Clínica Misional "Nuestra Señora de Guadalupe": An Opportunity for Medical Volunteers

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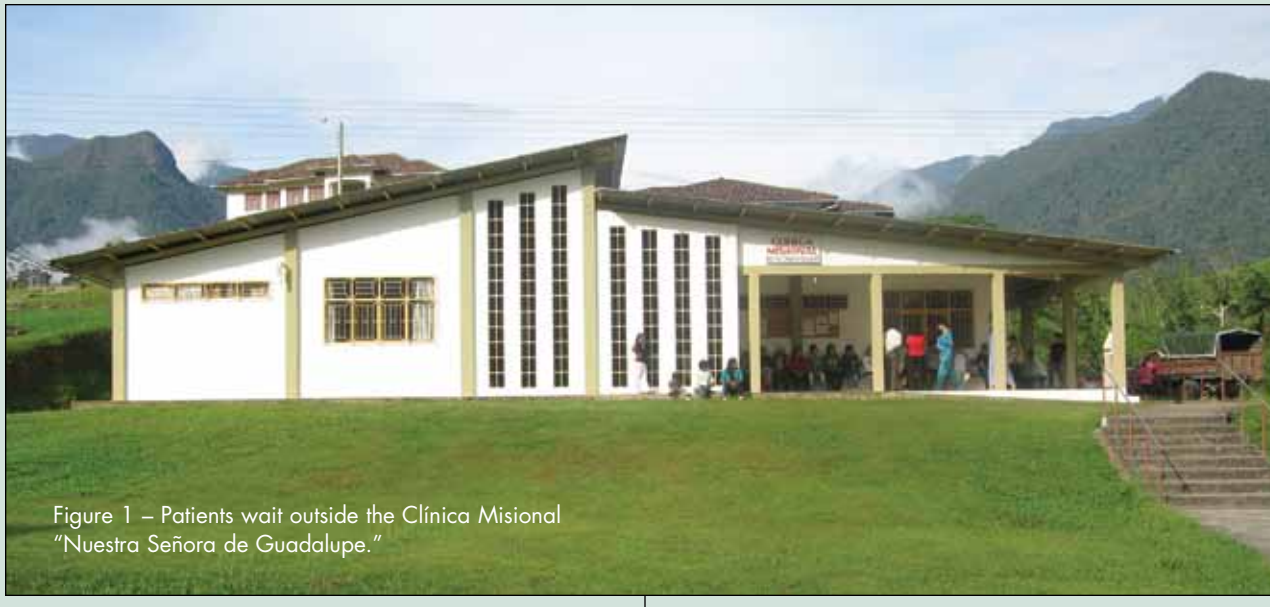

Figure 1 – Patients wait outside the Clínica Misional "Nuestra Señora de Guadalupe."

For several years, I had brought medical students into the office, taught in the hospital setting, helped supervise in medical school sponsored clinics for underserved populations and, even on a single occasion, ran a health station for the Special Olympics. Each of these activities I could fit around my work schedule. However, I had also sought for a way that I, as a general internist in solo private practice, could use my limited free time to volunteer my services to an underserved community in the developing world.

One fortuitous Saturday in 2001, I met a patient in the office for an urgent visit. His family told me of an Austrian exchange student Georg Nigsch who had lived with them years earlier. Now he is known as Padre Jorge, a priest in rural Ecuador. He was building a medical clinic to serve his poor community. I contacted him and was soon to learn about the Clínica Misional "Nuestra Señora de Guadalupe" (**Figure 1**). In 2001, I began the first of 11 visits to this rural facility.

AN UNDERSERVED REGION

Zamora-Chinchipe Province in Ecuador is home to about 90,000 people and abuts other Andean provinces of similar size. Most residents of this agrarian region are indigenous Shuar, Saraguro, or mixed heritage Indian/Spanish. They live in rural villages and in some larger towns that serve as trade, political, and religious centers. The majority of the people are subsistence farmers, miners, and small shopkeepers.

The government has established a Subcentro de Salud in the larger villages. Each center gives vaccinations, treats tuberculosis and *Leishmania* infections, gives perinatal antiretroviral treatment for pregnant women infected with HIV, provides family planning, and is a venue for child and maternal care. Under President Rafael Correa, the centers are rendering more general medical care and are expanding pharmacy resources. However, they remain poorly staffed, often with one year rotations by assigned young physicians, or by public health nurses. They are undersupplied, with a limited and inconsistent formulary. The doctor sometimes is available in each village only 1 or 2 days each month.

A few regional hospitals are present, some with outpatient clinics. In general the standard of care is not comparable to that available in the urban communities along the coast and in the high Andean pla-

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teau in the north of the country. Although there are private physicians for the more affluent elite, most residents have inconsistent access to quality medical providers, and preventive care services are unaffordable. The private doctors charge at least $20 dollars for a consultation, and owning their own pharmacies, prescribe as much as $50 dollars each visit for various tablets and injections. This far surpasses the average family weekly income of less than $40. The poor are disenfranchised.

START OF A MEDICAL MISSION

Padre Jorge Nigsch is the parish priest at an important Catholic mission along the main trade route into the Ecuadorian Andean cloud forest zone, the Oriente, or Amazonian, part of the country. This mission was a center of religious activity and teaching for the province when he inaugurated a health care facility in October of 2001. Over time, the building came to house examining rooms, dental suites, an operating theater, a pharmacy, and a laboratory.

Accompanied by my nurse-practitioner wife, Jana Siman, I arrived in December 2001. We set up examining rooms, sorted through stacks of donated often non-functional equipment, set up charts, and reviewed the pharmacy inventory. Labeled in German, many drugs were donated from Austria. Though useful, they also included many inappropriate or expired medicines, and European herbal preparations. The operating room had a table, old anesthesia machine, and non-functional monitors. Dental rooms were being constructed. Assisted by the Mother Superior, we proceeded to see patients. To our dismay no volunteers were scheduled after us, and there was no clear plan as to how to identify them.

Figure 2 – A Saraguro mother with her twins wait at the clinic.

RECRUITING VOLUNTEERS AND DONATIONS

Several tasks needed to be accomplished for the Clínica Misional to succeed. The most pressing need was to recruit medical volunteers, initially for primary care then for surgical and subspecialty care. This was done by listing the venue on a variety of web sites, contacting professional organizations, and talking with colleagues. Padre was encouraged to establish an "experience" section on the Clínica Misional web site (www.guadalupe-ec.org) and criteria for potential volunteers. For several years, a German organization sought dentists.

Success has been measurable. From January 2001, and as currently scheduled through May 2012, there are only 2 months recorded without a primary care physician, such as internist, pediatrician, family physician, or general practitioner. Advanced nurse practitioners and physician's associates have attended. General and plastic surgeons, ophthalmologists, otolaryngologists, gynecologists, dermatologists, anesthesiologists, cardiologists, tropical disease specialists, and gastroenterologists have visited and provided care.

We have had several pediatricians comfortably giving both adult and child general care in this setting. One stayed for a year, helping to establish an orientation guide and culturally appropriate educational material. Many doctors have served for 3 to 6 months. The long-term volunteers, and the good coordination and smooth transitions between health providers, have allowed a degree of continuity of care unique to this setting. We are currently seeking doctors to complete the schedule for 2012 and beyond. We see an average of 20 patients each day. However, when surgeons are pres-

ent, the volume dramatically rises for all personnel, with the primary care physician called upon to examine about twice as many individuals.

A donation allowed the purchase and transport of an operating microscope to the facility. This and an additional microscope have enabled a variety of delicate surgeries to be performed, ranging from cataract implants to reconstructive procedures for otosclerosis and ruptured tympanic membranes. Also seen have been surgeries for cleft palate, herniorrhaphies, partial mastectomies, removal of parotid tumors, and many other ambulatory procedures. Optometric equipment was donated, and the Lions Club International forwarded thousands of recycled eyeglasses to be distributed. They have subsidized the purchase of more. The operating theater has been modernized, and an electrical generator guarantees uninterrupted service. An electronic health record was installed in 2009 allowing legible and easily accessible charts with visits documented in Spanish or English.

The first 4 years, pharmaceutical companies donated large amounts of medications. More than 140 boxes were mailed from Connecticut to Ecuador. This surpassed the donations from Austria and Germany that had been the mainstay of supply. The facility ultimately was certified to receive discounted medicines from international charitable organizations such as MEDIOR and BLESSINGS. Since 2010 it has become increasingly difficult, and prohibitively expensive because of regulations and tariffs, to bring supplies into the country. We can no longer rely upon outside sources. By necessity more items are purchased locally including increasingly available generic drugs.

An electrocardiograph was brought to the facility. A laboratory was established. This included centrifuges, a semi-automated desk top chemistry analyzer, a QBC blood count machine, desktop microscopes, a lipid meter, and an assortment of quick screen tests and reagents. A laboratory technician established protocols. Most common tests include blood glucose; complete blood cell count; spun hematocrit; urinalysis; urine pregnancy test; quick screens for elevated thyroid-stimulating hormone, *Chlamydia, Helicobactor pylori* antibody, infectious mononucleosis, and HIV; and potassium hydroxide and wet mount microscopic examinations for vaginal secretions and skin scrapings. India ink, Giemsa, and Gram stain material are available. Dental x-ray machines were installed. Since 2003, an obstetrical Doppler has been available and in 2006 a portable ultrasound unit capable of vascular and visceral studies performed by volunteer physicians comfortable with its usage. General radiology remains beyond the scope of this rural facility. Additional laboratory and radiographic services are available in the regional capital Zamora. In the tropical

Figure 3 – Dr Epstein with a translator meet a mother and her 4 children.

Figure 4 – Outreach to even more isolated or underserved villages is provided via mobile health fairs, "Jornada Medica" missions.

environment and with notice of the economic status of our patients, tests are ordered selectively and equipment is at times difficult to maintain.

A MEASURABLE SUCCESS

From the end of 2001 through 2009, this remote health center had more than 60,000 patient visits. People travel hours braving mudslides, driving storms, and rutted and perilous mountain roads to queue up 8:00 in the morning and receive a "ficha." There may be extended families or even children alone. When specialists are present, they may wait up to 9 hours to be seen. Many are dressed in their finest traditional garments (**Figure 2**). They are invariably polite and grateful, even when their problems are intractable.

The following summary reports are typical. From November 28, 2009 through March 26, 2010, 1676 patients were seen, of which 51% were adult or adolescent females, 38% adult or adolescent males, and 11% children under the age of 12 (**Figure 3**). Most of the patients came from the provinces of Loja, Zamora-Chinchipe, and El Oro, but a few were from each of 9 different provinces. There were 2354 diagnoses for 1676 patients, indicating that many patients had more than one active problem. From November 1 through November 27, 2009 there was an American otolaryngologist accompanied by 2 German anesthesiologists and myself, an American internist. Eighty-two patients were examined on the first day and about 60 patients examined every day thereafter, totaling 750 patients for the month. Over 140 operative cases were performed, mostly under general anesthesia utilizing a laryngeal mask.

OUTREACH TO REMOTE VILLAGES

Outreach is done to even more isolated or underserved villages via mobile health fairs (**Figure 4**). One such "Jornada Medica" occurred in October 2006. Three American physicians (including myself and two family physicians from Connecticut), a German dentist, an Ecuadorian translator, an American nurse, and a Colombian medical assistant traveled for 1 week. We visited a gold mining town high in the Andes and a remote village reachable only by horse deep in a valley. We ministered to 465 medical patients and gave adjuvant dental services, including extraction of 120 severely rotted teeth.

Although starkly picturesque, this trip was with near tragedy. One of the physicians fell from her horse in a remote pueblo, sustaining a concussion, large scalp laceration, and whiplash injury. After suturing, immobilization, and being carried up the steep slippery slope by the villagers on a hastily fashioned stretcher, she was eventually evacuated to the nearest hospital with a CT scanner 9 hours' drive away. The medical trip continued to various cities, towns, and villages.

This past December 2011 over just 2 days, a senior Yale medical student, a German dentist and nurse, and the fulltime nurse, who for 10 years has served as the clinic administrator, joined me in visiting 2 small towns 3 hours from the main clinic site of Guadalupe, Ecuador. We saw 194 medical patients of all ages and extracted 66 rotted teeth. A group of nurse practitioners and graduate level students visit annually to perform community outreach, bringing their own supplies with them, and allowing affordable care otherwise not available. On such Jornada Medica missions, we identify persons with chronic illness and arrange follow-up

care at the local Subcentro de Salud or at the Clínica Misional.

Through 2009, more than 30,000 patient encounters took place on such missions, including several house calls. Coincidently, the schools are often visited for dental hygiene screening and mouth care instruction. By design, each health fair is within a few hours travel from the main facility in Guadalupe, or in communities served by a Subcentro de Salud. To do otherwise would have little long-term salutary public health impact. Such mobile missions continue to be organized by the Clínica Misional 2 to 3 times annually.

WORLDWIDE SUPPORT FOR THE MISSION

I have absented myself from my private practice 11 times to work at the Clínica Misional, since its inception. On 3 occasions, I have brought down Yale medical students and once a Yale graduate-level nursing student. One young physician stayed 3 months. In additional to assisting in patient care, she performed a thesis study proving the high prevalence of exposure to *Helicobacter pylori*.

From 2001 through 2011, there were 480 individual health care providers of all backgrounds and faiths from 16 countries. They came from as far as New Zealand and Japan, and as close as Loja, Ecuador across the Andes. Primary care physicians have stayed from 1 month to more than 1 year, surgeons, accompanied by their operative team members, from 2 to 6 weeks as necessary, and dentists and dental technicians varying times. There are dormitories, and food and board is covered once on site. A knowledge of medical Spanish has been essential.

The 2004 American College of Physicians annual meeting panel discussion on international volunteerism highlighted this medical facility. It is listed on many web sites.

A clinic for the poor cannot survive on collected revenue. Our pharmacy is now without access to significantly discounted pharmaceuticals and will soon run at a loss as we insure that medications remain affordable to those who most need them. Consultations remain priced at $1 each visit, and for some of the less fortunate even this fee is waived. To increase the charge would mean that large segments of this rural population could no longer be seen.

A 501 C3 tax exempt foundation was established: "The Friends of the Mission Clinic of Our Lady of Guadalupe, Inc." Donations may now be made through the web site. Generous public support has made the facility sustainable through turbulent economic times.

We are actively seeking pediatricians, family practitioners, general practitioners and internists. Primary care remains the backbone of the endeavor. Now well-established, we are treating more patients with chronic ailments. We have openings in the calendar for volunteers. The schedule is posted online.

For more information about the Clínica Misional "Nuestra Señora de Guadalupe," to decide whether to volunteer, or to give a donation, please visit www.guadalupe-ec.org. To serve at this remarkable facility, contact Padre Jorge Nigsch at padre.jorge.nigsch@guadalupe-ec.org.

As much as any volunteer has given to this endeavor, he or she has gained more. Each volunteer is fulfilled by the knowledge that his or her efforts have had a favorable impact on the quality of life of those living in an underserved community in the developing world. ■

Clínica Misional "Nuestra Señora de Guadalupe"

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Mission: The Clínica Misional "Nuestra Señora de Guadalupe" is a rural health care center in southeastern Ecuador. It is located on the grounds of a Catholic mission in the tropical cloud forest of the Oriente. It serves a culturally diverse impoverished indigenous population. The facility has examining rooms, dental suites with x-ray, an operating theater, pharmacy, and basic laboratory. There is a hospital about 1 hour away. The clinic is staffed full time by an international multi-faith group of medical volunteers. Primary care physicians are asked to serve at least 1 month and have remained for up to 1 year. Surgeons and other specialists come for 2 to 6 weeks as necessary, and are expected to be accompanied by whatever support personnel that they deem appropriate. Dentists and dental technicians visit for at least 3 weeks, and are welcome to stay longer. There are also opportunities for teaching in the schools and for mobile health fairs.

Travel is not reimbursed, but room and board are covered once at the venue, with volunteer residences overlooking the Andes. There is also an apartment for a family. A working knowledge of Spanish is essential. Please explore the web site www.guadalupe-ec.org including postings by various volunteer professionals, photographs of the region, and descriptions of the community. If you are interested in serving at this remarkable facility, contact Padre Jorge Nigsch.