AACEM
Puerto Rico 2019
FUNDING INTERNATIONAL EM PROGRAMS

PANEL DISCUSSION
GROWTH OF GLOBAL EM PROGRAMS

Earliest programs in the 1990’s

Difficulty to quantify how many exist today.

Global health programs within EM departments (even those without a fellowship) – are variable.

Range from 1-2 faculty with a focused interest to Divisions with 12 or more faculty.
CURRENT IEM FELLOWSHIPS

First Fellowship (UIC, Loma Linda) 1993

Currently, 22 IEM Fellowship Programs offered 26 slots.

40 IEM fellowship programs in the US and Canada. (ref. SAEM)

35 true programs nationally with some level of activity.
TYPES OF GLOBAL EM PROGRAMS

Partnerships with field sites
Partnerships with NGOs and UN/WHO
Development vs humanitarian relief programs
Links to schools of public health
Courses, curricula
Links to other departments and university efforts
Links to industry, governments
BRIGHAM - HARVARD EXPERIENCE

Three approaches:

1. Division of International Emergency Medicine and Humanitarian Health (Global EM systems development)

2. The Harvard Humanitarian Initiative

3. EMI - Emergency Medicine Consulting
DIVISION OF INTERNATIONAL EM

14 Faculty, 3 fellows

Programs:
Global EM Systems (WHO, govt,)
Hospital and EM systems in Haiti, Rwanda, Liberia
Global ultrasound

Funding:
NIH (one K award)
DARPA
WHO, UNHCR
NGOs (Partners in Health)
(Dept funds Div. Chief buydown and seed grants)
HARVARD HUMANITARIAN INITIATIVE

10 Core Faculty, 30 program staff, 12 academic fellows

Programs:
Harvard based inter-faculty (HMS, HSPH, HKS, etc)
8 research and policy nodes
Humanitarian Academy at Harvard

Funding: (6 million/year)
UN, World Food Program, UNHCR, OCHA
USAID - OFDA
Government (Swiss, Swedish, Danish, Dutch)
NGOs (IRC, ICRC, MSF, Oxfam, Concern, IMC)
Foundations (Soros, HU, Gates, Google)
Philanthropy (11m endowment, 600k/yr current use)
GLOBAL EM BUSINESS UNIT

10 Core Faculty, 25 program staff, 12 academic fellows

Programs:
  Health system leadership development
  Systems consulting (Network)
  SHARP analytic modeling program
  Subcontract with GE, Industry)

Funding: (2 million/year – gross; margin target 30%)
  Government (NHS, Sweden, Norway, US)
FUNDING GLOBAL EM PROGRAMS

NIH Funding (cost plus):
Federal funds (cost –minus) – CDC, State, USAID
Foundations (Gates, OSI - fixed low IDCs)
Fogarty and Fullbright
Foreign governments (as simple as it sounds)
UN agencies (WHO, UNHCR, World Food Program)
Contracts through non-governmental agencies
Industry and pharma
Philanthropy
FUNDING GLOBAL EM PROGRAMS

LETTERS TO THE EDITOR

Funding global emergency medicine research— from seed grants to NIH support

Bhakti Hansoti, Adam Levine, Latha Ganti, Rockefeller Oteng, Taylor DesRosiers, Payal Modi and Jeremy Brown

Abstract

Background: Funding for global health has grown significantly over the past two decades. Numerous funding opportunities for international development and research work exist; however, they can be difficult to navigate. The 2013 Academic Emergency Medicine consensus conference on global health and emergency care identified the need to strengthen global emergency care research funding, solidify existing funding streams, and expand funding sources.

Results: This piece focuses on the various federal funding opportunities available to support emergency physicians conducting international research from seed funding to large institutional grants. In particular, we focus on the application and review processes for the Fulbright and Fogarty programs, National Institutes of Health (NIH) Career development awards, and the Medical Education Partnership Initiative (MEPI), including tips and pathways through each application process.

Conclusions: Lastly, the paper provides an index that may be used as a guide in determining whether the amount of funding provided by a grant is worth the effort in applying.

Keywords: Public Health, Global Emergency Medicine, International Emergency Medicine, Research, Funding, Grants, Emergency care
QUESTIONS TO CONSIDER…

1) Does the med school connect global EM faculty?

2) Do you support GEM faculty with departmental funding?

3) What funding sources have you found useful and successful?

4) Have you decided to divest or further invest in GEM?

5) What are your main challenges?

6) Any innovative solutions?
THE PANEL

Andy Jagoda: Mount Sinai

Susan Stern: University of Washington

Jay Schuur: Brown University
MOUNT SINAI HEALTH SYSTEM
EMERGENCY MEDICINE
GLOBAL HEALTH
EM SYSTEM GLOBAL HEALTH: EXTERNAL REVIEW FOR STRATEGIC PLAN 2016

*Strengths:* Well established, competitive fellowship based at SL / MSW; multiple projects in Africa. Libertas Center for Victims of Torture based at Elmhurst has made impressive achievements in securing funding from the DHHS and the United Nations and has established a secure infrastructure providing important care to the community it serves.

*Weaknesses:* Global Health faculty have almost no funding and thus almost no protected time. There is no administrative infrastructure for the SL / MSW program and the fellowship needs a focused vision. Academic output is small. Other than the Libertas Center, there is a lack of a comprehensive vision for global health in the department.
Opportunities: Opportunity for growth and for securing grant funding for the fellows, (e.g. Fogarty). There are opportunities to partner with the Institute of Global Health. The Libertas Center has great opportunity for continued growth through philanthropy.

Threats: Global Health funding is limited and difficult to secure. The absence of a central vision in this very broad area of emergency medicine limits opportunities for development and optimal collaboration with other global health programs, both at Mount Sinai and elsewhere.
5 YEAR STRATEGIC PLAN

• Develop a Core Leadership EM-GH Working Group (WG) and external advisory board
• Engage with other departmental GH activities, and integrate into the Institute for Global Health
• Create an education group to develop, teach, and evaluate a core curriculum for EM, medical school, and fellows
• Define a research agenda and identify a grant writer
• Expand the national and international presence
• Develop linkages with local and international NGOs and consortiums as implementing partners (example: CUNY School of Public Health and Global Health programs, International Medical Corps and Doctors of the World – interdisciplinary, trained Rapid Response Team members for field deployments, existing African partners).
MISSION STATEMENT

**Mission**: To improve the health outcomes of patients affected by emergencies, globally and locally.

**Vision**: To develop a cadre of EM physicians with a deep understanding of the impacts of globalization on emergency care and the ability to respond to the needs of EM patients in the US and EM capacity building of our partners abroad.
FUNDING

• Philantrophy $120,000

• Libertas Center
  ➢ Office of Refugee Resettlement (ORR) $1,528,940
  ➢ NYS DOH Empire Clinical Research
  ➢ Investigator Program $150,000
  ➢ United Nations Voluntary Fund for
  ➢ Victims of Torture (UNVFT) $65,000
  ➢ NYC Council, Immigrant Health Initiative $60,000

• ATRAN Grant for refugee resettlement $25,000

• Doctors Without Borders US initiatives $5,000

• CDC GeoSentinal Project $5,000

• Training International Students $50,000
FUNDING GLOBAL HEALTH PROGRAMS

UNIVERSITY OF WASHINGTON
DEPARTMENT OF EMERGENCY MEDICINE

SUSAN STERN, MD
PROFESSOR AND CHAIR
UNIVERSITY OF WASHINGTON
DEPARTMENT OF EMERGENCY MEDICINE

Program and Department Development (2009-2019):

• 2009 – EM is essentially viewed as a service line
  • 12 → 50+ faculty
  • development of the residency program
  • development of 4 fellowship programs
  • development of the research and academic programs
  and more..........

Strategy:
Identify academic/program strengths within UW that intersect with EM, where we can also contribute
Overview
Established 2007
Bridges schools of Medicine and Public Health; cuts across numerous departments within the University.

<table>
<thead>
<tr>
<th>Projects</th>
<th>Countries</th>
<th>Faculty</th>
<th>Health Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>709</td>
<td>136</td>
<td>423</td>
<td>132</td>
</tr>
</tbody>
</table>

FINANCES: SUPPORTING OUR MISSION TO IMPROVE HEALTH FOR ALL

Core revenue and expenditures are the funding sources and costs associated with running the Department, including academic programs and excluding grant and contract-related work and the work of our Centers, Programs, and Initiatives.

FY16 TOTAL REVENUE ($110.4 MILLION USD) BY FUND SOURCE

- Grants and Contracts 95%
- State 3%
- Gifts and Endowments 1%
- Research Cost Recovery 1%
Have access to some great programs, mentorship and collaborators, but NO ONE IS GIVING US ANY MONEY!
THE WHY:
Within our mission to improve emergency care on a global scale
Numerous opportunities for EM to impact health on a global scale
Access to resources /expertise at UW not available everywhere
Broad interest among young and talented residents and junior faculty
THE PRINCIPLES:

- Within our budget (sustainable)
- Support consistent long-term efforts
- Added value to site /society
- Academic value ——meaningful education or research product
- Ongoing support would be results driven
NEXT STEPS OF DEVELOPMENT:

• Determine the focus areas within GH
  (capacitance building, education and training, field clinical work, traditional research, implementation science, health metrics and evaluation, health system strengthening, response to health and humanitarian disasters, impact of climate change on health)

• Recruit and develop faculty

*Decisions were both strategic and influenced by chance*
CURRENT GLOBAL HEALTH FACULTY FOCUS AREAS:

- health metrics and evaluation
- the implementation of US in low resource
- climate and global health
- education and training in GH
- Identification, linkage to care, and management of HIV in refugee populations

Decisions were both strategic and influenced by chance
GLOBAL HEALTH LOCATIONS

Rwanda   Tanzania   Uganda
Zambia   Kenya   South Africa
DRC   Nigeria   India
China   Vietnam   Laos
Japan   Guatemala   Brazil
Ecuador   Peru   Mexico
FACULTY FUNDING SOURCES:

- Small amount of departmental funds (start-up)
- Grants and contracts:
  - NIH, Gates, Medtronics, other foundations
  - CDC, OFDA
  - NGO
  - other
- Mentorship and collaboration have been critical to this success.
GLOBAL EMERGENCY MEDICINE AND RURAL HEALTH FELLOWSHIP:

**Partnership with ANTHC**

- Develop individuals committed to developing knowledge and/or providing care for those in low-income regions.

- 2-year fellowship

- Clinical and cultural clinical immersion
  - 12 mo Alaska or IHS
  - 11-12 mo established NGO or UW Global Health
GLOBAL EMERGENCY MEDICINE AND RURAL HEALTH FELLOWSHIP:

Partnership with ANTHC

- Rigorous didactic curriculum (population health and social medicine, humanitarian response, tropical medicine, rural health, MPH)
- Training in research methods and project work/completion
- Funded via clinical work with ANTHC
- Department provides minimal funding

DEVELOPMENT AND SUPPORT FOR GLOBAL HEALTH PROGRAMS
UNIVERSITY OF WASHINGTON
DEPARTMENT OF EMERGENCY MEDICINE

GLOBAL EMERGENCY MEDICINE AND RURAL HEALTH FELLOWSHIP:
RESIDENCY: Emergency Medicine Global Health Pathway

Goals:

• Provide fundamental knowledge to any resident interested in GH and Global emergencies
• Facilitate career exploration and career development focused in GH
• Provide an experience abroad for trainees who demonstrate evidence of long-term career goals focused in GH
DEVELOPMENT AND SUPPORT FOR GLOBAL HEALTH PROGRAMS
UNIVERSITY OF WASHINGTON
DEPARTMENT OF EMERGENCY MEDICINE

RESIDENCY: Emergency Medicine Global Health Pathway

The Curriculum and Structure:

- Longitudinal curriculum beginning half-way through the second year.
- Participation in the Global Health Leadership Course supported by the DGH
- Assigned mentor
- Work with GH Organization (i.e. I-TECH, IHME, PATH, etc)
- Field experience abroad for selected residents (competitive application) Project development

Funding for two residents per years through the Department of Emergency Medicine.
Summary:

Several GH focused faculty –
- funding is via grants, contracts, and NGOs
- department provides small amount
- identification of collaborators and mentors within and outside of UW critical

Global Emergencies / Rural Health Fellowship –
- funded via partnership with ANTHC

Residency Global Health Pathway (2 ½ year longitudinal curriculum)
- didactic and local aspects of curriculum open to all
- DEM funds 2 residents per year to go abroad
- if not funded, interested trainees work with mentors to other sources of funds
Global Health at Brown Emergency Medicine

Jeremiah Schuur, MD, MHS
Professor and Chair, Department of Emergency Medicine,
Alpert Medical School, Brown University
Physician-in-Chief, Emergency Medicine, Lifespan Health System
President, Brown Emergency Medicine

@JSchuurMD
Disclosures & Acknowledgements

• Nothing to disclose related to this talk
• Extramural funding
  • CMMI
  • AHRQ
  • EMF

• Acknowledgement

Adam Levine, MD, MPH

Director, Division of Global Emergency Medicine
Academic Interests: Acute care research and training during humanitarian emergencies and in resource-limited settings.
Contact: Adam_Levine@brown.edu
Our Mission

The mission of the Division of Global Emergency Medicine is to provide high-quality, culturally competent, emergency care, education, research, and leadership in resource-limited settings across the globe. The division engages residents, medical students, physician assistants, and fellows in global emergency medicine collaborations from institutions around the world.

The division provides education on global health issues as an integral part of the Emergency Medicine Residency program, Global Emergency Medicine Fellowship, medical school, graduate, and undergraduate curricula.

Faculty, residents, and fellows have participated in international educational and relief activities in Haiti, American Samoa, Rwanda, Nicaragua, Liberia, Fiji, Libya, Turkey, South Sudan, Ecuador, and Uganda.
Background

• Faculty
  • 8 core faculty & 5 Associate faculty – meaningful participation

• Education
  • Fellowship – 2 year w/ MPH, 1-2 fellows per year
  • Residents
    • Brown EM - 14 separate international rotations for EM residents this past year
    • BRIGHT – program for residents across the Brown training programs
    • Kigali, Rwanda - first class of 6 Rwandan EM residents graduated from the residency in Kigali that Division worked to establish & grow over past 7 years.

• Medical Students
RESIDENT INTERNATIONAL ROTATIONS –
12 Residents, 14 Trips & 42 Weeks

Jordan Wolfe, MD & Mike Hunihan, MD
4 Weeks

Tess Wiskel, MD
4 Weeks

Tess Wiskel, MD
4 Weeks

Ashley Gray, MD
4 Weeks

Tess Wiskel, MD
4 Weeks

Belize
Honduras

Jordan Cohen, MD
Chana Rich, MD
Michael Wilk, MD
Will Galvin, MD
Gabe Heiderich, MD
2 Weeks

Rwanda
Kenya

Saipan
American Samoa

Tibet

Thomas Ross, MD
Gabe Gao, MD
Research

• 20 peer reviewed publications, 18 abstracts
• 15 active grants w/ over $4 million in current cumulative grant funding

Impact of emergency medicine training implementation on mortality outcomes in Kigali, Rwanda: An interrupted time-series study


Department of Emergency Medicine, Brown University Alpert Medical School, Providence, USA

Results: From 43,213 encounters, 3,609 cases were assessed. The median age was 32 years with a male predominance (60.7%). Pre-training EC mortality was 6.3% (95% CI 5.3–7.5%), while post-training EC mortality was 1.2% (95% CI 0.7–1.8%), constituting a significant decrease in adjusted analysis (aOR = 0.07, 95% CI 0.03–0.17; p < 0.001). Pre-training overall hospital mortality was 12.2% (95% CI 10.9–13.8%). Post-training overall hospital mortality was 8.2% (95% CI 6.9–9.6%), resulting in a 43% reduction in mortality likelihood (aOR = 0.57, 95% CI 0.36–0.94; p = 0.016).

Discussion: In the studied population, EM training and systems implementation was associated with significant mortality reductions demonstrating the potential patient-centered benefits of EM development in resource-limited settings.
Key Partners

• School of Public Health
• Medical School: not key; main focus is biomedical innovation
• Brown University: Watson Institute
Challenges & Approaches

• Funding
  • Support from department
    • Faculty time
    • Internal Grants
    • Resident Travel Funds
  • Extramural funding is focus of division and fellowship
    • NIH
    • Foundations
    • Private Philanthropy

• Scheduling
  • Faculty are given additional non-vacation time for global travel (off schedule)
  • Division manages; distributes across year