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MEDICAL EDUCATION

The University of Washington Pediatric Residency Program Experience in Global Health and Community Health and Advocacy

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Among medical trainees, interest in international health experiences is at an all-time high. In the past 25 years, the percentage of graduating North American medical students who have participated in global health electives has risen from 6 percent to almost 30 percent [1, 2]. Involvement in international health experiences has also increased among resident physicians. In our own pediatrics residency program at the University of Washington, the percentage of residents reporting participation in an international health experience has almost doubled in the past 10 years, from 32 percent to 58 percent, and the majority of residents who report this type of experience prior to residency express interest in similar experiences during residency as well.

As a result of this increased interest, nearly all medical schools have incorporated some form of global health teaching into their curricula [3]. Many residencies have also established formal international electives [4] or even specialized tracks to train physicians interested in global health careers [5]. These experiences have undeniable benefits to participants. Medical trainees who have participated in international experiences report increased knowledge of tropical diseases and advanced presentations of diseases encountered in the United States, improved physical examination skills, and a deeper appreciation of issues related to public health, professionalism, and cultural sensitivity [5-9]. They are also more likely than their peers to report an interest in caring for underserved populations in the United States or in devoting their careers to international medicine [7, 8, 10].

Due to the demands of medical education, the duration of international health electives for medical trainees can be quite short. (These trips are particularly limited when they include residents who have a severely curtailed ability to take time off; they frequently have substantial patient care responsibilities assigned to them and are only paid for their physical presence at their home institution.) Concern has been expressed that short-term international medical trips, including those for medical trainees, can be self-serving, ineffective, and unsustainable. These trips may impose burdens on local health facilities or result in the delivery of care that does not meet standards in the U.S. or in the country being visited [11-13].

We assert that international health electives for resident physicians can be conducted ethically if undertaken with forethought and careful planning. In 2008, in collaboration with staff members from a non-governmental agency (NGO) in El

Salvador, several physicians from our institution, including the primary author of this article, outlined a set of principles to guide short-term international medical trips [14]. We summarize these principles below and subsequently illustrate their application to resident-focused international health electives, using an example from our own institution.

To conduct a short-term international health trip involving residents in an ethical manner, we believe that institutions should:

1. Develop a *mission*, or a specific shared purpose prior to the first visit to a new international site and share this early on with participants. We believe the mission of an international health elective should always emphasize improving the public health of the community being served.
2. Forge a *collaboration* with a local agency, such as an NGO, governmental agency, or other local organization to promote sustainability and to enhance the effectiveness of the care delivered.
3. Ensure that the *education* of group participants, community members, and other physicians and trainees is a part of the mission and that appropriate educational experiences are structured into the trip and into planning and debriefing sessions. *Before the trip*, educate participants regarding the country of choice and its sociopolitical context, as well as general principles of public health. Apprise them of medical problems likely to be seen in the specific location and setting as well as what, if any, treatment strategies are appropriate to deliver in the context of the trip. To maximize the quality of these educational experiences, they should be developed from and integrated into existing local and national resources. *During the trip*, employ strategies that allow for the reciprocal education of community members and elective participants; this strategy is endorsed in community-based health promotion work both in and outside of the United States [15]. *After the trip*, encourage participants to share what they learned with other physicians.
4. Establish that you are truly providing *service* to the community. Take the time beforehand to learn about the health priorities of the community from the NGO or other local agency with which you will be working. If possible, establish direct contact with physicians or community members prior to the trip.
5. Emphasize appropriate *teamwork*. In international settings, trainees should function within the team as they function in the United States—with appropriate supervision. It is also important to incorporate physicians from the host country into the team, inasmuch as they have more experience with the types of health problems in the setting in which they practice.
6. Promote *sustainability* by planning appropriately prior to conducting the first trip. Work with administrators at your home institution and residency program to effectively integrate education of group participants into the elective, facilitate coverage for group members' regular duties while they are on the trip, find liability coverage, and determine mechanisms to pay for the elective. Make every effort to offset costs associated with hosting U.S.-based trainees.
7. Build in an *evaluation* process from the start that incorporates the perspectives of group participants, local agency officials and health professionals, and

community members. Evaluation should include debriefing after the trainee returns to the U.S., including a discussion of performance as a member of the health care team, along with thorough evaluation of whether the educational objectives are being met for all stakeholders, including the host site.

In 2008, after 2 years of planning guided by these principles, the University of Washington Pediatric Residency Program launched a combined experience in global health (GH) and community health and advocacy (CHA). The mission and curricula of these two "pathways" were developed by an advisory council consisting of trainees and faculty engaged in these activities. The mission of the global health component was designed collaboratively with partner institutions in Kenya. The pathways' mission is to equip interested pediatric residents with the knowledge and experience to reduce health disparities among children in the U.S. and abroad. With the support of Seattle Children's Hospital and the Department of Pediatrics of the University of Washington, we created a curriculum based on the principles of collaboration, teamwork, education, service, and sustainability, with mutual benefit for all stakeholders involved.

Both the CHA and GH pathways consist of 4 months of activities during the second and third years of residency. In the first month, residents work together in an experiential, interactive curriculum that exposes them to issues in public health, social justice, program evaluation, media training, and ethics. The curriculum includes small group discussions with leaders and potential mentors in child advocacy and public and global health; experiential learning with local organizations engaged in activities in these fields; the development of an individualized learning plan to focus independent work in future months; and a series of problem-based learning sessions through which residents engage the community. The pathways are combined for the first month to highlight commonalities in the skills needed to work with underserved populations domestically and abroad and to encourage the development of common goals and interests among the residents. Furthermore, we chose to focus on the public health needs of the community rather than on clinical management in order to underscore the importance of health promotion and disease prevention in sustaining change.

In the second month of the curriculum, residents design projects with their assigned preceptors based on objectives identified in their learning plans. A critical feature of this portion of the curriculum is that the resident identifies specific knowledge and skills he or she will obtain during the month, along with means for measuring whether or not the objectives were met.

Following this preparatory education, each resident subsequently participates in a two-month experience in either domestic advocacy or global health. The global health experience is based in a rural district hospital in Kenya, where our residents are paired with pediatric residents from the University of Nairobi. In this manner, our residents are integrated into the local health structure, which ensures that they are given appropriate clinical supervision and that clinical care is provided in an ethical

and locally relevant manner. In addition to the hospital-based component of this elective, residents also spend time in the community, identifying educational needs of local health workers and barriers to accessing services. To ensure the impact is sustainable, we concentrate our efforts on one partnership with a single hospital, so that the residents' work builds on that of their predecessors and the program has a presence at the site 8 months out of the year. To support these ongoing partnerships, we have arranged funding for an in-country resident coordinator to facilitate logistics for both the Seattle-based and Kenyan residents and an in-country faculty advisor to oversee the educational experience, maintain relationships with partner institutions, and provide mentorship during the elective.

At the culmination of each rotation, the resident pairs present their findings and recommendations to the provincial hospital, representatives of the public health community and to faculty and trainees at both the University of Washington and the University of Nairobi. Furthermore, both residents are formally interviewed regarding their experiences and give written feedback on all aspects of the rotation. Upon return to the U.S., the Seattle-based resident is required to debrief further with the preceptor. Semi-annually, a summary report of the educational activities and progress towards reaching each institution's educational and service objectives are discussed in person. This evaluative process results in a written agenda of future directions for strengthening the collaboration between institutions and the educational program for the residents.

We believe that the example provided by the GH pathway experience at the University of Washington illustrates that the above principles can guide the development of sustainable, ethically sound international health electives. The incorporation of international health experiences into residency programs has the potential to benefit residents greatly and to improve public health both locally and globally.

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