



SCHISTOSOMIASIS CONTROL PROGRAM

What is schistosomiasis?

Schistosomiasis, also known as *bilharziasis* or “snail fever,” is a waterborne parasitic infection that damages internal organs, with the most common symptom being blood in urine and/or feces and an enlarged liver. It most commonly affects the health of school-age children.

There are two forms of schistosomiasis: urinary and intestinal.

An infection with schistosomiasis results in anemia, stunted growth and development of children, chronic debility, and sometimes premature death.



How do you get schistosomiasis?

The parasite, which is called a schistosome, is a trematode worm. Schistosomes are acquired by contact with freshwater, such as ponds, dams, and stagnant rivers. During its larval stage, the parasite emerges from infected snails and swims in water until it can penetrate the skin of people in contact with the water. Once in the body, the larvae develop into adult male and female parasites, which pair and live together in human blood vessels in the intestines, liver, and bladder for years. The female parasites release thousands of eggs, some of which are passed out in the urine (in the case of urinary schistosomiasis) or feces (in the case of intestinal schistosomiasis), but some eggs remain trapped in body tissues.

Schistosoma haematobium (urinary schistosomiasis) damages the bladder and kidneys, which causes painful urination, blood in the urine, and abdominal pain.

Schistosoma mansoni (intestinal schistosomiasis) damages the intestines and liver, resulting in abdominal pain, fever, and rectal bleeding.

People living in poor rural areas with little or no access to sanitation or safe water supply are at greatest risk for schistosomiasis.

The majority of schistosomiasis infections occur among children ages 5–14, because they are traditionally responsible for water-related household chores in endemic countries and because they like to spend their free time swimming. Children also shoulder the majority of

schistosomiasis’s consequences, especially poor growth and impaired cognitive function.

How widespread is the problem?

Schistosomiasis is the second most prevalent and socio-economically devastating parasitic disease in tropical countries after malaria.

The disease is endemic to 74 countries in Africa, South America, and Asia, where approximately 200 million people are infected. Nigeria is thought have the greatest number of people infected with schistosomiasis in the world.

For communities already burdened by poverty and ravaged by scourges such as malaria and tuberculosis, schistosomiasis is especially devastating—weakening the body’s resistance to other infections and preventing children from reaching their full potential.

How is the disease treated?

The drug praziquantel, which costs US 18 cents per treatment, can reverse up to 90 percent of the damage caused by the parasites.

Worldwide, more than 500 million tablets are estimated to be needed every year to treat schistosomiasis.

What is the Carter Center’s role in schistosomiasis control and prevention?

Since 1999, the Carter Center-assisted program has been the largest initiative working in Nigeria to prevent and treat

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schistosomiasis through health education campaigns and the distribution of praziquantel in Delta, Nasarawa, Edo, and Plateau states.

In 2009, the World Health Organization and Merck KGaA (Germany) made a historic donation of 1.5 million praziquantel tablets to The Carter Center. The donation greatly expanded the program's reach and was awarded in recognition of the Center's dramatic growth of distribution activities to accommodate WHO/ Merck KGaA's 2008 donation of

1.1 million praziquantel tablets—greater than the cumulative output of the program from 1996 to 2007. Through generous contributions of many additional partners, The Carter Center has continued to deliver treatments to more than 1 million people (mostly children) annually in program areas. As a result of these efforts, millions of Nigerians are now benefitting from schistosomiasis treatment.

For example, blood in schoolchildren's urine—a tell-tale sign of schistoso-

miasis infection—has been reduced by approximately 94 percent in Plateau and Nasarawa states and approximately 88 percent in Delta state.

The Carter Center and its partners are pioneering opportunities to use one community-based health education and drug distribution system that can support the control—or even elimination—of multiple diseases. For example, in program areas of Nigeria, lymphatic filariasis, schistosomiasis, and river blindness interventions are being integrated.