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# Global Health Medical Education In Rhode Island: A Review and Look To the Future

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The need for medical training in global health has increased dramatically, because of an increasing proportion of immigrants in the Rhode Island population, increasing international travel, migration of populations, spread of diseases, and the rapid exchange of information through technology. This article reviews some national trends in global health medical education, as well as some established and novel global health medical education programs in Rhode Island.

## GLOBAL HEALTH – AN EMERGING MEDICAL CONSTRUCT

Recently Kaplan et al. in the *Lancet* defined global health as “an area for study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health emphasizes transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes interdisciplinary collaboration; and is a synthesis of population-based prevention with individual-level of clinical care.”<sup>1</sup>

This definition includes important aspects of global health, viewed by many as essential, including its interdisciplinary nature and the goal for health equity. In contrast to the term “International Health,” which highlights the differences in diseases in countries other than one’s own, “Global Health” emphasizes the commonality of our health concerns and

the need to approach solutions in a collaborative fashion.<sup>2</sup>

Due to the marked increase in need and interest, the field of global health medical education has rapidly expanded. In 1978, 6% of medical students participated in an international health elective during medical school.<sup>3</sup> By 2009, the percentage rose to 30%.<sup>4</sup> In response, global health activities have been increasingly incorporated into medical training. A recent study found that 52% of pediatric residency programs in 2006-2007 offered global health electives, up from 25% in 1996.<sup>5,6</sup>

Global health medical education benefits the local communities. Training in global health may improve clinical care for refugees, travelers and immigrants in our local medical centers. Many feel that training in global health augments trainees’ knowledge of diseases not commonly found in the United States. Communication skills and cultural competency are often improved, and studies have suggested that global health experiences sustain idealism and humanism in medical students and physicians in training.<sup>3,7</sup> Many physicians realize early in training that entering medicine requires knowledge and participation in the larger global health issues of the world. For example, the global health community has spearheaded the fight against the HIV/AIDS pandemic and the newly emerging concept of global health equity.<sup>8</sup>

During medical training and practice, exposure to global health is increasingly common. This occurs not only through clinical care teaching and research in the international setting but also through care of immigrants, travelers and refugees in the Rhode Island population. Many feel that global health medical education consists of a combination of strong medical exchange programs, didactics, local or international global health educational experiences and mentorship from those experienced in global health settings. However, there are few standardized guidelines outlining a formal approach to global health education.

The Global Health Education Consortium (GHEC) is devoted to furthering these goals and has grown over the past two decades.<sup>2</sup> The American Academy of Pediatrics Section on International Child Health has developed clinical competencies for global health education in pediatrics residency training. Overall, however, best practices in global health medical education are still in development stages and further research is needed in curriculum development and evaluation.

## GLOBAL HEALTH EDUCATION AT BROWN UNIVERSITY

As global health interest has grown, the global health medical education efforts in Rhode Island have expanded. Some of the key programs at Brown University were

reviewed in the November 2007 *Medicine & Health/Rhode Island*.<sup>9</sup> Since that time, new programs have emerged, many of which emphasize medical education in global health, curriculum development, and medical and academic exchange programs.

Brown University has had a rich history of global health work, including activities at the undergraduate, medical school, public health program, and resident education level. Brown offers over thirty global health-related courses that span multiple disciplines. In the last few years, Brown developed a medical student “global health scholarly concentration” and a “global health track” in the public health program.

Medical students in the “global health scholarly concentration” participate in a series of courses, seminars, and mentoring. They are required to complete a mentored global health project and are evaluated on predetermined competencies. The public health students similarly attend didactic courses and complete a global health-related thesis. The University of Rhode Island Department of Women’s Studies and College of Nursing are also engaged in global health-related activities, ranging from research in the trafficking of women and children, to primary care experiences in rural Latin America.

International academic exchange programs are often considered the cornerstone of global health medical education. For example, the Brown-Kenya program was established in 1996 as a collaboration with Moi University School of Medicine in Eldoret, Kenya, and the **Academic Model Providing Access To Healthcare (AMPATH)** consortium. The Brown-Kenya program focuses on the improvement of patient care, sustained through medical education, and strengthened by medical research. The program emphasizes bilateral exchange, mutual benefit, and long-term commitment. Brown faculty and residents in training from the Departments of Medicine, Pediatrics, Emergency Medicine, and Psychiatry have participated in the program by traveling to Eldoret for clinical rotations. In turn, the program has hosted Kenyan medical professionals and medical students in the United States. Clinical program development and collaborative research in tuberculosis, HIV testing, HIV diversity and resistance, dia-

betes, and oncology, among others have been developed through this partnership and continue to expand.<sup>10</sup>

The Brown University Internal Medicine Exchange Program in the Dominican Republic started in 2004 as a collaborative effort with the Hospital Cabral y Baez in Santiago. The program focuses on a bilateral academic exchange, an HIV treatment and prevention initiative, and an associated HIV/AIDS research collaboration. Residents in training who have participated in the program have cited the opportunity to learn Spanish during their elective rotation as an additional benefit of the program.<sup>11</sup>

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## **Brown offers over thirty global health-related courses that span multiple disciplines.**

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There is a well-established global health collaboration between Hasbro Children’s Hospital, the Warren Alpert Medical school of Brown University, and **Angkor Hospital for Children (AHC)** in Siem Reap, Cambodia. Many medical students, pediatric residents and faculty have participated in this academic exchange program. AHC is a pediatric teaching hospital which developed after civil war and genocide destroyed Cambodia’s medical infrastructure and workforce. The primary focus of the program is to improve the health of all children in the Siem Reap region through care provided at the AHC and outreach in the communities. These efforts are supported by and strengthened through the ongoing collaboration and academic exchange.<sup>12</sup>

The Department of Emergency Medicine at Brown University participates in an initiative with **John F. Kennedy (JFK)** Hospital in Monrovia, Liberia. This is part of a consortium of academic medical centers coordinated by a non-profit organization known as **Health Education Through Research and Teaching (HEARTT)**. At JFK Hospital, Emergency Medicine residents, fellows, and faculty participate in clinical care, research, community outreach and program development.

Other global health-related programs based in Rhode Island include The Memorial Hospital of Rhode Island’s partnership with the “Shoulder to Shoulder” program in Honduras, and at Rhode Island Hospital, the Department of Surgery’s collaboration with Tenwek Hospital in Kenya.

## **EVOLUTION OF GLOBAL HEALTH ON THE MEDICAL CURRICULUM**

Resident global health medical education in Rhode Island has traditionally been fostered through these and other international medical exchange programs. Previously, established residency curricula provided inadequate training in global health to prepare residents for international electives, to foster leaders in the field, or to launch careers in global health. To address this educational void, a number of residency training programs at Brown began to design global health curriculum development projects.

The residency training programs in the Departments of Pediatrics, Combined Medicine/Pediatrics, and Internal Medicine have developed a novel global health training pathway which will begin in July 2010. The **Brown Residency International/Global Health Training (BRIGHT)** Pathway will train residents to become leaders in the field of global health. By participating in this pathway, residents will partake in global health electives (local or international), didactics in global health, faculty mentorship, and a global health scholarly activity. Residents who complete the BRIGHT pathway will receive a certificate at graduation.

The Department of **Emergency Medicine (EM)** has pioneered a new approach to global health medical education within the residency curriculum. At Rhode Island Hospital’s Medical Simulation Center, the EM faculty use SIM and standardized patient encounters to teach emergency medicine residents select topics in tropical medicine, public health, and decision-making in varied-resource settings. (See related article in this issue) The Department of EM at Brown has also expanded global health training through its fellowship in International EM, one of less than 20 available in the US. (See “The Use of Medical Simulation to Train Health Care Providers for Practice in International Settings” by Proano, Foggie, and Partridge in this issue.)

Local clinical activities in RI focus on diseases and healthcare issues which transcend boundaries. Examples are the Hasbro Pediatric Refugee Health Clinic, The RISE Tuberculosis clinic, and The Miriam Hospital Travel Medicine Clinic.

Several multidisciplinary global health research centers at Brown University offer global health research training. The NIH Fogarty AIDS International Training and Research Program, The Brown/Tufts Center for AIDS Research, and the NIH HIV Research Training Fellowship within the Division of Infectious Diseases at Brown focus on HIV/AIDS. The Center for International Health Research at Lifespan, and the Population Studies Training Center at Brown University, focus on clinical and basic science global health research, and population health, respectively. Areas of research at these centers include schistosomiasis, malaria, the study of fertility, and HIV/AIDS.

To disseminate information and encourage collaboration among the many individuals involved in these endeavors, in September, 2009, Brown University launched the **Global Health Initiative (GHI)**. The GHI is a "multidisciplinary university-wide effort to reduce health inequalities among underserved populations locally and worldwide through education, research, service, and development of partnerships." It offers funding opportunities to undergraduates, medical trainees and faculty for global health related academic pursuits as well as training through the Framework for Global Health grant mechanism. The GHI encourages interdisciplinary collaboration within the Departments of Medicine, Public Health, Sociology, Anthropology, Economics, Engineering, International Studies, and Environmental Global Health.

## CONCLUSION

As clinicians and medical educators in Rhode Island move forward with the shared goal of improving health and achieving equity in health for all people globally, we must evaluate our educational strategies and develop new methodologies to incorporate global health teaching into medical education.

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