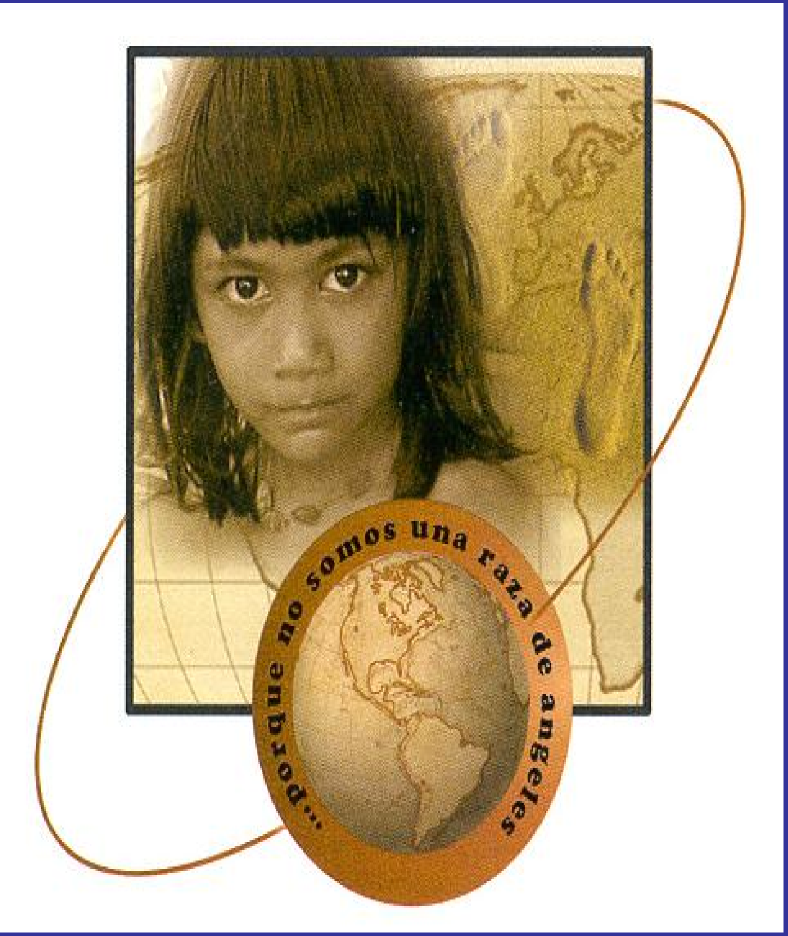
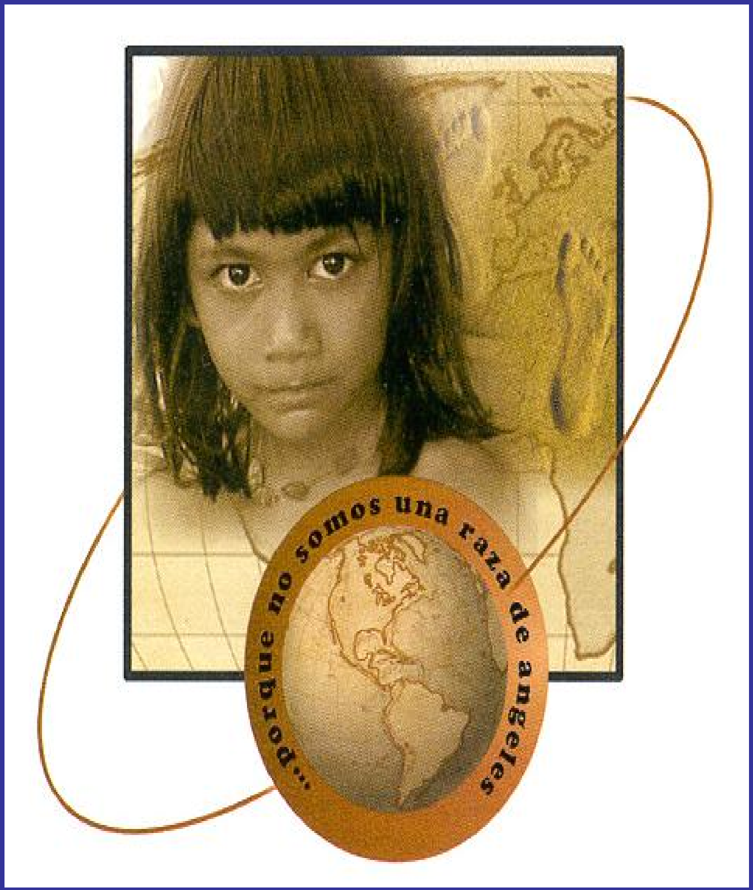
WORLD WALK FOUNDATION



White Paper
2007

WORLD WALK FOUNDATION

- Mission Statement
- History
- Limb-threatening Diseases
- Methodology
- Cyber Medical Education
- Conclusion
- Summary



Mission Statement

- World Walk is a public, non-profit, medical humanitarian, 501(c)(3) organization providing treatment and surgical training for diseases of the lower limbs. World Walk works in underserved areas of the world where resources are scarce and medical communities have limited medical training.
- The central strategy includes collaboration with public and private medical communities in developing classroom and clinical surgical training and treatment missions, Internet distance-learning education programs, and community outreach.
- Ultimately, the goal of World Walk is to assist in the restoration of dignity to the world’s poor.

History

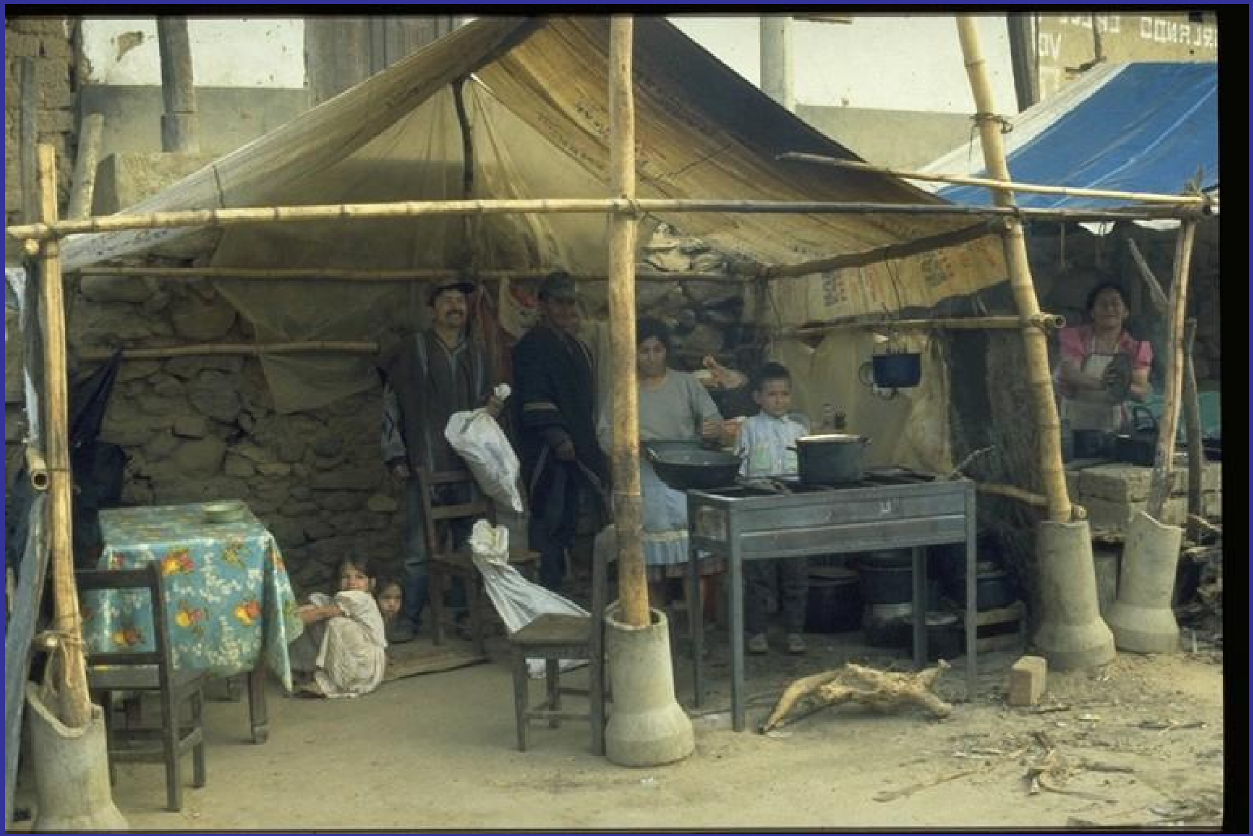
Children living in the village of Pacaipampa in the northern Peruvian Andes Mountains, standing outside the convent residence of Mercy nuns who have been instrumental in providing health care and social services to the people of Peru and other Latin American countries. October, 1996






Top: Clubfoot deformities in children and adult (Far right). Left: Mission team to Chulucanas in northern Peru, October, 1996.
Right: Venezuelan and U.S. surgical mission team in Barinas, Venezuela. February, 2000.

The patient care model currently being utilized by World Walk is unique, when compared to those being employed by other health care non-profit organizations. While similar in being ultimately oriented toward providing patient care in underserved areas, the World Walk model differs in both its scale of service and its delivery approach.



A village family in Pacaipampa, in the northern Peruvian Andes Mountains. October, 1996.

World Walk began because there is a vacuum in the world; a vacuum created by the large scale absence of medical care for most of the people on earth. Our humanity abhors this desperation for medical care experienced by some many human beings. After several years of participating in medical missions in countries like Peru, Venezuela, Mexico, Belize, Jamaica, China and Cambodia, it became clear to me that this problem is only worsening, with an ever-widening gap between those that have access to adequate medical care and those who do not.

Limb-threatening Diseases

- Diabetes
- Congenital Deformities
- Neuromuscular Deformities
- Traumatic Injuries
- Vascular Disease
- Infectious Disease
- Cancer
- Arthritidies
- Primary Ulcerative Disease

Child with cerebral palsy, Barinas, Venezuela, February, 2000.

Land mine victim in Cambodia, Nov., 1998

Peruvian child with bilateral clubfoot deformity, October, 1998.



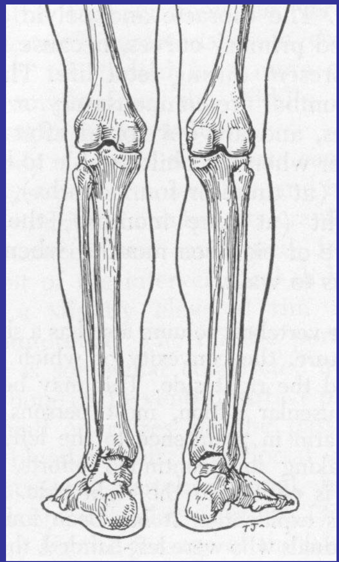
Mission to Phnom Penh, Cambodia, collaborating with NGO **HOPE *worldwide*** at Sihanouk Hospital, Center of Hope. October, 1998.

In the face of such overwhelming despair, I found hope. It became obvious to me very early on that there was far too much disease in the world for individual caregivers or teams of them to make a difference on there own. At first glance, we did find that it appeared that there was not enough volunteer medical staff to begin to make a difference on a large scale in many areas around the world, particularly with the complications of such epidemic diseases as diabetes. However, that awareness of the inadequacy of traditional mission methods suggested to us that we begin to think "outside the box." Over time, the people, the medical communities, non-governmental organizations (NGOs) and in many places, the governments themselves, supported our idea of "teaching the teachers," in a given developing region or country.

Methodology

- International teaching teams:
  - Physicians
  - Nurses
  - Physical Therapists
  - Orthotists-Prosthetists
  - Social Workers
  - Administrator
- Exchange Programs
- Live and Archived Teleconferences
- Internet Specialist Consultations
- Classroom Education
- Surgical Supply Appropriation
- Research

- Affiliations / Collaborations:
  - NGOs
  - Ministries of Health
  - Private Medical Community
  - Medical Schools
  - Hospitals
  - Private Clinics
  - Public Health Centers



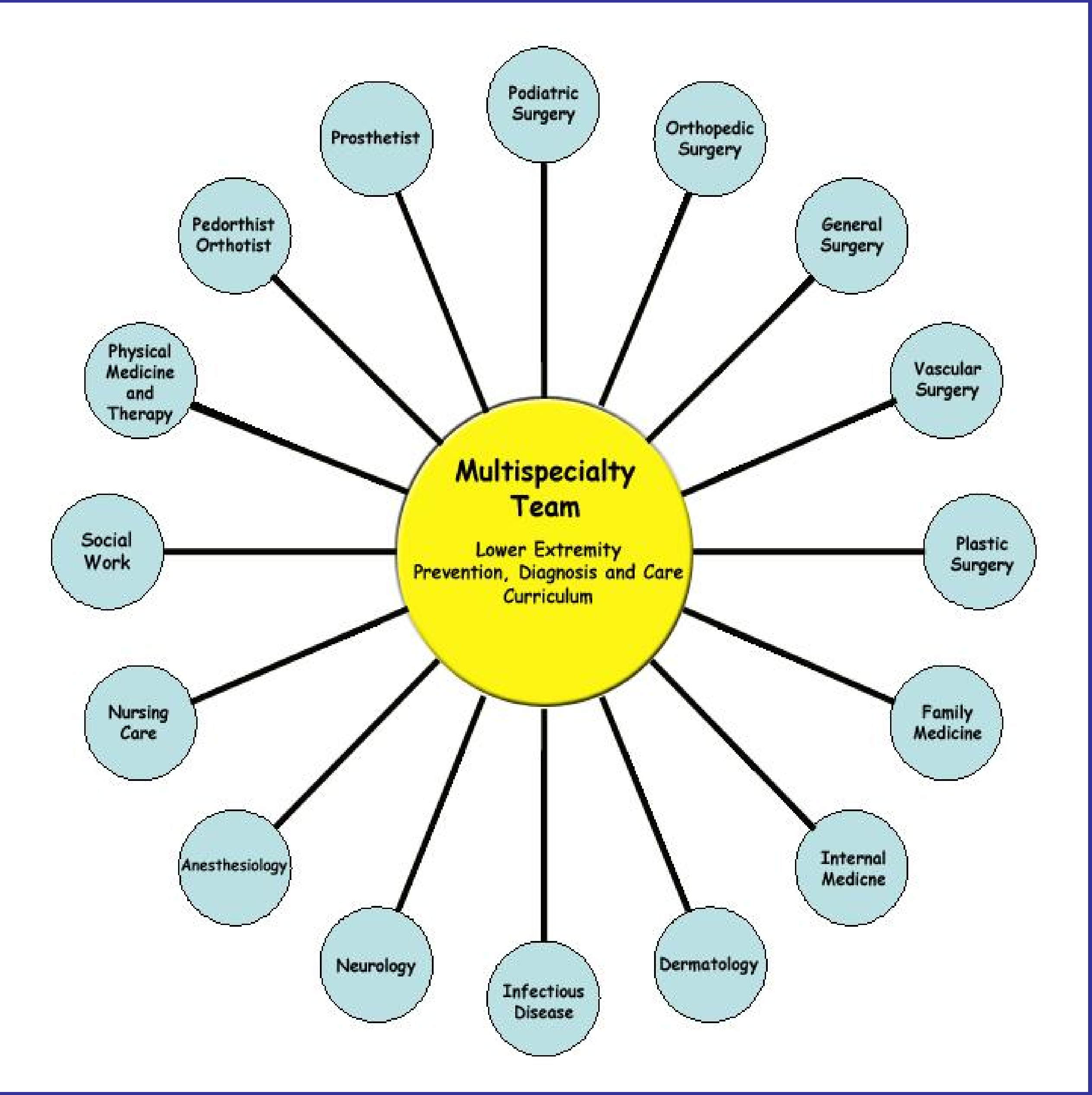
“Teaching the Teachers” philosophy develops surgical self-sufficiency on a local, regional and national level, seen here during clubfoot operations in Barinas, Venezuela. February, 2000 (Left) and September, 2000 (Right).

Central to World Walk initiatives is the teaching of local physicians, nurses, physical therapists and administrators in both live and Internet settings. Rather than limiting the care which can be provided by a temporary visiting team of foreign doctors, nurses and physical therapists, it has been demonstrated that well-trained local health care providers can exponentially increase the number of patients seen. In addition, this solves the dilemma of how to assure adequate continuity of care when the visiting teams have left. The added ability to conduct real-time and archived education via the Internet provides World Walk with an extremely powerful teaching and support tool not available to most non-profit organizations.

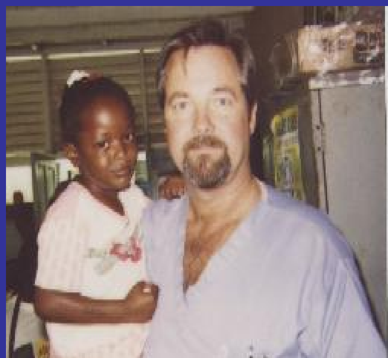
 

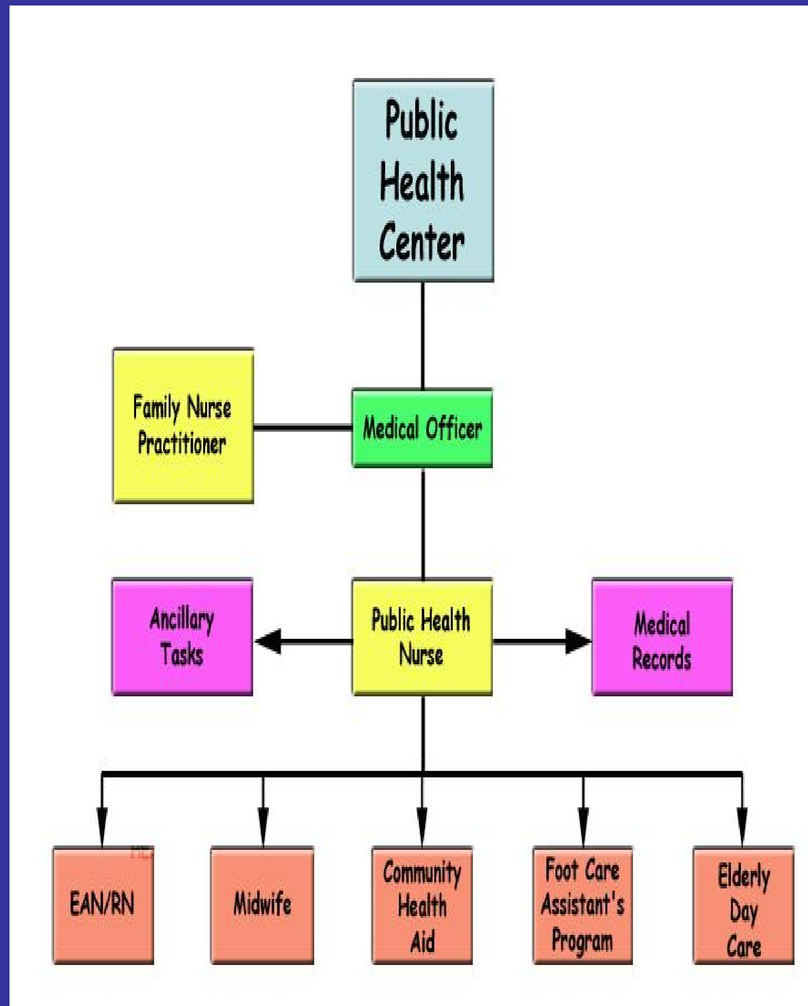
Interaction between U.S. and Venezuelan surgical staff members, Barinas, Venezuela. September, 2000.

The “teaching the teachers” or “100^3” model simply means that if one caregiver commits to training 100 caregivers during his profession career, and each one of those caregivers makes the same individual commitment, then by the third generation, there will be 1,000,000 trained caregiver as offspring of the original caregiver. Coupling this concept with training native caregivers in regional teaching and treatment “centers of excellence” in our partner countries, could ultimately deliver adequately trained personnel to the most rural regions of the developing world.



World Walk multi-specialty team model



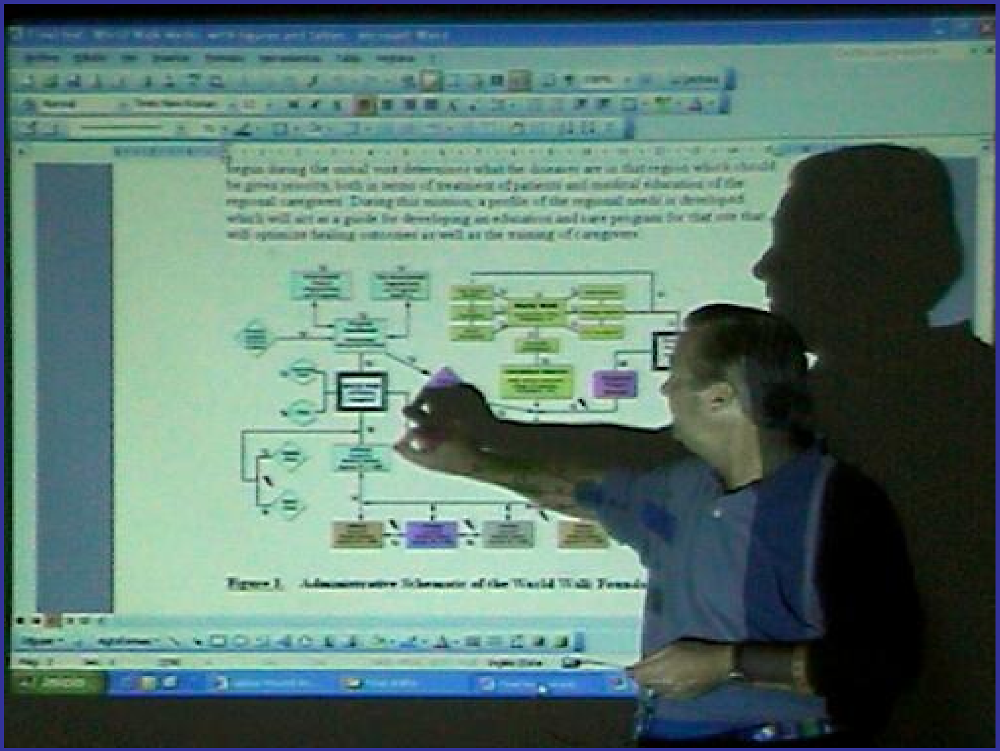


Central to the World Walk model is to optimize the value of the existing infrastructure for medical care and disease prevention, including hospitals, medical schools and public health centers. Seen here is a schematic of the Jamaican public health center, which in the past few years has added the foot care assistants program for diabetic patients.

Foot Care Assistants Program students receive instruction by Mr. Owen Bernard and Ms. Lurlene Less of the Diabetes Association of Jamaica. November, 2006.

"Center-of-Excellence" Karl Huesner Memorial Hospital in Belize City, Belize (Center), provides classroom facilities, in-patient surgical care (Left), as well as out-patient diabetes and foot care clinics (Right).

The "center of excellence" model includes out-patient and in-patient clinical facilities for patient care as well as classroom educational facilities for both local, visiting and remote educators, the remote educators using various forms of Internet education, including text, still photo and video material. Recorded (archived) material available through the Internet can then be accessible to students 24 hours per day, 365 days per year. In addition, the Internet capabilities can allow for a specialty consultation service, accessing specialists anywhere in the world.

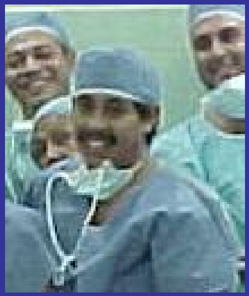


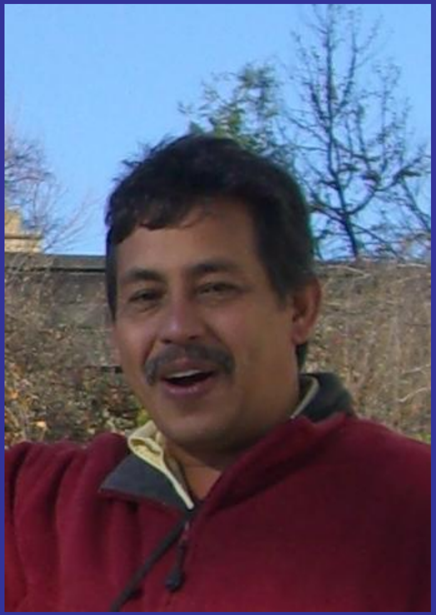
Students at the University of the Andes Medical School in Barinas, Venezuela, participating in a lecture on Internet medical education by Dr. Neil Donohue. July, 2005.

The model's flow pattern is initiated with an administrative site visit by World Walk staff in an area with an expressed interest in hosting a center. Included with an evaluation of patient load and hard assets (hospital availability, instrumentation, etc), individuals are identified who will serve as local, regional and national leaders for the program. The administrative visit identifies the regional leadership who will partner with World Walk and make a commitment to continue the development of the center even when World Walk staff is not on site. Steps two and three consist of providing computer linkage followed by patient screening sessions in anticipation of step four, a medical teaching mission to the area.

Jamaican Professor Errol Morrison, MD, PhD, lecturing to students in the Foot Care Assistants Program. November, 2006.

It is during the first mission that World Walk surgeons begin actual hands-on training for the local health care personnel who will ultimately be running the center. It is anticipated that at least two to three missions will be required at a site before it can become independent. However, not all missions will necessarily require World Walk surgeons, as those in nearby centers can also be involved in teaching. Once independent, local physician leadership will receive periodic ongoing education at the World Walk training centers in the United States, ongoing support via the Internet and visiting specialty training teams based on regional needs.

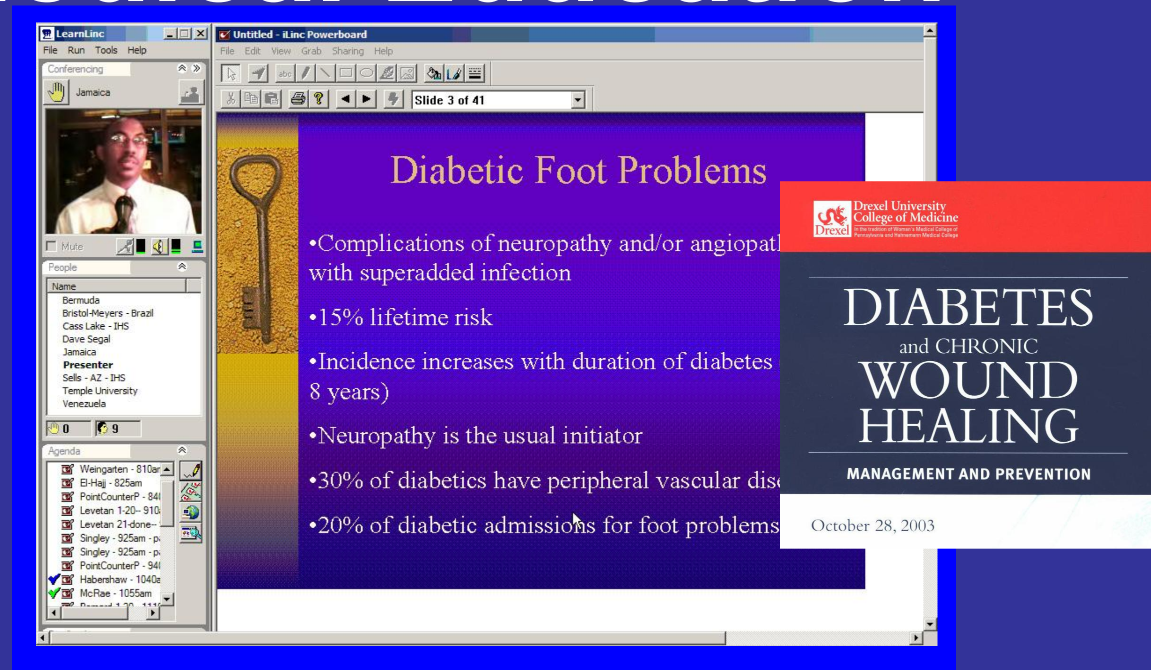




Rafael Barrios, MD, World Walk's orthopedic leader in Venezuela (Left and Right photos), spent the month of November, 2006 participating in a surgical exchange program with Dr. Luke Cicchineli in Greenville, NC, and Dr. Neil Donohue in Philadelphia. Dr. Barrios was instrumental in developing "Operation Walk," subtitled "A secure step towards the future." (Center)

The exchange program, which includes multi-site training in the U.S. and other countries, will include participation in hospital rounds, surgery in the operating room, wound center patient care and hospital and medical school classroom lectures and conferences.

Cyber Medical Education

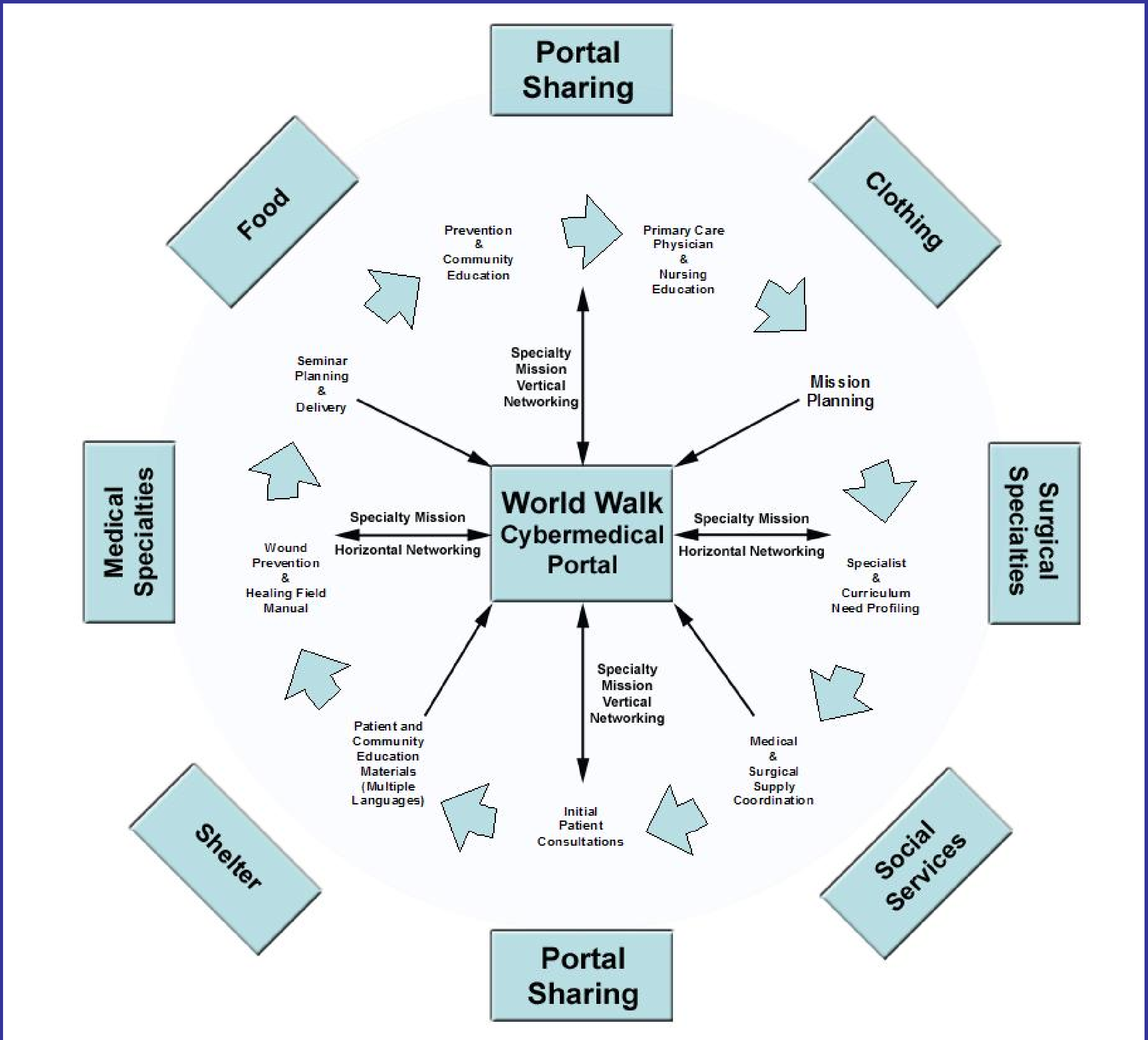


Left: Specialist consultant in Philadelphia reviewing a pediatric case in Venezuela, using the Internet, October, 2000.
Center: Live video, text and PowerPoint lecture being given to an audience of nearly 1000 caregivers for CME, simultaneously in seven countries through the Internet. October, 2003.

The Internet accessible "cybersite" can have many functions, including mission and exchange program planning, specialty consultations, as well as live and archived educational programming with continuing medical education credits (CME) available, provided by major U.S. medical schools. The cybersite can also contribute to research data gathering and for measuring outcomes for preventive and therapeutic initiatives as well as for communication between and among other mission sites as well as NGO and government programs.

World Walk / "Healing The Children" team at Clinica Caritas in Barinas, Venezuela, September, 2000. Right: Dr. Frederick LaVan, World Walk Medical Director and Father Joseph Heim, founder of Clinica Caritas.

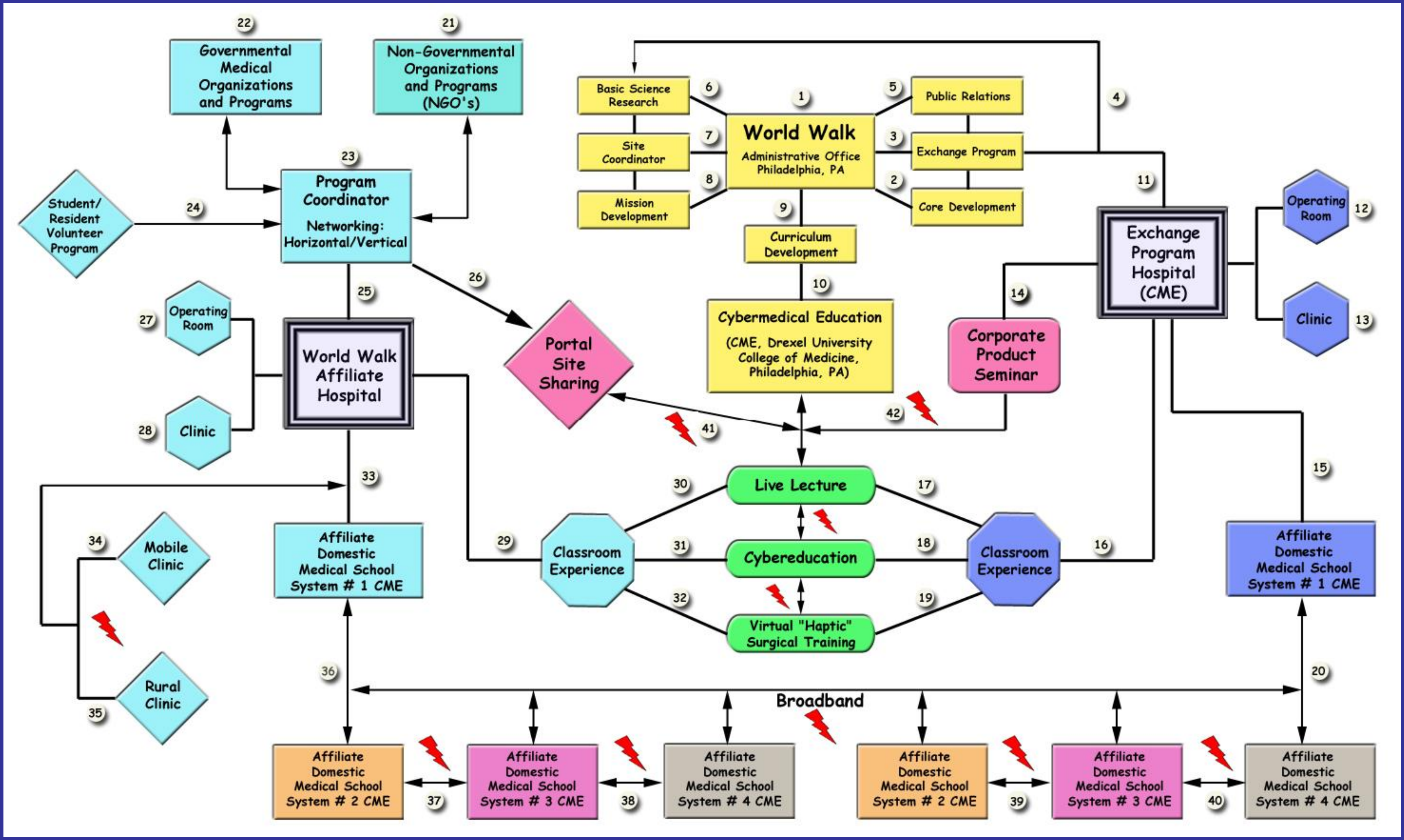
It is important to emphasize that, with this model, each "center of excellence" can develop at its own pace and with a focus on the priority diseases of that region, whether it be diabetes, leprosy, ulcers, traumatic wounds or pediatric clubfoot and other congenital and neuromuscular deformities. In addition, the concepts of vertical and horizontal networking allows even more impact through leveraging collaboration with other local, regional and national missions who need the specialty treatment and care provided by World Walk staff. The concept of "portal sharing" ultimately can allow any medical or social service organization to use the World Walk Internet portal to help assess and deliver their specialty to a particular watershed area, particularly in times of emergency, for example, natural disasters.



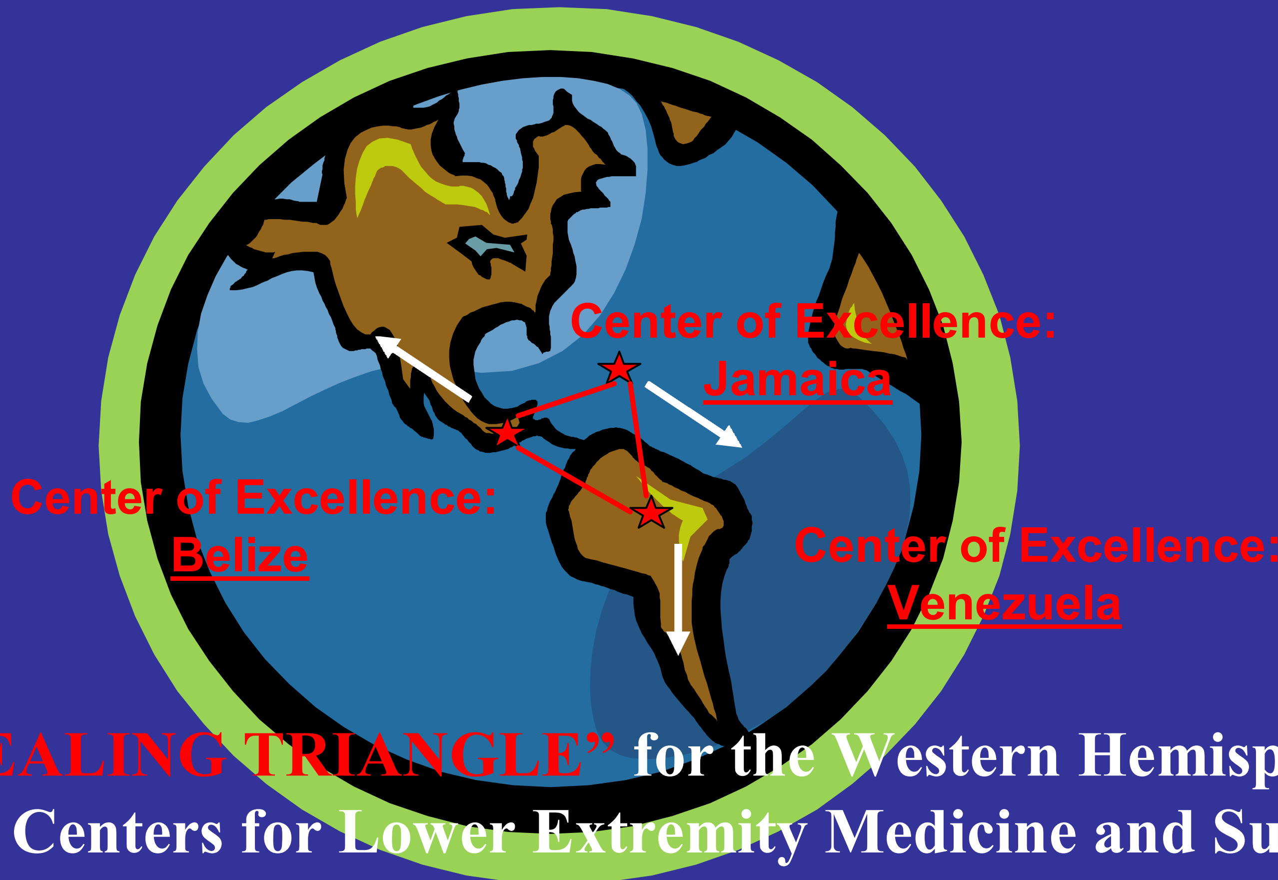
The concept of portal sharing can ultimately allow any medical or social service organization to use the World Walk Internet portal to help assess and deliver their specialty to a particular watershed served by the World Walk center-of-excellence. For example, portal sharing might facilitate an immunization program for children, a domestic abuse prevention program or even the acquisition of generators for village electricity.


Mission team and staff in surgery at the Sihanouk Hospital, “Center of Hope,” Phnom Penh, Cambodia. November, 1998.

The model’s long range design is to make World Walk physician team travel increasingly focused on providing hands-on training to surgeons with the greatest needs. As increasing numbers of competent local physicians receive training, it is anticipated that they will eventually become the driving force behind further teaching and the spread of centers to new areas without direct personnel assistance from World Walk. In fact, the regional leadership will create their own teaching teams. At that point, World Walk will evolve to become a resource available to these physicians and their centers, rather than a direct care provider, thereby fulfilling its long-range goal of creating regional self-sufficiency.



An administrative schematic of World Walk can be seen here. The World Walk administrative visit identifies the regional leadership who will partner with World Walk and make a commitment to continue the development of the center even when World Walk staff members are not on site. This leadership is then invited to an annual exchange program which includes multi-site training in the U.S. and other countries. This training will include participation in hospital rounds, surgery in the operating room, wound center patient care and hospital and medical school classroom lectures and conferences. In addition, the training will include instruction in lecture writing, prevention and community education material development, research methods, as well as speaking and leadership skills.



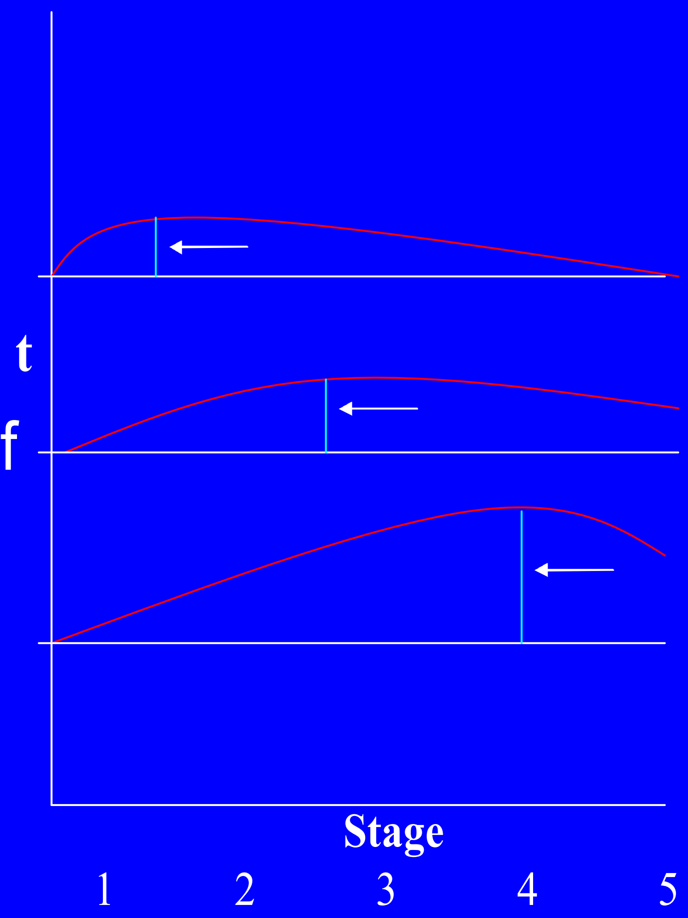
The "HEALING TRIANGLE" for the Western Hemisphere: Regional Centers for Lower Extremity Medicine and Surgery

Jamaica-Venezuela-Belize

Currently, World Walk is developing a network of centers-of-excellence through live and archived Internet education, exchange programs, clinical training and care protocols and research.

Research: Wagner "Shift"

- A statistical <u>shift,</u> in a given geographical study area, from large numbers of severe diabetic wounds to fewer numbers of severe diabetic wounds because of prevention programs, early wound intervention, wound healing protocols and amputation prevention

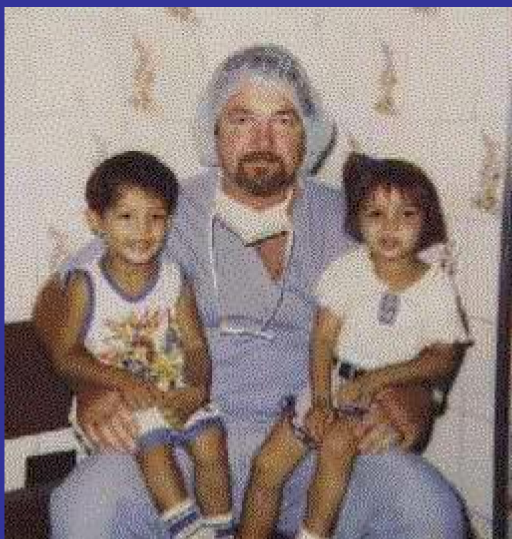


One of the measurements that we are looking at is the "Wagner Shift," which is a change from more complicated, limb-threatening diabetic wounds to more frequent prevention of diabetic wounds as well as earlier intervention in simple wounds with an increase in healing rates on a large scale.

Cambodian children begging to buy food for their parents who are patients at the Military Hospital in Phnom Penh, Cambodia, many of whom are victims of land mine injuries, with many losing their limbs to amputation. October, 1998.

As time goes on, it has become more clear to us that we can make a difference if we first develop the trust of people we serve and then partner with their medical communities as equals in this “joint venture” for humanity. There is much work to do but together we can reverse the ravages of human suffering, wherever we find it. In a world burdened with a firestorm of pain, hunger, war and injustice, we hope to bring a “peaceful storm” of healing to those countless human beings who need it most. We can change the world and as long as there are people suffering in underserved regions of our planet, we should not rest.

Conclusion



Dr. Neil Donohue with two young patients and in surgery, Red Cross Hospital, Mexicali, Mexico. September, 1997.

In conclusion, then, as we look to the future, we at World Walk will continue to focus on a number of projects which we hope will have local, regional and global impact. We hope that our model can not only be used for prevention, training and care of lower-extremity disease in other underserved parts of the world, but we also hope that the model can be used for other medical, surgical, nursing and physical therapy specialties.

Summary

1. Globally, complications of lower extremity disease, particularly from diabetes, are increasing at an alarming rate.

2. Even in areas with limited resources, there are solutions for underserved areas by working within the local, regional and national medical infrastructures.

3. Developing a program of community education, early diagnosis and treatment, while simultaneously creating regional self-sufficiency within a medical community should be the ultimate goal.

4. The center of excellence model includes combining medical teaching teams and integrated cybermedicine.

5. Partnering and developing trust with government, NGO’s and the private medical community is essential for a successful program.

Summary

6. We envision a new era of global mission development, with inter-mission networking and centrifugal movement of specialty training through portal sharing.

7. Within that vision we hope for a world that begins to heal instead of a world fragmented by war, terrorism and poverty including an ever-widening gap between those that have adequate medical care and those that do not.

8. Where once there was pathology, no plan and frustration, now there is still pathology but the fundamentals of a plan and considerably more hope than we had ten years ago.

9. In the realm of wound prevention and healing, a significant implementation of basic principles regionally, around the world, could prevent millions of amputations per year.

10. The World Walk model described here hopefully represents one more step along the path in a journey, along which, caregivers should always be looking for more effective and integrated methods for delivering preventive and therapeutic care to underserved populations.

Dr. Cornelius M. Donohue III

Ultimately, we hope that other organizations, both public and private, will use our model, combining clinical and cybermedical education, for providing medical care and education as well as disease prevention programs, wherever they are needed in the world.