

## **A Healthier Peace: Providing School-Based Health Services to Children in Lusaka, Zambia**

Lonnie Hackett, Bowdoin College Class of 2014

June 1<sup>st</sup> – August 10<sup>th</sup>

### STATEMENT OF PEACE

Health is a human right, and to create peace we must improve the health conditions that are plaguing the developing world. Being forced to suffer from an easily treatable disease is one of the purest forms of injustice. In Zambia, illness forces children to miss school, disrupts growth and development, and destroys their chance for a better future. Illness is particularly concerning for school-aged children (5 to 18 years old), as efforts tend to focus on children under five and young adults of reproductive age. When I first traveled to Zambia as a freshman, I saw countless school-aged children suffering from easily treatable diseases; many forced to sniff glue to numb their pain. As long as these children are being deprived of their right to health then they will never experience true peace.

### PROJECT BACKGROUND

The N'gombe district in the city of Lusaka is one of the poorest slums in Zambia and is home to 35 community schools and over 10,000 students. A 2012 needs assessment by Harvard Medical School revealed that over 45% of children attending community schools in Lusaka suffered from a treatable disease and that teachers in the N'gombe district had limited knowledge on health topics. In the summer of 2013, Healthy Kids/Brighter Future (HK/BF), an organization I founded, raised over \$15,000 and launched a two-pronged pilot project consisting of school-based health screenings and 10-hour teacher health education workshops. Overall, the pilot indicated that school-based health services are an effective method of improving the health of vulnerable children. However, an end-of-project post-mortem meeting with Zambian healthcare professionals and key N'gombe community members revealed that the effectiveness and sustainability of the programs can be improved. The Zambians involved with the pilot urged expanding the health screenings to more schools, lengthening the teacher workshops to a full week, providing clean drinking water at schools, and implementing a referral system between schools and the N'gombe Health Clinic.

### PROJECT OBJECTIVES

- 1) Run school-based health screenings at 10 of the schools in N'gombe and provide over 2,000 students with vaccinations, vitamins, and either treatment for current health concerns or referral to the N'gombe Clinic.
- 2) Train two teachers from each of the 35 low-income community schools in N'gombe through a one-week, 40-hour teacher workshop that will provide information and educational materials pertaining to health education and on how to recognize common illnesses and improve school sanitation and hygiene. The workshops will allow for over 10,000 students to have health education programs at their schools.
- 3) Establish a healthcare referral system at the 35 schools in N'gombe in order to allow teachers trained at the workshops to refer students they recognize as ill to the N'gombe Health Clinic for preferential care.
- 4) Decrease the prevalence of schistosomiasis in N'gombe by providing all 35 schools with the material and information needed to provide clean drinking water.

### PROJECT PLAN

This year, the Davis Project for Peace Grant will allow me to fulfill my dream of scaling up the project from a novice pilot to a large-scale program capable of improving the health of the over ten thousand vulnerable students in N'gombe. This will be achieved through the following four interventions:

Part 1 (June 1<sup>st</sup> to August 1<sup>st</sup>): The project will provide medical services to low-income students. To provide medical care, I have created partnerships with the N'gombe Government Health Clinic and the Zambian healthcare providing NGO Angels of Mercy. With their assistance, I will travel with a team of healthcare professionals and coordinate school-based health screenings at 10 schools in N'gombe. I have worked with Dr. Lise Johnson, the head of Newborn Pediatrics at Brigham Women's Hospital, and my Zambian partners to develop a protocol for the health screenings. At the screenings, the children will be able to receive flu, BCG and Tetanus vaccinations, Vitamin A supplementation, deworming treatment, antibiotics, antifungals, and more. Students needing additional care will be referred to the N'gombe Health Clinic.

I will work with students and professors from Harvard Medical School to evaluate the impact of the health screenings. A comprehensive medical form will be filled out for every child who attends the health screenings, which will provide information on current diagnoses and what medication was dispensed. I will work with Dr. Lise Johnson in the fall to analyze the data and quantify the benefits of the program.

- Part 2 (June 5<sup>th</sup> – June 30<sup>th</sup>): The project will train 70 teachers in N'gombe as community based health promoters through one-week health education workshops. I am currently working with an Instructor of Medicine from Harvard Medical School, Dr. Richard Bail, as well as the head administrator at the N'gombe Health Clinic, Ignacious Bulongo, to develop a curriculum and create educational materials to provide to the teachers. A four-person team consisting of three Zambians from the N'gombe Health Clinic (i.e. a clinical supervisor, nutritionist, and an environmental health technician) and myself will conduct the workshops. The workshops will include lessons on HIV/AIDS, sanitation, diarrheal diseases, nutrition, and on identifying illnesses. The workshops will enable teachers to design and run age-appropriate health education programs at their schools. The teachers will be administered a pre and post-test to evaluate how much they have learned. The workshops will conclude with a ceremony where teachers will receive a certificate of completion.
- Part 3 (July 1<sup>st</sup> – August 10<sup>th</sup>): Over the past year, I have worked with the head of the N'gombe Health Clinic to develop a referral system. Each school will be provided with referral forms that will enable teachers trained at the workshop to refer students they identify as sick to the N'gombe Health Clinic to receive preferential care. Both the schools and health centers will maintain a copy of the form, which I will pick up at the end of July to evaluate how many students are referred and how many students are utilizing the system. With this information, I will be able to assess problems in the system and address schools that need additional assistance.
- Part 4 (July 1<sup>st</sup> – August 10<sup>th</sup>): I will travel to each of the 35 schools to improve the water quality by providing water bins and chlorine bleach. This will allow the teachers trained at the workshops to treat their water and bring safe drinking water to the over 10,000 children in N'gombe.

#### SUSTAINABILITY & FUTURE IMPACT

The Davis Project for Peace Grant will provide the initial investment required to implement a project that can be maintained with only minimal time and funding from HK/BF. The N'gombe Health Clinic has agreed to support the healthcare referral system beyond the year, and I have created a five-member oversight committee of Zambian physicians and government health officials to oversee the continuation of the healthcare referral system. Additionally, I have formed an ongoing relationship with Harvard Medical School, which has agreed to sponsor medical students to travel to Zambia over the summers to evaluate and oversee the continuation of the school health education programs and water projects. With the medical students help, HK/BF will hold yearly two-day refresher health education workshops for all the teachers in the program and resupply the schools with chlorine. Lastly, I will team up with Dr. Johnson to present the data from the project to the head of the Lusaka district of the Ministry of Health and advocate that they expand the project's model of school-based health services throughout the city. Sustaining the programs will require some oversight and maintenance; however, with these systems in place, Healthy Kids/Brighter Future will be able to sustain the project well into the foreseeable future and continue to provide vulnerable children with the medical services and information required for good health. Consequently, the project will lessen the burden of disease in N'gombe and enable the children to have healthier lives.

#### HEALTHY KIDS/ BRIGHTER FUTURE

While at Bowdoin, I have founded the non-profit organization *Healthy Kids/Brighter Future* to improve the health of Zambia's vulnerable children. For this project to achieve its maximum possible affect, the costs of travel, living expenses and a small portion of project expenses will be subsidized by funds from *HK/BF*.

#### PROJECT DIRECTOR

I am a senior biochemistry major here at Bowdoin College and a National Truman Scholar and Rhodes Scholarship Finalist. Over the past three years, I have gained extensive experience in public health. I have received competitive fellowships to conduct health projects and research studies in Zambia and Nepal. My experience, established connections, and understanding of Zambia's culture enable me to be a strong facilitator of this project, however, it is my passion and conviction that every child has the right to health that will inevitably make this project a success.