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Racial and Ethnic Diversity in the Physician Workforce

The Racial and Ethnic Landscape of the Current Physician Workforce

To achieve diversity in the workplace necessitates having a workforce comprised of multiple races, ages, genders, ethnicities, cultures, and orientations. The benefits of racial and ethnic diversity have been explored across the medical professions over the years as medicine shifts toward becoming more inclusive. Naturally, racial and ethnic diversity in the workforce has become inevitable as the lines between racial groups in the United States (U.S.) continue to blur. According to projections from the U.S. Census Bureau, the fastest-growing racial or ethnic group is those who identify as "Two or More Races," who are projected to grow some 200 percent by 2060. [1] Racial and ethnic diversity has been shown to enrich the available knowledge, talent, and lived experience of staff in the workplace. These elements are key to employee retention, recruitment, morale, problem-solving, and overall results. [2]

Diversity among physicians provides a variety of opinions, expertise, and perspectives when developing patient-centered and culturally sensitive care plans and treatment options for an increasingly diverse patient population. Additionally, as healthcare establishments work toward providing equitable care, it is important to address implicit bias in the healthcare workforce. [3] The National Institutes of Health (NIH) defines implicit/unconscious bias as a form of bias that occurs automatically, unintentionally, and nevertheless affects judgments, decisions, and behaviors. NIH also notes that implicit bias can pose a barrier to recruiting and retaining a diverse scientific workforce. [4]

Implicit bias affects how providers deliver information, listen to patients, and develop treatment plans. Clear communication is key to quality patient care. Considering its impact on patient-provider communication, minimizing implicit bias among physicians could help to minimize disparate health outcomes for patients from diverse groups in the U.S. In maternal health, Black and American Indian birthing persons are 6 times more likely to die from complications due to pregnancy and childbirth than White birthing persons. [5] This disparity persists regardless of education and age at the time of delivery. If the healthcare system is striving to provide quality patient-centered care, the care team should reflect the diverse values and perspectives of the patients they serve. These diverse perspectives have the potential to prevent or decrease unconscious bias from creating barriers to communication and possibly influencing critical healthcare decisions. In this brief, we will discuss the status of racial and ethnic diversity in the healthcare workforce with a focus on physicians.

The Association of American Medical Colleges (AAMC) designates students as underrepresented in medicine (URM) if they are part of racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population. [6] Emerging physicians, also called matriculants, are students who applied, were accepted, and enrolled in a U.S. medical education program. Using the AAMC's URM definition, we assess the racial and ethnic workforce diversity among physicians by comparing the racial distribution of emerging physicians to that of the patients they will serve, more specifically the general U.S. population.

This brief compares the 2020 U.S. Census Bureau race/ethnicity data to the race/ethnicity distribution of matriculants at allopathic and osteopathic medical programs across the United States and in Illinois from 2016-2020.

Methods

The data presented in Tables 1 and 2 were collected by the AAMC (medical school matriculants) [7-16] and the U.S. Census Bureau (Illinois and U.S. population estimates). [17] These tables display the self-identified racial and ethnic characteristics of matriculants to U.S. medical schools in the corresponding year. The year listed is indicative of the beginning of the academic year in which the data were collected. For example, 2016 corresponds to students who were enrolled in a medical education program from the Fall of 2016 to the Spring of 2017.

Matriculants identifying as American Indian, Alaskan Native, Native Hawaiian, or Pacific Islander were excluded from the tables due to low counts. Those who selected multiple races, other, or were categorized as unknown race were excluded from both the U.S. Census and AAMC data tables to maintain comparable estimates between data sources and allow for mutually exclusive categories. Non-US citizens and non-permanent residents were also excluded from the AAMC data to ensure that the data were comparable to the U.S. Census. The tables include mutually exclusive racial and ethnic categories; due to rounding and exclusion criteria explained above the column percentages do not add up to 100%.

The 2020 Comparison column shows the percent difference between the racial and ethnic demographic distribution of medical school matriculants and the corresponding demographic estimate of the U.S. population; the racial and ethnic categories of matriculants that were lower than the general population estimates in 2020 are marked by a negative percentage. According to the AAMC's definition of URM, racial and ethnic categories of matriculants that are marked with a negative percentage in the 2020 Comparison column are considered to be URM. A chi-square test for trends was performed for each group from 2016 to 2020. Statistically, there were no changes in distribution for any of the racial and ethnic groups across the 5-year period.

We must acknowledge that there are limitations to using the racial and ethnic composition of medical school matriculants as an indicator of healthcare workforce diversity in the U.S. First, diversity encompasses age, sex, gender, socioeconomic status, education level, religion, political beliefs, physical abilities, and culture, in addition to racial and ethnic identities. In this paper, we analyze racial and ethnic diversity, giving a partial view of the status of overall diversity in the future physician workforce. Also, these data do not necessarily reflect the racial and ethnic distribution of those who graduate, nor continue on to practice medicine in the U.S. after degree completion. It is also important to note that physicians and medical students do not represent the majority of healthcare providers; these data are only used as an example.

The Data: Where Are We Now?

Table 1: National Medical School Matriculant Data

National Matriculant Data	2016	2017	2018	2019	2020	2020 Census	2020 Matriculants vs. Census
Asian	21.28%	21.00%	22.14%	21.43%	21.60%	5.92%	15.68%
Black or African American	7.12%	7.05%	7.12%	7.44%	7.95%	12.05%	-4.11%
Hispanic, Latinx, Spanish Origin	6.35%	6.48%	6.24%	6.46%	6.85%	19.71%	-12.86%
White	51.49%	49.61%	49.87%	46.57%	44.71%	57.84%	-13.13%

Source: FACTS Tables A-11 (2016-2020) [1-5]; Test for trend from 2016-2020 was not significant for any population

Table 1 shows the racial and ethnic distribution of U.S. medical school matriculants from 2016 and 2020, the 2020 national U.S. Census population estimate, and the corresponding percent difference.

- Representation among Asian matriculants fluctuated slightly from 2016 to 2020, but these changes were not statistically significant.
    - Compared to the U.S. Census estimate, this group is **overrepresented** by close to 16%.
- Representation among Black or African American matriculants remained steady between 7-8% from 2016 to 2020.
    - Compared to the U.S. Census estimate, this group is **underrepresented** by 4%.
- Representation among Hispanic, Latinx, and Spanish Origin matriculants remained steady between 6-7% from 2016 to 2020.
    - Compared to the U.S. Census estimate, this group is **underrepresented** by close to 13%.
- Representation among White matriculants decreased from 2016 to 2020, but these changes were not statistically significant.
    - Compared to the U.S. Census estimate, this group is **underrepresented** by 13%.

Table 2: Illinois Medical School Matriculant Data

Illinois Matriculant Data	2016	2017	2018	2019	2020	2020 Census	2020 Matriculants vs Census
Asian	24.25%	25.41%	25.76%	26.96%	27.58%	5.83%	21.75%
Black or African American	7.06%	7.51%	8.06%	8.31%	8.57%	13.86%	-5.29%
Hispanic, Latinx, Spanish Origin	6.98%	7.00%	6.75%	6.67%	6.48%	18.24%	-11.76%
White	48.70%	47.22%	46.69%	45.44%	44.90%	58.32%	-13.42%

Source: FACTS Tables A-11 (2016-2020) [1-5]; Test for trend from 2016-2020 was not significant for any population

Table 2 shows the racial and ethnic distribution of Illinois medical school matriculants from 2016 to 2020, the 2020 Illinois U.S. Census population estimate, and the corresponding percent difference.

- Representation among Asian matriculants in Illinois steadily increased from 2016-2020, but these changes were not statistically significant.
    - Compared to the Illinois U.S. Census estimates, this group is **overrepresented** by 20%.
- Representation among Black or African American matriculants in Illinois steadily increased from 2016-2020, but these changes were not statistically significant.
    - Compared to the Illinois U.S. Census estimates, this group is **underrepresented** by 5%.
- Representation among matriculants who identify as Hispanic, Latino, or of Spanish Origin alone fluctuated from 2016-2020, but these changes were not statistically significant.
    - Compared to the Illinois U.S. Census estimates, this group is **underrepresented** by 12%.
- Representation among White matriculants in Illinois steadily decreased from 2016 to 2020, but these changes were not statistically significant.
    - Compared to the Illinois U.S. Census estimates, this group is **underrepresented** by 13%.

There are similar patterns of racial and ethnic distribution of matriculants among Illinois medical education programs and medical education programs nationally. The racial groups that were underrepresented, (Black, Hispanic, White), at the national level were also underrepresented at the state level. Likewise, the group (Asian) that was overrepresented nationally was also overrepresented in Illinois.

According to projections from the US Census Bureau, the non-Hispanic White population is expected to shrink over the coming decades even as the US population continues to grow. While the percent difference is highest for the non-Hispanic White category, this trend among matriculants is in alignment with the projections from the US Census Bureau Report. [1]

Discussion

The Liaison Committee on Medical Education (LCME) introduced two standards on diversity for the accreditation of medical education programs in 2009 to address demographic disparities in the physician workforce. These diversity standards require that each medical school develop programs or partnerships aimed at broadening diversity among qualified applicants for medical school admission. This includes policies and practices to achieve appropriate diversity among its students, faculty, staff, and other members of its academic community, as well as engaging in ongoing, systematic, and focused efforts to attract and retain students, faculty, staff, and others from demographically diverse backgrounds. [18]

A 2018 research article compared the annual trend in the percentage of female, Black, Hispanic, Asian, and White matriculants before (2002-2009) and after (2012-2017) the implementation of the LCME diversity standards. Results indicated that there was an immediate positive shift in trends for the percentage of female and Black matriculants, and the percentage of Hispanic matriculants rose steadily over the five years. There was no significant difference in the annual trend in the percentage of Asian matriculants before and after the diversity standards were implemented. Lastly, the overall percentage of White matriculants decreased after the first post-implementation year. However, after 2012, there was no significant change in the annual trend of White matriculants. [19] Importantly, the significant differences noted in the first year after implementation suggest that the demographics of the physician workforce can be diversified when prioritized and supported with intentional innovation.

While it seems that the LCME diversity standards led to progress in the few years following implementation, this analysis shows a plateau in the advancement of racial and ethnic representation among medical school matriculants in the U.S. and Illinois from 2016-2020 with no significant change in annual trends taking place during that time. In the first year after the LCME's diversity standards were implemented, innovations to improve the racial and ethnic diversity of medical school matriculants were an explicit priority nationwide, as this was the first time it was required to maintain accreditation. The plateau of diversity trends in the years following implementation could be due to relaxed priorities in diversifying the matriculant pool.

It is important to note that while the representation of these racial and ethnic groups among medical school matriculants has not changed significantly, the AAMC data shows that national enrollment totals have increased by over 1200 students (5.7%) from 2016 to 2020. Illinois' total enrollment increased by 187 students (4%) across the five-year period. The consistency of trends in racial and ethnic diversity despite increased overall enrollment in the last five years could be due to three possible scenarios. For some institutions, it could be that increasing diversity among medical school matriculants is not a priority. For others, the initiatives currently in place to increase racial and ethnic representation among matriculants could be ineffective. Lastly, it is possible that there has not been sufficient time to see the results in the data as presented. Although the LCME policy changes are a strong starting point, there is still much work to be done to ensure diverse racial and ethnic communities are represented in the future U.S. physician workforce.

Summary

A diverse workforce in medicine is critical as it has the potential to boost retention, improve employee morale throughout the healthcare team, and increase recruitment of more diverse staff. Additionally, maintaining a diverse staff of all types in healthcare facilities creates a space for more respect and understanding for other cultures, more creativity and innovation, and better patient outcomes and satisfaction. [20] Alternatively, the absence of diversity facilitates an environment in which miscommunication, both verbal and nonverbal, due to cultural insensitivity, limited perspectives, and bias can thrive. Overall, diversity adds value to the staff experience, the patient experience, and provider-patient interactions.

Research has shown that improving the interpersonal relationship between clinicians and patients is one way to improve quality of care. More specifically, some patients feel more satisfied with the care that they receive from clinicians with whom they share a racial and/or ethnic identity, also called racially concordant care. [21] Racial concordance, which is made possible by a diverse physician population, may promote greater physician understanding of the social, cultural, and economic factors that influence their patients. This level of understanding fosters trust and communication, two elements essential to an effective patient-physician relationship. [22] The physician workforce must become more racially and ethnically diverse to provide the opportunity for racially concordant care and contribute to improvements in the quality of care for diverse populations. Although there are several racial and ethnic groups that are underrepresented in medicine, efforts to increase diversity among underrepresented matriculants of color must be prioritized. This has been a historic issue and will continue to be an issue without consistent, targeted initiatives.

There are several factors and systems that influence racial and ethnic diversity in the physician workforce, many of which compound one another and perpetuate further inequities. A person's access to quality primary and secondary education is directly influenced by their socioeconomic status and place of residence. Socioeconomic status continues to be a determining factor in a person's access and options to pursue and complete higher education programs including professional degrees. These same factors limit access to additional resources used to prepare students for medical school entrance exams and subsequent benchmark exams required for board certification. This affects the number of physicians from underrepresented backgrounds and underserved communities as in many of these communities there is a lack of opportunity to adequately prepare for the extensive educational training required for medical providers.

Physicians from low-resourced backgrounds are more likely to practice in underserved communities regardless of specialty area. [23] As such, it is likely that under-resourced communities are also medically underserved because there are systemic barriers to people from those communities obtaining the education and preparation required to become physicians themselves. To put it simply, the barriers preventing a diverse physician workforce are also contributing to disparate health outcomes in underserved communities. Thus, the diversity of future physicians should be examined from a socioeconomic lens in the next steps we take to provide equitable care through an inclusive physician workforce.

Conclusion

The issue of racial and ethnic diversity has received much attention from researchers, critics, and citizens alike. However, the absence of racial and ethnic diversity is not a standalone issue. Rather it is the resulting effect of a greater issue. Diversity includes race, ethnicity, gender, sex, socioeconomic status, religion, culture, and various lifestyles, experiences, and interests. These aspects of diversity are all intertwined in the experiences that medical students and physicians bring to their work. While there is no single solution to diversifying the racial and ethnic composition of the physician workforce, the overarching diversity issue could be solved by investigating other lenses of diversity among matriculants.

On an institutional level, medical schools should investigate the socioeconomic composition of matriculants and provide financial support through need-based loans with significantly lower interest rates. Additionally, state-level loan repayment and forgiveness programs should be implemented in medically underserved areas to prioritize the financial well-being of emerging physicians and more importantly, the health of patients in those communities.

In conclusion, racial and ethnic diversity in the healthcare workforce is essential to improving the quality of care for patients and maintaining an optimal work environment for staff. As the U.S. patient population becomes more diverse, the healthcare system must recruit and support diverse staff, seek culturally informed processes, and intentionally include all lenses of diversity in efforts to provide quality patient-centered care.

I PROMOTE-IL Team

Rachel Caskey, MD, MAPP- co-Principal Investigator

Stacie Geller, PhD- co-Principal Investigator

Arden Handler, DrPH- co-Principal Investigator

Katie Garland, MPH, Program Coordinator

Anne Elizabeth Glassgow, PhD, Executive Director

Abigail Holicky, MPH, Data Manager

Alia Jamison, MS, Program Coordinator

Shirley Scott, DNP, WHNP-BC, C-EFM, CLS, Nurse Manager

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Additional Resources

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