

Findings

In 2016 CARPHA confirmed 1,299 ZIKV cases, with peak detection in August and a rapid decline thereafter. Seven (7) cases of ZIKV were confirmed by the CARPHA laboratory in 2017, with the last confirmation occurring in March of that year. No cases have been detected by the CARPHA laboratory for 2018, to date. Data from USCDC, ECDC and PHAC showed very similar patterns, with imported cases from CMS peaking in summer of 2016 and falling rapidly afterward, largely disappearing after early 2017. Survey data from CMS indicated that ZIKV sample collection and submission to CARPHA was still ongoing, albeit at smaller volumes, in the absence of large numbers of cases with fever, rash and other viral symptoms presenting to their health systems for care.

Discussion

Data collected by CARPHA and by three (3) international public health agencies all present a synoptic picture of interrupted transmission of ZIKV in the Region at this time. This pattern matches historical experience with Dengue Virus (DENV) and Chikungunya Virus (CHIKV) infections, in terms of an explosive outbreak followed by the virtual disappearance of cases after the initial epidemic. Descriptive and predictive models of epidemics in the Americas⁵ support this pattern of disease occurrence for arboviral pathogens. These models suggest that interruptions in transmission could last up to 10 years before population dynamics support sustained transmission once more. This prediction also mirrors historical experience with DENV, in the Caribbean, in which waves of a given DENV serotype were seen to occur with periodicities of 8 to 10 years; a pattern that has also long been noted in other parts of the world⁶.



Conclusion and Recommendations

Epidemiological evidence from multiple surveillance systems points to the cessation of ZIKV circulation in the Caribbean region at this time. The risk of ZIKV transmission in the Region is currently low. Risk to residents and visitors is deemed low, although usual precautions apply to avoid mosquitos biting and breeding. CARPHA Member States currently meet WHO criteria for re-classification to Category 3: “Area(s) with interrupted transmission, but with potential for future transmission” and should be re-assigned to this category to avoid potential unwanted impacts on tourism and economic activity, which are not in keeping with the spirit of the International Health Regulations (IHR).

References

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