

| [About NextGen](#) | [NextGen Alerts](#) | [Submissions](#)

[Current Issue](#)
[Pathways Through Medicine](#)
[Advice to the Next Generation](#)
[Special Series](#)
[Letters and Comments](#)
[Past Issues](#)
[Other Resources](#)



The
Next Generation
An Introduction to Medicine

Published on the first day of every second month. Produced in collaboration with editors of the New England Journal of Medicine.

Volume 2

July 2006

Number 6

International Health Experiences

A NextGen *Free-Standing Perspective* Article

The last decade has witnessed a resurgence of the incorporation of international health education into medical school curricula, undoubtedly due to the concurrent advancement of rapid globalization and growing exigency of public health concerns. International Health Experiences (IHEs), specifically, because of their symmetrical nature of enabling students to simultaneously "give and receive," (1) have gained widespread support as representing a progressive step for medical education in an increasingly globalized world. With the current state of global health as weak as it currently is—with millions of impoverished people dying of preventable and treatable diseases simply because they lack access to basic medical care and sanitation—the ways in which IHEs enable a Western medical student to give are clear. What may seem less obvious is how they can offer unique contributions to the medical education of future physicians.

IHEs offer students the unique opportunity for intense practical experience in the delivery of medical care. For example, an intern at an understaffed medical center naturally receives more practice performing procedures than one working amidst a bevy of peers sharing a small set of tasks. Similarly, limited access to technical diagnostic apparatus means a heightened reliance on the often underrated traditional skills of observation, history-taking, and physical examination. Finally, students returning from IHEs often demonstrate noticeably improved physician/patient interaction (due to increased language fluency and cultural awareness), as well as greater teamwork and leadership skills.

IHEs can be long or short in duration, lasting anywhere from three weeks to several months, and are generally completed in the first or fourth year of medical

school. They can be clinical- or research-based, can count towards a degree, and take place in developing or developed countries. While many students travel to developing countries such as those in Africa, Latin America, or the Caribbean, others go to developed countries such as Sweden, Spain or England. The combinations and permutations of the various available options provide endless outcomes and types of experiences for medical students to create. In essence, IHEs are flexible experiences to be designed according to one's specific interests, career goals, and short-term objectives.

Yonatan Grad, an MD/PhD recipient and member of the Harvard Medical School class of 2006, chose to spend his one-month away elective in Durban, South Africa. For four days of the week, he assumed the role of an intern at the University of Kwa-Zulu Natal's McCord semi-private hospital and on the remaining day, he worked in the Sinikithemba HIV clinic. Grad's IHE in South Africa exposed him to a large number of procedures and provided great opportunities for him to practice them on a daily basis. "I became much more proficient in lumbar punctures (LPs), arterial blood gas analyses (ABGs), phlebotomy, IV line insertion, placing NG tubes and Foley catheters, among others," he notes. He also learned "a tremendous amount about the nitty-gritty of caring for patients with HIV-associated diseases, including important technical details about antiretroviral (ARV) regimens, the management of ARVs and HIV in the outpatient setting, and the key role of physician involvement in the intertwining of medical, social, and economic issues." This development in skills and knowledge, not surprisingly, can be attributed to the fact that most of his patients—around 60-80%—were HIV positive, and many co-infected with TB. Grad additionally points out that he regularly saw pneumocystis pneumonia and cryptococcal meningitis, among other opportunistic infections, as well as "the full range of medical maladies," including congestive heart failure, complications of Type II Diabetes Mellitus, and strokes. After hearing Grad recount his experiences in McCord Hospital and the Sinikithemba clinic, it is not difficult to understand why student who participate in IHEs even for as brief a time as 3 weeks were shown in studies to have scored significantly higher in the preventive medicine/public health portions of the standardized exam given by the National Board of Medical Examiners, compared to a control group of students. (2)

Furthermore, faced with the reality of their resource-poor setting, students are able to rediscover the extent of useful information to be gleaned through conscientious physical examinations and keenly-recorded, detailed patient histories. While at home they may become accustomed to making referrals to other specialists or relying on expensive diagnostic tests to provide the answers, students on IHEs often don't have those options and are driven to practice medicine with an increased awareness of the cost issues involved in patient care. Such awareness is conceivably engrained on a daily basis, when students such as Grad, for example, must suddenly remember to ask anemic patients how many units of blood they can afford. Additionally, limited (if any) access to diagnostic instruments—many of which are now considered commonplace in the United States—inevitably forces students to rely on their own diagnostic powers.

The fact that these skills are equally applicable and valuable when practicing medicine in North America was just recently reiterated by Dr. Lisa Sanders, in an article published in the New York Times Magazine. (3) She describes an especially enigmatic E.R. case of one of her colleagues in which an otherwise healthy, 27-year-old female was admitted one evening for having high blood pressure, anxiety, nausea, delirium and garbled, meaningless speech. Even after taking a history and running numerous blood tests, EKGs, a CT scan, and an MRI, the doctor could detect no abnormalities and was unable to make a diagnosis. Fortunately, the symptoms subsided shortly; the patient regained her capacity for speech, and was discharged four days later. Dr. Sanders eventually reveals that the patient's give-away symptom, sensitivity to light as demonstrated

by a request to "dim the lights," that would have led to the correct diagnosis of jimson weed poisoning, was overlooked that night and considered rather to be an issue of comfort. Dr. Sanders insightfully concludes, "In this age of high-tech medicine, I think we no longer really believe that the physical exam can be an important diagnostic tool. Too often we simply go through the motions, never imagining that what we can observe will provide the kinds of answers that our machine-driven tests routinely do." Undoubtedly, students returning from IHEs, especially in resource-poor countries, are far less susceptible to fall into such mindsets. In fact, all of those students interviewed in previous studies independently reported an increased perceived utility of history and examination, and a decreased use of diagnostic tests. (4)



In
Matthew Eisenberg in Tobati, Paraguay

addition to being newly equipped with the various skills developed abroad, students return with a broadened concept of "health" as well as a deepened global political perspective—achievements not to be dismissed. Dr. Elayne M. Ratcliffe, Assistant Professor of Pediatrics at Columbia University College of Physicians and Surgeons and member of the Board of Directors at Doctors for Global Health, highly recommends a future medical student to participate in an IHE precisely because of the increased cultural and political sensitivity it fosters. "In order to be better physicians in the US," she says, "we need to have more awareness of our patients' language and cultural background, of immigration issues and the struggle to re-adjust in a new society. We need to be aware of potential issues of torture and war experiences from their home countries. We also need to understand as world citizens the impact US foreign policy and US commercial interests have on other countries, from where our coffee is grown to multinational trade agreements to interfering in foreign elections and to war." With our global village becoming increasingly reminiscent of a global street corner, world health will inevitably demand greater attention and involvement from Western physicians. For future doctors to be prepared for this necessity, early exposure to the subject—whether through an IHE or didactic instruction—is, without a doubt, essential.

While the extent of international health education still varies within each institution, many medical programs have emerged as models for the rest to follow. Johns Hopkins School of Medicine, the University of Arizona, the University of Washington, the University of California-San Francisco, and Baylor University, to name a few, all offer diverse opportunities, funding and support for their students to pursue interests in global health.

As an alternative to formal medical school-based IHE, students can search for opportunities to do IHE with the various global health organizations. These organizations are especially helpful and worth looking into for exposure to global health in light of the inconsistencies across medical schools with regard to their curricula in this area. Some of the most well-known organizations include the American Medical Association Medical Student Section's (AMA-MSS) sub-committee on International Health and Policy, the American Medical Student Association's Global Health Action Committee (AMSA-Global), Doctors for Global Health (DGH), and the **Global Health Education Consortium (GHEC)**. The latter,

with an institutional membership of over 80 medical schools in North America and an individual membership of over 1000 physicians, students, and health educators, serves as an especially rich resource for those interested in IHEs.

There are many ways to become involved in international health during medical school in addition to, or instead of, participating in an IHE. In acknowledgement of the shift in focus of medicine and the broadening concept of health, universities are introducing innovative initiatives to their programs and working to provide exciting opportunities for those willing to seek and seize them.

Understandably, there are certain risks involved with IHEs depending on the timing and location of the placements. In general, informed selection of location and adequate preparation prior to departure should serve to greatly minimize associated risks. Factors to be aware of include the pressure to practice beyond competency (especially in extremely remote and underserved locations), warnings of high crime rates or active internecine conflicts, and infectious diseases endemic to the particular region.

Studies have shown that the majority of students returning from IHEs go on to pursue primary care careers. This fact raises the question of whether returning students—deeply influenced by their IHE—choose to pursue primary care careers or, conversely, whether students—already interested in pursuing primary care careers—choose to participate in an IHE. Intuition suggests the latter to be the most likely answer. Whether or not this is the case, students and educators alike are coming to realize that IHE participants do not have to have career goals in primary care or global health advocacy. IHE are becoming important components of medical education in general, regardless of a student's specific future goals, and simply growing into a part of the current trajectory of the practice of medicine. □

Tavé van Zyl is a writer for the Next Generation and a member of the Harvard College Class of 2007.

Work Cited

1. Shaywitz, D.A., Ausiello, D.A. "Global health: a chance for Western physicians to give and receive." *Am J Med.* 2002 Sep; 113(4):354-7. ([Text](#))
2. Waddell, W.H., Kelley, P.R, Suter, E., Levit, E.J. "Effectiveness of an international health elective as measured by NBME Part II." *J Med Educ.* 1976; 51: 468-72. ([Text](#))
3. Sanders, L., (2006, May 21). "Flower Power." *New York Times Magazine.* ([Text](#))
4. Thompson, M.J., Huntington, M.K., Hunt, D.D., Pinsky, L.E., Brodie, J.J.. "Educational effects of international health electives on U.S. and Canadian medical students and residents: a literature review." *Acad Med.* 2003 Mar;78(3):342-7. ([Text](#))

[» Back to Current Issue](#)

The Next Generation is an independent online publication produced in collaboration with Editors of the New England Journal of Medicine. All content referencing the New England Journal of Medicine is copyrighted property of the NEJM and the Massachusetts Medical Society. All rights reserved on original content by the Next Generation.