



University of Michigan
Medical School

Doctors of Tomorrow: a medical-student led pipeline program to increase underrepresented minorities in medicine

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BACKGROUND

- Minorities are markedly underrepresented in healthcare.
- African Americans constitute 13% of the population but only 4% of physicians, a proportion largely unchanged in the last 30 years¹.
- The pool of minority students is often limited early on by educational inequalities in primary and secondary school.
- A growing body of research advances the need for collaborations between health professional and K-12 schools in order to increase provider diversity².

INTRODUCTION

Established in 2012, Doctors of Tomorrow (DOT) is a longitudinal partnership between the University of Michigan Medical School and Cass Technical High School in Detroit that recruits and supports underrepresented minority students interested in medicine.

Programming includes:

- Hands-on experiential learning through monthly experiences at UMHS.
- Individual mentorship with medical students.
- Capstone project analyzing a health issue in Detroit.
- Summer internships with Detroit health and community organizations.

Cass Tech was selected because:

- The racial diversity of the student body is representative of Detroit Public Schools.
- Strong school leadership was able to support a partnering program.
- There were limited existing opportunities to explore medicine at Cass Tech.

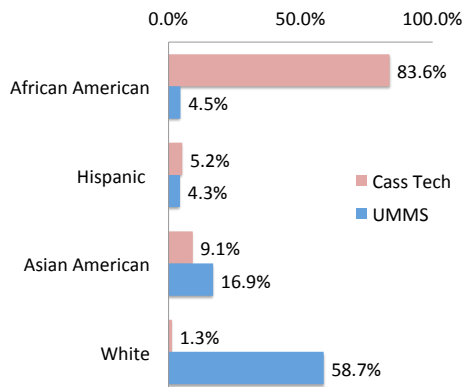


Figure 1. Comparison between racial distribution of Cass Tech student body and University of Michigan medical students.

STUDY DESIGN & RESULTS

Series of
Focus Groups



Critical
Incident Essay



Individual
Interview

Focus groups :

- 4-6 students in each group.
- Students discussed identity, educational motivators, and experience in DOT.

Essays:

- Students were asked to identify and write about a *critical incident* that has been transformative for how they approach their education.

Interviews:

- Integrating themes from their essay and a priori themes of adolescent learning, students were individually interviewed to better characterize the impact of DOT on their pursuit for higher education and medicine.

Characteristic	No. (%)
Race	
Asian	4 (13%)
Black or African or American	26 (87%)
White	0 (0%)
Ethnicity	
Hispanic	4 (13%)
Non-Hispanic	26 (87%)
Mother's Highest Level of Education	
High School Diploma or Less	7 (23%)
Bachelor's Degree or Higher	15 (50%)
Father's Highest Level of Education	
High School Diploma or Less	8 (27%)
Bachelor's Degree or Higher	11 (37%)

Table 1. Demographic characteristics of 30 DOT students who participated in study (71% of total DOT 2012-14 participants).

RECURRENT DATA THEMES

Students identified race, finances, and parents' level of education as both potential barriers to success and motivators to their educational pursuits.

- "When people see me, a tall, black guy, they think, 'Oh, he's probably good at basketball.' I'm really not. They immediately go to stereotypes and they're not good. So I have to prove myself to them. I have to work 10 times as hard as most people just to get in the same position as them.
- "Now that we actually have an opportunity, we should take it. I really want to go to college and prove that I can do it."

Relationships with faculty through DOT have helped close the gap in access to a professional support network that many students felt was lacking.

- "We've been connected with a bunch of professionals in the field of medicine and they like us and when we get up there if we need anything we can probably get in touch with these people."
- "I never really had anybody sit down and talk to me about when you get to college it's going to be hard, this is what's going to happen. I've had to figure all that out on my own."

Exposure to hands-on activities at the medical school has fostered students' confidence about their ability to pursue higher education and medicine.

- "There was a feeling of awe and content when I put on the white coat. It was starting from that moment where I seriously considered a career in the medical field."
- "But I can also say that thanks to this program I have a foundation in which to build upon so I can be ready to be called Dr. Gregory as soon as possible."

Medical student mentors signaled to students that others outside their community were invested in their success and offered a near-peer guide with whom they found shared identities.

- "It really came as a surprise to me that my mentor could be studying a huge medical book but instead he wanted to learn about a kid from Detroit."
- "What influences the student most is to actually talk to people who have faced their struggles of high school and are now taking on the real challenge of medical school."

DISCUSSION

- DOT provided students with transformative experiences that fostered their desire and confidence to pursue higher education.
- Many underrepresented minority students felt empowered to overcome factors they previously identified as barriers to success.
- Relationships with faculty and medical student mentors are critical to building confidence and closing a gap in a professional support network.
- Students greatly benefited from the structured first-year curriculum, but lack of structure in the following years may weaken the potential for long-term impact.

NEXT STEPS

- Expand programming for 10-12th grade that aligns with specific needs for each year to maintain longitudinal engagement of students.
- Disseminate our program model to support underrepresented minority students interested in other health professional schools.
- Assess DOT as an approach to developing cultural competency and communication skills in medical students.

REFERENCES

- Association of American Medical Colleges. Diversity in the Physician Workforce: Facts & Figures. 2014. <http://aamcdiversityfactsandfigures.org/section-ii-current-status-of-us-physician-workforce/>. Accessed March 3, 2015.
- Sullivan, Louis W (2004) Missing Persons: Minorities in the Health Professions, A Report of the Sullivan Commission on Diversity in the Healthcare Workforce.