With over 100 million people in Africa and Latin America at risk for contracting river blindness, addressing this disease serves as one of the Carter Center’s main priorities. The River Blindness Elimination Program aims to focus intervention efforts toward eliminating this condition once and for all.

River blindness (RB), also known as onchocerciasis, is a parasitic infection spread through the bites of black flies of the *Simulium* species. As the name of the disease indicates, these flies typically are found near fast-flowing rivers and streams. When the parasites in the body die, they trigger an immune reaction that causes severe itching. Over time, this results in the skin losing its elasticity and becoming wrinkled, later losing its color, a condition known as leopard skin. The dead worms also cause lesions in the eye, resulting in vision impairment or blindness.

In 2001, the Carter Center began working with the Lions Clubs International Foundation in the SightFirst Initiative supporting the Ethiopia Federal Ministry of Health’s effort to eliminate this disease.

Ethiopia declared in 2012 a national policy of river blindness elimination by 2020—only the third African country to do so. Elimination means reducing incidence of a disease to zero, rather than merely trying to keep it under control—a major undertaking.

Emily Griswold, associate director of the Carter Center’s River Blindness Elimination Program, believes that to accomplish disease elimination, “you have to start with knowing where the problem is, what tools you have available, and how these tools can be used.”

The main strategy for eliminating RB is treatment with ivermectin, an effective antiparasitic medication, at least twice a year. Ivermectin kills the parasites in the human body in the early larval stage, so that there are no parasites for black flies to pass from person to person, interrupting transmission of the disease. Merck, one of the largest pharmaceutical companies in the world, donates the ivermectin used in the program. The Carter Center facilitates distribution of the drug and education of affected communities by working with local and national health services.
From the River Blindness Elimination Program’s inception, senior program epidemiologist Dr. Moses Katabarwa and his colleagues from endemic African countries helped to develop a community-based, grass-roots approach to treat RB. Through this locally focused method, community members are educated to take responsibility for the distribution of the medication and report back to the nearest health facility. The Carter Center, in partnership with key individuals from local health services, trains health extension workers, who later train medicine distributors selected by their own communities. These teams then mobilize and educate their communities about the disease and how it is treated. Dr. Katabarwa said he hopes this work “has helped to truly empower these community members.”

The current strategy in Ethiopia is to conduct mass drug distribution twice a year. Last year, more than 15 million treatments were delivered in areas where the Lions and The Carter Center work, and more than 17 million treatments are projected for 2016.

Since 2001, the Carter Center has seen a significant reduction in the incidence of RB. The Ethiopia Federal Ministry of Health holds a technical advisory committee meeting each year to assess the disease’s status and evaluate strategies. This technical committee has established parameters for river blindness elimination based on World Health Organization guidelines. WHO ultimately verifies whether a disease has been eliminated.

The Carter Center also helped establish a national molecular laboratory at the Ethiopia Public Health Institute to analyze samples and provide data to the technical advisory committee.

Although Ethiopia has made major progress toward river blindness elimination, a great deal of work remains to be done to identify all the places where the disease exists or may exist. Another remaining challenge is transmission of RB across Ethiopia’s borders with Sudan and South Sudan. The three nations will need to work together operationally, support each other technically, and share information promptly to achieve elimination.

But in addition to the challenges, there are opportunities. As it continues to stimulate international cooperation, success against river blindness could help lay a foundation for political peace that has been elusive in the region.

Furthermore, Ethiopia has actively promoted women’s involvement in health activities. The government uses a grass-roots structure, known as the Health Development Army, in which one volunteer distributor is expected to serve five families (about 30 individuals). This “army” is supported by trained, government-employed health extension workers. Almost all health extension workers are women, as are about half of drug distributors. This policy has raised the role of women within their communities in a number of positive ways.

The Carter Center’s community-based River Blindness Elimination Program has made tremendous progress in Ethiopia. The goal of elimination by 2020 may seem optimistic, but Ethiopia’s achievements and enthusiasm will be a good example to other countries. For The Carter Center, eliminating river blindness is part of its mission to wage peace, fight disease, and build hope.