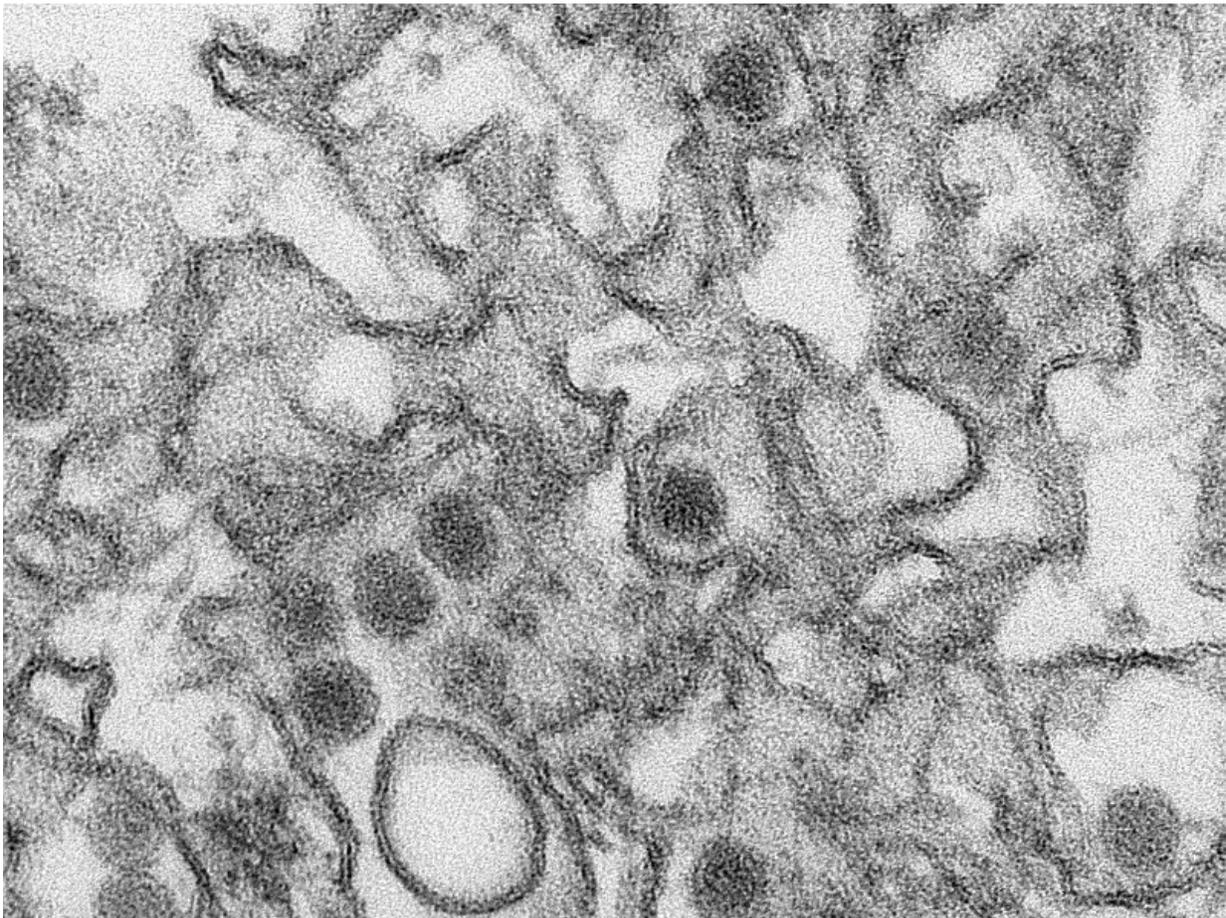


Record heat, drought may explain Zika outbreak in Brazil: research

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Transmission electron micrograph of Zika virus. Photo: U.S. Centers for Disease Control and Prevention

(HealthDay)—There may be a link between the recent hot and dry winter and spring in Brazil and the outbreak of the Zika virus, preliminary research suggests.

"The extreme temperature and drought are due to a combination of the El Nino phenomenon and the climate changes of recent years," researcher Shlomit Paz, from the department of geography and environmental studies at the University of Haifa in Israel, said in a university news release.

This week, the World Health Organization (WHO) declared the mosquito-borne Zika virus a global health threat because it may have caused thousands of cases of a severe birth defect in Brazil in the past year. The [birth defect](#), known as microcephaly, causes babies to be born with permanent brain damage and very small heads.

The U.S. Centers for Disease Control and Prevention has recommended that pregnant women consider not traveling to about 30 countries and territories where Zika infection is active.

In addition, [pregnant women](#) with a male sexual partner who has traveled to, or lives in, an area affected by active Zika virus transmission should refrain from sex or use condoms during sex until the pregnancy is over, the CDC advised on Thursday.

Some scientists have said the outbreak is associated with El Nino-related heavy rains in parts of Latin and Central America. But Paz and Jan Semenza, of the European Center for Disease Prevention and Control in Stockholm, have a slightly different take on the problem.

Instead, the study authors reported that the outbreak is due to the record-high temperatures and severe drought that occurred in northeast Brazil in the latter half of 2015, which is winter and spring in the southern

hemisphere.

The hot temperatures and lack of rainfall were actually due to a combination of El Nino and climate change, the researchers explained.

High temperatures can boost the growth rates of the Aedes mosquitoes, which carry the Zika virus. Mosquitoes also require water, something that could be a problem for them in a drought. However, people in northeast Brazil store water in containers during droughts, and these containers provide a perfect habitat for the mosquitoes, Paz said.

The study was published online Feb. 1 as a research letter in *The Lancet*.

The researchers are continuing their investigation into how climate conditions may have contributed to the outbreak.

"In light of the health risk, and the fact that the Aedes mosquitoes also carry other viruses, such as dengue fever and chikungunya, it is important to address the impacts of climate which we have found when analyzing the causes of the current outbreak," Paz said in the news release.

More information: The U.S. Centers for Disease Control and Prevention has more about the [Zika virus](#).

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