Zika Virus Epidemic in Latin America/Caribbean

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Main facts

• A recently published study estimated that a single introduction of Zika virus in the Americas would have occurred between May-November 2013, more than 12 months prior the first detection cases of ZIKV in Brazil.

• From Jan 2007 to Mar 2016, Zika virus transmission was documented in a total of 61 countries and territories.

• In 4 of them (Cook Islands, French Polynesia, Isla de Pascua – Chile, and New Caledonia) the ZIKV outbreak is now over.

• In LAC, the geographical distribution of ZIKV has steadily widened since its presence was confirmed in 2015.

• Mosquito-borne ZIKV transmission has been reported in 33 countries and territories of this region.

• 6 countries have reported locally acquired infection in the absence of any known mosquito vectors, probably through sexual transmission (Argentina, Chile, France, Italy, New Zealand and USA).

WHO. Zika situation report. March 31, 2016 / Science 24 Mar 2016:
Timeline of introduction of Zika virus in LAC, 2015-2016
Timeline of introduction of Zika virus in LAC, 2015-2016
Reported cases of DEN, CHIKV & ZIKV by Epidemiological Week, EW 1-10, 2016, in three countries

Source: Ministry of Health of Colombia, El Salvador, and Honduras

Cases of DEN, CHIKV, ZIKV and microcephaly in Pernambuco State, Brazil by EW

Epidemiological Evidence: Link between ZIKA Virus and Microcephaly

- Between Oct, 2015 and Mar, 2016: 6776 cases of microcephaly and/or CNS malformation were reported by Brazil, including 208 deaths.
- But, from 2001 to 2014, only an average of 163 microcephaly cases was recorded nationwide per year.
- The prevalence of microcephaly in 15 states with laboratory-confirmed ZIKV transmission (2.8 cases per 10 000 live births) significantly exceeded that in 4 states without confirmed ZIKV transmission (0.6 cases per 10 000 live births).

WHO. Zika situation report. March 31, 2016
Evidence of the link between ZIKA Virus and Microcephaly

• Microcephaly and other fetal malformations have been reported in Brazil (944 cases), Cabo Verde (2), Colombia (32), French Polynesia (8), Martinique (1) and Panama (1).

• Two additional cases, linked to a stay in Brazil, were detected in the USA and Slovenia.

• Based on observational, cohort and case-control studies there is strong scientific consensus that ZiKV is a cause of microcephaly, GBS and other neurological disorders.

• A case control study published in The Lancet estimated the risk to be 95 cases of microcephaly per 10 000 women infected during the first trimester, in the Polynesia outbreak.

WHO. Zika situation report. March 31, 2016
Zika Virus and Guillain-Barré Syndrome (GBS)

- A case-control study showed a strong association between ZIKV infection and GBS. The risk of GBS was estimated to be 2.4 per 10,000 ZIKV infections*.
- In the context of ZIKV circulation 13 countries or territories have reported increased GBS incidence and/or laboratory confirmation of a ZIKV infection among GBS cases

<table>
<thead>
<tr>
<th>Increase in GBS plus Zika virus lab confirmation in at least one case of GBS</th>
<th>Zika virus lab confirmation in at least one case of GBS</th>
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<tbody>
<tr>
<td>Brazil</td>
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<td>Suriname</td>
<td>Venezuela</td>
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PAHO/WHO. Zika Epidemiological Update. March 31, 2016
Cases of DEN, CHIKV, ZIKV and GBS in Colombia by month 2015-2016

Source: Colombia Ministry of Health

Thank you