# MAKING A DIFFERENCE: MEDICAL EDUCATION AND SUPPLY DISTRIBUTION IN CAMBODIA

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In December of 2006, I traveled with the McMaster Program to Cambodia to help Cambodian educators. I learned firsthand about the everyday struggles of the Cambodian people. I witnessed teachers and doctors struggling to do their work without the necessary supplies. I was inspired to return to Cambodia in 2007 with medical supplies and knowledge about preventable diseases that cause premature death in children.

#### PURPOSE STATEMENT AND RESEARCH QUESTIONS

In 2006 we spent time in several rural regions of Cambodia during which I was able to speak with doctors about their clinics' needs. I learned that they lacked even simple supplies to which any doctor in the United States would have easy access. After returning to the United States, I developed a list of basic supplies and began to research various American medical supply companies. I asked myself, "If the doctors do not have simple medical supplies, how do they treat patients, especially children that come to the clinic?"

As I continued my research, I discovered that Cambodia has a high infant and child mortality rate due to preventable diseases. This information gave my project a two-fold purpose: 1) To create informational pamphlets in Khmer about the prevention of infant and childhood illnesses that commonly cause premature death; and 2) to raise money to purchase simple medical supplies requested by Cambodian doctors.

#### LITERATURE REVIEW

Cambodians lack access to adequate healthcare, which puts all citizens at risk, especially children. An estimated 3,000 children under five years of age die daily from a handful of preventable and treatable conditions, such as inadequate prenatal care, malnutrition, diarrheal diseases, pneumonia, and dengue fever (World Health Organization, 2005; NGO Committee, 2004).

Many rural Cambodians are often superstitious about the causes of disease, believing disease may have some underlying spiritual cause. Many believe that diseases are caused by evil spirits or bad air, which can be expelled from the body of a sick person by trained practitioners, such as bonzes (monks), herbalists, or folk healers. Aside from a wide variety of herbal remedies, traditional healing practices include scraping the skin with a coin, ring, or other small object, sprinkling water on the sick person, and prayer. The belief in and reliance on traditional healing methods causes many deaths because diseases are essentially left untreated (U.S. Library of Congress, 2006; NGO Committee, 2004).

The health status of Cambodia's children is one of the worst in the world. According to the 1998 National Health Survey, out of 1,000 babies born in Cambodia, 90 die before their first birthday, and 115 die before the age of five. The direct effects of a high incidence of disease and widespread malnutrition, together with the indirect effects of poor maternal health and limited availability of basic health services, result in almost 40,000 deaths of children under five each year. However, lack of access to Western healthcare is just one cause of the larger problem. In many instances, people lack basic knowledge of the illnesses and prevention, especially prenatal care, that cause premature death in their children. Poor nutrition, heavy workloads, and poor diet during pregnancy result in low weight gain during pregnancy and, consequently, the birth of underweight babies. According to the Cambodia Ministry of Health, 17% of infants are born with a low birth weight (World Health Organization, 2005; NGO Committee, 2004).

A woman's nutrition has a direct bearing on her chances of surviving pregnancy and on her child's likelihood of leading a healthy life. Calorie, vitamin, mineral, and protein requirements increase markedly during pregnancy. Women in resource-poor settings and those with little access to healthcare may be unable to meet these increased dietary requirements (World Health Organization, 2005; U.S. Library of Congress, 2006).

There is also a lack of knowledge concerning delivery practices. Typically, babies are delivered at home as compared to the 15.1% of deliveries taking place in clinics, health centers, or hospitals. Among these home deliveries, 43.3% are assisted by trained midwives or nurses, while the rest are attended by untrained traditional birth attendants. In 1997, the maternal mortality rate was estimated to be higher than 50/100,000 per live births, according to the National Action Plan for Nutrition. Maternal health and lack of access to maternal health services are vital factors contributing to child morbidity and mortality in Cambodia (World Health Organization, 2005; NGO Committee, 2004).

Malnutrition in children is another problem that affects more than half of all Cambodian children under five. A socio-economic survey of Cambodia in 1996 showed that 52% of Cambodian children are malnourished, 17% severely so. Malnutrition rates are higher in the rural population, accounting for more than 80% of the child population (World Health Organization, 2005; NGO Committee, 2004; Degan, 2007).

One main reason for the high rates of malnutrition among Cambodian children is the rate at which mothers try to force solid food on their infants. There is a need for improved infant and young child feeding practices to be supported and promoted across the country. Doctors recommend exclusive breastfeeding up to six months of age, continued breastfeeding up to two years of age or beyond, and adequate and safe complementary feeding from six months onwards. In addition, experts recommend that initiation of breastfeeding occur within one hour of delivery (World Health Organization, 2005; NGO Committee, 2004).

Directly related to malnutrition is the problem of diarrheal disease. This illness, which affects many children, teenagers, and adults, can be directly traced to a lack of sanitation and good hygiene. UNICEF estimates that only 16% of rural Cambodians have access to adequate sanitation and 65% to safe water. In urban areas, the situation is much better, but approximately 80% of Cambodians still live in the countryside. Water and sanitation has been identified as one of the major causes of the high number of diarrhea incidents in Cambodia. The sanitation coverage in rural areas ranks amongst the lowest in the world. Many rural households lack basic sanitation facilities, and awareness of good hygiene practices is limited. There is often no toilet or any soap for washing hands at home or in school. Children are more likely than adults to touch unclean surfaces and are therefore particularly vulnerable to unhealthy environments (Degan, 2007; Syvibola, 2005).

Pneumonia is another disease that has been particularly destructive to children. Pneumonia is an infection of one or both lungs, usually caused by airborne bacteria, viruses, or fungi (Carson-DeWitt, 2006; Beers, 2003). While a child showing symptoms of pneumonia should be taken immediately to a doctor, rural Cambodians often lack access to reliable healthcare facilities. Only 25% of the world's population has an operational healthcare facility in their immediate geographic area. Another 50% have to travel more than 5 kilometers to reach a facility (UNICEF, 1998). Due to the obstacle of distance, the best way to help the Cambodian people is by educating them about pneumonia prevention through proper hygiene, sanitation, and nutrition (Beers, 2003; World Health Organization, 2005; NGO Committee, 2004).

Cambodia has among the highest rates of child morbidity and mortality in Southeast Asia. After independence in 1953, the government trained

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new medical personnel, especially nurses and midwives. However, by the late 1950s, infant mortality was as high as 50%. Dysentery, malaria, yaws, tuberculosis, trachoma, various skin diseases, and parasitic diseases were common. Inadequate nutrition, poor sanitary conditions, poor hygiene practices, and a general lack of adequate medical treatment combined to give the average Cambodian a life expectancy of about 46 years by the late 1960s, a significant increase from the 30-year life expectancy reported a decade earlier. However, the catastrophic effects of the war and Khmer Rouge rule reversed this positive trend. During the unrest of the 1970s, many Western-trained physicians were killed or fled the country. Modern medicines were in short supply, and traditional herbal remedies were used (American National Red Cross, 2007; United States Library, 2007; World Health, 2005). After a decade of civil war and genocide, the public health system is still weak and community-based health service delivery is inadequate to meet public needs.

#### **PROJECT DESCRIPTION**

My research clearly indicated that the most effective project would be educational in nature. I chose to create easy-to-read pamphlets that addressed five preventable conditions in Cambodia that cause high infant mortality: prenatal care, malnutrition, diarrheal disease, pneumonia, and dengue fever. The pamphlets would be distributed to the Cambodian



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Women's Crisis Center (CWCC) and to schools and families in the rural areas we visited. In addition, I developed a presentation about how to identify the symptoms of one of these illnesses. This information included preventative measures, early detection signs, and actions to be taken if an illness is suspected (American National Red Cross, 2003).

The second part of my project was to raise money for simple medical supplies for the rural clinics. These supplies included blood pressure cuffs, suture kits, thermometers, stethoscopes, and birthing materials, such as fetal heart rate monitors. I solicited donations from charitable organizations, hospitals, churches, friends, and family to purchase supplies for these clinics.

# **IN-COUNTRY ACTIVITIES**

During the first two days of projects, I gave my presentation to the staff at CWCC and to clients, most of whom have come out of sex trafficking or homes with domestic violence. After talking to both groups, I learned that many of them still use traditional healing customs, such as rubbing the body with a coin. Even so, when I presented the information from my research to help prevent common childhood illnesses, everyone listened and I received great feedback from both the staff members and the clients. For the other part of my project, I distributed the medical supplies I had brought to five different clinics and hospitals and, through hospital tours, was able to see for myself the obvious need for these supplies.

### RESULTS

While in Cambodia, I was able to learn about the different techniques that mothers use to help their children when they are feeling sick, including customs rooted in superstition. I was surprised to find these practices still in use even in the city, where one would expect more education. However, the women seemed to be very enthusiastic about the new techniques for prevention. Based on their reaction, I believe that this training will benefit the Cambodian women and children that I worked with. The distribution and training of the medical supplies was also well received.

## REFLECTION

Upon arriving in Cambodia for the second time, many of the same feelings of anxiety, fear, and anticipation crept into my mind. Although I had seen the poverty on my previous trip, I still could not help feeling pity for the people, especially the children with no arms or legs sitting on street corners asking passersby for money. Even though it was difficult to say no to these children, I had learned that it was necessary to help keep myself and others in the group safe. Eventually, I found myself ignoring the hands reaching out for money and the children following me around the markets. This was my way of becoming acclimated to the environment.

After I completed the training at the CWCC, I truly felt that I had made a difference. One woman's story about how she lost a child from disease convinced me that the information I shared at the CWCC would help prevent more children from dying.

# REFERENCES

- American National Red Cross. (2007). Cambodia. Retrieved on March 8, 2007, from http://www.redcross.org/services/intl/0,1082,0\_69\_,00.html
- American National Red Cross. (2003). Integrated management of childhood illness. Retrieved on March 8, 2007, from http://www.redcross.org/ services/intl/imci/
- Beers, M. (2003). Pneumonia:In The Merck manual of medical information. (2nd Ed.) Merck Research Laboratories: New Jersey.
- Carson-DeWitt, R. (2006). Dengue fever. In The Gale encyclopedia of medicine (3rd Ed.) Thomas Gale: Michigan.
- Degan, G. (2007). Lack of adequate sanitation triggers child health concerns in Cambodia. Retrieved on November 17, 2007, from http://www. unicef.org/infobycountry/cambodia\_39558.html
- NGO Committee. (2004). Cambodia: The rights of the child. Retrieved on March 10, 2007, from http://www.crin.org/docs/resources/treaties/ crc.24/cambodiaNGOreport.pdf
- Syvibola, O. (2005). Water and sanitation in rural areas of Cambodia. Retrieved on November 17, 2007, from http://www.adb.org/ Documents/Events/2005/Sanitation-Wastewater-Management/ paper-syvibola.pdf
- UNICEF. (1998). The State of the World's Children 1998, Carol Bellamy, Executive Director, United Nations Children's Fund. New York: Oxford University Press.
- United States Library of Congress. (2007). Cambodia: Health and welfare. Retrieved on March 8, 2007, from http://countrystudies.us/ cambodia/53.htm
- World Health Organization. (2005, September). Child health. Retrieved on March 8, 2007, from http://www.wpro.who.int/NR/rdonlyres/ 27510E58-6D0D-4F94-A633-C36503076EF3/0/12\_Childhealth.pdf