

### Top-3 Facts.

- Zika is spread mostly by the bite of an infected Aedes species mosquito (Ae. aegypti and Ae. albopictus) which are aggressive daytime biters. They can also bite at night.
- Zika can be passed from a pregnant woman to her fetus. Infection during pregnancy can cause certain birth defects.
- There is no vaccine or medicine for Zika.

More here: <http://www.cdc.gov/zika/about/index.html>

### Additional Information.

- [Zika Has Made Its Way To Florida Mosquitoes](#)
- [Five Enduring Questions About Zika](#)
- [Potential Zika Virus Risk Estimated For 50 U.S. Cities](#)
- [Maps of Zika in the United States](#)
- [Daily Florida Zika virus tracker](#)

### How Big, Really, Is The Zika Outbreak In Florida?

As expected, the Zika outbreak in Florida is growing — though how fast is still difficult to say.

State and federal health officials say mosquitoes are spreading Zika in two neighborhoods of Miami, including Miami Beach. The Centers for Disease Control and Prevention told pregnant women Friday not to go into these neighborhoods — and to consider postponing travel to all parts of Miami-Dade County.

Just 37 people have been reported to have caught the virus in these neighborhoods so far.

But many scientists are concerned that the outbreak in Florida may be larger and more widespread than the number of cases suggests. "Zika is one of those diseases that is always like an iceberg — you just see the tip," says Alessandro Vespignani, a computer scientist at Northeastern University in Boston, who has been tasked with modeling the spread of the virus.

Most people who get Zika don't even know they have it, Vespignani explains. About 4 in 5 people don't have any symptoms, he says. And those who do get sick often have only mild symptoms that could be confused with the flu. So only about 5 percent of cases get detected, Vespignani has found.

To get better estimates of the number of silent infections in Miami and beyond, Vespignani and his colleagues built computer models that estimate how the virus is likely to spread. "We estimate there will be 395 infected people by Sept. 15 [in Florida]," says Ira Longini, a biostatistician at the University of Florida, who collaborates with Vespignani.

About 80 of those people will show symptoms, Longini estimates. And about eight pregnant women are likely to get infected during their first trimester — which would put their fetuses at risk for microcephaly. The number of Zika cases in Florida will very likely continue to rise until October or November, when cooler weather stops the mosquitoes, Longini says, though a number of variables could speed the spread before that.

"For example, on Monday the University of Florida opens its first day of classes," he says. "Tens of thousands of students will be coming from the Miami area, as well as from all over Latin America. So we could see a burst of cases by mid-September here in Gainesville."

Because of these uncertainties, many doctors around the country are recommending that their pregnant patients — and those trying to get pregnant — not travel to southern Florida.

And Florida isn't the only place in the continental U.S. at risk. Longini has used the computer models to predict where Zika could show up next in the States. He says the big concern is Texas — which has roughly a 25 percent chance of having a small outbreak in the next month, according to the models.

"I would not be surprised if we see cases in Texas and Louisiana," Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, told ABC News Sunday, citing the flooding in Louisiana as something Zika watchers will be keeping an eye on.

"There's going to be a lot of problems getting rid of standing water [there]," Fauci says — puddles where Zika-carrying mosquitoes could breed and thrive.

Source:

<http://www.npr.org/sections/health-shots/2016/08/22/490941346/how-big-really-is-the-zika-outbreak-in-florida>

**Let's assume the roles of different stakeholders.**

1) Westfield State University Student

You are a Westfield State University student and you have a paid internship lined-up working with an NGO in the rainforest in Brazil, an area with active Zika transmissions.

2) American Airlines CEO

You are Doug Parker and some of your employees (pilots, flight attendants, ground crew, etc.) are based in countries such as Brazil with active Zika transmissions.

3) US Olympic Committee

As the US Olympic Committee you are using tax dollars to send our athletes to Brazil, a country with active Zika transmissions.

4) Director of the Centers for Disease Control and Prevention (CDC)

You are Tom Frieden and you need to provide practical recommendation to the public and elected officials regarding the spread and risk of the Zika virus.

5) Governor of Florida

You are Rick Scott and you need to consider policies and regulations (for example travel restrictions) as the Zika virus and associated infections spread across your state.

6) President of the United States

As the President you need to consider policies and regulations (for example travel restrictions) as the Zika virus and associated infections spread across country.

**How can science help us deal with (the spread of) Zika?**

1. What do you need to know in your role to make informed and reasonable decisions?
2. How can science help you in your decision-making process?  
Try to be as specific as possible.
3. What can science NOT help you with as you make your decisions?  
Try to be as specific as possible.

Your Role.

Question 1.

Question 2.

Question 3.