

The Health Resources and Services Administration Diversity Data Collection

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ABSTRACT

The Health Resources and Services Administration maintains a strong emphasis on increasing the diversity of the health-care workforce through its grant programs. Increasing the diversity of the workforce is important for reducing health disparities in the population caused by socioeconomic, geographic, and race/ethnicity factors because evidence suggests that minority health professionals are more likely to serve in areas with a high proportion of underrepresented racial and ethnic minority groups. The data show success in increasing the diversity of enrollees in five nursing programs.

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The Health Resources and Services Administration (HRSA) aims to improve access to health care in numerous ways by providing national leadership in the development and distribution of a diverse, culturally competent health workforce that can adapt to the population's changing health-care needs and offer the highest quality care. The evidence suggests that minority health professionals are more likely to serve in areas with a high proportion of underrepresented racial and ethnic minority groups. HRSA's programs, aimed at increasing the diversity of the health workforce, contribute to reducing the health disparities in the population.¹

In 2002, the Institute of Medicine (IOM) released the report, "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care."² It was the first detailed, systematic examination of racial/ethnic disparities in health care, and made a series of recommendations on how to address them. The panel reviewed more than 100 studies that assessed variations in health-care delivery to racial and ethnic minority groups and found that those in minority groups who have preventable and treatable conditions, such as cardiovascular disease, diabetes, asthma, cancer, and human immunodeficiency virus /acquired immunodeficiency syndrome, have poorer health outcomes compared with white people. This report was the first published evidence to demonstrate that racial and ethnic disparities occurred not only in health, but also in the care delivered by health-care organizations and providers.

The topic received further attention in 2004, when the Sullivan Commission on Diversity in the Health-care Workforce was established to assess balance in the makeup of the health-care workforce in the United States. The Commission's report, "Missing Persons: Minorities in the Health Professions," concluded that the face of the U.S. health professions has not kept pace with the changing demographics of the U.S. population, stating "today's physicians, nurses, and dentists have too little resemblance to the diverse populations they serve," and called for changes to education in the health professions.³

In an attempt to understand the evidence supporting the link between the diversity of the health-care workforce and health disparities, HRSA reported the results of a literature search to examine the evidence addressing the contention that increased diversity in the health professions would lead to improved population health outcomes, ultimately reviewing 55 studies written between 1985 and 2005. The evidence from this review showed that underrepresented minority health professionals, particularly physicians,

serve minority and other medical underserved populations disproportionately; that minority patients tend to receive better interpersonal care from practitioners of their own race or ethnicity, particularly in primary care and mental health settings; and that non-English-speaking patients experience better interpersonal care, greater medical comprehension, and greater likelihood of keeping follow-up appointments when they see a language-concordant practitioner, particularly in mental health.¹

Because of this continuing concern about the link between health disparities and the composition of the health-care workforce, IOM asked the Agency for Healthcare Research and Quality to include a specific section on workforce data in its annual "National Healthcare Disparities Report."⁴ For the last nine years, this report has summarized the health-care quality and access among various racial, ethnic, and income groups and other priority populations, such as residents of rural areas and people with disabilities. The report includes "State Snapshots" and state-specific health-care quality information, including strengths, weaknesses, and opportunities for improvement. The goal of the State Snapshots is to help state officials and their public and private-sector partners better understand health-care quality and disparities in their states. Previous reports have presented data on diversity among the physician, nursing, dental, pharmacy, physical therapy, occupational therapy, and speech-language pathology professions.

DEMOGRAPHICS

According to the U.S. Census Bureau, 97% of Americans report being of one race. Of those reporting being of one race, 72% report being white ($n=223.6$ million), 13% report being African American ($n=38.8$ million), 5% report being Asian ($n=14.7$ million), 0.9% report being American Indian/Alaska Native ($n=2.9$ million), 0.2% report being Other Pacific Islander ($n=0.5$ million), and another 6% of the population report other race ($n=19.1$ million). Hispanic ethnicity was claimed by 50.5 million or 16% of the U.S. population in 2010.⁵ The American Association of Colleges of Nursing (AACN) reported that, in 2012, students from minority backgrounds comprised 28% of students in its entry-level baccalaureate programs, 26.6% of master's students, 24.7% of students in its research-focused doctoral programs, and 22.0% of practice-focused doctoral students.⁶ In terms of gender, men comprised 11.4% of students in baccalaureate programs, 9.9% of master's students, 6.8% of research-focused doctoral students, and 9.4% of

practice-focused doctoral students. Additionally, 11.8% of full-time nursing school faculty come from minority backgrounds, and 5.1% are male.³ These data are improving for the nursing profession, according to results from HRSA's 2008 National Sample Survey of Registered Nurses (NSSRN).⁷ Nurses from minority backgrounds represented 16.8% of the registered nurse workforce, up from 12.2% in the 2004 NSSRN. HRSA will no longer conduct the NSSRN but, through the National Center on Health Workforce Analysis, will compile and report information about the registered nursing and other health workforce professions through more timely analysis of public databases, such as the American Community Survey, and targeted periodic surveys. In addition, HRSA collects demographic data on all nurses who are supported by HRSA funding in schools of nursing across the country.

HRSA DATA-COLLECTION METHOD

HRSA collects grant program performance data from funded entities (including those with workforce-building grants) through a fully automated system known as the Electronic Handbook (EHB). The EHB system allows grantees to enter data directly into the system or upload spreadsheets. The performance tables that are completed by the grantee are interlocked where data overlap; validations are built in; calculations of ratios, rates, percentages, and totals are automated; and historical data are preserved so that only data from the current academic year need to be entered. The EHB system is designed to reduce administrative burden on the grantee and increase efficiency and accuracy in reporting results.

Performance data are collected on an annual basis at three levels: individual, program, and cross-cutting. The individual-level data collection consists of trainee demographics such as age, gender, racial, and ethnic diversity, as well as general background information. In addition, the EHB system also collects descriptive program-level data on workforce recruitment, participants' training activities, retention, and distribution (intended practice locations). These program-level data are unique to the grant objectives of the programs and are critical to reporting measurable outputs and outcomes within program performance annually. Cluster data are also collected across different programs in a cross-cutting manner to aggregate data on initiatives with similar goals to better assess achievement of broader Bureau of Health Professions and HRSA goals, strategies, and outcomes.

HRSA PERFORMANCE DATA

The improved data-collection efforts described previously are a deliberate new initiative for HRSA to measure the impact of its workforce development programs. Five nursing programs funded by HRSA—the Advanced Education Nurse Traineeship, the Advanced Nursing Education Expansion, the Nurse Anesthetist Traineeship, the Nurse Faculty Loan Program, and the Nursing Workforce Diversity program—were chosen for this analysis, with the intention of evaluating participant diversity. The Figure outlines the legislative purpose and goals of these programs. Each program provides funding to academic institutions, and the grantees (schools or other institutions) are required to report individual trainee-level data on those supported. The time frame for the analysis was the academic year 2011–2012.

As shown in Table 1, across all nursing programs, a clear majority (83.6%) of students were female. In terms of race and ethnicity across all nursing programs (Table 2), more than 33% of participants were from racial and ethnic minority backgrounds. The Nursing Workforce Diversity program reported the highest percentage of black/African American minority participants (39.0%), and the Nurse Faculty Loan Program reported the second highest percentage of black participants (16.9%). Generally, the participation level in these HRSA-sponsored nursing programs was the same or even higher than the national averages at schools of nursing, as reported to the AACN. Of particular note is the Nursing Workforce Diversity program, which aims to increase nursing education opportunities for individuals from disadvantaged backgrounds. The racial and ethnic minority composition of its participants was generally well above the reported national averages for comparable nursing programs.⁶

Table 3 shows that more than one-third (34.4%) of participants were reported to come from a disadvantaged background. HRSA defines disadvantaged background as either an environment where it was not possible to obtain the prerequisite requirements to enroll in a health profession or nursing program or a family whose annual income was below a low-level threshold established by the U.S. Census Bureau. The Nursing Workforce Diversity program reported the highest rate of disadvantaged participants (88.6%). The Advanced Nursing Education Expansion program also reported a relatively large percentage of its students (24.7%) as having a disadvantaged background.

Figure. HRSA Division of Nursing workforce development programs

Program	Advanced Education Nurse Traineeship (AENT)
Authorizing legislation	42 U.S.C. 296j, as amended by Pub. L. No. 111-148 § 5308
Program purpose	To support the enhancement of advanced nursing education, practice, and traineeships for individuals in advanced nursing education programs.
Program goal	To increase the number of primary care providers by providing traineeships to nurses who are pursuing advanced degrees as primary care nurse practitioners or nurse-midwives.
Program	Advanced Nursing Education (ANE)—the program under which the Advanced Nursing Education Expansion (ANEE) is funded
Authorizing legislation	42 U.S.C. 296j, as amended by Pub. L. No. 111-148 § 5308
Program purpose	To support the enhancement of advanced nursing education, practice, and traineeships for individuals in advanced nursing education programs.
Program goal	To increase the number of advanced education nurses trained to practice as primary care providers and to possess the skills needed to provide high-quality team-based care.
Program	Nurse Anesthetist Traineeship (NAT)
Authorizing legislation	42 U.S.C. 296j, as amended by Pub. L. No. 111-148 § 5308
Program purpose	To support the enhancement of advanced nursing education, practice, and traineeships for individuals in advanced nursing education programs.
Program goal	To provide traineeship support for licensed registered nurses enrolled as full-time students in a master's or doctoral nurse anesthesia program.
Program	Nurse Faculty Loan Program (NFLP)
Authorizing legislation	42 U.S.C. 297n-1, as amended by Pub. L. No. 111-148 § 5311
Program purpose	To establish a student loan fund to increase the number of qualified nursing faculty.
Program goal	To provide funding to schools of nursing to support the operation of a distinct, interest-bearing NFLP loan fund to prepare advanced practice nurses to become faculty.
Program	Nursing Workforce Diversity (NWD)
Authorizing legislation	42 U.S.C. 296m, as amended by Pub. L. No. 111-148 § 5404
Program purposes	To increase nursing education opportunities for individuals from disadvantaged backgrounds (including racial and ethnic minority groups underrepresented among registered nurses) by providing student scholarships or stipends for diploma or associate degree nurses to enter a bridge or degree completion program, student scholarships or stipends for accelerated nursing degree programs, pre-entry preparation, advanced education preparation, and retention activities.
Program goal	To improve the diversity of the nursing workforce to meet the increasing need for culturally sensitive and quality health care.

HRSA = Health Resources and Services Administration

Table 1. Gender of HRSA Division of Nursing workforce development program participants, academic year 2011–2012

Program	Participant gender	
	Female N (percent)	Male N (percent)
Advanced Education Nurse Traineeship	7,843 (86.9)	1,184 (13.1)
Advanced Nursing Education Expansion	336 (91.1)	33 (8.9)
Nurse Anesthetist Traineeship	1,653 (64.8)	898 (35.2)
Nurse Faculty Loan Program	2,058 (92.4)	170 (7.6)
Nursing Workforce Diversity	3,310 (82.6)	696 (17.4)
Total across all programs	15,200 (83.6)	2,981 (16.4)

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IMPLICATIONS FOR PUBLIC HEALTH

In addition to their workforce diversity contributions, the HRSA nursing programs contributed to the education and output of more than 18,000 primary care providers. Further, because the programs target individuals from economically disadvantaged backgrounds, they are most likely providing an education to people who might not otherwise afford it. As a result, HRSA nursing programs have helped several thousand individuals meet their professional potential; and because they are from disadvantaged communities, these individuals are most likely to return to them,⁸ thereby contributing to the health of the public by supporting efforts to diversify our health workforce by meeting the needs of an increasingly diverse population. The

Table 2. Race/ethnicity of HRSA Division of Nursing workforce development program participants, academic year 2011–2012^a

Program	Participant race/ethnicity									
	Hispanic (all races) N (percent)	American Indian/ Alaska Native N (percent)	Asian N (percent)	Black/African American N (percent)	Native Hawaiian/Other Pacific Islander N (percent)	White N (percent)	Multiracial N (percent)	Unknown N (percent)		
Advanced Education Nurse Traineeship	470 (5.2)	66 (0.7)	398 (4.4)	1,143 (12.7)	35 (0.4)	6,456 (71.5)	64 (0.7)	395 (4.4)		
Advanced Nursing Education Expansion	29 (7.9)	5 (1.4)	23 (6.2)	46 (12.5)	0 (0.0)	246 (66.7)	13 (3.5)	7 (1.9)		
Nurse Anesthetist Traineeship	101 (4.0)	10 (0.4)	145 (5.7)	140 (5.5)	11 (0.4)	2,065 (80.9)	21 (0.8)	58 (2.3)		
Nurse Faculty Loan Program	111 (5.0)	15 (0.7)	78 (3.5)	376 (16.9)	4 (0.2)	1,580 (70.9)	6 (0.3)	58 (2.6)		
Nursing Workforce Diversity	732 (18.3)	139 (3.5)	214 (5.3)	1,561 (39.0)	7 (0.2)	1,044 (26.1)	75 (1.9)	234 (5.8)		
Total across all programs	1,443 (7.9)	235 (1.3)	858 (4.7)	3,266 (18.0)	57 (0.3)	11,391 (62.7)	179 (1.0)	752 (4.1)		

HRSA = Health Resources and Services Administration

^aSome percentages do not total 100 due to rounding.

Table 3. Disadvantaged background status of HRSA Division of Nursing workforce development program participants, academic year 2011–2012

Program	Participant from disadvantaged background		
	Yes N (percent)	No N (percent)	Unknown N (percent)
Advanced Education Nurse Traineeship	2,016 (22.3)	3,917 (43.4)	3,094 (34.3)
Advanced Nursing Education Expansion	91 (24.7)	164 (44.4)	114 (30.9)
Nurse Anesthetist Traineeship	300 (11.8)	1,266 (49.6)	985 (38.6)
Nurse Faculty Loan Program	304 (13.6)	791 (35.5)	1,133 (50.9)
Nursing Workforce Diversity	3,549 (88.6)	91 (2.3)	366 (9.1)
Total across all programs	6,260 (34.4)	6,229 (34.3)	5,692 (31.3)

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programs as a whole had higher percentages of minority enrollees compared with national workforce averages. The potential increase in health-care providers who are practicing in diverse, rural, and health-care-underserved areas contributes to the public's health through direct provision of health-care services and by increasing comfort levels of future providers in these areas of critical need.

CONCLUSION

Although the nursing profession has made strides in recruiting and graduating nurses who more accurately mirror the diversity of the population, much more must be done before adequate minority representation becomes a reality. Further study of the impact of nursing workforce diversity on health disparities is also needed. Through programmatic and financial support, HRSA continues to increase nursing educational opportunities for individuals from diverse and disadvantaged backgrounds. HRSA's enhanced data-collection and performance measurement and management efforts to assess the impact of programs designed to increase the diversity of the health-care workforce will continue as a priority and inform future policies in this critical national effort.

The views expressed in this article are those of the authors and do not necessarily represent the official policies of the U.S. Department of Health and Human Services or the Health Resources and Services Administration.

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