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Professor weighs in on Zika outbreak

World health emergency, but it's little threat in NY

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An international public health emergency was declared Monday by the World Health Organization in response to the "explosive spread" of the Zika virus.

While the Zika virus has rapidly spread through parts of South and Central America, there is little chance the virus will be a threat to New Yorkers, said Ithaca College professor David Gondek, who is a microbiologist and immunologist, with a background in infectious diseases.

People in 23 countries have become infected with the mosquito-borne virus, which has generally mild symptoms, but is suspected to cause a severe birth defect, microcephaly, in infants. WHO estimates there could be up to 4 million cases of Zika in the Americas in the next year, the Associated Press reported.

WHO director Margaret Chan declared Monday that "the recent cluster of microcephaly and other neurological abnormalities reported in Latin America following a similar cluster in French Polynesia in 2014 constitutes a public health emergency of international concern."

While some Americans have contracted Zika by visiting infected countries, Americans largely do not have to worry about the virus spreading so rapidly here, Gondek said.

The first human Zika infection was around 1952, and for many years it was a sporadic disease found around Africa, Gondek said. In 2007, it spread to the Pacific Islands, and in 2015 it hit South America, Gondek said, where it has "exploded" in the past year. The virus has also spread north to Central America and Puerto Rico.

The virus is spread by two types of Aedes mosquitoes. In the U.S., *Aedes aegypti* are common throughout southeastern states, and *Aedes albopictus* spread as far as Canada on the East Coast.

"Should it get to the U.S., there is potential that it could bloom and spread. Right now, being in the middle of winter, we have absolutely nothing to worry about. There are no mosquitoes," Gondek said.

If the virus does get to the southern U.S., Gondek said it is still unlikely to spread as fast because of things like air conditioning, screens and insect repellent. Gondek said other diseases, also spread by mosquito, have not become much of a problem in the U.S.

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KELSEY O'CONNOR / STAFF PHOTO

David Gondek, assistant professor of biology at Ithaca College.

Zika

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"For example, Dengue [fever] and Chikungunya, these are spread by the exact same mosquitoes, they've been around for decades, they still haven't really gotten into the U.S. for those reasons. So it will probably take Zika the same amount of time," Gondek said.

State health officials said Monday that despite the mosquito that carries Zika not being found in New York, officials will still test related mosquitoes in New York City, Long Island and the lower Hudson Valley in the spring, the Associated Press reported. There are nine confirmed cases of Zika in New York, according to the health department.

The virus is carried in the blood and spreads from mosquito to human to mosquito, Gondek said, not human to human unless a person comes into contact with bodily fluids. The virus also goes mother to child, and many are linking the virus to microcephaly, a condition when a baby's head is smaller than average.

"One of the big things that we need to disassociate here is causation and correlation. A lot of people are reporting that this virus causes microcephaly, that's not actually true," Gondek said. "There is currently a viral outbreak and there is currently a significant increase in microcephaly that's being reported. The reason there is a significant increase in microcephaly is because people are now aware of it and they're casting a wide net, and they're looking for more and more cases."

Right now, there is no data that says the Zika virus causes microcephaly, Gondek said. "We will probably, eventually get the data that says this causes that, but at this point, that's just correlation and causation."

There is currently no treatment for Zika. For most, the disease causes mild, flu-like symptoms including fever, rash, joint pain and conjunctivitis or red eyes. The infection stays in the blood for five to seven days. Developing a vaccine will likely take years, Gondek said.

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