Status in CARPHA Member States and Surrounding Territories:

At August 8, 2016 locally-confirmed cases of Zika have been confirmed in 42 countries in the region of the Americas since 2015 and in 29 CARPHA Member States (CMS) and surrounding territories: Anguilla, Antigua and Barbuda, Aruba, Barbados, Belize, BES Islands (Bonaire, Sint Eustatius and Saba), Cuba, Curaçao, Dominica, Dominican Republic, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Martinique, Puerto Rico, Saint Barthélemy, Saint Lucia, Saint Martin, St Vincent and the Grenadines, Sint Maarten, Suriname, Trinidad and Tobago, Turks and Caicos Islands, the United States Virgin Islands and Venezuela.

During the period November 8, 2015 to August 10, 2016, 2,771 specimens were received at the CARPHA laboratory for testing from 21 CMS. Of these, 558 tested positive for Zika virus. Of the 558 confirmed, 443 (79%) were female and 106 (19%) male, gender was not provided for 10 cases (2%). Mean age of cases was 32 years (range 0-79 years). Major clinical characteristics experienced by patients were rash and fever.

Five countries in the Americas have reported sexually transmitted Zika cases (Argentina, Canada, Chile, Peru, and the United States of America). To date, CARPHA has not received any reports of sexually transmitted Zika cases in CMS.

Risk of Zika infection by sexual transmission

Whilst most Zika virus infections are transmitted via the bite of an infected Aedes mosquito, a relatively small number of persons can get Zika through sex from a person who has Zika even if the infected person does not have symptoms at the time. Zika can be transmitted through vaginal, anal and oral sex. The virus has been detected in semen, vaginal fluids, saliva, urine, and breast milk. There is no documented evidence that Zika can be transmitted through saliva during deep kissing. Several studies are ongoing to find out how long Zika can stay in the semen and vaginal fluids of people who have Zika. Since Zika is usually asymptomatic or causes mild illness, sexually transmitted cases of infection may not be recognized.

To reduce the risk of sexual transmission of Zika virus infection, condom use is recommended whilst living or visiting an area with active Zika virus transmission. A male with Zika symptoms who has a partner at risk of pregnancy is recommended to use condoms at the onset of illness and should continue use for 6 months. Female partners may choose to use other forms of effective contraception in addition to condoms to avoid becoming pregnant.

Zika virus testing is recommended for people who may have been exposed to Zika through sex and who have Zika virus symptoms. Testing is also recommended for a pregnant woman with possible sexual exposure to Zika virus if either she or her partner develops one or more symptoms of Zika.

Advice on preventing sexual transmission of Zika virus is precautionary and is constantly under review as more information on this infection becomes available.
**Zika and pregnancy**

Pregnant women can primarily become infected with Zika virus through the bite of an infected mosquito. The virus can be passed from the pregnant women to her foetus during pregnancy or at delivery. In November 2015, the Ministry of Health of Brazil established a relationship between an increase in cases of microcephaly in newborns and Zika virus infections. Microcephaly is the abnormal smallness of a newborn's head associated with incomplete development.

There is now adequate evidence to concluded that Zika virus infection during pregnancy is a cause of microcephaly and other fetal brain defects and has been linked to problems in infants, including eye defects, hearing loss and impaired growth.

Based on the evidence currently available, it is believed that Zika virus infection in a woman who is not pregnant would not pose a risk for the birth defects in future pregnancies. It is also believed that an individual who becomes infected with Zika virus is likely to be protected from a future Zika virus infection.

CARPHA recommends that women of childbearing age take preventive measures to avoid being bitten by mosquitoes, which in addition to Zika can also transmit diseases such as dengue and chikungunya.

Women who believe they have been exposed to Zika virus should consult with their healthcare provider for close monitoring of their pregnancy.

**Guillain-Barré Syndrome**

Guillain-Barré Syndrome (GBS) is an acute disorder of the peripheral nerves, often preceded by a respiratory infection, causing weakness and often paralysis of the limbs. An association of GBS with Zika has been reported by several countries where transmission of the disease is ongoing. GBS treatment is symptomatic and supportive but recovery can take several weeks or months and may often cause prolonged disability.

**Blood and tissue donors**

Although Zika transmission by blood transfusion has not been conclusively documented, theoretically there is risk for transmission of Zika through blood and tissue. The cross-reactivity of Zika antibody tests with other Flaviviruses such as Dengue and chikungunya means that there is no reliable, definitive way to screen all units of donated blood and tissue for Zika virus. It is recommended that Blood banks include a clinical screening questionnaire containing questions about symptoms of viral illness such as rash and fever. Though not 100% full proof, this measure is likely to reduce the risk of transmission of viral pathogens in donated material.

The best way to prevent Zika is to avoid being bitten by mosquitoes. CARPHA advises that you:

- Use insect repellents on exposed skin. Insect repellents that contain DEET, picaridin, oil of lemon eucalyptus (OLE) or IR3535 are the most effective and safe when used per manufacturer's instructions. If also using sunscreen, apply sunscreen first and insect repellent second.
- Where possible, wear light coloured long-sleeved shirts and long pants, socks and shoes to minimize exposed skin.
- When indoors use air conditioning and keep doors and windows closed, unless they are screened, to keep out mosquitoes. If this is not possible, sleep under mosquito nets to prevent bites.

**Mosquito Control**

The Integrated Management Strategy promotes the integration of six key components for dengue prevention and control (social communication, epidemiological surveillance, laboratory diagnosis, environment management, clinical case management and Integrated Vector Management). Though the strategy was specifically developed to address Dengue, it can be applied to tackle the same vector that transmits chikungunya and Zika.

Everyone can perform simple tasks to reduce mosquitoes in around homes, schools and communities such as inspecting premises once a week for at least 10 minutes to identify and remove breeding sites or potential mosquito breeding sites.

**Additional Resources**

- WHO: Prevention of sexual transmission of Zika virus Interim guidance, June 2016; Available at: [http://apps.who.int/iris/bitstream/10665/204421/1/WHO_ZIKV_MOC_16_1_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/204421/1/WHO_ZIKV_MOC_16_1_eng.pdf?ua=1)
- Interim Guidance update on Pregnancy management in the context of Zika virus infection, May 2016: Available at: [http://apps.who.int/iris/bitstream/10665/204520/1/WHO_ZIKV_MOC_16_2_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/204520/1/WHO_ZIKV_MOC_16_2_eng.pdf?ua=1)
- WHO Handbook for Integrated Vector Management; Available at: [http://apps.who.int/iris/bitstream/10665/44768/1/9789241502801_eng.pdf](http://apps.who.int/iris/bitstream/10665/44768/1/9789241502801_eng.pdf)