



Dengue Situation in Bolivia

(6 February 2009)

1. Current Situation of Dengue in Bolivia

Up to 6 February 2009 (Epidemiological Weeks/ EWs 1–5), reports indicate:

- 12,372 suspected cases of dengue.
- 1,326 confirmed cases of classic dengue.
- 55 suspected cases of dengue hemorrhagic fever (DHF).
- 7 deaths under investigation.
- *Fatality Rate:* 12.7 %
- *Serotypes identified:* DEN 1 and 3

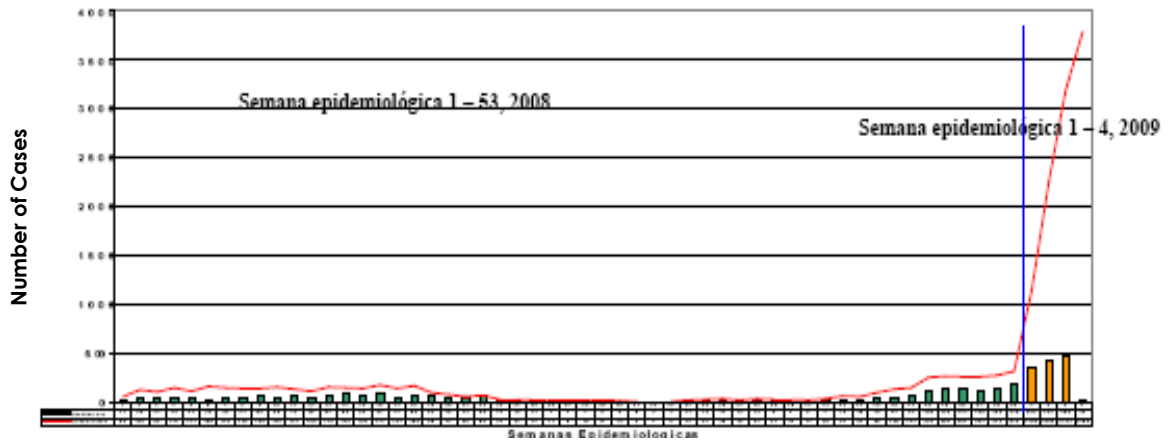
Departments affected: Beni, Chuquisaca, Cochabamba, La Paz, Oruro, Pando, Potosi, Santa Cruz de la Sierra, Tarija.

The increase in incidence is mostly concentrated in Santa Cruz de la Sierra.



- From 1995 to 2007, 29,584 cases of dengue were reported, including 193 cases of dengue hemorrhagic fever and 9 deaths from dengue; During this period, dengue serotypes DEN-1, 2, and 3 were in circulation, in different combinations.
- Up to Epidemiological Week / EW 52 of 2008, a total of 3,004 dengue cases were reported, including 44 cases of dengue hemorrhagic fever and one death, with the serotype DEN-1 predominating.
- From the first week of 2009, an increase in the number of cases of classic dengue was reported, a disease trend that had been increasing since EW 48 in 2008 (see Figure 1).
- During the second week of January 2009, cases were registered in four departments of the country (Santa Cruz de la Sierra, Cochabamba, Beni y Pando). In relation to the same period in 2008, there is a tenfold increase in the number of cases.

Figure 1:
Dengue Situation by Epidemiological Week (Semana epidemiológica),
Bolivia, 2008 – January 2009



As can be seen in the graph, there is a very intense upward curve in the number of suspected cases from EW 48 onwards.

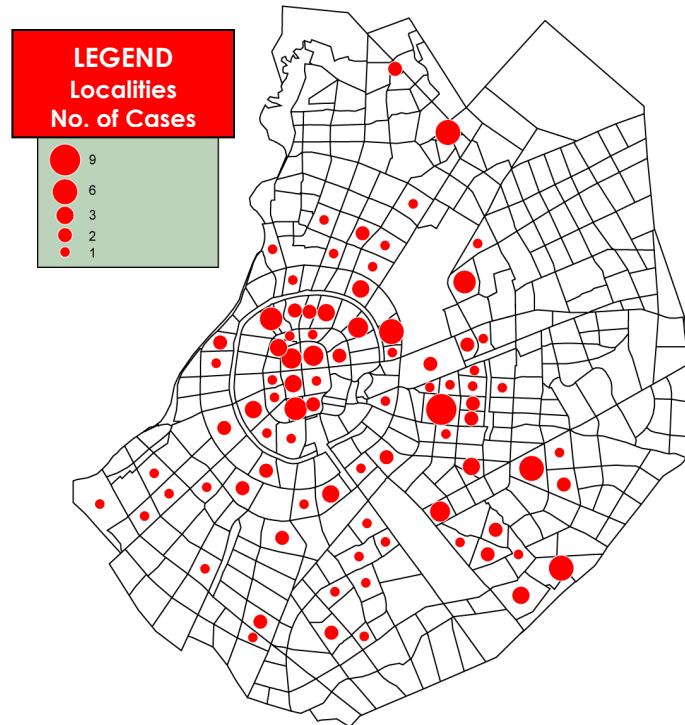
Source Epidemiological Report No. 8, Ministry of Health and Sports of Bolivia
 [Parte epidemiológico N° 8 – Ministerio de salud y Deportes de Bolivia].

- On 14 January 2008, the Ministry of Health announced the decision to emit a federal decree declaring a state of emergency for dengue.
- To date, the most elevated rates are present in Pando (460=661/100,000), Santa Cruz de la Sierra (9,306=393/100,000), and Beni (820=197/100,000).
- With respect to the serotypes in circulation, the spread of serotype DEN-1 has been detected in the cities of Santa Cruz de la Sierra, Montero, and El Torno; serotypes DEN-1 and DEN-3, in Entre Ríos and Minero; and DEN-3, in Cochabamba—though DEN-1 is predominant.
- Seven deaths have been reported from dengue hemorrhagic, all of which are under investigation. The fatality rate is 12.7%, which exceeds the regional rate of 1.2%.
- However, most of the cases are classic dengue, some with hemorrhagic manifestations, and a few cases of dengue hemorrhagic fever.

2. Prevention and Control Activities Underway

a. Local-Level Activities

Epidemiological Situation of Dengue, Santa Cruz, Bolivia, 2009



Source Epidemiological Report No. 8, Ministry of Health and Sports of Bolivia
[Parte epidemiológico N° 8 – Ministerio de salud y Deportes de Bolivia].

Santa Cruz de la Sierra

- A special *Aedes aegypti* command unit was established for vector control; and epidemiological surveillance, entomological, vector control, clinical management, laboratory, and social communication committees were formed by the Departmental Health Services
- A decision was made to concentrate efforts by intensifying epidemiological and entomological surveillance in Districts 6, 7, and 8, where most of the transmission has been recorded. Around 200 persons will be working on destroying breeding sites.
- Fumigation is being carried out using individual operators and heavy-equipment teams, and efforts are being made to increase team capacity. Work with some 2,000 persons is being foreseen in a house-to-house mop-up operation to remove trash and to destroy breeding sites. In addition, on Saturday the 7th of February and on Sunday the 8th, some 2,000 troops were mobilized to help destroy breeding sites in priority districts.
- One specialized brigade is reviewing health facilities to avoid vector foci occurring there.

Cochabamba

- A variety of activities are being developed, among which is putting more than 30 brigades to work together with the armed forces, police, health sector, and a contingent of Cuban doctors. Some 80 municipal gendarmes are working on a daily basis onsite to destroy breeding sites found in the most affected blocks.
- Actions are being planned in schools and markets, involving neighborhood associations and educational staff. It is noteworthy that these vector control interventions are being carried out on the basis of available epidemiological evidence.
- The country has indicated that, to date, health service capacity has not been exceeded.

3. PAHO Support

- In December 2008, national experts, with support from the International Dengue Task Force (GT-Dengue) and PAHO/WHO, prepared the **Integrated Strategy for Dengue Prevention and Control (EGI-Dengue)** in Bolivia. At that time, the country also developed its **EGI-Dengue Contingency Plan to Respond to Dengue Outbreaks and Epidemics**, which serves as a basis for what actions to take during the current outbreak.
- PAHO/WHO is currently providing support to the country with six experts from different areas—including entomology, epidemiology, social communication, and patient care—present in Santa Cruz de la Sierra.
- In the area of *Aedes aegypti* control, the PAHO/WHO entomology expert is advising staff from the National Center for Tropical Diseases (*Centro Nacional de Enfermedades Tropicales / CENETROP*), with the objective of providing support to surveillance and control activities. Seventeen persons will be working on municipal stratification to implement the strategy of *Rapid Survey of Aedine Indices (Levantamiento de Índices Aédicos Rápido / LIRAc)* in the four Urban Area Health Networks (*Redes de Salud del Área Urbana*). In addition, support is being provided to coordinate the purchase of fumigation equipment and pesticides.
- PAHO/WHO mobilized an expert in the area of patient care who has been incorporated into current activities. Work is being done with all the directors of public hospitals, health networks, and primary care facilities to reinforce the need for daily case reporting; and healthcare personnel has been trained in case management.
- Support is being provided to mobilize financial resources to meet the country's expressed needs.