

What Lies Ahead: Understanding the Future of Northwest Florida's Healthcare Workforce

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ABSTRACT

Studies describing healthcare workforce distribution are myriad. Little space, however, has been devoted to regional and local workforce issues. This literature review sought to first review national factors affecting healthcare supply, then progressively focus on the state and regional levels. The analysis concluded that, while healthcare workforce shortages are not present in Florida in terms of nursing, there is a significant gap between physician supply and demand. The results concluded that nearly all of the factors presented can be addressed through educational and health policy initiatives. Strategies were suggested to better meet the needs of Florida's underserved populations through primary care providers.

Introduction

The United States is no stranger to healthcare personnel shortages (Whelan, 2017). In recent years, providers and researchers alike have expressed concern over how healthcare organizations will continue to keep pace with America's health needs. Significant gaps exist between current supply and future demand for primary care physicians, certain specialty providers, nurses, physician assistants, and support staff (Association of American Medical Colleges [AAMC], 2020; Mercer, 2018). Without deliberate action, the healthcare system simply will not have the capacity to treat the volume of patients seeking care in certain areas. Numerous factors such as the passage of the Affordable Care Act, the aging of the population, educational regulation, workforce retirement, and wage disparities coalesce to create a complex dilemma (Haddad, Annamaraju, & Toney-Butler, 2020). The issue has been researched extensively at the national level, which is indispensable to contextualizing the causal factors. Geographically, the scope and severity of the scarcity varies considerably. Little information exists on the nuances of state and local healthcare staffing demand. It is expected that personnel shortages will be felt strongly in rural areas. To examine potential access limitations, the study will begin with an overview of the national backdrop, which will be followed by progressively focused analyses of regional trends and a subsequent discussion of the future implications.

The purpose of this literature review is to examine the most significant gaps in healthcare personnel projections within Florida, specifically in the northwest, over the next decade. It is hypothesized that the issue will be most critical in rural areas, where populations will likely experience heightened access and quality issues as the situation progresses (Warshaw, 2017). The research aims to answer how workforce imbalances will affect the delivery of healthcare, and what solutions can be implemented to improve the predicament.

The ongoing COVID-19 pandemic has brought healthcare workforce deficits to widespread attention. In hard-hit regions, not only is the demand for crucial personnel increasing, but burnout is high and staff are continuing to contract the virus (Centers for Disease Control and Prevention, 2020). While the systemic ramifications of the virus are currently unfolding, particular attention will be given to emerging COVID-19 related staffing data and the workforce changes that it may herald in the next few years.

Methods

The literature review utilized peer reviewed articles, government statistics, emerging health policy issue articles, and professional association materials. All were published since 2017. Data sources included the Centers for Disease Control and Prevention (CDC), the Florida Department of Health (FDOH), the Health Resources and Services Administration (HRSA), Springer Link, the Bureau of Labor Statistics (BLS), Elsevier, the Agency for Healthcare Research and Quality (AHRQ), PubMed, and ProQuest. The bibliographies of eligible articles were also examined for works of further relevance. Search terms included physician assistant supply, nurse practitioner, physician workforce, primary care shortage, nurse shortage, and healthcare workforce. About 39 articles were ultimately identified for analysis and inclusion. Regional analysis centered around the Florida Panhandle. Specifically Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Calhoun, Gulf, Liberty, Franklin, Gadsden, Wakulla, Jackson, and Leon counties were included.

Results

National

The Northeast regions of the U.S. contain an excess of physicians; however, other regions like the South, Appalachia, the Midwest, and areas of Alaska have been experiencing supply issues for decades (AAMC, 2020; Warshaw, 2017). Experts agree that the primary force acting on physician supply and demand imbalances is increasing life expectancy (Bureau of Labor Statistics, 2020b; AAMC, 2019b, U.S. Department of Health and Human Services [HHS], 2017). Adults over the age of 65 utilize healthcare more frequently than younger populations (Mitchell, 2020). As Baby Boomers retire, the Medicare-eligible population bracket is experiencing unprecedented growth (Haddad, Annamaraju, & Toney-Butler, 2020). A significant portion of physicians will be within retirement age in the next decade as well (AAMC, 2020). Yet another major factor within physician shortage dialogues is the dearth of graduate medical education positions. Medical school enrollment has significantly increased since the 2000s, but the number of residency slots has remained limited due to regulatory caps (AAMC, 2019b; National Resident Matching Program, 2019). In 2019 alone, the discrepancy created a gap of over 3,500 qualified medical school graduates who could not practice medicine because of insufficient clinical training opportunities (National Resident Matching Program, 2019). Consequently, the United States could see a national physician supply deficit of between 54,100 and 139,000 by 2033 (AAMC, 2020; Mercer 2018). Regions hard-hit by the pandemic have begun to feel the pressure of the shortfall. Areas like New York City have attempted to ameliorate it by graduating medical students early, easing cross-state accreditation restrictions, asking for physicians to come out of retirement, and calling for medical volunteers from other areas of the country (Dill, 2020; Redford, 2020).

The nursing profession faces similar workforce challenges. Increased demand for healthcare is driving a growth rate of around 12% for registered nurses (RNs), bringing the total employed to 3,600,000 by 2030 (Bureau of Labor Statistics, 2020e). Retirement has also been a significant issue, as over 1,000,000 nurses are expected to retire within the next decade (Haddad, Annamaraju, & Toney-Butler, 2020). Nationwide, however, the real challenge lies in nursing education. Despite the profession's sizable growth projections, nursing education programs have only seen a 3.7% uptick in enrollment due to inadequate faculty and clinical educators (Rosseter, 2019). Workload issues are already high among nurses, with some estimates placing burnout rates as high as 37% within certain specialties (Haddad, Annamaraju, & Toney-Butler, 2020). Although sufficient numbers of nursing students graduate, with the aforementioned burnout statistics, new nurses are just a temporary solution to a much greater retention dilemma. Furthermore, the COVID-19 crisis is taking a significant toll on direct patient-care professionals, with as many as 192,299 workers now infected and 771 deceased (Centers for Disease Control and Prevention, 2020b, as of October 29, 2020). Other sources put fatalities among US healthcare workers as high as 1,700 (National Nurses United, 2020). Nurses

are in particularly close proximity to patients, so risk of exposure is a serious concern. As Dr. Andrew Chan, Mass General's chief epidemiologist pointed out, "...frontline health care workers had a nearly 12-times higher risk of testing positive for COVID-19 compared with individuals in the general community" (2020). In understaffed organizations, healthcare workers may experience long hours, heavy workloads, high stress, a lack of personal protective equipment (PPE), and isolation. Speculation is emerging on whether the pandemic will inspire nursing recruitment, or if the personal tolls of the profession will dissuade students. Some researchers have projected that nursing school enrollment numbers post-COVID-19 will see trends similar to heightened military recruitment post-9/11, but a statistically significant enrollment uptick has yet to be established (Gold & Rettew, 2020).

Unsurprisingly, providers such as nurse practitioners (NPs), advance practice nurses (APNs), and physician assistants (PAs) are beginning to face escalating demand. National growth is expected to reach 26% for NPs and APNs and 31% for PAs (Bureau of Labor Statistics, 2020a; 2020b). Currently, about 131,000 PAs and around 290,000 NPs practice in the country (NCCPA, 2019; AANP, 2019). Particularly in underserved areas, advanced practitioners can provide essential care where physician retainment is difficult. Such providers show promise in addressing the primary care shortfall. Regulation for these practitioners varies greatly between states, and little consensus exists on their scope of practice. However, with the late-March passage of the CARES Act, requirements surrounding home health certification, skilled nursing facility exams, and physician supervision of NPs has been relaxed nationally (Florida Association of Nurse Practitioners [FLANP], 2020b).

State

At the state level, Florida is projected to see a higher rate of demand for physicians in the next decade than the nation as a whole (Florida Department of Health, 2019). In Florida, the expansion of health insurance coverage that the Affordable Care Act provided has made healthcare utilization more feasible for lower-income individuals, but in some places, providers are struggling to meet demand (Buerhaus et al., 2017). Another factor is migration, as large numbers of people are moving to the state, causing an imbalance between the ratio of physicians to patients (Zhang et al., 2020). Alarming, the Florida Department of Health found that almost 62% of practicing physicians in Florida are over the age of 50 (2019). While many physicians work past the age of 65, the percentage does not bode well for a state already facing a major primary care shortage (Allen, 2019). The issue is exacerbated by Florida's astonishingly high medical malpractice premiums. For some specialties, the premiums are among the steepest in the nation, which can discourage graduates from practicing in Florida (Guardado, 2018). Furthermore, the Department of Health found that reimbursement rates, liability exposure, litigation proceedings, and compensation were among the top reasons physicians avoided practicing in the state (Florida Department of Health, 2019).

The literature surrounding Florida's nursing workforce is divided between professional organizations predicting a major shortfall and government analyses contending that a surplus is approaching. According to Florida Center for Nursing researcher, L. Miles, the state should anticipate Florida's nursing shortage to reach a boiling point in the next few years (2017). Highlighting factors such as low nursing faculty salaries, subpar NCLEX passing rates, and the retirement of nurses, the organization expects a deficit of approximately 50,000 nurses by 2025 (Miles, 2017). Significantly, HHS takes a drastically different perspective. Instead, they counter that by 2030, Florida will actually have an oversupply of nurses of over 53,000, which is 22.4% of Florida's nursing workforce (HHS, 2017). While one study focused on outcomes in 2025 and the other in 2030, it seems unlikely that a period of five years could account for a discrepancy that large. HHS argues that while certain regions have nursing shortages within certain specialties, like gerontology, psychiatry, and critical care, overall neither the state nor the country is facing a dire nursing demand crisis (2017). In fact, their report concluded that the real issue at stake is not the volume of nurses that comprise the workforce, but instead their distribution (HHS, 2017). Another issue key to facing Florida is nursing salaries, which average about \$64,630, nearly half of what a nurse would make by working on the west coast or the northeast (Bureau of Labor Statistics, 2020d). To complicate the issue, travel nurses are seeing wages as high as \$250 an hour in some regions (Hawryluk & Bichell, 2020). Chief nursing officers have voiced concerns over their ability to retain younger

nurses as the travel payrate is simply incomparable to local salaries (C. Madigan, personal communication, February 4, 2021).

Providers like APNs and PAs are experiencing major growth throughout the country; however, Florida’s supply of both is currently projected to meet demand (Florida Center for Nursing, 2018; Mercer, 2020). Florida statutes surrounding APNs and PAs have not always benefitted regional workforce supply issues, but the regulatory landscape is changing. Legislation allowing NPs to practice independently was passed in March 2020, and took effect in July (The Florida Legislature, 2020). PAs gained considerable autonomy over a decade earlier than APNs in 2009 when laws requiring cosignature were negated, and the law no longer required a physician to be physically present where PAs practice (The Florida Legislature, 2018). Florida now employs about 18,000 NPs (FLANP, 2020a). Around 8,226 PAs currently practice in Florida, making the state one of the top employers of PAs (National Commission on Certification of Physician Assistants, 2019). In underserved areas, practitioners like NPs and PAs often have expanded responsibilities as primary care providers; therefore, continuing to support educational programs in Florida will continue to be important.

Local

At first blush, it might be easy to look at the raw numbers and conclude that Northwest Florida is well-served in terms of provider distribution (Florida Department of Health, 2020). Unfortunately for many Floridians, the data is skewed by an overrepresentation of specialty care. Every county of the Emerald Coast, from Escambia to Jackson is experiencing a shortfall of primary care providers, as designated by HRSA (2020). Some designations, such as Liberty County’s refer to the complete lack of providers within the geographical area. Others refer to specific populations underserved by existing primary care resources. Several historically marginalized communities, particularly incarcerated individuals, low-income people, and rural populations are severely affected by the primary care shortages (HRSA, 2020). In fact, providing sufficient rural healthcare has been such a challenge that the surgeon general asserted in a 2019 report that “98% of physicians work in urban counties while 2% work in Florida’s 30 rural counties” (Florida Department of Health, 2019). That is a sobering statement for Florida’s 718,558 rural citizens (Rural Health Information Hub, 2020). The Department of Health is attempting to increase physician involvement in underserved areas through programs such as the Health Resources and Service Administration’s (HRSA) National Health Service Corps. The Department is also pushing for legislative policy updates to expand student loan forgiveness to incentivize practicing within the state. Both initiatives could be highly beneficial. However, evidence suggests that one of the strongest influences determining where a physician chooses to practice is where they are from and where they were trained. In Florida, nearly 58% of physicians who completed graduate medical education in the state ended up practicing there (AAMC, 2019a). The only medical school located within the Panhandle is Florida State University’s College of Medicine. Increasing graduate medical education opportunities is an imperative to growing an adequate area physician workforce.

Table 1. Local physician distribution

County	Population	Active physician licenses	Physicians per 10,000 residents	County health rating (of 67)
Escambia	322,901	1,083	33.5	47
Santa Rosa	179,875	403	22.4	13
Okaloosa	201,104	539	26.8	12
Walton	70,352	125	17.8	20
Holmes	20,218	14	6.9	48

Washington	25,347	11	4.3	51
Bay	179,900	470	26.1	44
Calhoun	14,982	8	5.3	55
Gulf	16,507	17	10.3	31
Liberty	9,167	0	0	30
Franklin	12,017	14	11.7	34
Gadsden	47,926	11	2.3	65
Wakulla	32,418	18	5.6	21
Leon	296,717	1,008	34	9
Jackson	50,325	35	7	50
Total Florida	21,268,553	65,937	31	

(Florida Department of Health, 2020)

Florida has one of the largest samples of registered nurses in the country. The Panhandle boasted employment around 19,933 in 2019 (Florida Center for Nursing, 2020). Similar to physician distribution, the distribution of nurses also varies greatly. Within the region, the more densely populated Escambia county has the highest concentration, at 190.53 nurses per 10,000 residents; whereas, on the other end of the spectrum, rural Wakulla county has a mere 58.09 nurses per 10,000 people (See Appendix). Moreover, nurses often receive higher compensation in cities, which can exacerbate the issue for underserved communities.

Table 2. Local nurse distribution

County	Population	Active nursing licenses	Nurses per 10,000 residents	County health rating (of 67)
Escambia	322,901	6,065	187.8	47
Santa Rosa	179,875	1,946	108.2	13
Okaloosa	201,104	2,701	134.3	12
Walton	70,352	785	111.6	20
Holmes	20,218	195	96.4	48
Washington	25,347	306	120.7	51
Bay	179,900	2,724	151.4	44
Calhoun	14,982	188	125.5	55
Gulf	16,507	190	115.1	31
Liberty	9,167	59	64.4	30
Franklin	12,017	97	80.7	34
Gadsden	47,926	394	82.2	65
Wakulla	32,418	196	60.5	21
Leon	296,717	4,243	143.1	9
Jackson	50,325	835	165.9	50
Total Florida	21,268,553	181,670	85.4	

(Florida Department of Health, 2020; Florida Center for Nursing, 2020)

The region's physician assistant supply is highly variable. While the Pensacola-Ferry Pass-Brent area employs around 170, the Crestview-Fort Walton Beach-Destin area employs approximately 50 (Bureau of Labor Statistics, 2020c). Combined, the rural communities of the area only employ about 50 as well (Bureau of Labor Statistics, 2020c). The region's supply of nurse practitioners is relatively high, even in the more rural counties within the eastern section of the Panhandle. Despite the lack of primary care providers, nurse practitioner salaries in the area are among the lowest in the nation, averaging at about \$95,720 (Bureau of Labor Statistics, 2020b). Although the future of NPs in Florida appears to be positive, there are still no universities in the Panhandle that offer NP education.

Limitations

The study's methodology has its strengths and weaknesses. First, as the pandemic unfolds, it is impossible to definitively predict the full effects it will have on the healthcare workforce and the state's population as a whole. Due to the projected loss of state revenue caused by the pandemic, the state made a number of budget cuts. Unfortunately, the Florida Center for Nursing, formerly funded by the state and associated with the University of Central Florida was defunded effective July 1st in an effort to reduce state expenses. As such, some of the provided statistics are no longer widely available. Finally, nursing statistics refer to all active license holders. Statistics referring strictly to employed nurses were not consistently available at the county level.

Discussion

Moving forward, a multipronged strategy will be necessary to educate and retain a sufficient healthcare workforce. The most critical shortage that Florida is facing is one of primary care physicians. Unfortunately, health policy changes at the national level will be necessary to expand the number of physician residency slots. However, some states, such as Missouri are beginning to license assistant physicians, which are medical school graduates who did not match to residency programs. The Missouri legislation currently requires assistant physicians to complete an apprenticeship and practice exclusively in primary care under the supervision of a licensed physician. Assistant physicians must also enroll in a statewide program that furthers their educational and experiential basis and requires reapplication for residency matching. While the program is still nascent, it could be a model relevant to Florida's primary care crisis. Within the Panhandle, graduate medical education resources are sparse. Expanding Florida State University's medical school could mitigate the situation. Programs covering medical school costs for physicians to practice in underserved areas have seen success. Greater funding for such opportunities in Florida would be highly beneficial to counties that lack primary care services. The same principle could motivate nurses to practice in underserved areas as well. Ultimately, Florida's healthcare workforce is undergoing many changes. Failing to strategically plan for workforce trends will leave scores of Floridians without access to care. While none of the answers are simple, action must be taken now to facilitate a healthy future for all of the Panhandle's citizens.

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