UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

Office of Policy Planning
Bureau of Competition
Bureau of Economics

January 3, 2018

The Honorable Jesse Topper
Pennsylvania House of Representatives
P.O. Box 202078
Harrisburg, PA 17120-2078

Dear Representative Topper:

The staffs of the Federal Trade Commission's Office of Policy Planning, Bureau of Economics, and Bureau of Competition[1] appreciate the opportunity to respond to your invitation for comments on the likely competitive impact of House Bill 100 ("HB 100" or the "Bill").[2] You state that HB 100 would eliminate the current requirement that advanced practice registered nurse-certified nurse practitioners ("APRN-CNPs")[3] have written collaborative agreements with physicians after the APRN-CNP has completed three years of practice under physician collaboration.

For reasons explained below, we believe that the proposed changes to Pennsylvania's Professional Nursing Law to allow full independent practice for certified nurse practitioners after they have completed three years of collaboration would benefit competition and health care consumers in Pennsylvania. As the Pennsylvania General Assembly considers the Bill, we urge it to avoid restrictions on APRN-CNP practice that are not narrowly tailored to address well-founded patient safety concerns.

The competitive implications of various APRN regulations throughout the United States, including mandatory collaborative practice agreements, are analyzed in the attached 2014 FTC staff policy paper, *Policy Perspectives: Competition and the Regulation of Advanced Practice Registered Nurses*.[4] As explained in the policy paper, FTC staff recognize the critical importance of patient health and safety, and we defer to state legislators to determine the best balance of policy priorities and to define the appropriate scope of practice for APRNs and other health care providers. But even well-intentioned laws and regulations may entail unnecessary, unintended, or overbroad restrictions on competition. Undue regulatory restrictions on APRN practice can impose significant costs on health care consumers – patients – as well as both public and private third-party payors. The FTC staff policy paper observes, in particular, that state-mandated collaborative practice agreements raise considerable competitive concerns, potentially impeding access to care and frustrating the development of innovative and effective models of team-based health care.[5] We recommend that the Pennsylvania General Assembly consider such effects when evaluating the regulatory reforms in HB 100.

Expert bodies, including the Institute of Medicine ("IOM"),[6] have determined that APRNs are "safe and effective as independent providers of many health care services within the scope of their training, licensure, certification and current practice."[7] Thus, we recommend that the Pennsylvania General Assembly:

- carefully examine asserted safety justifications for Pennsylvania's current APRN-CNP collaborative agreement requirements in light of the pertinent evidence;
- evaluate whether such justifications are well founded; and
- consider whether less restrictive alternatives, such as those provided in HB 100, would protect patients without imposing undue burdens on competition and on patients' access to basic health care services.

Based on this analysis, we believe that removing restrictions on APRN-CNP prescribing would significantly benefit Pennsylvania's health care consumers. HB 100 may promote such benefits to the extent that it would permit independent APRN practice, including prescriptive authority, after the APRN meets certain prerequisite conditions. To the extent that the Bill would maintain certain preconditions for independent APRN practice, we urge you to scrutinize claimed safety justifications for those preconditions.[8]

I. INTEREST AND EXPERIENCE OF THE FTC

The FTC is charged under the FTC Act with preventing unfair methods of competition and unfair or deceptive acts or practices in or affecting commerce.[9] Competition is at the core of America's economy,[10] and vigorous competition among sellers in an open marketplace gives consumers the benefits of lower prices, higher quality products and services, and greater innovation. Because of the importance of health care competition to the economy and consumer welfare, anticompetitive conduct in health care markets has long been a key focus of FTC law enforcement,[11] research,[12] and advocacy.[13] In addition to the attached policy paper, FTC staff have analyzed the likely competitive effects of proposed APRN regulations in other states, observing that removing excessive supervision requirements can lead to significant consumer benefits.[14] Building on this work, in 2017 the FTC formed the Economic Liberty Task Force that is examining a broad range of professional licensing issues and bringing to light ways to promote entrepreneurship by avoiding costly and burdensome regulations that harm competition without offering countervailing benefits to consumers.[15]

II. HOUSE BILL 100

HB 100 proposes various amendments to Pennsylvania statutory provisions governing advanced practice nursing. Among other things, the Bill would grant the Board of Nursing (the "Board") the authority to license certain APRN-CNPs to prescribe medicines without the formal, written collaborative agreement now required for APRN-CNP prescribing in Pennsylvania.[16] Approval of such a prescribing license would require that the APRN-CNP has at least three years and 3600 hours of practice in a collaborative arrangement with a physician. The Bill also permits the Board to recognize the experience of APRN-CNPs who have been practicing in another state for which the Board deems the collaboration equivalent to that required in Pennsylvania.[17]

III. LIKELY COMPETITIVE IMPACT OF HB 100

FTC staff recognize that certain professional licensing requirements and scope of practice restrictions may be needed to protect patients.[18] Consistent with patient safety, however, we urge legislators to consider that independent APRN prescribing may facilitate greater competition, which also may benefit health care consumers. If APRNs are better able to practice to the full extent of their education, training, and abilities, and if institutional health care providers are better able to deploy APRNs as needed, Pennsylvania health care consumers are likely to benefit from improved access to health care, lower costs, and additional innovation.

The ability to write prescriptions is one of the defining criteria for independent APRN practice.[19] APRNs cannot practice independently if they cannot write prescriptions independently. Twenty-two states and the District of Columbia now permit independent prescribing by advanced practice nurses.[20] In addition, as of January 13, 2017, Department of Veterans Affairs regulations now permit the VA to grant "full practice authority" to three of the four main categories of APRNs—Certified Nurse Practitioners ("CNPs"), Clinical Nurse Specialists ("CNSs"), and Certified Nurse Midwives ("CNMs").[21] As the IOM observes, studies suggest APRNs are safe and effective in writing prescriptions, APRNs and MDs have comparable prescribing patterns, and patients of APRNs and MDs have comparable outcomes when APRNs can prescribe medicines independent of physician supervision.[22]

The competitive impact of unnecessary APRN regulations is concerning in light of evidence that independent practice – including independent prescribing – by APRNs might offer substantial benefits to health care consumers, including those in Pennsylvania. The competition issues analyzed in the FTC staff policy paper reinforce health policy findings and recommendations of expert bodies such as the IOM. The 2011 IOM report identified a key role for APRNs in improving health care delivery, while expressing concern about undue restrictions on APRN prescribing and practice.[23] Based on a rigorous examination of APRN practice issues, the IOM found that "[r]estrictions on scope of practice . . . have undermined [nurses'] ability to provide and improve both general and advanced care."[24] Similarly, in 2012, the National Governors Association ("NGA") reported on APRNs' potential to address increased demand for primary care services, particularly in historically underserved areas.[25] The NGA report noted the high quality of primary care services provided by APRNs, who "may be able to mitigate projected shortages of primary care services."[26] Similarly, a 2015 analysis prepared specifically about Pennsylvania suggested that if full practice authority for APRN-CNPs had previously been enacted it likely would have resulted in a thirteen percent increase in the number of CNPs in Pennsylvania and, if enacted, could generate at least 6.4 billion dollars in health care savings over a ten-year period.[27]

Because scope of practice restrictions may constrain the supply of health care providers, they may enable physicians to charge higher prices for services that APRNs otherwise might offer. In brief, as the FTC staff policy paper points out:

> When APRN access to the primary care market is restricted, health care consumers – patients – and other payors are denied some of the competitive benefits that APRNs, as additional primary care service providers, can offer. In

> addition, to a certain extent, some incumbent physicians may be insulated against the degree of competition APRNs can offer.[28] It may be in the economic self-interest of those physicians to propose and advocate the adoption of restrictions on APRN licensing and scope of practice; and such physicians might be biased towards doing so.[29]

Section III of the FTC staff policy paper discusses in detail the potential competitive harms from overly restrictive APRN supervision requirements, including the types of mandatory practice agreements now required under Pennsylvania law.[30] The policy paper analyzes three specific issues relevant to HB 100: (1) the ability of APRN-CNPs to address concerns about access to care, especially in light of projected shortages of primary care physicians; (2) legal or regulatory hurdles that may raise costs and decrease availability of APRN services; and (3) rigid requirements that may impede the development of effective models of team-based care.

A. Primary Care Provider Shortages and Access to Care

Regulatory constraints on APRN practice limit the ability of APRNs to expand access to primary care services and ameliorate both current and projected health care workforce shortages. The United States faces a substantial and growing shortage of physicians, especially in primary care.[31] As a result, many Americans may face limited access to basic health care services, particularly in poor or rural areas.[32] Pennsylvania has the third largest rural population of any state.[33] Meanwhile, almost one-half of the doctors in Pennsylvania practice in only three counties,[34] despite the fact that approximately three-quarters of the state's population lives in the remaining 64 counties. Fifty-five of Pennsylvania's 67 counties contain federally designated Health Profession Shortage Areas ("HPSAs") or Medically Underserved Areas ("MUAs").[35]

Pennsylvania House Resolution No. 735 directed the Joint State Government Commission ("JSGC") to study the issue of physician shortages and to propose strategies for eliminating such shortages.[36] The JSGC issued a report to the Pennsylvania General Assembly in 2015, which discusses the current and projected shortages and possible approaches to ameliorate them.[37] According to this report, "Pennsylvania ranks 8th in the number of active physicians, 10th in the number of patient care physicians, and 18th in the number of primary care physicians."[38] The report summarizes some of the concerns about the future supply of physicians:

> HRSA calculated projections of the supply and demand of primary care physicians and non-primary care physicians through 2020. Based on current utilization and delivery patterns, supply of primary care physicians is projected to grow by 8 percent, and demand for primary care physicians is projected to grow by 14 percent, resulting in a shortage of 20,400 primary care physicians by 2020.
>
> If certified registered nurse practitioners and physician assistants are fully utilized, their rapidly growing numbers could reduce the physician shortage in 2020 to 6,400 FTE physicians. However, this reduction assumes a reorganization of the primary care delivery model in which certified registered nurse practitioners and physician assistants deliver a greater proportion of the services than they do within the current care delivery model.[39]

Expanded APRN practice – including independent prescribing – is widely regarded as a key strategy to alleviate such provider shortages, especially in medically underserved areas and for medically underserved populations.[40] Nationally, APRNs already "make up a greater share of the primary care workforce in less densely populated areas, less urban areas, and lower income areas, as well as in HPSAs."[41] In addition, almost 75 percent of nurse practitioners are accepting new Medicare patients and 77.9 percent are accepting new Medicaid patients.[42] Moreover, nurse practitioners with independent practice and prescribing authority could potentially expand the availability of medication-assisted treatments to the more than 2.5 million people addicted to opiates.[43]

B. Hurdles that May Raise the Cost of APRN-CNP Services and Reduce Access

Legal or regulatory hurdles to APRN-CNP practice may raise the costs of APRN services, thereby reducing supply and further diminishing access to basic primary care. APRNs tend to provide care at lower cost than physicians,[44] but collaborative practice requirements may add costs to those services. Both patients and third-party payors are harmed to the extent that higher costs are passed along as higher prices.[45] In contrast, when collaborative practice requirements are eliminated or reduced, the supply of professionals willing to offer APRN services at any given price is likely to increase. In underserved areas and for underserved populations, the benefits of expanding supply are clear: consumers may gain access to services that otherwise would be unavailable.[46] Even in well-served areas, a supply expansion tends to lower prices and drive down health care costs.[47]

Moreover, collaborative practice agreement requirements can impede access to care at any price. Testimony from an APRN-CNP in Pennsylvania who treated Down syndrome patients makes clear how devastating it can be for practitioners and patients when unexpected circumstances lead to termination of an existing collaborative agreement, and thus the APRN-CNP's ability to practice.[48] Other APRN-CNPs testified about some of the difficulties associated with securing and maintaining collaborative agreements, as well as the impact on their practices.[49] The APRN-CNPs also noted that health care systems often prohibit employed physicians from entering into collaborative agreements, further exacerbating APRN-CNPs' ability to secure such arrangements, especially in rural areas.[50]

C. Impact on Effective Models of Team-Based Care

As FTC staff noted in its APRN policy paper, "rigid supervision requirements may impede, rather than foster, development of effective models of team-based care."[51] Health care providers that employ or contract with APRNs typically develop and implement their own practice protocols, hierarchies of supervision, and models of team-based care to promote quality of care, satisfy their business objectives, and comply with regulations. Collaboration between APRNs and physicians is common in all states, including those that permit APRNs to practice independently.[52] Most APRNs work for institutional providers or physician practices with established channels of collaboration and supervision, and even "independently" practicing APRNs typically consult physicians and refer patients as appropriate.[53] Moreover, new models of collaboration are an important area of innovation in health care delivery. Proponents of team-

based care have recognized the importance of this innovation, given the myriad approaches to team-based care that may succeed in different practice settings.[54]

In contrast, rigid collaborative practice requirements "can arbitrarily constrain this type of innovation, as they can impose limits or costs on new and beneficial collaborative arrangements, limit a provider's ability to accommodate staffing changes across central and satellite facilities or preclude some provider strategies altogether."[55] FTC staff have reviewed reports from expert health agencies as well as the published academic literature, but are unaware of evidence that statutory practice agreement requirements are needed to achieve the benefits of team-based health care.

IV. CONCLUSION

If adopted, HB 100 would create a route to independent prescribing for APRN-CNPs in Pennsylvania. Absent countervailing safety concerns regarding APRN-CNP practice (of which we are unaware), removing existing supervision requirements to permit independent APRN-CNP prescribing and practice has the potential to benefit Pennsylvania consumers by increasing competition among health care providers, which likely would improve access to care, contain costs, and expand innovation in health care delivery.

Respectfully submitted,

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[1] This letter expresses the views of the Federal Trade Commission's Office of Policy Planning, Bureau of Economics, and Bureau of Competition. The letter does not necessarily represent the views of the Federal Trade Commission or of any individual Commissioner. The Commission, however, has voted to authorize us to submit these comments.

[2] Letter from the Hon. Jesse Topper, PA House of Representatives, to Tara Isa Koslov, Acting Dir., Office of Policy Planning, Fed. Trade Comm'n (Feb. 2, 2017) (on file with Office of Policy Planning) [hereinafter Request Letter]. We understand HB 100 was introduced on March 21, 2017, and the Pennsylvania Senate passed an identical bill, SB 25 on April 26, 2017, http://www.legis.state.pa.us/cfdocs/billInfo/bill_history.cfm?syear=2017&sind=0&body=S&type=B&bn=25 (Senate bill history).

[3] The bill defines the terms "certified nurse practitioner" or "advanced practice registered nurse-certified nurse practitioner" to mean "a registered nurse licensed in this Commonwealth to practice independently in a particular clinical specialty area or population focus in which the registered nurse is certified." Definitions, Section 2(16). In

this letter, we use the terms (advanced practice registered nurse and certified nurse practitioner) and the abbreviations (CNP and APRN) interchangeably.

[4] FED. TRADE COMM'N STAFF, POLICY PERSPECTIVES: COMPETITION AND THE REGULATION OF ADVANCED PRACTICE NURSES (2014), https://www.ftc.gov/system/files/documents/reports/policy-perspectives-competition-regulation-advanced-practice-nurses/140307aprnpolicypaper.pdf [hereinafter FTC STAFF POLICY PERSPECTIVES].

[5] *Id.* at 37.

[6] The IOM – established in 1970 as the health arm of the National Academy of Sciences – provides expert advice to policy makers and the public.

[7] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 2, n.6 and accompanying text (*citing* INST. OF MED., NAT'L ACAD. OF SCIENCES, THE FUTURE OF NURSING: LEADING CHANGE, ADVANCING HEALTH 98-99 (2011), http://www.nationalacademies.org/hmd/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx [hereinafter IOM FUTURE OF NURSING REPORT]).

[8] Some states do not include such preconditions. *See, e.g.*, MD. CODE ANN., HEALTH OCC. § 8- 302.1 (Maryland APRNs can practice independently, including prescribing drugs, and do not need a collaborative agreement for any period of time; new APRNs must designate a "mentor" with whom to consult or collaborate, as needed, for the first eighteen months of practice). Other states have enacted laws, similar to HB 100, requiring specified time and hour experience in a collaborative agreement before APRNs can practice without a collaborative agreement. *See, e.g.*, CONN. GEN. STAT. § 20-87a (prior to independent practice, APRN must practice at an advanced level in collaboration with a physician for a period of not less than three years and for not less than two thousand hours).

[9] Federal Trade Commission Act, 15 U.S.C. § 45.

[10] Standard Oil Co. v. Fed. Trade Comm'n, 340 U.S. 231, 248 (1951) ("The heart of our national economic policy long has been faith in the value of competition.").

[11] *See* FED. TRADE COMM'N, COMPETITION IN THE HEALTH CARE MARKETPLACE, https://www.ftc.gov/tips-advice/competition-guidance/industry-guidance/health-care.

[12] *See* FED. TRADE COMM'N & U.S. DEP'T OF JUSTICE, IMPROVING HEALTH CARE: A DOSE OF COMPETITION (2004), https://www.ftc.gov/sites/default/files/documents/reports/improving-health-care-dose-competition-report-federal-trade-commission-and-department-justice/040723healthcarerpt.pdf [hereinafter FTC & DOJ, IMPROVING HEALTH CARE].

[13] FTC and staff advocacy can include letters or comments addressing specific policy issues, Commission or staff testimony before legislative or regulatory bodies, amicus briefs, or reports. *See, e.g.*, *Occupational Licensing: Regulation and Competition: Hearing Before the Subcomm. on Regulatory Reform, Commercial and Antitrust Law of the H. Comm. on the Judiciary*, 115th Cong. 1, 3, 6-7 (2017) (statement of Maureen K. Ohlhausen, Acting Chairman, Federal Trade Commission), https://www.ftc.gov/system/files/documents/public_statements/1253073/house_testimony_licensing_and_rbi_act_sept_2017_vote.pdf; Comment from FTC Staff to the Iowa Dep't of Public Health (Dec. 20, 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-professional-licensure-division-iowa-department-public-health-regarding-proposed/v170002_ftc_staff_comment_to_iowa_dept_of_public_health_12-21-16.pdf (regarding the appropriate level of supervision of physician assistants); Comment from FTC Staff to Valencia Seay, Senator, Ga. State Senate (Jan. 29, 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-georgia-state-senator-valencia-seay-concerning-georgia-house-bill-684/160201gadentaladvocacy.pdf (regarding removal of direct supervision requirements for dental hygienists); Brief of Amicus Curiae FTC in Support of No Party, In re Nexium (Esomeprazole) Antitrust Litig., No. 15-2005 (1st. Cir. Feb. 12, 2016), https://www.ftc.gov/system/files/documents/amicus_briefs/re-nexium-esomeprazole-antitrust-litigation/160212nexiumbrief.pdf; FTC & DOJ, IMPROVING HEALTH CARE, *supra* note 12.

[14] *See, e.g.*, FTC Staff Comment to the Department of Veterans Affairs: Proposed Rule Regarding Advanced Practice Registered Nurses (July 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/comment-staff-ftc-office-policy-planning-bureau-

competition-bureau-economics-department-veterans/v160013_staff_comment_department_of_veterans_affairs.pdf (to permit the VA to grant "full practice authority" to the four main categories of APRNs—Certified Nurse Practitioners ("CNPs"), Clinical Nurse Specialists ("CNSs"), Certified Nurse Midwives ("CNMs"), and Certified Registered Nurse Anesthetists ("CRNAs")); FTC Staff Comment to the Hon. Kent Leonhardt, Senator, Senate of West Virginia, Concerning the Competitive Impact of WV Senate Bill 516 on the Regulation of Certain Advanced Practice Registered Nurses (Feb. 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-senate-west-virginia-concerning-competitive-impact-wv-senate-bill-516-regulation/160212westvirginiacomment.pdf [hereinafter FTC Staff Comment to West Virginia] (regarding collaborative practice arrangements between physicians and APRNs); FTC STAFF POLICY PERSPECTIVES, *supra* note 4 (presenting an overview of FTC staff comments regarding APRNs, and an in depth analysis of the competitive effects of statutes and rules governing APRN scope of practice and supervision); Brief of the Federal Trade Commission as Amicus Curiae on Appeal from United States District Court, Nurse Midwifery Associates v. Hibbett, 918 F.2d 605 (6th Cir. 1990), appealing 689 F. Supp. 799 (M.D. Tenn. 1988); FTC Staff Comment Before the Council of the District of Columbia Concerning Proposed Bill 6-317 to Create Specific Licensing Requirements for Expanded Role Nurses (Nov. 1985) (nurse midwives, nurse anesthetists, and nurse practitioners).

[15] *See, e.g.*, *Occupational Licensing: Regulation and Competition: Hearing Before the Subcomm. on Regulatory Reform, Commercial and Antitrust Law of the H. Comm. on the Judiciary*, 115th Cong. 1, 3, 6-7 (2017) (statement of Maureen K. Ohlhausen, Acting Chairman, Federal Trade Commission), https://www.ftc.gov/system/files/documents/public_statements/1253073/house_testimony_licensing_and_rbi_act_sept_2017_vote.pdf; Economic Liberty Task Force webpage, https://www.ftc.gov/policy/advocacy/economic-liberty.

[16] *Compare* proposed § 8.9 (a) of HB 100 *with* 63 PA. CONS. STAT. ANN. §§ 218.1– 3 (West, 2003 & 2007). *See also* Rep. Jesse Topper, House Co-Sponsorship Memoranda (Jan. 10, 2017), http://www.legis.state.pa.us//cfdocs/Legis/CSM/showMemoPublic.cfm?chamber=H&SPick=20170&cosponId=21957 (noting that "after meeting a three year, 3600-hour physician collaboration requirement, APRN-CNPs will be permitted to practice to the full extent of their education and training by removing the requirement for a formal collaborative agreement currently required for them to practice and write prescriptions" and that this "will allow APRN-CNPs to provide health care in an environment free from unnecessary administrative burdens that have outlived their usefulness").

[17] Proposed § 8.9 (c) of HB 100.

[18] For example, licensing requirements or scope of practice restrictions may sometimes offer an efficient response to certain types of market failure arising in professional services markets. *See* CAROLYN COX & SUSAN FOSTER, FED. TRADE COMM'N, BUREAU OF ECONOMICS, THE COSTS AND BENEFITS OF OCCUPATIONAL REGULATION 5-6 (1990), https://www.ftc.gov/system/files/documents/reports/costs-benefits-occupational-regulation/cox_foster_-_occupational_licensing.pdf.

[19] *See, e.g.*, IOM FUTURE OF NURSING REPORT, *supra* note 7, at 100, 332; FTC Staff Comment to West Virginia, *supra* note 14, at 3-4.

[20] According to the American Association of Nurse Practitioners, 22 states and the District of Columbia, permit independent prescribing for certified nurse practitioners, https://www.aanp.org/legislation-regulation/state-legislation/state-practice-environment (last visited Nov. 2, 2017). In addition, in 2016 West Virginia provided a path to independent APRN practice when it amended its nurse licensing statute, which allows APRNs, following a period of collaboration, to prescribe independently with the exception of Schedule I and II drugs. W. VA. CODE §§ 30-7-15 (a) & 15 (b) (2016).

[21] 38 C.F.R. § 17.415(c); see also Press Release, VA Grants Full Practice Authority to Advanced Practice Registered Nurses (Dec. 14, 2016), https://www.va.gov/opa/pressrel/pressrelease.cfm?id=2847 (noting that although certified registered nurse anesthetists "will not be included in VA's full practice authority under this final rule, we are requesting comments on whether there are access issues or other unconsidered circumstances that might warrant their inclusion in a future rulemaking" and that the VA owes "it to Veterans to increase access to care in areas where we know we have immediate and broad access challenges").

[22] IOM FUTURE OF NURSING REPORT, *supra* note 7, at 97-99. *See also* M.O. Mundinger et al., *Primary Care Outcomes in Patients Treated by Nurse Practitioners or Physicians: A Randomized Trial*, 283 JAMA 59 (2000)

(comparing outcomes for 1316 ambulatory care patients randomly assigned to APRN and MD primary care providers, where APRNs had "same authority to prescribe, consult, refer, and admit patients," and finding no significant difference in patients' health status or physiologic test results); Lenz et al., *Primary Care Outcomes in Patients Treated by Nurse Practitioners or Physicians: Two-year Follow-up*, 61 MED. CARE RES. REV. 332 (2004) (Two-year follow-up data for Mundinger et al. consistent with preliminary results); Ann B. Hamric et al., *Outcomes Associated with Advanced Nursing Practice Prescriptive Authority*, 10 J. Amer. Acad. Nurse Practitioners 113 (1998) (safety and effectiveness in study of 33 APRNs in 25 primary care sites); Pamela Venning et al., *Randomised Controlled Trial Comparing Cost Effectiveness of General Practitioners and Nurse Practitioners in Primary Care*, 320 BRIT. MED. J. 1048, 1050 (2000) ("There was no significant difference in patterns of prescribing or health status outcome. . . ."). FTC staff are not aware of any empirical evidence supporting a contrary contention that patient harms or risks are particularly associated with APRN prescribing.

[23] *See generally* IOM FUTURE OF NURSING REPORT, *supra* note 7 (especially Summary, 1-15; 99 - 102).

[24] *Id*. at 4.

[25] NAT'L GOVERNORS ASS'N, NGA PAPER: THE ROLE OF NURSE PRACTITIONERS IN MEETING INCREASING DEMAND FOR PRIMARY CARE (2012), https://www.nga.org/files/live/sites/NGA/files/pdf/1212NursePractitionersPaper.pdf [hereinafter NGA APRN PAPER].

[26] *Id.* at 11.

[27] Kyle Jaep and John Bailey, *The Value of Full Practice Authority for Pennsylvania's Nurse Practitioners* (July 2015) (report prepared by JD candidates at Duke University School of Law in consult with the Bay Area Council Economic Institute, the latter of which was funded by the PA Coalition of Nurse Practitioners), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2644455&download=yes.

[28] This is true even though many of the services provided by APRNs and physicians are complementary rather than substitutes. FTC staff do not suggest that APRN and physician scope of practice should be the same, but that both APRNs and physicians are able to provide an overlapping set of services. "Most observers conclude that most primary care traditionally provided by physicians can be delivered by NPs and PAs." OFFICE OF TECH. ASSESSMENT, U.S. CONG., HEALTH TECH. CASE STUDY 37, NURSE PRACTITIONERS, PHYSICIAN ASSISTANTS, AND CERTIFIED NURSE-MIDWIVES: A POLICY ANALYSIS 39 (1986), https://www.princeton.edu/~ota/disk2/1986/8615/8615.PDF. *See also* ASS'N OF AMER. MED. COLLS., PHYSICIAN SHORTAGES TO WORSEN WITHOUT INCREASES IN RESIDENCY TRAINING (n.d.), https://www.aamc.org/download/150584/data/physician_shortages_factsheet.pdf (in its projections of physician supply and demand, the AAMC assumes that each additional two NPs (APRNs or physician assistants) reduce physician demand by one, which suggests that APRNs and primary care doctors are actual or potential competitors for at least some set of services).

[29] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 14 -15.

[30] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 18-38. For Pennsylvania's requirements related to certified registered nurse practitioners, including the requirement for a collaborative agreement with a supervising physician, see 63 PA. CONS. STAT. ANN. §§ 218.1– 3 (West, 2003 & 2007).

[31] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 20.

[32] *Id.* at 21; IOM FUTURE OF NURSING REPORT, *supra* note 7, at 106-7 ("Expanding the scope of practice for NPs is particularly important for the rural and frontier areas of the country. Twenty-five percent of the U.S. population lives in these areas; however, only 10 percent of physicians practice in these areas. People who live in rural areas are generally poorer and have higher morbidity and mortality rates than their counterparts in suburban and urban settings, and they are in need of a reliable source of primary care providers.") (internal citations omitted).

[33] *See* Thomas Jefferson University's Physician Shortage Area Program, http://www.jefferson.edu/university/skmc/programs/physician-shortage-area-program.html (program designed to attract medical students who will ultimately practice in underserved areas in Pennsylvania).

[34] *Id*. Those counties are Philadelphia County, its suburban Montgomery County, and Pittsburgh's Allegheny County.

[35] *See id.*

[36] General Assembly of the Commonwealth of Pennsylvania, House Resolution No. 735 (2014), http://www.legis.state.pa.us/cfdocs/legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2013&sessInd=0&billBody=H&billTyp=R&billNbr=0735&pn=3230.

[37] PENNSYLVANIA JOINT STATE GOVERNMENT COMMISSION, THE PHYSICIAN SHORTAGE IN PENNSYLVANIA (Apr. 2015), http://jsg.legis.state.pa.us/resources/documents/ftp/publications/2015-411-physician%20shortage%20report%204-20-2015.pdf [hereinafter THE PHYSICIAN SHORTAGE IN PENNSYLVANIA]. Although the report is primarily focused on recommendations for increasing the number of physicians practicing in Pennsylvania, it also notes that advancements "in technology and dynamic approaches to health care delivery can lessen the impact of the physician shortage, reduce health care costs, improve health care quality, facilitate health care access, and provide many more benefits" and notes two examples – the patient centered medical home and telemedicine – "as alternative care delivery models that show great potential."

[38] THE PHYSICIAN SHORTAGE IN PENNSYLVANIA at 12.

[39] THE PHYSICIAN SHORTAGE IN PENNSYLVANIA at 20 (citing to Dep't of Health & Human Servs., Health Ress. & Servs. Admin., Bureau of Health Professions, Nat'l Ctr. for Health Workforce Analysis, *Projecting the Supply and Demand for Primary Care Practitioners Through 2020* (Nov. 2013), http://bhpr.hrsa.gov/healthworkforce/supplydemand/usworkforce/primarycare/projectingprimarycare.pdf).

[40] *See, e.g.*, IOM FUTURE OF NURSING REPORT, *supra* note 7, at 27-28; NGA APRN PAPER *supra* note 25, at 11. We do not suggest that reforming APRN scope of practice restrictions is a panacea for primary care access problems. Rather, reducing undue restrictions on APRN scope of practice can be one significant way to help ameliorate existing and projected access problems.

[41] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 25, citing to Christine M. Everett et al., *Division of Primary Care Services Between Physicians, Physician Assistants, and Nurse Practitioners for Older Patients with Diabetes*, 70 Medical Care Res. & Rev. 531, 536- 37 (2013) ("Panels with PAs/NPs as usual providers appear to have a higher proportion of socially complex patients, when defined according to poverty (Medicaid), disability, and comorbid dementia and depression."); KAISER FAMILY FOUND., IMPROVING ACCESS TO ADULT PRIMARY CARE IN MEDICAID: EXPLORING THE POTENTIAL ROLE OF NURSE PRACTITIONERS AND PHYSICIAN ASSISTANTS (Mar. 2011), https://kaiserfamilyfoundation.files.wordpress.com/2013/01/8167.pdf; IOM FUTURE OF NURSING REPORT, *supra* note 7, at 107-08; Christine M. Everett et al., *Physician Assistants and Nurse Practitioners as Usual Sources of Primary Care*, 25 J. Rural Health 407, 408 (2009).

[42] American Academy of Nurse Practitioners, NP Facts (updated June 6, 2017; based on the 2016 AANP National Nurse Practitioner Sample Survey), https://www.aanp.org/all-about-nps/np-fact-sheet.

[43] Christine Vestal, PEW STATELINE, *Nurse Licensing Laws Block Treatment for Opioid Addiction* (Apr. 21, 2017), http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2017/04/21/nurse-licensing-laws-block-treatment-for-opioid-addiction (noting that two federal agencies had given 700 NPs and physician assistants the authority to write prescriptions for the anti-addiction medication buprenorphine, but that tens of thousands more could be helping if state scope of practice laws did not prevent them from doing so).

[44] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 28. For example, a study conducted for the Commonwealth of Massachusetts by the RAND Corporation suggests concrete savings that might be associated with expanded APRN (and physician assistant (PA)) scope of practice, due to the lower costs and prices that tend to be associated with APRN-delivered services: "between 2010 and 2020, Massachusetts could save $4.2 to $8.4 billion through greater reliance on NPs and PAs in the delivery of primary care." CHRISTINE E. EIBNER ET AL., RAND HEALTH REPORT SUBMITTED TO THE COMMONWEALTH OF MASSACHUSETTS, CONTROLLING HEALTH CARE SPENDING IN MASSACHUSETTS: AN ANALYSIS OF OPTIONS, 103-104 (2009), https://www.rand.org/content/dam/rand/pubs/technical_reports/2009/RAND_TR733.pdf [hereinafter RAND MASSACHUSETTS HEALTH REPORT] (describing conditions for upper and lower bound estimates and projections).

[45] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 27-28.

[46] *See, e.g.*, FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 20 (citing, *e.g.*, IOM Future of Nursing Report, *supra* note 7, at 98-103, 157- 61 annex 3-1 (2011); RAND MASSACHUSETTS HEALTH REPORT, *supra* note 44, at 99; NGA APRN Paper, *supra* note 25.

[47] See NGA APRN PAPER, *supra* note 25.

[48] See Testimony of Susan Van Cleve, DNP, CPNP-PC, FAANP, Pittsburgh, PA, http://www.reptopper.com/Display/SiteFiles/42/OtherDocuments/ProfNursingTestimonies/Testimonial%20-%20Susan%20Van%20Cleve.pdf (discussing how the sudden death of a collaborating physician shut down their practice dedicated to treating children with Down syndrome, while they waited six weeks for a new collaboration agreement to be secured and approved).

[49] Testimony of Lorraine Bock, CRNP, CEN, DNP, Carlisle, PA, http://www.reptopper.com/Display/SiteFiles/42/OtherDocuments/ProfNursingTestimonies/Testimonial%20-%20Lorraine%20Bock.pdf (noting that after more than a decade she had to close her practice in Carlisle, PA, in part due to the costs associated with securing collaborative agreements); Testimony of Donald Pallone, CRNP, Punxsutawney, PA, http://www.reptopper.com/Display/SiteFiles/42/OtherDocuments/ProfNursingTestimonies/Testimonial%20-%20Donald%20Pallone.pdf (noting many NPs must pay large fees to physicians in order to secure mandatory collaborative agreements and those in rural areas of Pennsylvania "struggle to obtain the necessary contracts from physicians because of distance challenges").

[50] *Id*. and Testimony of Susan Van Cleve, *supra* note 48.

[51] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 34.

[52] See IOM FUTURE OF NURSING REPORT, *supra* note 7, at 23, 58-59, 65-67, 72-76 (discussing diverse practice settings and collaboration); *see generally* Pamela Mitchell et al., *Core Principles & Values of Effective Team-Based Health Care* (Discussion Paper, Institute of Medicine 2012), http://nam.edu/wp-content/uploads/2015/06/VSRT-Team-Based-Care-Principles-Values.pdf [hereinafter *Core Principles & Values of Effective Team-Based Health Care*] (IOM-sponsored inquiry into collaborative or team-based care).

[53] A report by the Robert Wood Johnson Foundation describes several private and public models of innovative ways to use APRNs in team-based care. ROBERT WOOD JOHNSON FOUND., HOW NURSES ARE SOLVING SOME OF PRIMARY CARE'S MOST PRESSING CHALLENGES (2012), https://www.rwjf.org/content/dam/files/rwjf-web-files/Resources/2/cnf20120810.pdf.

[54] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 31 (citing *Core Principles & Values of Effective Team-Based Health Care*, *supra* note 52).

[55] FTC STAFF POLICY PERSPECTIVES, *supra* note 4, at 32.