

## Letter to editor:

### Humidity is an ambient parameter to development of Zika virus: an Indonesian case.

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Dear editor,

On February 2016, the World Health Organization expressed that the spread of Zika virus becomes a public health emergency of International concern<sup>1</sup>. Zika virus is a virus of the genus *flavivirus*. This virus has similarities with the dengue virus, which is transmitted by the mosquito *Aedes aegypti*<sup>2-4</sup>. In Asia, Zika virus has spread in some countries such as Thailand, Cambodia, Singapore, Malaysia<sup>5</sup>.

Zika infection has recently been reported in the province of Jambi, Indonesia. So far, there is one case, of an infected 27-year-old man who had never been abroad<sup>6</sup>. The province of Jambi is geographically located between 00 45 'and 20 45' south latitude, and between 1010 10' until 1040 55' East longitude. In climatology, this province has a tropical climate and rich natural resources and biodiversity<sup>7</sup>.

Data of Humidity has been taken at the meteorological, Climatological, geophysical and board of Jambi Province. Humidity was analyzed and calculated by descriptive statistical analysis with findings indicating that the average humidity was 81.8% with a min (76%) and maximum (86%). While in Thailand, the humidity is maximum (94%), which is the appropriate humidity for Zika virus infection<sup>8</sup>. Literature shows that the vectors borne diseases occur in areas of high humidity<sup>9</sup>. There is a signif-

icant relationship between humidity and *Aedes* mosquito larvae<sup>10</sup>. In Srilanka, the average of humidity was 73% and 88% potentially allowing the development of mosquitoes<sup>11</sup>. Humidity is the key factor that affects the life cycle of mosquitoes<sup>12</sup>. Furthermore, it becomes a serious concern because it can cause an epidemic of Zika virus infection in many tropical countries.

#### Conflict of interest:

I declare that I have no conflict of interest.

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#### Ethical approval

This article does not contain any studies with human participants or animals performed by any of the authors.

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