

DEVELOPING GLOBAL HEALTH CURRICULA:

A GUIDEBOOK FOR US & CANADIAN MEDICAL SCHOOLS



A COLLABORATION OF AMSA, GHEC, IFMSA-USA, AND R4WH

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Cover Image: Emily Wei, a public policy/law student. Ghana Health and Education Initiative's President, with the Ghanaian Program Director's Daughter, Aso. Photo by Diana Rickard.

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TABLE OF CONTENTS

| | |
|------------------|--|
| Section 1 | A Brief History of International Health |
| Section 2 | A Brief Literature Review of Global Health Medical Education |
| Section 3 | Forms of Global Health Medical Education |
| Section 4 | Models of Global Health Medical Education at US & Canadian Medical Schools |
| Section 5 | Steps to Implementing A Global Health Curriculum at US Medical Schools |
| Section 6 | Components of a Curriculum in Global Health |
| Section 7 | Career Counseling for Medical Students Interested in Global Health |
| Section 8 | Membership and Extracurricular Organizations for Medical Students |
| Section 9 | Resources |

1



A BRIEF HISTORY OF INTERNATIONAL HEALTH

The idea that medicine and health transcend geographic boundaries is not new though it has taken much time for this concept to be integrated appropriately into medical education and practice. Globalization of all sectors of society has been accelerated by the technology revolution of the last few decades but the modern discipline of ‘international health,’ now more inclusively called ‘global health,’ has evolved steadily over the last 150 years. The roots of ‘international health’ can be traced to the cholera outbreak of the mid-1800s which led physicians and politicians to convene the first International Sanitary Conference (ISC) in 1851. Successive annual ISC’s focused on different infectious diseases such as yellow fever and plague until 1938 and eventually became meetings where discoveries in medicine were presented and discussed.

In 1902 hemispheric collaboration around yellow fever led to the creation of the Pan American Sanitary Bureau (now called the Pan American Health Organization, or PAHO). PAHO soon became a model for international information sharing and health promotion. Following World War I, several global organizations, most prominently the League of Nations Health Committee, broadened the concept of international health beyond infectious diseases to encompass maternal and infant health, nutrition, housing, physical education, drug trafficking and occupational health.

The horrors of Nazi concentration camps prompted an emphasis

Image: An older sister cares for her sibling at the Ghana Health and Education Initiative. Photo by Diana Rickard.

on humanism and unprecedented cooperation between countries united by the vow, never again. The World Health Organization (WHO) was created in 1948 by the United Nations and charged with fostering collaboration among member countries in addressing health problems. The mission of WHO defined a new concept of health; that health was not merely the absence of disease, but the promotion, attainment and maintenance of physical, mental, and social well-being.

In 1947, doctors from 27 countries met in Paris and created the World Medical Association whose objective was “to serve humanity by endeavoring to achieve the highest international standards in medical education, medical science, medical art and medical ethics, and health care for all people in the world.” In 1948 the first Student International Clinical Conference brought together medical students from all over Europe. In 1951 this conference evolved into the International Federation of Medical Students’ Associations with the stated objective of “studying and promoting the interests of medical student cooperation on a purely professional basis, and promoting activities in the field of student health and student relief.” This mission was soon expanded to include medical student cooperation toward the health of all populations.

In the US, the International Health Medical Education Consortium (now called the Global Health Education Consortium) was created 40 years later in 1991. With a current membership of approximately 60 medical and other health professional schools in the US and Canada, GHEC seeks to promote and support educational programs that prepare health workers to address global health challenges. The increasing focus on international health is also evident in other large U.S. organizations. The American Medical Association opened an Office of International Medicine in 1978, the Global Health Action Committee of the American Medical Student Association was started in 1997, and the U.S. chapter of the International Federation of Medical Student Associations (IFMSA) was created in 1998.

The WHO’s failure to eradicate malaria (after eliminating small pox) exposed the complex interrelationships between health and social infrastructure, culture, politics and economic stability. It also demonstrated the importance of culturally-sensitive planning and discredited the notion of ‘magic bullets’ for the world’s disease burdens. Medecins Sans Frontieres (Doctors Without Borders) was created in 1971 by physicians dissatisfied by the WHO’s and the

International Red Cross’ inadequacy in addressing the structural and political factors that led to health crises. In 1978 the WHO met in Kazakhstan and produced the Declaration of Alma Ata which defined a fundamental shift in focus for the organization with more emphasis on health and less on disease. Out of this conference came the goal, “Health for all by the Year 2000.”

The future of the world’s health requires cooperation between nations, NGOs, corporations, health care professionals, medical researchers and public health specialists. There are profound economic, human and environmental consequences of the health disparities that exist in the world, clearly described in 2004 by the UN’s Commission on Macroeconomics and Health:

1. The massive amount of disease 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 ability and the technology to save millions of lives each year if the wealthier nations, at a cost of less than 0.7% of their GNP, would help provide poorest ones with basic health services.

These conclusions are simple and straightforward, but their implementation is complex, requiring the collaboration of trained professionals from many fields. As medicine trains doctors who specialize in international health, public health is seeing a surge of interest in global health, and law schools sponsor majors in international law. The world is our “community” and globalization is not a passing fad. The challenges for medical schools worldwide are to define the approximate skill set for global health and to nurture the growing interests of their students in confronting the greatest health problems of our time, both within and outside our national borders.



2

A BRIEF LITERATURE REVIEW OF HEALTH MEDICAL EDUCATION

This literature review focuses on ‘international health medical education,’ hereafter referred to as ‘global health education,’ as it pertains to U.S. and Canadian medical students and to a lesser extent, foreign medical students who do rotations at North American medical schools. It will not address other educational initiatives with an ‘international’ theme such as: implementing global standards in medical education; infusing evidence-based medicine into medical curricula worldwide; training foreign researchers through exchange programs sponsored by North American medical schools; or educating foreign graduates for residency training in the U.S. and Canada.

An article in *JAMA* November 1969 reported,

...every US medical school is involved in such international activities as faculty travel for study, research and teaching, clinical training for foreign graduates, and medical student study overseas...a recent self-survey by Case Western Reserve medical students indicated that 78% of the first-year class and 85% of the second-year class were interested in studying or working abroad at sometime in their medical school careers.¹

This paper went on to report that 600 American medical students went abroad during the academic year 1966-1967. This interest in

Image: Pediatric patients at IFMSA-USA partner clinic in rural Guatemala. Photo by Diana Rickard.

global health from U.S. medical students in the late 1960s is being replicated today. The commitment and investment by medical schools to meet that interest is, however, inconsistent, fragmented and often hard to document despite a substantial increase in international opportunities for their students.

International electives in developing countries first took place in the 1950s. Several factors contributed to the rise in popularity of such electives. First, commercial air travel allowed students to access distant, often isolated areas. Secondly, the decolonization of areas in Africa, Asia, and South America created the impetus to initiate international assistance programs that addressed health in these newly independent countries. Concurrently, in 1960 Smith, Kline, and French Laboratories made available a grant of \$180,000 to fund overseas experiences for medical students. The increased access to world travel, a changing global landscape and funding for medical students led to an increase in student rotations abroad.² Today there is a network of organizations that help medical students access and participate in international experiences. In addition, there are local, national and international student-run organizations that bring together students with an interest in global health. Finally, there are an increasing number of physicians who dedicate their careers to aspects of global health as well as governmental and non-governmental organizations with global health missions.

In 1984 approximately 6.2% of American medical students participated in overseas clinical activities. This percentage grew to 15.3% in 1989 and 38.6% in 2000, according to the American Academy of Medical Colleges nationwide graduate questionnaire.³ Efforts have been made to investigate the benefits of such electives. One study demonstrated that 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.⁵ In another study, student participants described an increased awareness of the importance of public health and patient education following their international experience. Seventy-eight percent of students also reported a heightened awareness of cost issues and financial barriers to patient care following their experience. All students in this cohort also reported an increased perceived utility of history and physical examination and decreased use of diagnostic tests.⁶

Another study demonstrated that students who participate in an

international health experience in a developing country are more likely to practice subsequently in underserved areas within the U.S.⁷ In a study of medical students and residents who participated in international health electives, attitudes about the importance of doctor-patient communication, use of symbolism by patients, public health interventions, and community health programs were more positive after than before to the experience. When these participants were re-interviewed two years later, they reported continued positive influences from the experience on their clinical and language skills, sensitivity to cultural and socioeconomic factors, awareness of the role of communication in clinical care, and attitudes toward careers working with the underserved ($p < .01$).⁸ In several of these studies, international experiences were associated with choosing a career in primary care. Although this may be due to selection bias in that students leaning to primary care may be more likely to participate in international experiences, it may also reflect one important outcome of global health exposure on career choice.

Even short term (one month) international electives appear to result in increased cultural competency among residents and students. Cultural competency in this context is characterized by a positive perception of patients from different cultures as well as a practice style that encourages greater practitioner insight and empathy toward patients from a different culture. Students who participated in an international elective had significantly improved scores on the “Cultural Self-Efficacy Scale” compared with their counterparts who did not. ($p = .007$).⁸

While international clinical electives are now quite common, medical schools still struggle with how to integrate international health content into the four-year curriculum and into their institutions in general. New curricular initiatives are being driven in large part by the expectations of prospective students and residents. A study of prospective residents at one institution found that 50% said the presence of an international program influenced their choice about which residency to accept.⁴ Research and commentary assessing the impact of global health curricula have created a dialogue that has facilitated these initiatives at various institutions.

State University of New York, Downstate Medical Center, has had an organized international elective for over 25 years, preceded by a preparatory curriculum. Heck and Wedemeyer found that although 93% of medical schools allowed for international electives in

1991, few medical schools adequately prepared their students for the overseas experience. At SUNY Downstate the preparation of medical students includes: health, legal issues (liability agreement), relevant cultural introduction (based in part on reports filed by previous students who went to similar areas and/or faculty who are familiar with the region), and independent study about the destination.⁹

The University of Massachusetts has a four-year Pathway on Serving Multicultural and Underserved Populations available to 20 incoming medical students per year, in which students participate in domestic and international experiences with multi-cultural populations. An earlier pre-clinical years track was the precursor to the Pathway program. Originally initiated with a grant from the Massachusetts' Division of Medical Assistance in 1996, the medical school assumed some of the requisite course support in 2000, thus making it possible to expand the track into the new Pathway program. A study of the participants found that they had increased tolerance for non-English speaking patients, improvement in their already high level of cultural competence, and maintenance of high measures of respect and compassion toward patients. Non-track students demonstrated a reduction in these parameters as medical school progressed.¹⁰

Other schools such as Case Western Reserve University offer short, often temporary didactic electives in global health to their students. However, until the final results of a 2005-06 survey conducted by the American Association of Medical Colleges become available we can't have an adequate sense of the scope and characteristics of these electives in American medical schools.

Commentary in the literature has emphasized humanism and professionalism as major educational outcomes of global health experiences. Taylor refers to them as "a remarkably successful way to promote idealism and altruism." A consequence of international work in developing countries is that students "come back seeing problems in their home environment very differently from how they saw them before." Taylor emphasizes that service is often what first attracted medical students to the field and charges medical schools with the duty to reinforce these attitudes.¹¹

Shaywitz and Ausiello build on this theme:

The quest to improve global health represents a challenge of monumental proportions: the problems seem so enormous, the obstacles so great, and success so elusive. On the other hand it is difficult to imagine a pursuit more closely aligned with the professional values and visceral instincts of most physicians. Many young doctors enter medicine with a passionate interest in global health; our challenge is to nurture this commitment and encourage its expression.¹²

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3



FORMS OF GLOBAL HEALTH EDUCATION

This section provides descriptions of the most common opportunities for learning about global health available to medical students. Some venues are within the formal curriculum while others are extracurricular. While not exhaustive, the possibilities noted reflect a broad array of options.

Didactic lectures and seminars for 1st and 2nd year medical students

A didactic curriculum can be integrated into the mandatory pre-clinical curriculum or alternatively, offered as electives for 1st and 2nd year students. Global health topics can be covered in the public health or infectious disease sections of the curriculum. Commonly, these electives are an option for the social medicine component of 1st and 2nd year.

Didactics and electives during the 3rd and 4th year of medical school

Tropical medicine can be discussed in the infectious disease rotations and issues of culture and immigrant / refugee health in the community medicine rotations. Some medical schools, e.g., the Univ. of Arizona and SUNY Downstate, have created introductory curricula for their fourth year students working abroad. These seminar courses can address the provision of health care in the developing world as well as relevant safety issues.

Image: Medical student during international summer experience between first and second year in rural Kenya. Photo by Diana Rickard.

International experiences during the summer between 1st and 2nd year

Students interested in global health often go abroad during the summer between 1st and 2nd year, the only extended free time students have during medical school. Although often organized independently, it is not uncommon for medical schools to help with funding and/or preparation for such experiences. For example, UCSF now provides partial support (~\$1000 up to \$3000) for up to 50 students per year.

Global health electives for 4th year students

During 4th year electives students often participate in international field placements. There are organizations, both for-profit and non-profit, that facilitate these rotations although many students locate sites independently with or without faculty mentors or other students. Sites vary from hospitals to rural clinics in both developed and developing nations and offer an experience in another health care system and/or socioeconomic situation.

An increasing number of students are opting to take a full year of international experience, usually between 3rd and 4th years. The very competitive Fogarty-Ellison awards from the NIH, administered with the assistance of the American Association of Medical Colleges, provide outstanding support to students with clear long-term goals in global health. Awardees are assigned to one of the major medical colleges with international research centers. Several other opportunities through CDC, foundations, and school fellowships are also available.

Global health tracks for medical students

Study tracks that integrate global health training over several years are gradually appearing on the educational landscape in medical schools and residency programs. These tracks vary widely with some offering certification and others informal recognition of student achievement. There are no recognized standards for such educational tracks since their designs reflect the way various schools and programs choose to structure their global health education.

Attendance at meetings with global health focus

There are dozens of institutional, regional and national meetings

that students can attend to learn about and network for a career in global health. These meetings are often organized around a theme or a particular organization. For instance, American University Peacebuilding and Development Institute hosted a symposium on Public Health and Conflict in December 2005, and both the Global Health Council and GHEC hold annual conferences with substantial student attendance. At these meetings students network with their peers and hear presentations from physicians who have dedicated all or much of their careers to global health. These meetings are especially helpful for students seeking to learn about potential field placements while still in medical school, and how to structure a career in global health. Students attend these meetings either at their own expense or in some cases, with support from their medical schools.

Presentation of research at international locations

Students who do research will occasionally submit it for presentation at international meetings where they can learn about research outside of North America and potentially develop collaborative relationships with colleagues abroad. A popular venue for research presentations by students is the European Students' Conference with participation from medical students from all over the world (www.esclerlin.com).

Collaboration with international researchers

Collaboration makes it possible to work with colleagues abroad. These individual ties can often lead to institutional ones, thus creating partnerships between U.S., Canadian and foreign institutions for education, research and clinical exchange.

Participating in research at an international site

Many students conduct research during medical school and an increasing number are doing it abroad, mostly in developing countries. Students will usually work under the guidance of a mentor or PI in the United States or Canada and an on-site supervisor / preceptor abroad. Research exchange programs are available for medical students through the International Federation of Medical Students' Associations (www.ifmsa.org/score/). Opportunities are also available to present such research. An example is the Global Health Council's "New Investigators in Global

Health Program” which features research by students and junior professionals at their annual Washington, DC, meeting.

Participation in a global health national or international organization

There are U.S., Canadian and internationally-based organizations to which interested medical students can belong. These non-governmental organizations facilitate learning about global health issues as well as the networking necessary to establish a global health career. The resources section of this document highlights a few organizations that exist primarily to provide experience and education in global health.

Student mentoring by faculty active in global health

Some schools, while lacking a structured program in global health, may nevertheless have faculty with sufficient expertise in this area to be able to mentor medical students. These faculty are often pivotal ‘champions’ who can help to institutionalize a global health program. Because global health is such a multifaceted and diverse field, practical experience and connections are often necessary for effective teaching and mentoring. Increasingly, medical schools are developing databases to link faculty with experience and interest in global health with fellow faculty and students.

Independent learning opportunities

In schools that lack faculty mentors or where mentors are not readily accessible, students may engage in self-motivated learning and peer education. Some of the most active components of ‘global health activities’ at U.S. medical schools are student groups, often called ‘international health interest groups,’ or IHIGs. The existence and activities of these student-led initiatives is evidence of strong student interest in global health.

The experience of UCSF provides a good example of the evolution of an IHIG. Started in 1996 with informal evening meetings of Bay Area faculty, students and practitioners interested in global health, the IHIG gradually became formalized and helped promote vigorous global health programs at three San Francisco Bay Area universities (UCSF, UC Berkeley and Stanford) along with UC Davis. In 1999 the first annual IHIG conference was held, now hosted in rotation by the four regional universities. In recent years student-run IHIGs

have been established at all four universities and they now sponsor their own talks and projects. The presence of these IHIGs, both at individual universities and for the region as a whole, has served to increase the visibility of global health, facilitate networking, and promote vibrant global health programs at all four institutions.

Complementary degree programs

Medical students are increasingly seeking additional professional degrees beyond the MD/DO. These degrees are important additions for physicians who want to have a career dedicated to global health, whether in clinical practice or in non-clinical fields such as program development, policy or public health. A frequent choice is a Masters in Public Health (MPH). Often MPH programs will have a policy, epidemiology, or other programmatic focus that will lend itself to globally-active physicians. Examples of other degrees include a Masters in International Health Policy and a Masters of Development and Health (both offered by the London School of Economics), Masters of Business Administration (health and economics, or other relevant sub-fields), law, and other complementary degree programs.

Graduate medical education programs

The growing interest in global health education is also occurring in the realm of graduate medical education. Currently more than 1600 residencies in family medicine, internal medicine, pediatrics, emergency medicine, psychiatry, surgery and other specialties indicate that they include some level of global health content or offer global health tracks. Often these programs support their residents during elective rotations abroad and protect time for other scholarly activities while the residents are working at domestic sites. Commonly these residency programs also focus on underserved populations in the U.S. as well as those in the developing world.



4

MODELS OF GLOBAL HEALTH EDUCATION AT US & CANADIAN MEDICAL SCHOOLS

Outlined below are a few of the many examples of how US medical schools are executing their global health curricula, different means to a common end. Some models were consciously created while others evolved gradually based on pre-existing institutional strengths and priorities. While there is no one correct way to develop curricula, successful models will build on internal strengths, guided by a clear set of educational goals and priorities. The examples below represent existing initiatives at U.S. medical schools and can serve as starting points for further development.

Partnering with a school of public health

The Johns Hopkins School of Medicine utilizes the Johns Hopkins Bloomberg School of Public Health and its Department of International Health to provide support and structure for medical students seeking global health experiences. The Department of International Health within Hopkins' SPH was founded in 1961 and sponsors four program areas: Disease Prevention and Control, Health Systems, Human Nutrition, and Social and Behavioral Interventions. The Hopkins School of Medicine has relatively informal mechanisms for sending medical students abroad and educating them about global health and relies on its ties with their School of Public Health to augment medical students' education in this area. Hopkins provides a model for how a school outside of the medical school itself can be utilized to help provide educational

Image: Youth at the Ghana Health and Education Initiative during World AIDS Day awareness celebrations. Photo by Diana Rickard.

opportunities for medical students. Website: www.jhsph.edu/dept/ih

Focus on globally applicable biomedical research

Case Western Reserve University School of Medicine's Center for Global Health and Diseases is an example of a department that focuses on research into parasitic and infectious diseases, with 10 faculty, 5 administrators and \$12 million in annual funding. This department allows a modest number of medical students to gain research experience in global health but has not been involved in funding or organizing medical student global health education. The Center exemplifies how an internationally-focused department can have a research focus and education future physicians on the role research can have in addressing developing world health problems, especially in developing countries. Website: <http://ora.ra.case.edu/geomed/>

A faculty champion brings global health to life

At Georgetown Medical School the success of their international programs can in large part be attributed to the passion, conviction and tireless effort of one faculty member. Irma Frank assumed the position of Assistant Dean for International Programs in 1990 where she helped establish programs around the world with hospitals and other care providers. Currently, 30% of Georgetown's medical students complete a 4th year international elective administered by the School of Medicine's Office of International Programs and students can set-up independent rotations subject to approval by Dr. Frank. Dr. Frank illustrates how committed faculty can champion the creation and maintenance of global health programs for medical students. Website: <http://www3.georgetown.edu/som/international/index.htm>

Department based programming

The Department of Family Medicine has emerged as the center of global health medical educational activities at the University of Cincinnati College of Medicine. Departmental leadership includes a Director of International Health Programs. An international health residency track is offered and an International Health - Care of Underserved Populations Education Track for medical students is being introduced. The Department of Family Medicine's involvement with global health education demonstrates how care for the

underserved domestic population can be made relevant to care for the underserved worldwide. Website: www.familymedicine.uc.edu

Partnering with a non-governmental organization

The Department of Family Medicine at the University of Cincinnati also illustrates how an institution-to-community approach can be developed, in this case facilitated by the help of a non-governmental organization (NGO), Shoulder-to-Shoulder. This linkage features collaborative projects with rural Honduran communities serving as additional partners in the provision of sustainable health care. This model exemplifies how partnering with an NGO can help fulfill academic goals and even spark collaborations between universities. Currently, the University of Rochester, University of Cincinnati, and Baylor are working together through Should-to-Shoulder, and sharing the educational opportunities for medical students and residents. Website: www.shouldertoshoulder.org

Global health office centralized within a medical school

Global REACH (Research, Education and Collaboration in Health) was established in 2002 at the University of Michigan Medical School by an Associate Dean and now headed by an MD/PhD Director with a dual appointment as an Associate Professor in the Department of Internal Medicine. The Global REACH Student Alliance is the medical student global health interest group. In addition to the director, the staff of Global REACH includes a Research Director (who studies the educational benefits of medical student international experiences among other projects), a Research Assistant, and an Administrative Assistant whose duties include coordinating the work of visiting scholars. Current Global REACH projects include: identifying and organizing international faculty and medical student activities, a grant from the Institute for International Medical Education to assess core competencies at a Chinese medical school, developing memoranda of understanding with schools abroad, and qualitative studies on the impact of international health experiences on medical students. Global REACH also provides funding for medical students to do international rotations. This program demonstrates how a centralized office situated within a medical school can bring support and opportunities to medical students while fostering medical center-wide opportunities in international health. Website: www.med.umich.edu/medschool/global/

Private foundation-medical school partnerships

The relationship between the University of Washington and the Gates Foundation/Puget Sound Partners for Global Health exemplifies an important type of partnership that can facilitate global health education. The University of Washington is establishing a Department of Global Medicine. They now have a Global Health Resource Center with a Program Manager, an International Medical Education Office, a student-led International Health Group, and the Global Health Pathway for medical students. New courses, MED 560, Advanced Global Health, and MED 561, Tropical Medicine, were developed by the International Health Group with support from the Bill and Melinda Gates Foundation and the Puget Sound Partners for Global Health. The International Health Opportunities Program is funded by the latter and facilitates the international experience of 10 first year students, as well as a three-day introductory session before their departure. Funding for seminars, speakers and rotations has come from grants from these organizations. Aligning medical schools with private foundations committed to global health can help facilitate the institutionalization of global health education. Website: <http://depts.washington.edu/ihg/> and <http://www.mebi.washington.edu/intl.html>

Global health tracks for medical students

There has been an increasing interest in global international health tracks for medical students in recent years. Three medical schools are examples of this movement.

Albert Einstein College of Medicine

The Albert Einstein College of Medicine (AECOM) of Yeshiva University has both integrated global health into its required core curriculum and established a very active Global Health fellowship for its more interested students.

The centerpiece course of the core curriculum is Parasitology and Global Medicine, a 27-hour course in the second year that addresses economic and cultural issues while focusing on the biology, prevention and treatment of parasitic diseases. Integration of global health topics into other courses as well as an on-site Global Health Elective for both students and residents to explore global social and

public health issues in greater depth are presently being planned to complement the core.

AECOM has also had a well-funded global health fellowship program since 1976 in which around 65 students per year, from both the second and fourth years, participate. A large network of faculty from many disciplines serve as global health project advisors. Einstein fellowship students spend at least two months abroad in a research, clinical or public health project, and some go abroad for much longer periods of time. Many students participate in a broad range of NIH-funded basic and clinical projects in infectious diseases with Einstein's NIH-funded Center for AIDS Research and AIDS International Training and Research Center providing overall coordination and support. Students in the Global Health Club and other student organizations sponsor events throughout the year in which faculty and guest speakers present talks on global health issues and provide fora for discussion of global health projects, including presentations by former Global Health Fellows. A Global Health Alliance is being formed at the medical school to stimulate greater interaction and collaboration among students and faculty involved in educational, research or clinical projects, and to facilitate development of new programs and partnerships with overseas academic institutions. Website: <http://www.aecom.yu.edu/ghf>

Baylor Medical School

Students and faculty interested in global health have developed a 4-year International Health Track for Baylor medical students. Students who complete the track receive a certificate at graduation and qualify to sit for the examination leading to the Certificate of Knowledge in Tropical Medicine and Traveler's Health, sponsored by the American Society for Tropical Medicine and Hygiene. The track is in part organized by the Academic Coordinator for International Affairs within the Department of Family and Community Medicine. Track goals include preparing students to: discuss international problems of health and illness, with focus on the developing world; describe existing health care organizations and systems involved in international health, including the scope of their services and their interaction; apply knowledge of epidemiology, diagnosis and treatment to common tropical and parasitic diseases and to the health problems of international travelers; be aware of the challenges of providing healthcare services in international settings; utilize skills in cultural competency and cross-cultural dynamics in

the care of patients; evaluate the impact of global health factors (e.g., economic, epidemiologic, and cultural) on the provision of health care in the United States; design and implement a research project in international health; identify and critically utilize pertinent literature on global health issues. Website: <http://www.bcm.edu/medschool/intnltrack.htm>

University of California, San Francisco

The University of California, San Francisco (UCSF) currently has an Area of Concentration (AoC) in Global Health for medical students and is now developing a Comprehensive Curriculum in Global Health. The AoC requires students to take several courses, including Topics in International Health and the Global Health Area of Concentration core course, and to do a practicum project. The “Topics in International Health Elective” enrolls ~50 students from all four health sciences schools (medicine, dentistry, nursing and pharmacy) though the great majority is medical students. The 10-week, winter quarter course meets weekly for two hours and starting in 2007. All students going abroad with school travel awards (50-60 per year) are required to attend a two-hour session pre-departure and most also take the “Topics” course. Students with a deeper interest in global health (currently about 12 per year) take the “Global Health Area of Concentration Core Course” during the summer between 3rd and 4th year of medical school. Besides several seminar discussions each week students take an accelerated course on how to design a research protocol and develop their own field project for implementation overseas. Within the medical school there is an Office of International Programs where these programs are developed and implemented. Staff includes a Director (MD/MPH), Program Coordinator and a Program Assistant. Additional resources include the Institute for Global Health and a new Global Health Sciences program, now developing a Masters degree in global health sciences. Website: <http://www.medschool.ucsf.edu/intlprograms/IHCurriculum/AoC.aspx>

Medical school funding of global health activities

Ohio State University College of Medicine and Public Health spends nearly \$200,000 a year on medical student global health experiences to ensure that involvement in global health is not restricted by students’ ability to pay. As a result, 50-60 4th year students participate in international electives. The College of Medicine

administers the program with the help of the university-wide international office. Students apply for funding and are given grants that are supported by a tuition-based funding structure. Ohio State College of Medicine has recently created an Office of Global Health Education to further the global health education of their students.

Weill Cornell Medical College has for many years included funding for international experiences in its fund-raising appeals to donors, especially alumni. These sources have made it possible in recent years to create both endowments and annual gifts that provide support for students after 1st year and in their 4th year of study. Returning students present posters and talk at an annual International Day in the spring, attended by the Dean, faculty and donors.

A recent study of the international experiences of all the schools of Cornell University found a major source of information came from the medical college. Such information included the founding of the Christian Medical College in Vellore, India, by Ida Scudder, member of the first graduating class in 1898, public health work in Jamaica and with Cambodian refugees in Thailand, major research projects in Brazil and Haiti, and support for a new medical college in Tanzania begun by an alumnus, experiences that can be of value to students and faculty in developing their own networks.

Use of third party programming

The University of Chicago-Illinois and the University of Chicago-Urbana-Champaign and several other U.S. medical schools utilize a third party, the International Federation of Medical Students’ Associations (IFMSA), to provide their medical students with opportunities abroad. IFMSA facilitates over 10,000 educational exchanges per year between medical schools worldwide. Students from over 70 countries participate. These exchanges are relatively inexpensive and are of high educational value as they are located at teaching institutions. Exchanges through IFMSA require that medical schools accept students from abroad in exchange for sending their students to international teaching sites. Exchanges facilitated by IFMSA-USA reflect the emphasis on egalitarian, bilateral exchange of medical education under the auspices of global health. Website: www.ifmsa-usa.org

5

STEPS TO IMPLEMENTING A GLOBAL HEALTH CURRICULUM AT US & CANADIAN MEDICAL SCHOOLS

‘Global Health’ is a broad topic. Often the integration of global health into a medical school curriculum is limited by time and financial or human resources. Once a medical school has made the decision to prioritize global health and to incorporate it into their curriculum, the practical question arises - how? Ideally, every medical school would be able to provide at least a basic introduction to global health to each student by the ideal is often far from what’s practical. This section suggests some practical steps to help a medical school implement global health in its curriculum.

Consider two tiers of global health medical education:

Students enter medical school with varying degrees of familiarity with global health. One student may have had a two-year Peace Corps experience in rural Uganda while another may not realize there are differences between health care in the United States and in Uganda. Given these varied levels of understanding, medical schools should consider providing two tiers of global health education. At a minimum schools should dedicate several hours within the required, standardized first and second year didactics to an overview of global health. Though not a comprehensive overview, it will provide time to discuss a few vignettes or highlight the international health expertise of a faculty member on salient aspects of global health. Furthermore, during this time students can be directed to resources, articles, and organizations through which they can learn more about global health.

The second ‘tier’ of a global health curriculum would be elective, featuring more substantial discussions and didactics for medical students with interest in global health. As an elective, it will be chosen by students who can benefit from more advanced study and, by exposure, to persons and resources that can guide them regarding global health careers, complementary degree programs, and mentorship opportunities.

Identify topics to teach and faculty who can teach them:

When medical educators want to create a curriculum in robot-assisted surgical techniques, they speak with the chair of surgery, who directs them to the faculty with most expertise on the subject. Obtaining help with the design of a global health curriculum is not quite as straightforward. Topics which are relevant to medical students are vast, and each medical school’s curriculum will in some ways be determined by the expertise and international experience of faculty. Unfortunately for educators and administrators trying to create this curriculum, these individuals are not located in a single department. Rather, faculty with experience in global health may be in any department of a medical school, medical center or university campus.

To create a curriculum in global health often the first step is convening a committee. This committee should be composed of curriculum stakeholders, faculty with experience in global health and curriculum administrators. Since the movement to increase global health medical education is in large part a student-led initiative, students may be some of the most dedicated and energetic members of a curriculum development committee. The committee should also seek input from senior school officials since without their support faculty will have a difficult time obtaining necessary teaching time and resources.

One of the first charges of this committee should be to locate the faculty within the medical school with global health experience. It will be important to look beyond medical school faculty to other academic bodies such as schools of public health and nursing, departments of anthropology, allied health schools, research departments and other diverse locations. Since experience in global health is one major qualification for teaching the subject, these individuals can provide a database of possible lecturers and mentors.

Concurrently, the global health curriculum committee should brainstorm topics they want to be covered in the curriculum. Section 6 of this guidebook outlines some possible areas. There are several textbooks and articles that may also be helpful (listed in the resource section). The topics covered in each medical school’s curriculum will in part be determined by locally available expertise.

The third step is to match the desired topics with the appropriate faculty to teach them based on their global health experience or specialized training. Although this process will result in a somewhat different educational menu at each institution, each curriculum will introduce and elaborate on the unique challenges to health and health care outside US borders.

Another way to introduce global health into medical curriculum is to reserve some time to weave global health into existing course modules. For example, during the gynecologic module a discussion about uterovesicular fistulas or cervical cancer and HIV in Africa could take place. Other examples include a discussion of malaria eradication campaigns during the infectious disease module, the burden of diarrheal illness during pediatrics, and mental health problems that surface in refugee camps during psychiatry. Some schools may find it is more practical to dedicate one hour or more per module, than to create a new global health course altogether. Again, this will be institution-dependent.

Success will be facilitated by identifying preexisting institutional strengths, either in the form of people, institutes, organizational relationships, or other schools and departments. Medical schools which capitalize on those institutional strengths will ease the implementation of global health medical education.

Examples of global health topics included in medical school courses

Cancer in Developing Countries (UCSF)
Evidence-Based Approaches to Malaria Control (UCSF)
Global Mental Health and the Post-Conflict Environment (UCSF)
Global Health Issues (University of Iowa)
Human Health and Global Environmental Change (Harvard)
Infectious Disease Outbreak Investigation (UCSF)
Intensive Course in Travel and Tropical Medicine (Baylor)
Nutrition and Rural Medicine in Latin America (Harvard)

Readings in International Health (Baylor)
Seminar in Global Health Equity (Harvard)
Tuberculosis: The Organism, the Host, and the Global Threat (Harvard)
Foundations in Global Health Practice (Univ. of Wisconsin)
Health and Disease in Uganda (Univ. of Wisconsin)

Get involved with the larger Global Health Community

Just as the motivations behind global health are the antithesis of isolationism, medical schools who try to create and maintain global health medical education in isolation will be remiss. There is a growing community of medical educators who are working toward the creation, implementation, and sustainability of global health education. This community is a network within which to share ideas, contacts, resources and support of all kinds. In the U.S. two organizations are especially relevant.

The Global Health Education Consortium (GHEC), created in 1991, provides a vehicle for linking with other faculty and students with shared interests in the educational part of global health. Medical and other health professional schools can join GHEC as institutional members and individual memberships are also available to faculty and students if their school is not a member. In addition to a variety of resources on its website GHEC convenes an annual conference and co-sponsors regional conferences around the country. These conferences provide students and faculty with opportunities to learn about global health issues, share ideas about educational programs, methods and materials, student field research, and much more.

The Global Health Council (GHC), with a large membership of institutions and individuals involved in global health activities, also has much to offer students. With an annual conference, newsletters, action bulletins, field projects, fellowship awards and a lobbying capability, GHC is the single largest advocacy organization for global health. As with GHEC, medical and other health profession students are welcome to participate in GHC activities, including the recently formed University Coalitions for Global Health which seeks to encourage university global health involvement and advocacy.

6



COMPONENTS OF A CURRICULUM IN GLOBAL HEALTH

Determinants of Health

Health encompasses more than simply absence of disease. The narrowly focused disease model has come up short as an explanation for global human suffering. Inequities in the health of populations reflect the political economic and social disparities between them. In this paradigm, issues of human rights, policy, trade, the environment, and healthcare delivery systems are central to the health of patients. As physicians, long focused on the individual, we found ourselves unable to treat patients without addressing external factors that contribute to their inability to maintain treatments or obtain preventive interventions. In our globalizing world, if we are to understand health and disease, we must turn our attention to the growing array of social variables associated with the disease burden globally.

The frameworks in which health can be examined internationally vary widely. Historically, international health in medical education has been dominated by infectious and tropical disease. However, health care can now be analyzed in the context of the global flow of ideas, information, culture and goods known as globalization or in the context of human rights. It could also be discussed in a broader context of the determinants of health – biological, social, legal, political, cultural and economic – which would bring us to the root causes of health inequality.

Image: A boy using a crude water filtration system commonly used throughout Ghana. Photo by Diana Rickard.

Medical education does not prepare physicians to be active in resolving health disparities. The social roots of health and disease require solutions beyond those provided by the health sciences, pharmaceutical or biotechnology industries. The current generation of physicians-in-training recognizes this and seeks training that will prepare them to take the lead in building sustainable solutions to today's health problems. Thus, we propose a global health curriculum that focuses on the interface between community, prevention and global health to compensate for the lack of training in addressing the root causes of global health inequalities.

The following outline is intended as a guide for designing a global health curriculum. Different approaches could be taken in covering the material, from integration into existing formats to development of de novo lectures. However done, the goal is to prepare future physicians to become positive change agents, both at home and abroad.

Language and cultural understanding are core competencies in global health. Other themes to revisit within each module include culture, gender, politics, socioeconomic status, race, conflict and the environment.

I. Human Rights

- a. UN Declaration of the Human Rights
- b. The framework of Health and Human Rights
- c. Ethics and human rights: History of physicians in human rights protection and abuses: Current and evolving role of physicians in human rights protection and abuses.
- d. Law and human rights

The United Nations Declaration of Human Rights was adopted on December 10, 1948. While this seminal document has much relevance to health work around the world, it is rarely taught to health care professionals. The member states were asked "to cause it to be disseminated, displayed, read and expounded principally in schools and other educational institutions, without distinction based on the political status of countries or territories." A good foundation in the UN Declaration will segue naturally into discussing health in the context of human rights.

Ethical issues can be addressed here if it is not fully covered in other

parts of the medical school curriculum. Doctors play a major role in protecting human rights, especially internationally. The nature of human rights, how they can be compromised and how they can be defended, particularly by physicians, could be explored. Finally, this module could cover law as it relates to human rights in the different contexts surrounding health.

II. Social determinants of health

- a. Basic economics and health
- b. Poverty and health
- c. Income inequality and health

Our contribution as physicians and healthcare workers comprises only one aspect of the overall health of individuals and society. Population health is largely a reflection of the socioeconomic conditions of that society. The World Health Organization's Department of the Social Determinants of Health states that these factors "account for most of the global burden of disease and death, and for the bulk of existing health inequities between and within countries." For this reason, 'Social Determinants of Health' is the core module for this global health curriculum, and sets the stage for an understanding of other aspects of the curriculum. A fundamental understanding of economics is important because economics drives much of today's healthcare policy and conversely, the health of a population is critical for economic growth. The curriculum should go on to cover what is known about the effects of poverty on the ability to achieve and maintain health; barriers to breaking out of the cycle of poverty; policies, policy failures, programs, and structural conditions that lead to poverty; and inequalities within and between societies. The focus of the discussions will be strategies aimed at addressing the links between societal inequalities and health.

III. Policy, Trade, and Health

- a. WHO, UNAIDS
- b. WTO, World Bank, IMF, GATT, TRIPS, trade agreements
- c. NGOs
- d. Governments

Social determinants of health also include specific social organizations, both public and private. Governmental and international agencies that oversee broad global health initiatives should be discussed in detail, including especially the World Health Organization and the World Bank. Financial and economic

development institutions such as the World Trade Organization (WTO) and the International Monetary Fund also merit attention. Trade agreements, intellectual property rights, and economic debt all have significant health effects on the populations of poor countries and supranational health-related industries such as insurance and drug companies that operate in poor nations have budgets larger than those of many of the countries in which they operate. Non-governmental organizations (NGOs) often offer services traditionally provided by governments and this NGO-government intersection should be examined.

IV. Global burden of disease

- a. Water, nutrition, and child health
- b. HIV/AIDS/TB
- c. Infectious diseases
- d. Non-communicable diseases, injuries and violence
- e. Measuring population health

The social determinants of health will set the stage for module II, covering in greater detail the settings that predispose populations to disease, as well as their diagnosis and treatment. Basics such as water, nutrition, and vaccinations will be core. Additionally, a discussion of policy and treatment for HIV/AIDS and tuberculosis will illustrate several aspects of how social policy dramatically impacts the health of populations and how health in turn effects the ability of those populations to address complex social issues such as obesity, hypertension, diabetes cardiovascular disease, and cancer, as well as injuries and violence will provide students with the tools to assess local burden of disease in both high and low-income countries.

V. Health care delivery systems

- a. Western healthcare models: insurance, payers, individual care
- b. Community-based care models: promotoras, acompagnators
- c. Participation and empowerment
- d. Access to care and health: evidence-based research
- e. Public health model: vaccination, eradication, population approaches

This module will highlight the various roles of healthcare workers

in different social contexts. The goal is to help medical students put their experiences in perspective as they prepare to work in an international setting. The four major functions of health systems, as defined by WHO (creation of resources, financing, service provision, and stewardship) will be compared across several settings in developed and developing nations. The newest data on the relationship between access to healthcare and health will be presented. The public health model of treating populations instead of individuals, at the core of many global health efforts, will introduce students to the need to address both screening and treatment at the population level in developing regions of the world.

VI. The environment and health

- a. Natural disasters and disaster relief
- b. Man-made disasters
 - global conflict, war, refugees
 - global toxin burden
- c. Migration, travel, global interaction
 - Epidemics in time of global travel
 - Immigration impacts on global disease

The powerful effects of the environment on health are most obvious in natural disaster relief efforts, support for refugees fleeing genocide or war, and sometimes in environmental toxin catastrophes such as the Chernobyl nuclear reactor explosion, or the Dow Chemical explosion in Bhopal, India. In addition to covering the history of such disasters, this module would introduce the students to international relief efforts in these situations, including diagnosing and treating the devastating psychological effects of humanitarian crises.

It will also cover the global toxin burden, highlighting the regions where toxins are more heavily concentrated and less thoroughly regulated. Addressing recent immigration patterns along with epidemics and pandemics in the age of globalization will give students the needed perspective to understand their role as health practitioners in the international theater.

7



CAREER COUNSELING FOR MEDICAL STUDENTS INTERESTED IN GLOBAL HEALTH

For some students, exposure to global health during medical school will be the extent of their involvement in this arena. Increasingly, however, students are expressing interest in careers that involve global health in one capacity or another. There is a wide spectrum of opportunities ranging from week-long volunteer positions to full-time paid positions. Global health work is increasingly becoming professionalized. Physicians and non-physicians who want to dedicate a career to global health usually need specific training and experience. Previously it was common for physicians to individually go abroad and practice in a local clinic, the bush doctor so to speak, and this still happens. However, it is becoming increasingly important for physicians to assume roles in program development, monitoring, assessment and capacity building in the host country. The skills necessary for these roles require education beyond that of medical school and residency. Physicians are getting this training in complementary degree programs such as in a public health specialty, fellowships, experiential learning abroad, and work in domestic offices of global health organizations.

For students interested in incorporating global health into their career, there are several helpful resources. *Finding Work in Global Health* by Garth Osborn and Patricia Ohmans (available at the Global Health Council's website, www.globalhealth.org) is an essential beginning for any medical student or doctor interested in global health. This book outlines the type of work available in global health

Image: Students interested in a career in global health register for the 2006 IFMSA-USA National Convention in San Diego.. Photo by Diana Rickard.

as well as how to go about getting a position. The GHC maintains a Career Network that can be accessed from their website and their annual meeting in early summer provides global health information, contacts and opportunities for networking and career development. Additional materials helpful for those considering a career in global health can be found at the Global Health Educational Consortium's website (www.globalhealth-ec.org; click "resources" and then "GHEC Library").

There are a number websites that post job listings for various organizations. The qualifications for and nature of these positions are helpful to guide career planning for medical students. The volunteer, job and internship opportunities within the UN system are found at <http://icsc.un.org/joblinks.asp>.

Many students interested in global health wonder how to proceed after medical school in order to go into global health. Since global health is such a diverse field, almost any residency or specialty can segue into a career in global health. However, students should give special attention to residencies with global health tracks and emphasis. Currently there are residencies within the fields of pediatrics, internal medicine, emergency medicine, and family practice with global health emphasis. A list of some of these residencies is listed on the AMSA website at <http://www.amsa.org/global/ih/resprograms.cfm>.

Multiple complementary degree programs relevant to global health can be pursued following or during medical school. The most common complementary degree is a Masters in Public Health. A listing of public health schools with a global health concentration is available in the "resources" section of the GHEC website. Programs in international relations, health care administration, business, law, economics and many others can also augment a medical degree and increase an individual's relevancy in the global sphere.

8

MEMBERSHIP AND EXTRACURRICULAR ORGANIZATIONS FOR STUDENTS INTERESTED IN GLOBAL HEALTH

There are many organizations, often with overlapping missions and activities, that can help students become more informed about global programs and opportunities. This overlap provides an opportunity for collaboration which can strengthen the shared missions of global health awareness and activism. These organizations range from general interest to disease or theme oriented. Short descriptions of some of the most active organizations are provided below. A much more comprehensive resource can be found in the Global Health Directory, published annually by the Global Health Council, a membership alliance for organizations and institutions dedicated to promoting global health (<http://www.globalhealth.org/publications/>).

American Medical Association - Medical Student Section (AMAMSS)

The AMA-MSS's involvement with global health is via the International Health and Policy Committee. Through the work of this subcommittee AMAMSS provides resources for HIV/AIDS advocacy, promotes the AMA WorldScopes Program which collects stethoscopes for physicians worldwide, and promotes programs such as Child Family Health International's RECOVER program (to recover medical supplies which would otherwise be discarded), and resources for book donation. The subcommittee also adopts resolutions providing support for initiatives such as debt forgiveness and support for the United Nations Population Fund.

Website: www.ama-assn.org/ama/pub/category/11902.html#2

American Medical Student Association - Global Health Action Committee (AMSA-Global)

AMSA is composed of medical student, pre-med and resident members, a subset of which participates in the Global Health Action Committee. AMSA-Global coordinates various projects within various focus areas, including AIDS, Environment, Human Rights, Leadership, and Global Education and Opportunities. It also serves as a forum to unify and foster collaboration among US medical students and together with parent organization, supports US medical student initiatives such as the Ride 4 World Health. AMSA-Global has student coordinators for each project area and provides leadership opportunities for US medical students. This group has a journal (Global Pulse), organizes a Global Health Leadership Institute, and fosters many other opportunities for activism within the US medical student community. Website: www.amsa.org/global

Child Family Health International

Child Family Health International (CFHI) “builds and strengthens sustainable health care services in underserved communities worldwide.” The organization focuses on community initiatives, medical supply recovery and global service learning. The global service learning opportunities are available to medical students and facilitate rotations abroad which focus on cultural competency. CFHI has clinical opportunities available in Central and South America, Africa, and India. Uniquely, the funding structure for these rotations provides support to local clinics that host medical students and facilitates sustainability of these programs. Website: www.cfhi.org

Doctors for Global Health

Doctors for Global Health (DGH) is a free membership organization comprised of health professionals, students, educators, artists, attorneys, engineers, retirees and others. DGH partners with communities in developing countries to establish and sustain community-oriented primary care projects and address other social justice issues. The mission statement of DGH is, “To improve health and foster other human rights with those most in need by accompanying communities, while educating and inspiring others to action.” DGH works only with communities which ask for

assistance. Their projects are located mainly in Central and South America and Africa. It has an Advocacy Committee which responds to urgent action requests to bear witness regarding human rights violations. Medical students can volunteer at projects for a minimum of 2-3 months. They can also get involved in various other capacities including procuring supplies needed at project sites. Website: www.dghonline.org

Global Health Council

Global Health Council (GHC) “... works to ensure that all who strive for improvement and equity in global health have the information and resources they need to succeed.” In 2004 GHC embarked on the University Coalitions for Global Health. This program aims to support and unite the various undergraduate, graduate, and professional student activities in the realm of global health that are underway at US colleges and universities. Global Health Council hosts an annual meeting with student abstracts, programming and internship opportunities. GHC also has helpful resources available for purchase which include “Finding Work in Global Health” and “Global Health Directory.” Website: www.globalhealth.org

Global Health Education Consortium (GHEC)

Founded in 1991 as the International Health Medical Education Consortium (IHMEC), the re-named Global Health Education Consortium aims to “foster international health medical education in four program areas: curriculum, clinical training, career development, and international education policy.” GHEC members include about 60 medical schools in the United States, Canada, and Central America (institutional members) as well as hundreds of individual members. GHEC sponsors an annual conference as well as regional meetings within the United States to foster global health activities and maintains a library of resources to help individuals and institutions understand the complex world of global health. GHEC has initiated a collaborative effort to develop curriculum modules in a wide variety of global health topics. These modules will consist of web-accessible PowerPoint presentations and will be available to medical schools to improve the quality and efficiency of global health teaching. See the GHEC website for more information (www.globalhealth-ec.org).

International Federation of Medical Students' Associations - United States of America (IFMSA-USA)

IFMSA-USA is the U.S. chapter of the global organization, the International Federation of Medical Students' Associations. IFMSA represents national medical student organizations in over 90 countries and has the following mission: ".....to offer future physicians a comprehensive introduction to global health issues. Through our programming and opportunities, we develop culturally sensitive students of medicine, intent on influencing the trans-national inequalities that shape the health of our planet." The U.S. chapter facilitates collaboration with medical student counterparts abroad. IFMSA-USA also runs village projects in which medical and allied health students organize and execute community-based sustainable health work. IFMSA coordinates over 10,000 education and research exchanges between medical students in over 70 countries annually. Website: [www. ifmsa-usa.org](http://www.ifmsa-usa.org)

Physicians for Human Rights

Physicians for Human Rights (PHR) uses medical and scientific methods to investigate and expose human rights violations around the world. PHR educates and facilitates the activities of health professionals and students as they relate to the human rights movement and the creation of a human rights culture within the health professions. PHR has over 50 chapters at medical, public health and nursing schools. It organizes an annual student conference, sponsors a Week of Action and makes humanitarian awards. PHR's various listserves facilitate political action, collaboration, and knowledge dissemination. The organization also operates the PHR Asylum Network, Health and Justice for Youth Project, and the Colleagues at Risk program. Website: [www. phrusc. org](http://www.phrusc.org)

Ride for World Health

Ride for World Health (R4WH) was founded in November, 2004, by medical students seeking an innovative way to get involved in national and international healthcare. R4WH strives to create an annual event in which a group of medical students, healthcare professionals, and community representatives participate in a 3,700-mile bicycle ride from San Francisco, CA to Washington, D.C. R4WH will stop at numerous medical centers in major metropolitan

areas to create a dialogue and lead discussions on issues related to healthcare in the United States and abroad, in addition to raising significant funds for nongovernmental healthcare organizations.

Unite for Sight

Unite for Sight is an NGO that grew from the efforts of one energetic founder/volunteer to a significant international effort to address eyesight in underserved communities throughout the world. The organization has 90 chapters worldwide based at universities, medical schools, corporations and high schools. Besides providing volunteer opportunities for medical students and others, Unite for Sight organizes an Annual International Conference and many other programs. One of the unique programs is a Micro-enterprise program which helps generate personal income within refugee camps. Unite for Sight has distributed over 70,000 pairs of eyeglasses, and has funded over 500 cataract surgeries in the most underserved populations worldwide. Website: [www. uniteforsight. org](http://www.uniteforsight.org)

9

RESOURCES

The below list of resources is not exhaustive, but does begin to demonstrate the breadth of global health, and help individuals become familiar with the topics, research, programs and organizations - present and future - of global health. A more complete listing can be obtained from the “global health bibliography,* located in the “resources” section of: www.globalhealth-ec.org

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www.amsa.org/global/

Child and Family Health International
www.cfhi.org

Doctors for Global Health
www.dghonline.org

Partners in Health
www.pih.org

Physicians for Human Rights
www.phrusa.org

Global Health Council
www.globalhealth.org

Global Health Education Consortium
www.globalhealth-ec.org

International Federation of Medical Student's Associations- USA
www.ifmsa-usa.org

Ride for World Health
www.rideforworldhealth.org

Shoulder-to-Shoulder
www.shouldertoshoolder.org

Unite for Sight
www.uniteforsight.org

World Medical Association
<http://www.wma.net/e/>

Medical School Based Programming

Baylor College of Medicine International Health Track
<http://www.bcm.edu/medschool/intnltrack.htm>

Boston University School of Medicine International Health Program
<http://www.bumc.bu.edu/Dept/Home.aspx?DepartmentID=396>

Case Western Reserve University Center for Global Health and Diseases
<http://ora.ra.case.edu/geomed/>

Georgetown School of Medicine Office of International Programs
<http://www.georgetown.edu/som/international/index.htm>

Harvard Medical International
<http://www.hms.harvard.edu/hmi/newindex.html>

John's Hopkins School of Public Health Department of International Health
<http://www.jhsph.edu/dept/ih>

Ohio State University College of Medicine Office of International
Medicine
<http://www.medicine.osu.edu/international/>

Tulane Department of International Health and Development
<http://www.tulane.edu/~inhl/inhl.shtml>

University of California, San Francisco Office of International
Programs
<http://www.medschool.ucsf.edu/intlprograms/>

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