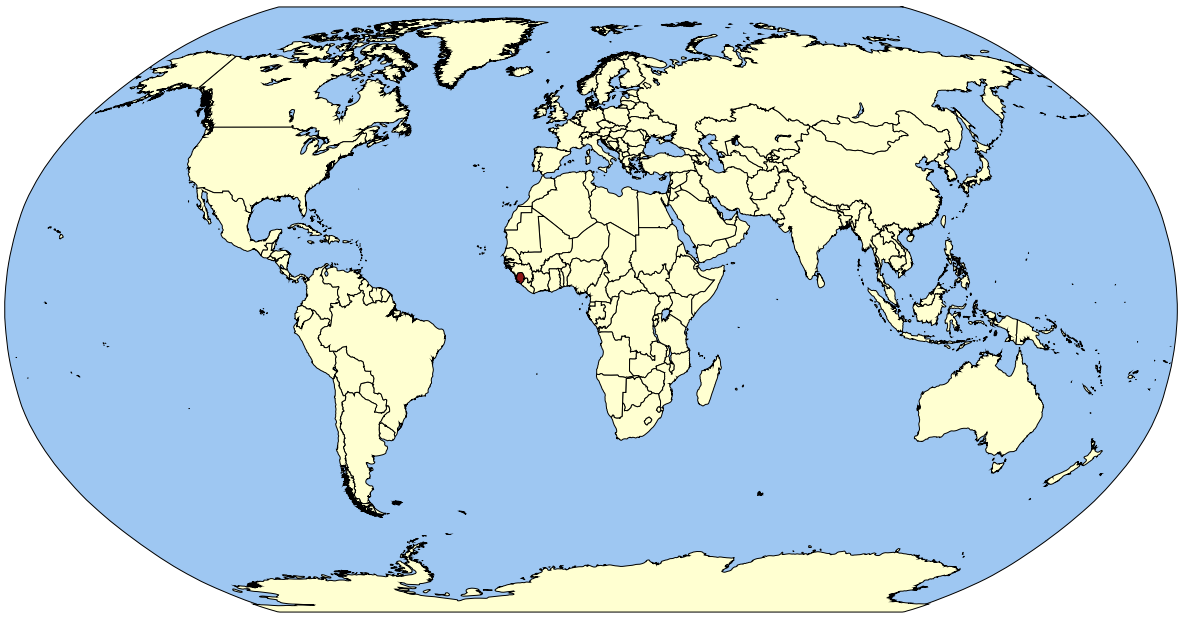
Sierra Leone



The History of Schistosomiasis in Sierra Leone

S. haematobium was first discovered in Sierra Leone in 1909 [1,2], and S. mansoni was later discovered in 1934 in the north of the country [1]. Recovered snail samples included both Bulinus globosus and Biomphalaria pfeifferi [1]. Peak transmission of schistosomiasis takes place at the beginning of the dry season, when water levels and habitat conditions are most suitable for snail hosts [1]. Additionally, schistosomiasis is more endemic in areas of agriculture [1], mining [1,3], and bathing sites [1,2,4]. Both S. haematobium and S. mansoni remain endemic in Sierra Leone [4].

Schistosomiasis in Sierra Leone [10]

1,494,092 people required schistosomiasis treatment in 2014

25% of the population requires preventative chemotherapy for schistosomiasis

40% of the population requiring treatment for schistosomiasis are school-age children

Overview of Sierra Leone [9]

- Population in 2015: 5,879,098
- Official Language: English
- Capital: Freetown
- Presidential Republic
- Percentage of Population with Access to Improved Drinking Water in 2015: 62.6%
- Percentage of Population with Access to Improved Sanitation in 2015: 13.3%

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History of Schistosomiasis continued

As early as 1924, Blacklock [2] advocated for an integrated approach to schistosomiasis control in Sierra Leone, including treatment of the infected people, sanitation education, and the need for eliminating rampant snail hosts [2]. To do this, snail-free bathing sites were appointed and bridges were built over infected streams [2].

Prevalence of Schistosomiasis

In 1961, Sierra Leone gained independence from Great Britain [5]. Prior to independence, little was known about schistosomiasis in Sierra Leone. Local surveys in school-age children in Bo reported S. haematobium prevalence increases from 26% in 1915 to 64% in 1970 [1]. Similar surveys in Kabala of school-age children reported S. mansoni prevalence increases from 21% in 1934 to 40% in 1970 [1]. These significant increases may have been due to rapid population growth where the Tongo River empties into the Moa River following a rise in diamond mining activity [1,3]. Between 1970 and 2000 no data could be found on schistosomiasis in Sierra Leone. This absence may be the result, in part, of the civil war from 1991 to 2002, which destroyed basic health infrastructure and displaced health personnel [5]. In 2000, Chitsulo et al. reported 88.1% of the school-age children at risk of infection and 59.52% of the school-age children infected with schistosomiasis [6]. In 2011, S. mansoni was reported at 40.2% in Sierra Leone [7], and 16.3% prevalence in 2012 [4].

Control of Schistosomiasis

With the support of the World Health Organization, USAID, and Helen Keller International, the National Neglected Tropical Diseases Control Program (NNTDCP) in Sierra Leone commenced in 2007 targeting schistosomiasis and other soil transmitted helminths in the country [4,7,8]. From 2009-2011 the NNTDCP provided praziquantel, albendazole, and mebendazole to school-age children [8]. Coverage of this program was high, reaching 94.8% of the population at risk in Sierra Leone in 2009, and 81.7% of the population at risk in 2011 [4].

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