

Title of Project: Pilot Test Health Passport to Improve Oral Health, Malnutrition, Food Insecurity in Rural Rwanda

Country: Rwanda

Nominating College: Tufts University

Names: Benjamin Katz, USA, Tufts University. Krystal Lwanga, USA, Uganda Tufts University

Organization: moveupglobal.org

Summary:

This project aims to implement and promote effective health education strategies through the pilot testing of the Health Passport to offer students essential knowledge and skills to improve their health literacy, well-being, and academic performance. The Health Passport uses interactive methods, such as tag, sorting games, and soccer, to teach students and teachers through organized hands-on activities. Additionally, it emphasizes peer-to-peer learning to encourage students to become agents of change within their community. Furthermore, to increase school attendance and exam scores, the goal was to reduce the burden of diseases such as schistosomiasis, Podoconiosis, and intestinal worms. Alongside this goal, the project strove to foster strong health linkages between the education and health systems in this resource-constrained area to promote the sustainability of this project.

Project Description

The project had two main goals: to increase health literacy and bridge relationships between the community, education system and health systems to support and uplift the communities we work with. We did lessons on an expansive number of subjects, including but not limited to NTDs, WASH, mental health, reproductive health, malnutrition, and oral health. We primarily focused our attention on NTDs and malnutrition due to over 40% of the school-aged population suffering from these illnesses. Furthermore, our decision to include oral health in our project is due to the fact that many oral health conditions can be prevented. After examining Rwanda's National Oral Health Survey, we noticed that there is a significant difference in the prevalence of untreated cavities, usage of toothbrushes, and usage of toothpaste between rural and urban areas. To address oral health, we referred to two key resources: the oral healthcare continuum, which emphasizes the importance of affordable, community-based oral health promotion, and the Rwandan National Oral Health Strategic Plan 2019-2024, which recommends oral health literacy programs in schools. We included mental and reproductive health as these topics are 'taboo' in these communities and there is a lot of miseducation/lack of education. Having these topics categorized as 'taboo' represents a missed opportunity to promote the health of the community. We have created a structured system in which we do lessons on these topics for the teachers and create/supply them with educational materials to educate the students. We do practices with them so they can properly educate and

we also teach the health club at the school, which allows them to be the champions of these topics to their classmates. Furthermore, we have designed and created health pamphlets and brochures to be given out during home visits. We visit many people in their homes as they live in hard to reach, underserved areas in the mountains. We are accompanied by a community health worker and give them pamphlets (all in Kinyarwanda) that we have designed and created so they have educational materials on how to clean their water and why they should clean their water. Finally, we have partnered with a topographer in the area to do GPS mapping of the homes of the people with NTDs to find their water source, see how far away they are from clean wells, and how we can help prevent these diseases. We use the data from previous NTD screenings and hike to homes with the community health workers. We are currently halfway through the 200 homes we will visit, and then we will analyze this data through ArcGIS.

This project was set in the Musanze District of Rwanda at the Nyabirehe Primary School and the Rwinzovu Primary and Secondary School. We were connected to the schools through our professor at Tufts University, Dr. Manzi. Dr. Manzi founded the organization Move Up Global, which focuses on addressing health issues, including Neglected Tropical Diseases (NTDs) and non-communicable diseases, through strong linkages between school and health systems. We also received help from a local organization called IREME, which is partnered with Move Up Global. IREME provided us with community members to speak with and translators throughout our project. The fact that IREME comprises people from the local community helped us receive feedback on whether our project ideas would benefit the community and helped us ensure the project's sustainability and focus on culturally competent care.

We adhered closely to our original proposal and plans, but we also expanded upon them.. We stuck to the ideas of health education through various programs, but we saw the further impact that we could make and expanded our ideas to broader and farther reaching points to have the largest effect possible. We did not have other fundraising efforts for this project. We stayed inside of our original budget quite well. Because many of our ideas were education focused, a lot of our work was done on a computer, allowing us to keep our costs low.

There are a lot of opportunities to continue this work that we are actively pursuing. Benjamin Katz, one of the grant recipients, is still in Musanze, Rwanda working on the project. His biggest focus now is on structural impact. He has been meeting with the health centers, health posts, and hospitals to connect them with the headmasters of the schools to build their relationships. There are plans for big community events (hopefully totaling close to 10,000 people) to attend at the schools to connect and learn about health. The healthcare professionals from the health facilities will be in attendance to connect with the communities in order to build relationships with them so that the people feel more comfortable with them. Furthermore, we are building a strong relationship with a local veterinary hospital (the New Vision Veterinary Hospital), for the veterinarians to regularly visit the schools to educate on One Health topics. Finally, we are currently training community health workers (CHWs) as well as all the IREME staff on NTD screenings in order to do mass screenings. This will increase the efficiency of the screenings and help with proper measurements of the improvements of NTDs. It is currently a very slow process because CHWs have to visit every home to screen. The homes are very spread apart in the mountains, and a CHW can only do 10 homes a day. For thousands of people, this is a large barrier to receiving a screening in a timely fashion. The end goal of the project is to create a strong sustainable structure so that once Ben leaves, the projects continue and prosper and

cause real change. Excitingly, we have begun to work directly with the Ministry of Health of Rwanda. They have advised and helped with the larger project ideas and are very intrigued by the program.

Based on our experiences from this project, we define peace as the access to resources, education, and opportunities for all. Peace is supporting and uplifting the community in the areas they have identified and ensuring the sustainability of an infrastructure that enables individuals in the community to support each other to lead lives that are less burdened by socioeconomic and geographical factors. We believe that our project will contribute to the continued peace that Rwanda has done a remarkable job with since the 1994 Genocide Against the Tutsi. Rwanda has been successful in achieving all of the health-related millennium development goals to significantly increase life expectancy, reduce premature mortality, and improve a wide range of health indicators. By improving the health of the people in the Musanze district, specifically in the Gataraga Sector, we hope to reduce the burden of hardships faced by the people. This, in turn, will increase the quality of life and promote lasting peace in the region.

One challenge we faced at the project's beginning was a language barrier for the baseline survey. We were told that the students knew English, so our survey was written in English, and we had teachers present to help translate and answer questions. However, we noticed that most students required much help from the teachers to understand the survey, which caused the survey to take longer than expected. To resolve this issue, with the help of the teachers and the IREME team, we translated the survey during lunch so it contained both English and Kinyarwanda so the remaining students would have an easier time completing it. This challenge helped us better plan for the second and third days of the student training because it showed us that we should translate our presentation slides and the post-survey in advance. Furthermore, it emphasized the importance of local partnerships. We were thankful to have support from the IREME team and the teachers of Nyabirebe throughout the project.

The project has completely changed the way we think about the world. The people of Rwanda are kind, selfless, and altruistic regardless of the hardships that some face. It has been a very humbling experience that we will take with us in all aspects of our lives forever. The project itself makes us very excited about our future healthcare work. We have seen through the effectiveness of this project the importance of supporting and uplifting communities through global health work in order to create a lasting impact. In all of our future healthcare pursuits, we will use this experience as a reference to ensure the best healthcare outcomes in our work. We also have the fullest intention to spread this message about the importance of sustainable and community-driven work so that more projects are done in the best interest of the people that they serve.

Personal Statement

Benjamin Katz: This experience has been life changing. I have created life long friendships, learned so much about myself and the world, and have had a once in a lifetime opportunity to immerse myself in a different culture and really learn from it. I will take this experience with me for all of my healthcare endeavors in the future as I know this will help me to be a better healthcare professional in the future.

Krystal Lwanga: I am grateful for the opportunity I had this summer to travel to Musanze, Rwanda, and work with IREME and Move Up Global. With the time provided, we were able to accomplish the majority of what we had planned. However, there is still more we plan to accomplish for the Health Passport. Through IREME, I made new friends, gained insight into the importance of community health workers, and helped develop a sustainable community-led initiative. I learned about their current programs, such as implementing home gardens, providing low-resourced families with sheep, and the school chicken farm and garden that is used to give students lunch. Witnessing the positive impact these programs have had on the community was truly inspiring. As I begin to pursue my future career in dentistry, I will carry with me the valuable lessons I learned about sustainability, community-focused solutions, and the powerful intersection of health and education in creating lasting change.