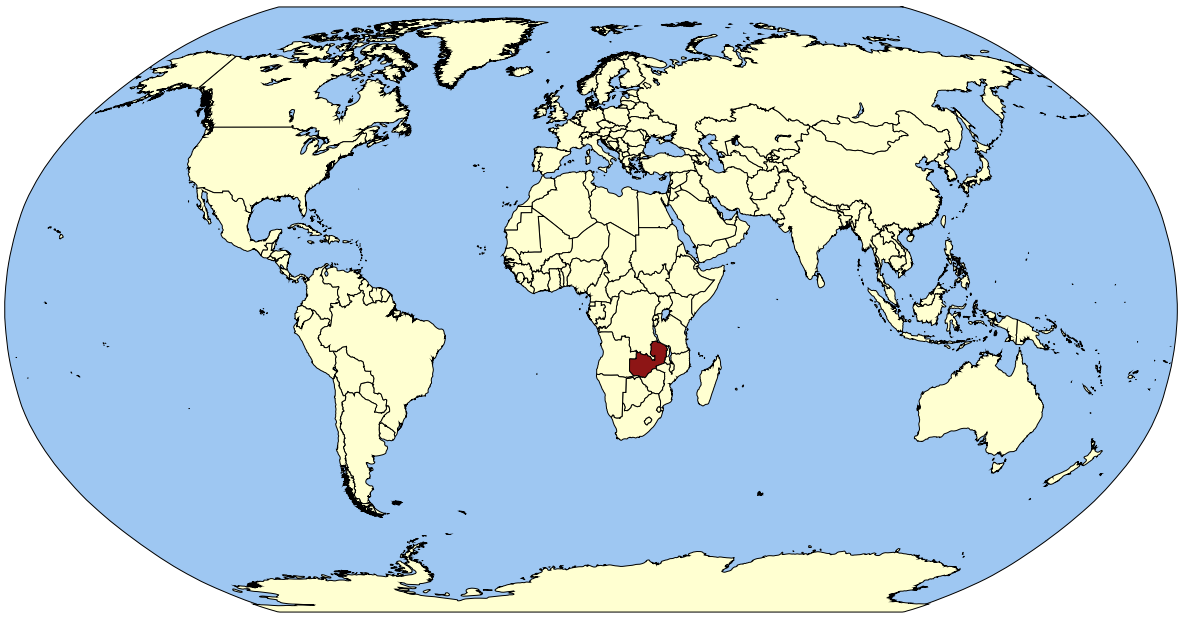
Zambia



The History of Schistosomiasis in Zambia

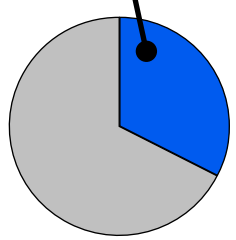
Zambia is a landlocked country in Africa, with a southern border formed by the Zambezi River and its reservoir above the Kariba dam, Lake Kariba [1]. The Lake Kariba reservoir, the largest in the world by water volume, also forms Zimbabwe's northern border with Zambia, and as a result, the two countries share a problem of Schistosoma mansoni transmission concentrated around the lake[2]. S. haematobium is more common and widespread than S. mansoni throughout Zambia and has been prevalent in all provinces of the country [3, 4].

Schistosomiasis records in Zambia date back at least to the mid 19th century when the missionary explorer, David Livingstone, died in swamps south of Lake Bangweulu in Zambia - possibly of hemorrhage as a sequella to schistosome (and/or other parasitic) infections [5]. During the 20th century Zambia and the Zambezi River have been sites of numerous studies about, but little coordinated control for, schistosomiasis [2, 3, 6-16]. The first officially-recorded case of schistosomiasis in Zambia was in 1908 [4]. The most recent estimate of schistosomiasis prevalence in Zambia places the country at 22.1% nationwide in 2012 [17]. 1995, 26.6% in 2003, and 27.9% in 2010.

Schistosomiasis in Zambia [22]

Almost half a million people required treatment in 2014

32.7% of the population requires preventative chemotherapy for schistosomiasis



In 2014, 48.4% of the population requiring preventative chemotherapy were school-aged children

Overview of Zambia [1]

- Population in 2015: 15,066,266
- Official Language: English
- Capital: Lusaka
- Presidential Republic
- Percentage of Population with Access to Improved Drinking Water in 2015: 65.4%
- Percentage of Population with Access to Improved Sanitation in 2015: 43.9%

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History continued..

This has hardly changed from estimates from the last few decades of 26.5% in 1986; 25.5% in 1995, 26.6% in 2003, and 27.9% in 2010. [18-20]

Schistosomiasis Control in Zambia

The first National Plan of Action for schistosomiasis control in Zambia was initiated in 1998, but it wasn't until the year 2000 that the Zambian government's School Health and Nutrition program distributed praziquantel as part of their integrated anti-helminthic and education campaigns in government schools[3]. Roll out of praziquantel distribution was relatively slow in the Zambian School Health and Nutrition program. It is unclear how many children were treated with praziquantel in the first five years. The aims of this program were multifaceted and included many more goals than just schistosomiasis control, such as HIV/AIDS education, gender issues, water and sanitation, and treatment of soil-transmitted helminthes [3].

From 2004 to 2005, theZambian Bilharzia Control Programme (ZBCP) spun off the School Health and Nutrition program as a partnership between the Schistosomiasis Control Initiative (SCI, funded by the Bill & Melinda Gates Foundation), the Zambian Government, and the World Health Organization (WHO), with the new goal of treating 75% of school-aged children and reaching all communities with >50% prevalence via praziquantel-based mass drug administration (MDA) campaigns. An SCI report to the B&M Gates Foundation in 2011, explains that despite lofty goals, implementation in Zambia fell short of expectations, mainly due to poor communication and lack of buy-in from the centralleadership at the ZBCP and from district health teams [21]. Following these initial efforts, SCI backed drug administrations during 2005-6 and 2010, but the programs reached less than 5% of the population in need each year, according to WHO records [3, 22].

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