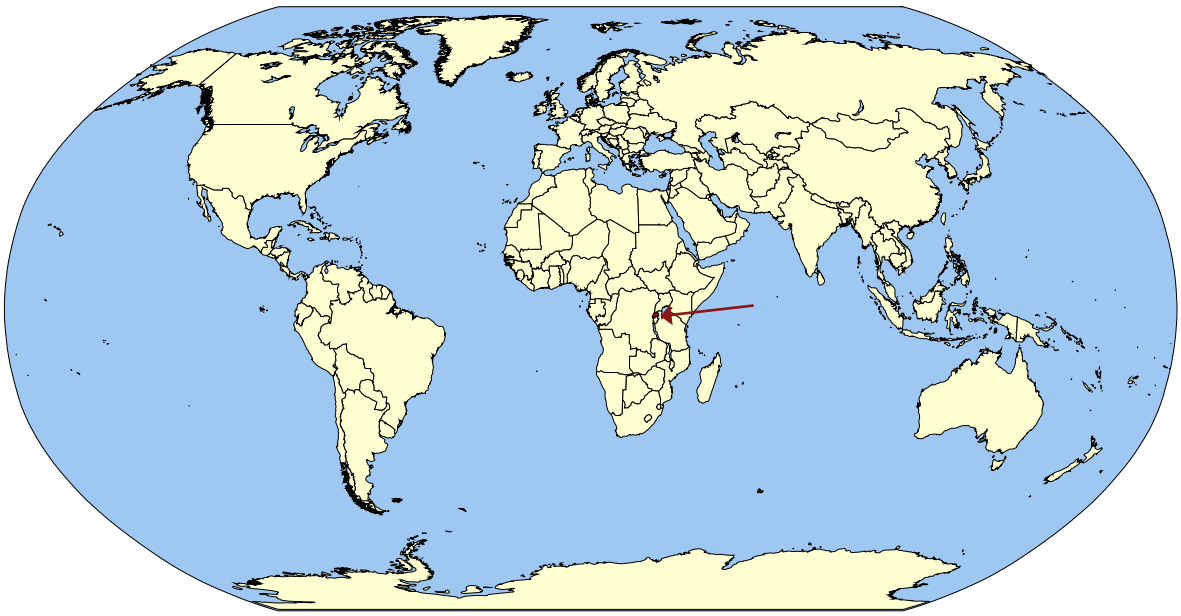
Rwanda



The History of Schistosomiasis in Rwanda

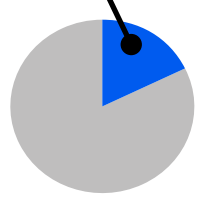
The first cases of schistosomiasis infection in Rwanda were reported in 1972 [1]. Schistosoma mansoni is the only schistosome endemic in the landlocked country, with Biomphalaria pfeifferi as the main intermediate snail host [1, 2]. In the 1980's the infection was found to be most prevalent around several high lakes including Lake Bulera and Lake Ruhondo [1]. Just two decades after schistosomiasis was first described from Rwanda, a conflict began in 1990 whereby the rebel Tutsies fought against the incumbent Hutu's before a devastating, state-run genocide against the Tutsies was carried out in 1994; this left health services in Rwanda severely limited [7]. Rwanda has been slowly recovering ever since. Refugee groups moved in and out of the country to neighboring Democratic Republic of Congo, Burundi, Tanzania, and Uganda as a result of the conflict [7].

All in all, in Rwanda, schistosomiasis is endemic, mapping is underway, and implementation of a mass drug administration program to control schistosomiasis has begun [12].

Schistosomiasis in Rwanda [12]

7.6% of the population that requires preventative chemotherapy received treatment in 2014

18% of the population requires preventative chemotherapy for schistosomiasis



62% of the population that requires treatment are school aged children

Overview of Rwanda [7]

- Population in 2015: 12,661,733
- Official Languages: Kinyarwanda, French and English
- Capital: Kigali
- Presidential Republic
- Percentage of Population with Access to Improved Drinking Water in 2015: 76.1%
- Percentage of Population with Access to Improved Sanitation in 2015: 61.6%

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Prevalence of Schistosomiasis in Rwanda

While S. mansoni is considered endemic throughout the country, some districts are risk free [2], so overall, schistosomiasis prevalence is estimated at 2-5% of the total population [3-5]. A recent estimate anomalously puts prevalence at 36.6%; however, this report may be derived from a focal study rather than a national survey of the country [6].

Control of Schistosomiasis in Rwanda

Before 2007, there were no coordinated control programs on record for schistosomiasis in Rwanda [8]. However, starting in June 2007, Rwanda instituted a schistosomiasis national control program funded by Legatum, as part of a wider Neglected Tropical Disease program. The Schistosomiasis Control Initiative, the END fund, and the Ministry of Health of Rwanda have overseen the program. The first phase consisted of mass drug administration (MDA) using praziquantel, especially to school-aged children, and also prioritized building local capacity by training health personnel [9].

In 2011, the first phase of the control program ended and the END fund stepped up to financially back the second phase [10]. The second phase consisted of MDA, monitoring and evaluation (M&E) and more prevalence mapping [9]. Later phases will involve M&E, surveillance, and rapid response with praziquantel, with the ultimate goal of complete elimination [10].

Overall, the control program has experienced setbacks due to a lack of health services, trained personnel, and health data as a result of the 1994 genocide. Nevertheless, records at the World Health Organization suggest that a relatively modest coverage has been achieved by the mass drug administration campaign between 2008 and 2014, ranging from 7% to 27% of the ~800,000 Rwandans requiring treatment [10].

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