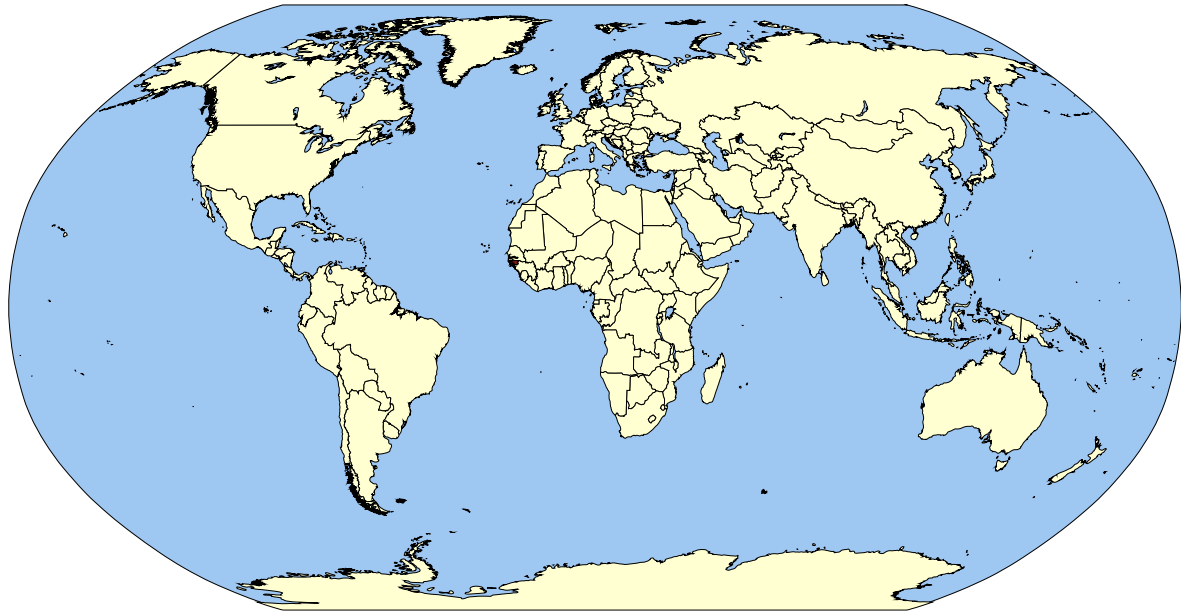


# Guinea-Bissau



## The History of Schistosomiasis in Guinea-Bissau

Schistosomiasis infects around 1 in 4 people in Guinea-Bissau (1). However, consistent data on prevalence is scarce. This could be largely due to political, military, and economic instability, which has been present ever since Guinea-Bissau won independence from Portugal in 1974 (2,3). It is one of the poorest countries in the world, and a concentrated center for cocaine trafficking and smuggling (3).

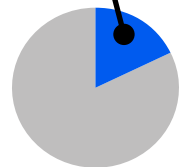
Schistosomiasis in Guinea-Bissau is primarily caused by *S. haematobium*, contracted via washing centers along the Geba River (4), but some small, focal hotspots of *S. mansoni* likely exist where the intermediate host *Bi. pfeifferi* is present (5). There exists some conflict in the literature about what species of schistosomes exist in Guinea-Bissau. The urinary form of the disease, *Schistosoma haematobium*, was first reported in 1925, and the intestinal form, *S. mansoni*, was first reported in 1985. Some sources, as recently as 2010, report that only *S. haematobium* occurs in Guinea-Bissau (6-8), while other sources declare both diseases are present, although *S. mansoni* is always reported at significantly lower levels (5,9-13).

## Schistosomiasis in Guinea-Bissau [7]

Schistosomiasis infects around 1 in 4 people in Guinea-Bissau

11% of the population requires preventative chemotherapy for schistosomiasis

71% of the population that requires treatment are school aged children



## Overview of Guinea-Bissau [2]

- » Population in 2015: 1,726,170
- » Official Language: Portuguese
- » Capital: Bissau
- » Semi-Presidential Republic
- » Percentage of Population with Access to Improved Drinking Water in 2015: 79.3%
- » Percentage of Population with Access to Improved Sanitation in 2015: 20.8%

## Prevalence of Schistosomiasis in Guinea-Bissau

Since the 1950s, schistosomiasis prevalence estimates in Guinea-Bissau have hovered at around 20-30% (1,5,9-13). In the 1950s, several focal studies first revealed a mean prevalence rate of schistosomiasis around 29% countrywide (6). Prevalence rates are estimated to be as much as twice as high in women than in men; this is because women are in contact with standing water more often as a result of rice agriculture and domestic chores (14). In rice agriculture in Guinea-Bissau, men prepare the soil for rice, but women typically work the fields once the crop has been laid (4).

Schistosomiasis distribution follows the river systems of Guinea-Bissau - most notably in the valleys of the Cachey and Geba rivers (8) and is mostly prevalent inland - the waters close to the shores of Guinea are subject to saltwater intrusion, which is an unfavorable environment to the intermediate snail hosts (4).

## Control of Schistosomiasis in Guinea-Bissau

No national control efforts for schistosomiasis in Guinea-Bissau have been reported (7), and there are few data available in the literature on any historical control attempts (5). The only record of any schistosomiasis control comes from a report by the USAID Rice Production Project: the irrigation practices of the project were reevaluated in 1982 to counter schistosomiasis transmission patterns. However, the report concluded that the rice fields were not large contributors to schistosomiasis prevalence rates, since most cases were contracted in washing sites along the river system (4). The author based his conclusion on the distribution of schistosomiasis, observations of village life, and the design of the rice irrigation ditches (which supposedly filtered out any large particles).

## References

1. Rollinson D, Knopp S, Levitz S, Stothard JR, Tchuem Tchuenté LA, Garba A, et al. Time to set the agenda for schistosomiasis elimination. *Acta Trop* [Internet]. Elsevier B.V.; 2012 Nov [cited 2014 Nov 14];128(2):423-40. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/22580511>
2. CIA. The World Factbook - Guinea [Internet]. 2015. Available from: <https://www.cia.gov/library/publications/the-world-factbook/geos/pu.html>, Accessed 11 Oct. 2015
3. Guinea Country Profile [Internet]. BBC. 2015 [cited 2015 Oct 1]. Available from: <http://www.bbc.com/news/world-africa-13442051>
4. Schneider C. Bilharziose e malária na região da Guiné-Bissau Projecto de Produção de Arroz. Aurora Associates. 1982.
5. Mone H, Ibikounle M, Massougbodji A, Mouahid G. Human schistosomiasis in the Economic Community of West African States: epidemiology and control. *Adv Parasitol*. Elsevier; 2010;71(10):33-91.
6. Doumenge J, Mott K, Cheung C, Villenave D, Chapuis O, Perrin M, et al. Atlas of the global distribution of schistosomiasis [Internet]. Geneva, Switzerland: Presses Universitaires de Bordeaux; 1987 [cited 2015 Jan 8]. Available from: [http://www.who.int/schistosomiasis/epidemiology/Global\\_atlas\\_toc.pdf?ua=1](http://www.who.int/schistosomiasis/epidemiology/Global_atlas_toc.pdf?ua=1)
7. WHO. Guinea: Preventive Chemotherapy and Transmission Control - Department of Control of Neglected Tropical Diseases. 2010;1-6.
8. IAMAT. World Schistosomiasis Risk Chart. 2010;1-5.
9. Lai Y-S, Biedermann P, Ekpo UF, Garba A, Mathieu E, Midzi N, et al. Spatial distribution of schistosomiasis and treatment needs in sub-Saharan Africa: a systematic review and geostatistical analysis. *Lancet Infect Dis*. 2015;15(8):927-40.
10. Utroska, J.A., Chen, M.G., Dixon, H., Yoon, S., Helling-Borda, M., Hogerzeil, H.V., Mott KE. An Estimate of Global Needs for Praziquantel within Schistosomiasis Control Programmes [Internet]. [whqlibdoc.who.int](http://whqlibdoc.who.int). Geneva, Switzerland; [cited 2014 Dec 3]. Available from: [http://whqlibdoc.who.int/HQ/1989/WHO\\_SCHISTO\\_89.102\\_Rev1.pdf](http://whqlibdoc.who.int/HQ/1989/WHO_SCHISTO_89.102_Rev1.pdf)
11. Chitsulo L, Engels D, Montresor a., Savioli L. The global status of schistosomiasis and its control. *Acta Trop* [Internet]. 2000 Oct;77(1):41-51. Available from: <http://linkinghub.elsevier.com/retrieve/pii/S0001706X00001224>
12. Botelho MC, Machado A, Carvalho A, Valca M, Conceicao O, Alves H, et al. Urinary schistosomiasis in Guinea-Bissau. *Trop Med Int Heal*. 2015;20(1):239.
13. Iarotski LS, Davis A. The schistosomiasis problem in the world: Results of a WHO questionnaire survey. *Bull World Health Organ*. 1981;59(1):115-27.
14. Hughes CC, Hunter JM. THE ROLE OF TECHNOLOGICAL DEVELOPMENT IN PROMOTING DISEASE IN AFRICA. *The Careless Technology*. 1972. p. 69-104.