

Officials: aerial spraying working against Miami mosquitoes

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Aedes aegypti mosquito, which may carry the Zika virus or dengue fever. Photo courtesy CDC.

(HealthDay)—Aerial spraying is killing many mosquitoes in a part of Miami where the insects have been linked to 15 cases of Zika infection, the head of the U.S. Centers for Disease Control and Prevention says.

Aerial spraying of the insecticide naled began Thursday and rapidly killed adult mosquitoes that ground-applied pesticides could not reach, according to Dr. Tom Frieden, the *Associated Press* reported.

The Zika infections in Miami are limited to a 500-square-foot area in the Wynwood neighborhood, according to Frieden. Florida Gov. Rick Scott said active infections have been halted in a 10-block area of the district, the news service reported.

There's no evidence that mosquitoes are transmitting Zika, which can cause devastating birth defects, in any other areas of Miami, the Florida Department of Health said.

Federal health officials have said repeatedly that they expect to see Zika infections in the United States this summer, particularly in hot, humid states like Florida, Louisiana and Texas.

Most Zika infections have occurred in Latin America and the Caribbean. Brazil has reported the vast majority of cases and the birth defect microcephaly, which causes babies to be born with abnormally small heads and malformed brains.

U.S. officials said they don't expect to see a Zika epidemic in the United States similar to those in Latin America. The reason: better insect control as well as window screens and air conditioning that should help curtail any outbreaks.

There is no vaccine yet or treatment for [infection](#) with Zika virus. Most people only experience mild symptoms.

The reports of insecticide success in Miami were the second bit of good news on the Zika front in the United States this week.

On Wednesday, U.S. health officials announced that a potential vaccine for the Zika virus had entered early clinical trials to assess its safety in humans.

The DNA-based vaccine contains genetic pieces of the Zika virus. It is intended to trigger an immune response that would protect against the mosquito-borne virus, according to a statement from the U.S. National Institute of Allergy and Infectious Diseases (NIAID).

"DNA or gene-based vaccines induce antibodies, but they also can activate the cell-mediated immune response, which ultimately could yield strong and durable protection against disease," Dr. John Mascola, director of NIAID's Vaccine Research Center, said in the statement.

At least 80 healthy volunteers aged 18 to 35 will receive doses of the vaccine on differing schedules as part of a phase 1 clinical trial, the agency said.

NIAID Director Dr. Anthony Fauci said, "Although it will take some time before a vaccine against Zika is commercially available, the launch of this study is an important step forward."

The CDC is urging pregnant women and their partners to stay away from Miami's Wynwood neighborhood—the first time the CDC has ever warned against travel to an American neighborhood for fear of an infectious disease.

Mosquito-control efforts in Wynwood have been difficult because it's a mixed-use area, where industrial sites are located next to a blend of residences and businesses, Frieden said earlier this week.

Aedes mosquitoes feed primarily on human blood, and tend to breed in small pools of water found in local neighborhoods.

The mosquitoes have a short travel range, and Florida officials are describing the infections as a "small case cluster" that do not indicate widespread transmission.

"The *Aedes aegypti* mosquito does not travel more than 150 meters in its lifetime, and often quite a bit less than that," Frieden said.

So far, the nearly 1,700 Zika infections reported in the United States mainly have been linked to travel to countries with Zika outbreaks in Latin America or the Caribbean.

In addition to mosquitoes, the Zika virus can be transmitted through sex. The CDC has reported 14 cases of [sexually transmitted infections](#). These infections are thought to have occurred because the patients' partners had traveled to countries where Zika is circulating, the CDC said.

The CDC advises pregnant women not to travel to an area where active Zika transmission is ongoing, and to use insect repellent and wear long pants and long-sleeved shirts if they are in those areas. Partners of [pregnant women](#) are advised to use a condom to guard against sexual transmission during pregnancy.

More information: The U.S. Centers for Disease Control and Prevention provides more information on [mosquito-borne diseases](#).

This Q & A will tell you [what you need to know about Zika](#).

To see the CDC list of sites where Zika virus is active and may pose a threat to pregnant women, click [here](#).

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