated 5/20/2020, https://www.wsj.com/articles/a-state-by-state-guide-to-coronavirus-lockdowns-11584749351, accessed 10/1/2020; Dena Bunis and Jenny Rough, "List of Coronavirus-Related Restrictions in Every State," American Association of Retired Persons (AARP), updated 9/30/2020, https://www.aarp.org/politics-society/government-elections/info-2020/coronavirus-state-restrictions.html, accessed 8/11/2020.

[20] Derrick Bryson Taylor, "A Timeline of the Coronavirus Pandemic," New York Times, updated 8/6/2020, https://www.nytimes.com/article/coronavirus-timeline.html, accessed 8/11/2020; COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[21] *Ibid.*

[22] Derrick Bryson Taylor, "A Timeline of the Coronavirus Pandemic," New York Times, updated 8/6/2020, https://www.nytimes.com/article/coronavirus-timeline.html, accessed 8/11/2020.

[23] *Ibid.*

[24] *Ibid.*

[25] "U.S. Cases Reach New Record," The New York Times, updated 7/23/2020, https://www.nytimes.com/2020/06/30/world/coronavirus-updates.html?login=email&auth=login-email&login=email&auth=login-email#link-4e9a2fba, accessed 8/11/2020.

[26] “Coronavirus disease (COVID-19) Situation Report – 162,” WHO, 6/30/20, https://www.who.int/docs/default-source/coronaviruse/20200630-covid-19-sitrep-162.pdf?sfvrsn=e00a5466_2, accessed 8/11/2020.

[27] “Coronavirus disease 2019 (COVID-19) Situation Report – 94," WHO, 4/23/2020, https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200423-sitrep-94-covid-19.pdf?sfvrsn=b8304bf0_4, accessed 8/11/2020.

[28] “Timeline of the WHO’s Response to COVID-19,” WHO, https://www.who.int/news-room/detail/29-06-2020-covidtimeline, accessed 8/11/2020.

[29] WHO tweet, 1/18/2020, https://twitter.com/WHOWPRO/status/1218741294291308545?s=20, accessed 8/11/2020.

[30] *Ibid.*

[31] *Ibid.*

[32] “Timeline of the WHO’s Response to COVID-19,” WHO, https://www.who.int/news-room/detail/29-06-2020-covidtimeline, accessed 8/11/2020.

[33] “Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19),” WHO, 2/27/2020, https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf?sequence=1&isAllowed=y, accessed 8/11/2020.

[34] Advice on the use of masks in the context of COVID-19,” WHO, 6/5/2020, https://apps.who.int/iris/bitstream/handle/10665/332293/WHO-2019-nCov-IPC_Masks-2020.4-eng.pdf?sequence=1&isAllowed=y, accessed 8/11/2020.

[35] *Ibid.*

[36] “Prevalence of Asymptomatic SARS-CoV-2 Infection,” ACP Journals, 9/1/2020, https://www.acpjournals.org/doi/10.7326/M20-3012, accessed 10/12/2020.

[37] “Timeline of the WHO’s Response to COVID-19,” WHO, https://www.who.int/news-room/detail/29-06-2020-covidtimeline, accessed 8/11/2020.

[38] “Coronavirus disease 2019 (COVID-19) Situation Report – 73,” WHO, 4/2/2020, https://apps.who.int/iris/bitstream/handle/10665/331686/nCoVsitrep02Apr2020-eng.pdf?sequence=1&isAllowed=y, accessed 8/25/2020.

[39] “Presymptomatic Transmission of SARS-CoV-2 — Singapore, January 23–March 16, 2020,” CDC, 4/10/20, https://www.cdc.gov/mmwr/volumes/69/wr/mm6914e1.htm, accessed 9/1/2020.

[40] “Advice on the use of masks in the context of COVID-19,” WHO, 6/5/2020, https://apps.who.int/iris/bitstream/handle/10665/331693/WHO-2019-nCov-IPC_Masks-2020.3-eng.pdf?sequence=1&isAllowed=y, accessed 8/11/2020.

[41] *Ibid.*

[42] *Ibid.*

[43] “Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19)," WHO, 2/27/2020, https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf?sequence=1&isAllowed=y, accessed 8/11/2020.

[44] Claire Hansen, “CDC Advises All Americans to Wear Cloth Masks in Public,” U.S. News, 4/3/2020, https://www.usnews.com/news/national-news/articles/2020-04-03/cdc-advises-all-americans-to-wear-cloth-masks-in-public, accessed 9/1/2020.

[45] Claire Hansen, “CDC Advises All Americans to Wear Cloth Masks in Public,” U.S. News, 4/3/2020, https://www.usnews.com/news/national-news/articles/2020-04-03/cdc-advises-all-americans-to-wear-cloth-masks-in-public, accessed 9/1/2020.

[46] *Ibid.*

[47] “Advice on the use of masks in the context of COVID-19,” WHO, 4/6/2020, https://apps.who.int/iris/bitstream/handle/10665/331693/WHO-2019-nCov-IPC_Masks-2020.3-eng.pdf?sequence=1&isAllowed=y, accessed 8/11/2020.

[48] *Ibid.*

[49] *Ibid.*

[50] *Ibid.*

[51] Derek K Chu, Elie A Akl, Stephanie Duda, Karla Solo, Sally Yaacoub, Holger J Schünemann, "Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis," The Lancet, 6/1/2020, https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext, accessed 9/1/2020.

[52] *Ibid.*

[53] “Advice on the use of masks in the context of COVID-19,” WHO, 6/5/2020, https://apps.who.int/iris/bitstream/handle/10665/331693/WHO-2019-nCov-IPC_Masks-2020.3-eng.pdf?sequence=1&isAllowed=y, accessed 8/11/2020.

[54] *Ibid.*

[55] *Ibid.*

[56] *Ibid.*

[57] “About VA,” VA, updated 4/8/2020, https://www.va.gov/ABOUT_VA/index.asp, accessed 8/28/2020.

[58] *Ibid.*

[59] “About VHA,” updated 7/14/2019, https://www.va.gov/health/aboutvha.asp, accessed 10/19/2020.

[60] “About VA,” VA, updated 4/8/2020, https://www.va.gov/ABOUT_VA/index.asp, accessed 8/28/2020.

[61] *Ibid.*

[62] “VA Fourth Mission Summary,” VA, updated 9/18/2020, https://www.va.gov/health/coronavirus/statesupport.asp, accessed 9/22/2020.

[63] "Veterans Health Administration," VA, updated 7/14/2019, https://www.va.gov/health/aboutVHA.asp#:~:text=The%20Veterans%20Health%20Administration%20%28VHA%29%20is%20the%20largest,Veterans%20enrolled%20in%20the%20VA%20health%20care%20program, accessed 9/22/2020.

[64] National Surveillance Tool (NST) Dataset, Health Operations Center (HOC), Veterans Health Administration (VHA), accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VHA Support Service Center (VSSC), VHA, accessed on 8/3/2020.

[65] “About VA,” VA, updated 4/8/2020, https://www.va.gov/ABOUT_VA/index.asp, accessed 8/28/2020.

[66] *Ibid.*

[67] “About VA,” VA, updated 4/8/2020, https://www.va.gov/ABOUT_VA/index.asp, accessed 8/28/2020.

[68] *Ibid.*

[69] "Richard A. Stone, M.D.," VA, updated 7/16/2020, https://www.va.gov/opa/bios/bio_stone.asp, accessed 9/1/2020.

[70] “Governance Board Charter,” VHA, 6/15/2020.

[71] *Ibid.*

[72] *Ibid.*

[73] *Ibid.*

[74] “VHA Office of Emergency Management,” VA, updated 6/22/2020, https://www.va.gov/vhaemergency management/, accessed 9/23/2020.

[75] *Ibid.*

[76] *Ibid.*

[77] *Ibid.*

[78] *Ibid.*

[79] *Ibid.*

[80] *Ibid.*

[81] *Ibid.*

[82] *Ibid.*

[83] *Ibid.*

[84] ICCs are multidisciplinary teams replacing traditional physician led ‘service lines,’ reflecting contemporary health care thinking and direction.

[85] VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

[86] "Timeline on how VA prepared for COVID-19 outbreak and continues to keep Veterans safe," VA, 4/20/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5427, accessed 9/23/2020.

[87] “Veterans Health Administration Central Office (VHACO) Program Responsibilities for Novel Coronavirus in China,” VA, 1/31/2020.

[88] VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

[89] *Ibid.*

[90] Response to Vetting Draft, OEM, VHA, 9/14/2020.

[91] *Ibid.*

[92] *Ibid.*

[93] “VA Pandemic Flu Plan,” VA, 3/31/2006.

[94] "COVID-19 Response Plan," OEM, VHA, 3/23/2020.

[95] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 9-15, 2020," VHA, accessed 7/15/2020.

[96] VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

[97] *Ibid.*

[98] *Ibid.*

[99] “VA Releases COVID-19 Response Plan,” VA Office of Public and Intergovernmental Affairs, 3/27/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5405, accessed 9/1/2020.

[100] “COVID-19 Response Plan,” OEM, VHA, 3/23/2020.

[101] *Ibid.*

[102] *Ibid.*

[103] *Ibid.*

[104] “VHA COVID-19 Response Framework,” VHA, 4/29/2020.

[105] “COVID-19 Response Responsibility Matrix, Version 1,” VHA, last updated 5/7/2020.

[106] *Ibid.*

[107] *Ibid.*

[108] *Ibid.*

[109] *Ibid.*

[110] *Ibid.*

[111] *Ibid.*

[112] *Ibid.*

[113] “VHA Communications – Speaking with One Voice during a Global Pandemic,” Office of Communications, VHA, no date.

[114] *Ibid.*

[115] “COVID-19 Response Plan,” OEM, VHA, 3/23/2020.

[116] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 20-26, 2020," VHA, accessed 7/15/2020.

[117] Stephanie Soucheray, “Trump puts VP Pence in charge of COVID-19 response,” Center for Infectious Disease Research and Policy, 2/26/2020, https://www.cidrap.umn.edu/news-perspective/2020/02/trump-puts-vp-pence-charge-covid-19-response, accessed 9/4/2020.

[118] "Statement from the Press Secretary Regarding the President’s Coronavirus Task Force," White House, 1/29/2020, https://www.whitehouse.gov/briefings-statements/statement-press-secretary-regarding-presidents-coronavirus-task-force/, accessed 9/4/2020.

[119] "Coronavirus (COVID-19) Pandemic: Response and Recovery Through Federal-State-Local-Tribal Partnership," White House Office of Intergovernmental Affairs, March 2020, https://www.whitehouse.gov/wp-content/uploads/2020/03/COVID-Response-and-Recovery-Guidance.pdf, accessed 9/29/2020.

[120] *Ibid.*

[121] "Coordinating the Federal Response," Department of Homeland Security (DHS), 9/4/2020, https://www.dhs.gov/coronavirus/federal-response#, accessed 9/29/2020.

[122] "Coronavirus (COVID-19) Pandemic: Response and Recovery Through Federal-State-Local-Tribal Partnership," White House Office of Intergovernmental Affairs, March 2020, https://www.whitehouse.gov/wp-content/uploads/2020/03/COVID-Response-and-Recovery-Guidance.pdf, accessed 9/29/2020.

[123] "FEMA's Role in the Response and Related Challenges," United States Government Accountability Office (GAO), 7/14/2020, https://www.gao.gov/assets/710/708097.pdf, accessed 9/29/2020.

[124] Recurring analytic presentations to VHA leadership by the VHA COVID-19 Analytic Team.

[125] "Executive Order on Prioritizing and Allocating Health and Medical Resources to Respond to the Spread of Covid-19," White House, 3/18/2020, https://www.whitehouse.gov/presidential-actions/executive-order-prioritizing-allocating-health-medical-resources-respond-spread-covid-19/, accessed 9/29/2020.

[126] For more information, refer to Section 7 – VISN Narratives.

[127] "Emergency Support Function #8 – Public Health and Medical Services Annex," U.S. Department of Health and Human Services (HHS), January 2008, https://www.fema.gov/pdf/emergency/nrf/nrf-esf-08.pdf, accessed 9/29/2020.

[128] "Building a More Resilient Strategic National Stockpile," HHS, 9/1/2020, https://www.phe.gov/about/sns/Pages/sns-next-generation.aspx, accessed 9/29/2020.

[129] VHA COVID-19 Historical Action Log, VHA, 5/14/2020; WHO tweet, 1/4/2020, https://twitter.com/WHO/status/1213523866703814656.

[130] VHA COVID-19 Historical Action Log, VHA, 5/14/2020; "Case of 2019 novel coronavirus confirmed in Washington state resident," Washington State Department of Health, 1/21/2020, https://www.doh.wa.gov/Newsroom/Articles/ID/1068/Case-of-2019-novel-coronavirus-confirmed-in-Washington-state-resident,%20accessed%208/24/20, accessed 9/30/2020.

[131] VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

[132] "Coronavirus Data," NYC Department of Health, https://github.com/nychealth/coronavirus-data/blob/master/case-hosp-death.csv/, accessed 8/20/2020.

[133] "COVID-19 Dashboard," Detroit Health Department, https://codtableau.detroitmi.gov/t/DHD/views/CityofDetroit-PublicCOVIDDashboard/TimelineCasesDashboard?%3AisGuestRedirectFromVizportal=y&%3Aembed=y, accessed 9/5/2020.

[134] "COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University," Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020; "Gubernatorial Disaster Proclamations," State of Illinois, 3/9/2020, https://www2.illinois.gov/sites/gov/Documents/CoronavirusDisasterProc-3-12-2020.pdf, accessed 8/13/2020.

[135] "Google mobility data: Trends in New Orleans (Orleans Parish) - 5/31/2020 Analysis," "COVID-19 Update - Key Markets," VA, 6/1/2020.

[136] New Orleans New Cases 7-Day Rolling Average, VHA Power BI Tool, accessed 9/25/2020; "Google mobility data: Trends in New Orleans (Orleans Parish) - 5/31/2020 Analysis," "COVID-19 Update - Key Markets," VA, 6/1/2020.

[137] New Orleans New Cases 7-Day Rolling Average, VHA Power BI Tool, accessed 9/25/2020.

[138] VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

[139] VHA COVID-19 Historical Action Log, VHA, 5/14/2020; "VA Releases COVID-19 Response Plan," VA Office of Public and Intergovernmental Affairs, 3/27/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5405, accessed 8/27/2020.

[140] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 23-29, 2020," VHA, accessed 7/15/2020.

[141] VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

[142] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 13-19, 2020," VHA, accessed 7/15/2020.

[143] *Ibid.*

[144] "Trends in Number of COVID-19 Cases in the US Reported to CDC, by State/Territory," CDC, https://covid.cdc.gov/covid-data-tracker/?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fcases-in-us.html#trends_dailytrends, accessed 9/9/2020.

[145] *Ibid.*

[146] *Ibid.*

[147] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 18-24, 2020," VHA, accessed 7/15/2020; "Cases in the U.S.," St. Louis Federal Reserve, updated 5/28/2020, https://fraser.stlouisfed.org/files/docs/historical/cpt/images/20200528_CDC_casesinUS.JPG, accessed 6/1/2020.

[148] Derrick Bryson Taylor, "A Timeline of the Coronavirus Pandemic," New York Times, updated 8/6/2020, https://www.nytimes.com/article/coronavirus-timeline.html, accessed 9/29/2020; "COVID-19 Hospitalization and Death by Age," CDC, updated 8/18/2020, https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-age.html, accessed 8/19/2020.

[149] Kim Bellware, Jacqueline Dupree, "14 states and Puerto Rico hit highest seven-day average of new coronavirus infections," The Washington Post, 6/8/2020, https://www.washingtonpost.com/health/2020/06/08/14-states-puerto-rico-hit-their-highest-seven-day-average-new-covid-19-infections-since-june/, accessed 8/27/2020.

[150] "Trends in Number of COVID-19 Cases in the US Reported to CDC, by State/Territory," CDC, https://covid.cdc.gov/covid-data-tracker/?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fcases-in-us.html#trends_dailytrends, accessed 9/9/2020.

[151] NST Dataset, HOC, VHA, accessed 8/1/2020; Employee Deaths Data, VHA, 8/5/2020; HR Employee Cube, VSSC, VHA, accessed on 8/3/2020.

[152] "Claims under the Federal Employees' Compensation Act due to the 2019 Novel Coronavirus (COVID-19)," U.S. Department of Labor, https://www.dol.gov/owcp/dfec/InfoFECACoverageCoronavirus.htm, accessed 9/8/2020.

[153] "COVID-19 Hospitalization and Death by Age," CDC, updated 8/18/2020, https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-age.html, accessed 8/19/2020.

[154] Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/18/2020; "Population Estimates Show Aging Across Race Groups Differs," U.S. Census Bureau, 6/20/2019, https://www.census.gov/newsroom/press-releases/2019/estimates-characteristics.html, accessed 9/24/2020.

[155] "COVID-19 Response Plan," OEM, VHA, 3/23/2020.

[156] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 4-10, 2020," VHA, accessed 7/15/2020.

[157] VHA COVID-19 Historical Action Log, VHA, 5/14/2020.

[158] "Disaster Emergency Medical Personnel System (DEMPS)," VA, updated 7/20/2020, https://www.va.gov/VHAEMERGENCYMANAGEMENT/CEMP/CEMP_DEMPS.asp, accessed 9/23/2020.

[159] For more information on ESF and ESF #8 see "ESF 8 – Public Health and Medical Services," Public Health Emergency, U.S. Department of Health and Human Services (HHS), updated 6/11/2019, https://www.phe.gov/Preparedness/support/esf8/Pages/default.aspx#8.

[160] "FORTS Fold-Out Shelters," FORTS USA, https://fortsusa.com/about-forts/, accessed 7/22/2020; Note: FORTS is the brand name for portable fold-out shelters.

[161] VHA COVID-19 Historical Action Log, VHA, 5/14/2020; Response to Vetting Draft, VHA, 9/10/2020.

[162] "Proof of Concept," VHA OEM, 5/13/2020; Response to Vetting Draft, VHA, 9/10/2020.

[163] "Proof of Concept," VHA OEM, 5/13/2020.

[164] *Ibid.*

[165] "Alternate Care Site," VHA, 5/13/2020.

[166] "Disaster Response During a Pandemic," VHA, 6/1/2020.

[167] "Disaster Response During a Pandemic," VA, 6/3/2020.

[168] "Disaster Response During a Pandemic," VHA, 6/1/2020.

[169] *Ibid.*

[170] *Ibid.*

[171] “Disaster Response During a Pandemic,” VHA, 6/1/2020.

[172] *Ibid.*

[173] *Ibid.*

[174] *Ibid.*

[175] *Ibid.*

[176] *Ibid.*

[177] *Ibid.*

[178] "President Donald J. Trump Amends Emergency Declarations for Louisiana and Texas," Federal Emergency Management Agency (FEMA), 8/25/2020, https://www.fema.gov/press-release/20200826/president-donald-j-trump-amends-emergency-declarations-louisiana-and-texas, accessed 9/24/2020.

[179] “Disaster Response During a Pandemic,” VHA, 6/1/2020.

[180] *Ibid.*

[181] *Ibid.*

[182] *Ibid.*

[183] *Ibid.*

[184] *Ibid.*

[185] “VHA Considerations for Sheltering and Mass Care During a Pandemic,” VHA, 7/31/2020.

[186] *Ibid.*

[187] *Ibid.*

[188] *Ibid.*

[189] *Ibid.*

[190] *Ibid.*

[191] Response to Vetting Draft, VHA, 9/23/2020.

[192] Response to Vetting Draft, HOC, VHA, 9/14/2020.

[193] “COVID-19 Response Responsibility Matrix, Version 1,” VHA, last updated 5/7/2020.

[194] Response to Vetting Draft, VHA, 9/9/2020.

[195] "COVID-19 Response Plan," OEM, VHA, 3/23/2020; "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 20-26, 2020," VHA, accessed 7/15/2020.

[196] “CMS Releases Recommendations on Adult Elective Surgeries, Non-Essential Medical, Surgical, and Dental Procedures During COVID-19 Response,” CMS, 3/18/2020, https://www.cms.gov/newsroom/press-releases/cms-releases-recommendations-adult-elective-surgeries-non-essential-medical-surgical-and-dental, accessed 10/12/2020.

[197] “Appointment Management During the COVID-19 Pandemic,” OIG, 9/1/2020.

[198] “Appointment Management During the COVID-19 Pandemic,” OIG, 9/1/2020.

[199] *Ibid.*

[200] Response to Vetting Draft, Office of Community Care, VHA, 9/11/2020.

[201] “COVID-19 VHA Update Briefing,” VHA, 4/8/2020.

[202] Veterans Contact Center Dashboard, VHA, accessed 8/10/2020.

[203] "Summary for Healthcare Facilities: Strategies for Optimizing the Supply of PPE during Shortages," CDC, updated 7/16/2020, https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/strategies-optimize-ppe-shortages.html, accessed 8/12/2020.

[204] *Ibid.*

[205] "Summary for Healthcare Facilities: Strategies for Optimizing the Supply of PPE during Shortages," CDC, updated 7/16/2020, https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/strategies-optimize-ppe-shortages.html, accessed 8/12/2020; "Strategies for Optimizing the Supply of Isolation Gowns," CDC, updated 3/17/2020, https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/isolation-gowns.html, accessed 8/12/2020.

[206] Response to Vetting Draft, VHA, 9/15/2020.

[207] *Ibid.*

[208] *Ibid.*

[209] “PPE and Isolation for PUI for COVID-19,” VHA, 2/22/2020; “PPE at a Glance: Patients with Respiratory Symptoms and/or Fever,” VHA, 2/24/2020.

[210] "Summary for Healthcare Facilities: Strategies for Optimizing the Supply of PPE during Shortages," CDC, updated 7/16/2020, https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/strategies-optimize-ppe-shortages.html, accessed 8/12/2020; Note: the CDC framework also provides guidance on reducing need for PPE, for example limiting encounters and utilizing telemedicine when possible.

[211] “Coronavirus (COVID-19) Protection,” VA, 3/2/2020.

[212] "Coronavirus (COVID-19) Personal Protective Equipment (PPE) Use," VA, 3/15/2020; "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 9-15, 2020," VHA, accessed 7/15/2020.

[213] *Ibid.*

[214] "Coronavirus (COVID-19)–Guidance for Elective Procedures," VA, 3/15/2020; "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 16-22, 2020," VHA, accessed 7/15/2020.

[215] "Guidance to Avoid All Routine or Non-urgent Face to Face Visits," VA, 3/31/2020; "Coronavirus (COVID-19) – Process for Cancellation of Non-urgent Operating Room Procedures," VA, 3/31/2020; "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 30 - April 5, 2020," VHA, accessed 7/15/2020.

[216] “Updated: Coronavirus (COVID-19) Facemask and N95 Respirator Use,” VA, 4/7/2020.

[217] “Update: Coronavirus (COVID-19) Return to a Contingency strategy for Facemask and N95 Respirator Use,” VA, 4/16/2020.

[218] *Ibid.*

[219] “Update: Coronavirus (COVID-19) Return to a Contingency strategy for Facemask and N95 Respirator Use,” VA, 4/16/2020.

[220] “Update: Coronavirus (COVID-19) Mask Use in VHA Facilities,” VA, 5/1/2020.

[221] “Types of Respirators and Masks Available in the Health Care Setting for COVID-19,” VHA, updated 5/14/2020.

[222] "VHA's HRO journey officially begins," VA, 3/29/2019, https://www.patientsafety.va.gov/features/VHA_s_HRO_journey_officially_begins.asp, accessed 8/22/2020.

[223] “Hospital Credentialing and Privileging FAQs,” AAFP, https://www.aafp.org/family-physician/practice-and-career/managing-your-career/scope-of-practice/privileging-and-credentialing/faq.html, accessed 9/1/2020.

[224] “Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 9-15, 2020,” VHA, accessed 7/15/2020.

[225] "Coronavirus (COVID-19) Community Living Centers," VA, 3/17/2020; "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 9-15, 2020," VHA, accessed 7/15/2020.

[226] “COVID-19 Guidance for the VA Spinal Cord Injuries and Disorders (SCI/D) Centers,” VA, 3/10/2020.

[227] “Coronavirus (COVID-19) Community Living Center (CLC) and Spinal Cord Injury and Disorder Unit (SCI/D) Veteran and Staff Testing,” VA, 4/14/2020.

[228] *Ibid.*

[229] “Daily Leadership Briefing,” VHA, 4/17/2020; “Daily Leadership Briefing,” VHA, 4/24/2020.

[230] “Daily Leadership Briefing,” VHA, 6/30/2020.

[231] “Daily Leadership Briefing,” VHA, 4/30/2020.

[232] *Ibid.*

[233] “Daily Leadership Briefing,” VHA, 6/30/2020.

[234] *Ibid.*

[235] “Keeping the Momentum of Positive Change: Leveraging Gains for the Long Haul in COVID-19,” OMHSP, 6/29/2020.

[236] “Keeping the Momentum of Positive Change: Leveraging Gains for the Long Haul in COVID-19,” OMHSP, 6/29/2020; relates to all Veterans, not just Veterans using VHA services.

[237] “Keeping the Momentum of Positive Change: Leveraging Gains for the Long Haul in COVID-19,” OMHSP, 6/29/2020.

[238] *Ibid.*

[239] *Ibid.*

[240] *Ibid.*

[241] "Keeping the Momentum of Positive Change: Leveraging Gains for the Long Haul in COVID-19," OMHSP, 6/29/2020; "Cognitive Behavioral Therapy - Depression (CBT-D)," VA, updated 12/17/2019, https://www.mentalhealth.va.gov/depression/cbt-d.asp, accessed 10/2/2020.

[242] "Prevents - Task Force Ongoing Efforts," VHA, 7/24/2020.

[243] *Ibid.*

[244] *Ibid.*

[245] *Ibid.*

[246] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: March 9-15, 2020," VHA, accessed 7/15/2020.

[247] "Continuity in Mental Health Services and Suicide Prevention Activities During COVID-19," VA, 3/21/2020.

[248] "Prevents - Task Force Ongoing Efforts," VHA, 7/24/2020; PREVENTS is the President's Task Force to Empower Veterans and End the National Tragedy of Suicide; To learn more see: "PREVENTS," VA, 5/28/2020, https://www.va.gov/PREVENTS/index.asp.

[249] "Continuity in Mental Health Services and Suicide Prevention Activities During Coronavirus (COVID-19): Suicide Prevention Population Risk Identification and Tracking for Exigencies (SPPRITE), Somatic Treatments, Inpatient Mental Health Care," VA, 4/13/2020.

[250] "Continuity in Mental Health Services and Suicide Prevention Activities During COVID-19," VA, 4/6/2020.

[251] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: April 27 - May 3, 2020," VHA, accessed 7/15/2020.

[252] "Keeping the Momentum of Positive Change: Leveraging Gains for the Long Haul in COVID-19," OMHSP, 6/29/2020.

[253] "Office of Rural Health," VA, updated 7/13/2020, https://www.ruralhealth.va.gov/aboutus/index.asp, accessed 9/4/2020.

[254] *Ibid.*

[255] Sanjeev Arora, Karla Thornton, Steven M. Jenkusky, Brooke Parish, and Joseph V. Scaletti, "Project ECHO: Linking University Specialists with Rural and Prison-Based Clinicians to Improve Care for People with Chronic Hepatitis C in New Mexico," Public Health Reports, no. 122(Suppl 2) (2007): 74–77, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1831800/, accessed 10/14/2020.

[256] Sanjeev Arora and Karla Thornton, "Novel Models of Hepatitis C Virus Care Delivery: Telemedicine, Project ECHO, and Integrative Care," Clinical Liver Disease (Hoboken) 16, no. 1 (2020): 5–7, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7373769/, accessed 10/14/2020.

[257] "Rural Health COVID-19 Decision Support Tool Quick Sheet," VHA, 7/9/2020.

[258] "Rural Health COVID-19 Decision Support Tool Quick Sheet," VHA, 7/9/2020; "Office of Rural Health Organizational Chart," VHA, 7/10/2020.

[259] "VHA Health Equity Action Plan," VHA OHE, 9/27/2019.

[260] "VHA Health Equity Action Plan," VHA OHE, 9/27/2019.

[261] “VHA Health Equity Action Plan,” VHA OHE, 9/27/2019.

[262] Note: Testing is conducted for the presence of SARS-CoV-2, which is the virus that causes the COVID-19 disease; For simplicity, we simply refer to COVID-19 testing.

[263] Sarah Mervosh, Manny Fernandez, "Months Into Virus Crisis, U.S. Cities Still Lack Testing Capacity," The New York Times, updated 7/15/2020, https://www.nytimes.com/2020/07/06/us/coronavirus-test-shortage.html, accessed 10/2/2020.

[264] “Coronavirus Disease 2019 (COVID-19) Response Historical Report: February 10-16, 2020,” VHA, accessed 7/15/2020.

[265] “Coronavirus (COVID-19): Prioritizing Testing to Maximize Value to the Pandemic Response,” VA, 4/9/2020.

[266] *Ibid.*

[267] *Ibid.*

[268] “Coronavirus (COVID-19) Community Living Center (CLC) and Spinal Cord Injury and Disorder Unit (SCI/D) Veteran and Staff Testing,” VA, 4/14/2020.

[269] “Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 11-17, 2020,” VHA, accessed 7/15/2020.

[270] "What is Telehealth?," VA, https://telehealth.va.gov/what-telehealth, accessed 9/2/2020; "VA Secure Messaging," VA, https://www.va.gov/health-care/secure-messaging/, accessed 9/4/2020.

[271] Telehealth Cube Dataset, VSSC, VHA, accessed 7/30/2020; Encounters Cube Dataset, VSSC, VHA, accessed 7/30/2020; Appointment Cube Dataset, VSSC, VHA, accessed 7/30/2020.

[272] *Ibid.*

[273] Response to Vetting Draft, Office of Human Capital, VHA, 9/11/2020.

[274] *Ibid.*

[275] “Waiver of the Biweekly Pay Limitation - Coronavirus Disease (COVID-19),” VA, 3/16/2020.

[276] “Delegated Authority to Waive Salary Offset - Novel Coronavirus Disease (COVID-19) National Emergency,” VA, 3/23/2020.

[277] “Waiver of the Exclusion of Temporary Appointments to Receive Recruitment, Relocation and Retention Incentives During the COVID-19 Pandemic,” VA Office of the Chief Human Capital Officer (OCHCO), 4/1/2020.

[278] "Increase in Annual Hour Limitation for Part-Time/Intermittent Title 38 Registered Nurses/Advanced Practice Nurses, Certified Registered Nurse Anesthetists and Physician Assistants," VA Office of the Under Secretary for Health, 4/20/2020.

[279] Note: Onboarding is defined as the time from the offer date to the start date, which is a subset of the overall time to hire; Time to hire starts with the date when the need to fill a position is recognized until the start date.

[280] Response to Vetting Draft, Office of Human Capital, VHA, 9/11/2020.

[281] VHA Time to Hire SharePoint - August 1, 2020, Workforce Management and Consulting, VHA, accessed 9/14/2020.

[282] Response to Vetting Draft, Office of Human Capital, VHA, 9/11/2020.

[283] *Ibid.*

[284] *Ibid.*

[285] “Emergent Credentialing and Privileging to Address COVID-19 Needs,” VA, 3/17/2020.

[286] “Credentialing and Privileging,” VHA, 10/15/2012, https://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=2910, accessed 8/10/2020, accessed 8/10/2020.

[287] *Ibid.*

[288] *Ibid.*

[289] “Emergent Credentialing and Privileging to Address COVID-19 Needs,” VA, 3/17/2020.

[290] *Ibid.*

[291] “Remote/Virtual Verification of Employment Eligibility Verification (Form I-9) and Oath of Office Due to COVID-19,” OCHCO, 3/20/2020.

[292] "VHA Approved Direct Hire Authority in Response to COVID-19," VA, 3/30/2020; "VHA Approved Direct Hire Authority in Response to COVID-19," VA, 4/13/2020; "VHA Approved Direct Hire Authority in Response to COVID-19," VA, 5/19/2020; "VHA Approved Direct Hire Authority in Response to COVID-19," VA, 5/28/2020.

[293] "Temporary Authorization to Delay Pre-Placement and Recurring Physical Examinations," OCHCO, 3/24/2020; "Temporary Authorization to Delay Pre-Placement and Recurring Physical Examinations," OCHCO, 4/28/2020; "COVID-19 VHA Guidance for Tuberculosis Testing of New Employees," VA Office of the Under Secretary for Health, 4/6/2020.

[294] “Temporary Postponement of Applicant Drug Testing during COVID-19 Pandemic,” OCHCO, 3/25/2020.

[295] “Temporary Procedures for Personnel Vetting and Appointment of New Employees during Maximum Telework Period due to Coronavirus COVID-19,” OPM, 3/25/2020.

[296] “Emergency Leave Provisions of the Families First Coronavirus Response Act (FFCRA),” VA Office of the Under Secretary for Health, 5/18/2020.

[297] “Authority to Approve Weather & Safety Leave for Employees Affected by COVID-19,” VA Office of the Under Secretary for Health, 5/13/2020.

[298] “Emergency Leave Provisions of the Families First Coronavirus Response Act (FFCRA),” VA Office of the Under Secretary for Health, 5/18/2020.

[299] Rapid COVID-19 Database, VHA, accessed 7/28/2020; HR Employee Cube, VSSC, VHA, accessed on 8/3/2020.

[300] *Ibid.*

[301] *Ibid.*

[302] Response to Vetting Draft, Office of Human Capital, VHA, 9/11/2020.

[303] "COVID-19 Response Plan: Incident-specific Annex to the VHA High Consequence Infection Base Plan," VHA, 6/19/2020.

[304] *Ibid.*

[305] *Ibid.*

[306] *Ibid.*

[307] *Ibid.*

[308] *Ibid.*

[309] *Ibid.*

[310] *Ibid.*

[311] "COVID-19 Employee Support Toolkit: Care Carts", VHA SharePoint, accessed 10/14/2020.

[312] Donna Stratford, "National Surveillance Tool assesses readiness across VA's health system," VA, 5/21/2020, https://www.blogs.va.gov/VAntage/tag/national-surveillance-tool/, accessed 8/19/2020; "National Surveillance Tool," VA, 4/12/2020.

[313] *Ibid.*

[314] *Ibid.*

[315] "National Surveillance Tool," VA, 4/12/2020.

[316] "White House Forum on Antibiotic Stewardship Convenes Government and Private Sector Leaders Committed to Improving Antibiotic Prescribing," Obama White House, 6/3/2015, https://obamawhitehouse.archives.gov/blog/2015/06/03/white-house-forum-antibiotic-stewardship-convenes-government-and-private-sector-lead, accessed 9/24/2020.

[317] "BASIC Tools on IPEC: Dashboards to support infection control and antimicrobial stewardship," VHA, https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/3639-notes.pdf, accessed 9/1/2020.

[318] "National Surveillance Tool for VHA COVID-19 Operations," VA, 4/17/2020.

[319] "VA Informatics and Computing Infrastructure (VINCI)," VA, updated 6/26/2018, https://www.hsrd.research.va.gov/for_researchers/vinci/, accessed 8/29/2020.

[320] *Ibid.*

[321] "DOE and VA Team Up to Improve Healthcare for Veterans," Department of Energy, 5/18/2017, https://www.energy.gov/articles/doe-and-va-team-improve-healthcare-veterans, accessed 9/1/2020; "National Surveillance Tool," VA, 4/12/2020.

[322] "DOE and VA Team Up to Improve Healthcare for Veterans," Department of Energy, 5/18/2017, https://www.energy.gov/articles/doe-and-va-team-improve-healthcare-veterans, accessed 9/1/2020.

[323] *Ibid.*

[324] "National Surveillance Tool," VA, 4/12/2020.

[325] *Ibid.*

[326] "National Surveillance Tool," VA, 4/12/2020.

[327] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[328] *Ibid.*

[329] *Ibid.*

[330] *Ibid.*

[331] *Ibid.*

[332] *Ibid.*

[333] *Ibid.*

[334] *Ibid.*

[335] *Ibid.*

[336] *Ibid.*

[337] *Ibid.*

[338] *Ibid.*

[339] *Ibid.*

[340] *Ibid.*

[341] *Ibid.*

[342] *Ibid.*

[343] *Ibid.*

[344] *Ibid.*

[345] *Ibid.*

[346] *Ibid.*

[347] *Ibid.*

[348] *Ibid.*

[349] *Ibid.*

[350] *Ibid.*

[351] *Ibid.*

[352] *Ibid.*

[353] *Ibid.*

[354] *Ibid.*

[355] *Ibid.*

[356] *Ibid.*

[357] *Ibid.*

[358] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[359] Response to Data Call, Medical Supply Program Office, VHA on 8/20/2020.

[360] Daily Operations Briefing slides, HOC, VHA, March to June 2020.

[361] Daily Operations Briefing slides, HOC, VHA, April 2020.

[362] Multiple VISN Data Submissions; See VISN 15 and 16 Summaries.

[363] Response to Data Call, Medical Supply Program Office, VHA on 8/20/2020.

[364] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[365] *Ibid.*

[366] *Ibid.*

[367] *Ibid.*

[368] *Ibid.*

[369] *Ibid.*

[370] *Ibid.*

[371] “COVID-19 Response Plan,” OEM, VHA, 3/23/2020.

[372] *Ibid.*

[373] *Ibid.*

[374] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[375] *Ibid.*

[376] *Ibid.*

[377] *Ibid.*

[378] *Ibid.*

[379] *Ibid.*

[380] *Ibid.*

[381] "Veterans Health Administration COVID-19 Bed Expansion Integrated Project Team Summary and Readiness Plan," March 2020, VA, accessed 5/28/2020.

[382] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[383] *Ibid.*

[384] *Ibid.*

[385] "VHA COVID-19 Surge Planning Toolkit," 4/2/2020, VHA, updated 4/30/2020.

[386] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[387] *Ibid.*

[388] "Engineering Controls to Reduce Airborne, Droplet and Contact Exposures During Epidemic/Pandemic Response," CDC, 4/2/2020, https://www.cdc.gov/niosh/topics/healthcare/engcontrolsolutions/expedient-patient-isolation.html, accessed 10/2/2020.

[389] *Ibid.*

[390] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[391] *Ibid.*

[392] *Ibid.*

[393] *Ibid.*

[394] *Ibid.*

[395] *Ibid.*

[396] *Ibid.*

[397] *Ibid.*

[398] *Ibid.*

[399] *Ibid.*

[400] *Ibid.*

[401] *Ibid.*

[402] *Ibid.*

[403] *Ibid.*

[404] *Ibid.*

[405] *Ibid.*

[406] *Ibid.*

[407] *Ibid.*

[408] *Ibid.*

[409] *Ibid.*

[410] Response to Vetting Draft, VHA Innovation Office, 9/23/2020.

[411] *Ibid.*

[412] *Ibid.*

[413] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[414] *Ibid.*

[415] *Ibid.*

[416] *Ibid.*

[417] *Ibid.*

[418] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[419] Response to Vetting Draft, Office of AUSH-S, VHA, 9/23/2020.

[420] *Ibid.*

[421] *Ibid.*

[422] *Ibid.*

[423] *Ibid.*

[424] *Ibid.*

[425] *Ibid.*

[426] *Ibid.*

[427] *Ibid.*

[428] *Ibid.*

[429] *Ibid.*

[430] "Veterans Health Administration COVID-19 Bed Expansion Integrated Project Team Summary and Readiness Plan," VA, 5/28/2020.

[431] *Ibid.*

[432] *Ibid.*

[433] Response to Vetting Draft, VHA, 9/11/2020.

[434] "Veterans Health Administration COVID-19 Bed Expansion Integrated Project Team Summary and Readiness Plan," VA, 5/28/2020.

[435] *Ibid.*

[436] *Ibid.*

[437] *Ibid.*

[438] *Ibid.*

[439] *Ibid.*

[440] *Ibid.*

[441] *Ibid.*

[442] "VHA COVID-19 Surge Planning Toolkit: Surge Guidance on Space and Engineering," VHA, updated 4/30/2020.

[443] "VHA COVID-19 Surge Planning Toolkit: Surge Guidance on Supplies," VHA, updated 4/30/2020.

[444] Daily Operations Briefing slides, HOC, VHA, March to June 2020.

[445] Daily Operations Briefing slides, HOC, VHA, April 2020.

[446] Response to VISN Data Calls, July to August 2020; See VISN 15 and 16 Summaries.

[447] "VHA COVID-19 Surge Planning Toolkit: Surge Guidance on Staff," VHA, updated 4/30/2020.

[448] Based on input from VHA on 9/11/2020.

[449] Veterans Health Administration COVID-19 Bed Expansion Integrated Project Team Summary and Readiness Plan, VA, 5/28/2020.

[450] *Ibid.*

[451] "Review of Veterans Health Administration's COVID-19 Response and Continued Pandemic Readiness," Department of Veterans Affairs Office of the Inspector General, 7/16/2020, https://www.va.gov/oig/pubs/vaoig-20-03076-217.pdf, accessed 9/22/2020.

[452] *Ibid.*

[453] "Vanguard: September/October 2005," VA, https://www.va.gov/opa/publications/archives/vanguard/05sepoctvg.pdf, accessed 9/22/2020; "Homeland Security: Need to Consider VA's Role in Strengthening Federal Preparedness," United States General Accounting Office, 10/15/2001, https://www.gao.gov/new.items/d02145t.pdf, accessed 9/22/2020.

[454] "VA announces 'Fourth Mission,' actions to help America respond to COVID-19," VA, 4/14/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5420, accessed 9/22/2020.

[455] "Disaster Relief Act of 1974," Homeland Security Digital Library, https://www.hsdl.org/c/tl/disaster-relief-act-1974/, accessed 9/22/2020.

[456] "Executive Order 12127 -- Federal Emergency Management Agency," Federation of American Scientists Intelligence Resource Program, https://fas.org/irp/offdocs/eo/eo-12127.htm, accessed 10/14/2020.

[457] "Stafford Act," FEMA, updated 7/15/2020, https://www.fema.gov/disasters/stafford-act, accessed 9/22/2020.

[458] *Ibid.*

[459] *Ibid.*

[460] *Ibid.*

[461] *Ibid.*

[462] "Letter from President Donald J. Trump on Emergency Determination Under the Stafford Act," White House, 3/13/2020, https://www.whitehouse.gov/briefings-statements/letter-president-donald-j-trump-emergency-determination-stafford-act/, accessed 9/23/2020; "Remarks by President Trump, Vice President Pence, and Members of the Coronavirus Task Force in Press Briefing," White House, 3/18/2020, https://www.whitehouse.gov/briefings-statements/remarks-president-trump-vice-president-pence-members-coronavirus-task-force-press-briefing-5/, accessed 9/23/2020.

[463] Justine Coleman, "All 50 states under disaster declaration for first time in US history," The Hill, 4/12/20, https://thehill.com/policy/healthcare/public-global-health/492433-all-50-states-under-disaster-declaration-for-first, accessed 9/22/20; VAntage Point Blog, "Secretary: VA Starting to execute fourth mission," VA, 4/2/2020, https://www.blogs.va.gov/VAntage/73117/secretary-va-starting-to-execute-fourth-mission/, accessed 9/22/2020.

[464] "VA announces 'Fourth Mission,' actions to help America respond to COVID-19," VA, 4/14/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5420, accessed 9/22/2020; "DoD Response Timeline," U.S. Department of Defense (DOD), updated 9/22/2020, https://www.defense.gov/Explore/Spotlight/Coronavirus/DOD-Response-Timeline/, accessed 9/22/2020.

[465] "Secretary: VA Starting to execute fourth mission," VA, 4/2/2020, https://www.blogs.va.gov/VAntage/73117/secretary-va-starting-to-execute-fourth-mission/, accessed 9/22/2020.

[466] "VA announces 'Fourth Mission,' actions to help America respond to COVID-19," VA, 4/14/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5420, accessed 9/22/2020.

[467] *Ibid.*

[468] *Ibid.*

[469] *Ibid.*

[470] *Ibid.*

[471] *Ibid.*

[472] "VA Fourth Mission Summary," VA, updated 9/18/2020, https://www.va.gov/health/coronavirus /statesupport.asp, accessed 9/22/2020.

[473] "Daily Leadership Briefing," VHA, 6/30/2020.

[474] *Ibid.*

[475] "VA announces 'Fourth Mission,' actions to help America respond to COVID-19," VA, 4/14/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5420, accessed 9/22/2020.

[476] "Disaster Emergency Medical Personnel System (DEMPS) Data," VHA, 7/28/2020, received 8/18/2020.

[477] "State Veterans Homes," VA, updated 1/30/2020, https://www.va.gov/geriatrics/pages/State_Veterans_Homes.asp, accessed 9/22/2020.

[478] Derrick Smith, "BVAHCS Nurses Go Above During Nurses Week," VA, 5/8/2020, https://www.birmingham.va.gov/features/BVAHCS_Nurses_Go_Above_During_Nurses_Week.asp, accessed 9/22/2020.

[479] "Disaster Emergency Medical Personnel System (DEMPS) Data," VHA, 7/28/2020, received 8/18/2020.

[480] Derrick Smith, "BVAHCS Nurses Go Above During Nurses Week," VA, 5/8/2020, https://www.birmingham.va.gov/features/BVAHCS_Nurses_Go_Above_During_Nurses_Week.asp, accessed 9/22/2020.

[481] "Disaster Emergency Medical Personnel System (DEMPS) Data," VHA, 7/28/2020, received 8/18/2020.

[482] *Ibid.*

[483] Response to Data Call, VISN 21, VHA, 8/11/2020; Response to Data Call, VISN 21, VHA, 9/4/2020.

[484] "Disaster Emergency Medical Personnel System (DEMPS) Data," VHA, 7/28/2020, received 8/18/2020.

[485] "VA announces 'Fourth Mission,' actions to help America respond to COVID-19," VA, 4/14/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5420, accessed 9/22/2020.

[486] “VA Fourth Mission Summary,” VA, updated 9/18/2020, https://www.va.gov/health/coronavirus/statesupport.asp, accessed 9/22/2020.

[487] *Ibid.*

[488] "VA Fourth Mission Summary," VA, updated 9/18/2020, https://www.va.gov/health/coronavirus/statesupport.asp, accessed 9/22/2020; Response to Data Call, VISN 16, VHA, 7/21/2020.

[489] “VA Fourth Mission Summary,” VA, updated 9/18/2020, https://www.va.gov/health/coronavirus/statesupport.asp, accessed 9/22/2020.

[490] *Ibid.*

[491] *Ibid.*

[492] *Ibid.*

[493] “The COVID-19 VHA Rapid and Agile Response to State Veteran Homes and Community Nursing Homes: Listening Sessions and Lessons-Learned Report,” VHA, 7/6/2020, accessed 7/16/2020.

[494] Listening Sessions with Staff Deployed to State Veterans Homes & Community Nursing Homes conducted on 6/3/2020 – 6/10/2020, VHA.

[495] “The COVID-19 VHA Rapid and Agile Response to State Veteran Homes and Community Nursing Homes: Listening Sessions and Lessons-Learned Report,” VHA, 7/6/2020, accessed 7/16/2020.

[496] *Ibid.*

[497] *Ibid.*

[498] Listening Sessions with Staff Deployed to State Veterans Homes & Community Nursing Homes conducted on 6/3/2020 – 6/10/2020, VHA.

[499] *Ibid.*

[500] *Ibid.*

[501] *Ibid.*

[502] *Ibid.*

[503] *Ibid.*

[504] *Ibid.*

[505] *Ibid.*

[506] *Ibid.*

[507] *Ibid.*

[508] *Ibid.*

[509] *Ibid.*

[510] *Ibid.*

[511] *Ibid.*

[512] "The COVID-19 VHA Rapid and Agile Response to State Veteran Homes and Community Nursing Homes: Listening Sessions and Lessons-Learned Report," VHA, 7/6/2020, accessed 7/16/2020.

[513] "VA research during the COVID-19 pandemic," VA, Office of Research & Development (ORD), updated 9/28/2020, https://www.research.va.gov/covid-19.cfm, accessed 8/28/2020; Response to Vetting Draft, ORD, VHA, 9/28/2020.

[514] "ORD COVID-19 Update," VA National Research Advisory Council (NRAC), 6/3/2020.

[515] *Ibid.*

[516] "Charter of the National Research Advisory Council," VA, 5/14/2019, https://www.va.gov/ADVISORY/docs/Charter-NRACMay2019.pdf, accessed 8/31/2020.

[517] Response to Vetting Draft, ORD, VHA, 9/23/2020.

[518] "ORD COVID-19 Update," NRAC, 6/3/2020.

[519] "ORD COVID-19 Update," ORD, VHA, 6/29/2020.

[520] Response to Vetting Draft, ORD, VHA, 9/28/2020.

[521] "ORD COVID-19 Update," ORD, VHA, 7/14/2020.

[522] *Ibid.*

[523] *Ibid.*

[524] "ORD COVID-19 Update," ORD, VHA, 6/29/2020; "ORD COVID-19 Update," ORD, VHA, 7/14/2020.

[525] "ORD COVID-19 Update," ORD, 7/14/2020; Response to Vetting Draft, ORD, VHA, 9/23/2020.

[526] "ORD COVID-19 Update NRAC," VHA, 6/3/2020; "ORD COVID-19 Update – June 29, 2020," VHA, 6/29/2020; "ORD COVID-19 Update – July 14, 2020," VHA, 7/14/2020; Response to Vetting Draft, ORD, VHA, 9/28/2020.

[527] Response to Vetting Draft, ORD, VHA, 9/28/2020.

[528] "ORD COVID-19 Check-in," NRAC, 7/9/2020.

[529] "ORD COVID-19 Update," NRAC, 6/3/2020; "ORD COVID-19 Update," ORD, VHA, 6/29/2020; "ORD COVID-19 Update," ORD, VHA, 7/6/2020.

[530] "VA research during the COVID-19 pandemic," VA, ORD, updated 9/28/2020, https://www.research.va.gov/covid-19.cfm, accessed 9/4/2020.

[531] *Ibid.*

[532] "Computer Matching Agreement Between the Department of Veterans Affairs and the Department Of Health and Human Services Centers For Medicare & Medicaid Services," 11/1/2019, U.S. Department of Health and Human Services (HHS), https://www.hhs.gov/sites/default/files/cms-va-cma-1905.pdf, accessed 9/4/2020.

[533] "VA Informatics and Computing Infrastructure (VINCI)," VHA, updated 6/26/2018, https://www.hsrd.research.va.gov/for_researchers/vinci/default.cfm, accessed 9/4/2020; "VINCI Objectives," VHA, 6/26/2018, https://www.hsrd.research.va.gov/for_researchers/vinci/objectives.cfm, accessed 9/4/2020.

[534] “Million Veteran Program (MVP),” updated 9/23/2020, VHA, https://www.research.va.gov/mvp, accessed 8/14/2020.

[535] “ORD COVID-19 Update,” ORD, VHA 7/6/2020.

[536] Response to Vetting Draft, ORD, VHA, 9/28/2020.

[537] *Ibid.*

[538] *Ibid.*

[539] “ORD COVID-19 Update,” ORD, VHA, 7/6/2020.

[540] Response to Vetting Draft, ORD, VHA, 9/28/2020.

[541] *Ibid.*

[542] Response to Vetting Draft, ORD, VHA, 9/23/2020.

[543] EOM June Spend Plan, Veterans Health Administration, 7/9/2020; "Coronavirus Aid, Relief, and Economic Security Act or the CARES Act," U.S. Congress, 3/27/2020, https://www.congress.gov/bill/116th-congress/house-bill/748?q=%7B%22search%22%3A%5B%22cite%3APL116-136%22%5D%7D&s=1&r=1, accessed 9/25/2020.

[544] Response to Vetting Draft, Financial Leadership, VHA, 9/17/2020.

[545] End of Month (EOM) June Spend Plan, VHA, 7/9/2020; Note: The U.S. Federal Government’s fiscal years start each year on October 1.

[546] EOM June Spend Plan, Veterans Health Administration, 7/9/2020.

[547] “Expanding Veteran Access to Care Through Virtual Technologies,” VA, https://connectedcare.va.gov/, accessed 9/5/2020.

[548] Response to Vetting Draft, Financial Leadership, VHA, 9/17/2020.

[549] *Ibid.*

[550] *Ibid.*

[551] “Coronavirus Aid, Relief, and Economic Security Act or the CARES Act,” U.S. Congress, 3/27/2020, https://www.congress.gov/bill/116th-congress/house-bill/748?q=%7B%22search%22%3A%5B%22cite%3APL116-136%22%5D%7D&s=1&r=1, accessed 9/25/2020.

[552] EOM June Spend Plan, VHA, 7/9/2020; "Coronavirus Aid, Relief, and Economic Security Act or the CARES Act," U.S. Congress, 3/27/2020, https://www.congress.gov/bill/116th-congress/house-bill/748?q=%7B%22search%22%3A%5B%22cite%3APL116-136%22%5D%7D&s=1&r=1, accessed 9/25/2020; Response to Vetting Draft, Financial Leadership, VHA, 9/17/2020.

[553] “Veterans Experiencing Homelessness,” VA, updated 12/6/2019, https://www.va.gov/homeless/hud-vash.asp, accessed 9/24/2020.

[554] “Coronavirus Aid, Relief, and Economic Security Act or the CARES Act,” U.S. Congress, 3/27/2020, https://www.congress.gov/bill/116th-congress/house-bill/748?q=%7B%22search%22%3A%5B%22cite%3APL116-136%22%5D%7D&s=1&r=1, accessed 9/25/2020.

[555] “COVID-19 Q&A,” VHA Office of Finance, 8/3/2020.

[556] “Updated FY20 COVID-19 Reimbursement Process,” VHA Office of Finance, 7/2/2020; “COVID-19 Q&A,” VHA Office of Finance, 8/3/2020.

[557] “Updated FY20 COVID-19 Reimbursement Process,” VHA Office of Finance, 7/2/2020.

[558] Response to Vetting Draft, Financial Leadership, VHA, 9/17/2020.

[559] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 4-10, 2020," VHA, accessed 7/15/2020.

[560] “Charting the Course: Maintaining Continuous Services to Veterans and Resuming Normal, Pre-COVID-19 Operations,” VA, 5/7/2020, https://www.va.gov/opa/docs/VA-Charting-the-Course-FINAL-05072020.pdf, accessed 8/28/2020.

[561] “VHA Moving Forward Plan: Safe Care is Our Mission,” VHA, https://www.va.gov/opa/docs/VA-Charting-the-Course-FINAL-05072020.pdf, accessed 8/28/2020.

[562] “VHA Moving Forward Plan: Safe Care is Our Mission," VHA, 4/30/2020, https://www.va.gov/covidtraining/docs/20200519InvasiveProcedures/20200509_Moving_Forward_Plan.pdf; Response to Vetting Draft, VHA, 9/3/2020; "Guidelines for Opening Up American Again," White House, 4/16/2020, https://www.whitehouse.gov/wp-content/uploads/2020/04/Guidelines-for-Opening-Up-America-Again.pdf, accessed 10/14/2020.

[563] “VHA Moving Forward Plan: Safe Care is Our Mission,” VHA, https://www.va.gov/opa/docs/VA-Charting-the-Course-FINAL-05072020.pdf, accessed 8/28/2020; VHA Response to Vetting Draft, 9/3/2020.

[564] *Ibid.*

[565] “VHA Moving Forward Plan: Safe Care is Our Mission,” VHA, https://www.va.gov/opa/docs/VA-Charting-the-Course-FINAL-05072020.pdf, accessed 8/28/2020.

[566] *Ibid.*

[567] *Ibid.*

[568] "Coronavirus Disease 2019 (COVID-19) Response Historical Report: May 18-24, 2020," VHA, accessed 7/15/2020; Derrick Bryson Taylor, “A Timeline of the Coronavirus Pandemic,” New York Times, updated 8/6/2020, https://www.nytimes.com/article/coronavirus-timeline.html, accessed 8/28/2020; Response to Vetting Draft, VHA, 9/3/2020.

[569] Derrick Bryson Taylor, “A Timeline of the Coronavirus Pandemic,” New York Times, updated 8/6/2020, https://www.nytimes.com/article/coronavirus-timeline.html, accessed 8/28/2020.

[570] “Guidance for Resumption of Procedures for Non-Urgent and Elective Indications,” VHA, 5/22/2020.

[571] “Guidance for Resumption of Procedures for Non-Urgent and Elective Indications,” VHA, 5/22/2020.

[572] “VHA Moving Forward Guidebook: Safe Care is Our Mission,” VHA, 6/9/2020, https://www.va.gov/covidtraining/docs/20200611MovingForward/VHA_Moving_Forward_Guidebook.pdf, accessed 8/28/2020.

[573] *Ibid.*

[574] *Ibid.*

[575] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/3/2020.

[576] “Veterans Health Administration: Regional Networks Need Improved Oversight and Clearly Defined Roles and Responsibilities,” Government Accountability Office (GAO), 6/19/2019, https://www.gao.gov/reports/GAO-19-462/, accessed 9/22/2020.

[577] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/18/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

“VISN 9: VA MidSouth Healthcare Network,” VA, updated 6/24/2019, https://www.va.gov/directory/guide/facility.asp?id=1009, accessed 9/22/2020.

[578] For examples, see VISN 2, 5, 6, 8, 9, 19 and 21 Summaries.

[579] For examples, see VISN 2, 8, 16, 17 and 21 Summaries.

[580] “VHA Office of Emergency Management,” VA, updated 6/22/2020, https://www.va.gov/vhaemergencymanagement/, accessed 9/23/2020.

[581] For examples, see VISN 17 Summary.

[582] For examples, see VISN 2, 8 and 17 Summaries.

[583] For examples, see VISN 2, 5, 9 and 16 Summaries.

[584] For examples, see VISN 2 and 16 Summaries.

[585] “VA Fourth Mission Summary,” VA, updated 9/18/2020, https://www.va.gov/health/coronavirus/statesupport.asp, accessed 9/22/2020.

[586] All VISNs; VISN 16 specifically with clinical care comment

[587] For examples, see VISN 2, 5, 6, 8, 16 and 21 Summaries.

[588] For examples, see VISN 8, 17 and 21 Summaries.

[589] For examples, see VISN 5, 6 and 19 Summaries.

[590] All VISNs; national tool wasn’t developed until May 2020.

[591] For examples, see VISN 5, 8, 16, 17 and 19 Summaries.

[592] For examples, see VISN 1, 6, 7, 10, 12, 15, 16, 17, 19, 20 and 21 Summaries.

[593] For examples, see VISN 4, 5, 7, 8, 9, 10, 16, 19, 20, 22 and 23 Summaries.

[594] For examples, see VISN 19 and 21 Summaries.

[595] For examples, see VISN 2, 4, 5, 6, 10, 12, 15, 16 and 22 Summaries.

[596] For examples, see VISN 1, 5, 16, 20 and 23 Summaries.

[597] For examples, see VISN 6 Summary.

[598] “About the VA New England Healthcare System,” VA, https://www.newengland.va.gov/about/index.asp, accessed 8/27/2020.

[599] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[600] "Governor Baker Declares State of Emergency to Support Commonwealth's Response to Coronavirus," Office of Governor Charlie Baker, 3/10/2020, https://www.mass.gov/news/governor-baker-declares-state-of-emergency-to-support-commonwealths-response-to-coronavirus, accessed 8/27/2020; "An order declaring a state of emergency due to Novel Coronavirus (COVID-19)," State of New Hampshire Office of the Governor, 3/13/2020, https://www.governor.nh.gov/sites/g/files/ehbemt336/files/documents/2020-04.pdf, accessed 8/27/2020; "Declaration of State of Emergency in Response to COVID-19 and National Guard Call-Out," State of Vermont Executive Department, 3/13/2020. https://governor.vermont.gov/sites/scott/files/documents/EO%2001-20%20Declaration%20of%20State%20of%20Emergency%20in%20Response%20to%20COVID-19%20and%20National%20Guard%20Call-Out.pdf, accessed 8/27/2020; "Declaration of Disaster Emergency," State of Rhode Island and Providence Plantations, 3/9/2020, https://governor.ri.gov/documents/orders/Executive-Order-20-02.pdf, accessed 8/27/2020; "Executive Order No. 7000," State of Connecticut, 8/21/2020, https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-7OOO.pdf, accessed 8/27/2020; "Proclamation to Renew the State of Civil Emergency," State of Maine, 5/13/2020, https://www.maine.gov/governor/mills/sites/maine.gov.governor.mills/files/inline-files/Proclamation%20to%20Renew%20the%20State%20of%20Civil%20Emergency%20%28Signed%20May%2013%2C%202020%29.pdf, accessed 8/27/2020.

[601] "Disaster Emergency Medical Personnel System (DEMPS) Data," VHA, updated 7/28/2020, accessed 8/18/2020.

[602] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[603] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[604] *Ibid.*

[605] *Ibid.*

[606] *Ibid.*

[607] *Ibid.*

[608] "COVID-19 Update - Key Markets," VA, 4/23/2020.

[609] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[610] *Ibid*

[611] *Ibid*

[612] *Ibid*

[613] "VA Fourth Mission Summary," VA, updated 9/18/2020, https://www.va.gov/health/coronavirus/statesupport.asp, accessed 9/22/2020.

[614] “VISN 2: New York/New Jersey VA Health Care Network,” VA, updated 8/26/2019, https://www.va.gov/directory/guide/facility.asp?id=1002, accessed 9/22/2020.

[615] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/8/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/8/2020.

[616] Ana S. Gonzalez-Reiche, Matthew M. Hernandez, Emilia Mia Sordillo, Viviana Simon, and Harm van Bakel, "Introductions and early spread of SARS-CoV-2 in the New York City area," Science 369, no. 6501 (2020): 297-301, https://science.sciencemag.org/content/369/6501/297, accessed 10/14/2020.

[617] “During Coronavirus Briefing, Governor Cuomo Signs $40 Million Emergency Management Authorization for Coronavirus Response,” Office of Governor Andrew Cuomo, 3/3/20, https://www.governor.ny.gov/news/during-coronavirus-briefing-governor-cuomo-signs-40-million-emergency-management-authorization, accessed 8/3/2020.

[618] “Governor Cuomo Confirms 13 Additional Coronaviruses Cases In New York State - Bringing Statewide Total to 89,” Office of Governor Andrew Cuomo, 3/7/2020, https://www.governor.ny.gov/news/governor-cuomo-confirms-13-additional-coronaviruses-cases-new-york-state-bringing-statewide, accessed 8/3/2020.

[619] “Coronavirus Data,” NYC Department of Health, https://github.com/nychealth/coronavirus-data/blob/master/case-hosp-death.csv/, accessed 8/20/2020.

[620] *Ibid.*

[621] Response to Vetting Draft, VISN 2, VHA, 8/31/2020.

[622] Response to Vetting Draft, VISN 2, VHA, 9/9/2020.

[623] *Ibid.*

[624] Response to Vetting Draft, VISN 2, VHA, 7/31/2020.

[625] “Impact of Opening and Closing Decisions by State: New Jersey,” Johns Hopkins University, https://coronavirus.jhu.edu/data/state-timeline/new-confirmed-cases/new-jersey.

[626] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[627] Response to Vetting Draft, VISN 2, VHA, 8/31/2020.

[628] Response to Vetting Draft, VISN 2, VHA, 8/31/2020.

[629] “Facility Listings,” VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/10/2020.

[630] NST Dataset, HOC, VHA, accessed 8/1/2020; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020; Issue Briefs, VHA, accessed 8/5/2020; HR Enrollment Cube, VSSC, VHA, accessed 8/3/2020.

[631] COVID-19 Data Repository by the Center for Systems Science and Engineering at Johns Hopkins University, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[632] "Proclamation of Disaster Emergency," Commonwealth of Pennsylvania Office of the Governor, 3/6/2020, https://www.governor.pa.gov/wp-content/uploads/2020/03/20200306-COVID19-Digital-Proclamation.pdf, accessed 8/10/2020.

[633] "COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University," Johns Hopkins University, https://github.com/"GISandData/COVID-19, accessed 9/23/2020.

[634] *Ibid.*

[635] *Ibid.*

[636] *Ibid.*

[637] "COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University," Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 9/23/2020; "Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2019," U.S. Census Bureau, https://www.census.gov/data/datasets/time-series/demo/popest/2010s-counties-total.html#par_textimage_70769902, accessed 7/27/2020.

[638] NST Dataset, HOC, VHA, accessed 8/1/2020.

[639] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[640] *Ibid.*

[641] *Ibid.*

[642] *Ibid.*

[643] Response to Data Call, VISN 4, VHA, 7/14/2020.

[644] *Ibid.*

[645] Telehealth Cube Dataset, VSSC, VHA, accessed 7/30/2020; Encounters Cube Dataset, VSSC, VHA, accessed 7/30/2020; Appointments Cube Dataset, VSSC, VHA, accessed 7/30/2020.

[646] 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/20.

[647] Response to Data Call, VISN 4, VHA, 7/14/2020.

[648] *Ibid.*

[649] *Ibid.*

[650] Response to Data Call, VISN 4, VHA, 7/14/2020.

[651] *Ibid.*

[652] *Ibid.*

[653] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[654] NST Dataset, HOC, VHA, accessed 8/1/2020.

[655] Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; "Daily Leadership Briefing," VHA, 7/1/2020.

[656] "VA Capitol Health Care Network," VA, updated 1/12/2018, https://www.va.gov/visn5/network.asp, accessed 9/23/2020.

[657] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/8/2020; "VA Community Living Center's (CLC) Facilities," VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/8/2020.

[658] "VA Capitol Health Care Network," VA, updated 1/12/2018, https://www.va.gov/visn5/network.asp, accessed 9/23/2020.

[659] "DC Department of Health Confirms First Coronavirus Case," Office of the Mayor, 3/7/20, https://mayor.dc.gov/release/dc-department-health-confirms-first-coronavirus-case, accessed 8/3/2020.

[660] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[661] Response to Vetting Draft, VISN 7, VHA, 9/4/2020.

[662] "COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University," Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 9/23/2020; "Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2019," U.S. Census Bureau, https://www.census.gov/data/datasets/time-series/demo/popest/2010s-counties-total.html#par_textimage_70769902, accessed 7/27/2020.

[663] *Ibid.*

[664] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/18/2020; "VA Community Living Center's (CLC) Facilities," VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020; "VA Rocky Mountain Network," VA, updated 2/12/2020, https://www.visn19.va.gov/about/, accessed 8/3/2020.

[665] "VA Mid-Atlantic Health Care Network," VA, updated 2/22/2019, https://www.visn6.va.gov/about/#:~:text=To manage the health care,%2C safety%2C efficiency and efficacy.&text=This region is one of,centric populations in the nation, accessed 9/23/2020.

[666] "North Carolina Identifies First Case of COVID-19," North Carolina Department of Health and Human Services, 3/3/2020, https://web.archive.org/web/20200407230739/https://www.ncdhhs.gov/news/press-releases/north-carolina-identifies-first-case-covid-19, accessed 8/3/2020.

[667] "New Confirmed Cases in Virginia," Johns Hopkins University, https://coronavirus.jhu.edu/data/state-timeline/new-confirmed-cases/virginia, accessed 8/3/2020.

[668] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[669] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 9/23/2020; "Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2019," U.S. Census Bureau, https://www.census.gov/data/datasets/time-series/demo/popest/2010s-counties-total.html#par_textimage_70769902, accessed 7/27/2020.

[670] “New Confirmed Cases in North Carolina,”, CDC, https://coronavirus.jhu.edu/data/new-cases-50-states/north-carolina, accessed 8/3/2020

[671] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[672] Response to Vetting Draft, VISN 7, VHA, 9/4/2020.

[673] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[674] "2020 Executive Orders," Governor Brian P. Kemp Office of the Governor, https://gov.georgia.gov/executive-action/executive-orders/2020-executive-orders, accessed 8/24/2020; "Executive Orders," South Carolina Office of the Governor Henry McMaster, https://governor.sc.gov/executive-branch/executive-orders, accessed 8/24/2020; "State of Emergency," The Office of Alabama Governor Kay Ivey, https://governor.alabama.gov/newsroom/category/state-of-emergency/, accessed 8/24/2020.

[675] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[676] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/10/2020; "COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University," Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[677] *Ibid.*

[678] NST Dataset, HOC, VHA, accessed 8/1/2020.

[679] *Ibid.*

[680] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[681] *Ibid.*

[682] *Ibid.*

[683] *Ibid.*

[684] HR Employee Cube dataset, VSSC, VHA, accessed 8/3/2020; HR Turnover Rate Cube dataset, VSSC, VHA, accessed 8/3/2020; HR Nature of Action Cube dataset, VSSC, VHA, accessed 8/5/2020.

[685]“VA Sunshine Healthcare Network,” VA, updated 5/27/2015, https://www.visn8.va.gov/aboutus.asp#:~:text=The VA Sunshine Healthcare Network,Puerto Rico and the Caribbean, accessed 8/18/20.

[686] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/18/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

[687] “Department of Health Announces Two Presumptive Positive COVID-19 Cases in Florida,” Florida Department of Health, 3/1/2020, http://www.floridahealth.gov/newsroom/2020/03/030120-two-presumptive-positive-covid19-cases.pr.html, accessed 8/3/2020.

[688] “Impact of Opening and Closing Decisions by State: Florida,” Johns Hopkins University, https://coronavirus.jhu.edu/data/state-timeline/new-confirmed-cases/florida, accessed 8/18/2020.

[689] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[690] *Ibid.*

[691] *Ibid.*

[692] *Ibid.*

[693] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/19/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

[694] “VISN 9: VA MidSouth Healthcare Network,” VA, updated 6/24/2019, https://www.va.gov/directory/guide/facility.asp?id=1009, accessed 9/22/2020.

[695] "TDH Announces First Case of COVID-19 in Tennessee," Tennessee Department of Health, 3/5/2020, https://www.tn.gov/health/news/2020/3/5/tdh-announces-first-case-of-covid-19-in-tennessee.html, accessed 8/4/2020; "Gov. Beshear, Health Officials Confirm State’s First COVID-19 Case," Office of Governor Andy Beshear, 3/6/2020, https://chfs.ky.gov/News/Documents/nrfirstcase.pdf, accessed 8/4/2020.

[696] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 9/23/2020; "Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2019," U.S. Census Bureau, https://www.census.gov/data/datasets/time-series/demo/popest/2010s-counties-total.html#par_textimage_70769902, accessed 7/27/2020.

[697] *Ibid.*

[698] NST Dataset, HOC, VHA, accessed 8/1/2020.

[699] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[700] “Facility Listings,” VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/25/2020.

[701] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[702] "Declaration of State of Emergency," The Office of Governor Gretchen Whitmer, 3/10/2020, https://www.michigan.gov/whitmer/0,9309,7-387-90499_90705-521576--,00.html, accessed 8/25/2020; "Declaring a State of Emergency," State of Ohio, 3/9/2020, https://www.fmcsa.dot.gov/emergency/ohio-emergency-declaration, accessed 8/25/2020; "Declaration of Public Health Emergency for Coronavirus Disease 2019 Outbreak," State of Indiana Executive Department, 3/6/2020, https://www.in.gov/gov/files/20-02ExecutiveOrder(DeclarationofPublicHealthEmergencyforCOVID-19)FINAL.pdf, accessed 8/25/2020.

[703] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[704] *Ibid.*

[705] *Ibid.*

[706] *Ibid.*

[707] *Ibid.*

[708] *Ibid.*

[709] *Ibid.*

[710] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020; "Gubernatorial Disaster Proclamation," State of Illinois, 3/9/2020, https://www2.illinois.gov/sites/gov/Documents/CoronavirusDisasterProc-3-12-2020.pdf, accessed 8/13/2020.

[711] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[712] *Ibid.*

[713] NST Dataset, HOC, VHA, accessed 8/1/2020.

[714] *Ibid.*

[715] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[716] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/19/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

[717] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[718] "Governor Parson Signs Executive Order 20-02 Declaring a State of Emergency in Missouri," Missouri Governor Michael L. Parson, 3/13/2020, https://governor.mo.gov/press-releases/archive/governor-parson-signs-executive-order-20-02-declaring-state-emergency, accessed 8/24/2020; "State of Disaster Emergency Proclamation," State of Kansas Executive Department, 3/12/2020, https://governor.kansas.gov/wp-content/uploads/2020/03/2020-03-12-Proclamation.pdf, accessed 8/24/2020; "Executive Orders," State of Illinois Coronavirus Response, https://coronavirus.illinois.gov/s/resources-for-executive-orders, accessed 8/24/2020.

[719] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[720] *Ibid.*

[721] *Ibid.*

[722] *Ibid.*

[723] *Ibid.*

[724] *Ibid.*

[725] *Ibid.*

[726] NST Dataset, HOC, VHA, accessed 8/1/2020.

[727] *Ibid.*

[728] *Ibid.*

[729] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[730] Telehealth Cube Dataset, VSSC, VHA, accessed 7/30/2020; Encounters Cube Dataset, VSSC, VHA, accessed 7/30/2020; Appointments Cube Dataset, VSSC, VHA, accessed 7/30/2020.

[731]"South Central VA Health Care Network," VA, updated 9/13/2019, https://www.visn16.va.gov/about/#:~:text=VISN 16 serves Veterans in,care in VISN 16%2C annually, accessed 9/23/2020.

[732] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/19/2020; "VA Community Living Center's (CLC) Facilities," VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

[733] Response to Vetting Draft, VISN 16, VHA, 9/14/2020.

[734] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[735] "Texas COVID-19 Data: Accessible Dashboard Data," Texas Department of State Health Services, https://dshs.texas.gov/coronavirus/TexasCOVID19CaseCountData.xlsx, accessed 8/19/2020.

[736] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[737] *Ibid.*

[738] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 9/23/2020; "Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2019," U.S. Census Bureau, https://www.census.gov/data/datasets/time-series/demo/popest/2010s-counties-total.html#par_textimage_70769902, accessed 7/27/2020.

[739] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[740] *Ibid.*

[741] *Ibid.*

[742] NST Dataset, HOC, VHA, accessed 8/1/2020; COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[743] *Ibid.*

[744] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[745] "VISN 17: VA Heart of Texas Health Care Network," VA, updated 6/25/2019, https://www.va.gov/directory/guide/facility.asp?id=1017#:~:text=Our%20mission%20is%20to%20be,innovation%20in%20service%20delivery%20that, accessed 8/19/2020.

[746] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/19/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

[747] “Impact of Opening and Closing Decisions by State: Texas,” Johns Hopkins University, https://coronavirus.jhu.edu/data/state-timeline/new-confirmed-cases/texas, accessed 8/19/2020.

[748] “Impact of Opening and Closing Decisions by State,” Johns Hopkins University, https://coronavirus.jhu.edu/data/state-timeline, accessed 9/23/2020.

[749] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[750] Telehealth Cube Dataset, VSSC, VHA, accessed 7/30/2020; Encounters Cube Dataset, VSSC, VHA, accessed 7/30/2020; Appointments Cube Dataset, VSSC, VHA, accessed 7/30/2020.

[751] 2019 and 2020 Completed OR Cases Dataset, National Surgery Office, VHA, accessed 8/6/2020.

[752] Response to Data Call, VISN 17, VHA, 8/12/2020.

[753] *Ibid.*

[754] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[755] NST Dataset, HOC, VHA, accessed 8/1/2020.

[756] Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020; NST Dataset, HOC, VHA, accessed 8/1/2020; "Daily Leadership Briefing," VHA, 7/1/2020.

[757] “VA Rocky Mountain Network,” VA, updated 2/12/2020, https://www.visn19.va.gov/about/, accessed 9/23/2020.

[758] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/18/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov /GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020; "VA Rocky Mountain Network," VA, updated 2/12/2020, https://www.visn19.va.gov/about/, accessed 8/3/2020.

[759] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[760] Response to Vetting Draft, VISN 19, VHA, 9/15/2020.

[761] *Ibid.*

[762] *Ibid.*

[763] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[764] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/19/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov /GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

[765] "Case of 2019 novel coronavirus confirmed in Washington state resident," Washington State Department of Health, 1/21/2020, https://www.doh.wa.gov/Newsroom/Articles/ID/1068/Case-of-2019-novel-coronavirus-confirmed-in-Washington-state-resident,%20accessed%208/24/20, accessed 8/24/2020.

[766] “CDC, Washington State Report First COVID-19 Death,” CDC, 2/29/2020, https://www.cdc.gov/media/releases/2020/s0229-COVID-19-first-death.html, accessed 8/24/2020.

[767] “Inslee issues COVID-19 emergency proclamation,” Washington Governor Jay Inslee, 2/29/2020, https://www.governor.wa.gov/news-media/inslee-issues-covid-19-emergency-proclamation, accessed 9/22/2020.

[768] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[769] Donovan Slack, "VA reports 5 coronavirus cases as it steps up screening, restrictions at medical centers," USA Today, 3/10/2020, https://www.usatoday.com/story/news/nation/2020/03/10/coronavirus-spread-veterans-va-screening-visitor-restrictions/5006410002/, accessed 8/24/2020.

[770] “Department of Veterans Affairs Budget Request for FY2020,” House Appropriations Military Construction, Veterans Affairs, and Related Agencies Subcommittee, 3/4/2020, https://appropriations.house.gov/events/hearings/department-of-veterans-affairs-budget-request-for-fy2021, accessed 8/8/2020.

[771] “VA News Release: COVID-19 Patient Update,” VA, 5/1/2020, https://www.spokane.va.gov/docs/05-01-20_COVIDpatientsFromSVH.pdf, accessed 8/24/2020.

[772] *Ibid.*

[773] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[774] ”VA News Release: COVID-19 Patient Update,” VA, 5/1/2020, https://www.spokane.va.gov/docs/05-01-20_COVIDpatientsFromSVH.pdf, accessed 8/24/2020.

[775] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[776] *Ibid.*

[777] *Ibid.*

[778] *Ibid.*

[779] *Ibid.*

[780] *Ibid.*

[781] *Ibid.*

[782] VAntage Point Blog, "VA telehealth connects Vietnam Veteran to pain management resources," VA, 7/9/2020, https://www.blogs.va.gov/VAntage/76636/va-telehealth-connects-vietnam-veteran-pain-management-resources/, accessed 9/21/2020.

[783] “VA News Release: COVID-19 Patient Update,” VA, 5/1/2020, https://www.spokane.va.gov/docs/05-01-20_COVIDpatientsFromSVH.pdf, accessed 8/24/2020.

[784] VISN 20, Response to Vignette Survey, VHA, 8/17/2020.

[785] *Ibid.*

[786] VAntage Point Blog, "VA telehealth connects Vietnam Veteran to pain management resources," VA, 7/9/2020, https://www.blogs.va.gov/VAntage/76636/va-telehealth-connects-vietnam-veteran-pain-management-resources/, accessed 9/21/2020.

[787] *Ibid.*

[788] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[789] *Ibid.*

[790] VAntage Point Blog, "VA telehealth connects Vietnam Veteran to pain management resources," VA, 7/9/2020, https://www.blogs.va.gov/VAntage/76636/va-telehealth-connects-vietnam-veteran-pain-management-resources/, accessed 9/21/2020.

[791] *Ibid.*

[792] *Ibid.*

[793] "Facility Listings," VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/19/2020; “VA Community Living Center’s (CLC) Facilities,” VA, https://www.va.gov/GERIATRICS/docs/VA_Community_Living_Center_Locations.pdf, accessed 8/3/2020.

[794] “Evidence for Limited Early Spread of COVID-19 Within the United States, January–February 2002,” CDC, 6/5/2020, https://www.cdc.gov/mmwr/volumes/69/wr/mm6922e1.htm, accessed 8/8/2020.

[795] “Department of Veterans Affairs Budget Request for FY2020,” House Appropriations Military Construction, Veterans Affairs, and Related Agencies Subcommittee, 3/4/2020, https://appropriations.house.gov/events/hearings/department-of-veterans-affairs-budget-request-for-fy2021, accessed 8/8/2020.

[796] "Governor Newsom Declares State of Emergency to Help State Prepare for Broader Spread of COVID-19," Office of Governor Gavin Newsom, 3/4/2020, https://www.gov.ca.gov/2020/03/04/governor-newsom-declares-state-of-emergency-to-help-state-prepare-for-broader-spread-of-covid-19/, accessed 8/8/2020.

[797] “Impact of Opening and Closing Decisions by State: California,” Johns Hopkins University, https://coronavirus.jhu.edu/data/state-timeline/new-confirmed-cases/california, accessed 10/14/2020.

[798] Response to Vetting Draft, VISN 22, VHA, 9/18/2020.

[799] *Ibid.*

[800] Response to Vetting Draft, VISN 22, VHA, 8/28/2020.

[801] “Facility Listings,” VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 8/24/2020.

[802] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[803] *Ibid.*

[804] "Governor Newsom Declares State of Emergency to Help State Prepare for Broader Spread of COVID-19," Office of Governor Gavin Newsom, 3/4/2020, https://www.gov.ca.gov/2020/03/04/governor-newsom-declares-state-of-emergency-to-help-state-prepare-for-broader-spread-of-covid-19/, accessed 8/24/2020; "COVID-19: Declaration Of Emergency, Executive Order," Office of the Governor Doug Ducey, 3/11/2020, https://azgovernor.gov/governor/news/2020/03/covid-19-declaration-emergency-executive-order, accessed 8/24/2020.

[805] “Executive Order No. 001-20,” Navajo Nation Office of the President and Vice President, 3/13/2020, https://www.navajo-nsn.gov/News%20Releases/OPVP/2020/Mar/NNExecutiveOrderNo001-20%20(3).pdf, accessed 8/24/2020.

[806] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[807] *Ibid.*

[808] *Ibid.*

[809] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[810] Kenzi Abou-Sabe, Cynthia McFadden, Christine Romo and Jaime Longoria, "Coronavirus batters the Navajo Nation, and it's about to get worse," NBC News, 4/20/2020, https://www.nbcnews.com/health/health-news/coronavirus-batters-navajo-nation-it-s-about-get-worse-n1187501, accessed 9/22/2020.

[811] “COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University,” Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/27/2020.

[812] *Ibid.*

[813] *Ibid.*

[814] *Ibid.*

[815] *Ibid.*

[816] NST Dataset, HOC, VHA, accessed 8/1/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[817] *Ibid.*

[818] *Ibid.*

[819] *Ibid.*

[820] *Ibid.*

[821] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[822] *Ibid.*

[823] *Ibid.*

[824] *Ibid.*

[825] “Facility Listings,” VA, updated 10/12/2018, https://www.va.gov/directory/guide/rpt_fac_list.cfm, accessed 9/22/2020.

[826] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[827] "Declaring a Peacetime Emergency and Coordinating Minnesota's Strategy to Protect Minnesotans from COVID-19," State of Minnesota Executive Department, 3/13/2020, https://mn.gov/governor/assets/EO%2020-01_tcm1055-422957.pdf, accessed 8/25/2020; "Proclamation," State of Nebraska, 3/13/2020, https://www.dropbox.com/s/64xel8oha2gw22h/2020%20State%20of%20Emergency%20-%20Coronavirus%20.pdf?dl=0, accessed 8/25/2020; "Executive Order 2020-03," Governor Doug Burgum, 3/13/2020, https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/2020-03/North%20Dakota%20State%20of%20Emergency%20Executive%20Order%202020-03.pdf, accessed 8/25/2020; "Executive Order 2020-15," State of South Dakota Office of the Governor, 4/9/2020, https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/2020-04/South%20Dakota%20Declaration%202020-15.PDF, accessed 8/25/2020; "Proclamation of Disaster Emergency," State of Iowa Executive Department, 8/21/2020, https://governor.iowa.gov/sites/default/files/documents/Public%20Health%20Proclamation%20-%202020.08.21.pdf, accessed 8/25/2020.

[828] COVID-19 US Cases Data, Johns Hopkins University, https://github.com/CSSEGISandData/COVID-19, accessed 7/25/2020; 2019 US Census 2019 Population Estimate, US Census, https://www.census.gov/data/developers/data-sets/popest-popproj.html, accessed 7/10/2020.

[829] NST Dataset, HOC, VHA, accessed 8/1/2020; Current Enrollment Cube Dataset, VSSC, VHA, accessed 8/5/2020.

[830] *Ibid.*

[831] Rapid COVID-19 Database, VHA, accessed 7/28/2020.

[832] *Ibid.*

[833] *Ibid.*

[834] “Governance Board Charter,” VHA, 6/15/2020.

[835] For more information about the Warstopper Program, see the following article, which states “Warstopper items are those vital to the wartime mission but not generally required in peacetime," Dianne Ryder, "Rare But Ready," Defense Logistics Agency, 12/26/2016, https://www.dla.mil/AboutDLA/News/NewsArticleView/Article/1041913/rare-but-ready/, accessed on 10/1/2020.

[836] “VA launches clinical trial for Veterans with COVID-19 based on prostate cancer drug,” 5/15/2020, VHA, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5452, accessed 9/4/2020.

[837] “VA conducts deep-dive study into effects of COVID-19 on Veterans,” VHA, 5/28/2020, https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5457, accessed 8/18/2020.