

## **ZIKA IN TRAVELERS: THE GESENTINEL EXPERIENCE**

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**Background:** Zika virus was first isolated in Africa, decades later caused large outbreaks in the Pacific, and is considered endemic in Asia. Since 2015, Zika virus has spread rapidly in the Americas and has been imported into numerous non-endemic countries by travelers. This analysis describes clinical manifestations and epidemiology of Zika virus disease in travelers with exposure in the Americas and the importance of travelers as sentinels of disease transmission outside the Americas.

**Methods:** Data from GeoSentinel, a surveillance network of 66 travel or tropical medicine clinics in 30 countries, were extracted for ill returned travelers with confirmed, probable, or clinically suspected diagnoses of Zika virus disease. Frequencies of demographic, trip, and clinical manifestations were calculated.

**Results:** From May 2015 to February 29, 2016, 93 cases of Zika virus disease in travelers to the Americas were reported. Common symptoms included rash (88%), fever (76%), and arthralgia (72%). More than half (59%) were exposed in South America. One traveler was the first person to have documented infection acquired in Costa Rica and another the first to be diagnosed in Denmark after travel. Two developed Guillain-Barré syndrome and three of four pregnancies had adverse outcomes: microcephaly, major fetal neurological abnormalities, and intrauterine fetal demise.

Through December 2016, there were 24 travelers who acquired Zika infections in Asia (14), the Pacific (9) and Africa (1). Travelers identified by GeoSentinel were sentinel markers of recent Zika activity in Indonesia, Philippines, Thailand, Vietnam, and Cameroon. The first confirmed Zika virus infection acquired in Kiribati was reported to GeoSentinel in 2015, and a probable case was reported from Timor Leste in April 2016, representing the only known case from this country.

**Conclusions:** GeoSentinel surveillance data helped to characterize the clinical manifestations and adverse outcomes of Zika virus disease among travelers infected in the Americas and to identify transmission of Zika virus in new locations. Travelers are integral to the global spread of Zika virus and serve as sentinel markers of disease activity. Although surveillance data collected by specialized clinics may not be representative of all ill returned travelers and denominator data are unavailable, surveillance of imported infections in returned travelers nevertheless can be used to enhance local surveillance system data regarding Zika virus epidemiology and can assist with risk categorization by international authorities. The serious fetal complications we observed highlight the importance of travel advisories and prevention measures for pregnant women and their partners.