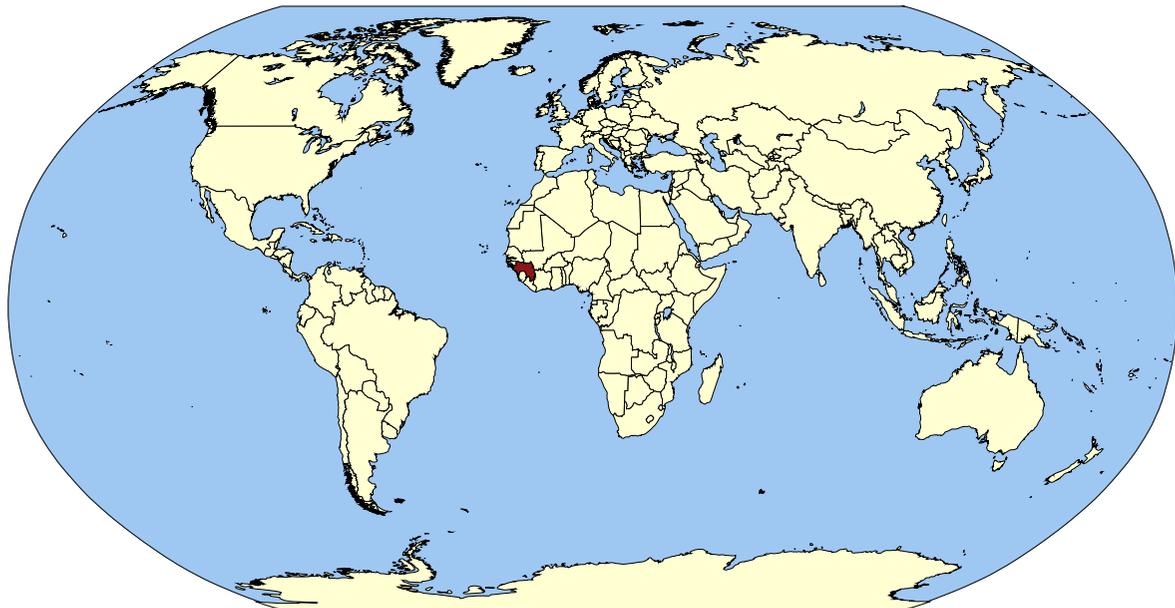


Guinea



The History of Schistosomiasis in Guinea

Guinea is an African country that gained independence from France in 1958 (1). Governmental corruption and ethnic conflicts plagued Guinea for several decades, but civilian rule and fair elections in 2010 signaled new hope for the country (1). Guinea has large amounts of mineral wealth; but most of the population are among the poorest in West Africa (1).

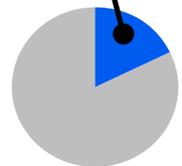
Schistosomiasis is present in Guinea in two major forms - the urinary disease caused by *Schistosoma haematobium* and the intestinal disease caused by *S. mansoni*. Both schistosome species are found in nearly all parts of Guinea, and the disease is nationally endemic (2). Areas of Guinea with increased agricultural activity for coffee, citrus fruits, and banana coincide with areas of medium population density and areas with the highest schistosomiasis burden (3). Open defecation is still a common practice (4). Around 77% of people have access to clean water but only 20%, or 1 in 5, have access to sanitation, as of 2014 (5). The snail hosts of schistosomiasis in Guinea are *Biomphalaria pfeifferi* for *S. mansoni* and *Bulinus globosus* for *S. haematobium*.

Schistosomiasis in Guinea [2]

Schistosomiasis is nationally endemic in Guinea

18% of the population requires preventative chemotherapy for schistosomiasis

59% of the population that requires treatment are school aged children



Overview of Guinea [12]

- » Population in 2015: 11,780,162
- » Official Language: French
- » Capital: Conakry
- » Presidential Republic
- » Percentage of Population with Access to Improved Drinking Water in 2015: 76.8%
- » Percentage of Population with Access to Improved Sanitation in 2015: 20.1%

Prevalence of Schistosomiasis in Guinea

Early prevalence reports are scarce but schistosomiasis was mapped in Guinea in 1987, showing a national distribution of the disease, with higher prevalence rates in the forested, southern portions of the country (3). Schistosomiasis prevalence rates from 1989 to 2010 have remained at around 25% nationwide (6-9). Partially completed maps of the disease in 2013 confirmed both *S. haematobium* and *S. mansoni* throughout the country, again with hotspots in the southern part of Guinea (4).

There are four major regions of Guinea, each with different environments that favor schistosomiasis to varying degrees. The southern part of Guinea, filled with forests and mountains has rainy seasons that last around nine months, creating plenty of favorable habitats for schistosomiasis (3). Frequent contact with the water - especially bathing and playing, for children - creates high transmission rates (10). *S. mansoni* tends to persist in populations of higher altitude, another reason why schistosomiasis prevalence rates may be higher in the forested areas (3). One estimate made in 2011 put *S. mansoni* at 86.1% and *S. haematobium* at 75% prevalence focally within the forested region (10).

Control of Schistosomiasis

The first evidence of schistosomiasis control in Guinea occurred in 1975, when over 10,000 people were treated, although it is unclear with what medication (11). In 2012, Guinea reported schistosomiasis control via mass drug administration with praziquantel - around 33% of the population requiring preventive chemotherapy for schistosomiasis received treatment in 2012, according to the WHO (12). This is likely a part of an integrated approach to Neglected Tropical Disease control made by USAID and other foreign aid entities (10,13,14). For example, USAID plans to eliminate five major NTDs from Guinea by 2020 and has deployed mass drug treatments to Guinea to 58% of its regions (14). However, the WHO's reported 2012 treatments remain the only available record of contemporary control in the literature.

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