

# A Model for Sustainable Short-Term International Medical Trips

*Parminder Suchdev, MD, MPH; Kym Ahrens, MD; Eleanor Click, MD, PhD; Lori Macklin, BA; Doris Evangelista, LCSW; Elinor Graham, MD, MPH*

The health status of many people in developing countries is often dismal compared with the norms in industrialized countries. Increasingly, medical practitioners in the United States and other industrialized countries have become interested in global health issues, an interest that often takes the form of short-term international medical trips. We discuss several ethical issues associated with participation in such trips and use our experiences in developing the Children's Health International Medical Project of Seattle (CHIMPS) to outline and illustrate a set of 7 guiding principles for making these trips. CHIMPS is a resident-run, faculty-supported international medical program founded in 2002 by pediatric residents at the University of Washington in Seattle. Members of CHIMPS work with a rural community in El Salvador to support ongoing public health interventions there and

provide sustainable medical care in collaboration with the community and a local nongovernmental organization. The 7 principles developed as a result of this work—mission, collaboration, education, service, teamwork, sustainability, and evaluation—can be used as a model for health practitioners as they develop or select international medical trips. The importance of partnering with the community and working within the existing medical and public health infrastructure is emphasized. Many of the challenges of doing international medical work can be overcome when efforts are guided by a few specific principles, such as those we have outlined.

**KEY WORDS:** medical education; pediatrics; professional ethics; world health

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Worldwide, nearly 11 million children under the age of 5 years die annually, mostly from preventable or treatable causes.<sup>1</sup> In 2003, the average life expectancy for inhabitants of one developing country, Botswana, was less than half that of persons in the United States.<sup>1</sup> The increasing interest of American physicians in the health care of populations in the rest of the world is almost self-evident if one judges by the many recent articles on the subject of working overseas.<sup>2–5</sup> One reason is that US physicians take care of many patients from developing countries; a second is that in the intimately intertwined sociopolitical and economic web of today's world, we understand that our actions have significant effect on the forces that determine global health. Finally, as pediatricians, we are taught that social justice is part of our mission, as exemplified by the motto of the American Academy of Pediatrics declaring that we are “dedicated to the health of *all* children.”<sup>6</sup>

In recent years, interest has grown among physicians from wealthy nations in understanding and remedying disparities in global health. As one indicator, in 2004, over 22% of graduating US and Canadian medical students had

participated in an international health elective, compared with 6% of 1984 graduates.<sup>7,8</sup> Trainees who participate in international electives are more likely than their peers to report commitment to underserved populations and interest in careers in international medicine.<sup>9–11</sup>

## ETHICAL CHALLENGES OF INTERNATIONAL HEALTH WORK

Despite its good intentions, international health work is not without significant ethical challenges. Given the cost, time, and logistics involved in working overseas, most international medical work is short term, in the form of volunteer brigades or training electives. Labeled by critics as “medical tourism”—“short-term overseas work in poor countries by clinical people from rich countries”<sup>12</sup>—these trips can be seen as:

Self-serving: provide value for visitors without meeting the local community's needs.

Raising unmet expectations: send volunteer practitioners and trainees who do not have appropriate language or medical training or accountability.

Ineffective: provide temporary, short-term therapies that fail to address the root causes.

Imposing burdens on local health facilities: provide culturally irrelevant or disparaging care and leave behind medical waste.

Inappropriate: fail to follow current standards of health care delivery (continuity, access) or public health programs (equity, sustainability).

We believe that with foresight and collaboration, it is

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From the Department of Pediatrics, University of Washington, Seattle, Wash (Drs Suchdev, Ahrens, and Graham); ENLACE, Abelines, El Salvador (Drs Macklin and Evangelista); Baylor College of Medicine-Abbott Fund Children's Clinical Center of Excellence-Malawi, Lilongwe, Malawi (Dr Click).

Address correspondence to Parminder Suchdev, MD, MPH, Maternal & Child Nutrition Branch, Centers for Disease Control and Prevention, 4770 Buford Hwy NE, MS-K25, Atlanta, GA 30341 (e-mail: psuchdev@cdc.gov).

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possible to carry out a short-term international health trip that has a positive impact. Given the lack of published principles to guide international trips, we use our experience in founding a resident-run international medical project to develop guiding principles for other practitioners. These principles can serve as a framework for others who seek to participate in international work.

### GUIDING PRINCIPLES

The Children's Health International Medical Project of Seattle (CHIMPS), founded in 2002 by 2 pediatrics residents at the University of Washington, consists of residents, faculty, nurses, medical students, and other health professionals. Although CHIMPS has had moral support from the residency program, no faculty or administrative time has been provided, and residents have raised all supporting funds; faculty members have consistently volunteered to give stability to the program. Growing interest in CHIMPS (nearly 30% of interns participated in 2006) was a major factor in the hospital's deciding to develop a global health pathway for residents.

CHIMPS organizes annual 1-week outreach trips during intern vacation to Los Abelines, a community in rural El Salvador, and collaborates with a local nongovernmental organization (NGO) to support ongoing public health interventions throughout the year. In addition, residents take 1-month electives in El Salvador to work on specific projects with the NGO. In this way, although our presence in-country is short-term, our collaboration with the community of Los Abelines is not. To direct our work there, we have developed 7 guiding principles, which are discussed below.

#### MISSION: A COMMON AND SPECIFIC SENSE OF PURPOSE

The mission statement is a tool to communicate the group's collective beliefs. Our mission statement is:

"To ethically address underlying health issues and to provide sustainable public health interventions and medical assistance for underserved communities in developing countries."

We regularly refer to our mission to keep us on course, even as the project grows and changes. It is important that the mission statement emphasizes addressing the public health needs of the community.

#### COLLABORATION: A RELATIONSHIP WITH A COMMUNITY AND ITS INFRASTRUCTURE

Partnership with an NGO, government agency, or other local organization determines the type and extent of work that can be done. Organizations that understand and work within the infrastructure of a community can facilitate the integration of medical and public health projects and assure their continuity.

The name of our partner organization, ENLACE, means "to link" in Spanish. Its mission is to collaborate with communities to develop integrated and sustainable solu-

tions to poverty in El Salvador. In Los Abelines it has developed a health committee consisting of local community members who provide health education and simple health interventions. ENLACE also employs a local physician who makes weekly visits to the community. Accordingly, there is a continued medical presence in Los Abelines that goes beyond visits by CHIMPS.

### EDUCATION: FOR OURSELVES, THE COMMUNITY AND OUR PEERS

#### Educating Ourselves

The process of educating participants in the trip about the community, its medical problems, and effective interventions for these problems should start well before each trip begins.

The first step is to understand how the sociopolitical context of a partner community affects its predominant medical problems and to identify evidence-based solutions so that resources can be focused appropriately. El Salvador, a small country in Central America, has high rates of poverty and infant mortality. Of every 1000 children, 24 will die within the first year of life.<sup>13</sup> Los Abelines is among the most isolated communities in the Morazán Department, the focal point for El Salvador's 12-year civil war. Community members have little or no access to safe water, electricity, or sanitation systems. Surveys during CHIMPS trips in 2005 and 2006 found that 47% used untreated water from the polluted river, and 50% did not have a latrine.

After a literature review and consultation with ENLACE staff, we have developed a series of public health initiatives that address the needs of the community's most vulnerable populations—women and children. We have worked with the health committee to identify and address 3 major health priorities: dental health, intestinal parasites, and nutrition. A brief description of the 9 interventions developed (on the basis of existing evidence and international guidelines and in collaboration with the community) is presented in the Table.

We require that a majority of group members traveling to Los Abelines have Spanish skills, and we have developed a medical Spanish class at our hospital to promote proficiency.

#### Educating the Community

Teaching the teachers allows the community to be an integral part of the process of improving health. We have developed educational materials (*charlas*) that include lectures and demonstrations on important health messages. We teach these interventions to the local health committee for ongoing use in public health work (Table).

#### Educating Our Peers

We facilitate increased understanding of international health issues in our home community through presentations, publications, lectures, and language classes.

**Table.** Examples From the CHIMPS Program of Evidence-Based Public Health Interventions Developed in Collaboration With the Target Community

Health Problem	Public Health Interventions
No access to dental care or fluoride	Development of dental health <i>charlas</i> (educational talks) for use by health committee members throughout the year. Provision of toothbrushes. Provision of fluoride varnish for application 3 times a year by health committee members for children younger than 13 years. <sup>15</sup>
Parasitic infection	Development of basic hygiene <i>charlas</i> for use by health committee members. Provision of anthelmintic treatment for administration by local health care provider and health committee to all children younger than 12 years twice a year. <sup>16,17,20</sup>
Nutritional deficiencies, including anemia	Development of nutrition <i>charlas</i> that include information on preparing an iron-fortified beverage with local ingredients. Identification of persons at risk for or with iron deficiency by dietary histories and laboratory techniques. <sup>19</sup> Provision of iron supplementation for administration by local health care provider to prevent and treat iron deficiency anemia in young children and women of childbearing age. <sup>18–20</sup> Development of a community garden to increase availability of iron-rich foods.

### SERVICE: COMMITMENT TO DOING WORK THE COMMUNITY NEEDS AND WANTS

In a short-term international trip, service involves providing a combination of public health interventions and sustainable clinical care that address the community's priorities. The positive effect of short-term trips can be maximized by designing interventions that target conditions for which the traveling group has adequate supplies and that use the existing infrastructure for ongoing care. To determine the needs of the population and follow individual persons, it is important to gather basic statistics, including anthropometric, demographic, and dietary data, which we collect annually, analyze, and share with the health committee. We obtain (through purchase or donation) medications and supplies from philanthropic organizations, pharmaceutical companies, and our university hospital for common conditions in accordance with guidelines of the World Health Organization.<sup>14</sup> Our formulary is created by using input from the local physician (employed by ENLACE) and our records from previous trips. When indicated, patients are referred for more comprehensive care with the local physician.

Ongoing community-based participatory research is being planned for future trips. Discussion of the ethics of conducting research in international settings is beyond the scope of this article but is well reviewed elsewhere.<sup>21,22</sup>

### TEAMWORK: BUILDING ON EACH TEAM MEMBER'S SKILLS AND EXPERIENCES

An ethical international trip involves appropriate supervision of all junior team members in a manner consistent with policies of patient care in the United States. In addition, it is important to bring team members with diverse specialties (ie, physicians, nurses, physical therapists, dentists, health educators) so that volunteers can use their specific strengths to address the community's prevailing needs. Upon our arrival in Los Abelines, the local physician orients the team to the common health conditions, the treatments provided in the clinic, and the health beliefs of the residents. Working with this physician and the health committee has allowed us to learn about tropical medicine and provide better care for patients abroad and back at home.

### SUSTAINABILITY: BUILDING CAPACITY FOR ONGOING INTERVENTIONS

Building a sustainable project involves working in a single location so that efforts can be augmented during successive trips. This approach demonstrates a commitment to an ongoing relationship and allows for a greater effect on the community's health. Working within existing systems of care to teach the teachers allows the group to work with the community rather than providing care to them. In our example, this shifts the responsibility for community health improvement towards the year-long work of the local NGO, physician, and health committee and away from our intensive 1-week trip and the 1-month resident electives.

### EVALUATION: A MECHANISM TO DETERMINE WHETHER GOALS ARE BEING REACHED

Conducting periodic evaluation is important for measuring a project's effects and improving its design and implementation. By use of the structure-process-outcome model, we evaluate our program regularly.<sup>23</sup> After consultation with our institutional review board, we have developed a database of clinical and laboratory data collected during annual visits and use this information to determine the effectiveness of our interventions and the changes needed. For example, in a convenience sample of patients presenting to the Los Abelines clinic in 2005, 30% showed evidence of iron deficiency on the basis of an elevated zinc protoporphyrin/heme ratio (ZPPH), and only 28% ate meat once or more a week. The prevalence of malnutrition in children under 5 years of age, defined as a z score less than -2 for height-for-age or weight-for-height according to the 2005 World Health Organization Child Growth Standards (<http://www.who.int/childgrowth/en/>), was 44% and 6%, respectively, compared with national estimates of 18.9% and 1.4% in 2003.<sup>24</sup> We have used this data to initiate interventions such as iron supplementation and development of a community garden (Table).

In addition, we obtain regular feedback from members of ENLACE, the local physician and health committee, and program participants through qualitative interviews

and written evaluations. According to one ENLACE staff member, "Not only has the health committee members' confidence increased, as they have become the local 'experts' on public health issues through their collaboration with the CHIMPS and ENLACE staff, but the experience has allowed them to take ownership of their own and their community's health issues." We present the yearly data from patient surveys to the health committee to focus the community's public health work and our annual intensive trips and resident electives.

### CONCLUSIONS

International work requires intensive logistical planning, financial support, enough skilled personnel, and institutional support for practitioners. Even with the best intentions and thoughtful planning, there are patients for whom adequate care cannot be given, and well-meaning interventions can have unexpected effects. Even so, we assert that the health of people around the world and of their communities is a global responsibility, one we as physicians in the United States share. Despite the challenges posed by short-term medical trips, when they are directed by guiding principles they can be a means of effecting meaningful improvement in the health of communities around the globe.

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