



MYHealth: Diversifying The Future Research Workforce

Hasan Khan, Sam Chuisano MPH¹, Melissa DeJonckheere, PhD¹



¹Department of Family Medicine, University of Michigan, Ann Arbor, United States

Background

- In the US, there is a clear need to increase the interest of Science, Technology, Engineering, and Mathematics (STEM) related topics in students who are not openly presented with such opportunities.
- Michigan Youth Health (MYHealth) aims to address this issue by developing high school students' abilities in research by having them partake in a mentor-based research project.
- Through this project, we hope to form a solid foundation for students in research and to increase the likelihood of them majoring in a STEM-related field in the future.

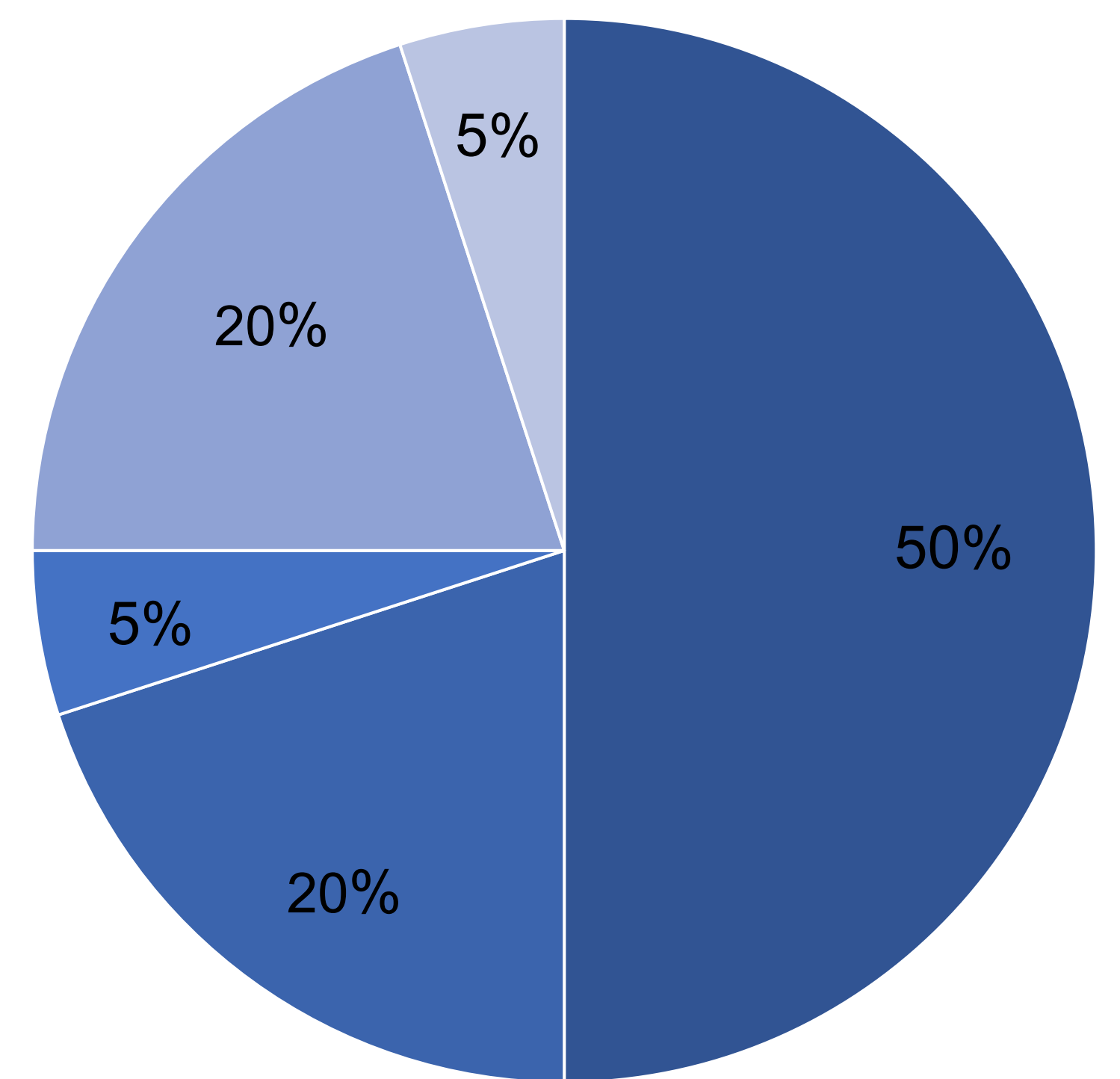
Methods

Around 20 students were recruited from various high schools in Southeast Michigan. Students were tasked with:

- Finding a topic that interested them
 - Producing a research question
 - Drafting a 5-question survey aimed for other youth about their topic
 - Developing a codebook to categorize the responses
 - Reviewing the responses and coding them
- Additionally, surveys were assigned to gauge how youth's self-image changed as a researcher. The following variables were tested:
- **Self-Efficacy:** Students' confidence to do well in a science course
 - **Intrinsic Motivation:** Students' inherent satisfaction in learning science for its own sake
 - **Self-Determination:** The control the students have over their learning of science

Results

Student Demographics



■ Arab American ■ African American ■ Middle Eastern ■ South Asian ■ Caucasian

Table 1: Pre-Impact Projects Program Sociodemographic and Background Statistics. This pie chart indicates that a majority of students who participated in the surveys identified as Arab American with few students identifying as Caucasian.

Pre- and mid- Impact Projects Summary Statistics

Variable	Pre-program (N = 20)	Mid-program (N = 16)
Researcher Identity	3.37	3.61
Self-Efficacy	4.10	4.16
Intrinsic Motivation	4.01	3.87
Self Determination	3.92	4.00
Career Motivation	4.32	4.45

Table 2: Pre- and mid- Impact Projects Summary Statistics on Research and Science Indicators. Questions were scored based on a Likert scale from 1 (no skills to conduct task at all) to 5 (skills to conduct task are present). The numbers on the table are the mean scores of all the participants.

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Conclusions

- Although there is some data indicating that the projects the youth are assigned to are seemingly increasing their interest in STEM, it is important to note that this program has not concluded yet.
- However, there is no denying that the youth who are participating in this research are slowly becoming more familiar with the fields of STEM and building confidence in their research skills.

Implications

- This type of research is very important for the future field of STEM because it diversifies the next generation of scientists.
- There are valuable perspectives that are eluding the topics of science today.
- Diversifying the future generations of researchers could provide a plethora of new theories that ultimately lead to even more advancements in humanity's never-ending quest for knowledge.

References

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