

Development of a Global Health Curriculum at Christiana Care Health System: *An Independent Academic Health Center and Member of the Delaware Health Sciences Alliance*

Audrey Merriam, MD
Christopher Prater, MD
Karla Testa, MD



John Donnelly, MD
Omar Khan, MD, MHS
Sue Thompson, DO

Objectives

- Identify the importance of a global health curriculum for training residents that are culturally aware and equipped to work in underserved populations both locally and abroad
- Acquire the information to initiate a global health program in a teaching hospital
- Learn how to incorporate a multi-disciplinary approach to global health education

Why is a global health important?

- In 2001, the WHO Macroeconomic Commission on Health put forth three core findings:

1. The massive amount of disease burden in the world's poorest nations poses a huge threat to global wealth and security
2. Millions of impoverished people around the world die of preventable and treatable infectious diseases because they lack access to basic medical care and sanitation.
3. We have the potential to save millions of lives each year, but only if the wealthy nations would provide the poorer ones with the requisite services and support.

Why is global health important in residency?

- Residents who participated in global health electives are more likely to:
 - 1) Practice primary care
 - 2) Serve underserved communities
 - 3) Pursue careers in public health
 - 4) Participate in community service
 - 5) Work overseas

1. Gupta et al. *American Journal of Tropical Medicine and Hygiene* 1999;61(6).
2. Miller WC, Corey GR, Lallinger GJ, Durack DT. *Am J Med* 1995;99(3):291-7
3. Nelson et al. *Pediatrics* 2008;122;28-33



Why is global health important in residency?

1) Increasingly important to incoming residents

- 15% medical students in 1997 vs 30% in 2006 in an AAMC survey participated in an international elective (1)
- 67% pediatric residents at University of Colorado cited intl. health elective as a major factor in ranking the program (2)
- 42% of Duke IM residents reported their global health involvement as an important factor in ranking during the Match (3)

1. Association of American Medical Colleges. 2006 Medical School Graduate Questionnaire. www.aamc.org/data/gq/allschoolreports/2006.pdf Accessed Apr 5, 2007
2. Federico, et al. *Arch Pediatr Adolesc Med.* 2006 Feb;160(2):191-6
3. Miller WC, Corey GR, Lallinger GJ, Durack DT. *Am J Med* 1995;99(3):291-7

Why is global health important in residency?

2) Increasing number of residency programs offering global health curriculum

- As early as 1998, 54% of family medicine residencies offered global health training (1)
- A 2007 ACGME survey to all 201 U.S. pediatrics residencies (53% response rate):
 - 52% offered a GH elective, 47% offered a GH curriculum, and 6% had an official GH track (2)

1. Schultz SH, Rousseau S. *Family Medicine*. 1998 Jan; 30(1):29-33

2. Nelson BD, Lee ACC, Newby PK, Chamberlin MR, Huang C. *Pediatrics*. July 2008; 122(1):28-33.

Why is global health important in residency?

3) Help train residents to provide efficient quality care

- 78% students reported higher awareness of financial barriers and 100% appreciated the utility of history and physical exam after an international elective (1)
- Medical students who participated in a 3-6-week international program scored significantly higher in the preventive medicine/public health sections of the USMLE board exam than a control group (2)

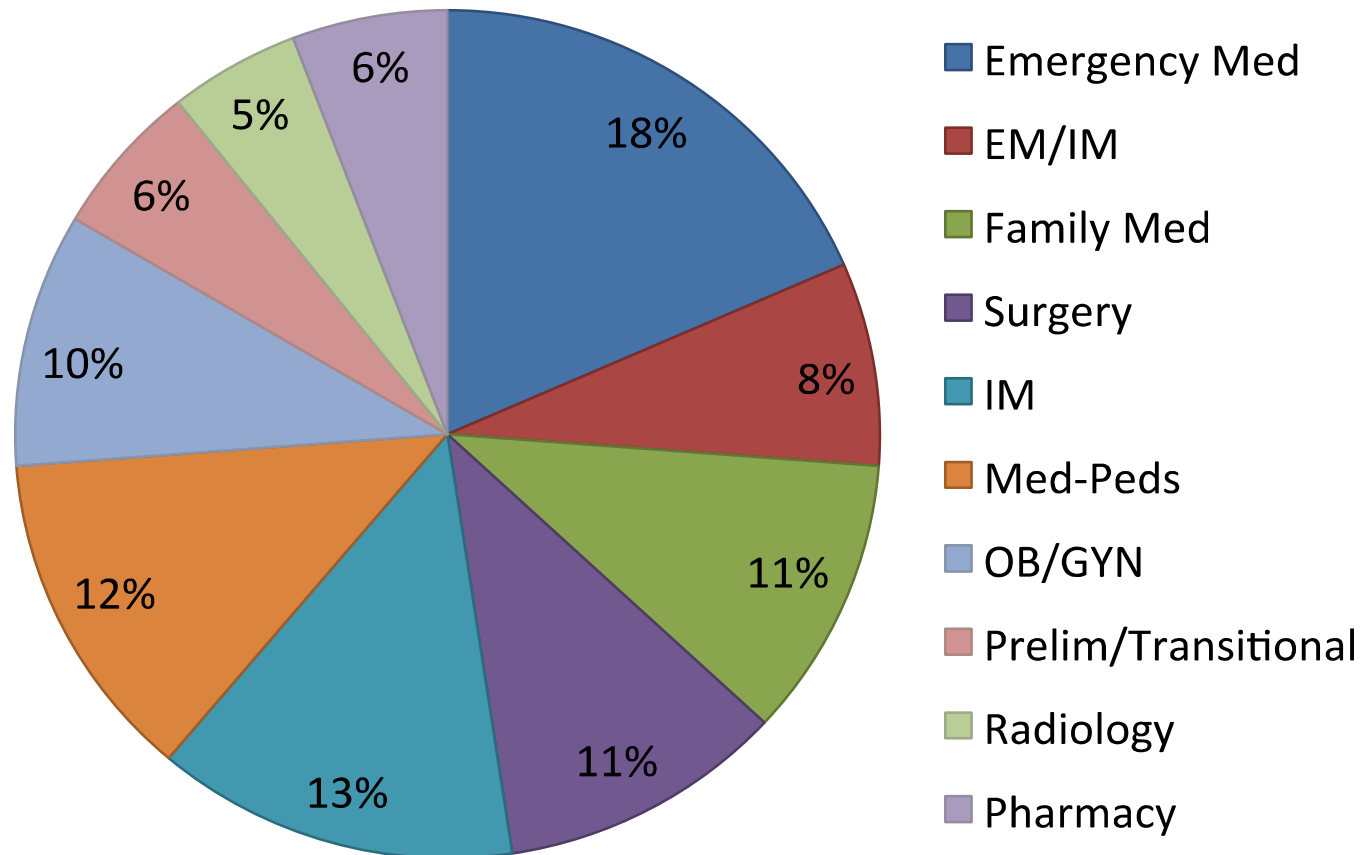
1. Bissonette R, Route C. *Family Medicine* 1994;26:226-31

2. Waddell WH, Kelley PR, Suter E, Levit EJ. *J Med Educ.* 1976 Jun;51(6):468-72.

Global Health Resident Survey

- 105 residents responded
- 41% were PGY-1s

Departments Represented by Survey



Global Health Resident Survey

- **I believe it is important to have the option of a global health track at CCHS.**
 - 78% residents agreed or strongly agreed
- **I would be interested in participating in a global health track if it were an option**
 - 55% agreed or strongly agreed
- 40% of respondents have worked or volunteered abroad in a medical setting

What is a global health curriculum?

- Variability based on institution and location
- Our definition:
 - Lectures and sessions designed to train residents in global health, international public health, and basics of tropical medicine
 - Multidisciplinary-approach for residents of all programs in CCHS, as well as other medical professions (pharmacists, nurses, etc.)

Multidisciplinary Approach

- Development team
 - Medicine, Family Medicine, Emergency Medicine, Ob-Gyn
- Delaware Health Science Alliance
- Speakers
 - Christiana Care, Al Dupont, Jefferson, West Chester University, CDC
- Lecture series attendance

Our Curriculum

- Create a Global Health Didactic Curriculum
- 2 year core curriculum of 22 lectures
- Each lecture has specific goals



Global Health Curriculum Details

2 year core curriculum of 22 lectures (11/yr)

Millennium Development Goals	Emerging Issues in Global Health
HIV	Helminths
TB	Malaria and Dengue
Social Determinants of Health	Eradication programs
Women Health Part 1	Child Health Part 1
Women Health Part 2	Child Health Part 2 and Malnutrition
Local Global Health	Primary Care in Developing World
Research and Ethics	Global Health Policy
Disaster Relief	Surgery/Trauma basics
Emergency Medicine	Travel Medicine
Skills Workshop	Human Rights

Our Proposal for the Future

- Create a Global Health Track
 - Individual residency programs may utilize curriculum to develop global health certificate with specialty specific lectures
 - Access other online resources to complement curriculum
 - Goal to have the didactic curriculum serve as the basis for each program's further development
- Develop a partnership with an international site

Results



- 9 lectures since start of program
 - 1 guest grand rounds speaker
- Average attendance is 19.7 (range 12-29), which includes residents, faculty, students, nurses, pharmacists, medical librarians
- Average increase of knowledge on subject on a 10 point scale is 2.5 points (pre vs. post)

Conclusion



- A global health curriculum would fulfill an increasing demand from incoming residents
- Training in global health will empower residents to provide quality and efficient healthcare
- We propose a multidisciplinary approach to a global health curriculum, focusing on the public health aspects as well as medical knowledge of topics