



Epidemiological Alert:

Dengue

21 June 2013

The Pan American Health Organization/World Health Organization (PAHO/WHO) recommends that Member States, especially those that are entering the rainy season with a higher rate of dengue transmission such as Mexico, those in Central America and the Caribbean, continue preparation and response efforts, based on lessons learned and using the Integrated Dengue Management Strategies (IDS-Dengue) approach for prevention and control, with an emphasis on reducing deaths.

Current situation

From the beginning of 2013 up to epidemiological week (EW) 21, there have been 868,653 cases of dengue, 8,406 cases of severe dengue and 346 deaths (case fatality rate of 0.04%)¹ in the Region of the Americas. The circulation of the 4 serotypes in the Region increases the risk of severe forms of dengue. The breakdown of the number of cases, severe cases, deaths and circulating serotypes are available on our website.²

In the first semester of 2013, outbreaks of dengue were registered in Brazil, Costa Rica, Colombia, Paraguay and the Dominican Republic. In places like Peru, cases were registered where there had previously not been locally acquired dengue cases.

Given the usual pattern of dengue in the Region, an increase in cases is expected in the coming months in Central America, Mexico and the Caribbean. This increase would coincide with the rainy season of those countries.

This alert is to advise Member States that are entering the period of increased dengue transmission, to continue coordination with other sectors,³ based on the activities in the IDS-Dengue and comprehensive outbreak response plans. Member States are also encouraged to adapt health services to receive a greater volume of patients, as well as strengthening and providing updates for health personnel on detecting warning signs of dengue and on the clinical management of cases.

¹ The dengue case fatality rate is calculated as the percentage of total deaths due to dengue by the total number of dengue cases.

² http://new.paho.org/hq/index.php?option=com_content&view=article&id=264&Itemid=363&lang=en

³ Through the integrated dengue management strategies (IDS-Dengue).

Recommendations

PAHO/WHO reiterates the recommendations made in the Epidemiological Alerts of 2012, which emphasize inter-sectoral coordination and actions to reduce morbidity and mortality. The following summary of the principle recommendations include additional specific and directed measures for the reduction of dengue mortality.

Case management

1. Refer to the new dengue case management guidelines distributed in the Region by PAHO / WHO and also distributed to all countries for training workshops.
2. Strengthen health education communication strategies to provide patients and family members the information necessary to identify warning signs, so that medical care may be sought at the nearest health facility upon the onset of symptoms that are indicative of severity.
3. Continuously train medical personnel in charge of patient care, both at the primary care level as well as at other levels of care, to ensure early detection and identification of warning signs, and adequate and timely treatment.
4. Organize the health care services network to achieve the highest level of resolution at the primary care level and at other levels of care. Additional measures are detailed below:
 - Training different guard duty personnel of each care unit in the diagnosis and treatment of cases of dengue with warning signs and severe dengue, as well as in the procedural flow for the management of patients with dengue. A specialist should always evaluate if the hospitalization of a patient with dengue is needed.
 - Where the demand for assistance exceeds the capacity of services, directors or managers should assign a Dengue Room with specific medical and specific nursing staff with the responsibility of conducting emergency consultations and throughout the hospital in order to identify hospitalized patients in other areas who might be experiencing warning signs.
 - Address dengue treatment holistically, as a single disease that can present with mild clinical stages and evolution to severe clinical complications that can cause death.
 - Ensure that all patients with a diagnosis of severe dengue are either hospitalized in the intensive care unit or another unit and being analyzed and managed by a team of specialists, ideally with experience in dengue-since it is a disease that requires multidisciplinary assessment.
 - Training at the primary care level of the ambulatory management of dengue, emphasizing: (i) the importance of the early detection of warning signs to prevent shock and prevent death (ii) stabilize the patient in an equipped ambulance prior to taking them to the nearest hospital; (iii) provide a clinical summary and refer by telephone the upcoming hospital transfer.
5. Given that several countries are entering the rainy season, it is advised to designate a sanitary protective area of about 300 meter around care units, where complete

sanitation should be ensured including the removal of all types of breeding sites (e.g. scraps, waste, accumulated water and unused tires). The concomitant presence of the vector increases the risk of transmission to other patients or companions, in outbreak situations where there is a greater influx of patients with an active infection of dengue at medical institutions.

Social Communication

1. Develop, adjust and implement plans for risk communication at national and local levels.
2. Conduct advocacy activities with policymakers and organized civil society (e.g. mayors, churches, NGOs, private enterprise) to raise awareness of the problem and promote a coordinated intersectoral response.
3. Implement plans to modify the social determinants of dengue in areas at risk of disease.

Environmental Management:

1. Eliminate usual vector breeding sites, by:
 - a) Environmental cleaning of each home and common areas of neighborhoods and cities.
 - b) Organization of intensive sanitation campaigns (elimination of breeding sites) especially in areas where garbage collection is frequently interrupted for long periods of time.
 - c) Implementation of breeding site control measures through physical, biological and chemical methods that actively involve the community.
2. Respond in a sustainable manner to environmental problems that arise in every home and community by implementing the Primary Environmental Care Strategy. This includes further work to achieve sustained changes in community awareness, public participation and state environmental policies.

Further information on dengue treatment is available at the following links:

- [Patient care guide in the Region of the Americas \(in Spanish\)](#)
- [Diagnostic, treatment, prevention and control guide \(in Spanish\)](#)