



Epidemiological Alert:

Dengue

13 November 2012

In preparation for the start of the season with the highest risk of dengue transmission due to rainy seasons and increased temperatures, the Pan American Health Organization / World Health Organization (PAHO/WHO) recommends Member States (especially those in the southern hemisphere) to implement their integrated preparedness and response mechanisms in order to prevent transmission and prevent dengue caused deaths.

During 2012, up to Epidemiological Week (EW) 42, there have been a total of 982,142 dengue cases at the regional level (incidence rate of 180 per hundred thousand inhabitants), 23,925 deaths and 521 severe cases. All four serotypes (DEN1, DEN2, DEN3 and DEN4) are circulating in all of the Americas. The highest incidence rate has been recorded in the Southern Cone (242.54 per hundred thousand inhabitants) where 58.1% of total dengue deaths in the continent have been concentrated. More detailed information on the number of cases, severe cases, deaths and circulating serotypes is available online.¹

During 2012, several countries and territories in the Region have reported the occurrence of outbreaks of dengue, including Bolivia, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Puerto Rico and the Dominican Republic. In some of these outbreaks recorded the circulation of multiple serotypes simultaneously such as in El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico and the Dominican Republic. This situation increased the risk of severe dengue causing an additional burden on health services.

In most countries dengue outbreaks occurred in areas that were previously affected by heavy rains, which represented an additional challenge for the implementation of dengue prevention and control activities, especially those related to vector control.

The year 2012 was marked by several initiatives to address dengue at the regional and sub-regional level, which encouraged collaborative efforts between countries, in coordination with the International Technical Expert Group on Dengue. The initiatives have focused on reducing rates of vector infestation, improving the coverage and organization of health services in border areas of intense movement of people, the training of clinicians in managing patients according to new PAHO-WHO guidelines and articulating and coordinating risk communication according to the realities of populations in border areas.

The objective of this alert is to recommend to the Member States that are currently experiencing greater transmission of dengue, as well as those who are entering into the period of greatest circulation, to maintain or initiate their preparations to reduce the risk of transmission to prevent the loss of lives due and the overloading of health services to dengue. These actions must be carried out in coordination with other sectors based on the actions in the national

¹ http://new.paho.org/hq/index.php?option=com_content&view=article&id=1239&Itemid=2291&lang=en

Dengue Integrated Management Strategies (Dengue-IME) and comprehensive outbreak response plans.

The PAHO/WHO reiterates the recommendations made in the 2011 and 2012 Epidemiological Alerts, with particular emphasis on intersectorial coordination, reducing morbidity and mortality, as well as the social and economic impact of dengue epidemics.

Recommendations

PAHO / WHO recommends Member States undertake coordinated actions both inside and outside the health sector prioritizing prevention activities described in national Dengue IMEs. The activation of extra-sectorial National Commissions is recommended, as is the assessment of the level of preparation in accordance to outbreak preparation and response plans.

PAHO/WHO further recommends the implementation of simultaneous actions of increased epidemiological, entomological and laboratory surveillance, focused patient care, social communication and vector control. The simultaneous execution of these actions will have a greater impact and achieve results in less time.

Patient Care:

1. Use as a reference the new dengue case management guidelines distributed in the Region by PAHO/WHO, which are also used for training workshops.
2. Strengthen health education strategies in order to provide patients and family members with the information necessary to identify the disease and its warning signs, in order to seek medical attention at the nearest health center upon onset of the first symptoms.
3. Train, continuously, medical personnel who manage patient care decisions, at the primary care level and other levels of care, in order to ensure early detection and identification of warning signs, as well as adequate and timely treatment.
4. Organize health care services so that referrals to hospital care or dengue treatment centers can be made immediately in cases with dengue warning signs, with underlying clinical conditions or diseases,² or for persons living in particular social circumstances³; in order to receive timely treatment. The organization of patient care should include the possibility to surge the capacity of the health services when there is an increase in cases.
5. Address the treatment of dengue holistically, as a single disease that may present with mild clinical conditions as well as severe clinical complications that can cause death.

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 \(in Spanish\)](#)

² Pregnancy or co-morbidity.

³ Persons who live alone or in very remote areas with difficult access to health services.

Social Communication:

1. Develop, adjust and implement plans for risk communication and social mobilization at local and national levels.
2. Conduct advocacy activities with policymakers and civil social organizations to raise awareness of problems and promote the coordination of an intersectorial response.
3. Implement plans directed at modifying social determinants of dengue in areas at risk for dengue.
4. Train health personnel in educational methodologies and risk communication in preparation for outbreak situations.
5. Organize an inter-institutional and intersectorial committee that provides an integrated response in the case of a national dengue alert.

Environmental Management and *Aedes aegypti* control:

1. Eliminate common vector breeding sites, by:
 - a. Environmental planning in each home and common areas of neighborhoods and cities.
 - b. Organization of intensive sanitation campaigns (elimination of breeding sites) in areas of high risk and/or of high *Aedes aegypti* infestation, for example where the collection of garbage is interrupted for long periods of time.
 - c. Implementation of breeding control measures through the use of physical, biological and chemical methods actively which actively involve the community.
2. Respond sustainably to environmental problems that arise in every family and community by using the strategy of Primary Environmental Care (PEC). This includes further work to achieve sustained changes in community awareness, public participation and state environmental policies.
3. Promote public policies to intervene in social and environmental determinants that are directly related to the transmission of the disease.