Mobile Pediatric Orthopaedic Education (MoPOEd)

Mozambique
Robert Bernstein

[Images of people in a classroom and medical setting]
Year Founded:
2008

Organization type:
nonprofit/ngo/citizen sector

Project Stage:
Established

Budget:
$100,000 - $250,000

Website:

- Disability
- Disability rights
- Health care
- Health education
- Infant health
- Vulnerable populations

Project Summary

Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.

MoPOEd teaches sustainable pediatric orthopaedic surgery hands-on, on-site, to healthcare providers in the developing world.

About Project

Problem: What problem is this project trying to address?

With almost 50% of the developing world population under the age of 15, there is a large number of children with orthopaedic conditions that do not have access to pediatric orthopaedic care. Morbidity from fractures, bone infections, and congenital deformities results in substantial disability and a drain on social services. Mozambique has 22 million residents yet only one trained pediatric orthopaedic surgeon and about 15 orthopaedic surgeons for the entire country. Without quality pediatric orthopaedic care, children remain neglected and will find it more difficult to become contributing members of society.

Solution: What is the proposed solution? Please be specific!

By providing an onsite training program, additional pediatric orthopaedic surgeons can be trained, providing sustainable pediatric orthopaedic care for the children of Mozambique. In addition, the program creates a teaching program with a curriculum that can be used by the Mozambiquan surgeons to continue to train others (true sustainability).
Example: Walk us through a specific example(s) of how this solution makes a difference; include its primary activities.

MoPOEd sends an experienced volunteer pediatric orthopaedic surgeon to the Central Hospital of Maputo every month for a 2 week period. Each surgeon works in clinic, makes rounds daily with the staff, gives lectures to the staff and residents, and assists in the operating room for all pediatric orthopaedic cases. Over a one year period, the Central Hospital receives a 6 month fellowship in pediatric orthopaedics. We also provide CD-roms with orthopaedic textbooks to the program participants and provide ongoing support via the internet and Skype. The program focuses on endemic disease, and teaches utilizing locally available implants. In addition, we try to focus on teaching the teachers in order to make the program sustainable. The program is approved by the Eduardo Mondlane School of Medicine. MoPOEd arranges and pays for the travel, room and board of the visiting surgeons. It arranges contacts and assists with development of a curriculum.

Impact: What is the impact of the work to date? Also describe the projected future impact for the coming years.

6 surgeons in Cambodia continue to perform pediatric orthopaedic surgery and to teach in Phnom Penh, Cambodia. A scoliosis program was introduced as well as other techniques that continue to provide care for children. More than 200 surgeries were performed with the help of the MoPOEd surgeons, and many hundreds have been performed since the completion of the program. This particular hospital provides the only free care in Cambodia. 2 surgeons and about 8 residents in orthopaedic surgery have been trained in Maputo, Mozambique, and continue to provide care and to teach at the Eduardo Modlane School of Medicine. Improvements were made in infection control, surgical treatment of bowlegs and clubfoot, a Ponseti casting course was provided, and scoliosis surgery program instituted.

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Sustainability

Financial Sustainability Plan: What is this solution’s plan to ensure financial sustainability?

The program will teach the principles and techniques of pediatric orthopaedic surgery and will train the local healthcare workers to teach others, essentially training the trainers. The program will last 2 years and then will be taken over by the local surgeons, with continued intermittent visits for at least 2 years. Additional support will be provided by Skype/internet. The program continues to receive private philanthropy and other grants.

Marketplace: Who else is addressing the problem outlined here? How does the proposed project differ from these approaches?

Health Volunteers Overseas (HVO) is the largest nonprofit program that includes orthopaedic surgery. However, there is no set curriculum and many hospitals in which HVO is active do not care for children. There is currently no other organized pediatric orthopaedic program in Mozambique. There is an ongoing pediatric program at the Central Hospital of Maputo through the Global Health Program at UCLA School of Medicine as well as an internal medicine program through UC San Diego. These programs focus on other issues but are collaborative (particularly the pediatric program) and can help support the MoPOEd program.

Team

Founding Story

In 2007 I operated on a Cambodian orphan with a severe spinal deformity brought to the United States for care. After the surgery, her expected host family declined to take her and she ended up living with my family for the summer during her recovery. Once she returned to Cambodia, we visited her at the orphanage and arranged to help with some pediatric orthopaedic surgery at a local charity hospital. It was then that we realized there was no pediatric orthopaedic surgeon in the entire country of 14 million, yet approximately half the population was under 15 years of age. My wife and I determined to make a difference and we came up with the idea to teach sustainable pediatric orthopaedics in the developing world using volunteer surgeons who could each donate 2 weeks out of the year to travel and teach. We have completed 2 years in Cambodia, and trained 6 surgeons in pediatric orthopaedics. We are now completing our first year in Mozambique, having sent 8 surgeons in the first 9 months.

About You

Organization:
Mobile Pediatric Orthopaedic Education

First Name
Robert

Last Name
Bernstein

Twitter URL

Facebook URL
http://www.facebook.com/group.php?gid=43002556731

Organization Name
Mobile Pediatric Orthopaedic Education

Organization Country
United States, NY, Nassau County
Country where this project is creating social impact
Mozambique, MP

How long has your organization been operating?
1-5 years

The information you provide here will be used to fill in any parts of your profile that have been left blank, such as interests, organization information, and website. No contact information will be made public. Please uncheck here if you do not want this to happen.

Innovation

How long have you been in operation?
Operating for 1-5 years

Which of the following best describes the barrier(s) your innovation addresses? Choose up to two
Access, Quality.

Social Impact

Please describe the goal of your initiative; outline what you are trying to achieve
The goal of the MoPOEd program is to improve care for children with orthopaedic diseases related to fractures and trauma, congenital anomalies, and infections in the developing world. We wish to train local physicians and healthcare providers onsite, hands-on, with locally available implants in order to establish a sustainable program that could then train their own surgeons and healthcare providers. In this way, the care for children with orthopaedic diseases will be improved for generations to come.

What has been the impact of your solution to date?
The MoPOEd program has trained 6 Khmer surgeons at the Children's Surgical Center in Phnom Penh over a two year period (2009-2010). Over 70 lectures were given and over 200 surgeries were performed. The surgical treatment for children with orthopaedic diseases in Cambodia has significantly improved and patients are now referred to the clinic from around the country. Some or the physicians trained are now giving lectures on pediatric orthopaedic subjects at the local medical school, and one of the surgeons will be hosted as a traveling scholar this year at the annual meeting of the Pediatric Orthopaedic Society of North America, the largest society of children's orthopaedists in the world.

What is your projected impact over the next five years?
As these surgeons will perform surgery throughout their careers, the impact on future children with orthopaedic disease will be magnified. In addition, the training even improves their care of many adult patients. We expect that thousands of orthopaedic surgeries will be performed over the next 5 years at the Children's Surgical Center.

The Central Hospital of Maputo is the only hospital in the entire country with a full orthopaedic department. We expect an even greater impact after MoPOEd completes its mission in this location.

What barriers might hinder the success of your project? How do you plan to overcome them?
There are two major barriers to success of the MoPOEd program.

1. Critical thinking. Many healthcare providers in the developing world are taught in a rather dogmatic style. They can regurgitate information but will not question authority. Thus, making decisions when there are more than one solution to a problem becomes difficult. Teaching surgeons to think of all alternatives prior to deciding on a particular treatment is a major focus of our program.

2. Infrastructure. To teach pediatric orthopaedics requires a certain amount of infrastructure such as operating rooms appropriately equipped, adequately trained anaesthesiologists, as well as postoperative care. Work ethic tends to vary from country to country and the quality of this care can vary from individual to individual.

Winning entries present a strong plan for how they will achieve and track growth. Identify your six-month milestone for growing your impact
Milestones will include the number of visiting surgeons, cases performed and improvement in outcomes.

- Identify three major tasks you will have to complete to reach your six-month milestone

  Task 1
  Continue our success in attracting qualified pediatric orthopaedic surgeons to volunteer.

  Task 2
  Continue to collect data on treatments, surgeries and lectures.

  Task 3
  Create a reasonable evaluation system on quality of care improvements.

Now think bigger! Identify your 12-month impact milestone
After the next 12 months, we expect to have the Central Hospital of Maputo training its own pediatric orthopaedic surgeons.

- Identify three major tasks you will have to complete to reach your 12-month milestone
Task 1
Provide adequate training to the local surgeons in how to teach others.

Task 2
Encourage the local surgeons to use critical thinking and create treatment algorithms.

Task 3
Improve the collaboration of the supporting departments at the Central Hospital of Maputo in this endeavor.

Sustainability
Tell us about your partnerships
We have received grants from Ronald McDonald House Charities. We have partnered with Partners in Pediatric Progress through the UCLA Global Health Department. In addition, our traveling surgeons are members of the Pediatric Orthopaedic Society of North America.

Are you currently targeting other specific populations, locations, or markets for your innovation? If so, where and why?
We have been invited to create a program in the Dominican Republic and are currently in discussions with a hospital. The Dominican Republic has limited pediatric orthopaedic care and a large, impoverished population. In addition, many patients from Haiti injured in the earthquake have made their way into the Dominican Republic for care.

What type of operating environment and internal organizational factors make your innovation successful?
We have a core group of directors and consultants that have retained the concept of the original MoPOEd program and helped avoid mission creep. This in combination with a group of volunteer surgeons that understand the the MoPOEd concepts has helped to propagate the program. Thus, our focus on teaching sustainable pediatric orthopaedics locally in developing countries has been successful. In addition, our program is time-limited so that the host programs will need to take ownership in approximately two years. This avoids ongoing dependence on MoPOEd to provide care, forcing the concept of sustainability.

Please elaborate on any needs or offers you have mentioned above and/or suggest categories of support that aren’t specified within the list
MoPOEd relies on volunteer surgeons to donate time and teaching. These surgeons are able and willing to take time from their practices, but cannot pay their travel expenses. Thus a true need of the MoPOEd program is increasing fundraising efforts.

The program itself is rather unique, and thus we are happy to collaborate with others to help them achieve their goals with ideas and other support.