The Mission Vision Project Fuels the Black Physician Pathway from Kindergarten through Medical School
INTRODUCTION

The Humanity Behind the Numbers

It’s no secret that people of color fare disproportionately worse than whites when it comes to health outcomes for chronic disease, maternal health, and overall access to quality health care. Among the key drivers of these poor health outcomes are distrust for health care providers due to a history of inappropriate research and procedures using Black and Brown bodies as subjects, and lack of culturally congruent care that often manifest conscious and unconscious biases. The number of Black physicians has grown by only 4% since 1940. But there is a story behind that number. This report, Fueling the Black Physician Pathway from Kindergarten through Medical School, depicts the humanity behind the why, and the systemic barriers that persist making the road to medicine a long arduous one for many Black students.

Inspired by Dr. Michael Weaver and wife Jamila Weaver, of The Mission Vision Project KC (MVPKC), this data brief, in part, is narrated by cardiologist Dr. Anezi Uzenu and medical student Harmony Sanders. Both are MVPKC alumni, which aims to increase the Black and Brown enrollment rate in the health sciences with a focus on medicine.

They speak to the challenges of medical school preparation, challenges that persist while attempting to earn an undergraduate degree. Uzenu was born in St. Louis, Missouri to immigrant parents. He grew up in both Nigeria and the United States before completing a combined B.A./M.D. program at the University of Missouri School of Medicine. His internal medicine training came from the University of Alabama at Birmingham (UAB), cardiology training from The Ohio State Wexner Medical Center in Columbus, and interventional cardiology at Massachusetts General Hospital (MGH). Uzenu experienced cardiac arrest as an internal medicine student and founded Make BLS Basic in 2019 to bridge the knowledge gap about basic life support and provide education and awareness about CPR and automated external defibrillator (AED) use.

“I want everyone in the community to feel like basic life support truly is basic, and I created a whole program around that. I’m really trying to engage with communities. A lot of neighborhoods like the ones that I grew up in and the one I had my cardiac arrest in have the lowest rates of bystander CPR. So I want to target those communities and equip them to save the people they love.”

–Dr. Anezi Uzenu

As for Sanders, a native of San Diego, California, she is a first-generation college student. As a Black medical school student pursuing a M.D./Ph.D. program, she is one of a very small number of medical school students in the nation. For students of color the number is even smaller. “My passion for research and thirst for studying immunology in cancer led me to complete a master’s in cell biology before applying to medical school and developed my interest in racial disparities in cancer,” she said.

Sanders will be the third Black graduate from the University of Kansas Medical Center. One of her goals is to impact Black children with exposure to simple lessons in biology, chemistry, and physics. Sanders said she’s seen too many of her Black peers began as science majors with a passion for medicine but couldn’t continue because they didn’t have grades to continue.

“I feel that lack of knowledge and science foundation is critical to predicting the success of creating Black physicians,” she said.

From the lens and lived experiences of both Uzenu and Sanders, this data brief dims the stats and humanizes the reasons why the number of Black physicians has seen very little growth since 1940.
MANY RIVERS TO CROSS: WHY THE BLACK PHYSICIAN PIPELINE IS SLOW TO INCREASE

For Black and Brown medical students, often referred to as underrepresented minority students (URM), the challenges of both getting into medical school and navigating the barriers to graduation are particularly difficult. Just ask Harmony Sanders, a fifth-year combined M.D.–Ph.D student at the University of Kansas Medical Center. “Many medical students are Caucasian and come from privileged backgrounds,” she said. “This includes a parent, and many times a grandparent, who is a physician. This allows majority students to have the advantage of knowing how to optimize their applications to residency. Black students tend to be first-generation and are constantly trying to learn what is coming next in training – while going through training.” Sanders adds these three barriers are often the most difficult to overcome for Black and Brown students:

1) Attempting to not only pass exams but score high while also navigating the complex culture of medicine without generational knowledge. “Medicine is very hierarchical,” Sanders said. “A lot of culture is learned through experience, which first-generation students will always be behind in understanding.”

2) Identifying culturally congruent mentors who can relate. “Having a mentor who looks like you helps tremendously,” she said. “But finding them is a challenge because there are so few.”

3) Learning to manage mental health and coping skills that manifest as imposter syndrome while in medical school. Sanders said this feat has to be managed while balancing the needs of family, home, and community. “We are often tied to our family and serve as a pillar to their well-being and that doesn’t stop just because we are in medical school.”

The Pipeline Needs to Start Early

Anezi Uzendu, M.D., a cardiac research fellow at Saint Luke’s Mid America Heart Institute in Kansas City, and MVPKC alumnus, said the pathway to medicine must start early. Early exposure to careers in medicine is also integral to increasing the Black and Brown pipeline. “I remember growing up before Obama and thinking that there would never be a Black president,” Uzendu said. “There are so many things that until you see or are exposed to someone who looks like you, you don’t know that it’s available to you. So starting the pipeline early means reaching back to grade school and middle school and letting them know [this] is available to you, too.”
FROM FINANCIAL RESOURCES TO SOCIAL CAPITAL TO STEM – BLACK AND BROWN STUDENTS REQUIRE MORE ACCESS

**Figure 2:**

<table>
<thead>
<tr>
<th>Medical Schools</th>
<th>Costs</th>
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</thead>
<tbody>
<tr>
<td>MCAT Preparatory Courses</td>
<td>$500–$2,000</td>
</tr>
<tr>
<td>MCAT Registration</td>
<td>$315</td>
</tr>
<tr>
<td>Medical School Admission Requirements Database</td>
<td>$28</td>
</tr>
<tr>
<td>Primary Application Fee</td>
<td>$160 for first, $39 for each following program</td>
</tr>
<tr>
<td>Secondary Application – if requested by medical school</td>
<td>$40–$100</td>
</tr>
<tr>
<td>Transcript Fee</td>
<td>$10 per school</td>
</tr>
<tr>
<td>Interviews</td>
<td>$500–$3,000 per school</td>
</tr>
<tr>
<td>Interview Attire</td>
<td>$100–$500</td>
</tr>
<tr>
<td>Admittance Visit</td>
<td>$500–$3,000</td>
</tr>
<tr>
<td>Nonrefundable Acceptance Deposit</td>
<td>$500–$3,000</td>
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</tbody>
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Sanders considers herself lucky because she was able to benefit from financial aid, loans, and a fee waiver from the Association of American Medical Colleges (AAMC) to supplement the cost of medical school applications. Even with these aids, she still worked a full-time job to cover the remaining costs, coupled with travel costs to fly around the country for residency interviews. “Finances are a consistent hurdle from premed and beyond,” Sanders said. “Admissions, residency, and fellowship applications all cost a small fortune. Board exam registrations, including Step 1 through Step 3 are also expensive.”

However, before any of that can happen, applying to medical school requires high academic performance, shadowing experience, and money. “High academic performance is difficult in college if students are also working, providing for family members, and feeling isolated as a minority student,” Sanders said.

**Figure 3:**

**United States Medical Licensing Exam (USMLE)**

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>$645</td>
<td>$645</td>
<td>$1300</td>
<td>$895</td>
</tr>
</tbody>
</table>

Registration Fees

She adds that too often Black students don’t have the necessary preparation during grades K–12, and need additional tutoring and guidance to perform well as an undergraduate. And those who lack social capital, or access to family members or family friends who are also physicians, may also find it hard to shadow other medical professionals. “Shadowing is typically gained based on who you know. White students gain this experience from a family connection like a parent physician or a long-standing relationship with a pediatrician or family physician. However, Black premed students need a resource to gain adequate shadowing time and social connections.”

Uzendu said that getting into medical school is becoming increasingly competitive with requirements for volunteer work and shadowing. “You almost have to have a regimented game plan in high school through your freshman year of college,” he said.

As for exceptionally talented Black students who plan to go to college, get good grades, take the MCAT®, and then get accepted into medical school, Uzendu said they are having rude awakenings. “That’s not enough. There’s years of work they should have had. The volunteer and research opportunities that are necessary often come through connections. You have to know someone in that area to be offered those opportunities,” he said.
Uzendu describes the first part of medical school as classroom instruction. It includes standard tests, and learning anatomy and physiology among other things. For many students of color, access to STEM classes to provide context and exposure to anatomy and physiology courses in medical school comes late or not at all. Sanders adds that late STEM coursework in high school means that undergraduate college classes require students to fill in the gaps. “College students have to teach themselves.” She said the alternative should be early introduction to STEM concepts with high repetition throughout middle and high school.

“This is critical because many Black premed students do not have the grades to go to medical school and do not graduate, or, account for the majority of United States Medical Licensing Examination® (USMLE) Step 1 first-time failure rates.”

—Harmony Sanders
Figure 5: Percentage of full-time U.S. medical school faculty by race/ethnicity, 2018.

Source: AAMC Applicant Matriculant Data File as of March 20, 2019

REPRESENTATION MATTERS

Uzendo said during the second half of medical school students rotate through hospital wards, and are often assessed subjectively. “It’s not about ABC—multiple choice, but instead, it’s sometimes the physician’s opinion of you and your performance,” he said. “Sometimes their own implicit bias may play a role in some evaluations that Black students receive.” Uzendo adds that it’s not enough to look at graduation rates, but the sum of barriers Black students must overcome, before they ever walk into a classroom, to excel in medical school. The effects of implicit bias and racism are palpable for students of color. “How you internalize those things can suppress your ability to achieve,” Uzendo said. “When you don’t feel like your professors, or the people who are supposed to be advocating for you believe in you, it can affect your performance.”

The paradigm shift comes down to having more Black physicians and professors in the room. When there is little or no people of color represented, racial biases tend to persist.

“I don’t think it’s always malicious,” “But there are subconscious biases that make people set different expectations for different people.”

—Dr. Anezi Uzendo
MVPKC WORKS TO FUEL THE PATHWAY

MVPKC is a member of the Kansas City Health Equity Learning and Action Network (the LAN), under the leadership of the Health Forward Foundation and in partnership with the Institute for Healthcare Improvement (IHI), and the KC Health Collaborative (KCCHC).

The LAN actively develops comprehensive strategies and action plans that promote culturally responsive, antiracist health care.

The Physician Pathway Project was developed as a part of MVPKC’s work with the LAN to increase the Black, Latin, and Indigenous pipeline of health professionals.
With more than 50 organizations participating, the LAN provides a forum for engagement, girded by a shared agenda, with education, training, tools, and expertise to markedly change systems, policies, and structures.

The goal is to eliminate disparities in health care delivery, while realizing measurable improvements steeped in equity-centered, culturally responsive health outcomes for all health care consumers.

Visit MVPKC to learn more, or support the organization by donating online.