

COUNTDOWN LIBERIA TAKE ON A NEW CHALLENGE: Participatory Development of an Intervention to address FEMALE GENITAL SCHISTOSOMIASIS (FGS) and support health systems strengthening

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Schistosomiasis or Bilharzia is a parasitic disease caused by infection with the trematode blood-flukes schistosomes. It affects over 240 million people worldwide with more than 90% being in sub-Saharan Africa (SSA). Two major forms of human Schistosomiasis occur in SSA: Intestinal Schistosomiasis caused by *Schistosoma mansoni* and Urogenital Schistosomiasis caused by *Schistosoma haematobium*. Schistosoma morbidity is mainly caused by eggs of the parasite deposited in these human tissues causing inflammation. Schistosomiasis is one of neglected tropical diseases (NTDs) posing serious public health problems and unacceptable threats to human health and welfare, especially in less privileged settings.

The World Health Assembly resolution 54.19 urges all member states to regularly treat at least 75% of all school aged children who are at risk of morbidity from Schistosomiasis. Currently, the World Health Organization (WHO) recommends Preventive Chemotherapy (PCT) with Praziquantel (PZQ) to control the morbidity caused by this infection.

Female Genital Schistosomiasis (FGS), is one of the forgotten morbidities of *Schistosoma haematobium*, it is an underappreciated gynaecological condition and gendered health problem that affects more than one-third of women living in Schistosomiasis endemic areas. Recently, NTDs including Schistosomiasis have gained momentum for elimination by 2030. However, the focus has been on school-aged children, with little attention given to out-of-school girls and women, increasing their risk for FGS and consequences like cancers and infertility when schistosomiasis is left untreated.



CDDs and students during launch of MDA



CDDs trained to conduct MDA

The Liberian Schistosomiasis control programme is part of the integrated national NTD programme within the Ministry of Health. The NTD programme aims to reduce the burden of NTDs to a level where it is no longer a public health problem. For Schistosomiasis specifically, Liberia aims to treat at least 75% of all at-risk school aged children.

[COUNTDOWN \(Calling Time on Neglected Tropical Diseases\)](#) research in Liberia in collaboration with the national NTD programme and health systems stakeholders identified FGS as potentially one of the NTD priority problems in

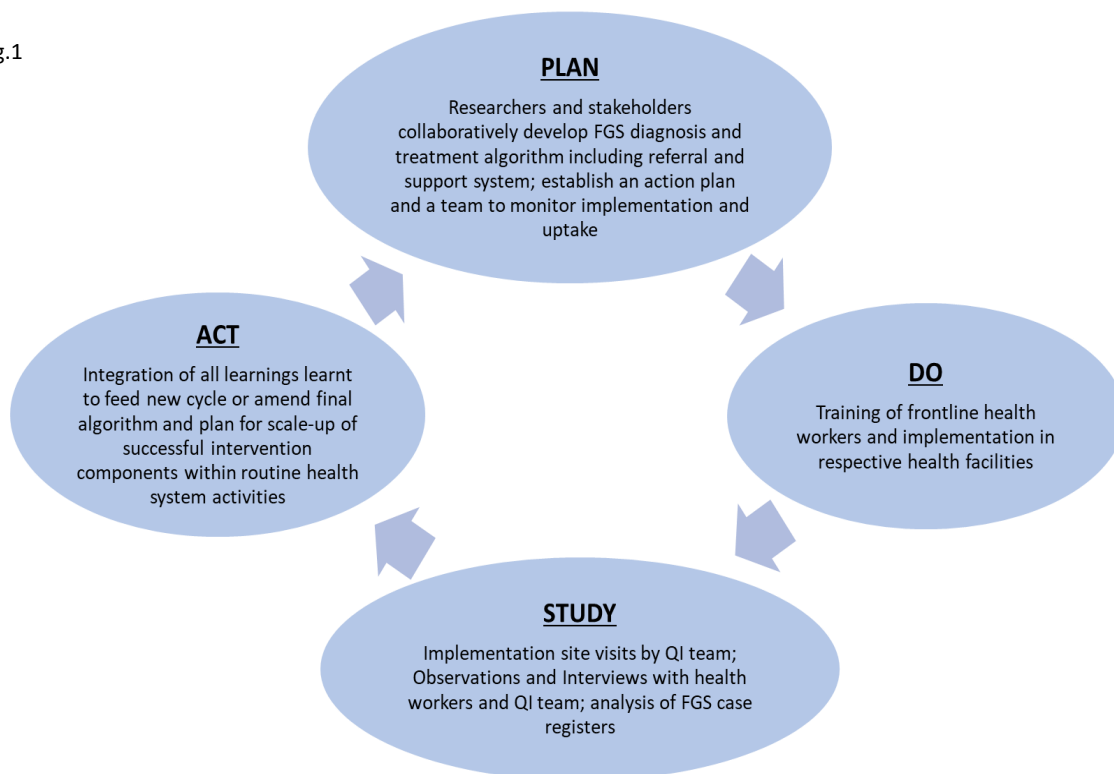
Liberia. Therefore, one of the [COUNTDOWN extension](#) research projects in Liberia aims at Integrating the Detection and Management of FGS into the Health System in highly endemic areas for schistosomiasis.

The study will take place in two districts, spread across Bong and Nimba counties which were selected for their high Schistosomiasis prevalence. A diagnostic and treatment guide including counselling and referral pathways for FGS will be developed in collaboration with a team of health systems stakeholders across all levels of the health system. Frontline health workers from all 23 health facilities in the two study districts will be trained on how to use the guide to diagnose and manage FGS.

These activities will involve stakeholders working on gender specific issues in Liberia, particularly those providing services for gender-based violence to ensure appropriate referral pathways. Women diagnosed with FGS will benefit from treatment with praziquantel in all health facilities in the study areas. This could potentially be scaled-up to other counties in Liberia.

This participatory research study uses a quality improvement (QI) process known as the Plan-Do-Study-Act cycle (Fig.1). Participants will draw on literature to collaboratively develop a diagnostic algorithm, treatment package and referral system for FGS. Frontline health workers will then be trained on the algorithm and its use, and will implement in their various health facilities, supported by a team of researchers and health system stakeholders. Lessons learned will influence amendments to the algorithm and the changes fed back into the system. At the end, health workers and stakeholders will be interviewed on their experiences and FGS cases detected will be characterised. These outcomes will feed into final amendments to the algorithm and subsequently recommended as a strategy for uptake into the health system.

Fig.1



The research is being supported by the COUNTDOWN programme at the Liverpool School of Tropical Medicine (LSTM), in the UK. The project will be implemented in collaboration with the University of Liberia Pacific Institute for Evaluation and Research (UL-PIRE) and the Ministry of Health for the period of 18 months