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Identifying individual risk behaviours and community-level contributions to reinfection with *Schistosoma mansoni* in school-aged children in rural Uganda.

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Globally, over 200 million people are infected with Schistosoma parasitic helminths, and 400 million are at risk of infection, with school-aged children (SAC) disproportionately affected. The World Health Organization identified Uganda as one of the ten priority countries, highly endemic for schistosomiasis, with an estimated 4 million people infected. The national control programme focusses on mass drug administration (MDA) with praziquantel. However, MDA coverage is only ~37% of SAC and even fewer community members, and hotspots with high prevalence remain. SAC are also found to become rapidly reinfected after treatment and mean infection intensities and associated morbidity continue to be high. My interdisciplinary study aims to use ethnographic and population genetics in conjunction with standard epidemiological methods to better understand how, why and where certain children in Mayuge District become rapidly reinfected with S. mansoni after treatment. Observational ethnographic appraisals of rapidly reinfected and non-infected children and focus group discussions with parents on water contact attitudes and practices will be undertaken. These methods will help elucidate group and/or individual behaviours that affect children's risk of reinfection and how such risks might be reduced. Concurrently, intermediate snail hosts will be collected from key water contact sites identified through the ethnographic appraisals. DNA will be extracted from S. mansoni cercariae shed from these snails and will be compared to DNA from S. mansoni miracidia found in previously collected samples from SAC and community members to understand better who is driving these reinfections. Analyses of collected data and interpretation of results will help provide recommendations for improvements to the national control programme with the aim to reduce Schistosoma reinfection in Uganda. I will present my study plan as well as preliminary observations from Bugoto from Nov 2017 and March 2018.