Spotlight On: INTERNATIONAL HEALTH

A Global Collaboration for Training Students in International Health

BY AMY ROTHMAN SCHONFELD, PhD

More than a decade ago, Columbia University physician Richard Deckelbaum, MD, became increasingly aware of an acute shortage of physicians who were experienced or trained to think about health care on a global level: "We realized we were doing a good job training students to be traditional doctors, but there was no medical school to train doctors to think about international, cross-cultural medicine." Within a short time, Dr. Deckelbaum secured commitments from the deans of the Columbia University Medical Center (CUMC) in New York and the Ben-Gurion University (BGU) of the Negev in Beer-Sheva, Israel—and The Medical School for International Health (MSIH) was established.

"Now, international health and cross-cultural medicine are 'hot' pieces of the curriculum in many medical schools, but in 1998, when the MSIH admitted its first students, it was quite unusual," said Carmi Z. Margolis, MD, the director of the program.

Leo Treysman, MD (MSIH 2007), examining a patient during his clerkship in Vietnam.

Students Inoculated in Global Health

Israeli medical schools incorporate undergraduate and graduate-level training, and students graduate in six years. In contrast, the MSIH follows a four-year curriculum similar to that of many American medical schools, but with some significant differences. "We inculcate global health thinking throughout the curriculum," said Dr. Deckelbaum.

Students are expected to acquire medical knowledge, clinical skills, and hands-on experience to treat individuals. In addition, the school trains students to manage the health care of populations, by teaching them about preventive nutrition, water and sanitation issues, epidemiology, project management, and grant writing. Because the definitions of international health and medicine/cross-cultural medicine are elusive, members of the MSIH created a Global Health Wheel to conceptualize the skills they believe are necessary to help a clinician practice medicine outside of his or her own culture (see sidebar).

In the first year, in addition to traditional preclinical courses, students take a course in Clinical and Global Medicine, which includes the history, critical concepts and practices, and emerging issues in the field of global health. Each week, a Clinical and Global Medicine Day exposes students to a variety of clinical settings throughout Israel's Negev region and to specific health issues affecting unique populations, such as the Bedouin and Ethiopian communities or immigrants from the former Soviet Union, South America, and the Middle East.

During the second year, students enroll in a series of modules on global health topics, such as disaster relief, poverty and health, pediatrics in East Africa, bioterrorism, nutrition in the third world, and aging around the world. "These are things important in developing countries as well as underdeveloped areas within more industrialized countries, such as a slum or ghetto," said Patrick O'Connor, MD, a graduate of the MSIH program who is currently a resident in preventive medicine at Johns Hopkins University.

Clinical rotations are the key element of the third year. MSIH students work in hospital wards throughout Israel, mainly in the Soroka University Hospital of Ben Gurion University in Beer-Sheva, as well as affiliated hospitals in Ashkelon and Jerusalem. These hospitals, like many others in Israel, provide a complete range of services to multicultural Israeli populations, including Bedouin, Ethiopians, people from the former Soviet Union, and many others.

It is in the third year that sophisticated language skills become critical. Although classes in the first and second years are in English, students begin learning Hebrew during a four-week immersion course held prior to the start of the first year. Students also take courses in spoken and medical Hebrew for four hours a week during the first and second years. In the third year, a course on clinical communications skills prepares students for patient interviews and physical examinations within a multicultural setting.

"Language was really not an issue, although we had multiple language chal-

lenges," said Dr. O'Connor. "I did rotations in Jerusalem, where I had to use a combination of English, Arabic, and Hebrew to figure out and understand the different ways that people describe illnesses and their response to treatment. Other challenges included working with the large Ethiopian and Russian immigrant populations in Beer-Sheva."

During the fourth year, students are able to take up to four months of clinical clerkships at CUMC and its affiliate hospitals. Other elective rotations are available at sites in the United States, Canada, Europe, and Africa. The capstone of the program is the opportunity to spend two months in a structured, supervised, clinical clerkship at an approved site in Ethiopia, Kenya, India, Peru, Nepal, or Israel.

"To the best of my knowledge, a required track of studies in international health and medicine that spans all four years of medical school is not provided at any other medical school that we know of at the present time," said Dr. Margolis.

A Unique Student Body

"Our applicants are really distinct," said Dr. Deckelbaum. "They tend to be much more mature, and many already have international experience and have shown commitment to medical health in the developing world." Previous experience is not required, but evidence of motivation to work in international or cross-cultural medicine strengthens an applicant's candidacy.

For example, Dr. O'Connor was a logistics advisor to the United Nations High Commission for Refugees in Sarajevo, Bosnia-Herzegovina. "This experience convinced me that there were other options to doing hospital-based medicine, although I was unsure of other possibilities. I was looking for a medical school program that could guide me in that area." Many of his classmates had previously worked abroad for international or domestic non-government organizations, such as the National Science Foundation or Doctors Without Borders.

A Nurturing Educational and Social Environment

The 2007 MSIH entering class included 47 students from the United States, Canada, Afghanistan, Belarus, Germany, Iran, Israel, Morocco, Panama, Russia, Sudan, Thailand, United Kingdom, and Ukraine. (Israelis who have attended high school in Israel are excluded from MSIH, but instead can seek admission to an Israeli medical school.) Recognizing the challenges presented by a having small but diverse student body, most of whom were far from home and family and did not speak Hebrew, the MSIH staff took steps right from the beginning to create a supportive environment for the students.

"We treat students as colleagues from the time they arrive. We take care of them in the same way as you would take care of a guest coming to a new place," said Dr. Margolis, who has hosted almost all the students at his home for dinner at one time or another. Faculty families are encouraged to "adopt" students during their stay. "We learned from our founding Dean Moshe Prywes that if you treat students as colleagues and friends, it has a definite effect on the way they relate to patients afterwards."

The school also prides itself on the low faculty-to-student ratio. On each clinical service during the third year, one faculty member is responsible for six or seven students.

Clinical exposure begins early in the first year. According to Dr. Margolis, a strong program in preclinical teaching was established in 1974 in Ben-Gurion University's Israeli medical school. He said that many medical schools throughout the world now have adopted the idea that was pioneered partly in Beer-Sheva that medical students should have clinical experience from the beginning of their training.

Students are also encouraged to participate in course design, curriculum development, and teaching. "That's been very successful, and hard to find in larger schools," said Dr. Margolis.

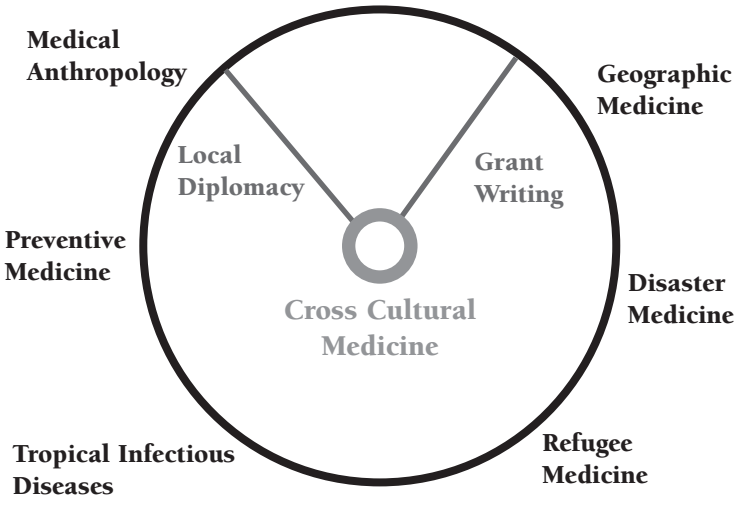

Figure 1. *The Global Health Wheel.*
Adapted from Margolis CA, et al. *Acad Med* 2004;79:744-51.

The Global Health Wheel

The Global Health Wheel (see Figure 1) illustrates the MSIH's concept of global health and medicine. Its hub, Cross Cultural Medicine, is the set of skills that help a clinician practice medicine outside of the physician's native culture. The skills include communication skills (foreign language competence, ability to successfully interact with translators), sensitivity to cultural norms and beliefs, and awareness of how cultural factors influence medical decision-making. Circling the hub is a rim of disciplines that may facilitate a clinician's ability to work in another culture. These include knowledge of medical anthropology, preventive medicine, tropical infectious diseases, refugee medicine, disaster medicine, and geo-specific medicine. "Spoke skills" connect the hub of cross-cultural practice with the rim disciplines, and include grant writing for nongovernmental organizations and diplomatic skills.

A Mutually Beneficial Arrangement

Both Columbia and Ben-Gurion University appear pleased with their partnership. "Although 80% of the program is run in Ben-Gurion University's campus in Beer-Sheva, there is a very active collaboration and participation by CUMC," said Dr. Margolis.

Columbia handles the admission process, including applicant interviews, alumni development, and public relations. Faculty members actively participate in curriculum planning. Columbia also plays an active role in arranging and hosting the fourth-year electives, and helps to facilitate residency placements. More than 150 Columbia University faculty contribute their time and expertise to MSIH, and the admissions office is housed at CUMC.

The bonds between the two institutions are growing even stronger. This year a grant was awarded by the Glenda Garvey Educational Foundation to support the development of telecourses and teleseminars between both schools that can be conducted in real time.

Regularly scheduled conference calls provide an opportunity to address problems that may develop, including student issues, scholarships, or student security during times of unrest. "We're pretty much in constant contact," said Dr. Margolis.

What does CUMC gain from the collaboration? "Columbia is very interested in being a global university. This is just one example of Columbia helping to train a workforce of physicians who can really make a difference. We are hoping that through MSIH, we will have students who will go on to be global health leaders," said Dr. Deckelbaum.

Dr. Richard Deckelbaum (center) addresses the 2007 MSIH graduates, joined by Dr. Carmi Margolis (left) and Administrative Director Pamela Cooper (right).

For Ben-Gurion University, the MSIH program has provided the opportunity to build an innovative program in medical education and international health that has become world-renowned. "It also gives us an opportunity to be exposed to a group of very fine students who come from a wide variety of cultural backgrounds," said Dr. Margolis.

To date, 172 people have graduated from MSIH. By the end of medical school, about 26% have also earned another academic degree, such as a master's in science or public health. The program has achieved outward markers of success, with class size approaching maximum capacity, and graduates are gaining admissions to excellent residencies. Other variables reflecting MSIH's success include scores on the US Medical Licensing Examination and a low attrition rate. Although students express enthusiasm and motivation for pursuing careers in international health and medicine, too few students have finished their residency to date for MSIH to provide data on career achievements.

For Dr. O'Connor, who went after graduation to work for the International Rescue Committee in Darfur, Sudan, before beginning his residency in preventive health at Johns Hopkins and earning an MPH, "the MSIH prepares physicians to be technically competent in traditional Western forms of medicine, but also prepares physicians for the new global challenges of pandemics and epidemics and other public health crises such as bioterrorism."

Dr. O'Connor cautioned that the MSIH program may not be suitable for everyone interested in a career in medicine. "Medical school is difficult point-blank, and medical school in such a complex environment can be even more challenging. However, the benefits of the program outweigh any detraction, and helped me solidify my interests in public health and preventive medicine." ❖

More information on the collaborative Medical School for International Health and its alumni is available at http://cumc.columbia.edu/dept/bgcu-md/.