

## **Teaching Global Health at an Academic Health Center in Delaware:**

### **The evolution of a Global Health curriculum and Global Health Residency Tracks at Christiana Care Health System**

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### **Background**

The increasing interconnectedness of the world and the movement of people (voluntary and involuntary) challenges all those in health to understand the global burden of disease. There subsequently arises the need to develop tools to address health disparities through direct clinical care and health systems level change. At the same time there is the essential need for education on cross-cultural interactions and mutually respectful, sustainable interactions, especially when operating in a global space.

There has been a movement in undergraduate medical education (i.e., at the medical school level of M.D. or D.O. training) to provide global health experiences for their students. Currently, more than 25% of graduating U.S. medical students enter residency with global health experience.<sup>1</sup> Surveys indicate, however, that this experience is of high variability with regards to objectives and outcomes.<sup>2</sup> While possibly important to provide a global awareness and even altruism for medical care,<sup>3</sup> these experiences are by necessity often pre-clinical, and limited in terms of providing directly applicable clinical skills. Further, as medical schools or host programs abroad may not always provide a robust context for such learning (i.e., didactic programming in global health), students may enter residency with further variability in baseline knowledge, attitudes, and experience.

In order to build on these early global health experiences, many medical students preferentially rank residency programs that offer global health training opportunities.<sup>4</sup> Although at a slower pace than medical schools, residency programs have also been developing electives, curricula, and tracks to address this demand for global health education.

## Global Health Track

### Development

In August 2011, the Global Health Curriculum at Christiana Care Health System (CCHS) was developed by a core, multi-disciplinary group of residents and faculty.<sup>5</sup> CCHS is one of the largest health systems in the United States (and by far the largest in the State of Delaware), with over 1100 hospital beds, 2 separate hospital campuses, 3 emergency departments, multiple ambulatory sites of primary and specialty care, and the largest private employer in the State. Home to over 250 residents and fellows across all major specialties and more than 1500 medical-dental staff, it is also a major training ground and workforce supplier for the region. The global health (GH) faculty thus had an opportunity to develop a systemwide program from the ground up, consistent with the pluralistic values of the health system, and meant to educate learners in the principles of community & global health. The faculty took advantage of CCHS being a member of the 4-partner consortium, the Delaware Health Sciences Alliance (DHSA).<sup>6</sup> The Alliance already had a Global Health Working Group, including experts from all four institutions. Many of these experts were the basis of the initial and subsequent lectures in the Curriculum.

### Principles

From the outset, the Global Health core group developed certain guidelines.

1. The GH Curriculum would draw on the strengths and capabilities of all those interested, but not be housed in (or 'owned' by) any one department;
2. The group would coordinate closely with the educational needs of the GME office and the various residency programs;
3. The group would provide value to the health system and the educational mission by developing core competencies for global health work and a systematic checklist for going abroad;
4. The emphasis would be on learning the foundational principles of global health, including many of those derived from public health, and that travel simply for the sake of travel would be de-emphasized;
5. The core educational components would draw from the academic study of global health and not just 'medical missions'- and in doing so, it would teach community health and sustainability principles applicable to all health care.<sup>5</sup>

We leveraged our core group's joint expertise from, and membership in, national and local groups, including the Global Health Education Consortium (GHEC), which subsequently became part of the Consortium of Universities for Global Health (CUGH); the American Public Health Association's Section of International Health; the American Academy of Pediatrics' Section on International Child Health; the American Academy of Family Physicians' Center for Global Health Initiatives; the American College of Physicians; the Delaware Academy of Medicine/Delaware Public Health Association; and the Delaware Health Sciences Alliance.

## Structure

Recognizing the need to be comprehensive, yet adaptable to the needs of various audiences, the core group outlined a core set of topics felt to be essential to global health education (Table 1). To translate these to practice, the group developed several interlocking components of the Global Health Curriculum<sup>7</sup>:

- A monthly Global Health Lecture Series. This would be open to all CCHS colleagues and indeed the community at large. Staffed by residents and mentored by faculty, it would bring in experts locally and globally.
- Integration with the main CCHS YouTube channel, with a specific area for [Global Health lectures](#).
- An annual resident & fellow presentation forum. This would allow all housestaff with global or community health experiences during residency to present to their peers and faculty.
- Two high-profile, system-wide global health Grand Rounds. We leveraged our presence on committees for specialty-specific education events to maximize the global sensibility for such events. For example, we created a ‘Global Health Keynote’ slot in the annual Holloway Infectious Disease Symposium, the oldest ID conference in the US, hosted at CCHS for 45+ years. Past speakers have included GH luminaries such as Drs. D.A. Henderson, Thomas Quinn, and Sten Vermund.
- The annual Global Health Symposium of the DHSA, a 4-member academic consortium of which CCHS is a founding partner. The GH Symposium is now in its 6<sup>th</sup> iteration.<sup>6</sup>

Table 1. Essential Topics in Global Health Education

Sustainable Development Goals	Emerging Issues in Global Health
HIV	Helminths
TB	Malaria and Dengue
Social Determinants of Health	Eradication programs
Women’s Health Part 1	Child Health Part 1
Women’s 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

As mentioned above, the GH Curriculum is the didactic aspect of the CCHS Global Health Program, and open to all. In addition, several individual departments have chosen to create an optional Global Health Track for their residents. These include residency programs in Emergency Medicine/Family Medicine (combined); Family Medicine;

Internal Medicine; Internal Medicine/Pediatrics (combined); Obstetrics & Gynecology; and Surgery. Overviews of the residencies' global health tracks are accessible at:

<https://residency.christianacare.org/med-peds/global-health>

<https://residency.christianacare.org/fm/global-health>

<https://residency.christianacare.org/im/global-health>

As part of an innovative, multi-disciplinary program, the track is a result of a multi-institutional collaboration across the DHSA, allowing the program to draw on faculty across the social and biomedical sciences to provide a robust global health track curriculum. The track requirements consist of the components of the GH Curriculum as above, along with active participation in mentoring, and completion of a community/global health experience. The track is targeted to residents who are interested in clinical or academic careers in global health, expanding their knowledge and experience of underrepresented diseases, working with underserved communities in the United States, improving care for immigrants and refugees, and increasing competence in the care of diverse, multi-cultural patient populations.

The topic areas in Table 1 are targeted and relevant to physicians and healthcare professionals from any specialty who are engaging in global health work internationally or locally. This core didactic curriculum is open to all hospital departments and unites students, residents and faculty from all medical disciplines along with nurses, pharmacists, social workers, administrators, and all interested staff and community members.

Track residents are all required to participate in 6 weeks of global health rotations. Residents can fulfill this requirement through international rotations, rotations with a US-based Federally Qualified Health Center or other setting relevant to underserved populations locally, ultrasound, global health electives/research, travel clinics, the Indian Health Service, and/or participation in a formal didactic course relevant to the practice of global health. Additionally, travel abroad is not a requirement of the track, but the program provides structured, formalized global health electives through partner institutions in South Asia (India and Bangladesh) and the United Kingdom. A fuller discussion of the electives is outside the scope of this paper, however, we endorse the principles of sustainable partnership as discussed elsewhere.<sup>8-11</sup>

As part of the track, residents must produce a scholarly project or presentation related to their global health elective experiences. Another important required component of the CCHS global health program is regular mentor meetings with faculty engaged in global health. Faculty guidance in selecting and planning global health elective time is aimed at ensuring responsible clinical practice in the global context.

On average, at any given time there are 8-10 global health track residents across the different specialties. To date, fifteen residents have successfully completed the global health track over the past seven years. The residents have gone on to career paths, including a wide variety of primary care physicians (with several working at FQHCs and with refugee populations), hospitalists, a maternal-fetal medicine specialist, a colorectal surgeon, and emergency medicine physicians.

## Conclusion

It is critically important for medicine, public health, and allied health disciplines to produce engaged, informed health professionals. Given the increasingly global nature of this work, the Global Health Curriculum plays an important role in the education of all learners, whether students, residents, or professionals.

In describing the Global Health Curriculum and the Global Health Residency Tracks, we emphasize the need for humility and openness to culture-specific understandings of health, disease, and identity. We also wish to emphasize that our aim is to train learners in the academic fundamentals of global health, not simply to engage in travel abroad. Recent commentaries have highlighted that the latter should be considered carefully if undertaken at all.<sup>12</sup>

Through its shared curriculum for all, and individualized, specialty-specific GH Tracks, the Global Health Program at CCHS has been shown to be a practical, low-cost approach to teaching global health in an academic setting. Future areas of development include increasing local capacity for global health experiences (particularly in the areas of refugee and immigrant health), standardizing pre-departure preparation across specialty areas, and further developing the global health faculty mentorship model.

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