

# ZIKA: *Background and Associated Complications*



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## Background

Beginning in late 2015, an epidemic of Zika Virus (ZIKV) spread throughout the Caribbean, peaking in August, 2016 and declining rapidly from September-December, 2016. All Caribbean Public Health Agency (CARPHA) Member States (CMS) increased public education, community engagement and vector control measures. Complications from ZIKV, such as Microcephaly in newborns and Guillain–Barré syndrome (GBS) in adults, presented tremendous burdens on the public health sector, and the long-term impact is still not clear. In keeping with its mission of preventing disease, promoting and protecting health, CARPHA played a critical role in the regional response efforts. The presence of the mosquito vector, *Aedes aegypti*, a competent vector for several arboviruses, is an ongoing risk to regional health security, and requires innovative approaches to address this problem.

ZIKV is a viral disease spread mainly through the bite of an infected *Aedes aegypti* mosquito. The disease causes various symptoms; which may include headache, fever, skin rash and conjunctivitis, lasting approximately 2-7 days. ZIKV entered the Americas in 2014, with the first locally transmitted cases being detected in Chile. The virus was later observed in Brazil during May 2015 after which local transmission was detected in the Caribbean region. The first autochthonous (locally transmitted) case of ZIKV in CMS was reported by Suriname and confirmed by CARPHA in December 2015. The virus then spread to almost all of the CMS over the next six months. As at April, 2017 the following CMS have reported autochthonous ZIKV transmission:

Anguilla	Montserrat
Antigua and Barbuda	Saba
Aruba Barbados	Saint Lucia
Belize	Saint Vincent and the Grenadines
Bonaire	Sint Eustatius
British Virgin Islands (UK)	Sint Maarten
Cayman Islands	St. Kitts and Nevis
Curaçao	Suriname
Dominica	Trinidad and Tobago
Grenada	Turks and Caicos Islands
Guyana	
Haiti	
Jamaica	

Table 1: CMS reporting autochthonous ZIKV transmission

The widespread transmission of the virus in the Region occurred because the virus was new to the Region and the population was not immune to it. Additionally, the Caribbean provides a suitable environment for the *Aedes aegypti* to thrive.

## **ZIKV Complications**

Zika virus has been associated with neurological complications, which have impacted persons affected and their communities. Some countries have reported neurological syndromes, such as Guillain–Barré syndrome (GBS), concurrently with reports of the virus. GBS is an acute disorder of the peripheral nerves, usually preceded by a respiratory infection, causing weakness and often paralysis of the limbs. Cases of GBS were identified in Grenada, Saint Martin, Suriname, Haiti, Costa Rica, Trinidad and Tobago and Jamaica.

Additionally, an increase in microcephaly and other congenital anomalies was also noted during this time, the full extent of which is still becoming apparent. Microcephaly is the abnormal smallness of a newborn's head associated with incomplete brain development. A ZIKV associated case of microcephaly has been reported in Grenada.

CARPHA is currently working with stakeholders to set up registries to record and follow patients with these complications.