

Cameroon



The History of Schistosomiasis in Cameroon

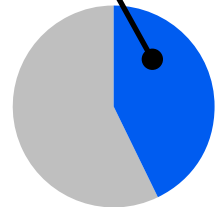
Over the first decade of the 21st century, prevalence of schistosomiasis disease in Cameroon saw a significant increase. In 1986, the first country-wide schistosomiasis prevalence estimate was published as 26.5% [1]. After a dramatic decline in the estimated prevalence during the following two decades, from 2003 to 2010 prevalence rates rose from an estimated 12% to 26% country-wide [2]. This trend is in large part due to a failure to develop a national plan for widespread drug administration in regions where the disease is highly endemic and little effort made to control populations of the intermediate snail host. The first epidemiological survey to assess the distribution of schistosomiasis and soil-transmitted helminthes (STH) in Cameroon was conducted between 1985 and 1987. The study showed widespread endemicity of *S. haematobium*, *S. mansoni*, and *S. guineensis* countrywide [3].

Schistosomiasis in Cameroon [5]

3.6 million children require annual treatment

43% of the population requires preventative chemotherapy for schistosomiasis

Control programs in Cameroon only reach 10% of its infected population.



Overview of Cameroon [6]

- » Population in 2015: 23,739,218
- » Official Languages: English and French
- » Capital: Yaoundé
- » Republic
- » Percentage of Population with Access to Improved Drinking Water in 2012: 74.1%
- » Percentage of Population with Access to Improved Sanitation in 2011: 45.2%

Schistosomiasis Distribution in Cameroon

The highest rates of transmission occur in the northern Savannah areas, where *S. haematobium* is highly endemic, especially within the Sahel regions. *S. mansoni* is also highly endemic in the northern regions, while *S. guineensis* is endemic in the Centre and Littoral regions of the south and southwest [4]. The distribution of *S. mansoni* and *S. guineensis* corresponds geographically with the Sanaga River basin, which is heavily altered by hydropower projects. In the north, *S. haematobium* distribution and hotspots may be influenced by proximity to Lake Chad and the Boueme river system on which the Logdo Dam is built. Further hydropower projects are planned on the Boueme.



Where Disease Lurks [7]

Schistosomiasis is endemic to the Sanaga River basin, part of which is shown above. Damming and irrigation along the river systems of Cameroon has created optimal conditions for schistosomiasis outbreaks.

Control Programs in Cameroon

A national plan for the control of schistosomiasis and soil transmitted helminths (STH) was developed in 2004. The program began with a limited budget, but national and international partners, including significant aid from USAID's Neglected Tropical Diseases Control Program, generated enough support for countrywide deworming coverage of all ten geographical regions in Cameroon by 2007 [3]. Although the campaign successfully reached children annually since 2007, the focus has been addressing STH infection through deworming chemotherapy with mebendazole, and praziquantel administration has been limited only to high schistosomiasis transmission foci [3]. Overall praziquantel administration coverage in 2010 was estimated at only 6% [2].

References

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2. Rollinson, D. *et al.* Time to set the agenda for schistosomiasis elimination. *Acta Trop.* **128**, 423-440 (2013).
3. Tchuem Tchuente, L. A. *et al.* Mapping of schistosomiasis and soil-transmitted helminthiasis in the regions of Littoral, North-West, South and South-West Cameroon and recommendations for treatment. *BMC Infect Dis* **13**, 602 (2013).
4. *IAMAT World Schistosomiasis Risk Chart.* 1-5 (2012).
5. WHO. PCT Databank for Schistosomiasis. at <http://www.who.int/neglected_diseases/preventive_chemotherapy/sch/en/>
6. Central Intelligence Agency. (2014). Cameroon. In *The World Factbook.* at <<https://www.cia.gov/library/publications/the-world-factbook/geos/cm.html>>
7. Bamenjing Reservoir, Cameroon, Africa on 2-5-2001 taken by Landsat-7. By NASA Goddard Space Flight Center via Wikimedia Commons.

Further mapping of schistosomiasis distribution in snail and human populations is needed to better understand the true state of disease prevalence and endemicity and to create an appropriate integrated national control strategy.