

Community-IMNCI Program for Child Survival in Ethiopia

Background

Ethiopia is currently experiencing a child survival crisis. One out of every six children in Ethiopia dies before the age of five. Most of these children are dying at home from preventable illnesses—pneumonia, diarrhea, measles, malaria, and malnutrition—often because their caregivers lack knowledge of basic health practices. Recognizing this, UNICEF and the WHO formulated the Integrated Management of Neonatal and Childhood Illness (IMNCI) strategy, which seeks to improve health care systems, the skills of health workers, and, most important, community and family health practices.

Over the course of the last two summers, I worked with Dr. Sisay Yifru, Assistant Professor of Pediatrics and Ato Amsalu Feleke, Assistant Professor of Public Health, both at the University of Gondar, as well as other health professionals on a diarrheal disease research project in Gondar, Ethiopia. We found that many mothers in this community withheld fluids from their children during diarrheal episodes, a potentially fatal practice. Consequently, we implemented an education program to teach mothers to provide oral rehydration solution to children. I learned that through targeted, community-based efforts, the child health crisis can be combated.

I propose to use the Meg Walsh Leadership Award to scale up this important work by establishing an operational plan for the implementation of a child survival strategy for the community level in Ethiopia. I plan to collaborate with researchers at the University of Gondar and representatives from WHO, UNICEF, and the Ethiopian Ministry of Health to research important family health practices in relation to the IMNCI strategy. Our research will highlight areas of importance in community-focused health strategies, evidence which will then be used to develop an optimally efficacious framework to lessen the heartbreaking, needless loss of life that has sadly become the norm in many Ethiopian communities. I hope that by the conclusion of my project and in the years that follow, Ethiopia may become a model for the implementation of this framework among geographically and culturally diverse regions of the world that are similarly striving to reduce the burden of childhood disease.

Methodology

I will conduct the project in three phases. First, I plan to implement a survey in the Gozamen District in East Gojam Zone of the Amhara Region. The study will compare important family and household behaviors concerning child health between three neighborhoods in the Gozamen District that have been implementing the community-IMNCI program for five years to three neighborhoods that have not yet adopted the strategy. I hypothesize the community health behaviors to be stronger in the areas that have adopted the IMNCI strategy.

I will recruit and train interviewers from the Gozamen District to collect information by a questionnaire about mothers' knowledge, attitudes, and practices regarding nutrition, disease prevention, and home management of illness. I will not face a language barrier during this project because I can speak Amharic, the national language, and many health professionals in Ethiopia speak English. The survey will employ a cluster-sampling method in which 10 households in 30 neighborhoods will be selected. Following the standard WHO technique, interviewers will ask for the approximate location of the center of each neighborhood, throw a pencil in the air, walk in the direction in which the landed pencil points, and interview the first encountered household. Data collectors will then interview nine more households in the same area as the first household.

The research study will be conducted between September and December 2008. With the assistance of Dr. Robert Black, Chairman of the International Health Department at the Johns

Hopkins Bloomberg School of Public Health (JHSPH), we will produce a report of our findings by March 2009. The research proposal has received ethical approval from the University of Gondar and will be submitted for ethical clearance at JHSPH.

The second phase of the project is to conduct an IMNCI stakeholder's workshop for leaders in child health throughout Ethiopia. The aim of the conference will be to unite experts from various communities, NGOs, hospitals, and universities in Ethiopia in order to disseminate ideas, provoke discussion, and formulate a plan of action for implementing a community-based strategy for child health in Ethiopia. The proposed workshop will be held in Addis Ababa in May 2009. The workshop will draw upon findings from our IMNCI study as well as other child health studies in Ethiopia. Utilizing the input and collective experiences of all the individuals at the workshop, we will work to establish a comprehensive, cost-effective plan of action for Ethiopia.

From June to August 2009, the third phase of my project, I will work with a team of health professionals from WHO, UNICEF, and the Ethiopian Ministry of Health to pilot this framework for promoting child health in the neighborhoods where the survey was originally conducted. One key element of this endeavor will be to establish mechanisms to teach mothers illness prevention and management methods. Our main aim will be to help communities craft sustainable strategies for promoting health.

Both Dr. Sisay and Ato Amsalu have agreed to serve as my mentors in all three phases of this project. I will also receive guidance about the IMNCI program from Dr. Sirak Hailu and Dr. Tesfaye Tessema, the driving forces behind the adoption of the IMNCI program in Ethiopia. Both Dr. Sirak, WHO Officer and Representative from the Ethiopian Ministry of Health, and Dr. Tesfaye, UNICEF Project Officer, have gained the backing from the Ethiopian Ministry of Health for my project and have agreed to work with me to help develop an operational plan for implementing a child survival strategy in Ethiopia.

I anticipate that the funds will be distributed as follows: 25% for travel, 20% for lodging, 10% for food, 10% for the payment of interviewers, 20% for conducting the workshop and giving per diem to individuals who attend, and 15% for educational efforts to promote child health.

Personal Impact

It has frustrated me greatly to watch children in Ethiopia die from childhood illnesses, many of which are completely preventable. My going to Ethiopia next year through the Meg Walsh Leadership Award will foster a unique partnership between WHO, UNICEF, the Ethiopian Ministry of Health, the University of Gondar, and families and communities in Ethiopia. This project will catalyze support and bring resources together to empower communities in a sustainable manner. Together, we will work towards improving the health of Ethiopia's children and preventing unnecessary loss of life.

I view my involvement in Ethiopia with child health as a lifelong commitment. After my time in Ethiopia next year, I plan to become a pediatrician with the eventual goal of returning to Ethiopia to continue to make progress against the excess morbidity and mortality associated with childhood illnesses. During my summer and winter vacations in medical school, I plan to visit the communities in Ethiopia with which I had the opportunity to work through the Meg Walsh Leadership Award to ensure that the child health educational efforts carry on with stamina. This project will allow me to develop a new skill set in public health, one which will augment my ability as a future pediatrician to transcend the individual care of children and make large scale improvements in population health through a community approach.

Leadership Essay

My work in Ethiopia sprung from an accidental encounter. As I waited in the Detroit airport for my connecting flight home to Kalamazoo, Michigan, my Johns Hopkins sweatshirt attracted the attention of a man who was waiting near me in the terminal. This man, Dr. Rick Hodes, had trained as an internist at the Johns Hopkins Hospital. Upon learning that I intended to study public health as an undergraduate, he was eager to share with me snapshots of his life and work. Dr. Hodes lives permanently in Ethiopia, where he has been treating patients for the last sixteen years.

Inspired by his work and eager to experience first-hand the practices of medicine and public health in a developing country, I decided to travel to Ethiopia to volunteer with Dr. Hodes. I stayed with the Hodes family as I volunteered at Mother Teresa's Mission, the care center for the poorest members of the Ethiopian community in which Dr. Hodes works. Dr. Hodes has adopted five sons and taken ten other children into his home, many of whom are orphans. My friendships with his children in addition to watching the 2006 World Cup games with them—experiencing their excitement when a World Cup team scored a goal and playing soccer with them every day on the front lawn—gave me the idea of starting a soccer league for the larger community of orphans in Addis Ababa. With the help of Addisu, one of Dr. Hodes' adopted sons who is devoted to becoming a professional soccer player, I decided to start a soccer league for four orphanages in Addis Ababa.

For a few hours each week, this organized sport would help many of the children take their minds off of the hardships they face in their daily lives and teach them many important life-long lessons: the importance of teamwork, building healthy relationships, learning to trust one another, conflict management, and even physical exercise. However, the challenges I soon faced in launching the program seemed daunting. I needed to find a safe place for the boys and girls to play soccer; a referee; transportation for the kids to get to and from the field; jerseys to represent their orphanages; and, most important, someone to coordinate, supervise, and sustain the league in my absence. Luckily, a fortuitous combination of serendipity and perseverance enabled me get the endeavor off the ground.

One Sunday morning, Addisu and I went running near the Addis Ababa airport and happened to come across an open field near the Bole Community School. After talking with the school's principal, who was very receptive to our idea, we realized that we had found a field for the soccer league. The field, however, was in a state of great disrepair. The grass was too long for the children to safely play. After I supervised the installment of two wooden goal posts and the hand cutting of the grass on the field, the principal directed us to the school's gym teacher who had coached the Ethiopian National Soccer Team. He was willing to referee our weekly games for a small compensation. With the field and referee set, Addisu and I talked with the directors of each of the orphanages—Adoption Advocates International, African HIV Orphans Project Embrace (AHOPE), Atitegebe, and Selamta's Children's House—and were able to convince them each to hire a mini bus driver to bring the kids to the field every weekend. Lastly, we had the orphans design their own hand-made jerseys, which resembled the uniform of Britain's Arsenal Team. With all of the arrangements finally in place, the games could begin.

The most important lesson I learned from starting the soccer league was that it takes a great deal of time and energy to ensure sustainability. My intention was to launch a project that would be of long term benefit to the orphans. Thus, I need to find someone living permanently in Ethiopia to sustain the program. Three weeks before I left, I approached Sidisee Buli, the director of the AHOPE orphanage, and asked her to continue the soccer program. She was enthusiastic about the league's popularity with the children and agreed to coordinate the games in my absence.

Today, two years later, the orphans still play soccer every weekend at the Bole Community Field. The league has even grown from four to seven regularly participating orphanages. I believe that a key part in the great success of the program is that I have remained hands-on by having kept in contact with Mrs. Buli and the directors of the participating orphanages to ensure we are able to directly deal with dilemmas as they arise.

Many of the lessons I gained through working with the league in Addis Ababa have helped me with other endeavors, such as my involvement with *Epidemic Proportions*, the Johns Hopkins Undergraduate Public Health Research Journal. As Co Editor-in-Chief, I worked diligently to make changes centered on the long term, sustainable improvement of the quality of the publication. I recruited a talented, diverse group of students to bring new life, ideas, and energy to our staff; re-designed the lay-out; improved the editing process, and standardized the referencing scheme. I am proud that under my leadership we were able to produce two issues of the sixty-four page journal in one year, a feat that had never before been accomplished in the history of the publication. This achievement was only possible because of the commitment and dedication of every single individual involved with the publication: the authors, staff editors, sections heads, layout team, and my fellow Co Editor-in-Chief—a true testament to the power of teamwork. Today, I continue to serve as an adviser to the publication by counseling the new leaders of the journal. By advising them on methods to recruit new staff members, obtaining research articles, and in working successfully with the printer, I have ensured that the progress made under my leadership will continue well after my graduation.

I am proud of my contribution to the launching of the orphan soccer league in Addis Ababa and my work as Co Editor-in-Chief of *Epidemic Proportions*. My work in Ethiopia has been a small step towards providing care for these vulnerable children as well as attracted the support of both Hopkins and international organizations such as the Worldwide Orphans Foundation. In addition, *Epidemic Proportions* has also distinctively raised the profile of the University. The journal is now cataloged in the National Library of Medicine and highlights the diverse experiences and accomplishments of my undergraduate peers, individuals who have embarked upon innovative pursuits in the Baltimore community as well across the globe including in countries such as Senegal, Iran, Sweden, India, Zambia, Ecuador, Argentina, South Africa, and the UK. By capturing their experiences in the journal, we raise awareness, provoke thought, and create discussion among students, staff, and faculty at Johns Hopkins regarding the critical public health issues that Hopkins students are taking on. I hope to use my time in Ethiopia through the Meg Walsh Leadership Award to continue to advance Hopkins' noble pursuit of knowledge for the world.