RESEARCH BRIEF
January 2021

CHWS
Center for Health Workforce Studies

Nurse Practitioner Diversity in New York State

Highlights

- **Statewide, Hispanic nurse practitioners (NPs) are underrepresented in the state's NP workforce, while the percentage of Black NPs is close to the percentage of Blacks in the state's population.**
- **In many regions of the state, both Hispanic and Black NPs are underrepresented compared to their presence in the regional population.**
- **NPs younger than age 50 are more racially or ethnically diverse.**
- **Black and Hispanic NPs complete their NP training at older ages compared to all other NPs.**
- **Nearly 50% of Black NPs work in primary care health professional shortage areas (HPSAs).**

Background

Health workforce diversity has important implications for achieving health equity. Most recently, the COVID-19 pandemic has contributed to worsening racial/ethnic health disparities, with mounting evidence that Blacks and Hispanics are disproportionately affected by COVID-19.[1] Efforts to better understand this phenomenon point to the ways that structural racism contributes to widening health disparities. Structural racism refers to the barriers society constructs to maintain racial inequality through policies, laws, systems, and institutions, which impact access to housing, employment, and health care.[2]

Many strategies to reduce structural racism have been identified, including expanding access to care and improving racial/ethnic diversity within the health professions.[1-4] Historically, certain racial and ethnic groups have been underrepresented in the health professions compared to their presence in the general population.[4,5] Underrepresented minorities (URMs) have traditionally included Blacks/African Americans (hereafter referred to as Blacks), Hispanics/Latinx (hereafter referred to as Hispanics), and American Indians/Alaskan Natives (hereafter referred to as American Indians).

By recruiting more URMs into the health professions, the adequacy and distribution of health workforce supply is enhanced, quality and access to care is improved, and a culturally competent workforce is more likely.[6] Studies have shown that URM practitioners are more likely to serve rural, underserved, or vulnerable populations, including individuals living in federally designated health professional shortage areas (HPSAs).[7,8] Moreover, as the population in the country becomes more diverse, a more culturally competent workforce is required to more effectively meet the needs of the population. To this end, it is important to assess the advancements towards diversity within health professions.

This research brief describes the nurse practitioner workforce in New York, with a focus on their racial/ethnic composition. The data for this analysis were drawn from a survey of NPs practicing in New York collected between 2016 and 2018. The analysis was conducted by the Center for Health Workforce Studies and examined NP demographic, educational, and practice characteristics.

Data and Methods

Since 2015, NPs in New York have been required to provide information to the state as part of their triennial recertification through the New York State Education Department. NPs can hold one or more of 16 NP certificates and must renew their NP certification(s) every 3 years.

Between January 1, 2016 and December 31, 2018, 19,422 NPs provided this information. After excluding NPs practicing exclusively out of state, those who were retired, those not working, those working exclusively as registerd nurses (RNs), and those not providing patient care services, there were 11,867 active NPs who reported providing patient

care services in New York. This brief summarizes findings of an analysis of active NPs practicing in New York.

For purposes of this analysis, an "active primary care NP" is one who holds a specialty certification in primary care and works in a primary care focused ambulatory care setting, including free-standing clinics/federally qualified health centers; hospital outpatient primary care clinics; independent NP practices; or physician practices. To be considered a primary care practice, the principal specialty of the ambulatory care setting must be one of the following: family medicine; general medicine; general internal medicine; obstetrics/gynecology; or general pediatrics. Similarly, an "active psychiatric NP" is one who holds a specialty certification in psychiatry, provides patient care and works in a position that requires an NP certification.

Due to the nature of small populations, the percentages of American Indian NPs reported throughout this brief should be interpreted with some caution as small differences generate large percentages. Regardless, American Indian NPs are included in this report because their presence in the workforce remains vitally important for culturally competent health care.

Findings

Statewide, Hispanic NPs are underrepresented in the state's NP workforce, while the percentage of Black NPs is close to the percentage of Blacks in the state's population.

Hispanic NPs were 5% of the total NP workforce but comprised nearly 19% of the state's population (Table 1). However, Black NPs (12%) nearly mirrored their presence in the state (14%). Similarly, Asian or Pacific Islander NPs (hereafter referred to as Asian) were nearly equal to their presence in the state's population, just under 10% and just over 8% respectively. White NPs were overrepresented in the NP workforce (69.5%) compared to their presence in the state's population (55.9%).

In many regions of the state, both Hispanic and Black NPs are underrepresented compared to their presence in the regional population.

Hispanic NPs were underrepresented in most regions, with New York City accounting for the largest disparity between Hispanic NPs and the regional Hispanic population (Figure 1). On the other hand, in the North Country region, Hispanic NPs nearly mirrored their presence in the regional population.

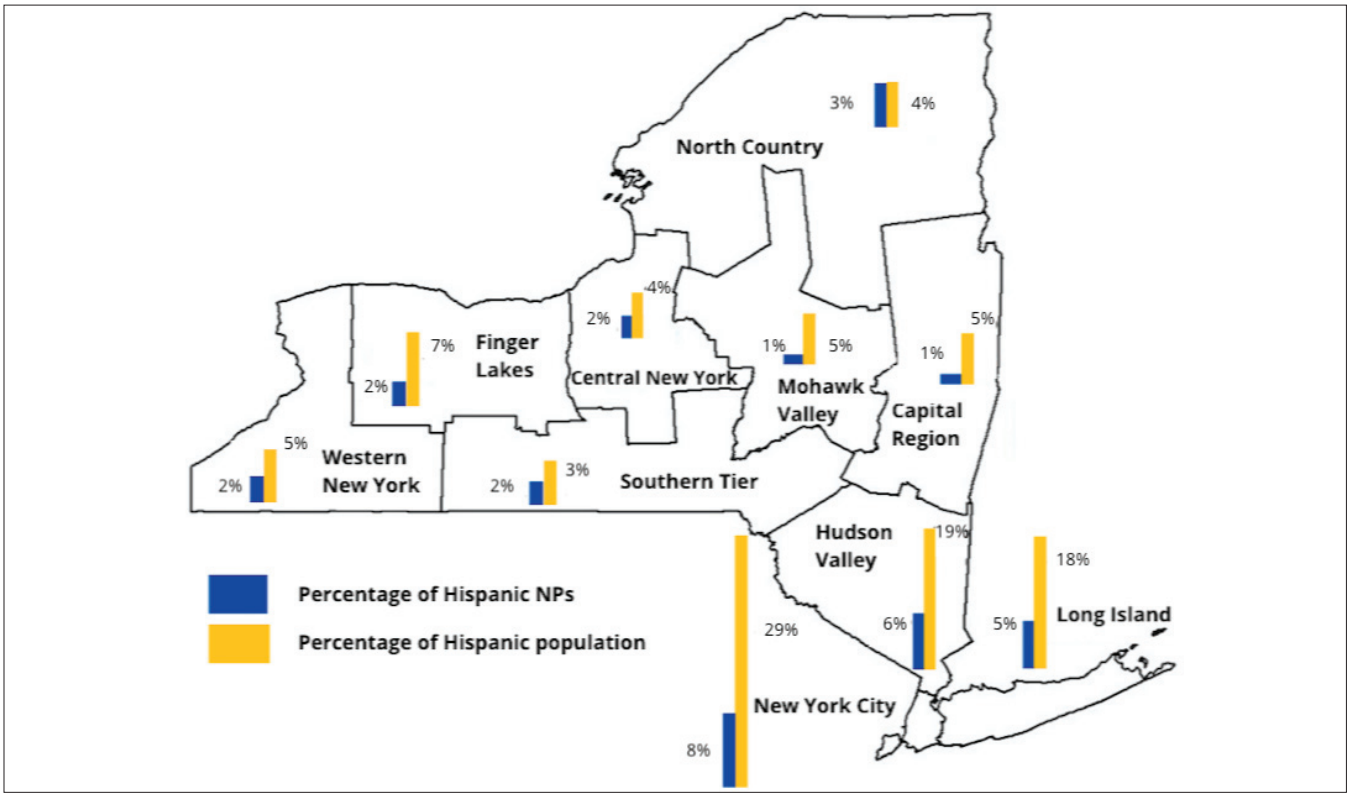
Black NPs were also underrepresented in many regions, except for Long Island, New York City, and the Southern Tier regions (Figure 2). In the Long Island region, Black NPs were slightly overrepresented compared to the regional Black population. In the Southern Tier and New York City regions Black NPs were approaching parity with the local Black population in these regions. The greatest disparities between Black NPs and the regional Black population were observed in the Western New York, Finger Lakes, and Central New York regions.

TABLE 1. Racial/Ethnic Composition of New York State's NPs Compared to New York State Population

	Non-Hispanic					Hispanic/ Latinx
	Black/ African American	Asian or Pacific Islander	American Indian or Alaskan Native	Other/ 2 or more races	White	
NP Workforce	11.8%	9.9%	0.1%	3.5%	69.5%	5.0%
New York State Population	14.3%	8.2%	0.2%	2.4%	55.9%	18.9%

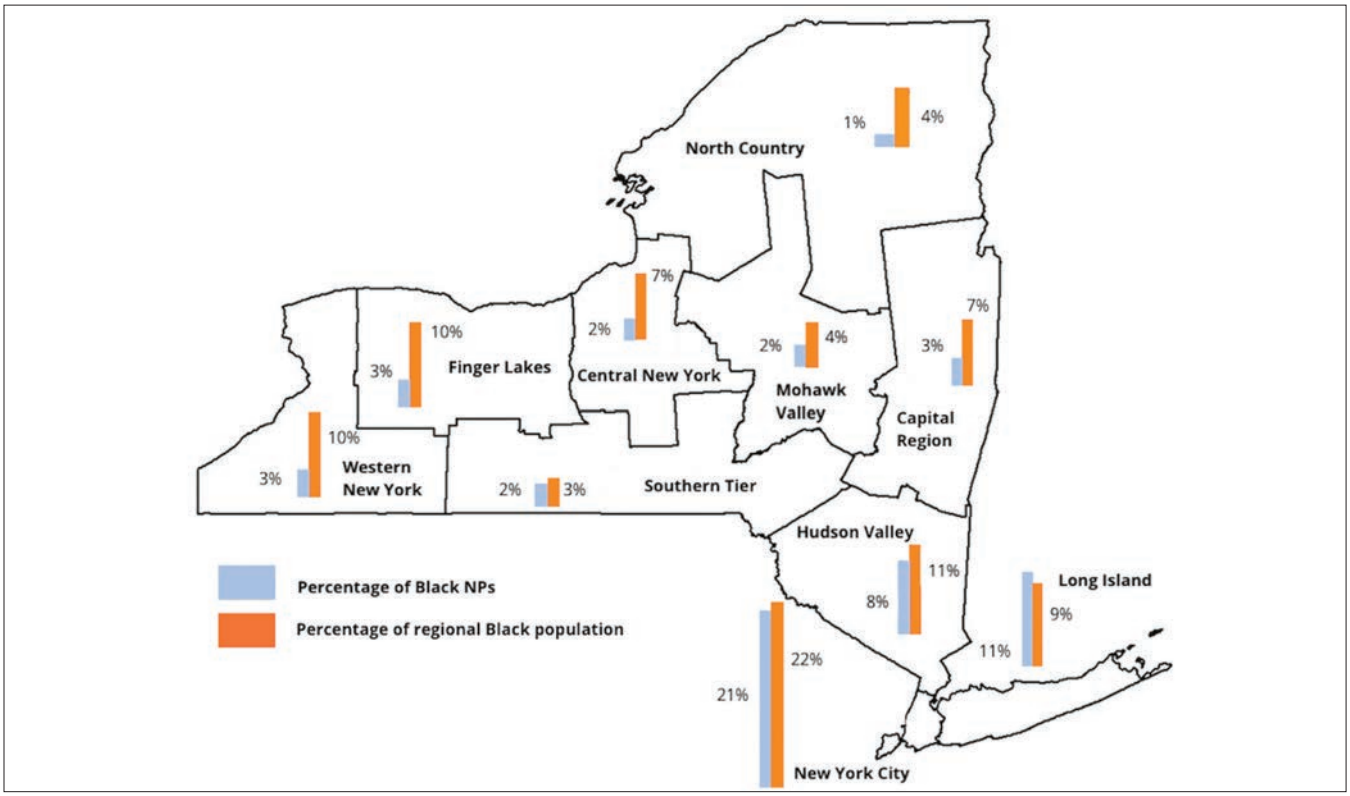
Sources: NY State Education Department, Nurse Practitioner Licensure Recertification data, 2016-2018; American Community Survey, ACS Demographic and Housing Estimates, 2018 5-Year Estimates Data Profile.

FIGURE 1. Percentages of Hispanic NPs and the Hispanic Population by Department of Labor Region



Sources: NY State Education Department, Nurse Practitioner Licensure Recertification data, 2016-2018; American Community Survey, ACS Demographic and Housing Estimates, 2018 5-Year Estimates Data Profile.

FIGURE 2. Percentages of Black NPs and the Black Population by Department of Labor Region

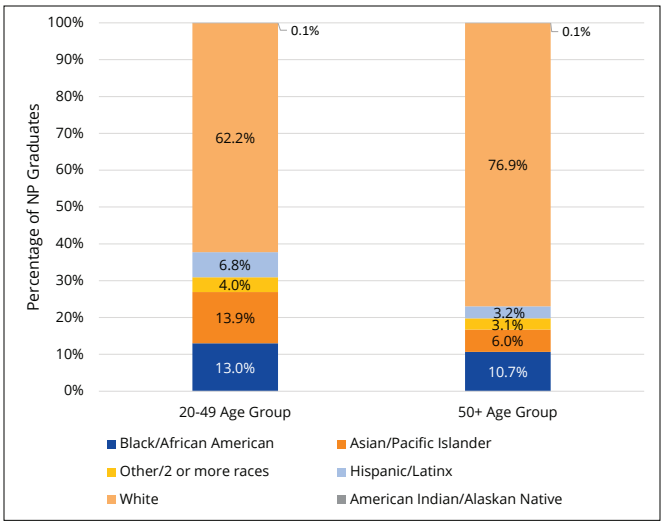


Sources: NY State Education Department, Nurse Practitioner Licensure Recertification data, 2016-2018; American Community Survey, ACS Demographic and Housing Estimates, 2018 5-Year Estimates Data Profile.

NPs younger than age 50 are more racially or ethnically diverse.

In general, NPs under the age of 50 were more racially and ethnically diverse than NPs over age 50 (Figure 3). Among those under age 50, 13% were Black, nearly 14% were Asian, just under 7% were Hispanic, and over 4% were another race or 2 or more races. In comparison, NPs who were 50 years of age or older were less diverse: just under 11% were Black, 6% Asian, and about 3% each for Hispanic, another race, or 2 or more races.

FIGURE 3. Percentage of NPs by Race/Ethnicity and Age Groups



Black and Hispanic NPs complete their NP training at older ages compared to all other NPs.

Black and Hispanic NPs graduated from their NP programs at older ages than other NPs (Figure 4). Only 15% of Black NPs graduated between the ages of 20 to 29, while over 41% graduated between the ages of 30 to 39, and more than 31% graduated between ages 40 to 49. Similarly, graduation of Hispanic NPs in the 30 to 39 age group exceeded rates by any other racial or ethnic group in that same age cohort by at least 7%.

Nearly 50% of Black NPs work in primary care HPSAs.

Nearly half of the Black NP workforce worked in a primary care HPSA (Figure 5). Additionally, over 42% of Hispanic NPs worked in a primary care HPSA. About 40% of NPs in other racial/ethnic groups worked in HPSAs.

FIGURE 4. NP Graduation Age by Race/Ethnicity

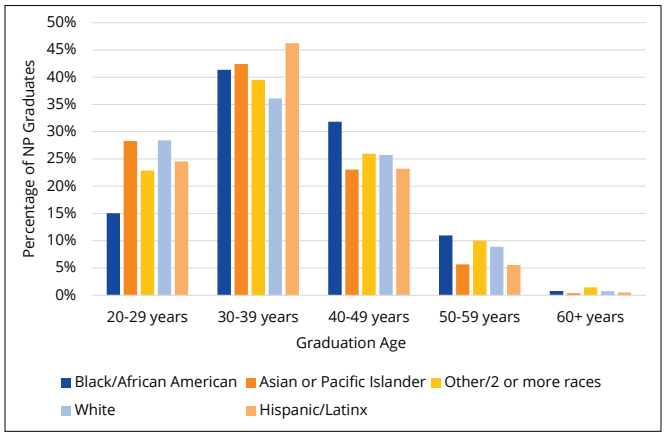
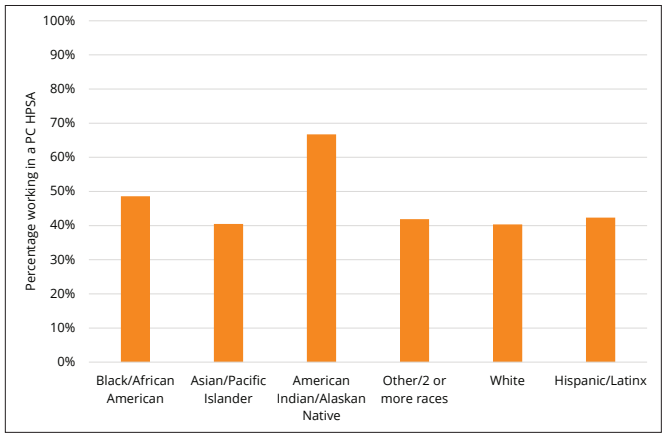


FIGURE 5. Percentage of NPs Working in a Primary Care HPSA by Race/Ethnicity



Limitations

This report is based on data drawn from survey responses submitted by all NPs who completed a mandatory survey between January 1, 2016 and December 31, 2018 as part of their triennial recertification. The data, however, do not include NPs who were newly certified between 2016 and 2018. This data counts active NPs in one specialty and in one setting; therefore, NPs practicing in more than one specialty or setting may result in an undercount of actual NP capacity. Moreover, the data used in this analysis are self-reported and have not been independently verified using other data sources and, thus, subject to potential misclassification due to inaccurate reporting.

In addition, the data in this brief was collected prior to the COVID-19 pandemic, and the impact of the pandemic on New York's NP workforce was not considered in this analysis.

Discussion: Implications and Future Research on Diversity

It is widely recognized that NPs play a key role in expanding access to health services. As the state's population grows and becomes more diverse, a diverse NP workforce not only assures an adequate supply of health workers, but also supports the provision of culturally competent health care. The findings presented show that some progress is being made: Younger NPs are more diverse than older NPs; Black NPs are nearing parity with the Black population statewide; and nearly 50% of Black NPs work in primary care HPSAs, bringing much needed services to vulnerable and underserved populations statewide.

However, some challenges to diversity remain. Black and Hispanic NPs complete their training at older ages than other NPs, suggesting delayed entrance or prolonged completion of their NP programs. Barriers including structural racism can increase NP program attrition, or delay and thereby, reduce the likelihood of RNs from diverse backgrounds entering the NP workforce.[9,10] In addition, the representation of Black and Hispanic NPs compared to regional Black and Hispanic populations varies considerably, highlighting areas of the state where disparities remain.

The findings in this brief also shed light on 2 important methodological issues. First, the variation in representation in different regions shows the importance of examining distributions at the sub-state level. Second, the findings show the importance of disaggregating URMs into their individual racial or ethnic components to better understand the unique characteristics of each group rather than considering them as part of a monolithic minority group.

The health disparities observed during the COVID-19 pandemic have intensified the focus on reducing racial and ethnic disparities and improving health equity. In addition to continued monitoring of the state's NP workforce, future research opportunities should include analyses of pandemic impacts on the NP workforce, the role of structural racism and its impact on the educational experience of NPs from diverse backgrounds, and efforts to expand URM recruitment and retention in both the nursing educational pipeline and NP workforce.

Conclusion

This research brief was designed to inform policymakers, planners, and other stakeholders about racial/ethnic diversity among active NPs in New York. The COVID-19 pandemic brought a renewed attention on the importance of improving diversity and health equity in the health professions, and this study demonstrates that a diverse NP workforce shows a greater inclination to practice in shortage areas.

The findings from this analysis suggest the need to continue to support efforts to further improve racial/ethnic diversity in the NP workforce. While there is evidence of progress, improvements can be made. As health workforce planners tackle changing population needs, consideration of health equity and the role of culturally competent care should remain at the forefront of their efforts.

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This research was conducted by the Center for Health Workforce Studies (CHWS) staff, Kristen Stiegler, Robert Martiniano, Maa'isa Cleaves, and Nafin Harun with layout design by Leanne Keogh. Acknowledgements to Jean Moore and Guy Forte for helpful editing insights. Support for this analysis was provided by New York State Department of Health.

CHWS, established in 1996, is 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.