Disaster Risk Reduction in Paraguay

A model using Sendai Framework for Disaster Risk Reduction
2015 - 2030

Dr. Raúl Latorre. General Director of Health Services
Steps to follow

- **Priority 1**: Understanding disaster risk.
- **Priority 2**: Strengthening disaster risk governance to manage disaster risk.
- **Priority 3**: Investing in disaster risk reduction for resilience.
- **Priority 4**: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.
Priority 1: Understanding disaster risk

Ciudad de Alberdi. Ñeembucú, Paraguay
According to forecast El Niño will continue, reaching its maximum intensity in January and lasted until Jun this year.
The behavior is similar to the years 1997-1998 Child (very strong phenomenon).

- Departments and districts affected by flooding. Paraguay. 2016
  - Concepción
  - San Pedro
  - Cordillera
  - Guairá
  - Misiones
  - Alto Paraná
  - Central
  - Ñeembucú
  - Pte. Hayes
  - Asunción
Distribution of diseases, Flood-Paraguay, Dec 2015 event 5-Feb-2016

Fuente: Planilla de enfermedades DGVS al 05/02/2015

N=6.005
Priority 2: Strengthening disaster risk governance to manage disaster risk
Emergency committee: Health Ministry

INSTITUTIONAL AND RESPONSE INTERSECTORIAL

In the date 18.12.2015 the MSP and BS issues Resolution S. G. Health Alert No. 977 which declared in areas affected by floods and institutional commission for a contingency plan is formed.

<table>
<thead>
<tr>
<th>Component</th>
<th>Institutional managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>General coordination</td>
<td>Vice- Minister of Health</td>
</tr>
<tr>
<td>General Management and Planning</td>
<td>Cabinet, Planning and Evaluation</td>
</tr>
<tr>
<td>Health Care Disaster Emergency</td>
<td>Health Care Disaster Emergency</td>
</tr>
<tr>
<td>Patient Care</td>
<td>Networks and Health Services</td>
</tr>
<tr>
<td></td>
<td>Directorate General of Health Services</td>
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<tr>
<td>Epidemiological surveillance</td>
<td>health surveillance</td>
</tr>
<tr>
<td>entomological surveillance and vector control</td>
<td>National Malaria Eradication Service (SENPEA)</td>
</tr>
<tr>
<td>Laboratory monitoring</td>
<td>Central Public Health Laboratory</td>
</tr>
<tr>
<td>Social communication</td>
<td>Health Communication</td>
</tr>
<tr>
<td>Health promotion</td>
<td>Health promotion</td>
</tr>
<tr>
<td>Environmental health</td>
<td>Environmental Health (DIGESA), National Environmental Sanitation Service</td>
</tr>
<tr>
<td>Management products and supplies</td>
<td>Strategic inputs in Health</td>
</tr>
<tr>
<td>HR Organization Health</td>
<td>HR; Operational Procurement</td>
</tr>
<tr>
<td>Administrative and Legal Management</td>
<td>Administration and finance; Legal advice</td>
</tr>
</tbody>
</table>
Priority 3: Investing in disaster risk reduction for resilience.
Working phases: flood emergency

Phase A
- Prevention
- Mitigation
- Preparation

Before flood

Phase B
- During flood

Phase C
- rehabilitation
- reconstruction

After flood

- Improve coordination of intersectoral and multidisciplinary work to introduce activities that strengthen health organization and structure to reduce or limit the adverse impact of threats.

- Using resources and opportunities for alerts to guide intervention activities and assistance to communities and individuals directly affected by the floods and which can respond to the health effects of these.

- Minimize the impact of the consequences of health problems arising during the flood, targeting rehabilitation and repair of affected communities and the services involved.
Projects

• Strengthening surveillance and preparation.
• Housing construction project outside flood areas.
• Development of integrated projects (work, health, education, culture for people who lives in flood areas).
• Social communication strategy.
• Educational strategy
Athropod borne deseases.
Potencial disaster impact
Distribution of Aedes aegypti and A. albopictus in the Americas

Ae. aegypti

Ae. albopictus

Fuente: Preparación y respuesta para el Virus de Chikungunya
Circulating virus serotypes
Dengue

2015

2016*

PARAGUAY
Serotipos Identificados
por Departamentos
Año 2016

Referencia
SERO TIPOS
IDENTIFICADOS
DEN 1
DEN 1 y 4
SIN IDENTIFICACION

Fuente: LCSP y DGVS
Geoprocesamiento: G.M.-CNE/ DGVS
Actualizado al 01/02/2016
Dengue outbreaks assets. Paraguay

Asuncion Metropolitan Area (AMA)
Alto Parana (Ciudad del Este)
Amambay (Pedro Juan Caballero)
Guairá (Villarica, Barrio Yvaroty), Concepción
San Pedro Norte
Paraguarí (Paraguarí districts and Yaguarón)
Itapúa (Encarnation)

In Asunción; outbreaks: Loma Pyta, Zeballos cué, San Pablo, Obrero, Mbocayaty, San Vicente, Trinidad, Roberto L. Petit.
In Central; outbreaks brotes: San Lorenzo, Capiatá, Fernando de la Mora, Luque, Mariano Roque Alonso, Ñemby, Villa Elisa.
Chikungunya virus circulation. Paraguay

In the departments of Alto Paraná, Misiones, Guaira, San Pedro, Presidente Hayes and Boquerón confirmed cases related to areas of sustained transmission were recorded.

**CHIKV confirmed in the Central department, Fdo cases. de la Mora and Paraguarí, Yaguarón.**
February 1, 2016

WHO announces that the association of microcephaly Zika is a public health emergency of international concern (PHEIC)

Health Regulations (2005) on the Zika virus and increased neurological disorders and congenital malformations
Zika current circulation in the Americas, February 2016

Countries and territories reporting Zika virus circulation:
- Aruba
- Barbados
- Bolivia
- Brasil
- Colombia
- Curacao
- Ecuador
- El Salvador
- Guatemala
- Guadalupe
- Guyana
- Guiana Francesa
- Haiti
- Honduras
- Islas Virgenes USA
- Jamaica
- Martinica
- México
- Nicaragua
- Panamá
- Paraguay
- Puerto Rico
- Rep Dominicana
- Saint Martin
- Surinam
- Venezuela
Zica virus circulation. Paraguay

The actions taken by the Ministry of Public Health and Social Welfare, were:

- Intensified surveillance in border areas.
- Intensified surveillance of acute febrile syndrome in pregnant and follow-up to the birth of babies.
- Intensified control activities SENEPA.
- Monitoring laboratory surveillance in border areas to confirm and / or rule out cases of febrile syndrome.
- Encourage active community participation in the destruction of vector breeding sites.

* 6 cases live in dry zone border between Ponta Pora, Brazil, and Pedro Juan Caballero, Amambay, and is routinely mobilized between the two cities; 2 people relate a history of travel within the country, the department of Concepción.
## Differential diagnosis

<table>
<thead>
<tr>
<th>Sign/ Symptoms</th>
<th>Dengue</th>
<th>Chikungunya</th>
<th>Zika</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>++++</td>
<td>+++</td>
<td>++</td>
</tr>
<tr>
<td>Muscular and join pain</td>
<td>+++</td>
<td>++++</td>
<td>++</td>
</tr>
<tr>
<td>Edema legs and hands</td>
<td>0</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Maculopapular rash</td>
<td>++</td>
<td>+++</td>
<td>++++</td>
</tr>
<tr>
<td>Retrorbital pain</td>
<td>++</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Conjunctival hyperemia</td>
<td>0</td>
<td>+</td>
<td>++++</td>
</tr>
<tr>
<td>Lymphadenopathy</td>
<td>++</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Hepatomegaly</td>
<td>+</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>Leukopenia / thrombocytopenia</td>
<td>++++</td>
<td>+++</td>
<td>0</td>
</tr>
<tr>
<td>Hemorrhage</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Strategies

• Active government participation in management solutions.
• Encourage active community participation in the destruction of vector breeding sites.
• Stimulate active participation intersectorial.
• Public-Private Partnerships.
• Involvement of scientific societies.
PUBLIC HEALTH EMERGENCY: NATIONAL AND INTERNATIONAL
Dengue, Chikungunya, Zika
Processes to follow in the health network in emergency. **Focus people**

**First level**
- Design and adopt a POA
- Establish performance management system
- Determine costs and expense reports
- Diagnostic information and standardize
- Link to the CLS, activating functions

**Second level**
- Selection of micro-networks or regions
- Define the population and territory
- ASIS
- Determine network units
- Determine Services Folder and CGP
- Determine your network needs: HR, logistics.

**Third level**
- Normalize network
- INTEGRATION between providers and community

**Community Network**
Organizational response
Example: Health service for pregnant
Axes

- Early detection of cases.
- Community participation. Early careseeking.
- Management algorithms
- Family planning
- Tracking pregnant. (US).
- Management of suspected and confirmed cases (ethics)
- Preparation services.
- Network integration.
- Services post-acute phase
MONITORING OF PREGNANT
The Challenge of Zika Virus

- Early detection of pregnant women
- Regular and regular prenatal care.
- In each query should be questioned about the onset of clinical symptoms and signs.
- Special attention to routine tests for syphilis, toxoplasmosis, CMV and rubella, which will be relevant if you need etiologic Confirmation before a birth defect.
Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction in Paraguay
Recomendations

• Train the existing workforce and voluntary workers in disaster response (in all levels)
Strengthen technical and logistical capacities to ensure better response in emergencies.
To promote the cooperation of diverse institutions
• Stockpiling of necessary materials within the reach of the community
Main challenge
Power People
Thank you...