

Investigation of Schistosomiasis (*S. mansoni*) in Haiti

Kevin J. Talbot

University of Florida

College of Public Health and Health Professions

Abstract

Background: Despite current endemic occurrences of schistosomiasis near Haiti, including its neighbour the Dominican Republic, PAHO, WHO and Haiti's Public Health Ministry have not yet confirmed the presence of schistosomiasis (*Schistosoma mansoni*), likely due to the lack of screening programs, resources, and knowledge regarding this neglected tropical disease.

Objective: The main goal of this research study and internship project was to investigate the presence of *S. mansoni* in patients from regions surrounding the UF Gressier, Haiti Lab.

Methods: A *S. mansoni* surveillance strategy was implemented for five major surrounding regions of the UF Gressier Haiti Lab between January 5 to February 7 2014. Utilizing the Kato-Katz technique in addition to microscopy examination, the various de-identified stool samples received from the existing UF diarrheal surveillance program were observed for the presence of *S. mansoni* putative eggs.

Results: Through the examination of 169 stool samples during a five-week span, no cases of *S. mansoni* were confirmed, although there are some serious limitations to this result. Moreover, our research indicated that numerous other neglected parasitic infections still exist in Haiti as 21.89% (37 cases on 169 subjects) of all samples examined were found to be infected with various parasites including *Ascaris*, *Trichuris*, *Taenia*, Hookworms, *Giardia*, etc. Of all parasites found, *Ascaris* (35%) and *Trichuris* (16%) were the most commonly captured.

Conclusion: Not finding cases of *S. mansoni* doesn't exclude the possibility of its existence in Haiti due to the limitations of this study. These limitations encompass a low sampling size, geographical limitations, potential low sensitivity with the Kato-Katz technique in low endemic areas and indirect exclusion of certain participating patients from this study. These findings will potentially guide future endeavors in parasitic diseases surveillance and subsequent eradication efforts in Haiti.