



**Pan American
Health
Organization**



*Regional Office of the
World Health Organization*

EUROPEAN COMMISSION



Humanitarian Aid and Civil Protection

Creating safer communities in the Caribbean by strengthening the health network

**Lealou Reballos
PAHO/WHO
24th October 2011**



Hundreds of hospitals are affected by natural phenomena in the Americas

EARTHQUAKES

- Peru, 1970
- Guatemala, 1976
- Mexico, 1985
- El Salvador, 2001
- Peru, 2007
- Haiti, Chile, Mexico, 2010

HURRICANES

- Jamaica, H. Gilbert, 1988
- Dominican Republic, H. Georges, 1998
- Honduras and Nicaragua, H. Mitch, 1998
- Grenada, H. Ivan, 2004
- United States, H. Katrina, 2005
- Guatemala, H. Stan, 2006
- Nicaragua, H. Felix, 2007
- Cuba, H. Gustav & Ike, 2008

OTHER PHENOMENA

- Colombia, volcanic avalanche, 1985
- Peru & Ecuador, El Niño Phenomenon, 1997
- Argentina, floods, 2003
- Haiti & Dominican Republic, landslides, 2004
- Mexico, floods, 2007
- Mexico, Chile, Argentina, Pandemic H1N1 2009





In the Caribbean





Hurricane Gilbert in Jamaica

Location	Event	Year	Nature of Hazard	Overall Effects
Jamaica	Hurricane Gilbert	1988	Category 5	Twenty-four hospitals and health centers damaged or destroyed; 5,085 patient beds lost



Location	Event	Year	Nature of Hazard	Overall Effects
Saint Kitts and Nevis	Hurricane George	1998	Category 3	Joseph N. France Hospital in Saint Kitts suffered severe damage; 170 beds lost



Location	Event	Year	Nature of Hazard	Overall Effects
Dominican Republic	Hurricane George	1998	Category 3	Eighty-seven hospitals and health centers damaged or destroyed



Location	Event	Year	Nature of Hazard	Overall Effects
Montserrat	Mt Soufriere Eruption	1995-1997	Volcanic Eruption	Nearly 2/3 landmass evacuated & deemed inhabitable. Loss of medical school and new hospital



Hurricane Ike in Grand Turk

Location	Event	Year	Nature of Hazard	Overall Effects
Grand Turk	Hurricane Ike	2008	Category 4	Pharmacy stores and supplies facilities received major damage or total destruction



Earthquake in Haiti





Location	Event	Year	Nature of Hazard	Overall Effects
Saint Lucia	Hurricane Tomas	2010	Category 1	1 Hospital out of operation and 6 Health centers operated with reduced capacity



The problem

- More than 67% of the nearly 18,000 hospitals in Latin America and the Caribbean are located in areas at higher risk of disasters.
- Hospitals are a huge investment and represent more than 60% of the Ministries of Health Budget.
- Hundreds of them were destroyed as a result of major earthquakes, hurricanes, and floods, causing massive impact in health care and enormous economic loss for the health sector.



The problem

- Common misconception - damage to critical health facilities promptly repaired.
- But damaged health infrastructure recovers at a pace slower than other service infrastructure (trade, roads, bridges, telecommunications, housing)
- Even when a building remains standing after a disaster it may be rendered incapable of providing medical care due to non-structural damage (e.g. lack of electricity, water supply, etc)



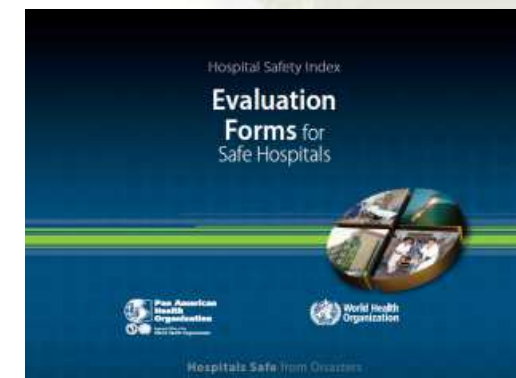
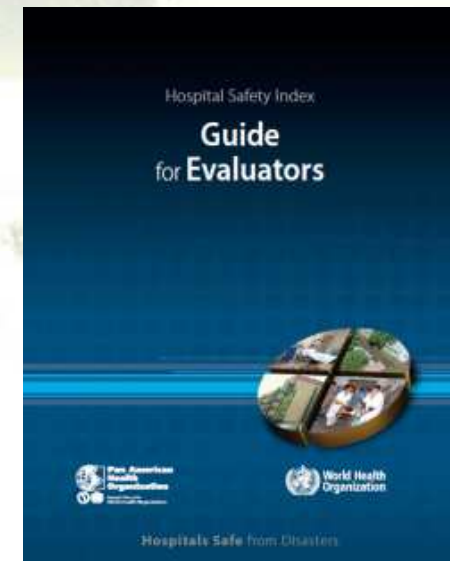
Safe Hospital

- Is a health facility whose services remains accessible and functioning, at maximum capacity and in the same facility during and immediately after a large-scale disaster or emergency
- Levels of Protections:
 - Life Protection
 - Investment Protection
 - Operational Protection



Hospital Safety Index

- provides a snapshot of the probability that a hospital or health facility will continue to function in emergency situations.
- By determining a hospital's Safety Index or score, countries and decision makers have an overall idea of its ability to respond to major emergencies and disasters.
- Does not replace costly and detailed vulnerability studies – 1st step toward prioritizing a country's investments in hospital safety





Hospital Safety Index

1. Location (geological, hydrometeorological, environmental etc)
2. Structural safety (history of the buildings, structural systems, construction materials etc)
3. Non-structural safety (electrical, communications, water supply systems etc.)
4. Organization and management of the institution (disaster plan, EOC, operational and contingency plans etc.)



Safety Index

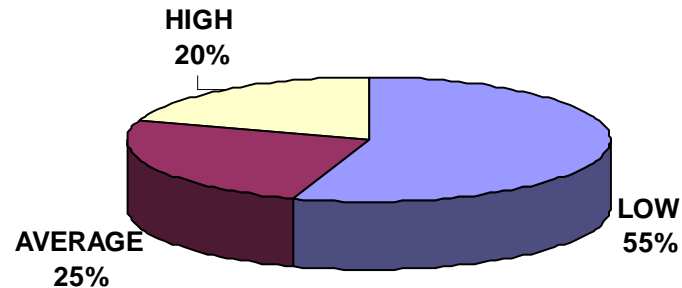
Safety index: **0.47**

Health Facility Status: **Category B**

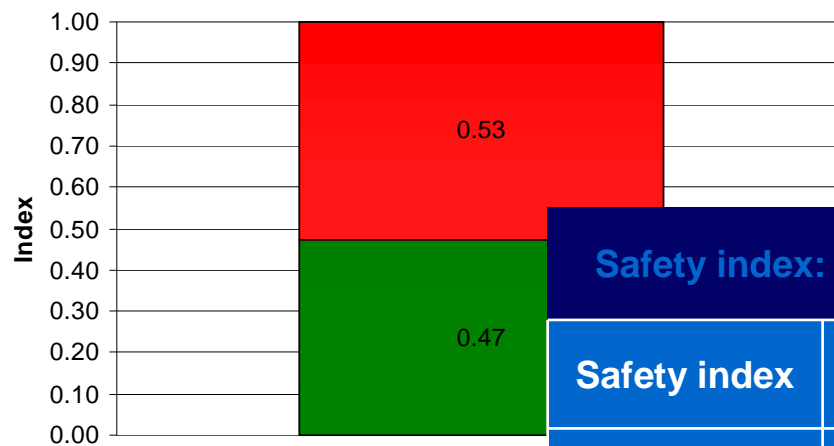
Safety index	Category Type	What should be done?
0 – 0.35	Category C	Urgent measures to protect the life of patients and hospital staff
0.36 – 0.65	Category B	Necessary measures are required in the short term to reduce losses
0.66 – 1	Category A	Preventative measures are required to maintain and improve safety



Functional Safety



Hospital Safety Index



Hospital ...

Assessment Results for the first 395 hospitals

Category A 36 %

Category B 48 %

Category C 16 %

Safety index:

0.47

Health Facility Status:

Category B

Safety index

**Category
Type**

What should be done?

0 – 0.35

Category C

**Urgent measures to protect the life
of patients and hospital staff**

0.36 – 0.65

Category B

**Necessary measures are required in
the short term to reduce losses**

0.66 – 1

Category A

**Preventative measures are required
to maintain and improve safety**



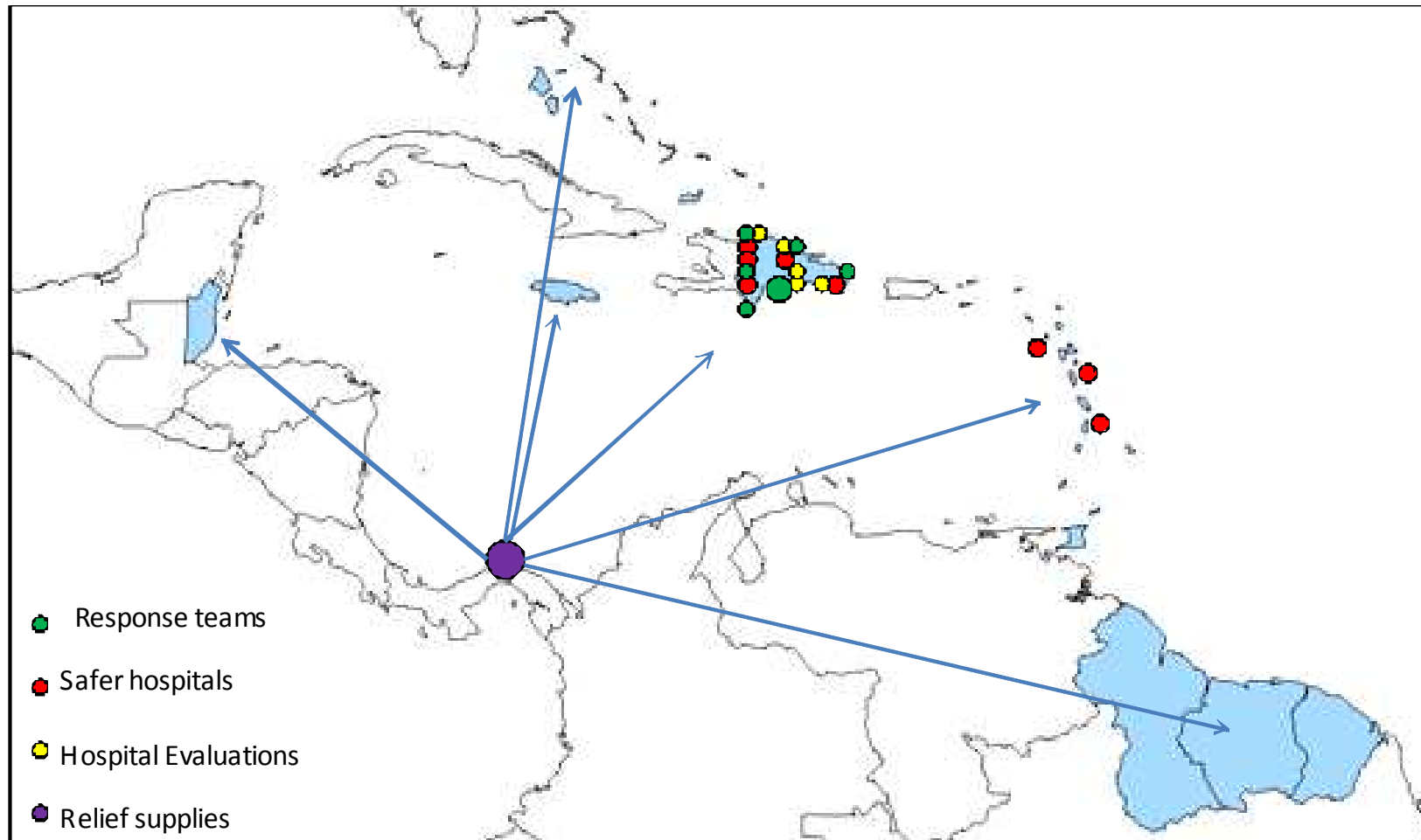
Creating safer communities in the Caribbean by strengthening the health network (DIPECHO-PAHO)

Countries	<u>Expected Results</u>	<u>Indicators</u>
Dominican Republic	R1. Local health disaster EOC and teams established in synergy with other sector response plans in the Dominican Republic.	R1. One national and 5 local health response plans & teams established, equipped and trained.
St. Vincent & the Grenadines	R2. Safe hospitals strategy adopted in the Dominican Republic.	R2. Eighty HSI evaluators accredited by academic institution - Five hospitals improved functional and non-structural safety indexes - Adoption of National Safe Hospitals policy
St. Kitts and Nevis	R3. Hospitals in the Caribbean strengthened to respond to emergencies and disasters.	R3. Three hospitals with low safety levels improve at least 5% their safety index
Dominica	R4. Establish and manage emergency relief stocks for quick dispatch to disasters in the Caribbean.	R4. Report created outlining supplies frequently used during disasters- Number and type of supplies procured based on the analysis
Beneficiaries 192.207		



DIPECHO Project

PAHO ACTIVITIES





**Pan American
Health
Organization**



*Regional Office of the
World Health Organization*

**Thank you
Gracias**

