



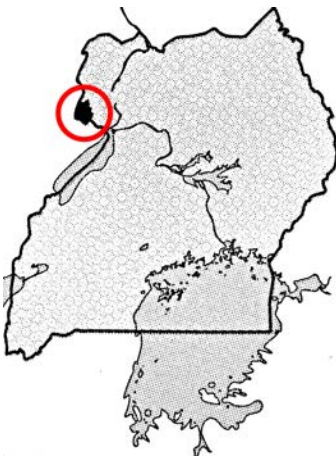
International Medical Outreach (IMO) is a humanitarian aid corporation based in Houston, Texas, recognized by the United States Internal Revenue Service as a 501 (C) 3 nonprofit corporation and registered as such in the state of Texas.

Since our establishment in 1993, we have focused on the relief of infectious diseases including intestinal parasites, malaria, HIV/AIDS, tuberculosis, pneumonia, and diarrhea while addressing other disciplines of health and general care. In addition to being active in the field, we have provided nearly one billion USD worth of medication and medical equipment to our partners around the world.

We aim to cause a progression of change in the mindset of a community towards health. This includes enabling people to use resources already available that could improve their current health situation as well as emphasizing the necessities of healthy behavior. We also provide medication and equipment as well as expertise and specialized training to enhance the capacity of local healthcare providers.

These efforts have manifested into a designed Soil-transmitted Helminthiasis (STH) Treatment and Prevention Program in a community called Papoga in rural Uganda. This report provides the strategic outline for this program.

SOIL-TRANSMITTED HELMINTHIASIS TREATMENT AND PREVENTION PAPOGA, UGANDA



Papoga is a parish in the Zombo district of northwest Uganda. This collection of villages and trading centers lies along Uganda's border with Democratic Republic of Congo in what is popularly known as the West Nile region. The forested mountainous area hosts most of the markets and trading centers of the Alur people that populate both sides of the international border. The rural lifestyle is largely agricultural, with wired electricity first making its scattered appearance in September 2015.

There are three government primary schools, one private primary school, and a nursery school with a combined pupil count close to 3,500. Like in other communities across East Africa, these children are expected to be active members of the agronomic lifestyle of Papoga in addition to maintaining their studies. This includes tending to livestock, collecting water multiple times throughout the day, taking care of younger siblings and family members, aiding in minor building projects, and performing domestic chores like cooking and cleaning. These children represent the target population of our STH Treatment and Prevention Program in the area.



Goals and Objectives

Our goal is to reduce the prevalence of soil-transmitted helminthiasis among primary and nursery school-age children in Papoga, Uganda from 73.7 percent to below 25 percent in five years. In doing so, we aim to introduce and spread hygienic practices, limit exposure to pathogenic fecal contamination, and reduce the need for mass distribution of medication in our pursuit of increasing overall health.

Collaterally, the realization of these goals will ease the burden of limited resources and staffing that overwhelms the health department and local healthcare providers in this area.

Rapid Appraisal

The Rapid Appraisal is our independent testing of a statistically significant sample of primary and nursery school-age children to determine the prevalence of intestinal parasites, malaria, and anemia, while also determining height-for-age, weight-for-age, and body mass index of each child to compare with international standards. The cumulative data, taken yearly during the life of the program, establishes a baseline of information and shows a trend from which to strategize and measure successes or failures.

The initial testing in Papoga revealed 73.7 percent of children tested positive for intestinal parasites. This high intestinal parasite prevalence contributes to the patterns of growth development we observed. Nearly 50 percent of children in Papoga registered in the bottom tenth percentile of the international standard for height-for-age and weight-for-age. Statistics from our initial Rapid Appraisal conducted in January 2015 can be seen below.

	INTESTINAL PARASITES	ANEMIA	MALARIA	HEIGHT-FOR-AGE		WEIGHT-FOR-AGE		BODY MASS INDEX	
				BOTTOM 10%-ILE	TOP 10%-ILE	BOTTOM 10%-ILE	TOP 10%-ILE	BOTTOM 10%-ILE	TOP 10%-ILE
ALL	73.66%	4.83%	1.45%	48.54%	11.17%	43.69%	7.28%	24.27%	0.49%
MALES	72.62%	2.33%	1.16%	54.12%	8.24%	52.94%	5.88%	29.41%	1.18%
FEMALES	74.17%	6.61%	1.65%	44.63%	13.22%	37.19%	8.26%	20.66%	0.00%
5-YEAR-OLDS	80.77%	5.66%	3.77%	3.77%	43.40%	3.77%	28.30%	13.21%	1.89%
13-YEAR-OLDS	70.83%	5.15%	1.03%	84.54%	0.00%	76.29%	0.00%	37.11%	0.00%
5-year-old MALES	93.75%	5.88%	0.00%	5.88%	41.18%	5.88%	29.41%	11.76%	5.88%
5-year-old FEMALES	75.00%	5.56%	5.56%	2.78%	44.44%	2.78%	27.78%	13.89%	0.00%
13-year-old MALES	72.00%	1.96%	1.96%	84.31%	0.00%	82.35%	0.00%	43.14%	0.00%
13-year-old FEMALES	69.57%	8.70%	0.00%	84.78%	0.00%	69.57%	0.00%	30.43%	0.00%

Methodology

Breaking the cycle of reinfection is the cornerstone of our long-term strategy. This means limiting exposure to fecal contamination and reducing pathogenic load in the environment. In the mean time, until STH prevalence is below 25 percent, mass distribution of medication to primary and nursery school-age children will be employed.

Our methodology can be broken down into four parts: mass distribution of medication, public health education, provision of shoes, and the conversion of pit latrines to compost toilets.

Distribution of Medication

The World Health Organization recommends bi-annual treatment for intestinal parasites where prevalence exceeds 50 percent. While Papoga's prevalence registers higher than 70 percent, there is no indication of regular governmental distribution of medication. Furthermore, the six-month period between doses is more than enough time for reinfection.

Therefore, we distribute Albendazole 400mg and vitamin A bi-annually to each primary and nursery school-age child registered in Papoga schools.



Public Health Education

The knowledge of pathogens and how they enter our bodies creates a new perspective on behaviors such as washing hands, using clean water, wearing shoes, and managing human waste.

At the time of medication distribution, we mediate a discussion among teachers, parents, and children about self-care at home and at school while providing the materials necessary (such as soap, water filters, and shoes) to put this health education into practice.



Provision of Shoes

In an environment contaminated by unimproved sanitation, shoes are the first line of defense against hookworm and other parasites that penetrate open wounds and cuts in the skin. The high prevalence of intestinal parasites can be attributed to our observation that many children under eight years old are commonly barefoot.

We provide new, locally purchased, fitted shoes annually to each child below eight years old registered in Papoga schools.



Compost Toilets

Open defecation and uncovered pit-latrines are currently the standard methods of waste management in Papoga. Yet, these methods are among the main sources of enteric disease and parasitic vulnerability in the community. The use of compost toilets represents a sanitation solution that also fits the agronomic lifestyle of the area. Papoga is rich in the materials necessary to harness and accelerate this natural process that breaks down pathogens in human waste while creating organic fertilizer.

We are actively converting pit latrines at homes and in schools to compost toilets, instructing local carpenters to build on-site compost bins (which can be used for kitchen waste and animal manure as well as human feces), and training teachers and community members the simple technical basics of a compost-based sanitation system.



The success of this program depends on the reciprocal collaboration among IMO, local healthcare providers, teachers, parents, children, and all community members present. Ultimately, in many ways, the health of the community is in the hands of the community. We aim to work with – not for – the people of Papoga to raise the overall standard of health.