

FUTURE OF NURSING™

Campaign for Action

AT THE CENTER TO CHAMPION NURSING IN AMERICA



APRN Full Practice Authority Evidence: How Do We Use This Evidence?

Webinar Summary August 5, 2019

During this webinar, participants will review recent research related to the quality of care and access to care that advanced practice registered nurses (APRNs) provide.

Since 2011, the Future of Nursing: *Campaign for Action* has tracked and collected much of the evidence, showing facts and findings in *Campaign* webinars such as [this one from 2017](#) and [this one from 2016](#).

Objectives

- Review past research that demonstrates how APRN care can increase access to high quality, cost-effective care.
- Describe new research study findings.
- Identify how evidence is used in messaging to policymakers and the public.
- Discuss policymakers' continuing requests for more evidence.

Presenters



Andrea Brassard, PhD, FNP-BC, FAANP, FAAN, Senior Strategic Policy Advisor, *Center to Champion Nursing in America*



Heather Brom, PhD, APRN, Postdoctoral Research Fellow, Center for Health Outcomes and Policy Research, University of Pennsylvania School of Nursing

Across the country, there is a movement to advance the field of nursing so that all Americans have access to high quality, patient-centered care in a health care system where nurses contribute as essential partners in achieving success. This national level [Future of Nursing: Campaign for Action](#) is a result of the Institute of Medicine's landmark 2010 report on the [Future of Nursing: Leading Change, Advancing Health](#).

The *Campaign for Action's* field-based teams, the [Action Coalitions](#), are leading this movement and are equipping themselves with knowledge gained from technical assistance provided by the Center to Champion Nursing in America (CCNA), a joint initiative of AARP, the AARP Foundation, and the Robert Wood Johnson Foundation. Such technical assistance comes in the form of webinars, face to face interactions, and other facilitated engagements with public policy leaders, content experts, consultants, and Action Coalition peers across the country.

Respondent



Deanna E Grimes, DrPH, RN, FAAN, Professor Emerita, Cizik School of Nursing, at the University of Texas Health Science Center at Houston

Introduction

Andrea Brassard welcomes the audience and explains how this webinar builds on two prior webinars on increasing access to advanced practice registered nurse care. She introduces the speakers, Heather Brom, PhD, APRN who will share new research as well as Deanna Grimes, DrPH, RN, FAAN, who will respond to the evidence.

The handouts for the presentation are:

- [Recent Studies Demonstrate Important Role of APRNs](#)
This one page document has key messages about evidence that attendees can use in advocacy messages.
- [APRN Full Practice Authority Evidence](#)
This document includes complete references for each of the articles outlined in this summary. The articles are categorized by access, quality, and cost.

Presentation Summary

Heather Brom presents the most recent findings on APRN care from a variety of data sources.

Access to APRNs

- 1) Martsof and colleagues published their findings regarding the relationship between state policy and anesthesia provider supply in rural communities in *Medical Care* in 2019.**

Findings: States who opted-out of the Centers for Medicare and Medicaid Services requirement that certified registered nurse anesthetists (CRNAs) be supervised by a physician or have an anesthesiologist available on premise was correlated with a significant greater supply of CRNAs in rural communities. Rural counties without an anesthesiologist had a greater number of CRNAs compared to more restrictive states. This finding is particularly important because over 80 percent of rural counties have zero anesthesiologists.

Conclusion: Removing required physician oversight of CRNAs may lead to increased supply of CRNAs in rural communities.

- 2) In their *JAMA* 2019 publication, Xue, Smith and Spetz examined primary care nurse practitioner (NP) and physician distribution in low-income and rural areas.**

Findings: The primary care Nurse Practitioner (NP) supply increased the most in rural areas compared to the physician supply. Over time, the growing supply of NPs may

offset low physician supply in these areas and increase primary care capacity in underserved areas.

3) Barnes, Richards, McHugh and Martsof published in *Health Affairs* in 2018 their findings regarding rural and non-rural primary care physician and NP supply.

Findings: The NP workforce is significantly increasing in rural areas as the physician workforce decreases. States with full scope of practice had the highest NP presence, but the fastest growth occurred in reduced and restricted scope of practice states. They also found a significantly higher percentage of rural practices employed at least one NP compared to non-rural practices.

Limitations: The data source does not account for independent NP practices, so NPs practicing in full practice authority states are likely under-counted. Unfortunately, there is not a comprehensive dataset to capture practices led by NPs with no required physician involvement.

APRN Full Practice Authority and Utilization and Care Quality

1) Traczynski and Udalova published their findings in the *Journal of Health Economics* in 2018.

Findings: After NPs achieve full practice authority:

- a. The probability that an adult had a check-up in the last year increases.
- b. More patients reported lower indirect costs (for appointment when wanted, care when sick, travel to usual source of care is not difficult).
- c. More patients reported having a usual source of care and report visits to be of higher quality.
- d. More patients report being in excellent health status and fewer emergency department visits for ambulatory care sensitive conditions.

2) McMichael, Spetz and Buerhaus in 2019 published their findings in *Medical Care*.

Findings: All 15 states in the analysis saw an increase in emergency department (ED) visits following Medicaid expansion in their states, but states that required physician oversight experienced larger increases in the number of ED visits by Medicaid beneficiaries. In states that required physician oversight, ED use increased by approximately 28 percent and in states that did not require physician oversight, ED use increased only 7 percent.

Conclusion: The smaller increase in ED visits in states with full practice authority is related to increased access to primary care.

3) Neff and colleagues published their findings regarding NP regulations and population access to care in *Nursing Outlook* in 2018 by examining NP scope of practice and travel time to primary care providers.

Findings: States with NP full practice authority had 19 percent lower odds of having a greater than 30-minute drive to the closest NP or MD (*when adjusting for potential confounders such as urban, population, providers per capita etc.*).

4) Smith-Gagen and colleagues in 2019 published their findings in the *Journal of Epidemiology and Community Health*.

Findings: Among states with reduced practice, women in medically underserved areas have a twofold higher odd of being diagnosed with late stage cervical cancer relative to women living in areas that are not medically underserved. Among states with full practice authority, there were no late stage diagnosis disparities among women living in medically underserved areas and those who do not.

5) Davis and colleagues published their findings in the *Journal of Internal Medicine* in 2018.

Findings: Adjusting for county-level differences, the supply of primary care physicians, physician assistants (PAs), and chiropractors increased across socioeconomic status. NPs however, did not follow this trend. NPs were less likely to be in areas with higher health status and did not vary across socioeconomic status and providing care in higher-need areas.

6) McMichael has evidence forthcoming in the 2020 publication in the *95 Indiana Law Journal*.

Findings: The removal of restrictive practice laws for APRNs significantly reduced C-section rates (which is currently over three times the rate recommended by the World Health Organization), and medical inductions of labor when malpractice liability risk is low. When malpractice liability risk is high, removing restrictive laws did not change the c-section or medical inductions of labor rates.

7) Patel and Kandrack presented their findings at this year's AcademyHealth's Annual Research Meeting.

Findings: They found no differences in the number of services provided by APRNs and physicians in ambulatory visits overall or in primary care visits. General medical exams with APRNs were associated with 1.2 fewer services provided on average relative to general medical exams with physicians.

8) In *The American Journal of Medicine*, Yang and colleagues published their findings in 2018.

Findings: Diabetic management at the Veterans Health Administration was comparable among physicians, NPs and PAs from 2005 to 2010.

9) O'Reilly-Jacob, Perloff and Buerhaus in 2019 presented their findings at AcademyHealth's Annual Research Meeting.

Findings: Primary care physicians and NPs ordered low-value back images at similar rates (26 percent for NPs and 24 percent for MDs).

10) Buerhaus and colleagues provide additional support for the quality of primary care NPs in their 2018 *Medical Care* paper.

Findings: Beneficiaries with a disability, dually eligible for Medicaid and Medicare, and living in rural areas were more likely to be cared for by NPs and were less likely to have

hospital admissions, readmissions within 30 days, inappropriate ED visits, and fewer low-value MRIs associated with low back pain.

Beneficiaries cared for by physicians were more likely to receive chronic disease management services (diabetes, coronary artery disease, COPD) and cancer screening.

Potential causes for these differences might be NPs access to organizational supports or requirements for physicians to order screening and differences in beneficiary's access to technology particularly in rural areas, or differences in clinician incentives.

Quality of care for beneficiaries jointly cared for by NPs and physicians generally scored in the middle of NPs and physicians with the exception of cancer screening in which screening improved.

Required Contracts are Costly to APRNs and Consumers and Don't Improve Quality

1) Martin and Alexander published their findings in the *Journal for Nursing Regulation* in 2019.

Findings:

- a. Collaborative practice agreements, required in states without full practice authority, vary greatly with regards to financial and professional requirements.
- b. APRNs working in rural settings were 52 percent more likely to report needing to pay a fee to establish or maintain their contract with a physician, and those working remotely from their physician were 2.7 times more likely to report a required fee for their physician contract.
- c. APRNs practicing in large health facilities, private practices run by physicians, or who were self-employed were less likely to pay fees for required contracts compared to those practicing in private practice settings established and managed by APRNs.
- d. One third of respondents reported that certain terms in their contracts restricted their care of patients such as restrictions to prescribing, procedures, patient profiles, and distance/setting requirements.

2) As part of her dissertation at Penn and presented at Academy Health 2019, Ashely Ritter examined the variation of collaborative practice agreements.

Findings:

- a. Required contracts with physicians, in general, included vague language and 24 percent of NPs reported no terms of physician collaboration in their agreement.
- b. One quarter of contracts contained no terms for physician supervision either on sight or off sight or chart reviews.
- c. Almost ten percent of NPs reported paying a physician for the required contract, with a median cost of \$725 per month accounting for 10 percent of the NP's annual salary.

- d. Among those NPs who pay for contracts, 37 percent report the contract contains no terms for collaboration.
- e. Half of self-employed NPs paid for their required contract to 6.2 percent of NPs who worked for physicians or health care institutions.

3) McMichael in his forthcoming 2020 Indiana Law publication writes about potential legal risks for physicians contracting with APRNs.

Findings: The supervising physician may be held liable for APRN malpractice under the premise of respondent superior (Latin for “let the master answer) or negligent supervision doctrine – contracting physician may be held accountable for APRN acts.

4) Webinar respondent Deanna Grimes and colleagues published their findings in the *Journal for Nurse Practitioners* in 2018.

They conducted a cross-sectional analysis of 2013 state-level data from Federally Qualified Community Health Centers to examine whether states with full practice authority had patient outcomes inferior to patient outcomes in the most restrictive states as evidenced by hypertension and diabetes management

Findings: In the most restrictive states, 28 percent of visits were to NPs and in the least restrictive states, 25 percent of visits were to NPs in least restrictive states. There were slightly more patients with controlled hypertension and diabetes in least restrictive states, and there was a similar pattern for diabetes control.

Heather Brom’s Research: Did Passage of the Affordable Care Act (ACA) Influence the Expansion of NP Full Practice Authority?

Currently, 22 states plus Washington, DC have full practice authority for NPs.

Brom found that:

- Since the ACA passed, nine states adopted full practice legislation, and seven of those states expanded Medicaid as well.
- No consistency of the state legislature’s party affiliation.
- Wide range of interest groups involved.
- Studies on NP outcomes and data regarding provider shortages played a role.

Brom shares a map of the United States showing state progress in improving access to care and highlights the states that have gained full practice authority and/or have made significant improvements. The six states that have passed legislation significantly improving scope of practice for APRNs include: Kentucky (2014); New York (2014); Delaware (2015); Utah (2016); West Virginia (2016); and Illinois (2017).

New Evidence Summary

Mark & Patel in 2019 published their research in the *Western Journal of Nursing Research*.

Findings:

- States with full scope of practice have more and faster NP growth, including in rural areas.
- NPs are more likely to care for underserved populations.
- There is evidence to support that full scope of practice is associated with improved utilization of services.
- Restrictive scope of practice does not increase quality.

IOM Criticism and Questions from Policymakers

Brom turns the presentation over to Brassard who comments on recent criticism to the Institute of Medicine (IOM) report.

Criticism: *“The IOM report was funded by nursing groups, and the ‘research’ is either biased or of sufficiently low quality that it precludes any valid conclusion.”* Source is a September 2014 Evidence Brief: The Quality of Care Provided by Advanced Practice Nurses [prepared for the Veterans Health Authority (VHA)].

Response:

- 1) The IOM report was funded by the Robert Wood Johnson Foundation (RWJF). This organization is not a nursing group.
- 2) RWJF’s Sue Hassmiller and the IOM committee ensured that the research studies were high quality and not biased.
- 3) The strength of the evidence is as strong as possible; there are no recent random controlled trials, but some observational studies.
- 4) The results of the studies cited show no difference favoring either APRN or physician care.
- 5) At the bottom of the 2014 VHA evidence brief, there is a disclaimer that the views do not represent the views of the VHA.

Policymakers often ask questions when discussing increasing access to care. Here are some questions frequently asked along with answers when applicable.

- Has access improved in states that enacted full practice authority? *Answer: We don’t really know yet.*
- Have APRNs migrated from restricted states to full practice authority states? *Answer: We know that in the 5 years that Nevada achieved full practice authority, the number of APRNs has doubled*
- How does restricted practice affect patients? *Answer: We don’t know. Nurses are so good at work arounds. We get the forms signed so there are no noticeable delays. This is the area where we need your stories. How does this affect patients according to you?*

Brassard then asks Grimes to comment on the research presented earlier and asks how the audience can use this evidence.

Response

Grimes comments that research shows that APRNs provide high quality care. Access to APRN care continues to increase, especially in rural areas. Patient satisfaction is always high, and full

practice authority increases the number of APRNs in an area. This is a significant finding in today's environment when we need more primary care providers.

Much of the published findings about APRN care is found in nursing and medical journals. While publications in other health related journals is increasing, it seems that nurses are talking to each other. However, it would be beneficial to reach out to other stakeholder groups with the research and findings.

Community members often have a lot of effect on policy changes, including influential organizations that serve the community. Nurses should begin thinking about the groups that will influence state legislatures (i.e. primary care clinics, health care administrators, employee health service companies, etc.) and share the talking points to these people and groups.

Questions and Answers

Q: Where are the handouts for the presentation located?

A: The handouts can be found online at: <https://campaignforaction.org/webinar/aprn-full-practice-authority-evidence-how-do-we-use-this-evidence/>.

Q: I'm curious about the evidence that we have for nurse midwives, particularly the research from Katy Kozhimannil from the University of Minnesota. There's some clear evidence that increasing to full practice authority for nurse midwives will improve outcomes, and that's a huge part of our push. As a nation, we're focused on maternal health outcomes. What do the researchers have to say about that?

A: We will talk with you offline, and possibly include this information in a future webinar/conference call.

Q: I serve as the vice-president of government relations for Northern Light Health here in Maine, and I'm a registered nurse. Also, I spent over 20 years working at the state legislature as well as Congress. We have full scope of practice for APRNs but not for nurse anesthetists. I have a few ideas to offer around political strategy.

- 1) We know the challenge the medical association presents before various committees in the statehouse. I'm not aware of any research that's been funded that looks at the medical community, particularly primary care providers, and their perceptions and sense of the role of APRNs in their practices, communities, and state. One political strategy is to call the doctors on the carpet for the practice that's very well established and very well accepted by their colleagues around the country.
- 2) The National Conference of State Legislatures is a resource for all state legislatures in the country. They've published information for legislatures on full scope of practice for APRNs. I don't think we've fully leveraged them as a resource.
- 3) Medical associations generally have full time lobbyists that are very powerful and influential. But nursing organizations in states don't consistently have that. For those states where we want this to be accomplished I think there needs to be funding to pay for the expertise in terms of advocacy and lobbying.

A: All good points. The National Council of State Legislatures is meeting at the time of the presentation. As far as lobbyists...the states where we have been successful has come

up with the money for lobbying, or they have good grassroots movements with their nurses who were like lobbyists and at the statehouse often. We need to take advantage of APRNs who have cared for legislatures and highlight that aspect.

Q: We have critical care NPs at University Medical Center in New Orleans who are desperate to demonstrate their worth and improvement in patient outcomes. How do we best advocate for practicing to the extent of our scopes? Is there currently evidence to support our venture?

A: It would recommend looking for models in other states that have full practice authority.

Q: In general, will more evidence really help? Is it more a matter of political will and influence?

A: I think political will and influence are correct. However, we need to have the evidence for when we have hearings and there are questions about quality, safety, and cost.

Q: The data on costs of mandated contracts are useful. Other researchers could do the same kind of evidence-gathering in key states like CA, TX, and other states actively considering full practice legislation.

A: That would be a great PhD dissertation or a group project for DNP.

Q: For Dr. Brom and Dr. Grimes, what are some of the future areas of APRN research that will build on the evidence that you presented today? Was there evidence that we don't have that jumped out to you?

A: Brom: We are doing a lot more work looking at studies that use multiple years longitudinally, and how achieving full practice authority is shifting access and supply of providers. We could do more policy analysis, especially now that we have the momentum of states passing full scope over the last ten years. I think we could benefit to see more work like Traczynski and Udalova's research that looked at what happened to states that passed full practice authority.

Also, thinking of ways that we can make those findings more accessible will help those in the policy world make those changes happen and communicate them. Also, continuing to push for data sources that are representative of the care provided. For instance, if we are able to eliminate the incident to billing or be able to provide a field to identify the provider giving the care. This would be big improvements and a way to gather more evidence.

Grimes: Maybe we need more interdisciplinary research in this area, though this has increased over the years. We also need to look at bringing in leaders of organizations or government officials to build the constituencies for change.

Q: Is the *Campaign* involved in educating physicians, while in medical school, the role of NPs and evidence?

A: The *Campaign* and some of the Campaign's leaders have reached out to medical school leaders. The *Campaign for Action* Strategic Advisory Committee member Darrell Kirch,

MD, former president of the American Association of Medical Colleges. There are individual physician proponents for full practice authority, but the medical organizations aren't changing their positions and are spending a lot of money. Many physicians are more collaborative and appreciate APRNs. But the party line for the American Medical Association and the American Association of Family Practices is that physicians are the leaders of the team. What I learned new from this webinar, is that "physicians being the leaders of the team" could put them more at risk. Nurse midwives have used that way of thinking to get more collaborative relationships with OBGYNs.

Q: Do you have data on the impact of full practice authority on APRN management of opioid use disorder. Is there better access to treatment?

A: See Joanne Spetz' s recent publication in JAMA, Spetz et al., 2019."Nurse Practitioner and Physician Assistant Waivers to Prescribe Buprenorphine and State Scope of Practice Restrictions", April 3: 321 (14), 1407-1408.

Q: What kind of DNP projects can positively impact the expansion of scope of practice in Florida?

A: A good DNP project would be what are the current barriers and how do they affect patients/consumers. You could look at barriers in many care settings.

Q: Do you know of any clinical nurse specialists (CNS) studies about CNS' prescribing?

A: I have not seen studies about CNS prescribing. I've seen studies about CNS care with positive outcomes including shorter lengths of stay and lower rates of hospital-acquired infections.

Q: Regarding midwives, the California Health Care Foundation will be publishing an evidence summary soon. Please see their website for summaries on the research on NPs and PAs.

A: We will look for that.

Q: In regards to looking at state policy and also having to consider federal-level and institutional-level policies that can interact to limit the ability of nurse practitioners to provide the best care in those settings, how do you envision engaging stakeholders specific to a setting? Has research looked at the interaction of this tapestry of policies?

A: Grimes: We have examples that are state nurses' organizations. Researchers have presented information to the state boards, and they have lobbied for change. I think it is a matter of moving the evidence away from nurses. The evidence that the quality of care and patient outcomes are equal and sometimes better than those provided directly by physicians. We need to get that information out to the public so they can ask for an NP when going to a clinic, and they can seek out that level of care.

Brom: The work we focus on now looks at the state level, but what does that mean at an individual practice and at the institutional level. Thinking about the states that are broadening their scope of practice, are there people within the institution whether it's within leadership or APRNs themselves who are educated about these changes that

can then implement them in a consistent way so that you don't see restrictions in scope. In terms of the practice environment, Lusine Poghosyan has written extensively about this. When there are constraints at the organizational level, there are worse outcomes for NPs than for patients. Thinking about other ways at how we look at scope of practice and limitations or expansions are implemented in practices is important.

Q: What studies have been done in our skilled nursing units, long term care, and assisted living with the realm of practice and education from the CNS or NP? Do they have a certification in gerontology, and does the medical director within that facility have a certification in gerontology/geriatrics?

I've been trying to change the outlook on our nursing homes for more education for staff. A medical director should have a certification in geriatrics but there are no schools in the Midwest with this program. I'm working to have a university offer physicians a geriatrics certification. Are there studies being done to look at skilled nursing units, long-term care, and assisted living facilities?

A: Grimes: I don't know of any right now and would need to do some searching. The research on APRNs and outcomes and costs, etc. has a focus on the family nurse practitioner or primary care provider. There's a few on geriatric NPs but the research isn't recent.

There is a research letter in the Journal of American Medical Directors Association about skilled nursing facility nursing director perspectives; the lead author is Laura Wagner. The University of California San Francisco Health Workforce Research Center on Long-Term Care is now surveying medical directors on their medical staff organization, including employment of NPs, and the organization culture.

Shortly after the Future of Nursing report was released and the *Campaign* began, we looked at trying to change the federal policy to allow NPs and CNS to be medical directors of skilled nursing facilities. When we reached out to the nursing organizations, there was not a lot of push for this. This could be an area where APRNs could step up.

A group at Brown University (Dr. Elizabeth White) is looking at nurse practitioners in skilled nursing facilities.

Q: We are in a full practice authority state, but some of the hospital/healthcare organizations limit what an APRN can do. Do you have any advice?

A: Go with the cost factor. When you are paying a physician for something that an APRN can do, you have excess cost. Any of the procedures that you can cost out would be the way to start. Also, look at similar organizations in your state or in other states.

The IOM's recommendations include: the need for more advanced education of registered nurses; nurses leading innovations in health care and being appointed to decision making bodies; all nurses practicing to the full extent of their education and training; a more diverse nursing workforce and faculty; and more interprofessional collaboration among nurses,

physicians, and other members of the health care team in the educational and clinical environments.

CCNA Contact Information

For more information about this webinar, technical assistance questions, or questions related to the Future of Nursing: *Campaign for Action*, contact abrassard@aarp.org at the Center to Champion Nursing in America.

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