

## **SPREAD OF ZIKA VIRUS IN THE ASIA PACIFIC REGION**

Didier Musso<sup>1</sup>

<sup>1</sup>Unit of Emerging Infectious Diseases, Institut Louis Malardé, Tahiti, French Polynesia

Zika virus (ZIKV) was discovered in Africa in 1947 and, until 2007, less than 20 human infections have been confirmed in Asia and Africa. ZIKV emerged in the Pacific in Yap Island, Federated States of Micronesia, in 2007; the second outbreak occurred in French Polynesia (FP) in 2013-2014. From FP, ZIKV spread in the Pacific from 2014 and subsequently in the Americas from 2015. In 2015, the first ZIKV outbreak was reported in Africa (Cape Verde). In 2016, new ZIKV emergences occurred in continental US (Florida), Asia (Singapore) and in the Pacific (1,2).

All these emergences are caused by ZIKV strains belonging to the Asian lineage.

The clinical phenotype of the ZIKV infection diverged in FP with the description of the first severe neurological complications (Guillain-Barré syndrome) and non-vector borne transmission of the virus (sexual, mother to child, transfusion-transmitted). The emergence of the virus in the Americas confirmed this novel pattern (1,2).

The emergence of ZIKV in the Pacific was not really taken into consideration by the international community. Since the emergence of ZIKV in the Americas, all the attention focuses on this continent; however, ZIKV is still circulating and emerging in the Asia Pacific region. In 2016, new circulations of ZIKV were reported in Singapore, Vietnam, American Samoa, Federated States of Micronesia, Fiji ... Sometimes; circulation of ZIKV was described only by the detection of imported cases in returning travelers (i.e. Vanuatu in the Pacific or Vietnam in South East Asia) (3).

The burden of ZIKV in the Asia Pacific region is probably underestimated because most of the countries in this area are lacking laboratory capacities to confirm ZIKV infections. The incidence of possible severe complication is also unknown for the same reasons.

Asia and Pacific have favorable epidemiological conditions for the emergence of arboviruses, especially they are infested by mosquito (*Aedes*) vectors of ZIKV. Then, we can predict that the spread of ZIKV in the Asia Pacific region is not finished.

The globalization of ZIKV began only 60 years after the discovery of the virus in very remote Pacific Islands, suggesting that tropical islands are new hubs for emerging arboviruses (ZIKV in the Pacific, chikungunya in Indian Ocean islands) (4).

One need to keep in mind that ZIKV emergence is also ongoing is the Asia Pacific region and that all recommendations to prevent ZIKV infections and ZIKV complications are to consider in this part of the world.