

## Some experts contend Brazil is exaggerating Zika crisis

February 25 2016, by Jenny Barchfield And Peter Prengaman

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A municipal health worker draws blood from 3-month-old Shayde Henrique, who was born with microcephaly, in Joao Pessoa, Brazil, Tuesday, Feb. 23, 2016. U.S. and Brazilian health workers knocked on doors in the poorest neighborhoods of one of Brazil's poorest states Tuesday in a bid to enroll mothers in a study aimed at determining whether the Zika virus is really causing a surge in birth defects. The teams started in Joao Pessoa, the capital of Paraiba state which is one of the epicenters of Brazil's tandem Zika and microcephaly outbreaks. (AP Photo/Andre Penner)

Often drowned out by the dire warnings and fear surrounding Zika, some medical professionals are saying that Brazil and international health officials have prematurely declared a link between the virus and what appears to be a surge in birth defects.

A few even argue that the Brazilian government is being irresponsible, given that a connection hasn't been scientifically proven between the mosquito-borne virus and the birth defect known as microcephaly, which causes infants to be born with abnormally small heads.

"It's a global scandal. Brazil has created a worldwide panic," said Alexandre Dias Porto Chiavegatto Filho, a professor of epidemiology at the University of Sao Paulo, one of the most-respected universities in Latin America. "I'm not saying that Zika is not causing microcephaly, but I am saying that the ministry has yet to present any scientifically credible evidence to support that conclusion."

Filho and others argue there are still too many unanswered questions to blame Zika. Why are the vast majority of the cases of microcephaly being reported in Brazil? Why haven't they also shown up in proportional numbers in other countries hit hard by Zika, such as Colombia? (The answer, some say, is that Brazil was hit by Zika first, and microcephaly cases might be expected to crest elsewhere in the months ahead.)



A municipal health worker sprays insecticide in a junk yard to combat the *Aedes aegypti* mosquito that transmits the Zika virus in Joao Pessoa, Brazil, Monday, Feb. 22, 2016. A 16-member team of the United States' Centers for Disease Control and Prevention, is starting work on a "case-control" study aimed at determining whether the Zika virus really does cause babies to be born with the devastating birth defect microcephaly, as Brazilian researchers strongly suspect. (AP Photo/Andre Penner)

And how can conclusions be drawn from government statistics that are flawed and possibly vastly underreported in the past, before Brazilian officials required doctors to report microcephaly cases?

In an article published Wednesday by the *Annals of Internal Medicine*, 14 Brazilian and American researchers said the link between Zika and microcephaly "remains presumptive." The strongest evidence is circumstantial, they said, and there are challenges in confirming the connection.

But Brazilian Health Minister Marcelo Castro recently said he was "absolutely sure" of a causal link between Zika and microcephaly. He and other scientific experts around the world have pointed to studies that detected the presence of Zika in the brains of dead fetuses and in the placentas of babies diagnosed with microcephaly in the womb.



Brazil's President Dilma Rousseff, right, and Director-General of the World Health Organization, Margaret Chan, pose for photo with a T-shirt of the mosquito eradication program, during a meeting at the Planalto Presidential palace in Brasilia, Brazil, Tuesday, Feb. 23, 2016. Chan is on a two-day visit to Brazil. (AP Photo/Eraldo Peres)

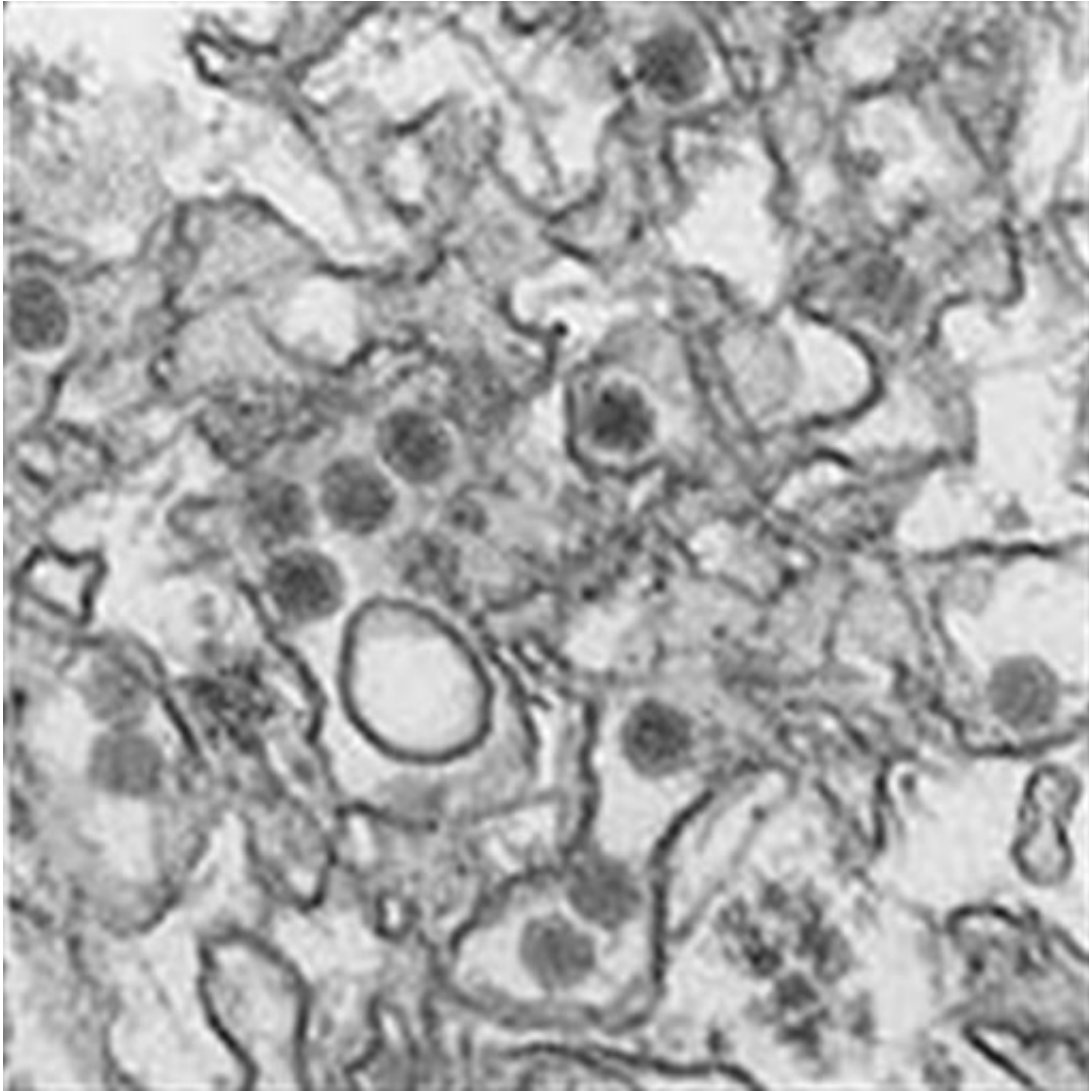
While visiting Brazil on Wednesday, Margaret Chan, director-general of the World Health Organization, said microcephaly can be caused by many things but that her organization was affirming that "Zika is responsible (for it in Brazil) until evidence to the contrary emerges."

And the Atlanta-based Centers for Disease Control and Prevention has warned pregnant women against traveling to more than 30 destinations where the virus has been registered, most in Latin America.

Every week, the evidence is "getting stronger and stronger," Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, told a U.S. Senate committee Wednesday. He cited several published cases where the virus was found after fetal or newborn deaths.

Still, despite the heavyweight support and anecdotal evidence, some critics are not satisfied.





This January 2016 microscope image provided by the Centers for Disease Control and Prevention shows the Zika virus. On Tuesday, Feb. 23, 2016, the CDC said it is investigating more than a dozen possible Zika infections that may have been spread through sex. The 14 cases all involve men who visited areas with Zika outbreaks, and who many have infected their female sex partners, who had not traveled. (Cynthia Goldsmith/CDC via AP)

Luis Correia, who teaches scientific method at the Bahia School of Medicine and Public Health, said the small-scale studies cited by [health officials](#) don't equal proof.

"There appears to be a sort of scientific illiteracy within the ministry that has led them to mix up association with causality," said Correia. "They are confusing hypothesis with fact."

Correia compared the situation to finding a bystander at the scene of a murder. That person could have committed the crime or just have been a witness.



A soldier carrying a fumigating machine enters a home as residents wait outside in Havana, Cuba, Monday, Feb. 22, 2016. Cuban President Raul Castro announced Monday that he is dispatching soldiers to help keep the Zika virus out of Cuba, calling on the entire country to help kill the mosquito that carries the disease. Castro says Cuba has yet to report a case of Zika. (AP Photo/Desmond Boylan)

Correia and Chiavegatto stressed that another unknown factor, either

alone or in tandem with Zika, might be triggering microcephaly. Both suggested that because the majority of mothers of babies with the condition are poor women from Brazil's less-developed northeast, this theoretical unknown factor could be lurking in poverty and poor living conditions.

Some speculate that politics, not science, may have pushed Brazil's [health ministry](#) to jump the gun on Zika. The line of thinking is that President Dilma Rousseff's deeply unpopular, scandal-plagued government is facing so many problems that health officials felt compelled to err on the side of caution and a robust response.

This week, the CDC and Brazilian health officials started work in Paraiba aimed at trying to scientifically establish the link.



Brazilian and U.S. health workers from the United States' Centers for Disease Control and Prevention (CDC) talk with a resident as they search for mothers and infants to recruit for a study aimed at determining whether the Zika virus is



causing babies to be born with a birth defect affecting the brain in Joao Pessoa, Brazil, Wednesday, Feb. 24, 2016. Their goal is to persuade about 100 mothers of infants recently born with the defect as well to enroll in the study. They also need participation as controls of two to three times as many mothers from the same areas who delivered babies without microcephaly at about the same time. (AP Photo/Andre Penner)

Several CDC teams hope to recruit more than 100 mothers with babies with microcephaly, and two to three times that number of mothers with healthy infants born around the same time and in the same area. The recruitment phase will take at least four or five weeks, and it's unclear how long the teams will need to analyze the data.

There are also many questions surrounding Brazil's baseline of microcephaly cases.

Since October, the Health Ministry says 5,640 cases of microcephaly have been reported. Of those, 950 have been discarded and 583 have been confirmed as microcephaly. The remaining cases are still being investigated.



A municipal health worker prepares to apply insecticide in a junk yard to combat the *Aedes aegypti* mosquito that transmits the Zika virus in Joao Pessoa, Brazil, Monday, Feb. 22, 2016. A 16-member team of the United States' Centers for Disease Control and Prevention, is starting work on a "case-control" study aimed at determining whether the Zika virus really does cause babies to be born with the devastating birth defect microcephaly, as Brazilian researchers strongly suspect. (AP Photo/Andre Penner)

Before this outbreak, authorities said that on average Brazil had about 150 reported cases a year. If true, that would mean the country had a rate that was only a fraction of that of much richer countries. "It is possible that the baseline number in Brazil includes a lot of underreporting," said Ganeshwaran H. Mochida, a pediatric neurologist and researcher at Boston Children's Hospital.

And of the 583 confirmed cases of microcephaly, only 67 have been

connected to Zika by blood tests. Government health officials argue that the presence of the virus can't always be detected, as it doesn't stay active in the body more than a few weeks.

There are also anomalies, such as in southern Sao Paulo state, far from the hard-hit northeast. On Jan. 30, the Health Ministry reported 101 cases of microcephaly, a huge jump from the total of 18 for the two previous months combined.

"It's very difficult to make any conclusions based on this data," said Eugene Brusilovskiy, a statistics lecturer at the University of Pennsylvania. "The weight of the reporting is not uniform. There is also not uniformity from state to state, or from week to week."

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