

THE STATE OF HEALTH CARE WORKFORCE EQUITY

The prevailing health inequities among racial, ethnic, and other minoritized populations are among the greatest challenges of our nation. These inequities are deeply rooted in structural and systemic constructs embedded in our social systems, including our health care system. As a result, we continue to see underrepresentation of Black, Latino, American Indian/Alaska Native, and Native Hawaiian or Pacific Islander persons in health professions schools, practice, and leadership. There is a long history of workforce inequities that have translated into present-day disparities in recruitment and retention of historically excluded groups in the health professions and the investments needed to dismantle the impacts of structural racism on the diversity of our health workforce.

The lack of a diverse health care workforce is a key contributor to health inequities. There is much evidence showing that the current health care workforce does not reflect the diverse communities that it serves. Our nation's diversity is outpacing the diversity of our health care workforce.

This lack of workforce diversity is also prevalent in states with large rural populations, where racial and cultural discrimination, provider deserts, isolation, and socioeconomic conditions continue to drive health disparities.¹

Patients are more likely to seek care and feel more comfortable when they have access to health care professionals who reflect their racial, ethnic, and cultural characteristics.² The level of cultural awareness and sensitivity in the workforce also impacts the effectiveness of communications and interactions among health care professionals, and the health outcomes of individuals from diverse cultures, ethnicities, and demographic characteristics.

We have a moral imperative to change this trajectory because a diverse workforce is tied to better health care environments for minoritized populations. To respond to this imperative, we must remove the historical and current structural obstacles for minoritized populations in the United States to access health professions education and employment.

Brief Organization

This brief provides information to support health care leaders and their understanding of the current lack of diversity of the health care workforce, the key factors impeding workforce diversity, and the pockets of innovation happening across the nation to diversify the workforce. Section 1 shines a light on the workforce data, highlighting the lack of racial diversity in key medical professions. This section also provides several key statistics on medical school acceptance and matriculation. Section 2 provides the historical context for the systemic and structural racism in health care education and workforce. Section 3 describes key challenges and barriers to workforce diversification. Section 4 highlights pockets of innovation and solutions to these challenges.

“It is important to have a health care workforce which represents the tapestry of our communities as it relates to race/ethnicity, gender, sexual orientation, immigration status, physical disability status, and socioeconomic level to render the best possible care to our diverse patient populations.”

– *Fatima Cody Stanford*

SECTION 1: Current State of Diversity in the Health Care Workforce & Educational Programs

Current State of Racial and Ethnic Diversity in Key Medical Professions

Current statistics continue to show there is a lack of racial and ethnic diversity and representation among U.S. key health care fields and professions.^{3,4,5} Some specialties are more racially diverse, such as clinical social workers (CSWs); other professions, such as ophthalmology, radiation oncology, and orthopedic surgery, lack diversity.⁶ As shown in Table 1A, 19.9% of all CSWs are Black or African American, while only 1.8% of orthopedic surgeons are Black or African American. Tables 1A and 1B present current racial and ethnic diversity for select professions:

Table 1A. Select Health Care Workforce Occupations by Race and Ethnicity (August, 2023)

Key Medical Professions	APRNs	Clinical Social Worker	Nursing	Orthopedic Surgeon	Paramedics	Pediatric Occupational Therapist	Pharmacist Technician	Physician Assistants	Primary Care Physicians	Psychologists
Total Employed	75,237	292,329	3,037,611	21,068	172,114	97,974	473,167	126,421	153,317	63,579
White	66.9%	58.5%	65.3%	76.6%	67.2%	75%	60.2%	67.5%	61.5%	75.9%
Black or AA	8.9%	19.9%	11.5%	1.8%	6.6%	4.7%	8.6%	5.4%	5.2%	5.1%
Unknown	4.4%	12.3%	4.3%	3.8%	5.5%	3.7%	5.7%	3.8%	4.5%	3.6%
Asian	9.1%	3.3%	8.9%	12.7%	4.5%	10.1%	10.1%	11.2%	19.1%	4.2%
Hispanic/Latino	10.3%	12.3%	9.6%	5.0%	15.4%	6.1%	14.5%	11.8%	9.6%	10.8%
AI/AN	0.4%	0.6%	0.4%	0.1%	0.8%	0.4%	0.9%	0.3%	0.1%	0.4%

Source: <https://www.zippia.com/primary-care-physician-jobs/demographics/>

In addition to traditional occupations in health care, including those above, diverse racial and ethnic groups continue to be underrepresented in critical and essential health care support roles, as measured against the overall U.S. population. As shown in Table 1B, community health workers, direct support professionals, and others comprise a much lower percentage of the overall category of workers. In 2021, the Health Resources and Services Administration, developed a [strategy](#) to invest in a well-trained health workforce, which includes building career ladders and investing in paraprofessional and professional education and training programs.

Table 1B. Select Health Care Workforce Occupations by Race and Ethnicity (August, 2023)

Key Health Care Workforce	Community Health Worker	Douglas	Dental Assistant	Phlebotomist	Radiologic Technician	Home Health Aid	Clinical Social Worker	Ultrasound Technologist	Certified Ophthalmic Assistant	Home Visitor
Total Employed	45,049	N/A	346,031	156,433	114,546	512,828	292,329	63,317	40,633	64,525
White	54.3%	60.3%	52.3%	55.7%	58.3%	35.6%	58.5%	72%	62.1%	63.1%
Black or AA	9.4%	9.4%	8.3%	9.1%	8%	24%	19.9%	4.2%	14.5%	13.4%
Unknown	6.4%	6.6%	5.1%	4.1%	5.1%	5.4%	5.4%	4.4%	4.7%	4.2%
Asian	5.8%	6.7%	9.1%	9.3%	9.9%	10.5%	3.3%	8.8%	5.8%	2.7%
Hispanic/Latino	22.8%	15.8%	24.4%	20.7%	18%	23.4%	12.3%	10.4%	12.3%	15.1%
AI/AN	1.3%	1.2%	0.8%	1.1%	0.7%	1.1%	0.6%	0.2%	0.6%	1.5%

Source: <https://www.zippia.com/primary-care-physician-jobs/demographics/>

Racial Composition of Trainees in Clinical Specialties and Compensation Inequities

A recent study⁷ published by Harvard University researchers explored race and gender diversity, and how these factors relate to compensation and trainee attrition. The study included 772,910 trainees in 21 clinical specialties from 2015 to 2022. Highlights of the study include:

45.4% of all trainees, overall, identified as white. 19.7% were Asian, 11.7% were from racial groups underrepresented in medicine, **4.4%** selected “Other,” and **17.5%** did not report their race and ethnicity.

The median representation of trainees in underrepresented races ranged from **6.1% in otolaryngology** to **19% in preventive medicine**. The median representation of white trainees was **50.9%**.

Only 0.1% of all trainees identified their gender as nonbinary.

Faculty Compensation: Specialties with higher representation of white male trainees resulted in higher faculty compensation and were less successful at recruiting trainees from diverse races and ethnicities.

Representation of Students from Rural Areas⁸

Growing up in a rural setting is a strong predictor of future rural practice for physicians. Health Affairs reported a fifteen-year decline in the number of rural medical students, leading up to rural students representing less than 5% of all incoming medical students in 2017. Furthermore, students from underrepresented racial/ethnic minority groups in medicine (URM) with rural backgrounds made up less than 0.5% of new medical students in 2017. Both URM and non-URM students with rural backgrounds are substantially and increasingly underrepresented in medical schools. If the number of rural students entering medical schools was proportional to the number of rural residents in the U.S. population, this number would be four times higher. Medical schools’ efforts to recognize and value rural backgrounds are insufficient to reduce the decline in the number of rural medical students, which creates greater inequities in access to health care in rural communities.

Race and Ethnicity, Sexual Orientation Gender Identity and Expression (SOGIE) Among Physician Assistants (PA) Students and Providers

Increasing racial and ethnic diversity is crucial to achieving a PA workforce with the capacity to provide accessible, equitable, and culturally appropriate health care. According to the Physician Assistant Education Association (PAEA), the 2019 Matriculating Student and End of Program Surveys, demonstrated that PA students are mostly white heterosexual females. Data on SOGIE was recently added, an important measure to track in the coming years.

Table 2. Demographic Characteristics of Students, Student Matriculation and Graduation Rates

Who Matriculates		Who Matriculates vs Who Graduates ⁹
86.2% are white	95.2% identified as straight	17.7% of matriculated students are non-white, compared to the 14.5% who graduate
13.8% all other races combined	2.6% identified as bisexual	7.2% of matriculated students reported multiple races, compared to the 5.2% who graduate
74.8% are Female	2.0% as gay or lesbian	6.4% of Hispanic students and 3.5% of underrepresented racial minority graduated

Similarly, the National Commission on Certification of Physician Assistants (NCCPA) reported that from 2016-2020:

- **Over 80% of practicing PAs were white.**
- **Certified PAs identifying as Black/African American declined from 3.6% (2016) to 3.3% (2020).**

Faculty Racial/Ethnic Backgrounds¹⁰

A diverse academic faculty also serves as important role models for students. Diversity among faculty members helps facilitate the training of diverse physicians who are more likely to practice in underserved and disadvantaged communities. The most recent available data from the Association of American Medical Colleges (AAMC) suggest little improvement in the number of faculty from races and ethnicities underrepresented in medicine (UiM). As of 2016, faculty identifying as UiM were nearly 8% of all medical faculty positions demonstrating only a 1% increase in 20 years from 1993. UiM faculty had fewer publications and were less likely to be promoted and retained in academic careers. As shown in

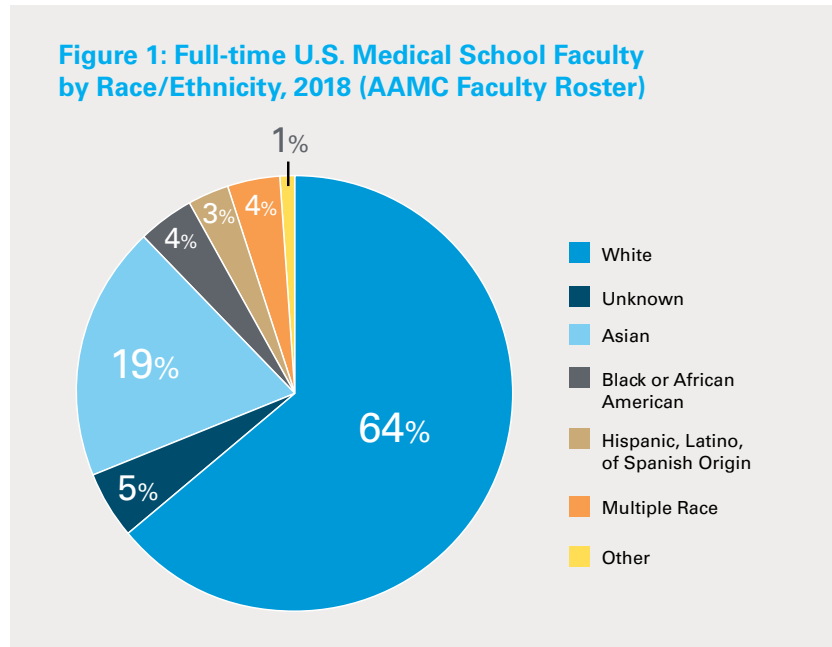


Figure 1, the largest proportions of faculty were white (63.9%), followed by Asian faculty members (19.2%).¹¹

Enrollment vs Graduation: The Intersection of Income, Location, Race and Ethnicity¹²

A 2022 study led by researchers at Yale Medical School finds that African Americans and students from other underrepresented groups are more likely to drop out of medical school than their white peers.¹³ In this study including 33,389 medical school matriculants, students who identified as underrepresented in medicine, had low income, and were from under-resourced backgrounds were more likely to leave medical school. The rate of attrition increased with each additional coexisting minoritized identity. Students from low-income families and those who lived in under-resourced neighborhoods were also more likely not to finish medical school. Outside of the Yale Medical School study, it is important to highlight that students from minoritized identities who attended high performing medical schools performed better than those from schools deemed as “less prestigious”

2.3%

of white medical school students did not complete their training

5.7%

of Black students matriculate to medical schools

Non-white, low income students, who lived in under-resourced areas had dropout rate of almost 4X the rate of white, not low-income students in resourced neighborhoods.

Note: Students of Asian descent are sometimes excluded in the literature from the underrepresented groups, as their admission and graduation rates far exceed those for Black/African American, Latino, AI/AN and Native Hawaiian or Pacific Islander, students.

Medical Schools

The most recent statistics¹⁴ for enrollment in medical schools in the U.S. continue to show that ethnic and racial minorities are significantly underrepresented. Table 3 lists the percentage of applicants by race and ethnicity and the percentage of students joining these programs based on available data from 2022 to 2023. The total number of applicants nationwide was 55,188. It is important to highlight that only 8.9% of applicants were African American students, while African Americans comprise at least 13% of the U.S. population.

Table 3. Rates of students applying, accepting and matriculating to begin medical school in the Fall of 2022 (i.e., the class of 2026):

Rates of Student Acceptance and Matriculation to U.S. Medical Schools by Race/Ethnicity, 2022–2023				
Race/Ethnicity	Applicants	Accepted	Matriculated	A * M = Outcome
American Indian or Alaska Native	94	52%	39%	19.5%
Asian		12,736	46%	44%
Black or African American	4,924	39%	38%	14.8%
Hispanic, Latino, or of Spanish Origin	3,257	47%	44%	20.7%
Native Hawaiian or Other Pacific Islander	52	44%	42%	18.5%
White	22,917	44%	42%	18.5%
Other	1,386	37%	36%	13.3%
Multiple Race/Ethnicity	6,086	47%	44%	20.7%
Unknown Race/Ethnicity	1,777	38%	36%	20.7%
Non-U.S. Citizen and Non-Permanent Resident	1,959	20%	16%	3.2%

SECTION 2: Systemic and Structural Racism in Health Care Education and the Workforce

Disparities affecting the diversity of the health care workforce are exacerbated by inequities in admission requirements and metrics, recruitment, student support and retention strategies. To learn more, [click here](#).

Systemic and Structural Racism

Systemic racism and its implications for health care workforce equity are hidden at the base of an iceberg. The iceberg’s visible part represents the more explicit acts of discrimination that are easier to recognize. The much larger, —usually unseen part—represents systemic and structural racism.¹⁵ The opportunities denied to Black, Hispanic and American Indian or Alaska Natives students can be tracked to access to good jobs with benefits and safe neighborhoods, and unpolluted communities with good schools. In 2022, the Urban Institute reported on a study of pathway programs exploring some of these disparities within the nursing profession. Figure 2 summarizes the findings related to systemic and structural disparities among Black/African American and Hispanic/Latino nurses.¹⁶

Our nation’s current health care system is deeply grounded in the nation’s history with slavery and segregation. For many decades, medical institutions were segregated, and Black hospitals/medical schools were strained due to limited funding and resources. While segregation was deemed illegal in 1964, it was met with hostility and violence delaying the implementation of inclusive policies. Five of the seven historically Black medical schools closed after the release of the Flexner Report in 1910.¹⁷ This report examined medical education and suggested reform for medical colleges, which included increasing standards, partnering with hospitals for clinical training, and closing schools that could not afford to update and maintain facilities. It is estimated that if those historically Black medical schools were allowed to remain open, approximately 28,000–35,000 Black medical students would have graduated from between the year of their closure and 2019.

Figure 2: Systemic and structural disparities among Black/African American And Hispanic/Latino nurses

				
K-12	Community College	Undergrad	Graduate	In Practice
<ul style="list-style-type: none"> • Lack of exposure to nursing profession • Lack of information and guidance about how to become a nurse • Lack of role models and clinical shadowing opportunities 	<ul style="list-style-type: none"> • Lack of structured support programs for Black and Latino prenursing students • Lack of financial assistance and paid internships • Lack of effective mentors and advisors • Lack of direct linkages to four-year programs 	<ul style="list-style-type: none"> • Lack of diverse faculty and effective mentors and advisors • Lack of career guidance • Lack of financial assistance and paid internships • Lack of inclusive institutional environment 	<ul style="list-style-type: none"> • Lack of diverse faculty and effective mentors and advisors • Lack of financial assistance and paid internships • Lack of guidance and support for transition to practice or policy and research tracks 	<ul style="list-style-type: none"> • Lack of workforce development and support for career advancement • Lack of wellness and mental health support and lack of recognition from leadership, physicians, colleagues, and sometimes patients • Lack of inclusive institutional environments

Source: https://www.urban.org/sites/default/files/2022-04/Supporting%20a%20Diverse%2C%20Equitable%2C%20and%20Inclusive%20Nursing%20Workforce_FULLL.pdf

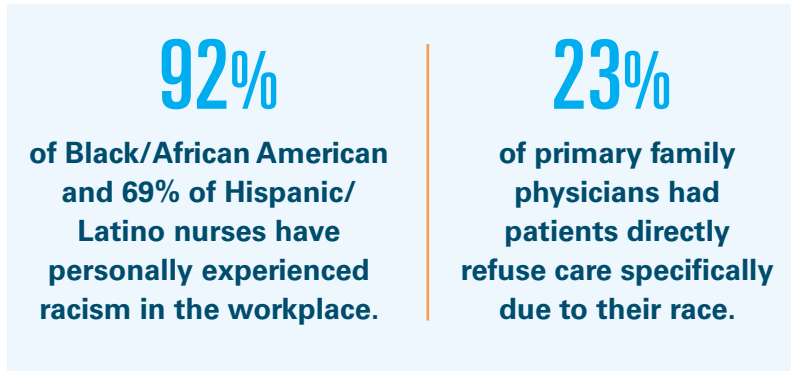
Innovative Practices to Develop Health Equity Curriculum in Medical Schools

Over the years, medical schools and organizations have been exploring ways to educate students on building trust with minoritized communities, for example, American Indian/Alaska Native communities and the unique needs that AI/AN students may have as they enter the health professions. To incorporate education on structural racism in medicine, some undergraduate institutions, medical schools, and professional associations have been creating curriculums for health care professions students and providers. A few examples include:

- **University of Texas at Austin-Dell Medical School** The curriculum intends to instill graduates with the knowledge, skills, behaviors and attitudes that will lead to their becoming capable, compassionate and inquisitive physicians. The core competencies include a health equity component containing topics such as historical and current context for health equity, personal conscious and unconscious bias, community awareness and society, and intentional disruptive action.
- **Duke University School of Medicine Longitudinal Curricular Experiences (LCEs)** The LCEs are integrated throughout the four-year curriculum to help students learn an assortment of skills required to improve population health. The Cultural Determinants of Health and Health Disparities course is the first required and interprofessional curriculum tasked with exploring health disparities and the impact of socio-cultural influences on a broad spectrum of health outcomes.
- **Boston University Chobanian and Avedisian School of Medicine** The MD curriculum was revised in 2021 to include instructional design principles and teaching methods, incorporate best practices in learning theory, acknowledge the learning needs and styles of our diverse group of students. It integrates science, health equity and clinical medicine. The health equity component aims to prepare students to demonstrate knowledge of systems needed to provide optimal care to patients and populations, and exhibit commitment to promoting and advancing health equity for all patients.

Racism Experienced by Students and Health Care Providers, From Faculty, Other Providers, and Patients^{20, 21}

Students and providers both continue to experience racism and discrimination perpetrated by peers, faculty, and patients. According to a 2021 study published in the International Journal of Environmental Research and Public Health, there are several causes that create and perpetuate the prevalence of implicit racial bias for health care students. These include peers, educators, the curriculum, and placements within health care settings. The study found strong evidence of small to strong pro-white or light skin tone bias amongst health care students and professionals. These experiences may lead to “psychosomatic symptoms, high attrition rates, and reduced diversity within the health care workforce.” Biased patient behaviors can be reflected as a direct refusal of care and can have a significant psychological impact on providers of color, resulting in provider burnout and negative impacts on the providers’ mental health. Microaggressions experienced at work and symptoms of secondary traumatic stress were significantly correlated. The study also showed that most participants experienced significant racism from their patients, colleagues, and institutions.¹⁸



To move toward a health care workforce that is representative of the nation’s diversity, organizations and institutions should adopt equitable values, listen to health professionals and students from historically excluded groups and create concrete policies and actions that change their experience within the health care system.

Organizational Inaction Against Racism in the Workplace

Penn Medicine found that mechanisms to report racism in the workplace are underutilized for different reasons. Key reasons include the fear of retaliation, doubts that reporting will lead to change, high levels of friction impeding the process, and perceiving that many experiences are not serious enough to require human resources (HR) involvement.¹⁹ They are conducting a pilot to make it easier for physicians, nurses, technicians, environmental service workers, and unit clerks to anonymously report, for example, when Black employees are unfairly treated by managers or staff, without the need for a formal complaint involving HR.

Direct care providers also report experiencing discrimination based on characteristics related to culture, power and social order. Of note, Black or African Americans represent a very high percent of total CNAs, particularly in a nursing home setting, and continue to be seen as low-paid service workers.²⁰ These discriminatory practices against CNAs are deeply rooted in historical dynamics of power and are not recognized for their contributions to older adult care. They report being subjected to poor working conditions. More than 50% of this work is assumed by racial/ethnic minorities and/or immigrants. In many cases, their safety is threatened, and their needs and well-being are ignored by employers.²¹ As the need for CNAs continues to grow, the unfavorable treatment towards this group remains unchanged.

Additionally, a nationwide survey conducted by the National Commission to Address Racism in Nursing demonstrates that racism in the nursing profession is a problem, with 3 out of 4 nurses admitting to witnessing racism in the workplace. Yet, 64% of those who challenged racism reported their efforts resulted in no change. Health care professionals are less willing to report incidents due to fear of retaliation, and the belief that they would be excluded from professional development opportunities, and promotions.

Note: The literature provides ample examples, studies and publications related to nurses’ and physicians’ experiences with racism within organizations. We recommend following-up on these initiatives next year to determine if these practices have yielded results.

SECTION 3: Key Challenges and Barriers to Workforce Diversification

The literature documents a pattern of challenges and barriers continuing to emerge across health care professions:

Limited and ineffective academic advising on multiple complex pathways to careers and a lack of other academic supports

Limited to no role models, mentors, or other social supports

High cost of tuition and associated expenses, and student debt²²

Implicit and explicit racism and toxic educational and workplace cultures

Experiences in Medical Residency

This is a critical time in medical training where residents develop an understanding of how they fit into their work environment and generate plans for career development. Yet, the transition from medical resident to independent practitioner is even harder for physicians of racial and ethnic minorities.²³

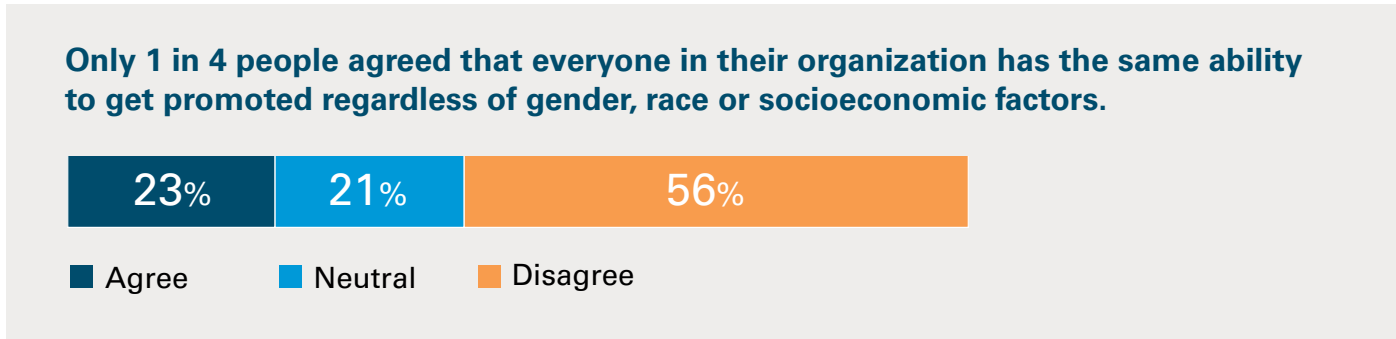
- **Minority physicians are 30% more likely to leave their residency than white physicians.**
- **They also are 8 times more likely to take longer leaves of absence.**

There is very limited research that examines these disparities. Years prior, a [study](#) of black physicians and their experiences in residency published by the Journal of the National Medical Association, showed widespread discrimination, lower expectations from supervisors, harsher consequences for mistakes, and social isolation as potential causes. In a similar study, residents from minoritized backgrounds shared that their experiences at their institutions included: a “daily barrage of microaggressions and bias”, being asked to serve as tasked as race or ethnicity ambassadors, and feeling as being treated as “other”, with no efforts made by institutions to validate, incorporate or acknowledge any aspects of their culture. While students may appreciate the opportunity to join the institution’s efforts, lead DEI committees or serve as ambassadors, this added work is not financially compensated, and it exacerbates time constraints and the pressures of meeting the demands of their already rigorous academic programs.

Hiring, Promotions, and Pay Disparities

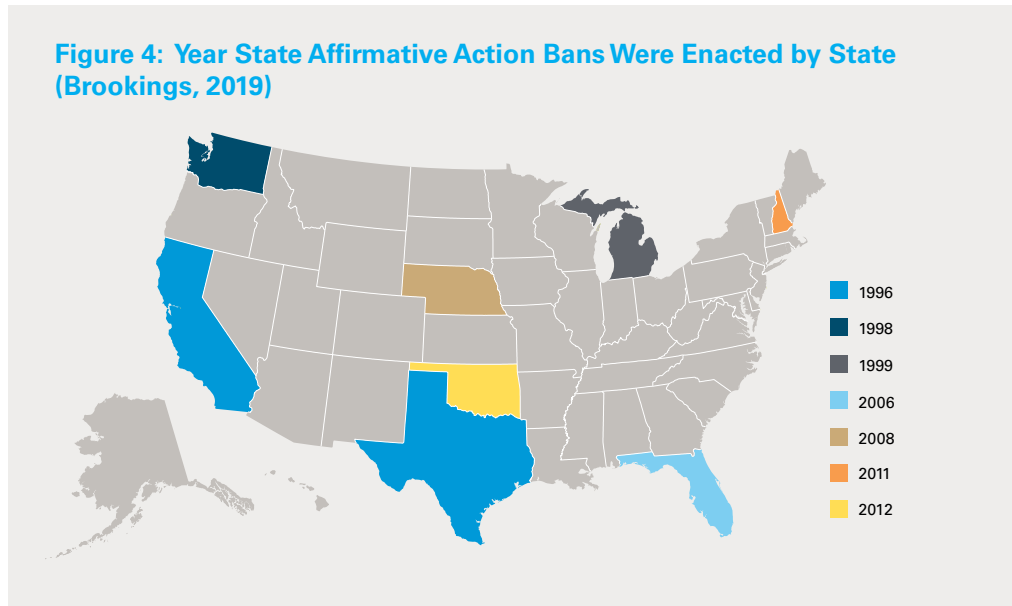
The lack of equitable representation in health care academic programs has led to lack of diversity in the hiring candidate pool.²⁴ Among candidates who are hired, for instance into the nursing fields, they report less opportunities for promotion, particularly if they have reported or challenged racism in the workplace.²⁵ Inequities in salaries and pay among underrepresented minorities are frequently reported in the medical field. Black and Latino physicians and nurses also report lower incomes compared with their white and Asian counterparts²⁶ and Black and Latino medical students and dental students often incur higher anticipated education debt compared with other racial groups. Structural racism impacts not only the diversity of the workforce but affects the economic opportunity of health professionals through racial pay inequities and greater debt burden.

Figure 3. NAHSE; Deloitte, Health Care Workforce and Inclusion Survey, 2021.



Affirmative Action

A recent article by Patient Engagement HIT²⁷ states that “Bans on affirmative action are keeping some racial minorities from getting accepted into medical school, hindering efforts to build a diverse medical workforce that can support health equity and patient-centered care.” Research data is showing that in states that enacted bans on affirmative action, the number of racial minorities accepted to medical school fell by nearly a third, five years after those bans went into effect. Additionally, the Supreme Court’s decision to end affirmative action and block colleges from factoring race in admission decisions could lead to a reverse in progress for students of racial and ethnic minorities.²⁸ “Colleges and universities should prepare for alternative ways to maintain diversity on their campuses, such as developing pipeline programs and collaborating with minority-serving institutions and community colleges,” the authors wrote.



Lack of Sustainability for Diversity Pathway Programs.

Pipeline and pathway programs increase opportunities for candidates from underrepresented groups in medicine through outreach, mentorship, and other critical structural support needed to advance DEI in medicine. Sustainable funding is critical for the success and survival of pathway programs (PPs). These programs are usually funded from multiple sources, including federal, foundation, and institutional investments. Others receive funding from non-profit professional organizations, private entities, and state legislative appropriations, or program alumni efforts. Federal funding for PPs has been dramatically reduced over the years and some programs are no longer taking applications. As external funding for PPs shrink, greater onus is on universities and health systems to fund these initiatives.²⁹

SECTION 4: Pockets of Innovation to Address Challenges and Barriers to Increasing Racial Diversity in the Health Care Workforce

It is the hope that federal and state leaders ensure that all health care workforce components are incentivized to implement evidence-based best practices in the recruitment, retention, and advancement of health professionals of Black, American Indian/Alaska Native, Latino, Asian American, Native Hawaiian or Pacific Islander, and other persons affected by discrimination. Institutions should be transparent in their hiring and retention practices and be held accountable for ensuring a culture of nondiscrimination, and the elimination of discriminatory practices. Federal and state funding should positively support and incentivize such efforts while holding institutions accountable for failing to make progress in achieving greater diversity, equity and inclusion.³⁰

Innovative Practices in Academic Settings

Organizations across the nation are starting to incorporate innovative practices to address racial and ethnic diversity in the health care workforce. A few examples include:

- **Penn Medicine** Leaders at Penn Medicine are encouraging staff members who have witnessed or experienced racism in the workplace to recognize and report it. Penn is piloting a digital platform, *Lift Every Voice*, that will give staff at two emergency departments — including physicians, nurses, technicians, environmental service workers, and unit clerks — an easy way to make anonymous reports when, for example, managers treat Black employees unfairly or Black patients receive disparate treatment from staff. The goal is to create a mechanism for employees to have their concerns heard without filing a formal complaint with human resources. By encouraging anonymous reports and asking respondents not to identify the people involved in an incident, the prototype development team hopes to call attention to the behavior itself and identify patterns that can be discussed among employees during huddles and at monthly meetings of a department’s senior leadership team.
- **Morehouse School of Medicine**, a historically Black College and University (HBCU) medical school founded in 1975, has partnered with CommonSpirit Health to form the [More in Common Alliance](#), a collaboration set to expand medical school rotations and residency slots in traditionally underserved neighborhoods and communities. The partnership will also give medical students in Seattle, Tennessee, Kentucky, and Southern California access to Morehouse’s extensive health equity curriculum.

Academic and Career Supports Study (The Urban Institute)

Academic and career supports are important components of a successful pathway program. This study highlighted that additional coursework, clinical training, and other forms of academic support before entering professional school. It helped students develop the necessary skills to succeed. Medical students and practicing physicians consistently cited academic enrichment, clinical experience and training, and examination preparation as components that supported their academic and career success.

Key academic supports could include the following programs and interventions:

- Summer programs focused on orienting incoming medical students for academic and social life in medical school
- Practicum experience and internships and academic advising
- Research, conference opportunities, and assistance with residency placements
- Study tips and exam preparation

