Primming the Pipeline: Lessons Learned from the Tour for Diversity in Medicine

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Overview

- Background
- The Tour
- The Research
- Lessons Learned
- Conclusions
- Future Directions
An Obvious Need

“Unless the current trend is reversed, our country will see a growing ethnic and racial disconnect between those who receive care and those who provide that care”

---Former U.S. Surgeon General Region Benjamin, MD
Distribution of U.S. Population by Race/Ethnicity, 2010 and 2050

NOTES: All racial groups non-Hispanic. Other includes Native Hawaiians and Pacific Islanders, Native Americans/Alaska Natives, and individuals with two or more races. Data do not include residents of Puerto Rico, Guam, the U.S. Virgin Islands, or the Northern Mariana Islands.

Figure 15: Number of U.S. Medical School Graduates by Race and Ethnicity, 2002–2011

2002:
- White (10,044)
- Asian (3,042)
- Black or African American (1,087)
- Hispanic or Latino (959)
- American Indian or Alaska Native (123)
- Native Hawaiian or Other Pacific Islander (55)

2011:
- White (10,783)
- Asian (3,767)
- Hispanic or Latino (1,336)
- Black or African American (1,129)
- American Indian or Alaska Native (135)
- Native Hawaiian or Other Pacific Islander (49)

*Hispanic or Latino includes Mexican American, Puerto Rican, and Other Hispanic or Latino.
Source: AAMC Web Site: Data and Analysis, 2012: Table 29.
Racial and ethnic disparities in health care and the medical profession inflict serious consequences on the United States. Despite scientific advances, these disparities persist. The underrepresentation of certain racial and ethnic minorities in the physician workforce contributes to these disparities.
Why is Racial and Ethnic Diversity in Medicine So Critical?

- Adequate representation among students and faculty of the diversity in our society is indispensable for quality medical education
- Increasing the diversity of the physician workforce will improve access to health care for underserved populations
- Increasing the diversity of the research workforce can accelerate advances in medical and public health research
- Diversity among managers of healthcare organizations makes good business sense
  - Jordan J. Cohen, MD 2003
The Pipeline

- Primary Education
- Secondary Education
- College
- Medical School
- Physicians

Physician Workforce

Health Outcomes
The Tour
TOUR FOR DIVERSITY IN MEDICINE
TO EDUCATE, INSPIRE AND CULTIVATE
Tour for Diversity in Medicine’s Mission (T4D)

To educate, cultivate and inspire future physicians and dentists of diverse racial and ethnic backgrounds by forming local connections in order to fulfill a national need.
Tour for Diversity in Medicine: The Bus
Tour for Diversity in Medicine: Mentors
Tour for Diversity in Medicine:
Mentors at work
Tour for Diversity in Medicine: Mentors at work
Tour for Diversity in Medicine: Mentors at work
Tour for Diversity in Medicine: Mentors at work
The Tour
Tour Outcomes

- Stops
- States
- Students served
The Research
The Pipeline

Primary Education
Secondary Education
College
Medical School
Physicians

Physician Workforce

Health Outcomes
Pipeline Leakiness

- URiM students have been shown to have a higher rate of declining interest in medical careers.
- One study concluded that “negative experiences” contribute to this leakiness.
- Other studies, however, have focused on qualitatively describing challenges in the pipeline by retrospectively looking at the perspective of medical students and health professionals.
Research Objectives

- We aim to understand:
  - The challenges students from diverse backgrounds face in the pursuit of a health professional career
  - The concerns that students from diverse background have regarding the pursuit of a health professional career
  - The impact of a 1 day intensive mentoring workshop on students from diverse backgrounds interested in pursuing a health professional career
Research Methods

- September 2012 and February 2013
- Focus groups with undergraduate student participants
  - Barriers, challenges, motivation
- Surveys
  - Pre-participation survey
    - Demographics, plans, preparation
  - Evaluation
    - QI for the program
Qualitative Study

- Our objective was to identify perceived barriers among undergraduate URiM students to pursuing education and careers in medicine or dentistry in order to identify possible factors contributing to the leakiness of the pipeline.
Schools

September 2012
- Georgia State University
- Fisk University
- Kentucky State University
- Indiana University Bloomington
- Central State University
- University of Michigan Dearborn

February 2013,
- The University of Texas at El Paso
- The University of Texas at San Antonio
- Texas A&M International University
- Texas A&M at Corpus Christi
- Prairie View A&M University
- Texas Southern University
# Focus Group Participants

<table>
<thead>
<tr>
<th></th>
<th>Focus Group % (n)</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td>21.4 years (median)</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td>61% (50) Black/African American</td>
</tr>
<tr>
<td></td>
<td>31% (25) Latino/Hispanic</td>
</tr>
<tr>
<td></td>
<td>2% (2) Caucasian</td>
</tr>
<tr>
<td></td>
<td>1% (1) Asian</td>
</tr>
<tr>
<td></td>
<td>3% (3) African</td>
</tr>
<tr>
<td></td>
<td>1% (1) Other</td>
</tr>
<tr>
<td><strong>Level of Education</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21% (17) Freshmen</td>
</tr>
<tr>
<td></td>
<td>23% (19) Sophomore</td>
</tr>
<tr>
<td></td>
<td>25% (21) Junior</td>
</tr>
<tr>
<td></td>
<td>24% (20) Senior</td>
</tr>
<tr>
<td></td>
<td>7% (5) Post-Baccalaureate</td>
</tr>
</tbody>
</table>
Focus Group Participants

Career Interest
- Medicine: 74%
- Dentistry: 6%
- Pharmacy: 3%
- Nursing: 9%
- Veterinary Medicine: 6%
- Other: 2%

Major
- Biology: 71%
- Chemistry: 4%
- Other: 25%
### Focus Group Participants

<table>
<thead>
<tr>
<th></th>
<th>Focus Group % (n)</th>
</tr>
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<tbody>
<tr>
<td>Timing of Decision to Enter</td>
<td>52% (43) Always</td>
</tr>
<tr>
<td>Health Profession</td>
<td>16% (13) High School</td>
</tr>
<tr>
<td>First in Family to Attend</td>
<td>38% (31) First in Family</td>
</tr>
<tr>
<td>College</td>
<td></td>
</tr>
<tr>
<td>Immediate Family Member in</td>
<td>44% (36) with a family member in</td>
</tr>
<tr>
<td>Health Profession</td>
<td>the health profession (50% Nursing)</td>
</tr>
<tr>
<td>Participation in SMDEP</td>
<td>7% (4)</td>
</tr>
</tbody>
</table>
Themes

- Inadequate Institutional Support and Resources
- Limited Personal Resources and Social/Family Conflict
- Lack of Access to Information, Mentoring and Advising
- Societal Barriers
Inadequate Institutional Support and Resources

- Academic Support
- Educational Opportunity
- Connecting to Physicians/Shadowing

“So my GPA is lower because I had other things. And maybe my A- on paper, and A is an A. But my A- to me is a little bit more because I was running on two hours of sleep. And somebody else who never worked—had to work for anything and their parents paid for all their college, it’s their GPA is obviously going to be higher because all they had to focus on was school.”
Limited Personal Resources
Family and Social Conflict

- Financial
- Family Pressure
- Individual Skill Sets
- Competition
- Fear of Nonacceptance

“There a lot of pressure on my family—on my side of the family because I’m the first generation to go to school. And so my parents are from Mexico and they didn’t get them an education. And so, they really do push me to succeed and sometimes, really nerve-wracking”
Lack of Access to Information, Mentoring and Advising

Mentoring

“I think that just more guidance, as in here in the—in this campus. Just more guidance as of what to do, from freshman to senior, undergrad, MCAT and everything because I feel kind of lost. I know I want to be there, but I just don’t know how to get there. I know I have to get good grades. I know—but, basically what I’m doing now is just studying my butt off a lot and I mean. Just something concerns me is just guidance”
Lack of Access to Information, Mentoring and Advising

- Mentoring

“I’m just saying if people knew at a younger age instead of some ways in high school... They’re not telling us that the different stuff we can do in college.”
Societal Barriers

- Work Life Balance (Gender Specific)
- Uncertainty in the Job Market

“...but there are students every year who don’t get matched. And they try the next year and they still don’t get matched. And then where do you go? What happens if you never get matched, I guess? Because that’s a possibility and you don’t go through residency, so you’re stuck with an M.D. who can’t practice medicine”
Conclusions

- Elucidated challenges that a sample of URiM undergraduate students perceive in their pursuit of a medical or dental career
- Understanding and alleviating these barriers/challenges is key to decreasing leakiness in the pipeline
- Similar challenges have been described at different points in the health professional and STEM pipeline
Suggested Actions

- Outside organizations, programs and individuals can play an important role for supplementing available resources for students at institutions with limited resources.
- Involving families early in the “pipeline” can be a key way to support students’ progression through the pipeline.
- Lack of mentoring is a pervasive problem but programs like T4D can help to address this.
- Policy and advocacy will continue to impact the pipeline in positive and negative ways.
Future Directions

- Longitudinal follow-up with T4D participants
Future Tours

- October 2015
  - The Pacific Northwest
Thank You

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