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Temperature and development of Zika virus infection: An Indonesian case

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Dear Editor,

World Health Organization declared that Zika virus is an international health issue [1,2]. Zika virus infection is a health issue occurring in Asia [3] and transmitted through mosquito bites [4], *Aedes aegypti* [5]. As the tropical areas, Southeast Asia has a lot of tropical diseases, some of which are endemic in this region, such as dengue fever, malaria, and chikungunya [6].

In Indonesia, Zika virus was discovered in early 2015 in the Province of Jambi, where the population was approximately 3 million people in 2014 with 51 000 ha of the area [7]. The case of Zika virus was discovered by the Eijkman Institute for Molecular Biology and it was detected from a 27 year-old man who had never traveled abroad. This was supported by the laboratorial test revealing that it was not a dengue virus although having the similar symptoms in dengue fever [8].

Zika virus cases in this Province were analyzed descriptively by connecting the factor of temperature in 2014. The data of temperature varied; the average of temperature in January, February, March, April, June, July, August, October, November, and December was 22.45 °C, while on May the temperature was 23.1 °C, and on September was 21.3 °C. Therefore, it was considered that the average of temperature for the development of Zika virus in the Province of Jambi was 22.4 °C. Chan *et al.* mentioned that the *Aedes aegypti* and *Aedes albopictus* are unlikely to develop at an average of temperature between 16.4 and 35.0 °C [9]. That temperature affects on the physiology of mosquitoes and can lead to increased transmission of the virus [10].

Conflict of interest statement

We declare that we have no conflict of interest.

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