



An *Aedes aegypti* mosquito is photographed through a microscope at the Fiocruz institute in Recife, Pernambuco state, Brazil. Volunteer Google engineers in San Francisco and New York are working with UNICEF counterparts to create a system that combines several types of data to help predict where the *Aedes aegypti* mosquito, which spreads the Zika virus, might next be particularly active, helping in eradication efforts. — AP

QUESTIONS GROW ABOUT ZIKA'S RISK TO FUTURE PREGNANCY CONCERNS IF VIRUS CAN BE TRANSMITTED SEXUALLY

LOS ANGELES: Few women have competed in the Olympics while pregnant, but the suspicion that the Zika virus in mothers is causing birth defects is central to calculations by athletes and others planning travel to Brazil in August for the summer games.

Chief among their concerns is whether Zika, unlike similar mosquito-borne viruses, can be transmitted sexually, or remain latent in the body - possibly presenting a risk for women who become pregnant after the Olympics have ended. More than a dozen disease experts, in interviews with Reuters, said there is no evidence at this point of long-term risk for future pregnancies. But, given the surprises seen with the virus so far, they said people should remain cautious until studies give scientists a better picture of how the virus works. They said it would take months or even years of study for definitive answers to questions about Zika's risks.

Public health agencies have urged pregnant women to avoid travel to Zika outbreak areas but have given little guidance for couples planning to start a family.

Dr. Claire Panosian, of the University of California, Los Angeles, division of infectious diseases, said that for years she has advised couples to wait several months after traveling to exotic locales before trying to conceive because of the risk of birth defects from diseases like toxoplasmosis.

Zika should be no different, she said: "Women of child-bearing age should be very scrupulous - wait several months." The virus, which is spreading rapidly through the Americas, has been linked to a spike in microcephaly, a rare birth defect, in Brazil. The condition is defined by unusually small heads in newborns and can cause brain damage.

Zika has not been proven to cause microcephaly, but evidence of an association led the World Health Organization to declare the outbreak a global health emergency.

The US Centers for Disease Control and Prevention says pregnant women should

consider skipping the 2016 Olympics because of the risk of Zika infection. For women who are considering becoming pregnant - and their male partners - the agency recommends consulting their physicians in deciding whether to go to the Games.

The US Food and Drug Administration, however, has suggested a more detailed time frame. It called this week for a six-month delay in all human cell or tissue donations, including of semen and eggs, from people who have had Zika infections or traveled to an outbreak area.

Canada's national health agency on Wednesday advised women who want to get pregnant to wait at least two months after traveling to countries affected by the Zika outbreak. Eighteen women have competed in modern Olympics while pregnant according to a group of Olympic historians who publish their statistics at Sports-Reference.com. The number includes US beach volleyball gold medalist Kerri Walsh, who was not yet aware she was pregnant when competing in London in 2012.

Some current Olympic hopefuls say they might think twice about the Rio Games if Zika could threaten future pregnancies, and they are hoping for some better answers before the competition begins.

"If things stood as they are right now, I probably would not go," renowned US soccer goalkeeper Hope Solo told CBS last week. "At some point I do want to start a family, and I don't want to be worried."

Solo has spoken out about feeling conflicted over her two great ambitions - winning Olympic gold and becoming a mother in the future. "It's scary, and I have a lot of reservations about going to the Olympics," she said. DeeDee Trotter, a 33-year-old Olympic sprinter and medalist who aims to make the US team again this year, said in an interview she wasn't worried "if the only danger is to women who are pregnant."

That sentiment could change if a prior Zika infection is shown to pose a risk later "when I do decide to have children," she said.

The US Olympic Committee has told athletes that babies may be at risk if the mother is infected with Zika while pregnant, or if she becomes pregnant within an unknown time frame after being infected.

"We have worked to ensure that all potential Olympic and Paralympic athletes are aware of the CDC's recommendations, and we will continue to do so," USOC spokesman Mark Jones said in an emailed statement. "They are the experts."

THE IMMUNITY QUESTION

The CDC says experiencing a Zika infection once likely protects a person from future infection, although that immunity - like so many aspects of Zika - is not yet proven. "It is likely that, following infection, people are immune, but what percentage of convalesced patients and for how long will not be clear for some time," said Dr. Leslie Lobel, chair of the department of virology and developmental genetics at Israel's Ben-Gurion University of the Negev who has been working with Ugandan and Brazilian scientists to investigate Zika.

Whether the virus can remain in the body and cause a recurrence also is not known. In one case, Zika virus was detected in semen 62 days after the man was infected, but it was not clear whether it was capable of infecting someone else.

Separately, the CDC is investigating at least 14 cases of possible sexual transmission. Zika was first identified in 1947 in Uganda and previously linked to smaller outbreaks. Many people who are infected show no symptoms, while those who become ill report relatively mild effects of rash or fever. There is no vaccine or treatment for the virus, which is in the same family as dengue, West Nile virus and yellow fever. — Reuters

HAPPINESS CAN BREAK YOUR HEART: DOCTORS

PARIS: Joyful events-the birth of a child, a big win by your team-can trigger a dangerous condition called the "broken heart syndrome", doctors and researchers reported Thursday.

Takotsubo syndrome, as it is also known, involves the sudden weakening of heart muscles, causing the left ventricle-the chamber which pushes oxygen-rich blood through the body-to balloon out abnormally at the bottom. Besides acute chest pain and shortness of breath, the condition can lead to heart attacks and death.

It has long been known that an unexpected emotional shock-typically something unpleasant, such as the death of a spouse, or a violent argument-can provoke an attack. But statistics were lacking, and no one had ever investigated whether an intensely happy event could give the same result. In 2011, a pair of researchers in Switzerland-Christian Templin and Jelena Ghadri, both of University Hospital Zurich-set up a global registry to track cases of the syndrome, which is fairly rare. Five years later, the network of 25 hospitals spread across nine countries had collected data on statistically significant 1,750 cases of the Takotsubo syndrome (TTS).

For the study, Templin and Ghadri, leading a team of 16 researchers, determined that emotional jolts were responsible for 485 of those cases. And within that group, four percent-a total of 20 individuals-could be said to have suffered from "happy heart syndrome."

Birth of a grandchild

"We have shown that the triggers for TTS can be more varied than previously thought," said Ghadri. "The disease can be preceded by positive emotions too."

The 20 cases set off by joyful events included a birthday party, a wedding, a surprise farewell celebration, a favorite rugby team winning a game, and the birth of a grandchild.

None of them proved fatal. Emergency room doctors should be aware of the fact that patients with signs of heart attack could be suffering from TTS, sparked by either positive or negative experiences. For reasons the researchers do not understand, 95 percent of the patients in both the "broken heart" and "happy heart" groups were women, mostly in their mid-to-late 60s.

"We still do not know why women are predominately affected by the Takotsubo syndrome," Ghadri told AFP. "We can only speculate that the hormonal state-namely, oestrogen-might play a role in the disease mechanism." Women have much higher levels of oestrogen than men, in whom testosterone — AFP

EXPELLED PREGNANT GIRLS BACK AT SCHOOL IN SIERRA LEONE

FREETOWN: A group of 5,000 girls who were expelled from schools in Sierra Leone for getting pregnant during the Ebola crisis have returned to the classroom, the education ministry said on Thursday.

All schools were closed from June 2014 to April 2015 in Sierra Leone as part of government efforts to curb the spread of the Ebola virus, which killed almost 4,000 people in the country.

But when they reopened in April 2015, girls were assessed using invasive methods to check if they were pregnant or had recently given birth. Kadie, in her third year of secondary school in the south of the country, told AFP: "My breasts were lumped together to find out whether they contained milky substances before I was allowed to continue my tuition."

It pupils were found to be expecting or had become mothers, they were given the choice of attending temporary alternative classes funded by the British and Irish governments.

As a result many girls missed exams to gain entrance to higher secondary school, university or college.

Education Minister Brima Turay said the girls, some of whom were still in the primary system when they became pregnant, were readmitted in January after being banned from mainstream schooling for being a "negative influence" on others.

"They started during the school year in January but we were watching their performance before this disclosure and I am pleased to report that it has been outstanding and over our expectation," he told AFP. The authorities said last year the girls were expelled "to avoid other girls from following the example of becoming pregnant while attending school", as it "would set a bad precedent which runs alien to the country's cultural values".

An outcry ensued, with the Human Rights Commission of Sierra Leone calling the exclusion of pregnant girls from mainstream educational institutions "discriminatory and stigmatization". Sallimatu, 13, who spoke to AFP by phone from Bo, Sierra Leone's second largest city, said she was happy to have returned to school, adding that the stigma attached to teenage pregnancy made her determined to work hard at her studies. — AFP