

ELC ENHANCING DETECTION: ILLINOIS TESTING PLAN

2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Illinois
Population Size:	12,671,821

1. Describe the overarching testing strategy in your state or jurisdiction.

The Illinois Department of Public Health (IDPH) is involved in all aspects of testing expansion, in partnership with local governments, agencies, hospitals, and private labs. The State currently tests 2% of its population approximately every 8-9 days and plans to increase its testing cadence and reach.

a) How you will maximize the use of testing platforms (with an indication of which ones are high throughput), venues, and expanded workforce across your jurisdiction (e.g. public health labs, private, hospital, commercial, academic, etc.) to rapidly scale testing to accommodate an increased demand for SARS-CoV-2 tests, including utilizing point-of-care or other rapid result testing for local outbreaks?

The State's testing strategy includes several levels of varying involvement, ranging from provision of the full value-chain from specimen collection through transportation, lab testing, and reporting; to coordination of parts of that value-chain; to simply encouraging testing from private actors.

State labs play an active role in our testing strategy. IDPH labs substantially increased capacity in April 2020 by adding 5 x King Fisher extraction units and 6x EP Motion liquid handlers, feeding 18 x Thermo Fisher DX PCR instruments. IDPH labs primarily focus their current testing efforts on the most vulnerable populations, particularly congregate care populations experiencing outbreaks, along with other vulnerable populations in an emergency status. IDPH labs have been running 5,000 tests per day and act as a safety valve for emergencies in the system.

The State also works closely with commercial lab partners to maximize use of their platforms. The State provides direct specimen collection services through to feed these labs through:

- 11 Community-based testing sites that anchor our efforts in geographically and demographically-diverse parts of the State;
- 6 Mobile testing sites that can move on 24-hours notice and respond quickly to regions of high-positivity and vulnerability by setting up a drive-through and walk-up mobile testing site;
- 6 Facility teams that can go into and test through facilities like nursing homes, homeless services centers, and other high-vulnerability facilities

The State then works with commercial labs (principally locally) to process these specimens. The provision of dependable streams of specimens through these state-run testing sites in turn encourages the labs to make further capital investments to expand capacity.

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The State also works closely with our hospital labs to find important usage for their machines through testing partners and other high-need hospitals and services

For both hospital and commercial labs, the state takes a strong interest in their supply chain. We stay in regular communication with both types of labs and equipment manufacturers in order to gauge need and weigh in wherever possible to ensure continuation of vital laboratory services and prevent “stops” in working.

Finally, the State has begun exploring partnerships with both commercial and hospitals labs to pair with nursing homes and other places in need of testing to seize on private sector partnership opportunities. The State maintains a list of active commercial labs these nursing facilities can partner with. We view this as a great outcome if both partners are happy and increased testing is completed without State involvement.

b) Detail your approach to provide testing at non-traditional laboratory sites (e.g., retail sites, community centers, residential medical facilities, or pharmacies).

The State is working with partners in pharmacies, FQHCs, and other local care delivery to pair front-line testing capacity with back-end lab capacity. This includes "matchmaking" larger lab testing capacity hospital systems with frontline specimen collection resources, community hospitals, and others that lack back-end lab capacity, as well as facilitating the commercial relationships between commercial labs and frontline resources looking to increase testing.

The State is starting further discussion with private sector partners about expanding testing of vulnerable populations through non-traditional lab sites, in particular pharmacies and other residential medical facilities. The State also frequently send its mobile teams to community centers and other large population locations.

c) Describe your strategy for serology testing, if applicable.

There are currently several thousand serology tests done per day in Illinois. The State is closely monitoring serology testing technology along with the development of antigen, and group-based testing technology. As these technologies become more accurate and precise, the State will review potentially rolling them out through the State's direct testing.

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The State is currently actively supporting paired specimen collection under an IRB with the University of Illinois who is evaluating a revolutionary new saliva testing technique.

d) Describe how you will communicate, collaborate and coordinate with the broad testing community within your state to ensure alignment in approach and progress toward jurisdictional goals. Plan should include regular outreach to testing partners to monitor test kits, supply, and reagent inventory and staffing levels.

The State provides key supplies to hospital testing partners and the State's direct testing throughout Illinois, including swabs, transport media, and other supplies. We plan to continue these efforts into the future until our supply chains fully stabilize long-term for these critical items. We continue to do weekly and bi-weekly calls with critical hospitals, commercial labs, lab equipment, and other manufacturers to find out and head off problems before they start. The State is also in regular contact with local health departments, including in the Chicago area, to coordinate testing efforts in terms of test-site placement, and to provide a unified approach to accessing and acquiring lab capacity.

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Table #1a: Number of individuals planned to be tested, by month

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Diagnostics*			1,000,000	1,300,000	1,600,000	1,900,000	2,200,000	2,500,000	10,500,000
Serology			TBD	TBD	TBD	TBD	TBD	TBD	0
TOTAL			1,000,000	1,300,000	1,600,000	1,900,000	2,200,000	2,500,000	

*Each jurisdiction is expected to expand testing to reach a minimum of 2% of the jurisdictional population.

Table #1b: Planned expansion of testing jurisdiction-wide

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through-put	Daily serologic through-put	Specific at-risk populations targeted (list all)
IDPH Laboratories	Public health lab		5,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
NorthShore Labs	Hospitals or clinical facility		750		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every

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					lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Reditus	Commercial or private lab		5,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Tempus	Commercial or private lab		5,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Labcorp	Commercial or private lab		700		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every

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					lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Carle Foundation	Hospitals or clinical facility		1,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
AbbVie	Commercial or private lab		1,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
University of IL Chicago	Hospitals or clinical facility		1,500		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every

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					lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Anderson Hospital	Hospitals or clinical facility		500		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Nothwestern Medical	Hospitals or clinical facility		1,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
University of Chicago	Hospitals or clinical facility		2,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every

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					lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.
Additional Commercial Lab partners	Commercial or private lab		30,000		All labs are part of a planned systematic effort by the State that dynamic assigns coverage where there is lab capacity. As soon as this system is implemented every lab may cover elderly, disabled, nursing homes, prisons and other minority, healthcare worker, or persons experiencing homelessness.

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2020 Direct Expansion of SARS-COV-2 Testing by Health Departments

2. Describe your public health department's direct impact on testing expansion in your jurisdiction.

2.a. Describe how the health departments will directly expand testing capacity through their public health labs, contracts, partnerships, and other arrangements (e.g. adding testing capacity in local health departments, contracting with new labs, partnering with academic and community-based organizations, establishing drive-thru testing sites, etc.). Provide specifics about planned expansions of existing capacity, including procurement of new testing equipment or device platforms.

The State seeks to expand its specimen collection and laboratory capacity.

For specimen collection - Illinois operates:

- 11 Community-based testing sites that anchor our efforts in geographically and demographically-diverse parts of the State
- 6 Mobile testing sites that can move on 24-hours notice and respond quickly to regions of high-positivity and vulnerability through setting up a drive-through and walk-up mobile testing site
- 6 Facility teams that can go into and test through facilities like nursing homes, homeless services centers, and other high-vulnerability areas

The State is examining additional possible specimen collection efforts.

Beyond prioritization and best utilization of existing state, commercial and hospital laboratory partners, Illinois is working with labs to match new mobile specimen collection resources with lab capacity. Our specimen collection efforts, are paired with additional back-end lab capacity through partner labs. Any excess lab capacity can be paired with private sector specimen collection efforts to ensure maximum lab capacity usage. The State will also collect insurance information to the maximum extent possible to offset the additional costs of the larger system.

We seek to maximize the growth of our local commercial labs and work with them to fully utilize their instruments by providing a dependable flow of specimens to be collected.

2.b. How testing needs of vulnerable and at-risk populations will be prioritized, including elderly, disabled, those living in congregate settings including nursing homes and prisons, racial and ethnic minorities, healthcare workers, and among person experiencing homelessness.

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Illinois released an emergency rule on 5/28 which requires all licensed long term care facilities to develop an individual COVID response and testing plan. The State runs these samples through the Illinois Department of Public Health labs in emergencies and encourages long-term private sector partnerships for ongoing testing. For LTCs that have not adequately taken ownership of their own testing or are in need of additional help as they figure out private sector partnerships, the State is deploying mobile teams to their facilities to conduct testing directly. These mobile teams will be specifically prioritized for outbreaks among vulnerable populations and be able to quickly deploy to needs among vulnerable communities. These mobile teams can also work with homeless populations, migrant workers, and other vulnerable populations.

The State has also developed a list of private sector partners ready and able to work with specific vulnerable congregate care populations. This helps matchmake these private sector partnerships to interested potential facilities unsure where to find testing.

Additionally, the state's flexible testing capacity in the form of mobile testing teams allows testing to be located in areas of high vulnerability and in communities that are experiencing disproportionate effects of COVID-19. Using positivity data and analysis of cases and fatalities by ZIP code, the state can locate mobile testing resources to address areas of greatest need. These sites can be structured as walk through sites, allowing for them to be accessible to populations who may not have cars, and are thus less able to access the state's static community-based testing sites. The state also partners with community groups to co-locate mobile testing locations with food distribution centers and other community service events in an effort to reach particularly vulnerable populations.

2.c. How barriers to efficient testing will be identified and overcome, including those related to underutilization of available assets and supply-chain difficulties, and considerations with end-to-end logistics of testing (from sample collection to reporting to public health to CDC).

The State continues monitors the end-to-end logistics, including turnaround time, throughout the testing supply chain. The State actively talks on a regular basis with each scale participant in the chain to foresee potential choke-points and help direct resources as needed. The State works with valued partners to report results to the affected individuals and public health departments.

2.d. Describe the strategy for serology testing through the public health labs, if applicable, including specific platforms to be used.

Serological testing may be important assess immunity, once there is a significant enough portion of the population that perhaps has achieved immunity. IDPH is in the process of exploring the implementation

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of the Abbott IgG serology assays in the Chicago and Carbondale laboratories. We will continue to monitor Serology testing possibilities for future use at a larger scale.

2.e. Describe the health department's plan for resource utilization and how the jurisdiction will manage testing and alignment with SARS-COV-2 community mitigation policies, including sentinel surveillance for vulnerable populations.

Illinois is currently piloting a sentinel surveillance system at a Bloomington community-based testing site. Using eight questions, the state is working to create a stable sample for analysis and modeling of disease growth. These questions were created in consultation between public health staff and leading disease modeling experts at the University of Chicago, University of Illinois, and Northwestern. We're excited to expand this system over the next few months into the best sentinel surveillance system in the country.

2.f. Describe the health department's plan to expedite and streamline procurement, hiring, and onboarding of new staff. Should include planned steps and ability for the jurisdiction to acquire supplies, reagents, test kits, collection materials required to expand testing indicated in table #2 (below).

The State remains under an Emergency Declaration which reduces the procurement burdens and allows for expedited purchasing and hiring. IDPH has been able to hire laboratory technologists to conduct testing using individual contracts. Recent college grads have been sought for employment and have been onboarded by IDPH. The State is also bringing on additional human capital for the duration of the crisis to run key parts of the testing effort.

IDPH has successfully scaled up its three labs, including training, and is now processing over 5,000 samples many days.

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Table #2: Planned expansion of testing driven by public health departments

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Number of additional* staff to meet planned testing levels									0
FOR DIAGNOSTIC TESTING									
How many additional* testing equipment/ devices are needed to meet planned testing levels? (provide an estimated number, and include platform details in narrative above)									0

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BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional swabs needed to meet planned testing levels ⁺⁺	750,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,750,000
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels ⁺⁺	750,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,750,000

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BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)		30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid	30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid	30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid	30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid	30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid	30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid	30K/day Hologic, 25K/day Thermofisher, 10K/day Cepheid	
FOR SEROLOGIC TESTING									
Number of additional* equipment and devices to meet planned testing levels		TBD							0

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BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)		TBD							

* Report new monthly additions only, not cumulative levels

++ For May and June, only include needs beyond the supplies provided by FEMA. Report new monthly additions only, not cumulative levels.