Global Health in Postgraduate Medical Education: Results of a National Survey and a Literature Review

Bourque JM, Masterson M, Mandelzweig, Boldt G

Canadian Conference on Medical Education
Banff, Alberta
April 15th 2012
Objectives

• Literature Review
  ▫ GH opportunities/Models
  ▫ Benefits/Concerns

• Survey
  ▫ Methods
  ▫ Results

• Future directions
Background

Global Health in Canadian Medical Education: Current Practices and Opportunities
Rasa Izadnegahdar, Shauna Correia, Brent Ohata, Anne Kittler, Sonia ter Kuile, Samuel Vaillancourt, Nicole Saba, MSc, and Timothy F. Brewer, MD, MPH

AAMC 2003

Proportion of med students who completed GHE

- Proportion of med students who completed GHE

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>5%</td>
</tr>
<tr>
<td>2004</td>
<td>25%</td>
</tr>
</tbody>
</table>
Methods

• Literature Review
  ▫ Pub Med
  ▫ 89 results
    • 55 articles were included

• Survey
  ▫ 4 questions
  ▫ Survey Monkey
Models

1. Curriculum based learning – GH track
   - Diploma, Certificate
2. Mentorship
3. Preparation for GH electives
   - Clinical, NGO
4. Fellowship
Models

5. GH journal club
6. Seminar series involving GH topics
7. Local outreach to minority community
8. GH Scholar Program – GH Diplomacy
Models - Curriculum

  - Use of CanMEDS to guide international health electives for a surgical resident in Uganda

- University of Minnesota
  - Evaluation of a comprehensive global health training program
  - Formal curriculum rather than simply the experience of working in resource-limited settings

Benefits

• Medical knowledge
• Physical Exam and procedural skills
• Public Health (PH) issues, professionalism, cultural sensitivity
• Clinical and language skills
• Awareness of social determinants of health
• Approach to different health care system
• More likely to
  ▫ pursue primary care medicine,
  ▫ PH degrees,
  ▫ practice medicine among underserved and multicultural populations

Benefits

• *Strengthening the humanistic qualities of medical residents*

• “Experiences during medical residency can have a significant measurable impact on participants. Participants perceive positive influences on their training knowledge and practice of medicine.”

Challenges

- No standardized curriculum for GH in medicine (As of 2009)
- Not formally offered at respective institution
- Lack official recognition – track, certificate programs, designated pathways, or additional degrees


- Collaborations with institutions
  - traditionally worked independently
  - allocating resources appropriately

Koplan The Emory Global Health Institute: Developing Partnerships to Improve Health through Research, Training, and Service. Academic Medicine, 2008
Survey - demographics

• 737 eligible participants
  ▫ 37.5% male
  ▫ 65.7% PGY 1 and 2

Specialties

- Family Medicine
- Internal Medicine
- Surgery
- Psychiatry
Survey - demographics

Institutions

- U of Toronto
- U of Alberta
- U of Calgary
- U of Ottawa
- Other

- 80.7% Canadian Medical School background
<table>
<thead>
<tr>
<th>Program Satisfaction</th>
<th>MLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistical Support</td>
<td>3.13</td>
</tr>
<tr>
<td>Funding/financial support</td>
<td>3.11</td>
</tr>
<tr>
<td>Pre-departure training</td>
<td>3.10</td>
</tr>
<tr>
<td>Post travel debriefing</td>
<td>3.06</td>
</tr>
<tr>
<td>Research opportunities in GH</td>
<td>3.05</td>
</tr>
<tr>
<td>Pre-arranged clinical electives</td>
<td>2.96</td>
</tr>
<tr>
<td>Speakers/sessions on GH</td>
<td>2.95</td>
</tr>
<tr>
<td>Mentorship program</td>
<td>2.83</td>
</tr>
<tr>
<td>Flexibility in securing time for GH</td>
<td>2.74</td>
</tr>
<tr>
<td>General Support from PD</td>
<td>2.29</td>
</tr>
</tbody>
</table>
## Survey - Curriculum Satisfaction

<table>
<thead>
<tr>
<th>Curriculum Satisfaction</th>
<th>MLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health economics</td>
<td>3.34</td>
</tr>
<tr>
<td>Policy making</td>
<td>3.33</td>
</tr>
<tr>
<td>Global Governance/Structure</td>
<td>3.29</td>
</tr>
<tr>
<td>Tropical diseases</td>
<td>3.12</td>
</tr>
<tr>
<td>Adapted CanMEDS Eval (GHE)</td>
<td>2.99</td>
</tr>
<tr>
<td>Cross Cultural Education</td>
<td>2.94</td>
</tr>
<tr>
<td>Health and Human Rights</td>
<td>2.91</td>
</tr>
<tr>
<td>Public Health</td>
<td>2.90</td>
</tr>
<tr>
<td>Population Health</td>
<td>2.84</td>
</tr>
<tr>
<td>Ethics</td>
<td>2.68</td>
</tr>
</tbody>
</table>
Survey

<table>
<thead>
<tr>
<th></th>
<th>Program Satisfaction</th>
<th>Curriculum Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>$p = 0.922$</td>
<td>$p = 0.950$</td>
</tr>
<tr>
<td>Background</td>
<td>$p = 0.029^*$</td>
<td>$p = 0.079$</td>
</tr>
</tbody>
</table>

*Higher for Canadian Medical School Background ($2.74$ vs $2.52$)
Survey - PGY levels

Program Satisfaction

- PGY 1
- PGY 2
- PGY 3
- PGY 4
- PGY 5

PGY & Program
p = 0.047

Curriculum Satisfaction

- PGY 1
- PGY 2
- PGY 3
- PGY 4
- PGY 5

Curriculum
p = 0.070
Survey - Specialties

Specialties – Program Satisfaction

- Family Med
- **Internal Med
- *Surgery
- Psychiatry
- Anesth.
- Peds
- **Obgyn
- Emerg
- Other

p = 0.005
Survey - Specialties

Specialties – Curriculum Satisfaction

- Family Med
- **Internal Med**
- **Surgery**
- Psychiatry
- Anesth.
- Peds
- Obgyn
- Emerg
- Other

p = 0.012
Survey - Institutions

Institutions - Program Satisfaction

Program Satisfaction

p = 0.022
Survey - Institutions

Institutions - Curriculum Satisfaction

- UBC
- Calgary
- Alberta
- Saskatchewan
- Manitoba
- **Western
- **MacMaster
- Toronto
- NOSM
- Ottawa
- Queens
- Dalhousie
- **Memorial

Curriculum Satisfaction

p = 0.007
Conclusion

- More residents seeking GH experiences
- Inadequate guidance/support

- CAIR recommends increasing support for Global Health training opportunities in Postgraduate medical education
Next Steps

- Building consensus among GH experts regarding global health training for residents
- Accreditation organizations
- Residency programs
- Academic recognition of altruistic Global Health activities
Thank You!
Next Steps

- University of California – UC Global health initiatives
  - GHS to assist in bringing about its vision of a global health initiative across all 10 UC campuses
    - drawing not only to on the health sciences and public health, but also on, among other disciplines, biomedicine, engineering, agriculture, veterinary medicine, water and environmental sciences, law, and management.
Concerns

  - 2007 survey – programs offering GH Electives had doubles since a very similar survey in 1996
  - AAP
    - 4 principal guidelines to guide residency programs:
      - Clinical training
      - PDT,
      - proper supervision
      - post evaluation and feedback
  - Most did not fulfill them, especially pre departure prep
  - Only 36% predeparture clinical training – 55% PDT
Concerns

• Health and disease hazards
• Supervision by Senior Faculty
• Less laboratory and technical/medical device/material support
• Ethical considerations
• Failure to integrate long-term development