

Jimmy Carter

On Ridding the Planet of Disease

When President Jimmy Carter set out to eradicate guinea worm disease 30 years ago, it afflicted 3.5 million people in rural Asia and Africa. In 2014, that number had dropped to 126. The parasite, spread via stagnant water, grows and breeds in a person's body cavity before burrowing out of its host, causing tremendous pain. Guinea worm is on track to join smallpox as the second human disease ever to be expunged. The Carter Center's coup proves that, even without vaccines or treatments, we can wipe certain illnesses off the Earth. Today's faster, cheaper genomics will only hasten the elimination of future targets.



The biggest challenge in eradicating diseases is simply implementing what we already know. With guinea worm, you have to tell people to pour their drinking water through a filter cloth. But a lot of people with the parasite 30 years ago didn't have radios and couldn't read. It took two or three interpreters to get the information across. Now, even in poor countries cellphones are making that easier.

Sometimes misinterpreted science or politics cause setbacks. In 2003, states in Nigeria blocked us from giving polio vaccines. But when a three-foot worm is coming out of your face or sexual organs, it attracts attention. Guinea worm existed in 23,735 villages when we started. We've been to all of them. Now, for each person who has it, we know their name and how they got it. We're making sure it doesn't spread so that it might be completely gone in a few years.

What we did with guinea worm is replicable. We've now gotten rid of river blindness in six countries in the Americas. If our task force determines it can be eliminated from the entire world, that will be our next major effort." AS TOLD TO JEN SCHWARTZ

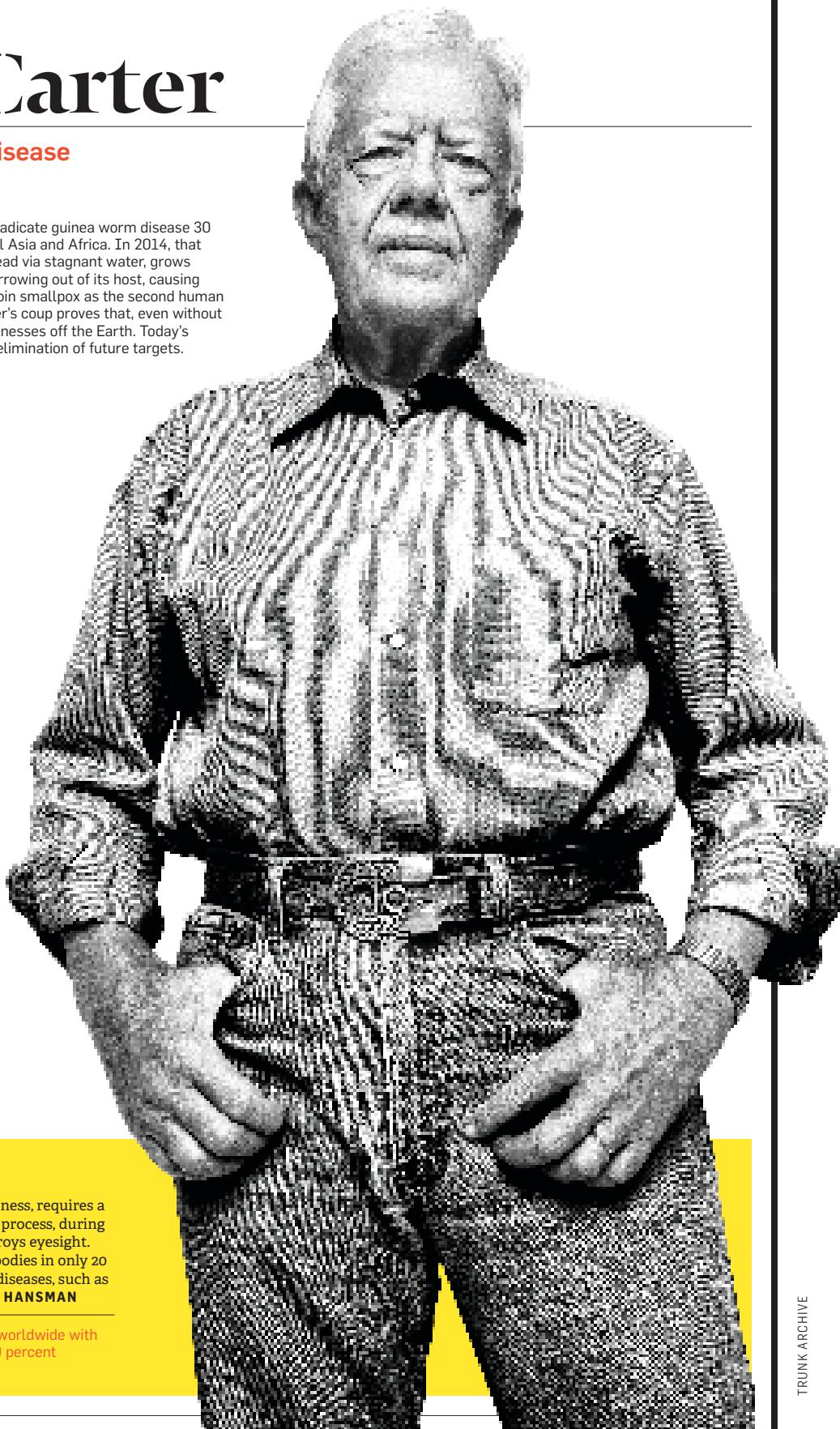
Up Next: River Blindness

Diagnosing *onchocerciasis*, or river blindness, requires a painful skin sample that takes months to process, during which time the parasite spreads and destroys eyesight.

But a new blood test detects disease antibodies in only 20 minutes. Similar tests for other parasitic diseases, such as elephantiasis, are in the works. **HEATHER HANSMAN**

25 MILLION

Number of people worldwide with river blindness—99 percent of them in Africa



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