



Epidemiological Alert:

Update on Dengue Situation in the Americas

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PRESENTATION

The purpose of this alert is to inform on the current dengue situation in the Region and to alert the Member States to actively implement their local and regional plans in complying with the Integrated Management Strategies for dengue prevention and control.

The information that is presented in this update has been obtained from the data provided by the Ministries of Health of the Member States through reports sent to the Pan American Health Organization/World Health Organization (PAHO/WHO) or by updates in their web pages.

As of the epidemiological week (EW) 6 of 2011 a total of 32,274 cases of dengue, of which 786 correspond to severe dengue and 39 deaths have been notified in the Americas Region.

The following is a summary of the situation in those Member States of which there has been access to updated information.

WARNING SIGNS IN DENGUE

Recognizing the warning signs of dengue allows lives to be saved. It must be recommended to the population to seek immediate medical attention if the following are present:

- Abdominal pain
- Persistent vomiting
- Mucosal bleed
- Lethargy, restlessness

The health personnel must be alert in case that the patient presents:

- Fluid accumulation
- Hepatomegaly greater than 2cm
- Increase of the hematocrit with rapid decrease of the platelets

Box 1. Number of dengue cases and severe dengue by sub region in the Americas up to the epidemiological week 6 of 2011. Regional Dengue Program PAHO 2011

Sub-regions	Dengue*	Incidence rate	Severe dengue**	Deaths	Case-fatality rate
North America, Central America and Mexico	1,804	1.2	9	0	0.00
Andina	29,183	28.5	772	35	4.53
Southern Cone	1001	0.4	5	4	80.00
Hispanic Caribbean	270	1.1	0	0	0.00
English and French Caribbean	16	0.2	0	0	0.00
TOTAL	32,274	6.2	786	39	4.96

*DF + DHF, DSS and/or Severe Dengue

**Include DHF, DSS and/or Severe Dengue

ANDINA SUB-REGION

BOLIVIA

During EW 6, cases continued to be registered in the departments of Pando, Cochabamba, Santa Cruz, Tarija, La Paz and Chuquisaca. The department of Beni, located in the northern area of the country, bordering Brazil, registered 62% of the 3,886 cases of dengue registered in the first 6 weeks of 2011 at national level. The trend in the number of cases showed an increase during the EW 6. Six of the nine departments have confirmed cases of dengue.

As of EW 6, there were 8 registered deaths with suspicion of dengue, all of them in the department of Beni. Since 2010 the serotypes DEN-1, DEN-2 y DEN-3 were circulating.

PERÚ

As of EW 5, 15 of 24 of the departments registered probable and confirmed cases of dengue. Among those registered the majority of cases were in the departments of Loreto, San Martín, Cajamarca, Ucayali, Madre de Dios and Piura.

The department of Loreto, located in the north, on the border between Ecuador, Colombia and Brazil, registered a dengue outbreak since week 51 of 2010. The control of this event has motivated the mobilization of important resources at the local level and the displacement of a team of experts from PAHO/WHO to support the control actions.

More than 90% of the cases of this outbreak have occurred in the city of Iquitos (capital of the department). The circulation of the serotype DEN-2, genotype American/Asian, has been confirmed. It has added to the serotypes DEN-1, -3 and -4 that were already in circulation. Just as there have been registered in other countries during epidemics, the simultaneous circulation of different serotypes coincides with the increase in the number of severe cases with warning signs.

As of EW 5 of 2011, in Loreto there have been 12,563 dengue cases, of which 84.5% (10,613) were cases without warning signs, while 14.9% (1,864) presented warning signs and 0.7% (86) were severe cases. Additionally, up to date there have been 14 deaths reported, of a total of 1,892 hospitalized patients. Around 64% of the cases were younger than 15 years of age.

It is noteworthy that in the last years Peru has trained health care personnel in the new PAHO/WHO guidelines for diagnosis and treatment. This activity has contributed in determining the clinical outcome of dengue in the country. In outbreak situations, an early recognition of the warning signs to institute timely and appropriate treatment and monitoring is the key to reduce dengue mortality. This applies both, health care personnel and the population, which should be informed in order to seek for medical care in a timely fashion.

OTHER ANDINE COUNTRIES

After the important outbreak registered in the second semester of 2010; Colombia and Venezuela have presented fewer cases this year when compared to this same period in the last year. Nevertheless, transmission continues and the health systems are still in alert. The emergency due to floods that Colombia faced during the winter season required the strengthening of the surveillance activity. As of 5 of 2011, there were 4,018 cases of dengue, 217 (5%) of which were severe dengue and 13 deaths reported.

As of EW 5, Venezuela reported 6,758 cases of dengue, including 391 of severe dengue. Any death was reported. In both, Colombia and Venezuela, the four serotypes (most of them DEN-2) are circulating.

CENTRAL AMERICA AND THE CARIBBEAN

As of EW 6 of 2011, this sub region maintained a low transmission of dengue, and seemed to have overcome the atypical situation of dengue that alerted its health authorities in 2010.

El Salvador has registered up to EW 6 of 2011, a total of 750 suspected cases of dengue and 5 of severe dengue; a number inferior to the 1,766 cases of dengue and 48 of severe dengue registered in the same period of 2010. Any deaths have been reported.

Costa Rica, as of EW 5 of 2011, notified 778 cases of dengue; a decrease of 48% in the number of cases of dengue reported with respect to those registered in the same period of the 2010. Similar situation was observed in all Costa Rica regions with the exception of Huetar Atlantica, which dengue cases continue to increase.

SOUTHERN CONE

ARGENTINA

During 2011, there were four dengue cases reported in the provinces of Buenos Aires (2), Mendoza (1) and the autonomous city of Buenos Aires (1); all of them with history of recent travel to countries where dengue virus is currently circulating. An active surveillance is being maintained, especially in the border areas, with report of febrile cases in 16 provinces.

CHILE

As of EW 3 of 2011, there was only one confirmed cases of dengue (imported) in the Isla de Pascua in a tourist from an endemic dengue country. In response, the surveillance and vector control teams were mobilize. Education activity to general population and tourists was implemented. Isla de Pascua is the only geographic place in Chile where the vector for dengue as well the circulation of DEN-1 has been detected in the past years.

Continental Chile and Uruguay continued being the only countries in the region where up to date the circulation of the dengue virus has not been registered.

PARAGUAY

As of EW 5 of 2011, there have been 1,469 suspected dengue cases, of which 318 were confirmed by laboratory and/or epidemiological criteria. Of the confirmed cases, 31 patients were hospitalized, 55% of them with warning signs and 13% with severe dengue. There have been 4 deaths registered.

In 82% of the notified patients are above the age of 15. The circulation of DEN-2 has been confirmed in Asuncion and the department of Alto Parana (border with Brazil and near Argentina), while DEN-1 has been isolated in the department of Central, which neighbors Asuncion.

BRAZIL

In 2011, Brazil has prioritized its prevention and control activities in 16 states, after an analysis realized by the Ministry of Health where epidemiological, environmental and demographic factors were considered. Historically, 70% of dengue cases in the country have been registered within the months of January and May.

In the Amazons, Roraima and Para states, cases of DEN-4 were detected, while in the rest of the country serotypes DEN-1, -2 and -3 are currently co-circulating.

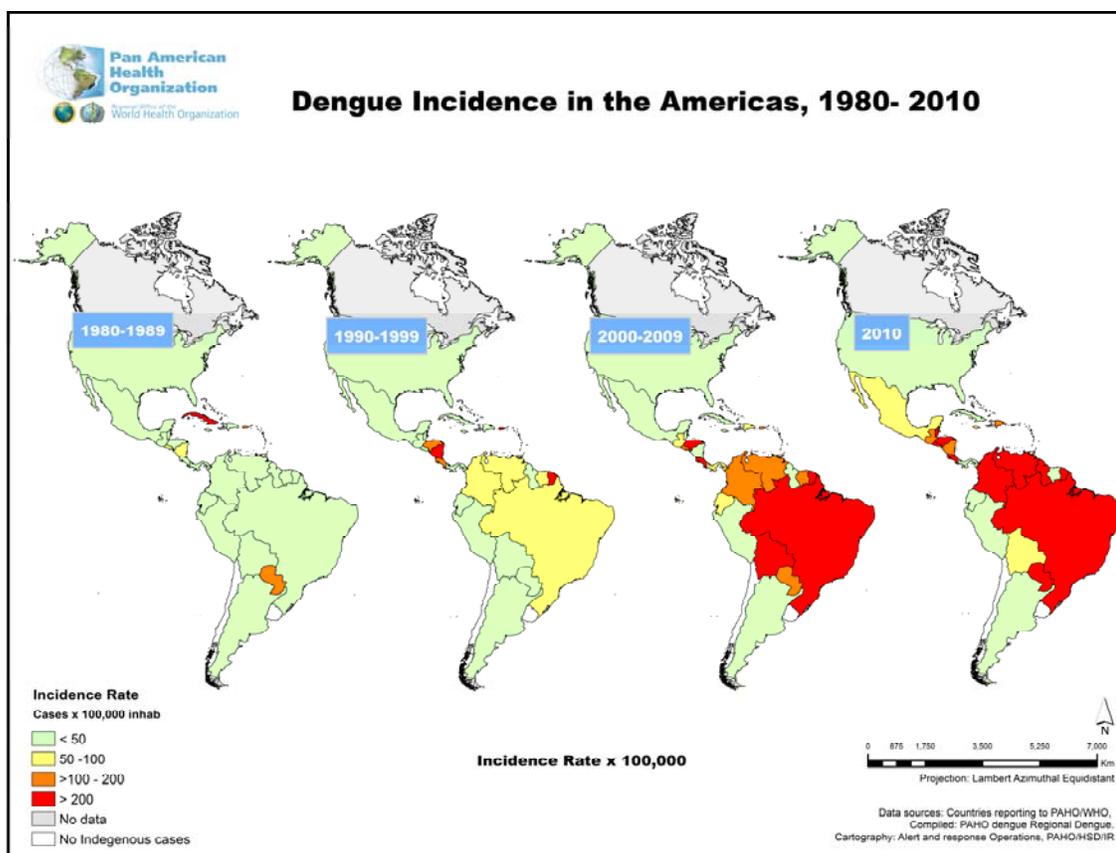


Figure 1. Dengue incidence in the Americas 1980 –2010. PAHO 2011

FINAL CONSIDERATIONS AND RECOMMENDATIONS

Dengue is endemic in the Americas. Many factors should be considered as part of the effort control. Among them are climate factors (frequent rains, high temperatures), the migration, the growth of population, the lack of investment in basic services (water supply, solid waste management) and the circulation of several dengue serotypes in the Region (DEN-1, -2, -3 and -4).

The strengthening of the surveillance system by the Member States has improved the report and the number of registered cases.

PAHO/WHO reinforce the importance of strengthening prevention and patient care based on primary health care with the objective of avoiding deaths. In this sense, PAHO/WO recommended to all Member States to strengthen the training of health care workers to identify those at risk of developing severe diseases and needing hospital care.

BEST PRACTICES FOR THE ATTENTION OF PATIENTS WITH DENGUE

The new guidelines for dengue diagnosis and treatment for Americas Region (La Paz, 2010) was designed to be applied from primary to tertiary level even in those places with limited resources. Provide a stepwise approach to the management of dengue, including the case management of severe forms at the hospital level.

Even when dengue is a complex disease in its clinical manifestations, the treatment is relatively simple, inexpensive and very effective to save lives, when the appropriate interventions take place. The key is the early detection and the rapid recognition of the various clinical problems during the different phase of dengue.

Resources and guidelines are available at the World Health Organization (WHO) website:

<http://www.who.int/csr/disease/dengue/en/>

The following are consider the best clinical practices in clinical management of dengue patient:

- Orientation on the recognition and monitoring of the warning signs.
- Give paracetamol for high fever and pains if the patient is uncomfortable. .
- Fluid therapy if vomit persists or if a rapid elevation of the hematocrit is register.
- Use only isotonic solutions in severe dengue.
- Give enough intravenous liquid to maintain the fluid balance during plasma leakage in severe dengue case.
- Avoid intramuscular injections in dengue patients.
- Adjust the treatment of intravenous liquids according to the surveillance of the vital signs, the condition of the patient and the measure of the hematocrit.
- Strict monitoring of the blood glucose level.
- Decrease or interruption gradually the fluid therapy when the patient's condition improves.