Aim and objectives

Aim: Mikono Safi, which means “clean hands” in Kiswahili, aims to assess the effectiveness of a behaviour intervention, including promotion of handwashing with soap (HWWS), among school-aged children in the Kagera region of northwest Tanzania in reducing both the prevalence and intensity of soil transmitted helminths (STH) infections.

Specific objectives of this project are:

- To design a scalable, school-based behaviour change intervention to promote HWWS at key times during the day among school aged children in northwest Tanzania;

- To assess the effectiveness of this intervention in changing handwashing behaviour and in reducing the prevalence and intensity of *Ascaris lumbricoides* and *Trichuris trichiura* infections among school-aged children following a deworming programme;

- To explore the costs and cost-effectiveness of the intervention with a view to the possible integration of the intervention into the national STH control efforts, and prepare the methods for a future large cost-effectiveness study of the intervention when integrated into the national STH control programme.

Progress Report

Stage 1: Intervention design and pilot evaluation

- The formative research study has been carried out in three schools to develop the intervention package, adapt to the study settings and assess its feasibility.

- The intervention involved installation of handwashing facilities in strategic locations close to the latrine buildings, paving pathways between latrine and handwashing facilities, painting the pathways and water tanks with bright coloured cues and upgrading of water supply infrastructures in the schools.

- The project improved water supply infrastructures and handwashing facilities in these three schools. Rehabilitation of water infrastructure enabled constant supply of water for handwashing, and each handwashing stand can be used by two
students at a time.

- Health education sessions were provided at all schools to raise awareness about the importance of HWWS. Teaching materials such as posters and card games were designed by a local artist in Mwanza with the inputs of the study team. Role plays and songs were also used to reinforce the information provided during the session.

- Three rounds of data collection for the formative study have been completed. During each round, in-depth interviews with students, school teachers and parents were conducted on a range of topics related to hand hygiene. Structured observations have also been conducted with the aim of understanding handwashing behaviour of children.

- As part of the intervention, worm survey results were used to engage parents through a series of meetings at all three schools. During the meetings parents were provided with brochures containing important project information and results of children’s stool samples.

**Stage 2: Preparations for the main trial**

The main trial will commence in early June 2017. During the reporting period, the following progress has been made:

- Submitted an application for ethical clearance to the ethics committees of the National Institute for Medical Research (NIMR) and the London School of Hygiene and Tropical Medicine (LSHTM). Final approval has been received from LSHTM and is expected from NIMR in the near future.

- Completed the worm prevalence survey in 51 schools in Kagera region including the three districts (Bukoba Municipality, Bukoba rural and Muleba) where the main trial is planned. This survey was conducted to help understand the worm burden in the schools where the intervention is planned.

- Conducted a survey to assess water and handwashing infrastructures in 45 schools in the three districts.

- Held engagement meetings with educational authorities of the three districts and got buy-in to conduct the trial in their jurisdiction.

**Challenges**

- Poor water supply infrastructure in schools taking part in the formative study. The project has used substantial resources to refurbish the systems.

- Pathways had to be repainted several times since paint washed off easily. Obtaining locally sourced permanent paints that are water resistant was challenging, as these paints are expensive and rare.

- Delays in obtaining a signed Data Transfer Agreement (DTA)
meant the formative study was delayed, and finished in May 2017 rather than December 2016.

- Integrating health education sessions in the school routine curriculum was challenging. Teachers were afraid of getting in trouble with education auditors for not covering some of sessions planned in the curriculum so they can teach the WASH sessions. We plan to involve the District Education Officer during the planning stage to find time for the health education sessions, and also share the teaching manual to help guide teachers to conduct the sessions.

## Successes

- Completion of the formative study data collection for round one and two. Data analysis is now being finalised for the final round.

- Successful engagement meetings with key stakeholders including WaterAid, Regional, Municipal educational officials, parents and teachers.

- Recruitment of a new RIU Coordinator, Amani Beda, who joined SHARE on 3 April 2017, and so far he has been working on stakeholder engagement.

- An introduction letter was sent to key stakeholders, including DFID Tanzania; the Ministry of Health, Community Development, Gender, Elderly and Children; Ministry of Education, Science, Technology and Vocational Training; NIMR-National Institute for Medical Research Tanzania; GIZ-Tanzania; World Bank; WHO and UNICEF.

- The Municipal Educational Officer for Bukoba acknowledged the importance of using research to inform their local planning.