



Longitudinal Development of a Premedical Pipeline Program

Leah Warren, Mikaela Grudzien, Jessica DeClercq, Shehroz Malik, Rubab Imtiaz, Patricia Wilkerson-Uddyback, MD

Wayne State University School of Medicine, Detroit, Mi, USA

INTRODUCTION

Background: The historical lack of underrepresented minorities in medicine can be attributed to the presence of socioeconomic barriers that cyclically perpetuate the production of less diverse physicians. Current efforts to improve diversity in medicine are inadequate. However, pipeline programs offer an avenue to support and educate a more diversified population of physicians. The Medical Mentors Pipeline program, which originated at WSU SOM and DMC in 2013, was established to help address this by providing early exposure to premedical resources, mentors, and clinical learning experiences.

Objective: To examine the impact of a medical pipeline program established to provide academic support, clinical experiences, and mentorship for aspiring physicians currently underrepresented in medicine.

METHODS

Targeted students: URM High School upperclassmen and Undergraduate underclassmen in the metro-Detroit area. Eligible students applied to the program by submitting a 500-word essay and two letters of recommendation.

Program Structure: The program is 6 weeks in duration, spanning from the end of June to early August. Students attended clinical rotations and academic didactic sessions Monday to Thursday for eight hours daily. Offered clinical observations/rotations included: Obstetrics/Gynecology, Critical Care Medicine, Emergency Medicine, Pediatric Emergency Medicine, Cardiothoracic Surgery, Anesthesiology, Pathology, Neonatal Intensive Care, Internal Medicine, General Surgery, Bariatric Surgery, Neurology, Pediatrics, and Vascular Surgery. Students also engaged in professional development activities.

ACKNOWLEDGEMENTS

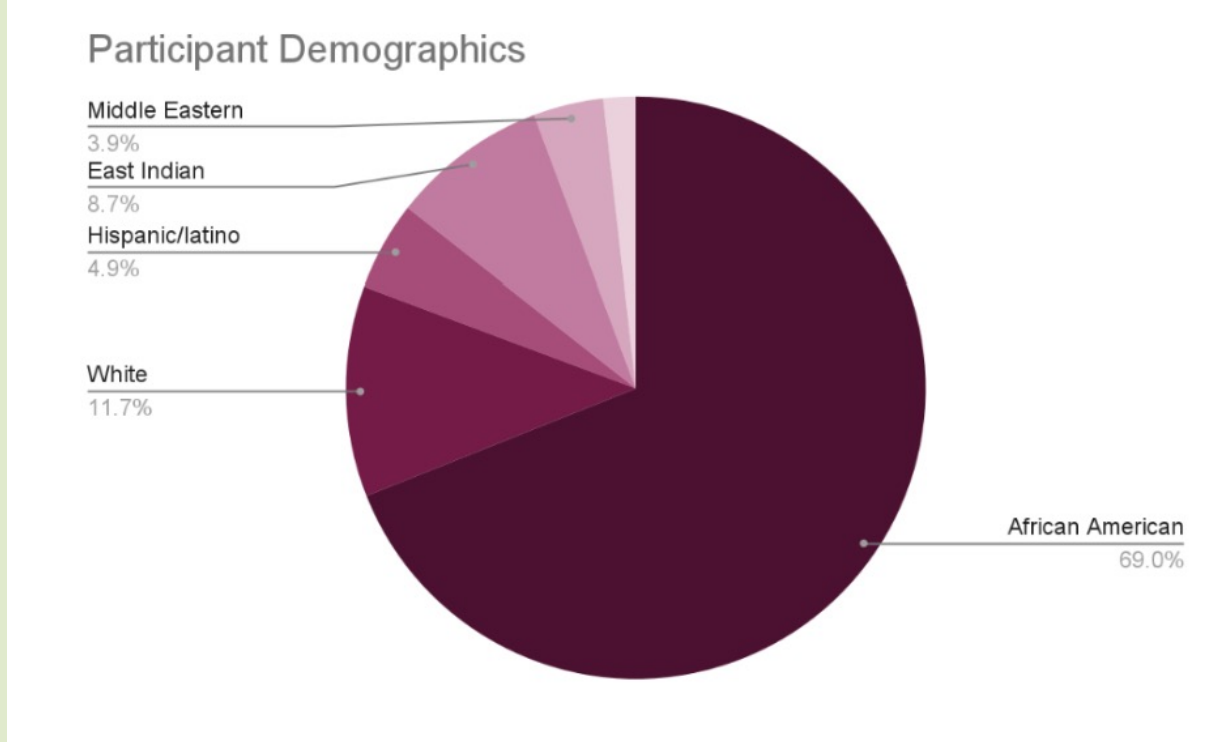
The Wayne State University School of Medicine Pipeline Program would like to thank Dr. M. Chadi Alraeis and Dr. Latonya Riddle-Jones for their mentorship and assistance with this project.

FIGURES



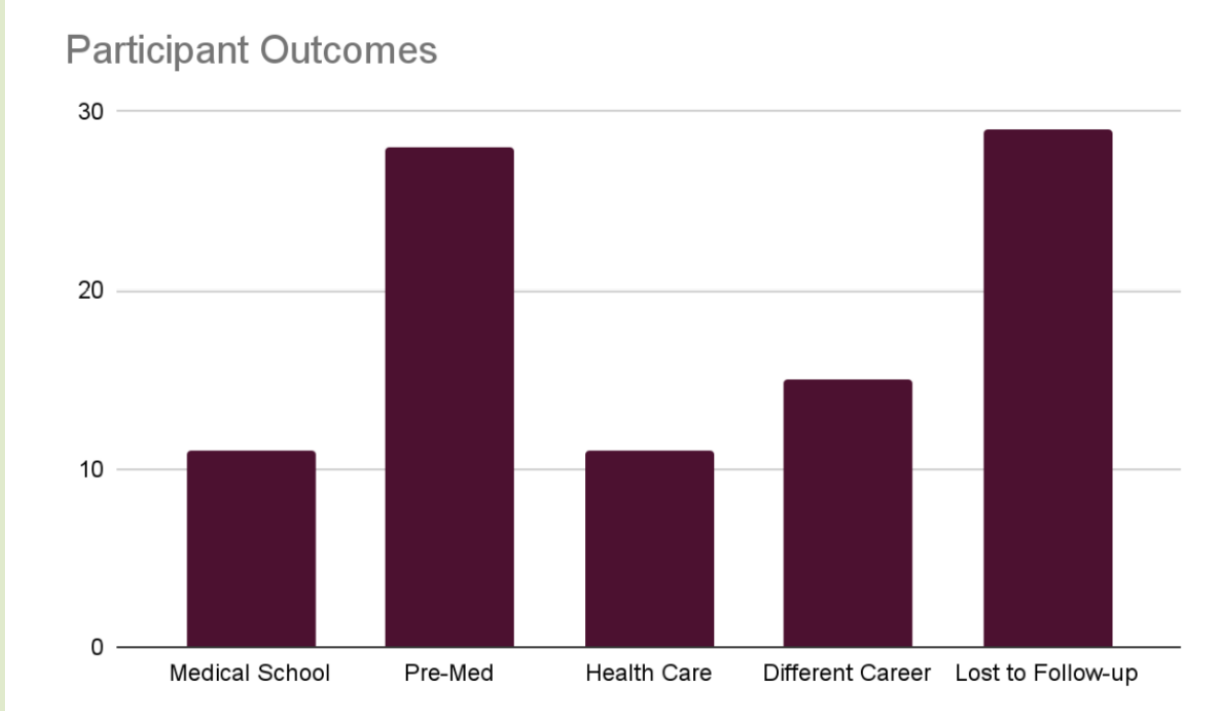
• Image 1: Cohort of Students Participating in the Program

Figure 1:



• Figure 1. Participant Demographics

Figure 2:



• Figure 2. Participant Outcomes

RESULTS

- 103 students participated in the program (14.4 per year).
- 34% identified as male and 66% female
- 68.9% of students identified as African American, 11.7% White, 4.9% Hispanic, 8.7% East Indian, and 3.9% Middle Eastern.
- 41.4% of the student participants went to medical school or are still in a pre-med pathway. 11.7% are pursuing another biomedical career. 15.9% of the participants chose a non-biomedical path and 31% have been lost to follow-up.

DISCUSSION

When the United States accounts for shifting demographics, there was no significant increase in URM representation among medical school students from 2002-2017. There is a great need for increased support and mentorship for those from underrepresented backgrounds. The Medical Mentors Pipeline program aims to bridge this gap. The findings suggest that this 6-week pipeline program helped expose premedical students to information and experiences crucial for a successful medical school application. Students completed exit surveys, in which they rated the impact of the didactic sessions. According to the survey results, students indicated that these sessions addressed vital professional skills like public speaking, resume and essay writing, and PowerPoint skills. Students also completed capstone projects on social determinants of health, which is a necessary component of the medical school curriculum.

CONCLUSIONS

The results demonstrate a need for more programs designed to support URM students pursuing medicine. Young people, especially those from disadvantaged backgrounds, greatly benefit from mentorship and these experiences when applying to medical school. Early exposure to clinical settings, mentorship, and professional development cultivate a cohort of future physicians representative of the community in which they provide care.

FUTURE WORK

Due to the high percentage of non-respondents, one goal of future research is to increase communication with past participants and streamline the data collection process.