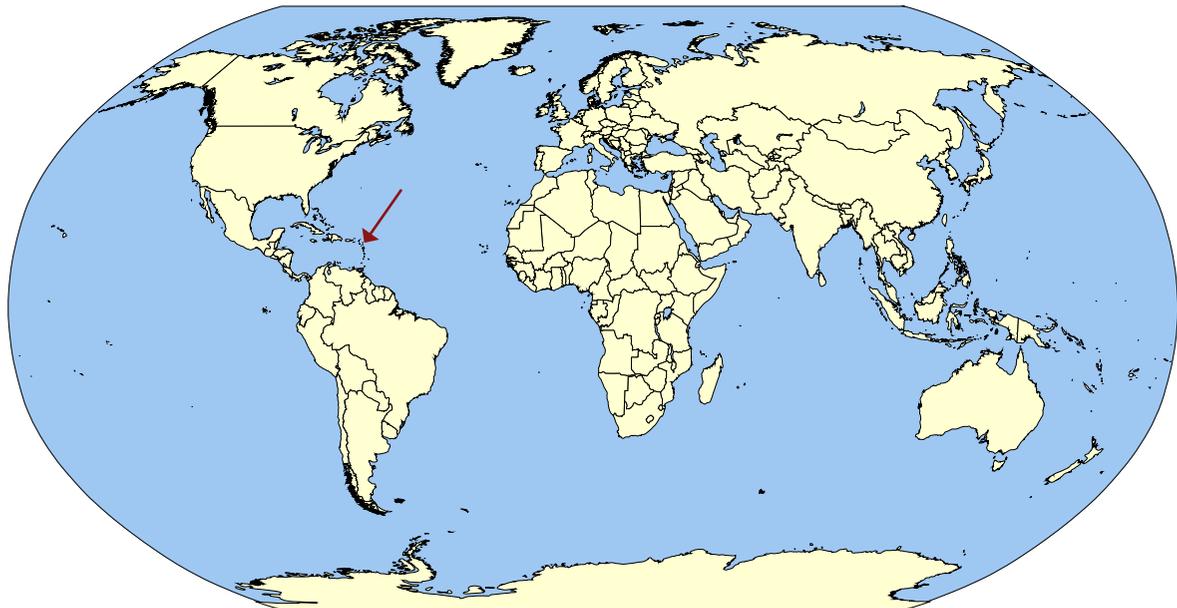


Antigua



The History of Schistosomiasis in Antigua

On the small Caribbean island of Antigua, *Schistosoma mansoni*, along with its host snail *Biomphalaria glabrata*, have historically only been found around Body Pond and Bendal's Stream. These water bodies are located in a dammed complex in the northwest of the island just outside the heavily populated capital of St. Johns, and their watershed is occupies about 10% of the island's 281 km². Body Pond is one of over 500 ponds on the island [1]. The first scientific records of *S. mansoni* come from 1923, when 18% of patients from St. Johns tested positive for the disease [2]. A 1932 report recorded 60% prevalence in a village bordering the water-collecting area of infested water bodies [2]. No reports of schistosomiasis occurred from 1968 to 1980 [2]. Wright, however, generously estimated 3,000 individuals 'exposed' and 500 infected with the disease out of a total Antiguan population of about 63,000 (for Antigua and Barbuda) in 1968, although he also reported that "the disease is probably on the verge of spontaneous disappearance in Antigua" [3].

Schistosomiasis in Antigua [8]

Schistosomiasis cases in Antigua were restricted to **two water bodies**

Schistosomiasis **eliminated**

Unintended biological control from **competitor snails** helped eradicate schistosomiasis

Overview of Antigua [9]

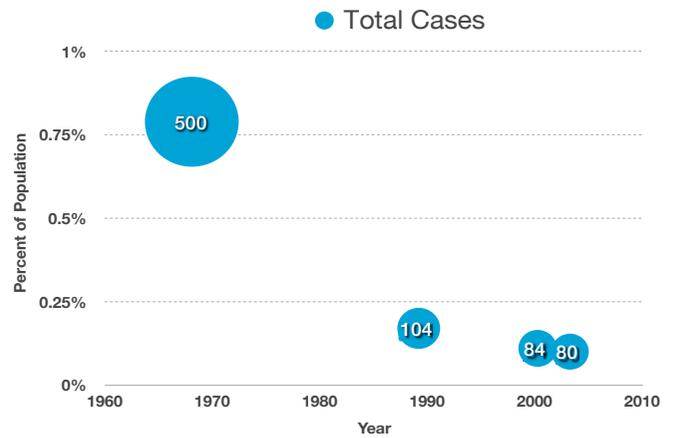
- » Population in 2015: 92,436
- » Official Language: English
- » Capital: Saint John's
- » Constitutional Monarchy
- » Percentage of Population with Access to Improved Drinking Water in 2012: 97.9%
- » Percentage of Population with Access to Improved Sanitation in 2011: 91.4%

Schistosomiasis Control in Antigua

A 1977 survey showed the vector snail *B. glabrata* to be abundant throughout the island, but reported limited human contact with the water reservoirs that harbored the snail vector [2]. As of 1980, there were no longer any permanently flowing bodies of water on the island due to water impoundment projects, like the Hamilton Dam and Breknocks No.2 Dam near Body Pond [2]. Seeing that these reservoirs helped provide water to the surrounding households, it is very likely that human contact with infested bodies was limited to recreational purposes rather than everyday necessity [2], and that transmission was interrupted as humans were removed from the cycle. In 1980, the snail *Tarebia granifera* was found on Antigua for the first time [4] This snail has been shown to displace *B. glabrata* on numerous Caribbean islands and may have contributed to the reduction in schistosomiasis.

Successful Elimination

In 1989, an estimated 104 people were infected out of a total island population of 62,000 (for Antigua and Barbuda) [5], and 84 infections out of a total population of 78,000 (for Antigua and Barbuda) were estimated in 2000 [6]. A 0.1% prevalence was reported in 2003 [7]. However, it seems that schistosomiasis is no longer of public health relevance in Antigua, for unknown reasons. There were no coordinated control programs on record, although the timing of the disappearance coincides with the reduced cost and worldwide availability of the drug praziquantel starting in the 1980's and 1990's. The WHO reported no cases from the island between 1991 and 2012, and in 2010 the disease was 'nonendemic' [7,8].



Disease Prevalence in Antigua

Schistosomiasis disease prevalence has decreased in Antigua as both the total number of cases and a percentage of the population.

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