



Logic Model

An Early Outreach Pre-Med
& Medical School Readiness
Program



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INTRODUCTION

The U.S. physician workforce does not reflect the demographic characteristics of the US population. Most U.S. states do not train physicians who are demographically representative of the state population. Diversifying the physician workforce to reflect the U.S. population is key to providing high-quality, high-value, culturally effective care. Studies have shown that the concordance of race and/or language of the physician and the patient – leads to better patient outcomes. Patients who share their language or cultural background with their physicians are more likely to follow their advice and express higher levels of satisfaction.



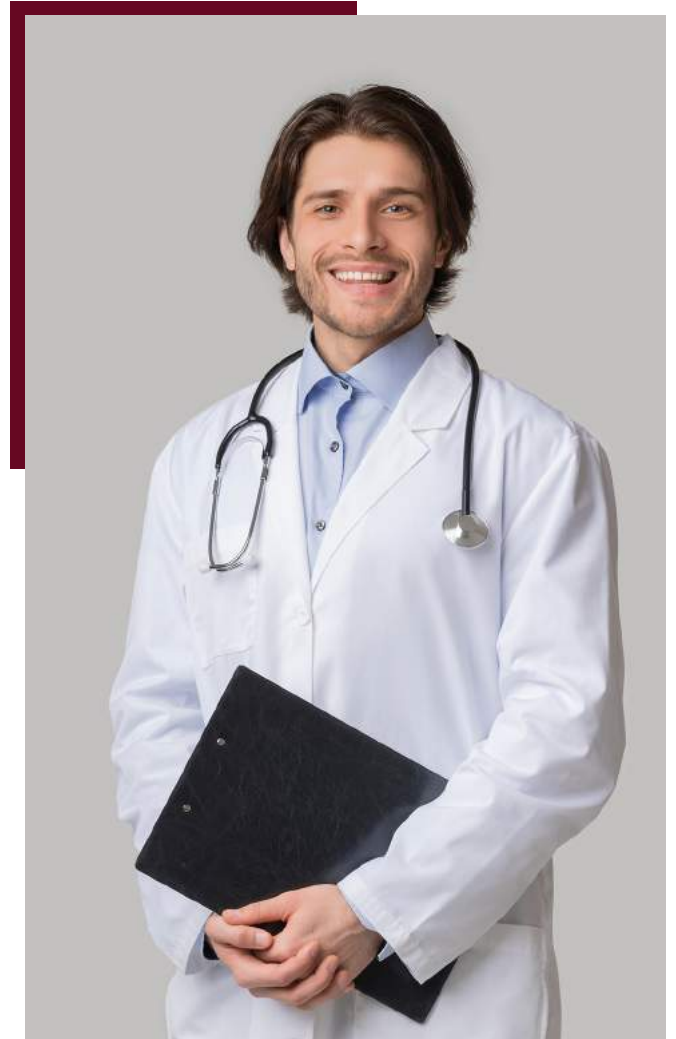
According to “The Complexities of Physician Supply and Demand: Projections From 2018 to 2033,” the most recent update from the Association of American Medical Colleges (AAMC), the U.S. will see a physician shortage of nearly 122,000 doctors by 2032 because a large cohort of physicians over age 65 are retiring (AAMC Physician Shortages). The US is also expected to face a shortage of primary care physicians ranging from 21,400 to 55,200 by 2033. Primary care physicians act as the ‘gatekeeper physicians’ of medicine. They assist a patient in maintaining health, and they can treat a large number of patient conditions, and can also determine when a condition is at a level that a referral to a specialist is necessary. A shortage of primary care physicians may lead to patients using emergency rooms in hospitals to meet their health

care needs, which may jeopardize patient safety and significantly increase costs for the entire health care system as unnecessary lab tests, imaging studies, and referrals may be ordered or repeated. These shortages are likely to be particularly acute in communities already suffering from inadequate access to medical services, such as low-income and rural areas, which are more likely to be served by minority doctors—who are currently underrepresented in the healthcare workforce.

Students from underrepresented minority and disadvantaged backgrounds represent an untapped pool of talent that can help fill these gaps, benefitting not only themselves but their communities and the nation as a whole.

According to the Association of American Medical Colleges, only 11 percent of medical physicians in the US come from minority and disadvantaged backgrounds, although they represent nearly 40 percent of racial and ethnic minorities in the U.S. population today (AAMC, 2022; U.S. Census Bureau, 2020). This underrepresentation not only creates an inequity for minorities in the medical professions but can lead to inadequate care for the entire population.

Recognizing this potential and seeking to address the related equity and shortage problems, the MPP Academy was designed to partner with medical schools, medical student organizations, and other stakeholders across the nation to increase the number of high achieving students from diverse backgrounds who are academically and mentally prepared with the social-emotional skills to: 1) complete medical school and 2) become licensed to practice medicine in a medical specialty that provides a sense of purpose and meaning to their lives. The ultimate goal is to address a well-documented disparity in the physician workforce by increasing the diversity among doctors who are underrepresented in the physician workforce from the current rate of 11% to 20% by 2035. The MPP Academy is committed to building a diverse pipeline of future medical students, as early as 4th grade, that is more representative of the U.S. population.



Evidence suggests that minority and disadvantaged students indeed are underrepresented among applicants to medical schools, and those who apply may be a select group. At present, underrepresented minority (URM) students account for about 20 percent of medical school applicants, respectively (AAMC, 2022). Of all applicants (62,386 total applicants) to medical school in the 2021–22 application cycle, 22.1% of underrepresented minority (URM) students were accepted (9% for Black students, 12% for Hispanic students, and roughly 1% for Native Americans and Pacific Asian, compared with 42.4 percent of non-Hispanic whites (AAMC, 2022). Thus, if the program achieves its short and

medium-term goals/expected outcomes, URM students will be more likely to apply and be admitted to medical school (eventually expanding the share of URM students to match their representation in the general population).

In addition to diversifying the physician workforce, MPP Academy hopes to improve health services to disadvantaged populations and underserved areas of the nation (such as urban and rural areas), as minority and disadvantaged students who become doctors will be more likely to return to and serve their communities (AAMC 2021). We also hope to contribute more broadly to the health and scientific workforce through MPP program participants who do not become physicians but instead pursue other health-related careers, such as nursing and research in the sciences, and work with underserved populations or issues affecting them.

To achieve these goals, the MPP program provides comprehensive training and on-going support to help students become better prepared to thrive in the pre-med gateway courses in college, become competitive applicants for medical school, and to keep students on the path to medical school.



MPP Mission and Goal 2035

MPP Academy Mission

The mission of the MPP Academy is to increase the number of high achieving students who are academically and mentally prepared with the social-emotional skills to: 1) complete medical school and 2) become licensed to practice medicine in a medical specialty that provides a sense of purpose and meaning to their lives. The MPP Academy was built to work in partnership with medical schools, student organizations and other stakeholders in the medical community to build a pipeline of future medical doctors, as early as the 4th grade, from diverse backgrounds to the physician workforce.

Our goal is to increase the percentage of U.S. doctors who are underrepresented in the physician workforce from the current rate of 11% to 20% by the year 2035. We are a DEI pipeline program committed to building a diverse pipeline of future medical students that is more representative of the U.S. population.

PROBLEM / NEED

By 2032, the U.S. will see a physician shortage of nearly 122,000 doctors.

- ✓ The U.S. will see a physician shortage of nearly 122,000 doctors because a large cohort of physicians over age 65 are retiring (AAMC Physician Shortages). According to the U.S. Census Bureau, the nation's population is estimated to grow by more than 10% by 2032, with those over age 65 increasing by 48%. Additionally, the aging population will affect physician supply, since one-third of all currently active doctors will be older than 65 by 2030.
- ✓ These shortages will be felt most acutely in underserved communities across the nation as demand for physicians continues to grow faster than supply and fewer medical students are choosing to pursue a medical career as a primary care physician and working in underserved communities.
- ✓ Other factors that contribute to the physician shortage include physician burning out before retirement, a lagging supply of medical school seats, and (at least in the US) a low supply of postgraduate training positions.

The U.S. physician workforce does not reflect the demographic characteristics of the American population. The United States is becoming more racially and ethnically diverse every day, but those changes are not reflected in the makeup of students, clinical faculty and leadership in medical schools.

- ✓ Most states do not train physicians who are demographically representative of the state population.
- ✓ Diversifying the physician workforce to reflect the U.S. population is key to providing high-quality, high-value, culturally effective care.
- ✓ Studies have shown that the concordance of race and/or language of the physician and the patient – leads to better patient outcomes. Patients who share their language or cultural background with their physicians are more likely to follow their advice and express higher levels of satisfaction.





Fast Facts

2019 Cohort

Acceptance Rate	Science GPA of Matriculants	Non-Science GPA of Matriculants	MCAT of Matriculants
42.6%	3.65	3.8	511.2

2020 Cohort

Acceptance Rate	Science GPA of Matriculants	Non-Science GPA of Matriculants	MCAT of Matriculants
40.9%	3.66	3.81	511.5

(AAMC, 2019; AAMC 2020; Zhang et al, 2020)

Lack of Academic Preparedness for Pre-Med University Coursework

- ✓ Zhang examined the pattern and predictors of attrition at various milestones of pre-med coursework during college. The study analyzed a sample of 15,442 undergraduate students, spanning 102 post-secondary institutions fulfilling the required coursework to become eligible to apply to medical school.
- ✓ Only 16.5% of undergraduate students completed the pre-med coursework necessary to apply to medical school.
- ✓ Additionally, the study showed drop-out rates are the highest during the first and second semester of the pre-med coursework. (Zhang et al, 2020)



DEFINITION: UNDERREPRESENTED IN MEDICINE (URM)

“Underrepresented in medicine means those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population (AAMC).”

- ✓ This lens currently includes students who identify as African Americans and/or Black, Hispanic/Latino, Native American (American Indians, Alaska Natives, and Native Hawaiians), Pacific Islander, and mainland Puerto Rican. The definition also refers to students who come from disadvantaged backgrounds.

Low number of early outreach medical physician preparation pipeline programs that are committed to recruiting and nurturing a diverse pipeline of future medical doctors, as early as 4th grade.

- ✓ Early outreach pipeline programs serve less than 1% of the American k-12 student population.

Lack of academic preparation, which resulted in low academic performance for URM students in the required pre-med college coursework to apply as a competitive applicant for admission to Medical School.

- ✓ To be considered a competitive applicant for medical school, URM students must achieve the following:
 - ✓ Earn at least a 3.6 BCPM GPA or higher in all pre-med courses (BCPM- Biology, Chemistry, Physics, and Math)
 - ✓ Earn at least a 3.7 overall GPA in all college classes taken to receive your bachelor's degree.

Lower than average test scores on the Medical College Admissions Test (MCAT).

- ✓ URM students must earn a score of 510 or higher on the MCAT to be considered a competitive applicant for medical school.

Financial barriers to Medical School.

- ✓ URM students lack the financial resources to pay for medical school application fees, private tutoring fees, MCAT exam and test preparation fees, cost to prepare for and travel to in-person medical school admission interviews, unpaid internships, and annual tuition cost for medical school.

Low representation of students underrepresented in medicine (URM) that apply to, enroll in, and graduate from medical schools that are accredited by the Liaison Committee on Medical Education (LCME), which is an accrediting body for medical education programs at schools of medicine in the United States and Canada.

- ✓ URM students only comprise about 20% of total medical student applicants and 9.7 – 12.4% of matriculants [1, 6].
- ✓ The LCME is sponsored by the Association of American Medical Colleges and the American Medical Association. LCME is recognized by the U.S. Department of Education and World Federation for Medical Education as the reliable authority for the accreditation of medical education programs leading to the MD degree.

Low representation of URM medical doctors, resident physicians, faculty, and leaders within medical schools, departments, and hospitals.

The Competitiveness of the Medical School Admissions Process

- ✓ The medical school application process is a notoriously selective process, and is becoming increasingly more competitive. In 2019, the medical school acceptance rate was 42.6%, decreasing to 40.9% in 2020. Therefore, nearly 60% of applicants applying to medical school each cycle are not accepted and do not matriculate to medical school.
- ✓ The average applicant's science GPA, non-science GPA and MCAT score continues to increase, signaling the importance of academic preparedness to become a competitive medical school applicant.



What are the Risks of Lacking Healthcare Diversity?

Just as healthcare diversity has its advantages, there are major risks that can be attributed to the lack of diversity.

Communication Breakdown

Be it the result of a language barrier, differences in philosophy, differences in cultural norms (& expectations), or even cultural bias, lack of diversity can lead to communication breakdown with patients. And when patients cannot fully communicate or express their needs, dangerous mistakes can occur.

Limited Perspectives

Lack of healthcare diversity can lead to limited perspective when providing patients with medical care, psychological treatment, and social support. It can stunt innovation and creative thinking, but more importantly, it could impede critical observations surrounding a patient's diagnosis, medical history, or other socio-economic factors that may affect their health and well-being.

Lack of Role Models

Mentorship plays a critical role in our medical system. Doctors, nurses, medical assistants, and administrative personnel will always need the support of a mentor to guide them in their respective professions. It's important for physicians and healthcare workers to have role models they can look up to and emulate throughout their careers. A lack of diversity can make it difficult for minority physicians and healthcare workers to find mentors with whom they identify and learn from. In turn, this can thwart their professional growth and their ability to provide the best patient care.

Lack of Future Diversity

Albeit an obvious consequence, it is an important one to the future success of any healthcare organization. The less diverse your medical staff is today, the harder it will be to foster it within your team tomorrow.

Bias

Bias does not always have to be explicitly expressed within a healthcare setting for it to become a problem. Bias can still impact decisions made for patients when it is embedded in the policies and procedures of a healthcare organization. This is referred to as implicit bias within a system. Greater diversity can stymie the destructive effects of implicit bias in patient care.



Improving the Diversity of the Physician Workforce

“If we want to improve the diversity of the physician workforce that reflects the demographic characteristics of the U.S. population, we need more diverse medical schools and graduates. And if we want more diverse medical schools and graduates, we need to increase the diversity of the medical school applicant pool by reaching out to a diverse group of elementary and secondary students in all communities across the country.

We then need to work to build their aspirations and interest in pursuing a career in medicine by connecting these students to early outreach pipeline programs such as the MPP Academy (MPP). Building a diverse pipeline of future medical physicians, as early as 4th grade, will help diversify the physician workforce that is more representative of the U.S. population.



Diversity pipeline programs such as MPP Academy provide rigorous academic instruction, clinical experiences, and mentorship to help aspiring medical doctors become a competitive medical school applicant, with the mindset, tools, and resources needed to succeed in medical school and beyond. MPP gives students an inside look at what it would be like to go to medical school and to become a medical doctor. MPP also provides exposure to the medical school application process and helps students understand how they can successfully navigate the admissions process and secure the financial resources needed to pay for medical school.”

WHY IS THIS IMPORTANT?

Better Care for Diverse Populations

“A healthcare team should be as diverse, if not more diverse, than the patient base they are treating. This helps ensure that no matter who walks through the door, there is someone on staff who can identify with the patient, communicate with them, and better serve their individual needs.”



Remarks by Dr. Aaron Smith,
Executive Director of MPP Academy

Ultimate Goals

- ✓ To diversify the medical profession and/or address health disparities by building a pipeline of future medical doctors, as early as 4th grade, that is more representative of the U.S. population.
- ✓ Increase the number of high achieving students who are academically and mentally prepared with the social-emotional skills to: 1) complete medical school and earn a doctorate degree in Medicine and 2) become licensed to practice medicine in a medical specialty that provides a sense of purpose and meaning to their lives.

To meet these ultimate goals, MPP established Short and Medium Term Goals.

- ✓ Deliver a comprehensive “pre, pre-med” curriculum for “college readiness” & “pre-med undergraduate coursework readiness”. The primary focus will be on providing students with the academic preparation to succeed in the “pre-med gateway courses” that students will be required to take in college in order to apply to medical school.
 - View our curriculum: [Curriculum](#)
- ✓ Expose students to a variety of career paths in the field of medicine and healthcare that they would not be exposed to on their own. The focus is to get students excited about the opportunity to pursue a career as a medical physician.
- ✓ Prepare students to present strong academic credentials to medical school admissions committees and provide in-person and virtual workshops and seminars focusing on premedical academic preparation, social-emotional skills, and navigating the medical school admissions and financial aid application process.
- ✓ Provide students with the “social-emotional skills, mental toughness, and resiliency training” to help them maintain their motivation and break through any barrier that they may face on their path to success.
 - Instilling in them a belief in their ability to succeed in medical school and teaching them to seek out additional support when needed in their academic community.
- ✓ Exposing students to role models and “inspirational” individuals who have overcome great odds or broken through academic and non-academic barriers to succeed in their medical careers. To that end, we seek to enhance students’ sense of self-efficacy and confidence—the belief that they too can succeed.

- ✓ Improve student academic performance in Math & Science, and address students who are not meeting grade-level state standards. State Standards-aligned with benchmarks will be established and implemented. A comprehensive Response to Intervention (RtI) program will be initiated and subgroups will be addressed.

These short and medium term goals above align with the logic behind the program, which focuses on providing academic preparation, social-emotional skills, and career exposure as the mechanisms needed to:

1. Thrive in the required pre-med gateway courses that they will take in college
2. Enhance the competitiveness of participants when they apply to medical school.

The intent of the program is to help students determine if a career in medicine aligns with their core values and interests or realize that the field of medicine is not a good fit for them. Either way, students will have gained valuable career exploration, planning and decision making skills to help them find a career path that provides a sense of purpose and meaning to their lives. Additionally, students will have gained social-emotional skills, experienced life on a college campus, and met high achieving students from around the U.S. and the world who may become lifelong friends.

INPUTS

- ✓ NAPCA Foundation funding and guidance
- ✓ Institutional resources and support from participating program sites
- ✓ Individual Donors
- ✓ Corporate Sponsors
- ✓ National Program Office (NPO)
- ✓ MPP Academy Staff
- ✓ Faculty
- ✓ Partnership with Local Hospitals and Clinics
- ✓ Student Participants
- ✓ University Facilities/Program Sites
- ✓ In-kind services and contributions for various supporters
- ✓ MPP Mission
- ✓ Goal 2035



YEAR-ROUND ACTIVITIES

Activity	Details
<p>"Pre" Pre-Med Academic Year Program (Hybrid: Online/On-Campus)</p>	<p>During the school year, students attend live online classes face-to-face via Zoom, for 2-3 hours per week, typically on the weekend, for 35 weeks.</p> <p>In addition, students meet in-person on a university campus, every other month on Saturdays. Students will not meet during holidays.</p>
<p>"Pre" Pre-Med 1, 2, or 3 Week Summer Residential Program at a Top University (On-Campus Fully Online via Zoom)</p>	<p>During the high school years, students participate in a 1, 2, or 3 week online and on-campus, summer intensive at a top university.</p> <p>Students live in the dorms on a university campus, spend 8-10 hours a day learning and experiencing collegiate life.</p> <p>Participants take pre-med foundational courses and a variety of college and career readiness workshops.</p> <p>The hybrid learning experience of this program allows you to choose between attending summer intensive class sessions in-person or online.</p> <p>Enrollment Options: Students enroll in the 1, 2, or 3 week summer intensive as a:</p> <ul style="list-style-type: none"> ✓ Commuter student (Drop Off: 7:45am, Pick Up: 5:00pm) ✓ Commuter extended student (Drop Off: 7:45am, Pick Up: 8:00pm) ✓ Residential student (Live on campus)
<p>'So You Want to be a Medical Doctor?' Virtual Student Conference (Online via Zoom)</p>	<p>The 'So You Want to be a Medical Doctor?' Virtual Student Conference is a free, international early outreach medical physician pipeline program offered to schools throughout the year via Zoom.</p> <p>MPP Academy students will attend exclusive student conference dates in the Fall, Spring and Summer. Participation in the student conference provides students with the opportunity to network with other students across the United States and globally.</p> <p>The program is facilitated by medical school students, practicing medical physicians and scientists, and medical school faculty and leaders.</p>

	<p>The conference is comprised of three activities:</p> <ul style="list-style-type: none"> ✓ Clinical Simulation Experience ✓ Pre-College Human Anatomy & Physiology Seminar ✓ Medical School Panel Discussion, Q&A Session: Preparing for Pre-Medical University Coursework & Medical School
<p>Pre-Med Clinical Simulation Activities</p>	<p>Physician-led clinical simulation activities range from the basics of interacting with patients, checking vitals, providing wound care, making incisions, administering injections, to suturing.</p>
<p>1 Week International Medicine & Healthcare Study Abroad Trip</p>	<p>Students in the high school and undergraduate program will travel abroad for one summer during an international study abroad immersive experience.</p>
<p>Year-Round Academic Preparation for Pre-Med Coursework</p>	<p>Extensive academic instruction in pre-medical college coursework including math, science, and academic writing.</p> <p>Pre-medical preparation will increase completion in pre-med math and science gateway college courses with grades that allow students to be more competitive for admission to medical school.</p> <p>Students will meet with their cohort, program faculty, and staff weekly, for about 2-4 hours throughout the academic year.</p>
<p>College and Medical School Admissions Advising</p>	<p>Students receive college and medical school admissions advising to help students navigate the college admissions and medical school application process.</p>

<p>Career Exploration & Planning Guidebook: Navigating the Path to Medical School</p>	<p>Students receive a comprehensive textbook (written exclusively for MPP Academy participants) that empowers them with the tools and resources to navigate the career exploration and planning process.</p> <p>Additionally, students will develop a personal strategic action plan (pre-med roadmap to medical school) as part of their capstone project.</p>
<p>Academic Skills Development & Writing for College and Career Success</p>	<p>Students will develop a more strategic approach to reading, college-level writing, note-taking, and researching topics for an academic paper in a quicker, more effective, way.</p>
<p>College and Medical School Affordability Advising</p>	<p>Students receive college and medical school affordability instruction and financial aid advising.</p>
<p>Social-Emotional Skills & Resiliency Training for College and Career Readiness</p>	<p>Social-Emotional Seminars help students learn how to break through their barriers (including the fear of failure and fear of the unknown) and develop the resilience needed to achieve their future career goal of becoming a medical physician.</p>
<p>Mentoring and Career Coaching for Personal & Professional Development</p>	<p>Students are paired with a Mentor/Career Coach that provides mentorship and personalized support for professional and personal development into the field of medicine.</p>
<p>Community Service & Cultural Activities</p>	<p>MPP students develop a service-oriented mindset, engaging in community service learning projects and will experience cultures domestically, as well as internationally.</p>

<p>Peer to Peer Mentoring</p>	<p>Students are surrounded by like-minded peers and encouraged to support each other and share knowledge, tools, and resources. Additionally, the MPP Academy creates a culture of empowerment through the mentorship of professionals and medical specialists that supports students on their journey to becoming a future doctor.</p>
<p>MCAT Test Prep</p>	<p>Students will receive test preparation for the Medical College Admissions Test, commonly used in the Medical School Admissions holistic review admissions process.</p>
<p>Medical School and Clinic Tours:</p>	<p>As part of the career exploration process, students participate in medical school tours and visits to local hospitals and clinics to observe the activities of physicians and residents in a variety of specialties.</p>
<p>College Readiness</p>	<p>Students gain the knowledge, hands-on experience, and resources to successfully navigate through the competitive and complex college admissions, financial aid, and matriculation process with greater confidence, and reduced stress and anxiety.</p>
<p>College Tours</p>	<p>Students learn about academic and residential life and meet with University admissions officers to learn about admission requirements and the college application process.</p> <p>Students also meet with current college students who will share age-appropriate college life experiences and provide recommendations on how to start preparing for college as a college-bound student.</p>
<p>Earn Healthcare Industry Certifications:</p>	<p>Students earn First Aid and CPR Certification, AED & BLS Certification, and HIPAA Compliance Training & Certification.</p>
<p>Capstone PSAP Project with Support in Thematic Groups</p>	<p>Small groups of students work collaboratively to complete their own “Individual Personal Strategic Action Plan (PSAP)” to identify their core personal values, conduct a career field analysis, choose and explore their career of interest and specialty, and develop a roadmap to reach their career goal.</p>

<p>Academic Enrichment Courses</p>	<p>Supplemental academic instruction courses in writing and grammar, mathematics, science, and public speaking will be provided to help students meet and/or exceed common core state standards in mathematics, science, and english language arts.</p> <p>Strengthen Math & Science Skills</p> <p>Students strengthen their confidence and foundational math and science skills to improve their overall performance in school for the next grade level.</p> <p>Increase Writing Skills</p> <p>Students improve their vocabulary, reading comprehension skills, and receive targeted instruction in sentence writing, paragraph writing, grammar and mechanics, and introductory essay writing.</p> <p>Improve Public Speaking Skills</p> <p>Students learn how to become an effective public speaker! Students discover how to speak confidently and persuasively to both large audiences and small groups. Students learn how to plan and deliver presentations skillfully and how to manage their fear of public speaking.</p>
<p>Academic Tutoring</p>	<p>Students receive academic tutoring to help improve their confidence and academic performance.</p> <p>Tutoring focuses on two key areas to help you master grade level common core state standards in mathematics, science, and english language arts.</p> <ul style="list-style-type: none"> ✓ First, we will administer a needs assessment aligned with your current grade level common core state standards in mathematics, science, and english language arts to identify your learning gap. ✓ Then, we will work with each student to close the gap based on the assessment.

SHORT TERM OUTCOMES

The short-term outcomes reflect the knowledge, skills, and attitudes we expect students to acquire after they graduate from our high school program.

PRE-MED ACADEMIC READINESS

IMPROVED ACADEMIC PREPARATION TO THRIVE IN PRE-MED COLLEGE COURSEWORK

Are scholars learning PRE-MED content knowledge that is necessary to succeed in college level pre-medical coursework which is also required for admission to medical school?

Pre-Med Foundation Knowledge

- ✓ % of scholars demonstrated significant growth in the PRE-MED Academic Readiness assessment.

College Readiness in Science

- ✓ % of scholars demonstrated an increase in Biology assessment scores over the course of the program.
- ✓ % of scholars demonstrated an increase in Chemistry assessment scores over the course of the program.
- ✓ % of scholars demonstrated an increase in Physics assessment scores over the course of the program.
- ✓ % of scholars demonstrated a statistically significant increase in Pre-Med Science Readiness Assessment (covers Biology, Chemistry, and Physics) scores from pre- to post-MPP.



College Readiness in Mathematics

- ✓ % of scholars demonstrated a statistically significant increase in the Pre-Med Mathematics Readiness Assessment (covers Biology, Chemistry, and Physics) scores from pre- to post-MPP.
- ✓ % of scholars demonstrated an increase in Pre-Algebra assessment scores over the course of the program.
- ✓ % of scholars demonstrated a statistically significant increase in Algebra 1 assessment scores from pre- to post-MPP.
- ✓ % of scholars demonstrated an increase in Algebra II assessment scores over the course of the program.
- ✓ % of scholars demonstrated a statistically significant increase in Calculus assessment scores from pre- to post-MPP.

College Writing Readiness

- ✓ % of scholars demonstrated a statistically significant increase in the College Writing Readiness Assessment scores from pre- to post-MPP.

PRE-MED ATTITUDES & ASPIRATIONS

INCREASED ASPIRATIONS TO ENTER AND COMPLETE AN UNDERGRADUATE PRE-MEDICINE PROGRAM.

Does scholar engagement in PRE-MED readiness courses increase their interest in pursuing PRE-MED in college?

- ✓ % of scholars plan or committed to declare an academic major in a STEM field in college.
- ✓ % of scholars plan or committed to enroll and complete a pre-medicine program at a four-year university that provides them with all the required pre-med courses needed to apply for medical school.

INCREASED ASPIRATIONS TO PURSUE A CAREER IN MEDICINE & HEALTHCARE.

Does scholar engagement in PRE-MED courses increase their interest in pursuing a career in medicine.

- ✓ % of scholars committed to pursue a career path in medicine and healthcare.

INCREASED ASPIRATIONS TO ENTER MEDICAL SCHOOL.

- ✓ % of scholars plan to apply to medical school to pursue a career in medicine.

ACCESS TO ROLE MODELS, NEW FRIENDSHIPS, AND A PEER NETWORK OF SUPPORT & ENCOURAGEMENT

INCREASED SOCIAL CAPITAL AND NETWORKS

Are scholars developing supportive peer and adult networks to guide and support their path to becoming a medical doctor?



- ✓ % of scholars indicated that they have established professional relationships with medical physicians and other healthcare professionals who have impacted their future college and career goals. STO, MTO
- ✓ % of scholars reported feeling part of a community of students who are interested in pursuing a career in medicine and healthcare. STO, MTO
- ✓ % of scholars reported that the new friendships they gained from attending the program provided a peer network of support and encouragement. STO, MTO

INCREASED POSITIVE IDENTITY TO PURSUE A MEDICAL CAREER

Do scholars feel like they belong in and can succeed in the field of medicine as a medical doctor?

- ✓ % of scholars reported that they believe in themselves to achieve the goal of becoming a medical doctor.

COLLEGE READINESS

IMPROVED PREPARATION FOR APPLYING A FOUR-YEAR COLLEGE/UNIVERSITY

College Admissions Knowledge

- ✓ % of scholars have the knowledge to apply to college as demonstrated by the college admissions knowledge assessment.

College Entrance Exam Completion

- ✓ % of scholars reported that they feel prepared to perform well on college entrance exams.
- ✓ % of scholars have registered and taken the SAT or ACT college entrance exams at substantially higher rates in comparison with non-participating peers.

Financial Aid Knowledge

- ✓ % of scholars have completed the Free Application for Federal Student Aid (FAFSA) at substantially higher rates in comparison with non-participating peers.
- ✓ % of scholars have the knowledge to apply for financial aid as demonstrated by the financial aid knowledge assessment.
- ✓ % of scholars have knowledge about student loans and how to apply for them as demonstrated by the financial aid knowledge assessment.
- ✓ % of scholars became more confident in their ability to obtain financial aid to finance their college education (__% to 100%).



UC/CSU A-G Subject Knowledge

- ✓ % of scholars completed the UC/CSU A-G college preparatory coursework required for admission to a 4 year college or university with a grade of B or better.
 - ✓ In comparison, 34% of all California high school graduates complete “a-g” coursework with a grade of C or better.

College Matriculation

- ✓ % of scholars enrolled in a four year college or university.

MEDIUM TERM OUTCOMES

Increase the number of qualified URM and disadvantaged students who submitted an application for admission to medical school.

MEDICAL SCHOOL READINESS:

IMPROVED PREPARATION FOR APPLYING TO MEDICAL SCHOOL

Medical School Admissions Knowledge

- ✓ % of scholars have the knowledge to apply to medical school as demonstrated by the medical school admissions knowledge assessment.

Medical College Admission Test (MCAT) Preparation

- ✓ % of scholars reported that they feel prepared to perform well on the Medical College Admission Test (MCAT).
- ✓ % of scholars have registered and taken the Medical College Admission Test (MCAT) at substantially higher rates in comparison with non-participating peers.

Financial Aid Knowledge for Medical School

- ✓ % of scholars have completed the Free Application for Federal Student Aid (FAFSA) at substantially higher rates in comparison with non-participating peers.
- ✓ % of scholars have the knowledge to apply for financial aid as demonstrated by the financial aid knowledge assessment.
- ✓ % of scholars have knowledge about student loans and how to apply for them as demonstrated by the financial aid knowledge assessment.
- ✓ % of scholars became more confident in their ability to obtain financial aid to finance their college education (___% to 100%).

Pre-Med Coursework Completion

- ✓ % of scholars completed pre-med coursework with at least a 3.5 BCPM GPA or higher in all Biology, Chemistry, Physics, and Math (BCPM) courses at a four year university.

Bachelor's Degree Completion

- ✓ % of scholars completed a bachelor's degree in a Pre-Med or STEM related field.



ACCESS TO ROLE MODELS, NEW FRIENDSHIPS, AND A PEER NETWORK OF SUPPORT & ENCOURAGEMENT

INCREASED SOCIAL CAPITAL AND NETWORKS

Are scholars developing supportive peer and adult networks to guide and support their path to becoming a medical doctor?

- ✓ % of scholars indicated that they have established professional relationships with medical physicians and other healthcare professionals who have impacted their future college and career goals. STO, MTO
- ✓ % of scholars reported feeling part of a community of students who are interested in pursuing a career in medicine and healthcare. STO, MTO
- ✓ % of scholars reported that the new friendships they gained from attending the program provided a peer network of support and encouragement. STO, MTO



INCREASED POSITIVE IDENTITY TO PURSUE A MEDICAL CAREER

Do scholars feel like they belong in and can succeed in the field of medicine as a medical doctor?

- ✓ % of scholars reported that they believe in themselves to achieve the goal of becoming a medical doctor.

MEDICAL SCHOOL CULTURE & ATTITUDES

Enhance institutional capacity to attract URMs and disadvantaged students to their medical schools.

Change institutional culture and attitudes regarding URMs and disadvantaged students' potential to succeed.

Revise policies and procedures to encourage diversity in medical school applicants and enrolled students.

- ✓ Encourage medical schools to use the MCAT as one part—an important part—of an admissions strategy, but don't allow it to be the gatekeeper.

LONG TERM OUTCOMES

STUDENTS

- ✓ Increase the number of URMs and disadvantaged students who enter and graduate from medical school and obtain employment as a practicing physician, preferably as a primary care physician serving minority and disadvantaged populations.
- ✓ Among those who do not continue on to medical school to pursue a career as a medical physician, we are working to **increase the number of students who join the medicine, health care or scientific workforces (through nursing, science, medical research, or other healthcare professions).**



U.S. POPULATION

- ✓ Improved the representation of minority and disadvantaged backgrounds in the physician workforce to match their representation in the general population.
- ✓ Improved the health care received by minority and disadvantaged populations by increasing the number of professionals from these communities that are trained in health-related fields and return to serve them

MEDICAL SCHOOL & HEALTHCARE INSTITUTIONS

- ✓ Increased the number of URM faculty and leadership at medical schools to reflect the diversity of the U.S. population.

MEDICAL PHYSICIAN WORKFORCE: GOAL 2035

- ✓ Increased the diversity among doctors who are underrepresented in the physician workforce from the current rate of 11% to 20% by 2035.
 - ✓ **Between 2023 and 2035**, we are working to increase the percentage rate of underrepresented physicians by 2.25% every 3-4 years over the next 13 years to reach “goal 2035”.



Logic Model

An Early Outreach Pre-Med & Medical
School Readiness Program