

Wartburg College
Kwabena Owusu – Amoah and Anne Epley Birtwistle
Community Maternal Health Project
Project Duration: 2ND JUNE 2014 – 19TH JULY 2014
Ghana

Access to quality maternal healthcare remains out of reach for some women in West Africa, especially women in the low-income bracket. The inability of expectant mothers to access healthcare has resulted in high maternal mortality rates across the sub-region. Every year, a quarter of a million women die due to preventable pregnancy complication with 99 percent of these deaths occurring in developing countries like Ghana. In Sub-Saharan Africa, women have a 1-in-16 chance of dying during pregnancy and childbirth as compared to women in the developed world with a 1-in-4,000 chance of dying during the same periods. Maternal mortality is prevalent on all corridors of the continent. However, Ghana serves as a good microcosm for analyzing and formulating solutions to address the high death rate of mothers. Ghana's maternal mortality rate is 340 deaths per every 100,000 live births. Maternal deaths vary per region in Ghana. The Eastern Region, where this project will be implemented, is one of the hardest hit areas. Last year, the region recorded 168 maternal deaths. The severity of maternal mortality in developing countries like Ghana led the United Nations to add maternal care to the Millennium Development Goals in September 2000. Whereas Ghana has made some slight progress in reducing maternal mortality, the improvement is minimal and more must be done. The two main barriers inhibiting the attainment of a low maternal mortality rate are unavailable maternal health clinics in rural areas and outdated cultural practices that discourage women from seeking formal maternal healthcare. One such practice forbids expectant mothers from attending formal health facilities and as such traditional midwives are recommended over trained midwives and nurses. Traditional midwives are established older women in the community who provide health advice to expectant mothers and also deliver babies during childbirth. They lack formal training and their use of unsterilized instruments during childbirth has resulted in many complications and fatalities.

To combat maternal mortality, the Community Maternal Health Project will be constructing a two-room maternal health facility for women in Oyibi, a village in Ghana's Eastern Region. The Chief of the area has donated the land that this facility will be built on, and we have enlisted the services of an architect to design the facility and use efficient eco-friendly materials that will reduce the time for construction drastically. We will also make use of volunteer labor in the community. We have partnered with the Ghana Health Service to provide two Community Health Officers who will identify, treat or manage pregnancy related complications before they become fatal. Another partner, the World Health Organization's EPI will provide the needed vaccines and medications. The Charisbel Health Service, a local health charity, will provide some medical equipment for the facility and make a monetary contribution. After the inauguration of the facility, Community Health Officers will administratively manage the project. We have incorporated monthly community health outreach programs in the project in order to sensitize women against cultural perceptions that discourage women from seeking formal care. We are fully aware that not all women will be able to visit the health facility for antenatal or postnatal care. Therefore, Community Health Officers will hold monthly health campaigns by organizing clinical sessions in area parks. Health outreach programs are also a great opportunity to educate women on best practices during and after pregnancy. Furthermore, health outreach events give Community Health Officers the opportunities to interact with members of the community and tailor their services to meet the needs of residents.

The project leaders have received letters of support from the Oyibi Traditional Council, Mr. Nana Adja Sai Bonsu (architect), the Ghana Health Service (Expanded Immunization Program and the Community-Based Maternal Health Program), and the Charisbel Health Service. These letters are on file at Wartburg College.

An additional component of the project is "Obaa 2.0", a mobile telephone and computer application that we developed to bridge the gap between expectant mothers in rural villages and midwives or doctors in district capitals. Ghana's doctor to patient is 1:13,000. This is below World Health Organization's prescribed ratio of 1:5000. At the receiving end of this shortage are mothers. Despite the shortage of doctors in rural areas, Community Health Officers are available in most rural area in Ghana. Furthermore, mobile phones are widely available and therefore rural women have access to simple cell phones. "Obaa 2.0" will combine these two available resources to send health alerts, nutritional information and clinic appointment reminders via voice and text messages to pregnant women. Also, the Community Health Officers will input vital readings and the medical history of a woman into Obaa's secure database, and allow doctors and nurses to examine a woman based on information entered into the app from anywhere in country. This means that pregnant women who don't have access to health professionals can simply have their vital reading taken by Community Health Officers and entered into the "Obaa" app, for enrolled doctors and midwives to examine them and make recommendations from a distant location.

There are two students from Wartburg College that will be implementing this project in the summer of 2014. As a native of Ghana, Mr. Owusu-Amoah is fully aware of the social and economic challenges facing the country. His involvement in public health started at a young age when he accompanied his mother, a then Community Health Nurse, on several health outreach programs. Mr. Owusu-Amoah has also had the opportunity to work for various organizations promoting access to healthcare such as Rotary International and the United States Agency for International Development. Working with these organizations gave him a better understanding of the problem and how to properly address it. As a Biology and Economics major, Kwabena hopes to pursue a career in public health to gain the requisite skills for improving health care around the world. The success of this initiative is therefore central to his career goals and life calling.

Anne Epley Birtwistle is a third year at Wartburg College majoring in Biology and Spanish. While not attending class or studying, Miss Epley Birtwistle keeps busy by participating in Chapel Choir, working as an assistant and student researcher for the microbiologist on campus, partaking in service trips, and involving herself in numerous clubs such as Tri Beta, Phi Eta Sigma, Alpha Chi, and Spanish Club, where she holds an executive position as treasurer. Epley Birtwistle also enjoys giving back to the community. For the past two summers, she has volunteered as a counselor at a camp for children whose siblings have cancer. Her other volunteer activities include assisting at the Waverly Health Center lab and Cerro Gordo Country Free Medical Clinic. Miss Epley Birtwistle aspires to pursue a career in the medical field to combine the two major passions in her life, health sciences and helping others.