

# 2015 outbreak of Zika virus disease declared as Public Health Emergency of International Concern: Justification, consequences, and the public health perspective

Sir,

Zika virus is a mosquito-borne flavivirus, which was initially isolated in Uganda in the year 1947.<sup>[1]</sup> Till the year 2006, only sporadic cases of the disease were reported.<sup>[1]</sup> However, in 2007, the first major outbreak of the disease was observed in Yap state and then in Southeast Asia and Western Pacific region.<sup>[1]</sup> Further, in May 2015, the first local transmission of Zika virus was reported in the American region and since then, cases have been isolated in almost 20 nations in the region.<sup>[1,2]</sup>

As Zika virus infection in time and place has been associated with a simultaneous rise in the incidence of congenital malformations, microcephaly, and neurological complications such as Guillain-Barré syndrome (GBS), the disease has attracted a major attention from the international stakeholders.<sup>[1,3]</sup> In fact, there is a major threat of the disease to spread to other Latin American nations; thus, it is quite essential to monitor the spread of the disease in the region.<sup>[2,3]</sup>

Acknowledging the recent cluster of microcephaly cases or other neurological disorders in Brazil, the Emergency Committee has declared that emerging Zika virus disease is a Public Health Emergency of International Concern.<sup>[3]</sup> Even though a strong causal association between Zika infection during the antenatal period and microcephaly is suspected, it is not yet confirmed.<sup>[3,4]</sup>

In addition, it has been proposed to strengthen and standardize the surveillance mechanism for microcephaly and GBS, implement measures to prevent mosquito bites both among general population and high-risk groups, and disseminate standard case definitions and diagnostics in high-risk

areas to contain the situation.<sup>[1,3]</sup> Further, measures such as facilitating development of rapid diagnostic tool to enable prompt implementation of control measures, improving risk communication to identify concerns of the people, ensuring community engagement and implementation of vector control measures, and offering counseling to pregnant women who have been exposed to Zika virus and follow-up them for their birth outcome.<sup>[1,3]</sup> Furthermore, there is an extensive need to invest in research activities to ensure the development of an appropriate vaccine or drug and to strengthen the health care delivery system so that it can respond to the high caseload of the neurological syndromes and congenital malformations.<sup>[2-4]</sup>

To conclude, Zika virus disease has emerged as a major public health concern and is expected to increase further in magnitude owing to the lack of immunity among the population in the affected regions. Thus, all the international stakeholders should work together to reduce the incidence of Zika virus-associated neurological diseases and congenital malformations.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

**Saurabh RamBihariLal Shrivastava,**

**Prateek Saurabh Shrivastava, Jegadeesh Ramasamy**

Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Kancheepuram, Tamil Nadu, India

**Address for correspondence:** Dr. Saurabh RamBihariLal Shrivastava,

Department of Community Medicine,  
3<sup>rd</sup> Floor, Shri Sathya Sai Medical College and  
Research Institute, Ammapettai Village,  
Thiruporur - Guduvancherry Main Road, Sembakkam  
Post, Kancheepuram - 603 108, Tamil Nadu, India.  
E-mail: drshrishri2008@gmail.com

## REFERENCES

1. World Health Organization. Zika virus – Fact Sheet; 2016. Available from: <http://www.who.int/mediacentre/factsheets/zika/en/>. [Last accessed on 2016 Jan 26].
2. Hennessey M, Fischer M, Staples JE. Zika virus spreads to new areas – Region of the Americas, May 2015–January 2016. *MMWR Morb Mortal Wkly Rep* 2016;65:55-8.
3. World Health Organization. WHO Director-General Summarizes the Outcome of the Emergency Committee Regarding Clusters of Microcephaly and Guillain-Barré Syndrome; 2016. Available from: <http://www.who.int/mediacentre/news/statements/2016/>

emergency-committee-zika-microcephaly/en/. [Last accessed on 2016 Feb 14].

- Schuler-Faccini L, Ribeiro EM, Feitosa IM, Horovitz DD, Cavalcanti DP, Pessoa A, *et al.* Possible association between Zika virus infection and microcephaly – Brazil, 2015. *MMWR Morb Mortal Wkly Rep* 2016;65:59-62

---

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**Access this article online**

Quick Response Code:



Website:

[www.jmsjournal.net](http://www.jmsjournal.net)

DOI:

10.4103/1735-1995.187277

**How to cite this article:** Shrivastava SR, Shrivastava PS, Ramasamy J. 2015 outbreak of Zika virus disease declared as Public Health Emergency of International Concern: Justification, consequences, and the public health perspective. *J Res Med Sci* 2016;21:55.

