MMA Barriers to Workforce Diversification in Physician Education, Training and Licensure Task Force

Final Report

Minnesota Medical Association

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DIVERSIFYING THE PHYSICIAN WORKFORCE

BACKGROUND

The Need to Diversify Medicine

According to projections from the U.S. Census Bureau, by the year 2043, the demographic makeup of the United States is predicted to shift so that racial and ethnic minorities will become the majority for the first time in the history of the United States.[1] This drastic change in the population of the United States will make it even more imperative that we have physicians who represent the same races and ethnicities of the patients that they are serving.

As the health disparities among populations from diverse racial and ethnic backgrounds continue to increase, support for the need to diversify the physician workforce in order to improve the health outcomes of these populations becomes more evident. According to a report from the Commonwealth Fund, patient satisfaction and health outcomes improve when health providers and their patients have concordance in their racial, ethnic, and language backgrounds.[2]

There has been progress in the work that medical schools have done to contribute to a more diverse physician workforce. According to a report[3] from the Association of American Medical Colleges (AAMC), "diversity among medical school applicants, matriculants, and graduates from academic years 1980-1981 to 2018-2019 continued to grow. In applying to medical school, for example, women have not only reached parity with men, but they have surpassed them. However, gains in diversity were not shared by all groups. In particular, the growth of Black or African American applicants, matriculants, and graduates lagged behind other groups."

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[1] Kirsten Wilbur, Cyndy Snyder, Alison C. Essary, Swapna Reddy, Kristen K. Will, Mary Saxon, Developing Workforce Diversity in the Health Professions: A Social Justice Perspective, Health Professions Education, Volume 6, Issue 2, 2020, Pages 222-229, ISSN 2452-3011, *available at* https://doi.org/10.1016/j.hpe.2020.01.002.

[2] Cooper LA, Powe NR. Disparities in patient experiences, health care processes, and outcomes: the role of patient-provider racial, ethnic, and language concordance. The Commonwealth Fund. Available at https://www.commonwealthfund.org/publications/fund-reports/2004/jul/disparities-patient-experiences-health-care-processes-and

[3] Association of American Medical Colleges (AAMC), Diversity in Medicine: Facts and Figures 2019, *available at*: https://www.aamc.org/data-reports/workforce/report/diversity-medicine-facts-and-figures-2019

Furthermore, the AAMC report[4] found that "medical school faculty continued to be predominantly White (63.9%) and male (58.6%) overall, and especially so at the professor and associate professor ranks." The report also noted that there "remains persistent underrepresentation of certain racial and ethnic minority groups and women in medical school faculty positions."[5]

Also noted by the AAMC was that "most active physicians were White (56.2%) and male (64.1%). However, among the youngest cohort of active physicians (34 years of age and younger), women outnumbered men in most racial and ethnic groups."[6]

In Minnesota, the need to diversify the physician workforce is still apparent. According to a 2019 report[7] from the Office of Rural Health and Primary Care at the Minnesota Department of Health, statewide, 2.6% of Minnesota's physicians were Black; 1.9% were Hispanic/Latinx; and 0.2% were American Indian – compared to 76.1% being White.

Physicians' race by Minnesota region

Race	Statewide	Central Minnesota	Northeast Minnesota	Northwest Minnesota	Minneapolis-Saint Paul Metro	Southeast Minnesota	Southwest Minnesota
American Indian	0.2%	0.1%	0.3%	0.8%	0.1%	0.2%	0.2%
Asian	13.7%	9.6%	6.2%	10.2%	13.0%	16.9%	18.1%
Black	2.6%	2.5%	2.0%	2.2%	2.4%	1.8%	2.6%
Hispanic/Latinx	1.9%	0.8%	1.1%	1.6%	1.5%	2.8%	2.6%
Multiple races	3.0%	2.6%	3.5%	1.6%	2.7%	3.5%	2.0%
White	76.1%	82.1%	84.3%	81.4%	77.8%	72.4%	72.3%
Other	2.6%	2.6%	2.6%	2.2%	2.5%	2.4%	2.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: 2018 MDH-ORHPC Physician Workforce Survey. N=17,216 (271 physicians did not provide race information). Includes only actively licensed physicians who responded to the survey. Respondents could choose as many races as were applicable to them. See Map 1 for region definitions.

These numbers demonstrate that Minnesota has not yet achieved the diverse physician workforce it needs, and the road to doing so will, without a doubt, be met with challenges and obstacles along the way.

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[4] *Id.*

[5] *Id.*

[6] *Id.*

[7] Minnesota Department of Health, Office of Rural Health and Primary Care, Overview of the Physician Workforce 2019, November 2019, *available at:* https://www.health.state.mn.us/data/workforce/phy/docs/cbphys.pdf

MMA's Strategic Plan and Health Equity Efforts

In the MMA's strategic map[8], one of the strategic outcomes that have been set is ***improved health equity.*** In order to achieve this outcome, the MMA has embarked upon several health equity initiatives (including raising awareness and physician education) for the past several years, with the most recent initiatives added in 2020.

The board-defined measures of success to demonstrate progress toward that outcome, refined in 2019, were to 1) increase MMA work and visibility in efforts to diversify the Minnesota physician workforce; 2) increase MMA work and visibility in addressing the social determinants of health; and 3) increase MMA work and visibility in efforts to reduce structural racism and implicit bias in health care.

Planned work in 2020 to define the specific initiatives/implementation plans to make progress on those measures was disrupted by the COVID-19 pandemic and reallocation of staff resources.

On June 5, in response to George Floyd's killing and the resulting community response and outrage, the MMA released an *Insights* article with a call to action to Minnesota's medical community to help heal and lead. Through Insights, MMA leadership asked the medical community to come together to combat the root cause of health disparities – institutional, systemic, and structural racism, dismantle the legacies and policies that enable racism and bias, and demand societal change. As part of this, the MMA convened its Policy Council, Public Health Committee, Health Equity Advisory Group, and invited other physician leaders from across the state to meet collectively to revisit this key outcome in order to identify and accelerate the work of organized medicine.

From those efforts, ideas for MMA's next steps were brought to the MMA Board of Trustees ("Board") in August 2020. Feedback from the Board at that meeting was used to refine those ideas even further, and at their December 7, 2020 meeting, the following initiatives were approved by the Board:

Increase MMA work and visibility in efforts to diversify the Minnesota physician workforce.

- Support early education mentorship and science exposure opportunities to increase Black male and underrepresented minorities in medicine.
- Support efforts to identify and eliminate racism and structural and institutional attributes in physician training.

[8] MMA Strategic Map, *available at*: http://mnmed.org/MMA/media/siteimages/MMA_Strategy_Map_2018_to_2022.pdf

Increase MMA work and visibility in addressing social determinants of health.

- Advance "housing is health" policy.
- Address police brutality and related trauma.

Increase MMA work and visibility in efforts to reduce structural racism and implicit bias in health care.

- Review MMA policies using anti-racism and health equity lenses.
- Dismantle the culture of racism within medicine
- Develop programing, education and training opportunities on structural racism and implicit bias.

With the above initiatives came an ask of the Board to approve the formation of a task force to help move some of the work forward. At their December 7, 2020 meeting, the Board approved the formation of the MMA Barriers to Workforce Diversification in Physician Education, Training & Licensure Task Force – to advise the Board on the actions needed to ensure that Minnesota's medical community ends the institutional, systemic, and structural racism that has been present in medicine for far too long. In the next section, you will learn more about this task force, their charge, deliverables, and membership – followed by a summary of efforts that the task force engaged in over the past year.

TASK FORCE BACKGROUND

Charge

The purpose of the MMA Barriers to Workforce Diversification in Physician Education, Training & Licensure Task Force is as follows:

- Understand the various drivers in medical education, residency training and the licensure process that affect the supply and distribution of Black men and other underrepresented minorities in medicine.
- Understand the role that discrimination, implicit bias and racism play in medical education, residency training and the licensure process in Minnesota.
- Identify the policies, practices and structures in medical education, residency training, and the licensure process that perpetuate racism and/or otherwise limit workforce diversification.
- Determine roles for the MMA, as well as for other potential stakeholders, in advancing specific strategies in medical education, residency training, and the licensure process, to increase the number of Black men and other underrepresented minorities in medicine.

Deliverables

The following are products to be developed by the task force:

- Inventory of the policies, practices, and structures in medical education, residency training, and licensure that perpetuate racism and/or otherwise limit Minnesota physician workforce diversification.
- Recommendations to reduce or eliminate those policies, practices and structures.

Task Force Charge – Edits Approved by Task Force

- Add the term *Indigenous peoples* and remove the term *minority* from the task force charge. The new language would read as follows:

-Understand the various drivers in medical education, residency training and the licensure process that affect the supply and distribution of Black men, Indigenous peoples, and others underrepresented ~~minorities~~ in medicine.
-Determine roles for the MMA, as well as for other potential stakeholders, in advancing specific strategies in medical education, residency training, and the licensure process, to increase the number of Black men, Indigenous peoples, and others underrepresented ~~minorities~~ in medicine.

Rationale:

- Task force members engaged in a discussion on whether the charge of the task force would be strengthened by calling out *Native American/Indigenous* people explicitly. Juliana Milhofer, MD, MMA Public Health & Policy Engagement Manager and task force staff, shared that in a conversation with a task force member after meeting #1, it was noted that a lack of directly addressing a population in Minnesota that is deeply underrepresented in medicine, was a concern. During the discussion on this topic, the task force members agreed that the task force charge (specifically Bullets #1 and #4) needed to address this, and that the task force charge should be modified, accordingly.
- In addition, a discussion around whether *Black men* being called out was still appropriate, and after hearing the data to support this, the task force members decided to leave the term *Black men* in the task force charge, as written.
- Finally, the task force members engaged in a discussion surrounding the use of the term *minority* in the charge (Bullets #1 and #4). Noted was the negative connotation (its relation to oppression) associated with the term *minority* and that there is a movement in both the literature and practice, to no longer use the term. Ms. Milhofer and another task force member shared that the term *underrepresented minorities in medicine*, is a term used by the Accreditation Council for Graduate Medical Education (ACGME) and other organizations. Nevertheless, the task force

members felt that continuing to use this word would reflect negatively on the task force's efforts and using *underrepresented in medicine* would suffice.

- Add the following language as Bullet #5 to the task force charge:

-Foster and facilitate the gateway programs needed to develop the continuum of physician talent in Minnesota, with the goal to promote, recruit, retain and reengage.

Rationale:

- The task force members engaged in a discussion around adding language on the topic of *retention* to the task force charge. During Meeting #1, the task force members agreed that a focus on *retention* was missing from their efforts, and during this meeting, the task force members decided that it was an important piece to add to strengthen their goal and proposed deliverables.
- Task force members noted that medical schools and residency programs have done great work around the *recruitment* of students who are underrepresented in medicine, but the piece that matters – *retention* - is lacking. Also noted was the need to *recapture* (which became *reengage* at the end of the discussion to once again be sensitive to the negative connotations around the term *recapture*) students and residents. *Retention* is not the end of the road, and more needs to be done to *reengage*.
- Included in the discussion was that the additional language would also need to acknowledge the need to develop a *continuum of physician talent,* via areas such as *pipeline* programs. The task force members decided against use of the word *pipeline*, given the negative connotations the term has within the Native American community in Minnesota. They chose to instead use the term *gateway* programs. Task force members made a point to address that no matter how many policies you change within medical education and residency, if you don't have a pool of underrepresented students to choose from for your medical school/ residency program, changing those policies will not do much to effectively diversify the physician workforce. Therefore, more needs to be done to strengthen the continuum of physician talent along the way.

Membership

In creating a task force to examine the barriers to workforce diversification in physician education, training & licensure, the MMA brought together a group of thirty-six (36) pre-med students, medical students, residents, community physicians, medical school leadership, residency program leadership. In addition, there was diversity among the task force members, with Black, Indigenous, and people of color (BIPOC) represented throughout.

SEE APPENDIX A FOR TASK FORCE MEMBERSHIP ROSTER.

TASK FORCE EFFORTS

Setting the Stage

To kick off the task force and ensure that their time was effective, task force members took some time to share one goal that they had for the work that they were embarking upon. The goals shared included the following:

- Building collaborators in the pipeline process.
- Need to see more Black and African American peers in medical school.
- Deepen their understanding of issues of diversity, equity, and inclusion so they can position themselves to be an ally in the fight.
- What can we do in terms of mentorship for BIPOC students?
- Would like to see what important lessons come from the task force that can be shared with those at the undergraduate level.
- Find the common thread that is preventing BIPOC students from entering medical school.
- Be part of the effort for change.
- Learn about the communities in Minnesota that we are not reaching.
- It is not just about how to *recruit* more BIPOC students, but how to *retain* and create an environment that allows BIPOC students to thrive. It is also about creating an environment that is supportive and allows students to remain and not just leave.
- Find the intervention tools and figure out what is needed to inspire people to apply. We need to do more than retain and recruit.
- Come up with actionable items.
- We need to see more Black physicians – working as a group with the MMA will be the only way to accomplish that.
- We need to increase the interest in health careers for all students.
- Increase Native American representation in medicine.
- Make sure the needs of all clinicians and all specialties are well represented.
- Capture those students who never would have applied or who may have been discouraged – and give them the support they need to end up in leadership positions once they are done with medical school.
- Increase enrollment and retention of BIPOC students.
- Figure out what is the best way to build an inclusive environment that allows faculty to be recruited and retained, and also allows them to advance. Then have these faculty support student and trainees.
- How can we provide mentorship to high school and college students who are interested in medicine? There are students whose families don't have a background in medicine, so let's find ways to support those students, and then to continue to mentor them once they are in medical school.

- Recognition and push by other people to increase the high school graduation rate for BIPOC students. If we don't address the graduation rate issue, we are doing a disservice to a potential future pool of medical students from BIPOC communities.
- Take the work that has been done by AAMC, AMA, ACGME, and others, and translate that to the local environment and come up with a practical approach that leverages the network and strengths of the MMA. Hold the MMA and other organizations that the task force members work for accountable.
- Medical schools have done a good job of recruiting medical students, but they have fallen short on the recruitment and retention of faculty. This needs to change.
- What are the causes of where the state of medicine finds itself– what are the feasible and realistic pathways – we need actual action that leads to change.
- Atone for the sins of past generations as to what should have been done 30-40 years ago. BIPOC patients do better when they have doctors that look like them. Need work to address this.
- Pipeline work is important – we have a zero-sum game focused on the people – we need to increase the pipeline and create mentorship opportunities with younger BIPOC students. This will lead to more joy in the work that physicians do.
- How do we work with large hospital systems, the medical industry, and private foundations to provide economic support that will expose and engage students from underrepresented minorities to medicine?
- Health and education are a bridge to peace and sustainable development; restoring trust and faith in each other; and preserve compassion in health care.
- Here to provide support.

Barriers to Diversifying the Physician Workforce – Initial Task Force Assessment

During the first meeting of the task force, an exercise was conducted to assess which barriers the task force members saw as the most significant. The barriers identified included the following:

- Lack of mentorship and exposure to medical careers (prior to medical school).
- Lack of diverse mentors and role models (once in medical school and residency).
- Financial burdens (cost of prep courses, cost of applications, cost of interviews (travel)).
- Persistent socioeconomic and educational inequities.
- Admissions committees placing a lot of weight on standardized test scores rather than utilizing a holistic review approach to applications.
- Lack of diversity among admissions committee members.
- Lack of diversity among residency program interviewers.
- Lack of diversity among medical school and residency program faculty.

- Lack of support and community for BIPOC students (dealing with microaggressions and feelings of isolation; in both medical school and residency).
- Structural racism within the medical school admissions, education, and retention process.
- Structural racism within the residency recruitment, training, and retention process.
- Experiences required to be a competitive applicant disadvantage BIPOC students.

Task Force Survey

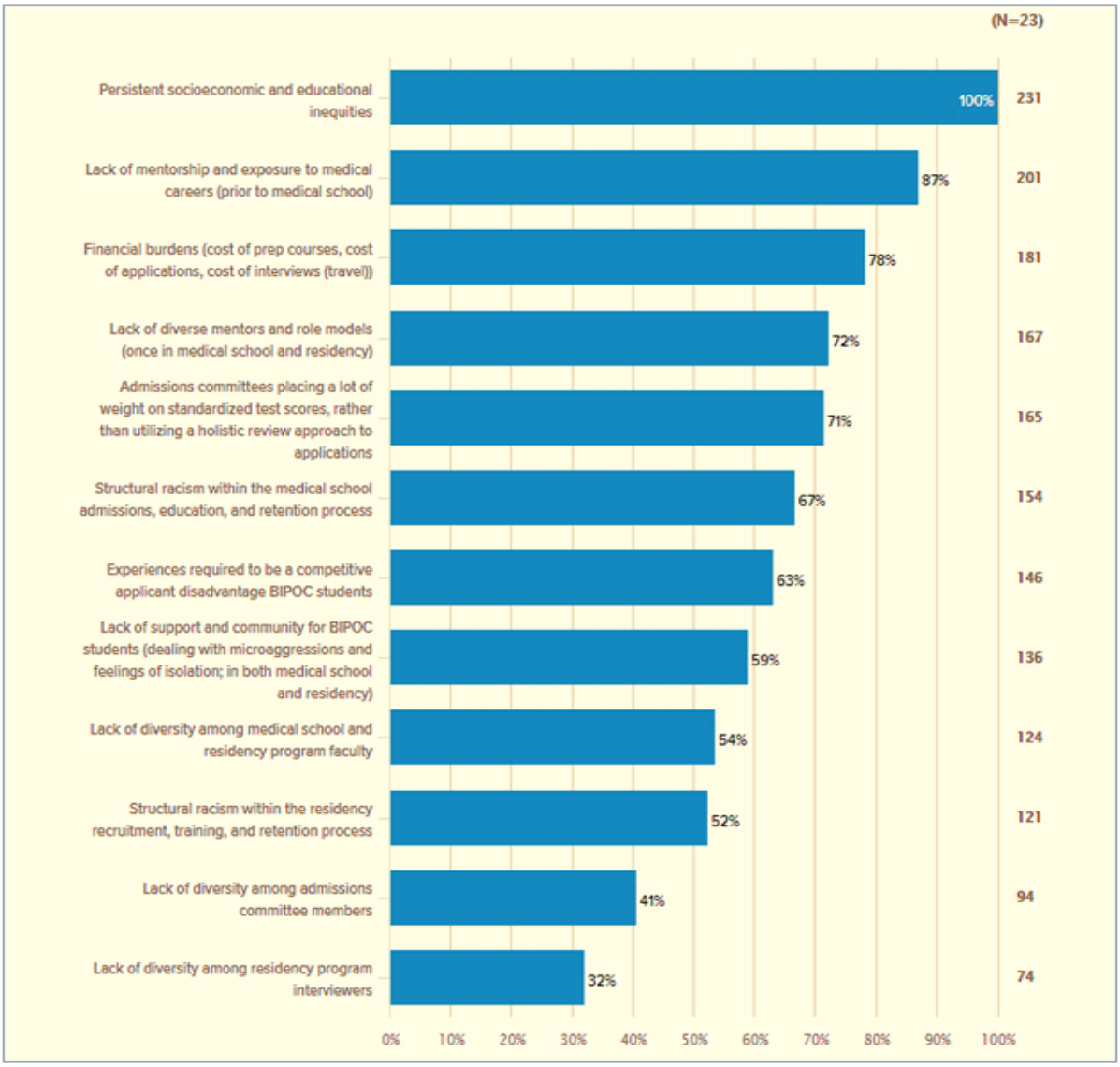
A survey was subsequently put together for the task force, to assist in determining which barriers would frame their areas of focus.

The survey consisted of the following three questions:

1. The following are barriers to diversifying the physician workforce. Please rank the following barriers in the order of the most to least significant barrier (with "1" being the most significant barrier and "10" being the least significant barrier).
2. Are there other barriers to diversifying the physician workforce that have not been addressed by the list in Q1?
3. Of the barriers you ranked in Q1, which are the 3-5 barriers that the MMA may have the greatest impact on?

Participation rate: 23 out of 36 task force members

In regard to **Question #1**, the following were the results of the task force members ranking of the barriers:



For **Question #2**, here were some examples of what the task force members identified as barriers that were *missing* from the list:

- Ongoing support/experiences for Latinx, Indigenous, and Black students throughout middle school and high school.
- Lack active recruitment of BIPOC students.
- Opportunities for leadership.
- Medical school system from the beginning should be free, accessible/mandatory for all.
- The hierarchical structure of medical education that permits micro/macro aggressions.
- Creating specific courses that identify communities most in need of services.
- Lack of support and funding for students to get involved with their communities while in school.

- Racial discrimination.
- Lack of BIPOC medical representation in the media.
- This does not include support for those with prior criminal records who are limited to even apply.
- Because of COVID-19, most interviews are virtual - but usually there are significant travel costs.
- Pipeline programs.
- The culture of medicine being focused towards promoting mostly legacy physicians.
- Lack of locally and nationally organized targeted recruitment efforts.
- Scholarship dollars.

For Q**uestion #3**, overall, there was a common theme of addressing *mentorship barriers, financial burdens, structural racism, and the admissions process*. Here are some comments from the task force members of what they identified as areas that the MMA may have the greatest impact on.

- Institutional racism.
- Lack of mentorship and exposure to medical careers (prior to medical school).
- Financial burdens (cost of prep courses, cost of applications, cost of interviews (travel)).
- Admissions committees placing a lot of weight on standardized test scores, rather than utilizing a holistic review approach to applications.
- Lack of support and community for BIPOC students (dealing with microaggressions and feelings of isolation; in both medical school and residency).
- Structural racism within the medical school admissions, education, and retention process.
- Structural racism within the residency recruitment, training, and retention process.
- Lack of diversity among medical school and residency program faculty.
- Lack of diversity among admissions committee members.
- Lack of diverse mentors and role models (once in medical school and residency)
- MMA can amplify the voices of BIPOC medical professionals in the media, print, etc.
- We can call on and give tools to schools (pipeline programs and medical schools) to increase support for BIPOC students in STEM and medicine.
- Deliberate training in unconscious bias and microaggressions.

Meetings

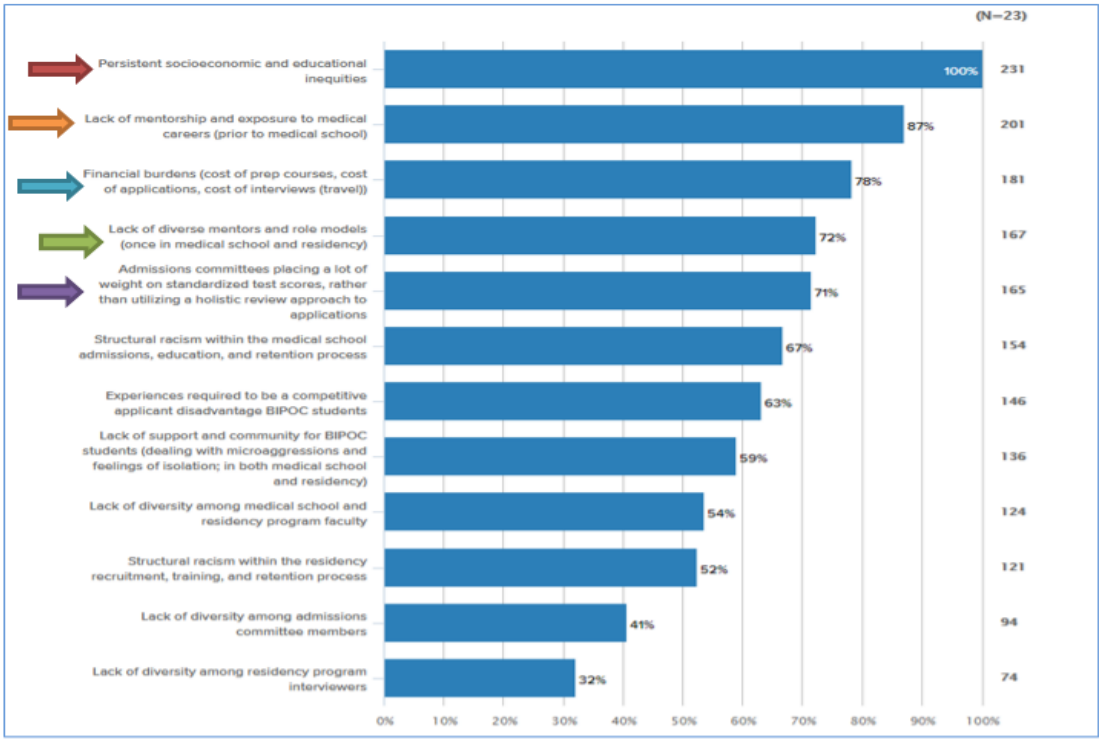
The MMA Barriers to Workforce Diversification in Physician Education, Training and Licensure Task Force convened its first meeting on July 14, 2021. Over the course of

nine (9) months, the task force held six (6) meetings, with the final meeting being convened on April 13, 2022. The work that followed from the meetings included refinement of recommendations between task force chairs and task force members, and a final review and vote of the recommendations, conducted electronically.

Minutes for meetings of the task force are available from MMA staff upon request.

BARRIERS TO WORKFORCE DIVERSIFICATION IN PHYSICIAN EDUCATION AND TRAINING

Survey Results - Where did focus of the task force land?



From the image above, you will see that the task force members chose for their journey together to focus on their top 5 areas, as determined by their survey. Those areas were as follows:

1. Persistent socioeconomic and educational inequities
2. Lack of mentorship and exposure to medical careers (prior to medical school)
3. Financial burdens (cost of prep courses, cost of applications, cost of interviews (travel))
4. Lack of diverse mentors and role models (once in medical school and residency)

5. Admissions committees placing a lot of weight on standardized test scores, rather than utilizing a holistic review approach to applications.

Note that while these five areas were the central focus of task force conversations and eventual recommendations, other barriers identified via the survey were touched upon and became part of conversations and the final set of recommendations in some way as well.

Importance of Definitions

Before the task force members got too deep into examining the barriers, and establishing recommendations, they thought it would be important to set the stage for their efforts, and lay out some definitions. Via this exercise, the following concepts were defined: (1) persistent socioeconomic and educational inequities; (2) holistic review; and (3) underrepresented in medicine. The purpose of this exercise was to have common definitions that could be used in both conversations among the task force members and included in the task force's final report.

(1) Persistent socioeconomic and educational inequities

This term arose from the barriers to diversifying the physician workforce exercise that task force members engaged in at the start of their work. Included in the task force member discussions was the importance of noting that these are longstanding inequities, that span many different tiers. Therefore, the task force members believed that a concise definition of *persistent socioeconomic and educational inequities* is difficult to arrive at.

Some examples given to consider in the assessment of these inequities included the following:

- National guidelines for poverty and where an applicant and their family may stand.
- Whether a student is a first-generation applicant.
- Generational disadvantages in housing, employment, education, etc., that have led to current socioeconomic inequities.
- Lack of opportunity.
- Adverse childhood experiences.
- Stressors associated with coming from a one parent household.
- Someone with a criminal history and the effect this has on their ability to apply to medical school.

In summary, applicants bring with them a vacuum of experiences – a *financial, social, and educational* vacuum. You cannot dream and achieve what you do not know exists.

The question that needs to be asked is "how do we erase the vacuum?" We are not able to change their parents' economic status, but we can change something in their experience or neighborhood to help them realize that dreams can come true and be achieved, despite the inequities that lie before them. We need to sell the medical profession to those that *do not know* or do not *think* that it is a viable option for them.

(2) Holistic review

This term came up after the task force members took the survey on identifying the barriers to diversifying the physician workforce.

During the discussion, Kacey Justesen, MD, task force co-chair, shared the following definition from the AAMC. Noted was that the AAMC has also published several guides and resources for how to apply a holistic review. The definition is as follows:

> "Holistic Review refers to mission-aligned admissions or selection processes that take into consideration applicants' experiences, attributes, and academic metrics as well as the value an applicant would contribute to learning, practice, and teaching. Holistic Review allows admissions committees to consider the "whole" applicant, rather than disproportionately focusing on any one factor. The core principles of holistic review are outlined below."

As a residency program director at the University of Minnesota, Dr. Justesen has incorporated this review into her process. Noted was that the antiquated method of sorting applicants based on their scores or what medical school they attended is filled with bias and is not an appropriate way to assess an applicant. Also noted was that a holistic review allows you to look at the "whole" person, and it recognizes that there are a lot of different pieces that feed into an applicant's background, and those differences are what lead them to have the necessary attributes to become an effective physician.

In regard to medical school, it was noted that many medical schools have also gravitated to using this approach when looking at medical student applicants.

(3) Underrepresented in medicine

The following AAMC definition of underrepresented in medicine was shared, and reads as follows:

> "Underrepresented in medicine means those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population."

Task force members were asked whether they wanted to adopt the AAMC definition for their report, or if there are any additions/edits needed. During the discussion, the task force members wondered if there was a disconnect between the AAMC definition and their discussions from the previous meeting around adding *Native American* to the task force charge. It was agreed that they are not mutually exclusive, and we are just trying to clarify what is meant by the term *underrepresented in medicine (URM)*.

The task force members also discussed whether the definition needed to expand beyond *race and ethnicity*. After discussion among the task force members, it was decided to leave the AAMC definition *as written,* and include it in the task force's final report.

Task Force Statement on Protecting the Voices of Task Force Members

The voices that made up the MMA Barriers to Workforce Diversification in Physician Education, Training and Licensure Task Force were *many* – and they all came together with the *goal of changing the face of medicine*. It is our hope that the recommendations of the task force do not bring forth negative and unwanted attention to those pre-med students, medical students, residents, community physicians, medical school leadership and residency program leadership that made up the task force membership.

Via the task force, a safe space for difficult conversations was created – a space where task force members were allowed to be open, honest, vulnerable, and at times even uncomfortable – all in the hopes of making medicine more diverse and making medicine more inclusive.

RECOMMENDATIONS

Final Recommendations

At the conclusion of the task force's efforts, the goal was to arrive at a list of proposed recommendations to present to the MMA Board of Trustees. In assessing what recommendations the task force would present, task force members felt it was important to categorize the recommendations into *barriers*, in order to lay out *where* efforts to diversify the physician workforce should focus on, and *why*. The three barriers that form the basis of the proposed recommendations are as follows:

- Barrier 1: Lack of Exposure and Preparation Options
- Barrier 2: Financial Barriers to Medical Training
- Barrier 3: Historic Bias and Systemic Racism in Medicine

Barrier #1: Lack of Exposure and Preparation Options

1. The Minnesota Medical Association will conduct an **inventory of current gateway programs** within Minnesota that are available for students from backgrounds underrepresented in medicine, and explore ways to disseminate the information to primary and secondary schools throughout Minnesota.
2. The Minnesota Medical Association will explore the **creation of a medical careers program** to help facilitate exposure to careers in medicine for elementary, middle, and high school students in schools with a high proportion of students who are historically underrepresented in medicine (*e.g.*, components could include presentations, events, etc.).
3. The Minnesota Medical Association will explore potential ways to **collaborate with The Ladder,** a program designed to help children and young adults in North Minneapolis and St. Paul explore and learn about careers in the healthcare industry.
4. To help facilitate the development of a more diverse physician workforce in Minnesota, the Minnesota Medical Association will work to **expand its MMA Mentorship Program** (1) to include shadowing as an option; (2) to include other pre-med programs in Minnesota who are looking for mentorship and shadowing opportunities for their students; and (3) to include information on effective medical school admissions interview techniques.

Rationale

"You can't be, what you can't see." This statement was echoed by the task force members throughout their conversations, as a reminder of why having someone who looks like you in the role of a physician is so important.

For many, becoming a physician comes with many barriers, and for some, those barriers start early on. Task force members discussed the lack of opportunities to be exposed to careers in medicine, particularly for those students from backgrounds underrepresented in medicine. Noted was the importance of assessing what opportunities do exist, connecting students with those opportunities, and working to fill in the gaps as needed.

Another area that was widely discussed was how we could expand mentorship opportunities - starting with those young students beginning to explore the possibility of a medical career, all the way to students navigating their way through medical school. One point that threaded the conversation of mentorship was the lack of mentors who are racially or ethnically concordant. As the lack of diversity in the physician workforce continues, the pool of diverse mentors is small – serving as yet another obstacle that needs to be overcome.

Barrier #2: Financial Barriers to Medical Training

1. To address the financial barriers faced by students from backgrounds underrepresented in medicine, the Minnesota Medical Association will **explore ways to help offset the non-tuition costs** associated with pursuing a career in medicine (*e.g.,* MCAT prep courses and MCAT exam costs; Step prep courses and Step exam costs; application costs; interview costs; etc.)
2. The Minnesota Medical Association will **encourage medical schools and residency programs in Minnesota to explore ways to reduce the non-tuition financial barriers** associated with medical school and residency for medical students, residents and fellows who come from backgrounds underrepresented in medicine (*e.g.,* utilizing alumni networks, offering grants and scholarships, etc.)
3. The Minnesota Medical Association will urge the University of Minnesota Medical School to explore the inclusion of **Step 1 and Step 2 exam costs in medical school tuition,** thereby allowing this as an educational student loan expense, as is currently the practice at the Mayo Clinic Alix School of Medicine.

<u>Rationale</u>

Becoming a physician comes with a price tag, and one that many find out of reach. The price of a medical education continues to increase, and nothing seems to be putting a stop to that trend. The median cost of four years of medical school attendance in 2019-2020 was $250,222 at public institutions and $330,180 at private colleges, according to a fall 2020 report issued by the Association of American Medical Colleges (AAMC).[1]

Even before the cost of medical school becomes prohibitive for many students from low-income backgrounds, and those from backgrounds underrepresented in medicine, the steps needed to get there pose the greatest barrier. MCAT registration fees, MCAT prep courses, the cost of travel for interviews, and other medical school-related expenses - all stand as barriers for students seeking to enter the medical profession. For the average student looking to begin their journey to become a physician, they must budget, on average, $5000 - $10,000[2] to apply to medical school – and for many, that is enough to deter them from choosing medicine as a career.

Here is the average breakdown of some of those costs[3]:

- $315 for MCAT registration
- Kaplan MCAT prep course $2,499
- $170 for the application to the first school and $40 for each additional application
- An average of $200 for travel and attire for each interview
- $600 or more for annual registration fees for various certification tests
- Debt that carries over from college/university

Through their conversations, the task force members recognized that for many students from disadvantaged backgrounds, or for students with competing financial priorities, having the ability to pay for all that comes with medical school and residency is not feasible – and for some, the reason they stop short of pursuing their dream of becoming a physician.

Barrier #3: Historic Bias and Systemic Racism in Medicine

1. The Minnesota Medical Association will encourage medical schools and residency programs in Minnesota to use the Association of American Medical College's (AAMC) holistic review and its accompanying core principles when assessing applicants. According to the AAMC, **holistic review** refers to "mission-aligned admissions or selection processes that take into consideration applicants' experiences, attributes, and academic metrics as well as the value an applicant would contribute to learning, practice, and teaching. Holistic review allows admissions committees to consider the "whole" applicant, rather than disproportionately focusing on any one factor."
2. The Minnesota Medical Association will encourage medical schools and residency programs in Minnesota to have their **admissions committee and interview teams represent diverse backgrounds** to strive to reflect the cultural and racial diversity of the population.
3. The Minnesota Medical Association will urge the Mayo Clinic Alix School of Medicine and the University of Minnesota Medical School to continue to offer **virtual interviews** as an option in the medical school application process. Virtual interviews provide students with an equitable interview option, as there are students from backgrounds underrepresented in medicine who may have travel and related costs serve as a barrier to pursuing a career in medicine.
4. To foster a culture of diversity, equity and inclusion, the Minnesota Medical Association will continue to offer **training on anti-racism, implicit bias, and microaggressions** to physicians and physicians-in-training. The Minnesota Medical Association will ensure that medical school and residency program leadership are made aware of Minnesota Medical Association resources, so that they may offer them to their medical students, residents, fellows, faculty, and staff.
5. In an effort to change the culture of medicine at all levels, including within the licensure, employment and disciplinary processes, the Minnesota Medical Association will **encourage all physicians, including those involved in health professional credentialing and regulation, to avail themselves of the implicit bias and anti-racism training resources** developed by the Minnesota Medical Association.
6. The Minnesota Medical Association urges its Medical Student Section (MSS) and its Resident and Fellow Section (RFS) to consider potential roles they can play in

addressing concerns raised by medical students, residents, and fellows about **feelings of isolation and a lack of community** within their medical schools and residency programs.

7. In response to concerns expressed by medical students, residents and fellows, the Minnesota Medical Association will advise medical schools and residency programs in Minnesota that the mechanisms available for **reporting an incident of discrimination, mistreatment, bias, or harassment** require adequate follow through and/or support options in order to be considered effective.

Rationale

Systemic racism is alive and well in medicine, and if not addressed at all levels, it will continue to be one of the greatest barriers to diversifying the physician workforce. Medical schools in Minnesota, and across the country, continue to make great strides in diversifying their medical school classes. For example, the University of Minnesota Medical School Class of 2026 includes 167 students, with half of them being students of diverse backgrounds.[4] In addition, medical schools in Minnesota have done a lot of work to prioritize diversity, equity, and inclusion, and committing to creating an environment that supports students from backgrounds underrepresented in medicine. Nevertheless, more *can* and s*hould be done* to ensure that the environments created are (1) free of bias and discrimination, and (2) recognize the value that diversity brings to medicine.

Task force members discussed that from the minute an application is sent to medical school - to when an application for physician licensure is submitted - everything that occurs in between needs to lift up and support the pre-med student, medical student, and resident to ensure that there is no bias, discrimination, harassment, isolation, or mistreatment on their journey. For if any of these occur, medicine will have once again failed to *right* its *wrong*s - and failed to ensure a more diverse physician workforce.

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The aforementioned recommendations represent areas that the task force members believe will help ensure that Minnesota's physician workforce is more diverse, inclusive, and representative of the patient population of Minnesota.

NEXT STEPS

Implementation Plan

If the task force's proposed recommendations are approved by the MMA Board of Trustees, a detailed implementation plan will be put together by MMA staff. The implementation plan will include guidance for how to proceed with each recommendation, and it will also lay out what potential partners and resources will be needed to achieve the goals of each approved recommendation. The task force would also like to recommend that MMA staff form an advisory group to guide the implementation steps.

Conclusion

The population of Minnesota will continue to become more diverse, and if more efforts are not put into creating a physician workforce that is representative of that diversity, medicine will have failed its most vulnerable and marginalized communities. The MMA has an important role to play in setting the foundation for what next steps are needed, and the MMA is in a unique position to lend its voice to this conversation. Changing the face of medicine will not be done overnight, but with the necessary support and leadership – it can happen. Tomorrow's physician workforce must look different if we are to reduce health disparities; improve patient trust and satisfaction; and finally chip away at the racism that is so prevalent in medicine today. A tall order, but one the task force feels the MMA is ready to take on.

APPENDIX A –Membership Roster

NAME	ROLE	ORGANIZATION
Kacey Justesen, MD, Co-Chair	Residency Program Director	Broadway Family Medicine, North Memorial Family Medicine Residency Program; University of Minnesota Department of Family Medicine and Community Health
Verna Thornton, MD, Co-Chair	OB/GYN	Community Memorial Hospital
Alexandra P. Wolanskyj-Spinner, MD	Senior Associate Dean for Student Affairs	Mayo Clinic Alix School of Medicine
Alice Gallo De Moraes, MD	Mayo Clinic School of Graduate Medical Education (MCSGME) representative	Mayo Clinic
Amanda Termuhlen, MD	Associate Dean for Faculty Affairs	University of Minnesota Medical School
Ana Núñez, MD, FACP	Vice Dean for Diversity, Equity and Inclusion	University of Minnesota Medical School
Ashok Patel, MD	Physician	Mayo Clinic
Aziz Abdilahli	Medical Student	University of Minnesota Medical School
Casey S. Martin, MD	Program Director	St. Joseph's Family Medicine Residency, University of Minnesota
Colette Sandborgh	Pre-med student, MAPS member	University of Minnesota Medical School (Minority Association of Pre-Medical Students (MAPS)
Cuong Pham, MD	GME DEI Committee Co-Chair	University of Minnesota Medical School

Derrick Lewis	Medical Student, Student National Medical Association (SNMA) Mayo Chapter (President)	Mayo Clinic Alix School of Medicine
Devante Delbrune	Medical Student	University of Minnesota Medical School
Dimple Patel, MS	Associate Dean of Admissions	University of Minnesota Medical School
Dionne Hart, MD	Physician; President	Minnesota Association of African American Physicians
Ericka Wheeler	Medical Student	Mayo Clinic Alix School of Medicine
Evan Banks	Medical Student	University of Minnesota Medical School
James Smith, MD, MPH	Fellow (Sports Medicine)	Currently doing a sports medicine fellowship at the University of Connecticut; formerly at the University of Minnesota - North Memorial Family Medicine Residency
Keith Stelter, MD	Physician and Immediate Past President (MMA)	Mayo Clinic Health System - Eastridge
Kendra Nordgren, PhD	Assistant Dean of Admissions	University of Minnesota Medical School - Duluth Campus
Kevin Gaddis, MD	Assistant Professor, Department of Dermatology and Associate Program Director	Dermatology Residency Program, University of Minnesota
Kevin Koo, MD, MPH	Physician	Mayo Clinic
Lydia P. Wheeler	Medical Student	Mayo Clinic Alix School of Medicine
Malique Delbrune	Medical Student	University of Minnesota Medical School

Maryam Omar	Medical Student	Mayo Clinic Alix School of Medicine
Mary-Tiffany Oduah, MD	Resident (PGY-2 Internal Medicine)	Mayo Clinic
Michael Aylward, MD	GME DEI Committee Co-Chair	University of Minnesota Medical School
Mojca Remskar, MD, PhD, MACM	Program Director of the Anesthesiology Residency Program (just stepped down in 2020) Professor, Executive Vice Chair (Department of Anesthesiology), and Medical Director at M Simulation	Anesthesiology Department, University of Minnesota
Naima Hashi, MD	Resident (PGY-1 Internal Medicine)	Mayo Clinic
Natalia Dorf-Biderman, MD	*Physician and Ad Hoc Task Force Member*	*Park Nicollet*
Natalie Rea, MD	Resident (PGY-3 Anesthesia)	Mayo Clinic
Paul Waytz, MD	Retired physician	Retired
Rahma Warsame, MD	Consultant, Division of Hematology, Department of Internal Medicine	Mayo Clinic
Roble Aden	Foreign-trained physician; President	Somali Medical Association of America
Scott Stevens, MD	Physician, MMA Public Health Committee	The Orthopaedic & Fracture Clinic, PA
Zynab Ahmed	Pre-med student, MAPS member	University of Minnesota Medical School