“Zika Virus Test Is ‘Weeks, Not Years’ Away, W.H.O. Says”

By Sewell Chan

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LONDON — Scientists are “weeks, not years” from developing a test for the fast-spreading [Zika virus](http://www.nytimes.com/interactive/2016/health/what-is-zika-virus.html), but large-scale clinical trials for a [potential vaccine](http://www.nytimes.com/2016/01/30/business/vaccine-for-zika-virus-may-be-years-away-disease-experts-warn.html) are at least 18 months away, the [World Health Organization](http://topics.nytimes.com/top/reference/timestopics/organizations/w/world_health_organization/index.html?inline=nyt-org) announced on Friday

The W.H.O. declared Zika a [global public health emergency](http://www.nytimes.com/2016/02/02/health/zika-virus-world-health-organization.html) on Feb. 1, only the fourth time it had raised such an alert. The Zika virus — a mosquito-transmitted infection related to dengue, [yellow fever](http://health.nytimes.com/health/guides/disease/yellow-fever/overview.html?inline=nyt-classifier) and [West Nile virus](http://health.nytimes.com/health/guides/disease/west-nile-virus/overview.html?inline=nyt-classifier) — has spread through Latin America. It was [first detected in Brazil](http://www.nytimes.com/2016/02/07/health/zika-virus-brazil-how-it-spread-explained.html) in May, and as many as four million people worldwide could be infected by year’s end, the health organization [has said](http://www.nytimes.com/2016/01/29/health/zika-virus-spreading-explosively-in-americas-who-says.html).

The main public health concern is a suspected link between the virus and two neurological disorders: [microcephaly](http://www.nytimes.com/2016/02/01/health/microcephaly-spotlighted-by-zika-virus-has-long-afflicted-and-mystified.html), which is associated with unusually small heads and, often, brain damage in infants; and [Guillain-Barré syndrome](http://www.nytimes.com/health/guides/disease/guillain-barre-syndrome/overview.html), in which a person’s immune system attacks part of the nervous system, leaving some almost completely paralyzed for weeks.

1. *Describe* the two major health concerns that may be caused by contracting the Zika virus.

There is no reliable test yet for Zika. Ten companies are poised to provide tests that try either to use a molecular technique to detect the virus’s presence in blood or to confirm Zika infection by measuring the levels of [antibodies](http://health.nytimes.com/health/guides/test/antibody-titer/overview.html?inline=nyt-classifier) in a patient who has been exposed to the virus. Another 10 companies are trying to develop tests using similar approaches.

“It is important to point out, however, that none of these tests have been independently validated and none have regulatory approval,” Dr. Kieny said. She added, however, that “we are talking weeks, not years,” for the first commercial and independently validated tests to become available.

There is no vaccine for Zika, although a race to develop one is underway. Dr. Kieny pointed to two particularly promising efforts: one by the National Institute of Allergy and Infectious Diseases, in Bethesda, Md., and the other by Bharat Biotech, a pharmaceutical company in Hyderabad, India.

“In spite of this encouraging landscape, vaccines are at least 18 months away from large-scale trials,” she said.

2) What are the ways in which the tests may be able to detect the Zika virus?

Most people who contract the Zika virus experience symptoms like [fever](http://health.nytimes.com/health/guides/symptoms/fever/overview.html?inline=nyt-classifier), rash, [joint pain](http://health.nytimes.com/health/guides/symptoms/joint-pain/overview.html?inline=nyt-classifier) and [red eyes](http://health.nytimes.com/health/guides/symptoms/eye-redness/overview.html?inline=nyt-classifier), and there is no lasting harm.

But the risk of [birth defects](http://topics.nytimes.com/top/news/health/diseasesconditionsandhealthtopics/birth_defects/index.html?inline=nyt-classifier) is so serious that El Salvador [advised women to avoid becoming pregnant until 2018](http://www.nytimes.com/2016/01/26/world/americas/el-salvadors-advice-on-zika-dont-have-babies.html). [The Centers for Disease Control and Prevention](http://wwwnc.cdc.gov/travel/page/zika-travel-information) has urged pregnant women to postpone traveling to more than 20 countries in Latin America and the Caribbean, as well as Puerto Rico, until the public health emergency is brought under control.

The W.H.O. *(World Health Organization)* on Friday advised pregnant women to consider delaying travel to any areas where the Zika virus is being transmitted. At the same time, the agency said it was “not recommending any travel or trade restrictions related to Zika virus disease.”

Its advice now brings it in line with public health authorities in the United States, England, Canada and other major industrialized nations who have suggested that pregnant women avoid areas where the mosquito-borne virus is circulating.

1. How did the government of El Salvador respond to the Zika Virus outbreak?

**Colombia researchers discover first cases of Zika virus linked to birth defects**

**The Guardian**

**By Sibylla Brodzinsky**

**3/4/16**

With more than 42,000 cases of Zika infection, including 7,653 in pregnant women, [Colombia](http://www.theguardian.com/world/colombia) had until now not confirmed any cases of birth defects related to the virus, although Brazil has seen a marked rise in areas where the disease is widespread.

However, the dimensions of the surge *(increase)* in microcephaly in Brazil are not yet clear. Some 5,909 microcephaly cases have been reported since November, a month after the Zika outbreak there was detected, and only 82 have been confirmed to be Zika-related.

Zika usually causes only mild flu-like symptoms, with aches, fever and a rash in adults. But a lab study in America has found that [Zika can infect embryonic cells that help form the brain](https://www.theguardian.com/science/2016/mar/04/zika-virus-scientists-a-step-closer-to-establishing-microcephaly-link), adding to evidence that the virus causes a serious birth defect.

The new work provides experimental evidence that once the virus reaches the developing brain, it can infect and harm cells that are key for further brain development, said Hengli Tang of Florida State University, a lead author of the work, which was released Friday by the journal Cell Stem Cell.

But he stressed that his study does not prove that Zika causes microcephaly, nor that it works by that route. A number of other viruses are known to trigger *(cause)* the condition.

4) What evidence is there that the Zika virus might *not* cause microcephaly?

Zika Virus Video

5) What current strategies is the U.S. promoting to reduce the spread of the Zika virus?