

A Comparative Analysis of New York's Active Nurse Practitioners and Physician Assistants

Highlights

- Approximately 19,000 nurse practitioners (NPs) and physician assistants (PAs) are actively practicing in New York State.
- NPs are much older, on average, than PAs, with more than half of NPs fifty years of age or older, compared to slightly less than 20% of PAs.
- NPs and PAs are less diverse than the state's population, with a much smaller proportion of Hispanic/Latino NPs and PAs compared to their presence in the general population of the state.
- A higher percentage of NPs work in ambulatory care, while a higher percentage of PAs work in hospitals (inpatient, outpatient, and emergency department).
- On average, NPs work longer hours than PAs statewide and in all regions.

Background

Physician assistants and nurse practitioners play important roles in the provision of health care services. Both have advanced education and training and work as members of health care teams, where they typically examine, diagnose and treat patients, order and interpret tests, and prescribe medication. Both work in a variety of health settings and in some instances may serve as primary care providers for panels of patients. Demand for NPs and PAs has been growing in recent years, in part because of their ability to expand access to care for underserved populations.

The Center for Health Workforce Studies, using available data, conducted a comparative analysis of the state's NPs and PAs to better understand their similarities and differences. This brief highlights the findings of that analysis.

Methods

For purposes of this analysis, data on PAs were obtained from the National Commission on Certification of Physician Assistants (NCCPA) for 2016 and data on NPs were drawn from New York's mandatory re-registration survey for nurse practitioners collected between September 2015 – December 2017.

NCCPA is the certifying organization for physician assistants in the United States and collects data on PAs at the time of certification and recertification. For more information on NCCPA and their data collection methods and analysis, visit the NCCPA web site at: <http://www.nccpa.net/>.

The NP data used in the analysis was based on responses to a mandatory NP re-registration survey received from September 1, 2015 through December 31, 2017. A total of 14,172 survey responses were received during this time period, representing virtually all active NPs relicensed during this time period and approximately 70% of all currently licensed NPs.

In this analysis, NP and PA comparisons were made on age, race, average weekly hours worked, and current practice settings statewide, by Population Health Improvement Program (PHIP) region and by rural versus urban county, using Ebert's Typology.¹

¹ New York State Public Health Law, Article 2, Title 25C, Section 235.

Key Findings

- Approximately 19,000 NPs and PAs are actively practicing in New York State.

Approximately 11,700 NPs and 8,300 PAs were actively practicing in New York State. There were 59.5 NPs per 100,000 population and 42.2 PAs per 100,000 population. (Table 1). There were a higher number of active NPs and PAs per capita in urban counties (62.1 and 43.6, respectively) than in rural counties (45.3 and 35.0, respectively).

Table 1. Estimated Counts of Active NPs and PAs, Statewide and by Rural and Urban Practice Locations

		Number	Rate per 100,000 Total Population ²
NPs	Rural	1,406	45.3
	Urban	10,314	62.1
	Statewide	11,720	59.5
PAs	Rural	1,085	35.0
	Urban	7,237	43.6
	Statewide	8,322	42.2

- NPs are much older, on average, than PAs, with more than half of NPs fifty years of age or older, compared to less than 20% of PAs.

Fifty-two percent of active NPs statewide were 50 years of age or older compared to only 20% of active PAs (Table 2). The largest age cohort for NPs was the 50-59 years of age, (28%), while the largest age cohort among PAs was 30-39 years of age (36%).

The highest percentage of NPs and PAs 50 years of age or older was in the Adirondack region (69% and 46%, respectively) (Table 3). A high percentage of NPs 50 years of age or older was also found in the Central New York (64%), Western New York (63%), and Capital District regions (62%). Nearly 40% of PAs in the Mohawk Valley region was 50 years of age or older. The New York City region had the lowest percentage of NPs and PAs 50 years of age or older (40% and 15%, respectively). There was also low percentages of PAs 50 years of age or older in the Western New York (16%) and the Long Island (18%) regions.

Table 2. Active NPs and PAs in New York State, by Age Cohort

Age Group	20-24	25-29	30-39	40-49	50-59	60-69	70+	Mean Age
NPs	0.0%	1.1%	22.5%	24.5%	28.3%	21.0%	2.7%	49.7
PAs	3.4%	20.0%	36.1%	20.6%	13.5%	6.1%	0.3%	39.0

² American Community Survey, 2012-2016 5-Year Estimates

Table 3. Active NPs and PAs in New York State, 50 Years of Age or Older by Region

Region	NPs	PAs
Adirondack Region	69.2%	45.6%
Capital District	61.6%	33.4%
Central New York	64.2%	19.6%
Finger Lakes	57.6%	22.2%
Long Island	58.2%	17.7%
Mid-Hudson	57.1%	29.1%
Mohawk Valley	59.1%	38.8%
New York City	39.6%	14.9%
Southern Tier	54.9%	27.4%
Tug Hill Seaway	53.2%	20.5%
Western New York	62.9%	15.6%
Statewide	52.0%	19.9%

- NPs and PAs are less diverse than the state's population, with a much smaller proportion of Hispanic/Latino NPs and PAs compared to their presence in the general population of the state.

A small percentage of the state's active NPs and PAs was underrepresented minorities (URMs).^{*} While nearly 19% of New York's population were Hispanic/Latino, only 5% of NPs and 6% of PAs were Hispanic/Latino (Table 4). Additionally, just over 14% of New York's population was Black/African American, non-Hispanic, compared to 11% of NPs and 6% of PAs. The NP and PA workforce in urban counties was much more diverse than in rural counties.

Table 4. Race/Ethnicity of Active NPs and PAs in New York State, Statewide and by Rural and Urban Practice Locations

		Non-Hispanic						Hispanic/Latino
		White	Black/African American	Asian/Pacific Islander	American Indian/Alaskan Native	Multiple Races	Other	
NPs	Rural	92.8%	2.1%	1.6%	0.6%	0.7%	1.2%	1.1%
	Urban	66.8%	12.3%	10.5%	0.0%	1.7%	3.2%	5.5%
	Statewide	69.9%	11.1%	9.5%	0.1%	1.6%	2.9%	5.0%
PAs	Rural	93.8%	1.2%	1.1%	0.2%	0.7%	0.7%	2.4%
	Urban	71.7%	7.2%	9.7%	0.1%	1.5%	2.5%	7.0%
	Statewide	74.6%	6.4%	8.5%	0.1%	1.4%	2.3%	6.4%
New York Population		56.4%	14.4%	8.0%	0.2%	1.8%	0.5%	18.6%

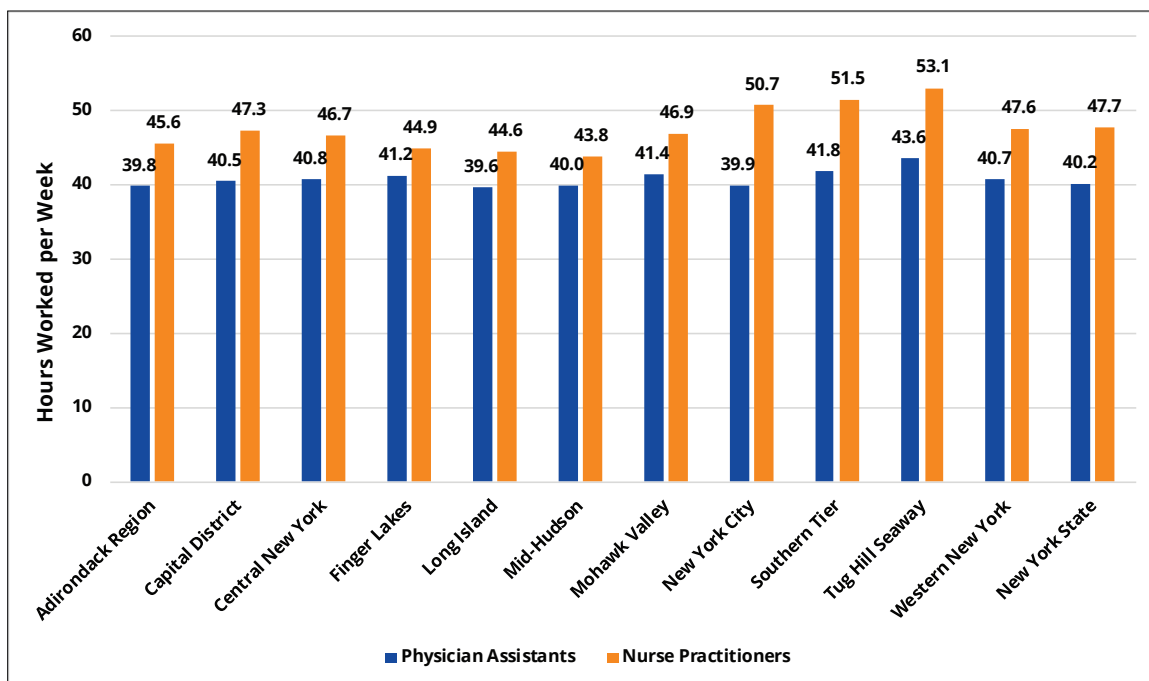
^{*} URMs include individuals who are Black/African American, non-Hispanic; American Indian/Alaskan Native, non-Hispanic; or Hispanic/Latino.

- On average, NPs report working longer weekly hours than PAs statewide and in all regions.

Statewide and regionally, NPs worked a higher average number of hours per week compared to PAs. Statewide NPs worked an average of 48 hours per week compared to 40 hours per week for PAs (Figure 1). NPs worked the longest average hours per week in the Tug Hill Seaway region (53), followed by the Southern Tier (52) and New York City (51) regions. NPs worked the fewest average hours per week in the Mid-Hudson region (44), followed by the Long Island and Finger Lakes regions, both with 45 average hours worked per week.

Similarly, PAs worked the longest average hours per week in the Tug Hill Seaway region (44), followed by the Southern Tier region (42). PAs in the other regions worked an average of between just under 40 and nearly 42 hours per week.

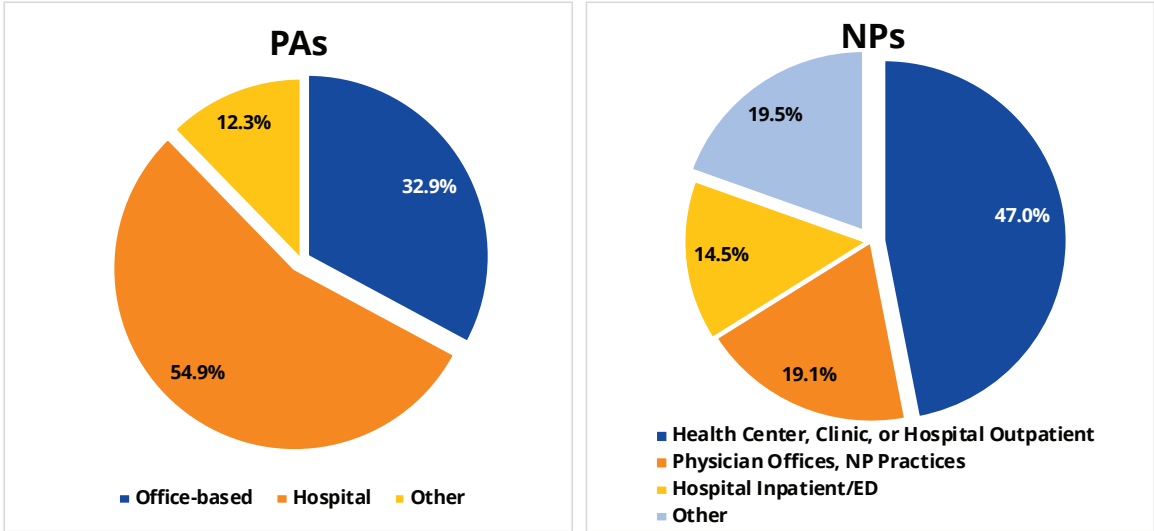
Figure 1. Active NPs and PAs in New York State by Hours Worked Per Week and by Region



- A higher percentage of NPs work in ambulatory care, while a higher percentage of PAs work in hospitals (inpatient, outpatient, and emergency department).

Nearly two-thirds of NPs worked in ambulatory care settings, including health centers, free-standing clinics, hospital outpatient clinics, physician offices, and independent NP practices (Figure 2). Another 15% of NPs worked in hospital inpatient/emergency departments. Fifty-five percent of PAs worked in hospitals, though it was not possible to distinguish between inpatient, ambulatory care, and emergency departments. Another 33% of PAs worked in office-based settings.

Figure 2. Distribution of Active NPs and PAs in New York State by Health Care Setting



Limitations

There are a number of limitations associated with this analysis. Available NP data was currently limited to those NPs who re-registered between September 2015 and December 2017, or approximately 70% of all licensed NPs in New York State. However, the re-registration survey is not completed by newly licensed NPs, which may skew results on demographic, including age and race/ethnicity, and practice characteristics. Consequently, results from this analysis may not be generalizable to all of the state’s NPs.

Variables from the two data sources were not always consistent, particularly with regard to setting. It was not possible to break out the hospital setting categories for PAs by inpatient, outpatient, and emergency room. This made it difficult to determine the proportion of PAs working in ambulatory care settings within hospitals.

Discussion

This research study describes basic differences in demographic and practice characteristics of active NPs and PAs in New York. However, this analysis did not assess the contributions of NPs and PAs to increasing access to care for the state’s underserved populations. Future research should examine NP and PA patterns of service delivery to gain a better understanding of their roles and responsibilities that contribute to improving population health in New York.

This research was conducted at the Center for Health Workforce Studies (CHWS) by Yuhao Liu, Robert Martiniano and Jean Moore. Support for this analysis was provided by the New York State Department of Health.

Established in 1996, CHWS is an academic research center based at the School of Public Health, University at Albany, State University of New York (SUNY). The mission of CHWS is to provide timely, accurate data and conduct policy relevant research about the health workforce. The research conducted by CHWS supports and promotes health workforce planning and policymaking at local, regional, state, and national levels.