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Zika likely to spread to large Brazilian cities: expert

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The Zika virus, linked to a surge in infants born with abnormally small heads, is likely to spread this year to Brazil's densely populated cities where it has barely surfaced, a top health official told AFP.

Zika has struck hard in hot and humid southeastern and central Brazil, but largely spared bigger cities like Sao Paulo or Rio de Janeiro, said Claudio Maierovitch, head of the communicable diseases surveillance department at the Ministry of Health.

Since October, 462 cases of microcephaly have been confirmed in Brazil, which has a population of 204 million, and more than 3,800 cases are being studied as possibly being related to the virus, according to government figures.

While scientists are racing to develop a vaccine for Zika—not likely to be ready for at least three years—and with just six months to go before the opening of the Summer Olympics in Rio, the focus on fighting the virus has turned to exterminating its carrier, the Aedes aegypti mosquito.

Here is a summary of Maierovitch's interview with AFP.

Question: What is currently the most unsettling scenario?

Answer: This is the great fear of the immediate future—that densely populated states will experience an intense outbreak of the virus that cannot be controlled.

These states include Sao Paulo, Rio de Janeiro, Parana, Minas Gerais and Goias that have experienced vast dengue epidemics in the last years. This leads us to believe that the mosquitos will be present in a very generalized way, and that they could transmit other viruses.

Q: What is the plan until a vaccine is available?

A: The situation today is dramatic. Brazilians are extremely worried. The most important measure taken by the government has been ... to focus on fighting the mosquito. It is also possible that, after a first year in which the Brazilian population has not been exposed to the Zika virus, part of the population may become immunized and after some time we can have a larger immune population, which would result in the virus circulating less.

Q: Has the link with microcephaly been proven?

A: We have established conclusively the relationship during pregnancy ... the times and locations coincide. In these same locations where there was an outbreak of the virus, between six and eight months later children were born with microcephaly.

Many of the mothers who gave birth to infants with microcephaly remember having an infection that is like one described for Zika: rashes, hives and a low-level fever. Also, we identified the virus in the amniotic fluid of pregnant women whose babies had microcephaly, including within the uterus, and there were cases of children with microcephaly who died soon after being born.

Q: Can the Zika virus be deadly?

A: We don't know if the Zika virus alone is capable of making people so gravely sick that it will result in their death, or if the infection appeared

in people who already had other health problems and that this may have contributed to their death.

The number of fatalities is very small when compared to the amount of people who die of dengue. Last year, there were more than 700 deaths (863 according to government figures) during a very large dengue epidemic totaling some 1.5 million cases.

Our concern remains focused on the pregnant women.

Q: What guarantee does Brazil offer to the Olympic Games?

A: The state and the city of Rio de Janeiro have both invested a lot, and are focusing their mosquito eradication efforts on the places where the games will be played, in the neighborhoods around those areas, and in zones where there are large mosquito infestations.

We also have the natural factor that should help, which is that July and August (winter in the southern hemisphere) are part of a period in which the infestation of Aedes aegypti is very low. We practically have no cases of dengue starting in July across the country.

Visitors coming for the Olympics will be staying at air conditioned hotels, will be in areas where the mosquito infestation is low, and that should allow spectators and athletes to relax.

Q: What do the models of the epidemic project?

A: Last year, Zika had a transmission curve similar to dengue but it lasted longer. The number of dengue cases dropped in June and July, while Zika continued for longer—until July, August. Eventually, we clearly saw the number of cases drop considerably. At the start of the year, with warmer weather, we already have reports that there is an

increase in Zika cases.