What Academic Medical Centers Can Do About Social Determinants of Health:

Implications for Medical Education

November 2, 2012
Moderator and Speakers

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Objectives

1. Recognize the opportunities the Affordable Care Act presents for the integration of the social determinants of health into research, clinical care, medical education, and community service.

2. Understand how physicians can influence the social and determinants of health.

3. Describe methods of integrating social and environmental determinants of health into the medical school and residency curricula in an active, clinically-relevant fashion.

4. Identify potential opportunities and challenges to integrating the social and environmental determinants of health into medical curricula.
Academic Medicine and the Social Determinants of Health

Building an Evidence-Base for Medical Education

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Social Determinants of Health

“...the conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels, which are themselves influenced by policy choices. The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries”

-World Health Organization
Mechanisms of the Social Determinants of Health

Healthcare Inequities
➢ Patient-facing

Health Inequities
➢ Community-facing
Academic Medicine, our Mission, & Social Determinants

• Research
• Clinical Care
• Community Engagement
• Medical Education
Supporting the Full Spectrum of Scholarship to Improve the Health of All

- Bench Research
- Health Equity
- Diverse Workforce
- Implementation & Dissemination Research
- Clinical Effectiveness Research
- Health Care Delivery Research
- Community & Population Research
- Medical Education Research

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2012 AAMC Annual Meeting
Legislative Opportunities Across Our Missions

- Research policy
  - Patient-Centered Outcomes Research Institute (PCORI); Community Transformation Grants
  - Data collection standards
  - National Institute of Minority Health and Health Disparities (NIMHD)

- Community Health Needs Assessments

- Value-Based Healthcare & Meaningful Use

- Training and Education
  - Community health workforce, diversity grants, HBCU investments
MCAT changes, 2015: Health Disparities

Percentage of U.S. Medical Schools Reporting Inclusion of Topic in:

- **Required Courses** and/or 
- **Elective Courses**

<table>
<thead>
<tr>
<th>Year</th>
<th>Required Courses</th>
<th>Elective Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>76.0%</td>
<td>33.6%</td>
</tr>
<tr>
<td>2006</td>
<td>83.2%</td>
<td>34.4%</td>
</tr>
<tr>
<td>2007</td>
<td>88.8%</td>
<td>31.2%</td>
</tr>
<tr>
<td>2008</td>
<td>93.7%</td>
<td>31.7%</td>
</tr>
<tr>
<td>2012</td>
<td>98.5%</td>
<td>29.9%</td>
</tr>
</tbody>
</table>

*Note: Schools were not asked for this information on the LCME Annual Questionnaire in 2009-2011.*
ORIGINAL RESEARCH

Improving Underrepresented Minority Medical Student Recruitment with Health Disparities Curriculum

Monica B. Vela, MD, Karen E. Kim, MD, Hui Tang, MS, and Marshall H. Chin, MD, MPH

Department of Medicine, University of Chicago, Chicago, IL, USA.

BACKGROUND: Diversity improves all students’ academic experiences and their abilities to work with patients from differing backgrounds. Little is known about what makes minority students select one medical school over another.

PURPOSE: To measure the impact of the existence of a health disparities course in the medical school curriculum on recruitment of underrepresented minority (URM) college students to the University of Chicago Pritzker School of Medicine.

METHODS: All medical school applicants interviewed in academic years 2007 and 2008 at the University of Chicago Pritzker School of Medicine (PSOM) attended an orientation that detailed a required health care disparities curriculum introduced in 2006. Matriculants completed a precourse survey measuring the impact of the existence of the course on their decision to attend PSOM. URM was defined by the American Association of Medical Colleges as Black, American Indian/Alaskan Native, Native Hawaiian, Mexican American, and Mainland Puerto Rican.

RESULTS: Pre-course survey responses were 100% and 98% for entering classes of 2007 and 2008, respectively. Among those students reporting knowledge of the course (128/210, 61%), URM students (27/37, 73%) were more likely than non-URM students (38/91, 42%) to report that knowledge of the existence of the course influenced their decision to attend PSOM (p = 0.002). Analysis of qualitative responses revealed that students felt that the curriculum gave the school a reputation for placing importance on health disparities and social justice issues. URM student enrollment at PSOM, which had remained stable from years 2005 and 2006 at 12% and 11% of the total incoming classes, respectively, increased to 22% of the total class size in 2007 (p = 0.003) and 19 percent in 2008.

CONCLUSION: The required health disparities course may have contributed to the increased enrollment of URM students at PSOM in 2007 and 2008.

KEY WORDS: Health disparities curriculum; education: medical students; underserved

J Gen Intern Med 2008;23(6):925-930
DOI: 10.1007/s11606-008-0720-8
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Preclinical Health Disparities Required Sessions, 2012 LCME Survey, (N=118)
Social Determinants of Health in Undergraduate Medical Education

University of Wisconsin School of Medicine and Public Health

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Context

• 2005: Became the UW School of Medicine AND Public Health
  ▪ Only public medical school in WI

• Commitment to integrate public health training for ALL medical students
  ▪ 175 students per class

• Some WI Health Priorities
  ▪ Rural and urban underserved
    – One of highest AA infant mortality in US
  ▪ Alcohol Culture
    – Worst drunk driving statistics in the US
Integrative Cases

• Longitudinal series of 1-3 day case-based explorations during first 2 years of medical school
• Connect basic and clinical sciences with public health
• Exposure to community and health leaders
• Experiential and small group learning
What Brought You in Today?: Upstream from the Emergency Department

- First 2 weeks of med school: Med 1 students work in the ED for 2-hour shift
- Interview patients about determinants of health
  - Health behaviors
  - Socioeconomic factors
  - Health care access
- Small groups: Faculty-facilitated discussion of determinants of health that may have contributed to the ED visit
What Brought You in Today?: Upstream from the Emergency Department

- Example activities for different perspectives on addressing determinants of health (DOH)
  - El Centro: Milwaukee-based program to address social DOH in Latino communities
  - Dane County Gang Task Force detective
  - Dane County Parent Council
  - WI Injury Research Center: Policy Director
  - Walking tours of Madison neighborhoods
  - Madison’s school-based asthma program
Poverty Simulation

- Missouri Community Action Network (bstegeman@communityaction.org)
- 60-70 students assigned to families
- 4 x 15 minute “weeks” in the life
- Faculty–facilitated debrief
- Activities that address poverty in WI
Health Advocacy

5 Advocacy Tools

• Legislative Testimony
• Traditional Media
  ▪ Print
  ▪ Radio
  ▪ TV
• Letter to Editor
• Persuasive Conversations
• Social Media (Twitter Conference)
Longer Term Outcome Data

• Dean’s Letter: Public health activities

• AAMC Graduate Questionnaire
  ▪ Adequacy of public health content in curriculum
  ▪ Intention of practice location & working w/ underserved

• Graduate Survey
  ▪ 1, 3 and 6 years after graduation

• Residency Director Survey of UW Graduates
  ▪ 1 year after graduation
## Baseline Graduate Data ‘06-’09

<table>
<thead>
<tr>
<th>Public-health related activity</th>
<th>Mean (0-3)*</th>
<th>% &quot;Never&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drawn on public health agencies/community resources for patient care</td>
<td>1.97</td>
<td>20.3%</td>
</tr>
<tr>
<td>Advocated to an external agency on the behalf of a patient</td>
<td>1.63</td>
<td>24.8%</td>
</tr>
<tr>
<td>Sought input from public health experts/resources</td>
<td>1.27</td>
<td>36.9%</td>
</tr>
<tr>
<td>Planned/participated in a quality improvement strategy</td>
<td>1.19</td>
<td>38.9%</td>
</tr>
<tr>
<td>Given health education presentations to groups of patients/community</td>
<td>0.90</td>
<td>51.0%</td>
</tr>
<tr>
<td>Planned/participated in a community-based health assessment</td>
<td>0.54</td>
<td>67.6%</td>
</tr>
<tr>
<td>Collaborated with community stakeholders to improve the health and welfare of a community</td>
<td>0.38</td>
<td>78.1%</td>
</tr>
<tr>
<td>Advocated for health reforms at the local, state, or federal level</td>
<td>0.56</td>
<td>66.7%</td>
</tr>
<tr>
<td>Presented information to the media about a public health issue</td>
<td>0.26</td>
<td>83.3%</td>
</tr>
</tbody>
</table>

*Scale of 0=Never, 1=Once, 2-Sometimes, 3=Frequently
Lessons Learned

• Remarkable student engagement with no assessment or grade
• Uncovered tremendous resources in the community, across campus and our hospital
• Value of clinical faculty in key roles (rather than public health MDs or practitioners)
• Value of exposure to multiple specialties engaging in Public Health thinking
• Importance of going beyond program evaluation to try and capture changes in physician behavior
Resources

• Successful practice Case Study by the APTR Healthy People Curriculum Task Force
  http://www.aptrweb.org/educationforhealth/healthprofessions.html#som

A New Tool to Address Social Determinants of Health: Training Family Medicine Residents in Essential Public Health Roles of Physicians

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New Mexico is....

- a study in contrasts
- a living exhibit of the impact of social determinants of health
...and a virtual “public health learning laboratory”
Fewer than 3% of healthcare providers fulfill their essential public health roles

... because we do not teach, train, test or assure competency in these roles in medical schools, residencies or continuing education programs.
Idea: Integrate essential public health roles into medical residency training to address social determinants of health.

Model: Develop a required residency rotation to build competencies in three essential public health roles of all physicians, and launch relationships with key partners needed to fulfill these roles.

1. Prevent, report and respond to notifiable conditions.  
   Health Department

2. Provide high-quality physician-generated health data.  
   Vital Records Agency

3. Provide medical leadership and advocacy.  
   Elected Leaders, Stakeholders and Advocates
How do residents learn this stuff?

10% Didactics—lectures, discussions and readings
- Essential public health roles of physicians.
  - Prevention, surveillance and response to notifiable conditions.
  - Physician-generated health data.
  - Medical leadership and advocacy.
- How bills become laws—in theory and in reality.
- Evidence-based practice and policy.
- Message mapping: clear, concise, memorable speech.

90% Activities and experiences
- Residents work daily with state legislators, state health department staff and other expert mentors during the rotation.
- Residents monitor legislative processes, research topics related to proposed legislation, and testify in hearings.

Continuing practice and mastery
- Knowledge and skills gained and relationships forged supplant a 2-year community project completed by each resident.
Scenario 1

A clinician notes a remarkable cough in a 5-year-old who just started kindergarten. The child has vomited from the effort of coughing, but has no fever, and looks well between coughing spells. The mother is pregnant, holding a 2-year-old with a runny nose, and says “I may be in early labor, so please hurry”. She has waived immunizations for her children. The clinician suspects pertussis. He orders a test, prescribes an antibiotic for the child, and plans follow-up when lab results return.

WHAT HAPPENS NEXT?
“There are two things you must never watch being made—sausage and legislation”
How is the rotation evaluated (and what does all this cost)?

- Final exam and completion of activity logs
- 360-degree evaluation of the rotation and performance of residents, faculty, mentors.
- Comparison of resident performance in essential public health roles to general physician performance (in process).
- It’s free! (To be more precise, it’s a labor of “in-kind” love.)
Additional References and Resources

Web link to this and other Successful Practices Initiatives

Northern New Mexico Family Medicine Residency
- http://www.stvin.org

The Impact on Rural New Mexico of a Family Medicine Residency
- Pacheco, Mario MD; Weiss, Deborah MPH; Vaillant, Karen MD; Bachefer, Sally MD; Garrett, Bert MD; Dodson, William H., III MD; Urbina, Chris MD, MPH; Umland, Bert MD; Derksen, Dan MD; Heffron, Warren MD; Kaufman, Arthur MD.
- Academic Medicine, August 2005 - Volume 80 - Issue 8 - pp 739-744

Changing Hospital Policy from the Wards: An Introduction to Health Policy Education
- Dr. Vanessa Jacobsohn, MD; Dr. Maria DeArman, MD; Dr. Patrick Moran, DO; Dr. Jennette Cross, MD; Dr. Deidre Dietz, MD; Dr. Rebekah Allen, MD; Dr. Sally Bachefer, MD; Dr. Lily Dow-Velarde, PhD; Dr. Arthur Kaufman, MD
- Academic Medicine, April 2008 - Volume 83 - Issue 4 - pp 352-356
REMINDER

Group on Diversity and Inclusion (GDI) Reception
5:00pm-6:00pm Marriott Marquis
Nob Hill C/D

Group on Student Affairs (GSA) Awards Ceremony
5:30pm-6:00pm Moscone Convention Center
Room: 2000

Group on Student Affairs (GSA) and Organization Of Student Representatives (OSR) Poster Session and Reception
6:00pm-8:00pm Moscone Convention Center
Rooms: 2014, 2016, 2018