

**Dengue** is transmitted by the bite of a mosquito infected with one of the four dengue virus serotypes. It is a febrile illness that affects infants, young children, and adults, with symptoms ranging from mild fever to incapacitating high fever, with severe headache, pain behind the eyes, muscle and joint pain, and rash. The illness can evolve to severe dengue, characterized by shock, respiratory distress, severe bleeding, and/or serious organ impairment. There is no vaccine or specific medicine to treat dengue. The disease has a seasonal pattern: most cases in the southern hemisphere occur in the first half of the year, and most cases in the northern hemisphere in the second half. In the Americas, *Aedes aegypti* is the mosquito vector for dengue. Prevention and control of dengue must involve the family, the community, and active intersectoral participation.

## **Key facts**

- Approximately 500 million people in the Americas are today at risk of dengue.
- Dengue incidence has increased in the Americas over the past three decades, from 16.4 cases per 100,000 in the 1980s to 218.3 per 100,000 during the decade 2000-2010.
- 2013 was an epidemic year in the Americas, with 2.3 million cases and an incidence of 430.8 per 100,000. There were 37,692 severe cases and 1,280 deaths in the hemisphere.
- The four dengue serotypes (DENV-1, DENV-2, DENV-3 and DENV-4) circulate throughout the Americas, in some countries simultaneously.
- Following infection with one serotype, subsequent infection with a different serotype increases a person's risk of severe dengue and death.
- *Ae.aegypti* is widely distributed in the Americas. Only Canada and continental Chile are free from dengue and its vector. Uruguay has no dengue cases, but it does have *Ae.aegypti*.

## **PAHO/WHO response**

- PAHO/WHO provides technical advice and support for dengue prevention and control based on a regional strategy adopted by PAHO/WHO Member States in 2003 (<u>CD44.R9</u>).
- In 2008, PAHO/WHO Member States established a Dengue Laboratory Network of the Americas (RELDA), made up of four PAHO/WHO Collaborating Centers and 22 national laboratories, to strengthen dengue diagnosis.
- PAHO/WHO is supporting the development of an integrated dengue surveillance system model to generate standardized information for all the Americas. PAHO/WHO is also helping develop new standards for surveillance in the Americas.
- PAHO/WHO adapted WHO 2009 clinical guidelines on managing dengue patients for use in the Americas. After their implementation in 2010, the dengue case fatality rate declined from 0.07% to 0.05%.



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