Creating Chemistry: What have been the biggest challenges in combating Guinea worm disease?

President Jimmy Carter: The lack of attention from the rich world. The first thing is for the rich world to be generous. The second challenge is that the people who have these diseases, living in the most isolated communities, have very little communication with their central governments, or access to the media.

Dr. Donald R. Hopkins: Early on – internationally and in the endemic countries – we had to contend with a lack of knowledge about Guinea worm disease and with apathy. Now, I'd say, the biggest challenges are the insecurity situations. We've got insecurity in four of the endemic countries, meaning helpers can not safely travel to these areas in Mali and some parts of Ethiopia, Chad and South Sudan.

Are there any moments that have been marker points for you?

Hopkins: Absolutely. One of the most striking, looking back, was in February 2007 when I went with President Carter to Ghana, to the northern town of Savieke where they had an explosion of cases of Guinea worm disease. So we went up to this epicenter and there were at least 200 kids there crying, including infants, having their worms extracted – rolled up out of their bodies. It was just terrible to see. That was the worst moment that I can recall in the Guinea worm fight. Some of the good moments have just been going into villages and seeing how people, in all of their material poverty, are so spiritually rich and so caring. I drew energy away from this.

Carter: We've had very difficult problems in some countries. For instance in Ghana, we had Guinea worm down to just a few hundred cases. Then the government changed from Jerry Rawlings administration which had addressed the disease as a top priority. This new government didn't want to address it, which prevented their making progress for five or six years. But eventually they did, then very quickly did it away with the disease in one area after another.

Hopkins: We have seen the benefits of being very active in helping to raise money and in-kind donations, with the insecticide Abate® buying the first big contribution in 1989. And he has been able to mobilize people, not just leaders at the international level, but also at the village level, as he goes to visits, meets heads of state and ministers of health, as well as calling or writing them, and he gets his results. Mrs. Carter has been also very active, visiting the villages. Since President Carter is 17 years older than me, I have no basis for complaining of being too old or anything like that! He's constantly saying, “Why don't you can call me Mr.?"

What are your key goals for the coming years?

Hopkins: First, finish up with Guinea worm globally. Second, finish up with river blindness in the Americas and help promote the idea of eradicating it in Africa – which is now appearing more and more possible. So, there’s plenty to do.

How long do you think it will be before Guinea worm disease is eradicated and how will you rank that among your life’s achievements?

Carter: We think within two years we will be through with Guinea worm eradication would be one of the most gratifying things in my life, because it has affected so many people. It’s been one of the most challenging and long-lasting efforts I’ve ever made, I’d say it would even be equal to the Equal-Israel Peace Treaty of 1979.

A former U.S. President Jimmy Carter tries to comfort a 5-year-old girl at a hospital in Ghana as a Carter Center volunteer dresses her extremely painful Guinea worm wound.

Rooting out the kissing bug

How BASF is helping to control the insect that spreads Chagas disease

The “kissing bug” sounds harmless enough, but it is an insect whose bite can be dangerous, if not deadly. That is because it carries with it the parasite that causes Chagas disease that starts with swelling of the eyelids, fever and fatigue, but can lead to malnourishment, cardiac disorders and even heart failure. It is considered primarily to be a disease of poverty, but there have also been significant numbers of cases in Europe and the United States, caused by travel and blood transfusion.

Chagas disease – to give it its scientific name – is endemic in many areas in Latin America, where it is also known as “Vitiligo.” WHO estimates that 8 million people are affected by it. One example is Chaco, a province in the remote north east of Argentina. Here, the small town of Concepcion del Barnejo is home to around 10,000 people, many of whom live in extreme poverty with inadequate access to clean water, healthcare, education and decent housing. The incidence of Chagas has been high among adults and children, with many of the roughly 170 rural dwellings and a large number of the 1,300 urban homes infected by the blood-sucking insects.

Since 2012, BASF Argentina has been committed to the community-based project “Vamos por nuestro país” (Let’s go for our country) in the area. In cooperation with the National Chagas Disease Program of the Argentine Ministry of Health, the project utilizes BASF’s existing knowledge and state-of-the-art technology to help control, monitor and treat the disease. “Vamos por nuestro país” is different from other programs because it is sensitive to the needs of the people affected, and it is “one else meets those needs,” explains Marcelo Hoyos, technical marketing manager for BASF’s education as the basis for improving the quality of life. But the battle has only just begun.

Left: Carter Center Vice President for Health Programs Dr. Donald R. Hopkins shows children in a village in South Sudan, where Guinea worm is endemic, how aiprofiler should be used in order to prevent infection.

Right: One of the many projects that BASF is supporting in order to better control Chagas disease in the Americas.