2023

NEW JERSEY ACCESS TO CARE REPORT

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Executive Summary

Advanced Practice Nurse (APN) Definition: Advanced Practice Nurses (APNs) treat and diagnose illnesses, advise the public on health issues, and manage chronic disease. APNs hold a Master's or Doctoral degree, in addition to the initial nursing education and licensing required for all Registered Nurses (RNs) (ANA, n.d.). APNs include Certified Nurse Practitioners (NPs), Clinical Nurse Specialists (CNSs) and APN-Anesthesia. While this review is focused on primary care, it has a larger reach beyond those services.

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

1) An aging population in NJ will increase demand for primary care. (13 of the 21 counties have 20% or greater of their population 65 years of age or older by 2034) **(Table 1)**.

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 **(Table 2, Figure 9)**.

3) The demand for mental health providers is not being met **(Table 3)**.

4) Continued barriers to APN practice will prevent them from providing primary care and closing the gap.

5) 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.

6) 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 **(Table 15)**.

7) The number of counties that lack a minimally sufficient number of primary care and mental health providers will rise, which may increase county-wide health care costs due to increased hospitalization and readmission rates.

8) Healthcare outcomes may decline statewide as affordable primary care is denied to all of New Jersey, especially, the most vulnerable populations **(Tables 4-10)**.

9) The patients surveyed believe the quality of care is the same or better **(Figures 3-7)**.

10) Restriction also include nurse-midwives **(Figure 2)**.

11) Adopting full practice authority in NJ would: 1) reduce cost of outpatient care for Medicaid patients in NJ by 17% and 2) reduce prescription drug costs for Medicaid patients by 11%.*

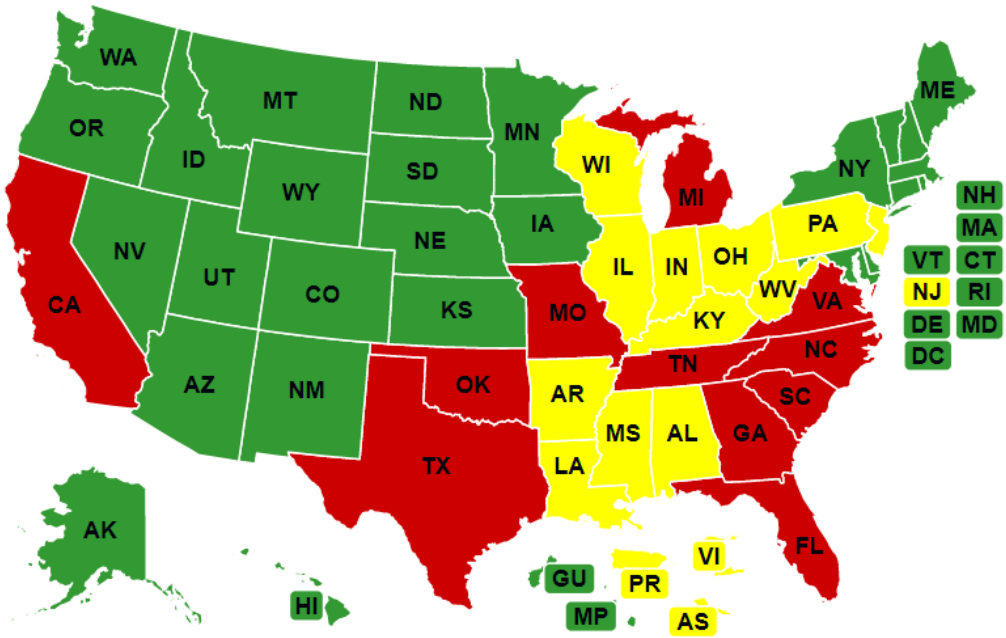
(*Source: West Virginia University, John Chambers College of Business and Economics, The Knee Center for the Study of Occupational Regulations. Poghosyan, Timmons, Abraham, Martsolf. 2019; The economic impact of the expansion of Nurse Practitioner scope of practice for Medicaid. *Journal of Nursing Regulation* 10(1), 15-20.)

SOLUTION: The proposed legislation would eliminate certain practice restrictions for an APN (Bill S1522/A2286).

I. NATIONAL LANDSCAPE

Today, **27 states and the District of Columbia** have modernized their legislation to remove barriers for Advanced Practice Nurses (APNs) in providing care.

Figure 1: Nurse Practitioner Map



Legend

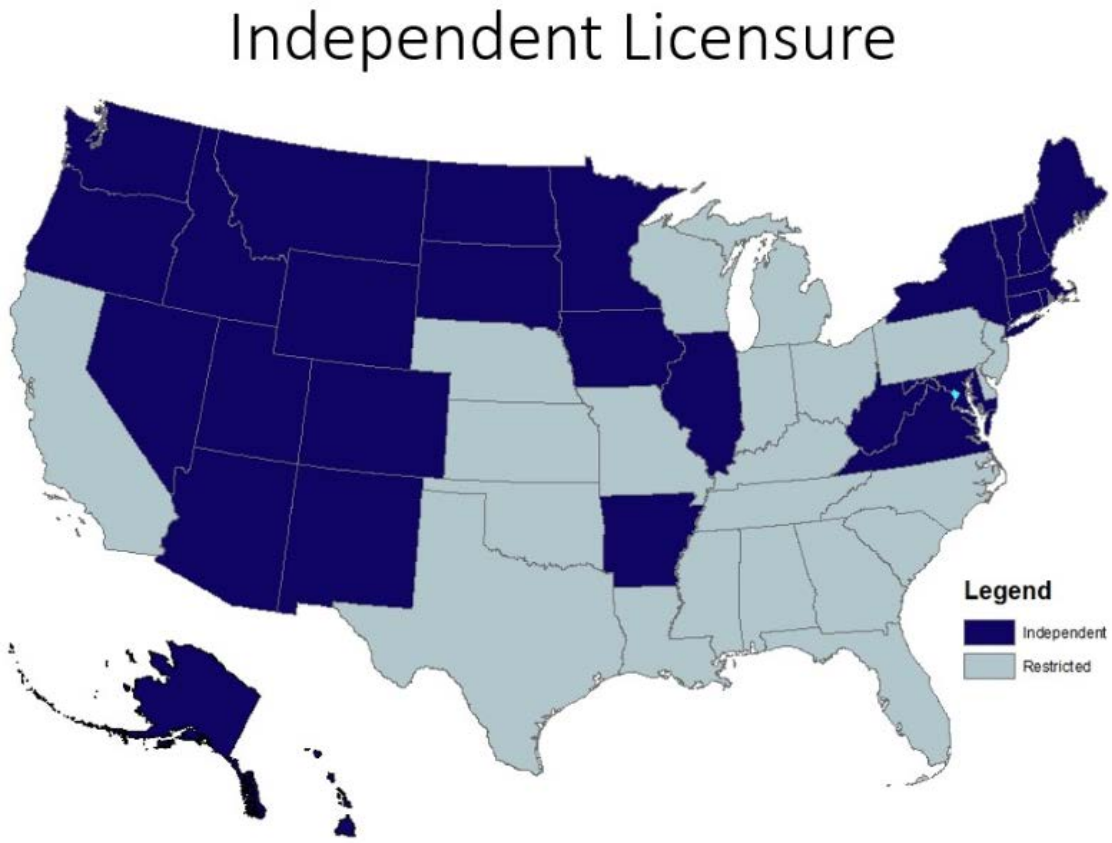
- Full Practice
- Reduced Practice
- Restricted Practice

(Source: AANP, 2023).

Nurse-Midwives

Nurse-Midwives are educated in graduate-level midwifery programs accredited by the Accreditation Commission for Midwifery Education and pass national certification examination administered by the American Midwifery Certification Board. Nurse-Midwives have a similar issue related to practice as APNs, with currently 28 states and the District of Columbia supporting independent practice authority. **Figure 2** shows the states in which Nurse-Midwives have independent practice authority. In New Jersey, Nurse-Midwives report through the State Board of Medical Examiners.

Figure 2: Nurse-Midwives Map



(Source: American College of Nurse-Midwives, 2022).

Overview

There is significant national support for removing barriers to APN practice (Institute of Medicine, 2010; United States (U.S.) Department of Health and Human Services, U.S. Department of the Treasury & U.S. Department of Labor, 2018; Federal Trade Commission, 2014; National Governors Association, 2012, Buerhaus, 2018). The 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. The Department of Veterans' Affairs (2016) has granted full practice authority to all APNs working in veterans' health administration facilities, thus ensuring quality care for our veterans.

Nationally, there is a projected shortage of 35,260 full-time equivalent (FTE) primary care physicians in family medicine, general internal medicine, geriatrics, and pediatrics in 2035. Family medicine physicians and general internal medicine physicians account for the largest part of this shortfall. In contrast, there is projected to be a surplus of nurse practitioners over the same time period (HRSA, 2022).

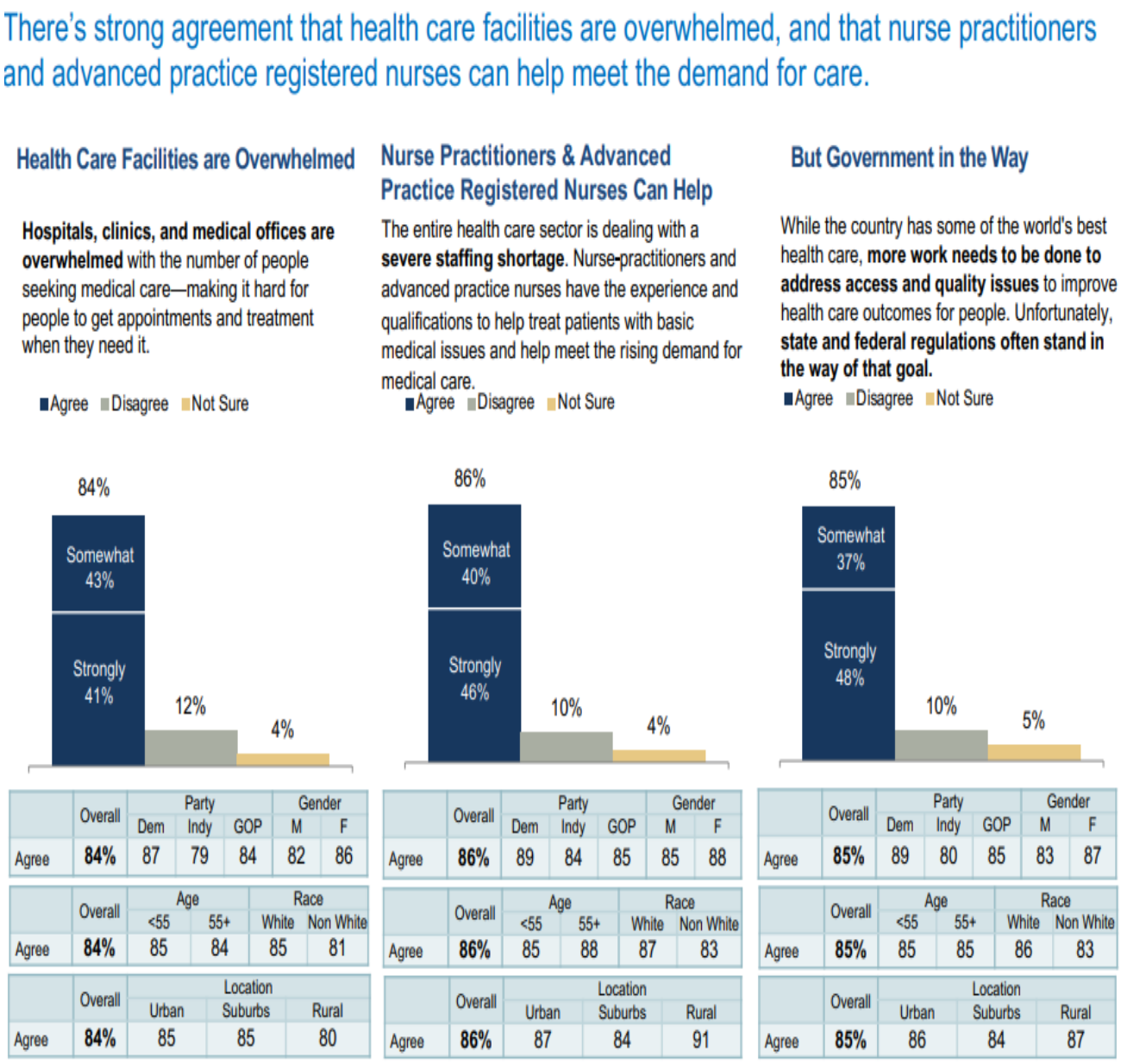
Voice of the Patient Survey (National and State)

The GS Strategy Group conducted a national poll (N = 1000) from January 6-10, 2023. They polled likely voters to understand the consumer opinion on a range of policies that would improve access to care. Both national and state data will follow.

National Poll Results

Figure 3 and **Figure 4** below show the consumer's point of view regarding APN practice nationally.

Figure 3: National Patient Survey Results



	Overall	Party			Gender	
		Dem	Indy	GOP	M	F
Agree	**84%**	87	79	84	82	86

	Overall	Age		Race	
		<55	55+	White	Non White
Agree	**84%**	85	84	85	81

	Overall	Location		
		Urban	Suburbs	Rural
Agree	**84%**	85	85	80

	Overall	Party			Gender	
		Dem	Indy	GOP	M	F
Agree	**86%**	89	84	85	85	88

	Overall	Age		Race	
		<55	55+	White	Non White
Agree	**86%**	85	88	87	83

	Overall	Location		
		Urban	Suburbs	Rural
Agree	**86%**	87	84	91

	Overall	Party			Gender	
		Dem	Indy	GOP	M	F
Agree	**85%**	89	80	85	83	87

	Overall	Age		Race	
		<55	55+	White	Non White
Agree	**85%**	85	85	86	83

	Overall	Location		
		Urban	Suburbs	Rural
Agree	**85%**	86	84	87

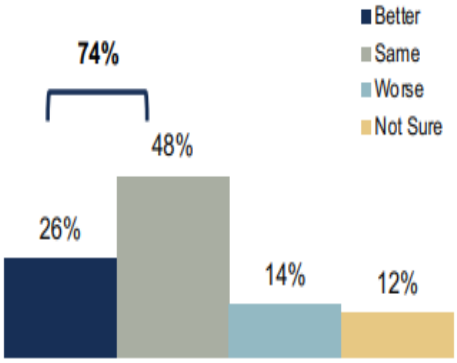
(Source: GS Strategy Group, 2023).

Figure 4: National Patient Survey Results

Voters believe nurse practitioners deliver quality care and most say they are likely to see one.

Nurses Provide Better/Same Quality of Care

Do you believe the quality of care received from nurse practitioners instead of doctors would be better, worse, or basically the same?



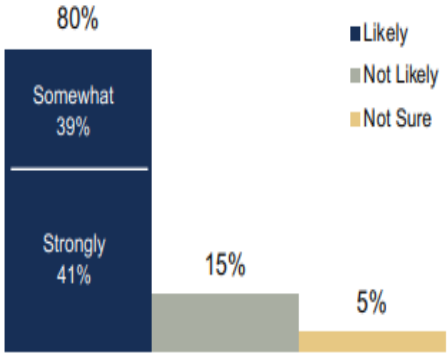
	Overall	Party			Gender	
		Dem	Indy	GOP	Male	Female
Better/Same	**74%**	80	72	70	77	71
Better	**26%**	36	16	22	32	20
Same	**48%**	44	56	48	45	51
Worse	**14%**	12	14	17	13	15
NET Better	*+12*	*+24*	*+2*	*+4*	*+19*	*+5*

	Overall	Race		Age	
		White	Non White	<55	55+
Better/Same	**74%**	74	76	78	68
Better	**26%**	26	29	36	11
Same	**48%**	48	47	43	57
Worse	**14%**	15	14	13	16
NET Better	*+12*	*+11*	*+15*	*+23*	*-5*

	Overall	Location		
		Urban	Suburbs	Rural
Better/Same	**74%**	81	69	74
Better	**26%**	41	18	17
Same	**48%**	40	51	57
Worse	**14%**	11	16	16
NET Better	*+12*	*+30*	*+2*	*+1*

High Likelihood of Seeing Nurse Practitioner for Care

And how likely would you be to consider seeing a nurse practitioner instead of a doctor at some of your health care appointments if it meant you could be seen sooner?



	Overall	Party			Gender	
		Dem	Indy	GOP	Male	Female
Likely	**80%**	83	77	78	81	78
Not Likely	**15%**	13	17	17	14	16
NET	*+65*	*+70*	*+60*	*+61*	*+67*	*+62*

	Overall	Race		Age	
		White	Non White	<55	55+
Likely	**80%**	81	76	83	75
Not Likely	**15%**	15	16	12	20
NET	*+65*	*+66*	*+60*	*+71*	*+56*

	Overall	Location		
		Urban	Suburbs	Rural
Likely	**80%**	82	77	81
Not Likely	**15%**	13	17	15
NET	*+65*	*+69*	*+60*	*+66*

(Source: GS Strategy Group, 2023)

New Jersey Poll Results

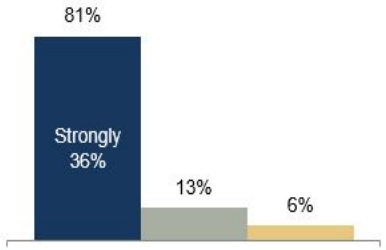
Similar questions were asked for NJ by the GS Strategy Group from April 3-8, 2023. They polled consumers (N = 800) on a range of polices that would improve access to care. Results from NJ consumers can be found in **Figures 5-7**.

Figure 5: NJ Patient Survey Results

Health Care Facilities are Overwhelmed

Hospitals, clinics, and medical offices are overwhelmed with the number of people seeking medical care—making it hard for people to get appointments and treatment when they need it.

■Agree ■Disagree ■Not Sure



	Overall	Party			Gender	
		Dem	Indy	GOP	M	F
Agree	**81%**	84	77	78	76	84
Strongly	**36%**	38	34	32	33	38

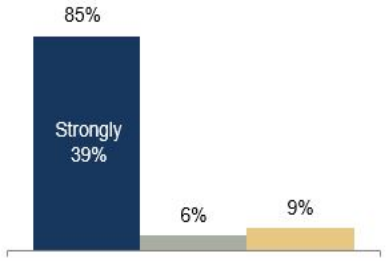
	Overall	Age		Race	
		<55	55+	White	Non White
Agree	**81%**	84	77	80	81
Strongly	**36%**	40	30	34	43

	Overall	Location		
		Urban	Suburbs	Rural
Agree	**81%**	84	80	82
Strongly	**36%**	46	33	38

Nurse Practitioners & Advanced Practice Nurses Can Help

The entire health care sector is dealing with a **severe staffing shortage**. Nurse-practitioners and advanced practice nurses have the experience and qualifications to help treat patients with basic medical issues and help meet the rising demand for medical care.

■Agree ■Disagree ■Not Sure



	Overall	Party			Gender	
		Dem	Indy	GOP	M	F
Agree	**85%**	84	88	85	86	85
Strongly	**39%**	40	37	39	38	40

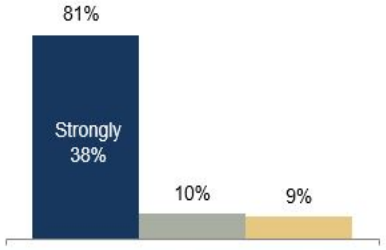
	Overall	Age		Race	
		<55	55+	White	Non White
Agree	**85%**	85	85	85	84
Strongly	**39%**	40	38	38	42

	Overall	Location		
		Urban	Suburbs	Rural
Agree	**85%**	86	86	80
Strongly	**39%**	39	39	38

But Government in the Way

While the country has some of the world's best health care, **more work needs to be done to address access and quality issues** to improve health care outcomes for people. Unfortunately, **state and federal regulations often stand in the way of that goal.**

■Agree ■Disagree ■Not Sure



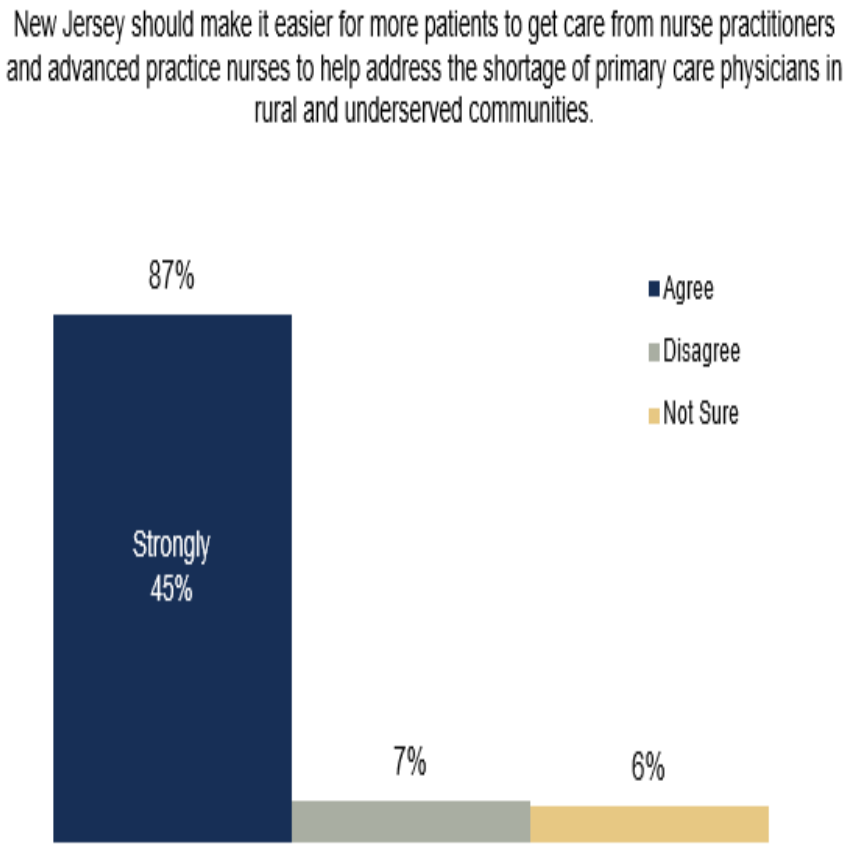
	Overall	Party			Gender	
		Dem	Indy	GOP	M	F
Agree	**81%**	80	82	82	81	80
Strongly	**38%**	40	38	32	33	41

	Overall	Age		Race	
		<55	55+	White	Non White
Agree	**81%**	84	76	80	85
Strongly	**38%**	41	33	35	44

	Overall	Location		
		Urban	Suburbs	Rural
Agree	**81%**	82	82	70
Strongly	**38%**	41	37	37

(Source: GS Strategy Group, 2023)

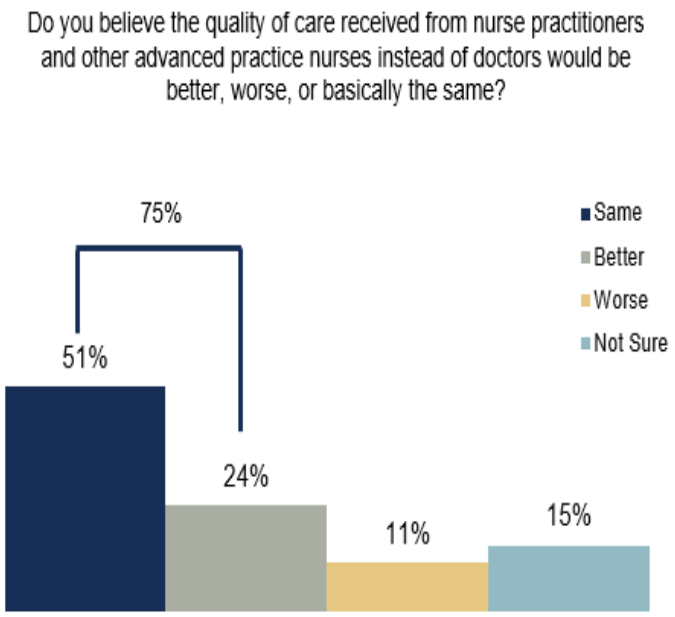
Figure 6: NJ Patient Survey Results



	Overall	Party			Gender		Race		Age		Location		
		Dem	Indy	GOP	Male	Female	White	Non White	<55	55+	Urban	Suburbs	Rural
Agree	**87%**	89	88	86	86	88	87	90	90	84	86	88	85
Strongly	**45%**	47	46	41	43	46	43	52	52	36	44	45	46

(Source: GS Strategy Group, 2023).

Figure 7: NJ Patient Survey Results



	Overall	Party			Gender		Race		Age		Location		
		Dem	Indy	GOP	Male	Female	White	Non White	<55	55+	Urban	Suburbs	Rural
Same	**51%**	48	55	53	48	43	51	47	49	53	42	53	54
Better	**24%**	29	19	20	27	22	22	34	32	14	39	20	27
Worse	**11%**	10	8	13	10	11	12	5	8	13	6	12	6

(Source: GS Strategy Group, 2023).

II. NEW JERSEY LANDSCAPE

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 (NJ). There is mounting evidence that these barriers affect access, cost, and quality of care. New Jersey has an aging population (**Table 1**) across all counties; 50% increase in healthcare spending from between 2011-2020 (**Figure 8**), and disparities in healthcare outcomes (**Tables 4-10**). New Jersey has 10 counties with a primary care physician shortage compared to the national ratio **(Table 2)**. New Jersey has 16 counties with a mental health provider shortage compared to the national ratio **(Table 3)**. New Jersey's healthcare landscape is changing and healthcare provisions must expand to accommodate the evolving needs of New Jersey residents.

A. Aging Population

Table 1: Percentage of 65 Years and Over Population by County 2021-2034

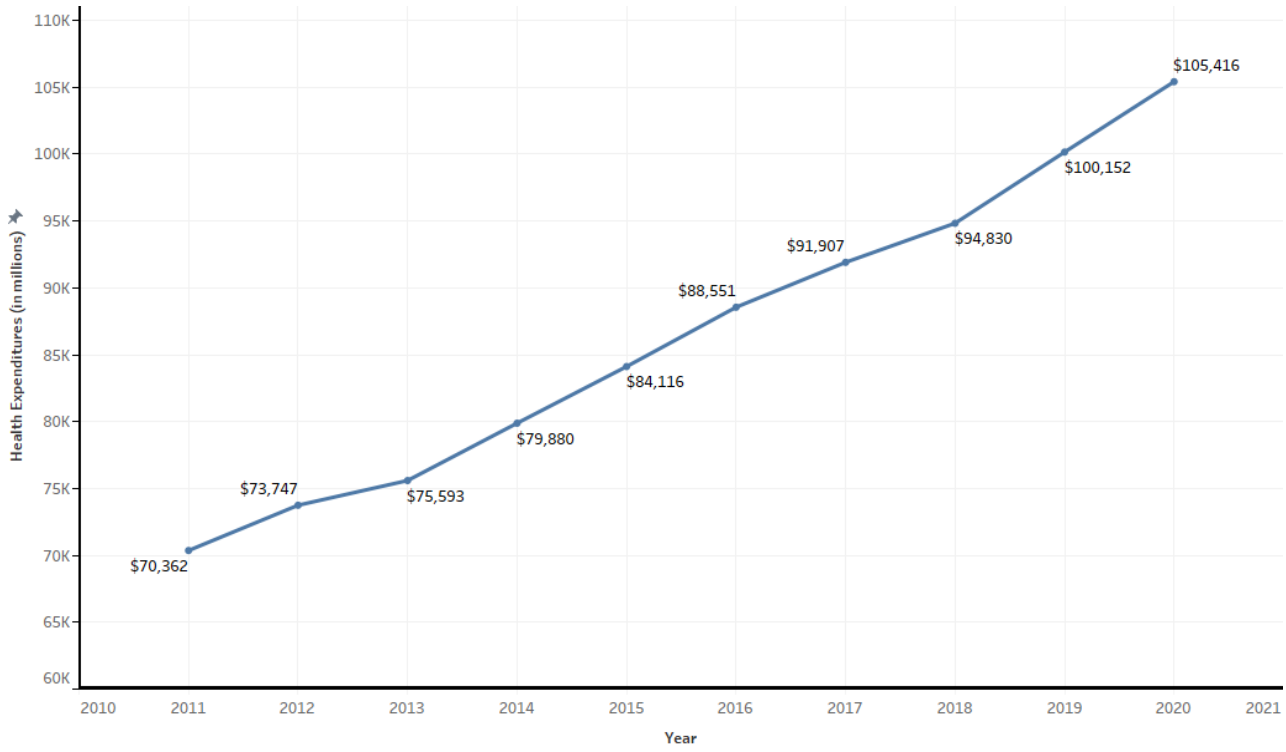
County	65+ Years % (2021)[1]	65+ Years % (2034)[2]	% Change (2021-2034)
Atlantic	19.3	21.7	2.4
Bergen	17.8	21.4	3.6
Burlington	17.7	20.9	3.2
Camden	16.3	19.5	3.2
Cape May	28.2	28.0	-0.2
Cumberland	15.9	17.1	1.2
Essex	14.2	16.7	2.5
Gloucester	16.7	20.3	3.6
Hudson	12.6	13.4	0.8
Hunterdon	20.1	26.4	6.3
Mercer	16.0	19.8	3.8
Middlesex	15.9	19.9	4.0
Monmouth	18.7	21.9	3.2
Morris	17.8	20.2	2.4
Ocean	22.4	25.1	2.7
Passaic	15.3	18.3	3.0
Salem	19.1	23.6	4.5
Somerset	16.7	22.3	5.6
Sussex	18.7	25.6	6.9
Union	14.9	17.6	2.7
Warren	19.2	24.7	5.5

Note: Yellow indicates elderly (65+) population over 20%.

(Source: U.S. Census Bureau[1], 2022; New Jersey Department of Labor and Workforce Development[2], 2017).

B. Health Care Spending

Figure 8: Health Care Expenditures in New Jersey (in millions) 2011-2020



(Source: The Kaiser Family Foundation, 2022).

C. Primary Care and Mental Health Access

1) Primary Care Physicians (PCMDs), on their own, are not enough to meet the current and future demand of primary care in New Jersey or the U.S.
2) The 2023 data from County Health Rankings shows that the ratio of primary care physicians in NJ on average is 1181:1 of which 13 counties exceed that number with Salem County having the highest ratio at 3287:1. (**Table 2**)
3) There is also a lack of mental health providers. New Jersey has an average of 370:1, with 13 counties over that ratio. Hudson County has the highest ratio at 1201:1. (**Table 3**) Mental health and substance abuse disorders are of major importance in addressing the primary care needs of New Jersey residents. Approximately **8%** of New Jersey's APNs (NJCCN, 2023) are trained as psychiatric nurse practitioners, which can help improve access to mental health providers.

Primary Care Physicians by County as Compared to NJ and U.S.

Thirteen counties in NJ do not have an adequate supply of primary care physicians as compared to the NJ primary care physicians ratio. Ten counties do not meet the U.S. primary care physician ratio.

Table 2. Primary Care Physicians by County

	Primary Care Physicians	Primary Care Physicians Rate[1]	Primary Care Physicians Ratio[2]
United States			**1310:1**
New Jersey	**7,521**	**85**	**1181:1**
Atlantic	211	80	1246:1
Bergen	1,110	119	838:1
Burlington	377	84	1185:1
Camden	509	100	996:1
Cape May*	51	56	1795:1
Cumberland*	62	42	2371:1
Essex	673	84	1189:1
Gloucester*	168	57	1746:1
Hudson*	363	54	1850:1
Hunterdon	150	120	832:1
Mercer	360	98	1020:1
Middlesex	804	98	1023:1
Monmouth	743	120	832:1
Morris	496	101	990:1
Ocean*	253	41	2428:1
Passaic*	290	58	1725:1
Salem*	19	30	3287:1
Somerset	382	116	862:1
Sussex*	67	48	2090:1
Union*	370	67	1501:1
Warren*	63	60	1677:1

Note 1: Yellow indicates too few primary care physicians compared to NJ average.
Note 2: * indicates too few primary care physicians compared to U.S. average.

[1]Primary Care Physicians Rate: Primary care physicians per 100,000 population.
[2]Primary Care Physician Ratio: Population to primary care physician ratio.

(Source: University of Wisconsin Population Health Institute, County Health Rankings NJ State Report, 2023).

Mental Health Providers by County as Compared to NJ and U.S.

In NJ, the number of patients to providers is 370:1 with a range of 105:1 to 1201:1. **Thirteen out of 21 counties (62%) have limited access to mental health providers**. This can be decreased by modernizing APN practice legislation. There are 16 counties that do not meet the U.S. mental health provider ratio.

Table 3: Mental Health Providers by County

	Mental Health Providers	Provider Rate[1]	Provider Ratio[2]
United States			**340:1**
New Jersey	**25,027**	**270**	**370:1**
Atlantic*	519	189	530:1
Bergen*	2,765	290	345:1
Burlington	4,425	953	105:1
Camden	1,890	361	277:1
Cape May*	115	120	832:1
Cumberland*	183	119	839:1
Essex*	2,083	244	410:1
Gloucester*	432	142	705:1
Hudson*	585	83	1201:1
Hunterdon*	355	273	366:1
Mercer	1,389	360	278:1
Middlesex*	1,789	208	481:1
Monmouth	2,022	313	319:1
Morris	1,584	310	323:1
Ocean*	1,182	182	549:1
Passaic*	776	150	668:1
Salem*	74	114	879:1
Somerset*	1,010	292	342:1
Sussex*	297	204	490:1
Union*	1,275	223	449:1
Warren*	268	242	413:1

Note 1: Yellow indicates too few primary care providers compared to NJ average.
Note 2: * indicates too few primary care providers compared to U.S. average.

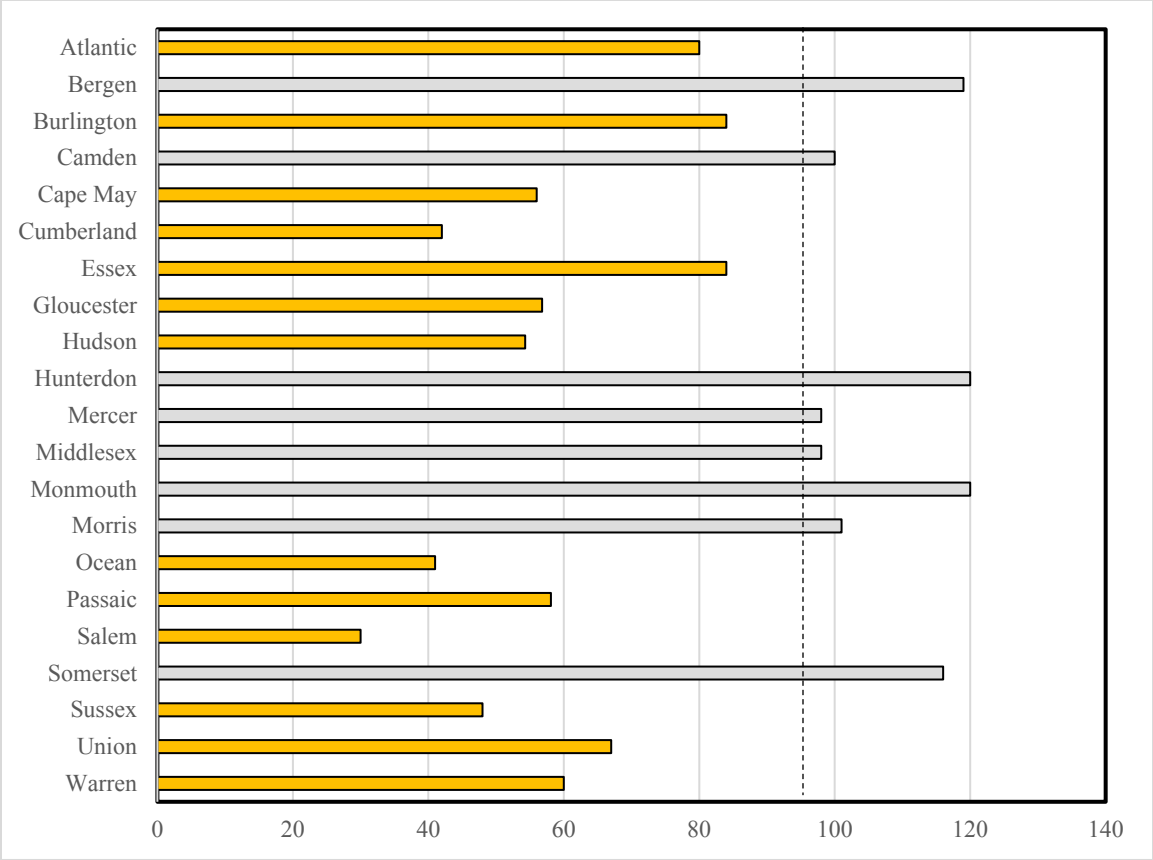
[1]Provider Rate: Mental health provider per 100,000 population.
[2]Provider Ratio: Population to mental health provider ratio.

(Source: University of Wisconsin Population Health Institute, County Health Rankings NJ State Report, 2023).

D. Providers as Compared to National Data

Most New Jersey Counties fall short of the **national** median of 94.4 Primary Care Physicians (PCMDs) per 100,000 population **(Figure 9**). Data shows a high correlation between poor health outcomes and an overall shortage of primary care providers. Counties in New Jersey that are below the national benchmark are highlighted in orange below. **Figure 9** indicates that as many as 13 out of 21 counties experience a shortage of primary care providers.

Figure 9: Primary Care Physicians (PCMDs) per 100,000 Population



Note: *National median of 94.4 active PCMDs per 100,000 population is taken from the '*2021 State Physician Workforce Data Report*' published by AAMC

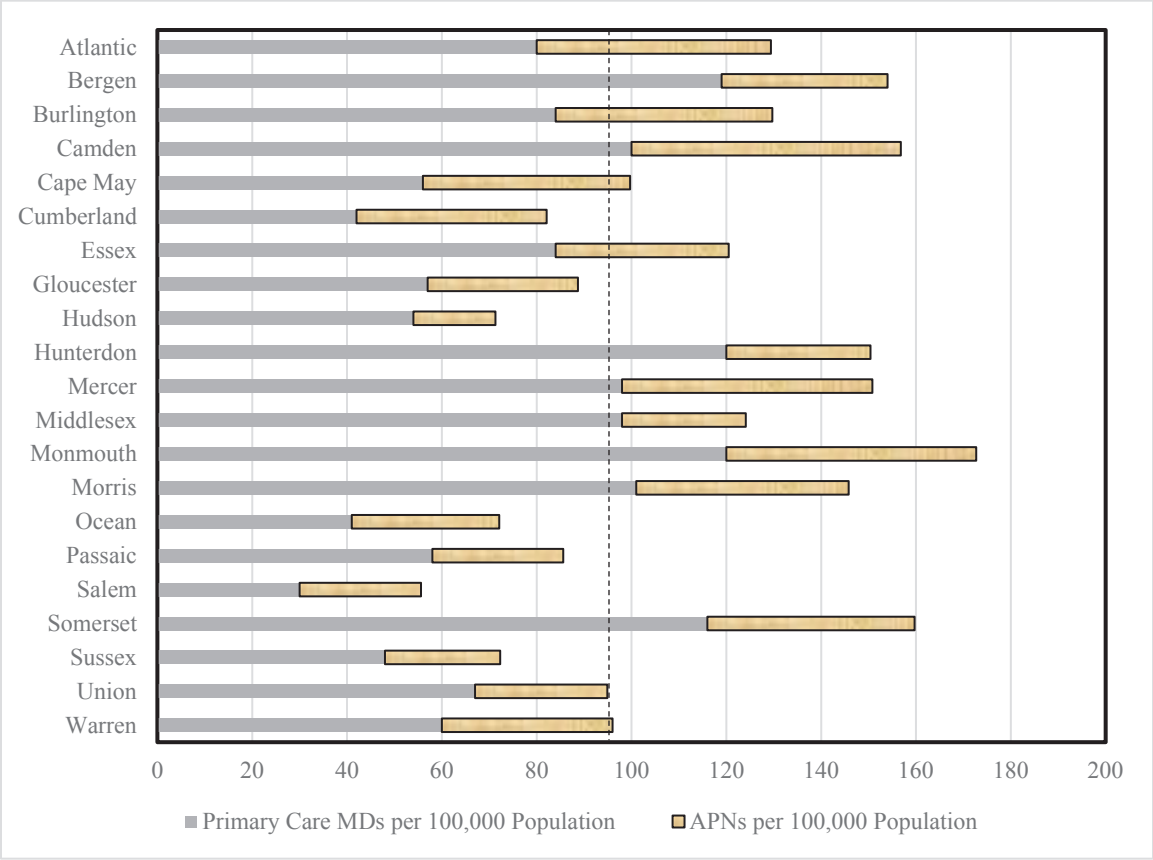
(Source: University of Wisconsin Population Health Institute, County Health Rankings NJ State Report, 2023).

E. Primary Care Physicians (PCMDs) and APNs Combined

In order to meet the rising demand for primary care, APNs must practice to the top of their licensure and certification. This is a nationwide solution to an impending crisis. **Figure 10** outlines the impact of APNs in primary care to existing Primary Care Physicians in these counties. Primary Care APNs are defined as all APNs who do not work in hospitals and also excludes APN-Anesthesia and missing data. (This is a conservative approach to identifying APNs in primary care as APNs in hospital setting may be providing primary care. Note: 44% of APNs (N = 12,039) responded to the workforce data survey (NJCCN, 2023) currently work in a hospital setting).

Adding Primary Care APNs to primary care physicians reduces the number of counties facing a shortage from 13 to 7 (**Figure 10**). Even with the addition of Primary Care APNs, some counties such as Gloucester, and Cumberland are still at risk of falling below the statewide median.

Figure 10: Primary Care Physicians and APNs Combined



Note: *National median of 94.4 active PCMDs per 100,000 population is taken from the '*2021 State Physician Workforce Data Report*' published by AAMC (https://www.aamc.org/data-reports/workforce/report/state-physician-workforce-data-report

(Source: NJCCN, 2022; University of Wisconsin Population Health Institute, County Health Rankings NJ State Report, 2023).

III. Health Outcomes in US and NJ

New Jersey counties show disparities in length and quality of life (**Table 4**). There are also statewide disparities in health outcomes between different ethnic groups especially in the southern portion of New Jersey (**Tables 4-10**).

A. Length of Life and Quality of Life

Table 4: Length of Life and Quality of Life in US compared to NJ

Health Outcome Measures	US Avg.	NJ Avg.	NJ County Minimum	NJ County Maximum
Length of Life				
Premature Death	7,300	6,300	4,200	12,000
Life Expectancy	76.4	79.5	74.0	83.2
Quality of Life				
Poor or Fair Health	12%	11%	8%	18%
Poor Physical Health Days	3.0	2.4	1.9	3.4
Poor Mental Health Days	4.4	4.1	3.9	5.5
Low Birthweight	8%	8%	6%	10%

(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report, 2023; National Center for Health Statistics (U.S.), 2021).

B. Premature Death

Table 5: Premature Death (Worst five counties)

County	Deaths	County Value*	Asian	Black	Hispanic	White
New Jersey	**101,000**	**6,300**				
Salem	1,209	12,000	NA	21,700	10,800	10,300
Cumberland	2,549	10,500	NA	13,100	9,100	10,600
Atlantic	4,148	9,100	4,000	14,200	7,100	9,200
Cape May	1,656	9,100	NA	12,200	7,500	9,100
Camden	7,316	8,700	2,800	13,600	7,900	7,900

*County Value: Years of potential life lost before age 75 per 100,000 population

(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report, 2023).

C. Life Expectancy

Table 6: Life Expectancy (Worst five counties)

County	County Value*	Asian	Black	Hispanic	White
New Jersey	**79.5**				
Salem	74.0	NA	66.8	79.0	75.3
Cumberland	74.6	81.8	71.5	77.2	74.6
Atlantic	76.7	89.6	71.4	80.9	76.6
Camden	76.7	89.5	72.2	79.3	77.2
Cape May	76.9	NA	72.2	88.5	76.9

*County Value: Average number of years a person can expect to live
(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report, 2023).

D. Poor or Fair Health

Table 7: Percentage of Poor or Fair Health (Worst five counties)

County	County Value*
New Jersey	**11%**
Cumberland	18%
Passaic	16%
Atlantic	14%
Essex	14%
Hudson	14%

*County Value: Percentage of adults reporting fair or poor health
(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report, 2023).

E. Poor Physical Health Days

Table 8: Average Number of Physically Unhealthy Days (Worst five counties)

County	County Value*
New Jersey	**2.4**
Cumberland	3.4
Atlantic	3.1
Salem	2.9
Passaic	2.9
Essex	2.9

*County Value: Average number of physically unhealthy days reported in past 30 days
(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report, 2023).

F. Poor Mental Health Days

Table 9: Average Number of Mentally Unhealthy Days (Worst five counties)

County	County Value*
New Jersey	**4.1**
Salem	5.5
Essex	4.9
Cumberland	4.9
Camden	4.8
Cape May	4.8

*County Value: Average number of mentally unhealthy days reported in past 30 days
(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report, 2023).

G. Low Birthweight

Table 10: Percentage of Low Birthweight (Worst five counties)

County	County Value*	Asian	Black	Hispanic	White
New Jersey	**8%**				
Cumberland	10%	10%	15%	8%	9%
Essex	10%	9%	13%	7%	6%
Camden	9%	9%	14%	9%	7%
Passaic	9%	10%	14%	8%	7%
Salem	9%	NA	12%	10%	7%

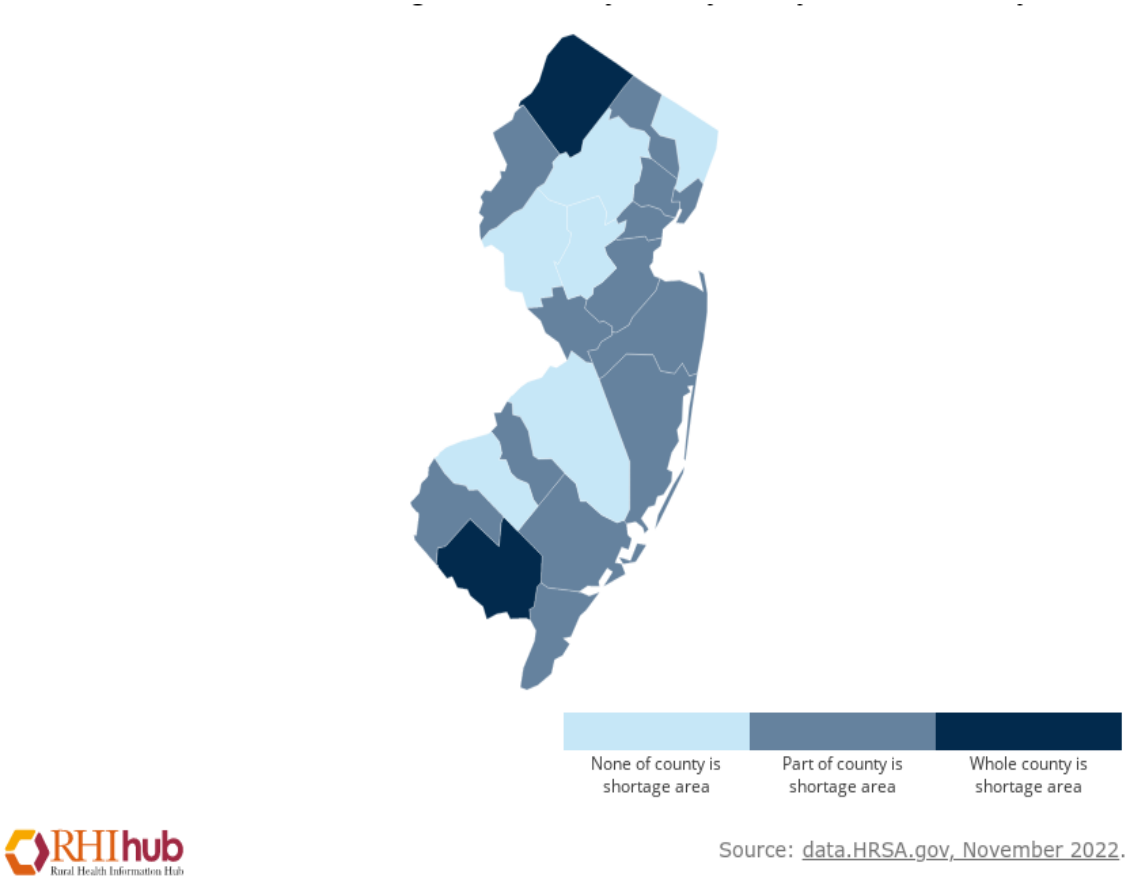
*County Value: Percentage of live births with low birthweight (< 2,500 grams)
(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report, 2023).

IV. Health Professional Shortage Areas in NJ

Several counties or portions of counties in New Jersey are considered medically underserved or designated as primary care or mental health shortage areas. **Figures 11 and 12** show the most recent Health Professional Shortage Areas (HPSAs), according to the rural health information hub.

A. Primary Care Shortage Areas

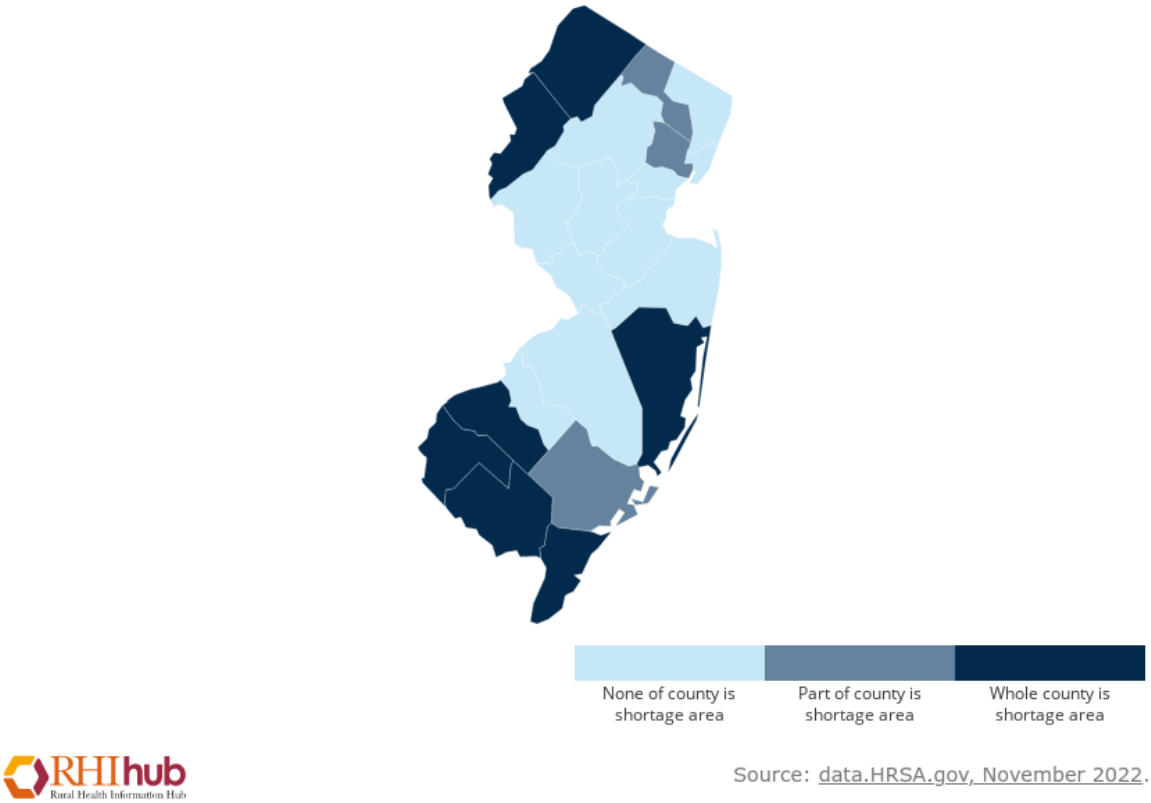
Figure 11: Health Professional Shortage Areas: Primary Care, by County, 2022 - New Jersey



(Source: Rural Health Information Hub, 2022).

B. Mental Health Shortage Areas

Figure 12: Health Professional Shortage Areas: Mental Health, by County, 2022 - New Jersey

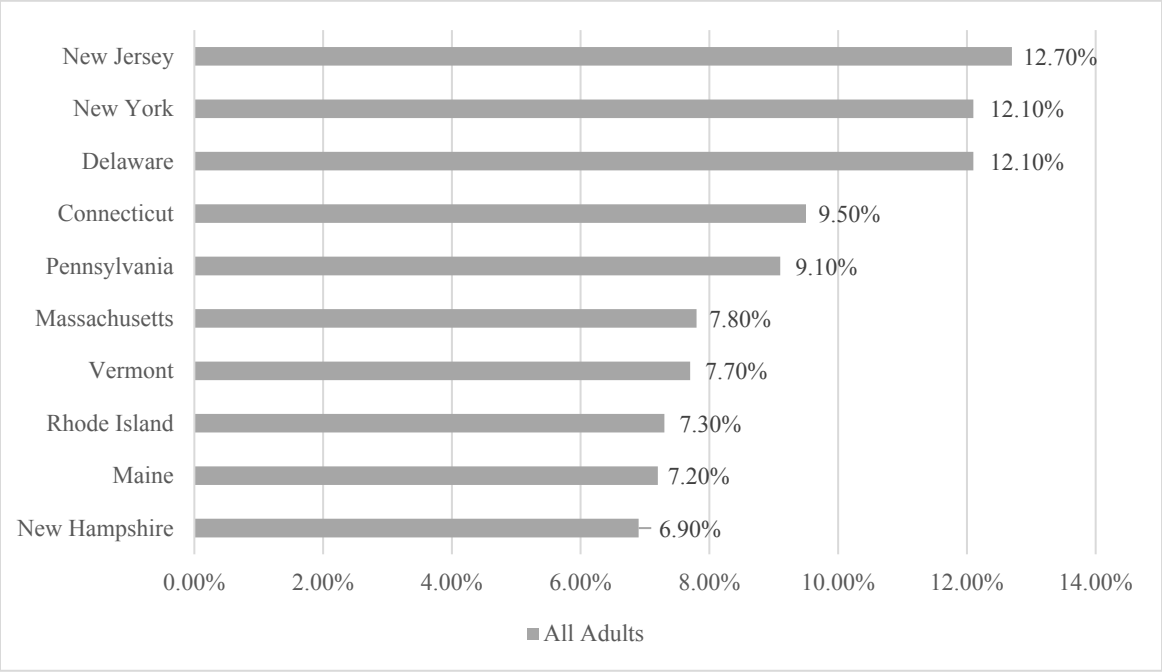


(Source: Rural Health Information Hub, 2022).

C. Lack of Providers in the North-East

In New Jersey, 12.7% of adults reported that they do not have a personal doctor – which is among the worst levels in all states in the north-east (**Figure 13**).

Figure 13: Adults Who Report Not Having a Personal Doctor/Health Care Provider among the North-East



(Source: Kaiser Family Foundation, 2021).

V. Income Levels Disparity across Counties in New Jersey

Table 11 compares the health outcomes rankings to health factors as defined by County Health Rankings (University of Wisconsin Population Health Institute, 2023), 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 11. Comparison of Health Outcome, Factors, and Income Levels by County

County	Health Outcomes (2023)[1]	Health Factors (2023)[1]	Per Capita Income (2021)[2]	Median Household Income (2021)[2]
Hunterdon	1	2	$61,328	$123,373
Morris	2	1	$61,915	$123,727
Somerset	3	3	$61,805	$121,695
Bergen	4	4	$55,710	$109,497
Sussex	5	8	$48,744	$101,645
Middlesex	6	6	$43,300	$96,883
Monmouth	7	5	$57,836	$110,356
Union	8	12	$45,178	$87,369
Ocean	9	13	$39,035	$76,644
Hudson	10	15	$46,197	$79,795
Burlington	11	7	$47,065	$95,935
Warren	12	10	$42,025	$85,163
Mercer	13	9	$45,879	$85,687
Passaic	14	18	$35,723	$78,386
Gloucester	15	11	$42,742	$93,208
Cape May	16	14	$45,689	$76,237
Atlantic	17	19	$36,143	$66,473
Camden	18	16	$38,907	$75,485
Essex	19	17	$42,028	$67,826
Cumberland	20	21	$30,034	$58,397
Salem	21	20	$34,812	$67,898

(Source: University of Wisconsin Population Health Institute, County Health Rankings New Jersey State Report[1], 2023; U.S. Census Bureau[2], 2021).

VI. SUPPLY TRENDS OF APN WORKFORCE IN NEW JERSEY

A. Graduation Rates

Graduation rates for APNs allow for a larger pipeline of primary care providers. **Table 12** shows the number of graduates from 2018-2021. There is an upward trend in the number of APN graduates, which could help increase the number of primary care providers.

Table 12: Post-Licensure Graduation Rates 2018-2021 for Students who Qualify to Become APNs Upon Entering the Workforce

Program	2018	2019	2020	2021
MSN*	377	435	416	378
DNP	137	190	155	204

***Note: Not all MSN graduates are potential APNs.**

(Source: NJCCN, 2023).

B. APN/NP Breakdown

In the 2021-2022 New Jersey Board of Nursing (NJBON) license renewal surveys, 13,119 APNs responded out of New Jersey's 16,598 licensed APNs. APN respondents accounted for 79% of the APN workforce in New Jersey. The majority of APNs are identified as NPs. In this 2021-2022 survey period, there were 10,829 out of 13,119 APN respondents reported that they have a nurse practitioner certification (NJCCN, 2023).

Table 13: Number of APNs and NPs in NJ

Total number of APNs in New Jersey	16,598[1]
Number of APNs 2021-2022 survey respondents	13,119[2]
Number of NPs 2021-2022 survey respondents	10,829[2]

(Source: New Jersey Board of Nursing[1], 2022; NJCCN[2], 2023).

C. NP Specialty

A majority of the NPs in NJ are already educated in Primary Care. **Tables 13-14** show that ~80% of NPs are educated as primary care providers.

There were 9,369 NPs out of 10,829 NPs that reported their primary area of focus in the 2021-2022 New Jersey Board of Nursing (NJBON) license renewal surveys. **Table 14** shows the nurse practitioner specialties of 7,463 NPs after excluding Adult/Gerontology/Acute and others/missing (NJCCN, 2023).

Table 14: Number of NPs in NJ

NP Specialty	N = 7,463
Family	2,997
Adult/Gerontology Primary	2,457
Pediatrics	799
Psychiatric	782
Women's Health	428

(Source: NJCCN, 2023).

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

Table 15 shows primary care APNs who hold a license to practice in New York or Pennsylvania are at risk of migrating out by county. This risk has increased as New York has removed restrictions on APN practice. Pennsylvania is currently in the process of removing barriers. Pending legislation increases the urgency of addressing APN practice in New Jersey, if out-migration is to be avoided. Compared to NJCCN's last full report, risk of out-migration has increased significantly.

Table 15: Out-Migration Risk by County

County (Based on Employment)	Primary Care Advanced Practice Nurses	Primary care APNs that hold NYPA licenses	% Primary care APNs that hold NYPA licenses
Atlantic	130	25	19%
Bergen	326	92	28%
Burlington	204	70	34%
Camden	288	134	47%
Cape May	40	6	15%
Cumberland	59	10	17%
Essex	292	61	21%
Gloucester	93	36	39%
Hudson	116	38	33%
Hunterdon	38	12	32%
Mercer	194	71	37%
Middlesex	215	42	20%
Monmouth	326	66	20%
Morris	220	46	21%
Ocean	191	24	13%
Passaic	138	35	25%
Salem	16	7	44%
Somerset	144	28	19%
Sussex	34	9	26%
Union	155	37	24%
Warren	38	13	34%

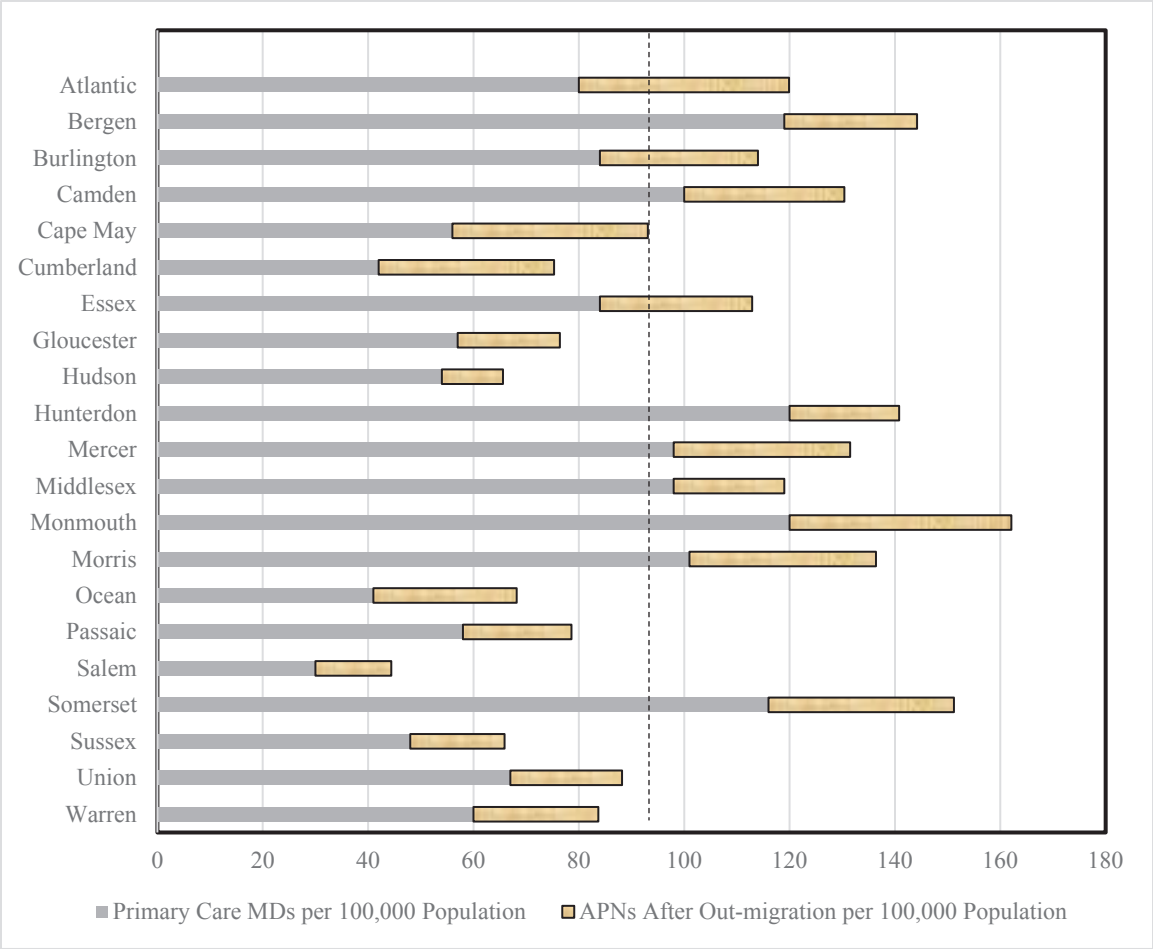
Notes: 44% of the APN respondents who work in hospitals where excluded. Also excluded adult, APN-Anesthesia, and other/missing

(Source: NJCCN 2023).

E. Results of Out-migration

Figure 15 outlines the potential impact of Primary Care APNs out-migration. **Out-migration could impact 10 counties leaving them unable to meet the national 94.4 median.** Sustained out-migration can adversely impact the health outcomes of all New Jersey counties.

Figure 14: PCMD and primary care APNs per 100,000 population after projected APN out-migration



Note: National median of 94.4 active PCMDs per 100,000 population is taken from the '*2021 State Physician Workforce Data Report*' published by AAMC (https://www.aamc.org/data-reports/workforce/report/state-physician-workforce-data-report)

(Source: University of Wisconsin Population Health Institute, County Health Rankings NJ State Report, 2023; NJCCN, 2023).

F. 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 healthcare 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. al, 2016) and "*Role of Geography and Nurse Practitioner Scope-of-Practice in Efforts to Expand Primary Care System Capacity"* (Graves, et al, 2016).

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