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International Electives: Maximizing the Opportunity to Learn and Contribute

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We are living in an ever-changing world that is witnessing enormous changes in population demographics.[1] Although mass (and even forced) migration is not new, the dimensions of population growth and movement are unprecedented. People are immigrating and emigrating fast and far.[2] Whether by choice or by force, humans are now inhabiting geographic areas previously untouched.

As demographics change so, too, do disease dynamics.[3] In many resource-wealthy countries, diseases rarely seen in the last 30 years are now on the rise. Certain pathogens, challenged ineffectively by antibiotics, have undergone important mutations and now represent significant threats.[4] Re-emerging infectious epidemics include transnational outbreaks of multi-drug-resistant tuberculosis[5] and transmission of polio to and within previously elimination-certified countries.[6] Pertussis (ie, whooping cough) baffles today's physicians who never heard the famous “whoop” during their training.[7] Other diseases, such as severe acute respiratory syndrome (SARS), are newly identified pathogens that readily cross geographic and administrative barriers.[8]

Accordingly, interest in international electives at all levels (from policy to clinical) is rising, particularly among preclinical and clinical students, residents, and internists (collectively referred to here as “trainees”). Such trainees enroll in an often 2- to 12-week exposure to the world of international health. Trainee services offered during these courses run the gamut, from assembly-line delivery of a specific procedure over time (such as surgery for cleft palate) to the basic health services that fall under the umbrella of primary care. The time dedicated to preparation varies in both quantity and quality across institutions, and can be as minimal as an updated vaccination record. However, these opportunities to learn medicine outside of one's home country are now more abundant than ever before. Some institutions and programs have established their own international collaborations, and the American Medical Association is currently gathering information for such purposes.[9] These experiences permit trainees to learn more about diseases commonly given short shrift, or ignored, in the standard medical education. Such opportunities are not limited to individuals from resource-wealthy countries traveling to resource-limited settings. Rather, training programs sponsored by governments, universities, and donors allow for individuals to seek training in resource-wealthy settings and return to resource-limited settings to practice what they have learned; ideally, such programs stem the “brain drain” (ie, the exodus of educated citizens) from such settings.[10] Of note, though, is that many of these electives are unregulated (in reality and in the most formal sense) and require a considerable amount of effort on the part of the trainee to ensure that adequate training is received.

Although it is true that international electives fill important gaps in medical education, it is not usually just the opportunity for an enhanced knowledge base that drives individuals to seek international opportunities. Many trainees are moved by a sense of duty or moral obligation. Often enough, such sentiments are cited as the inspiration to undergo medical training; sometimes, they are the response to injustices observed in settings of poverty. Such settings are by no means rare: Nearly one third of people in low- and middle-income countries live on less than US $1 per day.[11] The impact of poverty on both the distribution and treatment of disease is profound: It is estimated that only ~50% of the people living in the world's poorest 46 countries have access to modern healthcare.[12] More than 95% of deaths among children under the age of 5 years occur in resource-limited countries – and most of these deaths are preventable.[13] Many, perhaps most, of those pursuing international electives are driven by the desire to address the inequalities of risk and access so readily documented throughout what is termed “the developing world.”

In 2005, too few of the available international electives adequately help US trainees respond effectively to poverty and excess morbidity and mortality. As cross-sectional, time-limited experiences, they often [purportedly] focus on the needs of the students rather than the needs of the population served. Indeed, many students report to such electives convinced that, because very little is being done, any action will be helpful. Although we believe that most international electives are indeed designed with the philosophy of benevolence, it is still possible, alas, to do unintended harm. Those living in deplorable situations are not constructively viewed as weak, helpless individuals who benefit from any action whatsoever, and for several reasons. First, much has occurred prior to our current interventions, and, in many resource-poor settings, the intended recipients of such action are more aware of history than are trainees. As trainees enter from a cross-sectional point in time, others before them (in various sectors not limited to health) have probably entered and exited in a cross-sectional manner as well. Historical events preceding the trainee's arrival can serve to affect the trainee's work. Disease is not only addressed by provision of services, but it also requires an in-depth examination of the underlying causes of disease, including the social, political, and economic forces involved. Second, the processes of global interconnection mentioned at the outset mean that the notion of 2 worlds – one rich, one poor – is rejected by most living in poverty. We live in 1 world, not 2. Intervening abroad should be approached with the same ethics, diligence, and respect as intervening at home. Third, the idea that we may develop a parallel medical system that is "appropriate" for people living in poverty is discredited among those living in poverty. As practitioners, we should not resign ourselves to providing different levels of care simply because we are presented with the oft-cited argument that healthcare resources are limited in some settings. Indeed, we must strive to provide an equal level of healthcare no matter where we are geographically. The challenge now facing those who develop international electives is how best to respond to global health inequalities. If these are not addressed, many trainees leave such electives having been passive spectators to poverty.

For those who enroll in such trainee efforts, not surprisingly, often the objective of the elective is approached from a teaching perspective: "What can I learn from this experience?" "How can this experience help me improve my clinical skills?" We suggest, however, approaching these international opportunities via a service perspective: "How might I best serve the destitute sick?" "How might I improve their situation?" These are not the questions that most medical trainees are encouraged to ask, but they make sense from both a "macro-" and a "microperspective". From a macro point of view, the very term "improvement" implies not only clinical progress but also ethical responsibility, sustainable impact, and advancement in the lives of people struggling against poverty and disease. From a micro point of view, such a stance implies placing the interest of the patients first, doing what is necessary to improve clinical response to whatever intervention. Additionally, these questions are not at odds with each other. We argue that if the elective is approached from the service perspective, the clinical skills will inherently be acquired while simultaneously addressing the sense of moral duty and obligation mentioned previously.

On the basis of our experience in global health, we would like to advance 3 main principles that may serve to help trainees maximize their contributions in the context of international rotations. Although these principles initially appear simple, a large proportion of students are forced to violate at least 1 principle in the course of their international electives. After experience in some of the world's poorest places, and in developing policies designed to redress health inequalities, we underline the following 3 admonitions.

Know the setting: It is surprising how little students know about their destinations. Reading the *Lonely Planet* is simply not enough, because complex social processes underlie almost all of the excess morbidity and mortality seen in the world's poorest placed. Obtaining clinical knowledge is only part of the educational process; equal emphasis should be placed on understanding the political, sociocultural, and economic history of the settings in which we work. As we have argued elsewhere, understanding both the biological and nonbiological factors that influence the epidemiology of disease is key to the design of effective treatment and preventive interventions.[14] In no settings does treatment end with a simple prescription or procedure; effective therapy needs, invariably, to reflect the social conditions of patients. In addition, it is fundamental to understand how health systems function and, accordingly, what resources will be available to patients and those who care for them. When such information is available prior to international electives, it can allow trainees themselves to understand how diagnosis and therapy may proceed even in the absence of significant changes. At times, such knowledge of the setting is instructive in the sense that expensive and unnecessary tests are avoided.

Expand the notion of treatment: Often students arrive with quantitative clinical goals as their end point for measuring success. "I will treat *x* patients per day. I will cure *y* cases." In most resource-limited settings, however, many factors can arise that may affect, in ways that are not wholly known, whether or not these goals are attainable. Civil strife, war, health-sector reform, or even lack of consistent electricity may profoundly affect such goals. From a development standpoint, the situation may arise in which preventive efforts constitute the quasi-totality of what is needed. Most often than not, a combination of prevention and care is required. Provision of clean water during a flood, for example, will have a significant impact on populations, as will the treatment of diarrheal diseases resulting from a lack of clean water. The combination of prevention and treatment is more synergistically powerful than either alone (as we have seen in our HIV and multi-drug-resistant tuberculosis treatment programs).[15,16] Thus, we suggest that if goals are to be set, they are set realizing that disease management in resource-limited settings may involve equal components of prevention and treatment.

Continue the action: Once students complete their electives and return home, what they leave behind is often all too forgotten. But the experience should not end upon returning home. Throughout the elective, we strongly suggest documenting – in a journal, for example – your daily experiences. Before leaving, students should identify areas of work and opportunities meriting the attention of future trainees. Each student may profitably focus on identifying and supporting (not necessarily financially but in whatever capacity possible) another student in securing an international elective in the setting in question. This pushes trainees to identify the weaknesses of the elective as currently executed. Also important is the information-dissemination process, whether through interviews, photos, or writing about the experience in peer-reviewed journals. Raising awareness remains vital to expanding interest in this arena and to providing a better educational base for training and advocacy.

Ultimately, the purpose of such programs is 2-fold: to benefit the patient and/or community and to provide an educational experience for the trainee. The parameters defining "benefit" and "educational" are broad. The temptation exists to inadvertently contribute less and take more or simply enjoy the scenery (also popularly known as the "elective safari"). We have based much of this discussion on the experiences that we and our fellow colleagues from around the globe have gathered from assisting local populations in establishing long-term healthcare interventions – and trainees were and still are an integral part. The issues that we raise have stemmed from our discussions with trainees and their conflict (as disclosed to us) between satisfying the academic objectives of clinical training and the moral objectives of service to the community. As previously noted, we also understand that the same initiative and inherent drive in trainees seeking such electives may also be required in upholding these principles, as current, international electives are not all based on such mantras. But, we believe that the fundamental principles enumerated here can contribute to success from the perspective of both patient and provider, and thereby provide a basis for changing basic health inequalities. And as medicine bestows a special power upon a select few, the select few should use this power wisely, responsibly, and ethically.

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