As dengue fever victims in Brazil tops 16 million, GM mosquito trial offers hope

Dengue fever is so excruciating that it is often called the “bone breaker,” causing severe pain in the joints and abdomen, vomiting, and circulatory system failure. It’s nearly impossible to treat, so the only way to cut down on incidences of the disease is to decrease the number of mosquitoes that carry it. One startling effective way to do that: genetically modifying mosquitos so their offspring won’t survive. A year-long trial with genetically modified mosquitoes in northeast Brazil has been the most successful yet, reducing the population of the disease-carrying insects by 95 percent, according to a study published last week in *PLOS Neglected Tropical Diseases*.

The British biotech company Oxitec has been developing a unique form of pest control for over a decade. Since dengue is primarily spread through the mosquito species Aedes aegypti, Oxitec has engineered a male mosquito that, to female mosquitoes in the wild, looks just like the usual males. However, when the mosquitoes mate, their young carry a mutation that kills them before they’re able to reproduce or transmit the disease.

Juazeiro, a city in northeast Brazil, was a great place to try them out. After it was wiped out for 20 years, dengue has been on the rise in Brazil, with an estimated 16 million new cases every year. The neighborhood in which the researchers tested the modified mosquitoes was a low-income area with high rates of dengue infection, according to local public health officials. The researchers hope to scale up their efforts to eradicate dengue and the insects that carry it in a larger area.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: Genetically Modified Mosquitos Massively Reduce Dengue Fever Risk