Syndromic Zika and Arboviruses surveillance guidance

In November 2016, EMRO conducted a three-day consultative workshop in Islamabad, Pakistan, to define appropriate surveillance strategy for detection of clusters of Zika virus and other arboviral diseases using both syndromic and event-based surveillance approaches.

Editorial note

Since 2015 to date, 84 countries and territories globally have reported transmission of Zika virus infection, of which 61 areas have ongoing transmission with new introduction or reintroduction reported. Between February and November 2016, WHO declared that the clusters of microcephaly thought to be associated with Zika virus (ZIKV) constitute a public health emergency of international concern (PHEIC) (Please see the graph above). Although PHEIC is now lifted, the medium- and long-term outlook of the Zika epidemic remains uncertain, given so many people are still at risk and so few control tools available.

To date, no countries in the Eastern Mediterranean Region have reported either local transmission or importation of the ZIKV. Aedes mosquitoes that transmit arboviral diseases, including Zika virus, are present in several countries in the Region. A number of countries in EMR have reported repeated outbreaks of dengue, chikungunya and yellow fever in the past including ongoing outbreak of chikungunya in Pakistan; and outbreaks of Dengue in Sudan and Yemen last year (Please see the table). Therefore, there is an urgent need to develop capacity for early detection and response to Zika virus, and other arboviral disease outbreaks in the Region.

Zika itself is a mild disease that can easily go undetected by routine surveillance systems, even though it is associated with serious complications. In addition, there is no current ongoing specific surveillance for Zika virus or other arboviruses in the region using both syndromic and event-based surveillance approach which have been recommended by WHO to the high risk countries for detection of clusters of suspected cases.

On this basis, a consultative workshop to define appropriate surveillance strategy for detection of cluster of Zika virus and other arboviral diseases using both syndromic and event-based surveillance approaches was conducted by EMRO in Islamabad, Pakistan, from 14 to 16 November 2016. 18 participants from 7 regional countries together with WHO temporary advisers and staff members shared their knowledge, reviewed and made suggestions to achieve the excepted outcome of the workshop.

Each country drafted and presented a plan to reinforce surveillance systems for early detection of Aedes-borne diseases; as well the draft “Framework for establishing syndromic and event-based surveillance for Aedes-borne diseases” was reviewed by all participants.

Epidemic Arboviruses reported in the Eastern Mediterranean Region, since 2010

<table>
<thead>
<tr>
<th>Country</th>
<th>Disease</th>
<th>Year/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djibouti</td>
<td>Dengue</td>
<td>2012</td>
</tr>
<tr>
<td>Egypt</td>
<td>Dengue</td>
<td>2015</td>
</tr>
<tr>
<td>Oman</td>
<td>Dengue</td>
<td>2014</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Chikungunya</td>
<td>2016-2017</td>
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<tr>
<td>Somalia</td>
<td>Chikungunya</td>
<td>2016</td>
</tr>
<tr>
<td>Sudan</td>
<td>Dengue</td>
<td>2014/2015</td>
</tr>
<tr>
<td>Yemen</td>
<td>Chikungunya</td>
<td>2011/2012</td>
</tr>
<tr>
<td></td>
<td>Dengue</td>
<td>2010/2012/2015</td>
</tr>
</tbody>
</table>

Update on outbreaks in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; Cholera in Somalia; Cholera in Yemen; Chikungunya in Pakistan.

Current public health events of international concern [cumulative N° of cases (deaths), CFR %]

Avian Influenza: 2006-2017
- Egypt (A/H5N1) [358 (122), 34.08%]
- Egypt (A/H9N2) [3 (0)]

Chikungunya: 2016-2017
- Pakistan [816 (0)]

MERS-CoV: 2012-2017
- Saudi Arabia [1,561 (633), 40.5%]
- Cholera: 2016-2017
- Somalia [23,353 (731), 3.1%]
- Yemen [22,181 (103), 0.5%]

Rift Valley Fever: 2016-2017
- Niger [266 (32), 12%]
- Avian Influenza A (H7N9): 2013-2017
- China [1,223 (380), 31%]

Yellow fever
- Brazil [1,336 (215), 16%]
- Pakistan [381 (0)]
- Afghanistan [63 (0)]
- Zika Virus Infection: 2015-2017
- 84 countries and territories have reported transmission so far.