Policy Analysis

Improving Access to Care for New Jersey

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In 2010, the Institute of Medicine's landmark report, The Future of Nursing Leading Change, *Advancing Health* called for the removal of barriers to practice that prevent Advanced Practice Nurses (APNs) from providing the full scope of health services for which they are educated and certified to provide. **Today, 22 states and the District of Columbia have modernized their legislation to remove barriers in providing care.**

There is national support for removing barriers to APN practice. A 2018 report from the U.S. Departments of Health and Human Services, Treasury, and Labor *Reforming America's Healthcare System Through Choice and Competition* identified that the "health care markets could be more efficient and Americans could receive more effective, high-value care if we remove and revise certain federal and state regulations and policies that inhibit choice and competition" (HHS, Treasury, & Labor, 2018, p.1). Specifically, the report identified that states should change their scope-of practice statutes to allow all healthcare providers to utilize their full skill-set and practice to the top of their license. National organizations such as the Federal Trade Commission, National Governors Association, AARP, Robert Wood Johnson Foundation, and the Heritage Foundation also support modernization of legislation to improve access to care by eliminating barriers to APN practice. In fact, the Department of Veterans' Affairs already responded to recommendations by granting full practice authority to all APNs working in Veterans' health administration facilities, thus ensuring quality care for our veterans.

The New Jersey Collaborating Center for Nursing (NJCCN) reviewed current data to identify the potential impact of barriers to APN practice on healthcare in New Jersey. There is mounting evidence that these barriers affect access, cost, and quality of care.

With an aging population (Table 1) across all counties (some counties to be more adversely impacted, see Figure 1), a 52% increase in healthcare spending from between 2004 and 2010 (Figure 2), and disparities in healthcare outcomes, New Jersey's healthcare landscape is changing. Healthcare provision must also change to accommodate the evolving needs of New Jersey residents.

Table 1

Percentage of 65+ years population in NJ for 2017 and 2030 projected.

County, State	65+ Years % in NJ (2017)	65+ Years % in NJ (2030)	% Change
Atlantic, NJ	18.6	21.7	3.1
Bergen, NJ	18.6	20.9	2.3
Burlington, NJ	18.7	21.4	2.7
Camden, NJ	17	19.3	2.3
Cape May, NJ	27.6	28.1	0.5
Cumberland, NJ	17.4	17.4	0.0
Essex, NJ	15.2	15.7	0.5
Gloucester, NJ	16.9	20.5	3.6
Hudson, NJ	13.4	13.7	0.3
Hunterdon, NJ	18.6	24.2	5.6
Mercer, NJ	16.6	18.6	2.0
Middlesex, NJ	16.2	19.2	3.0
Monmouth, NJ	18.7	21.8	3.1
Morris, NJ	18.2	21.4	3.2
Ocean, NJ	24.9	25.3	0.4
Passaic, NJ	15.9	18.6	2.7
Salem, NJ	19.6	22.9	3.3
Somerset, NJ	17.1	21.6	4.5
Sussex, NJ	17.9	23.6	5.7
Union, NJ	15.9	17.5	1.6
Warren, NJ	18.7	23.7	5.0

(Source: U.S. Census Bureau, 2018b)

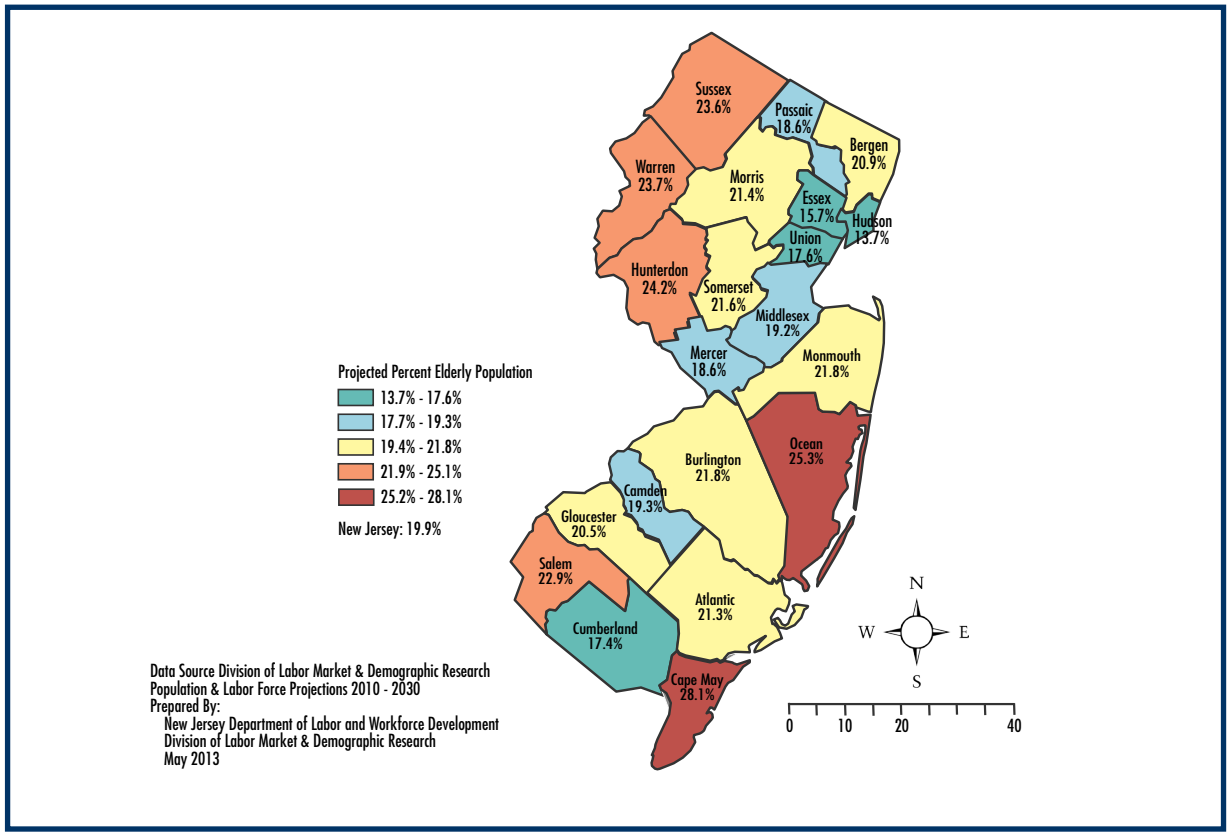


Figure 1. Projected percent of 65+ years - population for 2030 by county in NJ. (DOLWD, 2013)

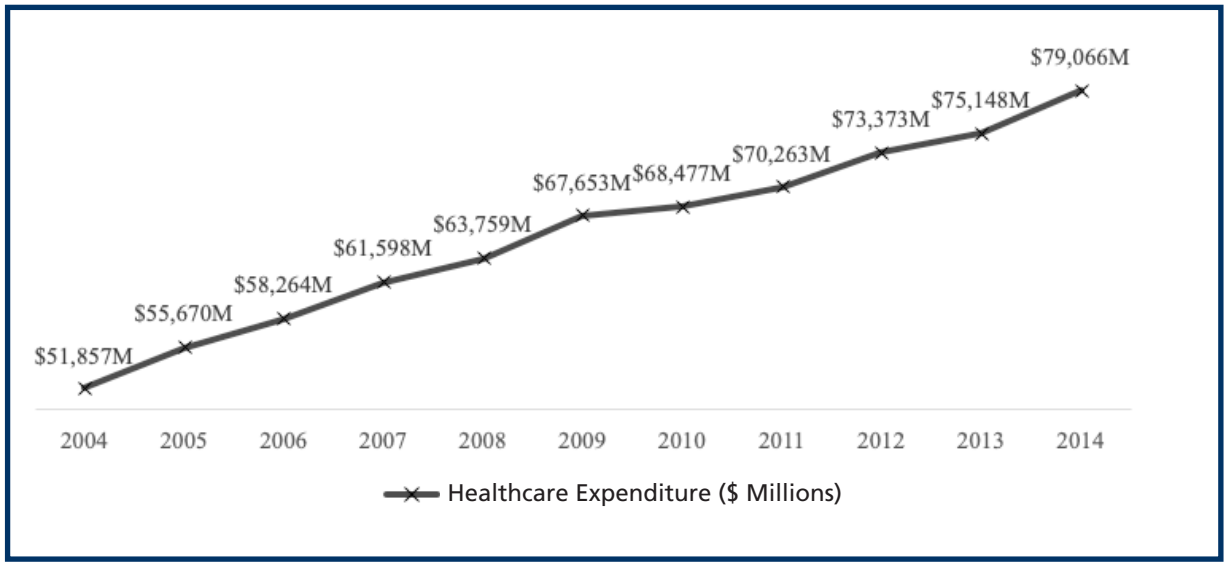


Figure 2. Health Care Expenditures by State of Residence (in millions) (KFF, 2014a)

As New Jersey's population ages, demand for primary care is expected to grow. HRSA's November 2016 report, *Statewide Projections of Supply and Demand of Primary Care Practitioners: 2013-2025,* projects a 14.1% shortage of Primary Care Physicians/MDs (PCMDs) for New Jersey by 2025 (HRSA, 2016a). However, the same HRSA report projected that the APN workforce is growing at a faster rate than primary care demand, and will exceed that demand by 0.5% in 2025 (HRSA, 2016a).

In this context, we explored the case for expanding primary care delivery by removing barriers to practice for APNs in New Jersey. APNs include: Certified Nurse Practitioners (NPs), Certified Nurse Midwives (CNMs), Clinical Nurse Specialists (CNSs) and Certified Registered Nurse Anesthetists (CRNAs). For purposes of this report, we are only considering APNs that may provide primary care. There may be overlap in services provided by physicians and APNs, however APNs are not performing complex medical interventions. The primary focus of APNs is preventative/wellness and chronic care management. They will continue to refer care outside of their competencies to physicians. This does not detract from the potential ability of APNs to close the gap in access to primary care. Evidence still supports eliminating barriers to APN practice (see section on Supporting Evidence).

Ramifications of Failure to Modernize Legislation

As New Jersey's population ages, statewide healthcare needs will shift. Projections indicate that if healthcare delivery does not change with the population's needs, there will be a long-term decline in health outcomes (CHR, 2017) which represent length and quality of life.

Decreased access to affordable primary care will be created by the following factors:

1) **An aging population will increase demand for primary care.**
2) **That demand will not be met by the current physician workforce, which is also aging. As the physician retirement rate increases, the gap between primary care provision and consumer needs will increase further.**
3) **Continued barriers to APN practice will prevent them from providing primary care and closing the gap.**
4) **Increased cost of APN contracts may dissuade current APNs from providing primary care, even in the limited context in which they are currently able to practice.**
5) **Potential out-migration of APNs to less restrictive border-states may harm the existing nursing workforce by decreasing the supply of APNs working in NJ.**
6) **The number of counties that lack a minimally sufficient number of primary care providers will rise, which may increase county-wide health care costs due to increased hospitalization and readmission rates.**
7) **Healthcare outcomes may decline statewide as affordable primary care is denied to all of New Jersey, especially, the most vulnerable populations.**

A. Primary Care Access and Health Outcomes Status in NJ

1) Primary Care MDs, on their own, are not enough to meet the current (and future) demand of Primary Care in New Jersey (or in the US).

2) The 2019 data from County Health Rankings shows that the national ratio of population to primary care physicians is 1330:1. On average, New Jersey has a ratio of 1190:1, but some counties have as many as 2760:1.

3) There is also a concerning lack of mental health providers. The data shows that the national ratio of population to mental health providers is 500:1, while New Jersey has an average of 440:1, with some counties as high as 1840:1. Mental health and substance abuse disorders are of major importance in addressing the primary care needs of New Jersey residents. Approximately 10% of New Jersey's APNs (NJCCN, 2017) are trained as psychiatric nurse practitioners which can help improve access to mental health providers.

4) Health Outcomes: New Jersey counties show disparities in length and quality of life (Table 2). There are also statewide disparities in health outcomes between different ethnic groups. **Black populations are experiencing the most years lost due to premature death. Hispanic populations are experiencing the highest percentage of "poor or fair health" according to self-reported health data on a 5-point scale ranging from 'excellent' to 'poor' (CHR, 2019).**

Table 2

Health Outcomes

Health Outcome Measures	US Avg.	NJ Avg	Healthiest NJ County	Least Healthy NJ County	AI/ AN*	Asian/ PI#	Black	Hispanic	White
Premature Death (years lost/100,000)	6,900	5,700	4,000	9,400	2,200	2,100	9,900	4,200	5,900
Poor or Fair Health (%)	16%	17%	11%	23%	N/A	11%	20%	32%	11%
Poor Physical Health Days (Avg.)	3.7	3.5	2.9	4.2	N/A	3	4.3	4.3	3.1
Poor Mental Health Days (Avg.)	3.8	3.4	3.3	4.1	N/A	2.6	3.9	2.5	3.9
Low Birthweight (%)	8%	8%	7%	10%	12%	9%	12%	7%	7%

*American Indian/Alaskan Native (AI/AN), #Asian/Pacific Islander (Asian/PI), N/A = Not available. Data for all racial/ethnic groups may not be available due to small numbers. (Source: County Health Rankings, 2019)

5) **Most New Jersey Counties fall short of the national median of 90 PCMDs per 100,000 population (see Figure 3) which places NJ in the lower half of states in the US on available primary care providers.** This could worsen with increasing demand for primary care. Data shows a high correlation between poor health outcomes and an overall shortage of primary care providers.

In New Jersey, most counties with a health outcome rank below seven also experience a shortage of primary care providers (exceptions being Mercer and Camden). For example, Cumberland and Salem counties have the lowest health outcomes in the state (ranked at 21 and 20 respectively) and also show the greatest shortage of primary care MDs.

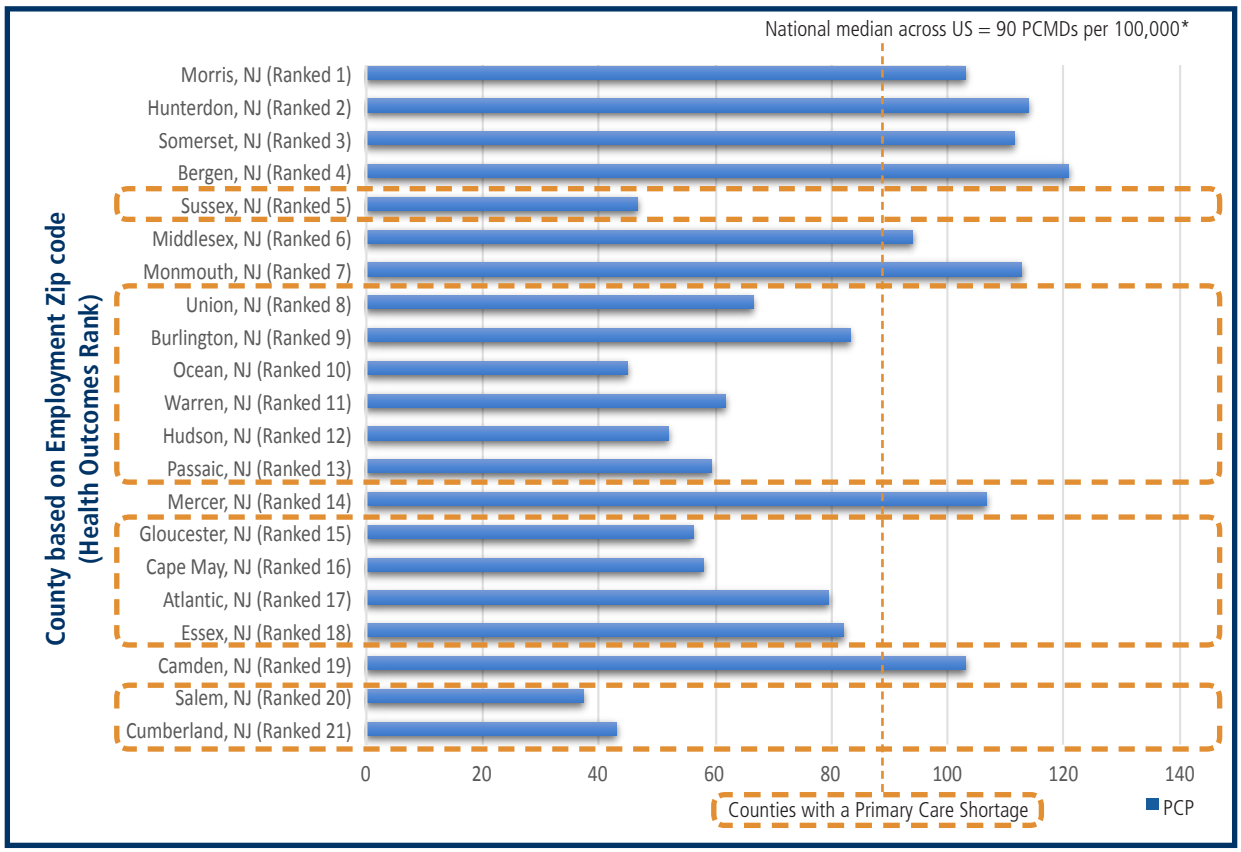


Figure 3. Number of Primary Care MDs per 100,000 population by county. Indicates that as many as 13 (of 21) counties experience a shortage of primary care providers*. The counties are rank ordered (1=best) based on their rank in county health outcomes published by County Health Rankings and Roadmaps. (AAMC, 2017; NJCCN, 2017; CHR, 2017)

*Counties with less than National median of 90 PCMDs per 100,000 population is taken from the '2017 State Physician Workforce Data Report' published by AAMC (https://www.aamc.org/data/workforce/reports/484392/2017-state-physician-workforce-data-report.html)

6) **In order to meet the rising demand for primary care, APNs must be able practice to the top of their licensure and certification. This is a nation-wide solution to an impending crisis.** Figure 4 outlines the impact of APN primary care by adding "Non-Hospital APNs" (hereafter referred to as Primary Care APNs) to existing Primary Care MDs. Primary Care APNs are defined as all APNs who do not work in Hospitals or in Anesthesia. Adding Primary Care APNs to primary care providers reduces the number of counties facing a shortage from 13 to 6 (see Figure 4). Even with the addition of Primary Care APNs, some counties such as Gloucester, Union, and Cumberland are still at risk of falling below the statewide median.

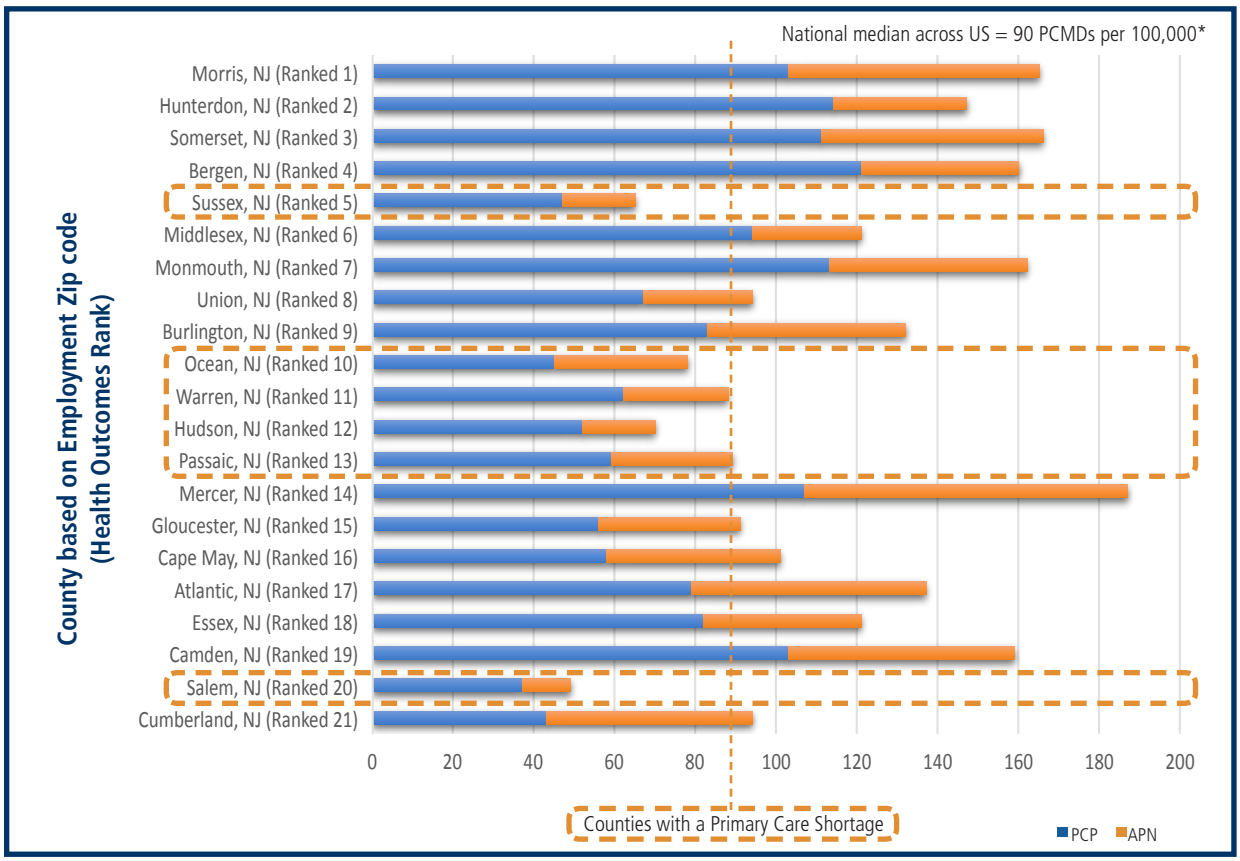


Figure 4. Primary care MDs and primary care APNs per 100,000 population by county. Six counties still project a shortage of primary care providers below the current national median of 90*. (AAMC, 2017; NJCCN, 2017; CHR, 2017)

*National median of 90 PCMDs per 100,000 population is taken from the '2017 State Physician Workforce Data Report' published by AAMC (https://www.aamc.org/data/workforce/reports/484392/2017-state-physician-workforce-data-report.html)

B. Supply Trends of APN Workforce in New Jersey

1) Graduation rates for APNs allow for a larger pipeline of primary care providers. Table 3 shows the number of graduates from 2014-2017. There is an upward trend in the number of APN graduates, which could help increase the number of primary care providers.

Table 3

Post-Licensure Graduation Rates 2014-2017 for students who qualify to become APNs upon entering the workforce

Program	2014	2015	2016	2017
MSN*	634	601	616	469
DNP	59	93	88	116

2) Educational program length for APNs is about 6-7 years, while PCMDs are in school for 11-12 years (Figure 5). The shorter program length for APNs enables them to join the workforce sooner, which speeds up primary care supply lines and improves access to care.

Figure 5. Program length for a PCMD vs APN. *Note: The proposed legislation on Consumer Access to Health Care Act (A854, 2018; S1961, 2018) includes 2400 practice hours which will ensure a smoother transition into practice for APNs and continue to ensure quality and safety for consumers. (AAMC, n.d.; NJCCN, 2017)

3) A majority of the APNs in NJ are already educated in Primary Care. Table 4 shows that ~90% APNs are educated in Primary Care settings.

Table 4

Percent of APNs in Primary Care

Category	# APN (2016-17)	2016	2017
APNs educated in Primary Care in NJ	5,323	%	469
Total APNs in NJ	5,967	89%	116

The actual number of APNs in Primary Care and Overall in New Jersey may be higher since this is respondent data summarized. (Source: NJCCN, 2017)

C. Underserved and Vulnerable Populations in New Jersey

1) Throughout New Jersey's 23 Federally Qualified Health Centers (FQHCs), there is a shortage of Family Physicians as compared to the national average (Table 5). New Jersey simultaneously has a very high level of underserved, uninsured patients who are living below the poverty line (Table 6).

Table 5

Staffing Profile of New Jersey's FQHCs

	NJ	US
Total Physicians	7.1%	5.8%
Family Physicians	1.2%	2.7%
Internists	2.0%	0.9%
Obstetricians/Gynecologists	1.4%	0.6%
Pediatricians	2.4%	1.3%
Total APNs		
Nurse Practitioners	3.8%	4.0%
Certified Nurse Midwives	0.7%	0.3%

(Source: NJHA 2017)

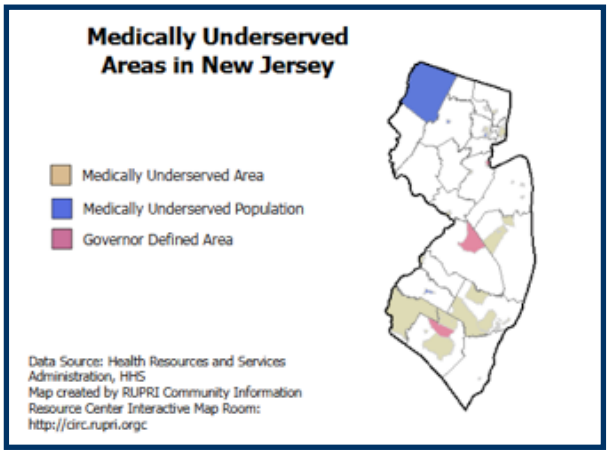
Table 6

Patient profile in New Jersey's FQHCs according to income and insurance status

	NJ	US
Number of NJ FQHCs	23	1373
Number of Patients served by NJ FQHCs	528,256	27,174,37
Income Status (Patients with known income):		
Patients at or below 200% of poverty	95.4%	91.5%
Patients at or below 100% of poverty	74.1%	69.2%
Insurance Status:		
Uninsured	28.2%	22.9%
Medicaid	55.5%	50.1%
Medicare	5.1%	9.4%
Other Third Party	11.35	17.6%

(Source: NJHA 2017)

2) Several areas of New Jersey are considered medically underserved or designated as primary care Health Professional Shortage Areas (HPSAs), according to the most recent Rupri state demographic & economic profiles for New Jersey (RUPRI, 2006). According to HRSA (2016b,c), the designation of areas or populations as a Medically Underserved Areas (MUAs) is defined as "geographic areas and populations with a lack of access to primary care services" (p. 1), and HPSAs as "those areas that may have shortages of primary medical care, dental or mental health providers and may be urban or rural areas, population groups, or medical or other public facilities". (p. 1)



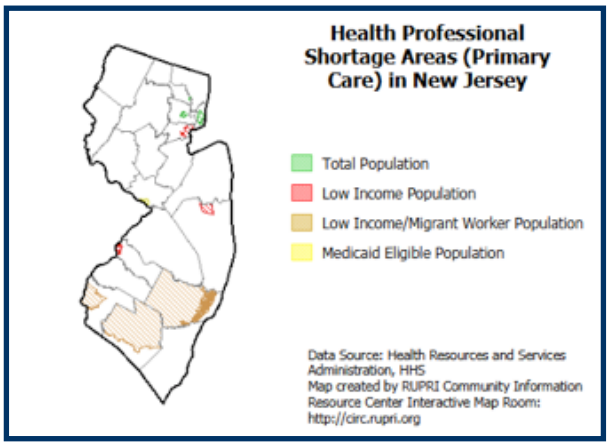


Figure 6. MUAs and HPSAs in New Jersey as of December 2006. (Source: RUPRI, 2006)

3) **In New Jersey, 16% of adults are reported to have no usual place of medical care, and 21% do not have a personal doctor – both statistics among the worst levels in all states in the north-east (Figures 7 and 8). (KFF, 2014b; KFF, 2017)**

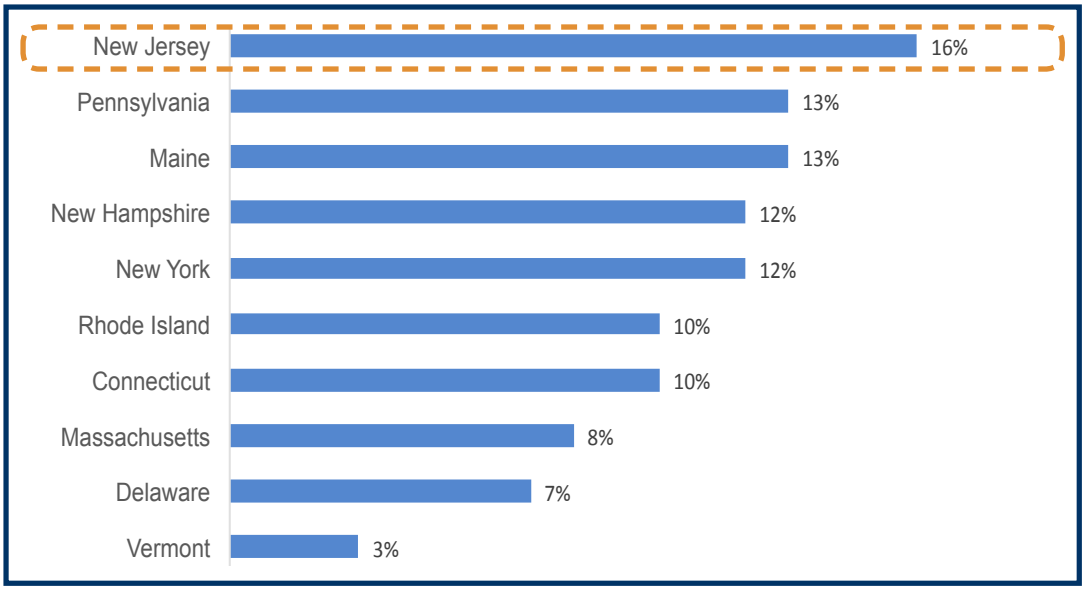


Figure 7. Percent of Adults Without a Usual Place of Medical Care among the North-East states of the US. (KFF, 2014b)

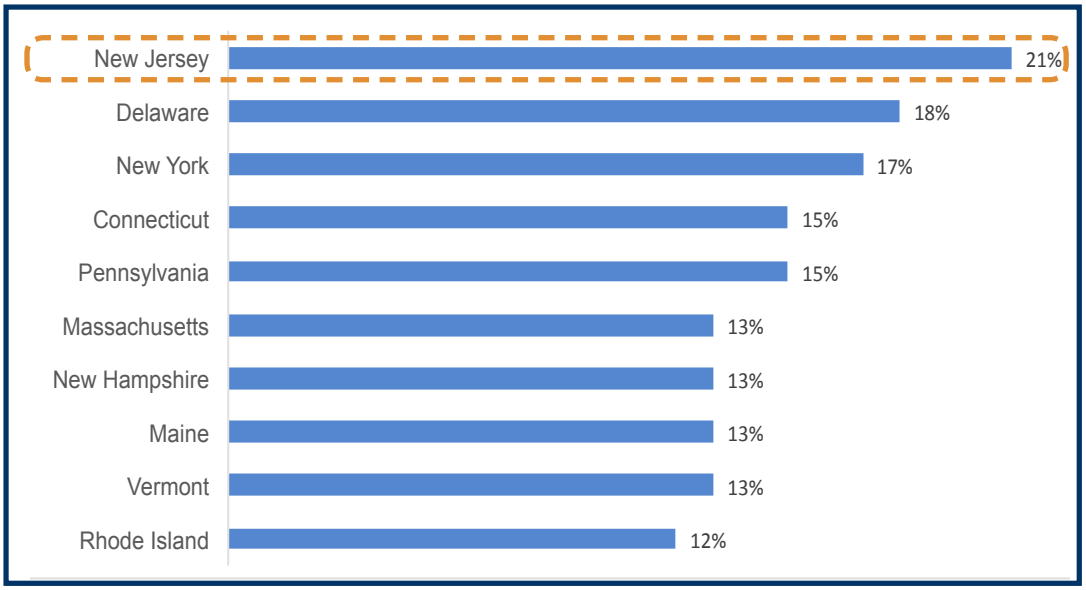


Figure 8. Percent of Adults Without a Personal Doctor among the North-East states of the US. (KFF, 2017)

D. Income Levels Disparity Across Counties in New Jersey

1) Table 7 compares the health outcomes to health factors as defined by County Health Rankings (CHR, 2019) as well as the per capita income levels for each county. **Counties with lower income tend to experience lower health factors and health outcomes.**

Boosting the supply of practitioners in lower income counties may improve the overall health index for the state of New Jersey. This can also reduce hospital readmission rates and complex care management, both of which are costlier than providing preventative care.

Table 7

Health Outcomes, Health Factors and Per-capita Income by county

County, State	Health Outcomes (2018)	Health Factors (2018)	Per Capita Income (2017)
Morris, NJ	1	3	$107,034
Hunterdon, NJ	2	1	$110,969
Somerset, NJ	3	2	$106,046
Bergen, NJ	4	4	$91,572
Sussex, NJ	5	7	$89,238
Middlesex, NJ	6	6	$83,133
Monmouth, NJ	7	5	$91,807
Union, NJ	8	11	$73,376
Burlington, NJ	9	8	$82,839
Ocean, NJ	10	12	$65,771
Warren, NJ	11	10	$75,500
Hudson, NJ	12	16	$62,681
Passaic, NJ	13	18	$63,339
Mercer, NJ	14	9	$77,027
Gloucester, NJ	15	13	$81,489
Cape May, NJ	16	14	$62,332
Atlantic, NJ	17	19	$57,514
Essex, NJ	18	17	$57,365
Camden, NJ	19	15	$65,037
Salem, NJ	20	20	$63,934
Cumberland, NJ	21	21	$50,000

(Source: CHR, 2018; U.S. Census Bureau, 2018a)

E. Potential Risk of Nurse Out-Migration to NY/PA from New Jersey

1) Primary care APNs who hold a license to practice in New York or Pennsylvania are at risk of migrating out (Table 8). This risk may increase if New York or Pennsylvania change their regulations to remove barrier to APN practice, which both states are currently considering. This pending legislation increases the urgency of addressing APN practice in New Jersey, if out-migration is to be avoided. Failing to keep pace with legislation in neighboring states may lead to out-migration that can adversely affect long-term health outcomes in New Jersey.

Table 8

Total number of Primary Care APNs at risk of migration by each county for 2017

County, State (Based on Employment)	Primary Care Advanced Practice Nurses	Primary Care APNs that hold NYPA licenses	% Primary Care APNs that hold NYPA licenses
Morris, NJ	311	20	6%
Hunterdon, NJ	42	5	12%
Somerset, NJ	185	18	10%
Bergen, NJ	363	84	23%
Sussex, NJ	26	7	27%
Middlesex, NJ	229	17	7%
Monmouth, NJ	308	26	8%
Union, NJ	150	14	9%
Burlington, NJ	220	53	24%
Ocean, NJ	193	9	5%
Warren, NJ	28	8	29%
Hudson, NJ	121	35	29%
Passaic, NJ	151	27	18%
Mercer, NJ	296	50	17%
Gloucester, NJ	103	29	28%
Cape May, NJ	41	1	2%
Atlantic, NJ	158	26	16%
Essex, NJ	310	44	14%
Camden, NJ	284	78	27%
Salem, NJ	8	3	38%
Cumberland, NJ	79	8	10%

(Source: NJCCN 2017)

2) Figure 9 outlines the potential impact of Primary Care APNs out-migration. **Out-migration would double the number of New Jersey counties that fall below the national median (90).** Sustained out-migration can adversely impact the health outcomes of all New Jersey counties.

For example, if Pennsylvania modernizes their legislation, APNs from Camden could seek employment in Pennsylvania and Camden could lose up to 27% of their APN workforce.

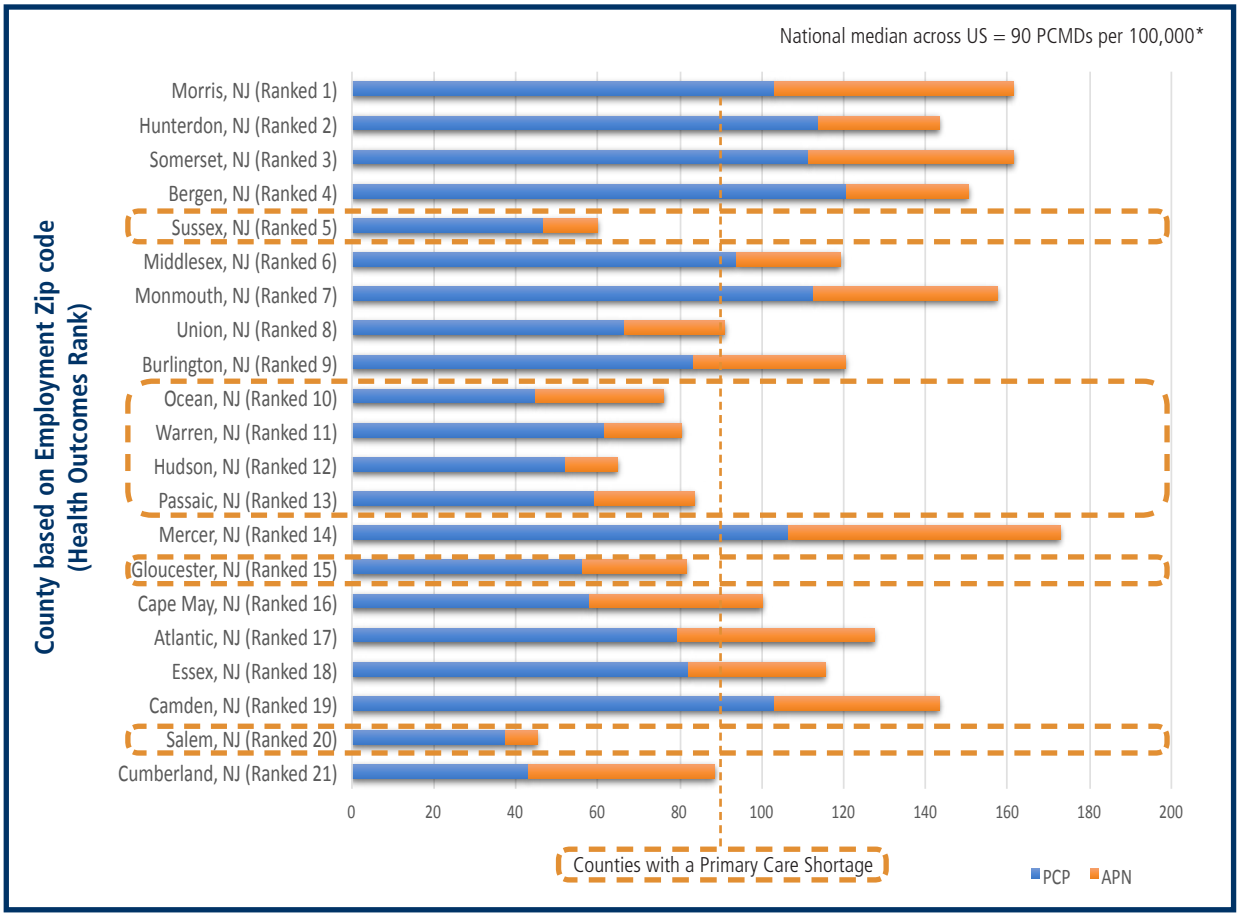


Figure 9. PCMD and Primary Care APNs per 100,000 population after projected APN out-migration. The number of counties with shortage of primary care doubles. (AAMC, 2017; NJCCN, 2017; CHR, 2017)

*National median of 90 PCMDs per 100,000 population is taken from the '2017 State Physician Workforce Data Report' published by AAMC (https://www.aamc.org/data/workforce/reports/484392/2017-state-physician-workforce-data-report.html)

Supporting Evidence

Current evidence shows that removing barriers to practice for APNs may improve quality, increase access to care, and reduce costs. Two recent reports by Spetz (2017) and Buerhaus (2018) support APN primary care as a solution to healthcare challenges.

Spetz (2017) conducted a literature review to determine if there was sufficient evidence to substantiate the Institute of Medicine's recommendation that "nurses should practice to the full extent of their education and training". In this review, Spetz found a direct relationship between APN scope of practice and access to care, but the evidence was limited regarding APN scope of practice and the impact on health-care costs. Retrieved from https://campaignforaction.org/wp-content/uploads/2017/08/Spetz-IOM-evidence-scope-of-practice-2017-01-30-1.pdf

Buerhaus (2018) report *Nurse Practitioners A Solution to America's Primary Care Crisis* describes the role of APNs in primary care and their potential impact on access to care. His report states that 1) APNs are more likely to work with vulnerable populations, 2) cost of care provided to Medicare beneficiaries by APNs was lower than care provided by PCMDs, 3) APNs provided care that was of equal or greater quality compared to that provided by PCMDs, 4) there is no evidence that barriers to practice (such as physician contracts) protect the public, and 5) states with more restrictions were more likely to use more resources than those without restrictions. Retrieved from http://www.aei.org/wp-content/uploads/2018/09/Nurse-practitioners.pdf

In addition, several research studies have been conducted to study and compare the cost and quality of care provided by NPs in comparison to physicians resulting in findings that suggest that the quality of care by NPs is at least at par with physicians while costs may be lower. In addition, some studies on geographical distribution of primary care providers suggest that NPs have a higher likelihood to practice in rural, underserved or lower accessibility areas compared to PCMDs. Reports to refer to for such studies include *"Comparing the Cost of Care Provided to Medicare Beneficiaries Assigned to Primary Care Nurse Practitioners and Physicians"* (Perloff, J. et. all, 2016) *and "Role of Geography and Nurse Practitioner Scope-of-Practice in Efforts to Expand Primary Care System Capacity"* (Graves, J.A. et. all, 2016).

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