

Pediatric Life Support Project: Mexico

Submitted by Kim McLennan
CFHI volunteer

A Snap Shot of Our Journey

In early spring 2006, a local volunteer medical team flew down to Puerto Escondido, Mexico, to teach a two-day advanced pediatric lifesaving course to Mexican physicians and medical students.

In the spirit of collaboration, this project involved volunteers from Stanford University Hospital and Child Family Health International (CFHI), a 15-year-old Bay Area non-profit. It was headed by Ewen Wang M.D., Associate Director of Pediatric Emergency Medicine at Stanford University Hospital. The other team members were: Evaleen Jones, M.D., Founder and President of CFHI and member of the clinical faculty at Stanford University; Eunice Mata-Sanchez, M.D. of the Stanford Family Practice; Renee Hsia, a resident in Emergency Medicine, also at Stanford; and Kim McLennan, a San Francisco-based physical therapist and Basic Life Saving (BLS) provider.

The course, adapted from the American Heart Association's Pediatric Advanced Life Support program, took a hands-on approach—mannequins to boot—using real case scenarios and building on BLS techniques. By responding to a series of questionnaires in advance, the course was carefully tailored to take account of not only the level of participants' expertise but also the availability of "essential" medical supplies and medicines, such as epinephrine (which was present) and vasopressin (which was not).

As all of the instructors spoke Spanish the group dynamic was strong, helping to ease everyone along the learning curve. And although each day was jam-packed with 12 hours of medical training, there was still time to unwind and enjoy the warm weather and whale-watching on offer in this small coastal village, celebrated for its rolling surf and abundant ocean life.

The course was actually established after a previous visit by Dr. Wang to Puerto Escondido. The town also hosts a CFHI site, where overseas students come to work and learn in a public health context from local healthcare professionals. On her last visit, Dr. Wang had asked the medical director, Dr. Javier Pastrana, what an impactful way would be to assist the local community. Dr. Pastrana's answer was that many of Puerto's healthcare trainees could benefit tremendously from learning advanced pediatric lifesaving skills. These skills include what to do in cases when children and infants are brought to a local clinic, needing immediate and expert attention to keep them alive.

Supported by CFHI's bi-lingual Program Coordinator, Nick Penco, the team set out to create a culturally appropriate course in Spanish, incorporating donated medical supplies that would remain there after the US-based team had returned home.

Wide Angle

The 25 "students" in the course comprised five physicians and 20 medical students—men and women in their 20s and 30s, predominantly in their seventh year of medical school ("Becarios en Servicio Social")—attending small clinics along the sparsely populated, tropical Oaxacan coast. To promote community self sustainability and anticipate the need for continuing training given that there are so few advanced lifesaving instructors in Puerto Escondido, four participants were given additional training to become instructors themselves.

The visiting team based their course materials on pediatric resuscitation and trauma assessment. Using newborn and child-sized mannequins, they taught basic resuscitation (CPR) methods along with the advanced skills needed to recognize respiratory failure, shock or cardiac arrest. Many of the participants had never used lifesaving equipment before, such as a bag-mask ventilator, intubation apparatus or a defibrillator.

Because of the well-resourced and practical nature of the course, however, every student had multiple opportunities to practice and learn many of the techniques so essential to providing medical care to sick infants and children...techniques that *could save a child's life*.

Close Up

One participant, Midori Trinidad Hernandez, an epidemiologist and Masters in Public Health student, worked in remote rural areas and often felt frustrated by seeing children experience respiratory arrest due to pesticide poisoning. Due to her level of competence and dedication, she was one of the students selected for further training to become an Advanced Pediatric Life Saving Instructor. As a result of the course she now feels much less frustrated and much more *empowered*—comfortable in using techniques that could mean the difference between life and death—especially when there is no hospital nearby or doctor at hand.

Another student, Fiacro, who lived in a village in northern Oaxaca State, appreciated the practical aspect of the training, mentioning the confidence the course instilled in him by being allowed to practice the life support techniques many times over the two days. His only wish was that some day soon his clinic would have a bag-valve-mask and other equipment necessary to address circulatory emergencies.

Dr. Virgen from San Pedro, one of the participating physicians, is an anesthesiologist who works both in a public health clinic and a private anesthesiology practice. He too welcomed the opportunity to learn and practice many of the lifesaving techniques that will help him save children's lives; adding how important such training is in view of the lack of trained professionals in the region.

Coming into Focus

For these students, who mostly live some distance away from major teaching centers and have few opportunities to receive advanced training with expensive medical equipment, gaining access to resources is a perpetual headache. In addition to learning new pediatric lifesaving techniques, some students remarked upon how they would use both the skills and training certificates they received as leverage for requesting more funds, basic supplies and medicines to be allocated from the federal government to underserved local municipalities. And for those volunteers who traveled down to Puerto Escondido, the experience was personally galvanizing and socially rewarding, serving as it did to demonstrate the effectiveness of bi-national medical community service in action.

One final note—which speaks to the sustainable nature of the project—when Dr. Wang and Renee Hsia returned to Puerto Escondido this December, they oversaw the implementation of training for 24 physicians. And who trained these physicians...? The answer is those very students and doctors who were the trainees back in February, 2006!