

Annex 2:

Brochure on Advances in Health
Disaster Preparedness and
Response

Progress Report on Health

Disasters

Preparedness and Response

2006



**Pan American
Health
Organization**



*Regional Office of the
World Health Organization*

In 1976, the ministers of health of the Western Hemisphere called on the Pan American Health Organization (PAHO) to create a disaster unit within the Organization and urged the countries to develop disaster and emergency plans and programs. This visionary resolution (Resolution CD24.R10) represented the first formal indication of a change in approach for the health sector, from an ad hoc disaster response system, toward a focus on disaster preparedness. Since then, there has been constant progress in mitigation, preparedness, and disaster response. However, this progress, until now, had not been systematically measured.

PAHO and the ministers and ministries of health of the Americas have made important gains in terms of improving their preparedness for disasters. This progress has taken place within the framework of and has contributed to Pan-American solidarity. The regional survey was conducted in response to a request from PAHO's Member States to evaluate progress in disaster preparedness, mitigation and response.

This survey data demonstrates that, almost all the countries have adopted formal measures to continually improve preparedness and risk reduction and consequently, they have the capacity to respond to a moderate magnitude event. However, they must continuously strengthen this capacity and harness the maximum political support required not only for disaster response, but also to improve coordination among the health sector and all other key actors to deal effectively with emergencies and disasters of greater magnitude.

Dr. Mirta Roses Periago
Director

This brochure is part of a series of health data published by the Pan American Health Organization. It presents the status of disaster preparedness and risk reduction, based on a survey completed by the ministries of health of each country in the Region. Despite certain limitations, the survey represents the first objective description of the current situation across the Region.

One of the main results of the survey is that nearly all countries in the Region have some form of disaster office or program in the ministry of health. Other key results demonstrate the vulnerability of Member States to natural hazards as well as the percentage of the population living in at-risk areas. In assessing the status of the health disaster program, the results report on the positioning of the program within the ministry of health as well as the level of staffing, the budget allocations for preparedness and response activities, and the main functions of the disaster office. Lastly, the results also report on the progress toward the "Safe Hospital" initiative in Member States of the Region. This brochure provides baseline data for measuring future progress and for evaluating areas that require improvement in existing health sector disaster programs.

Source: Disaster Preparedness and Mitigation in the Health Sector in the Americas – Area on Emergency Preparedness and Disaster Relief – April, 2006, 2nd Edition – PAHO/WHO

a Health Situation in the Americas: "Basic Indicators 2006" (PAHO/WHO)

b Value 1997; **c** Value 2001; **d** Value 2001; **e** General government expenditures in compensations to employees plus intermediate at market prices; **f** value 2000; **g** value 2002; **h** expenditures by activities or budgetary program; **i** Value 2003; **j** Expenditure by health sector institutions; **k** Value 2005

l EM-DAT (CRED). The International Disaster Database. ([www-em-dat.net](http://www.em-dat.net))

m French West Indies Defense Area (Martinique - French Guiana - Guadeloupe)

n Including fatalities and missing persons during a disaster

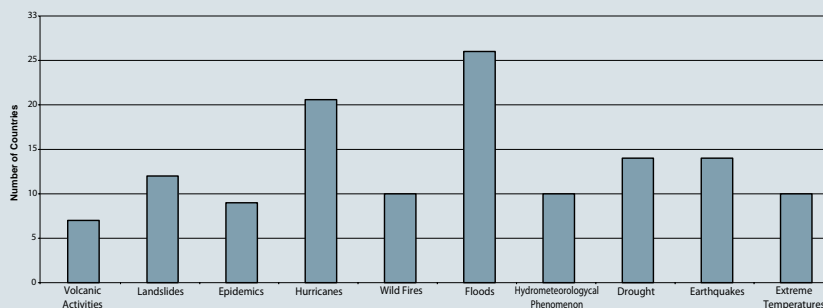
o Disaster Program Institutional Capacity **5**. Office formally established and working. **4**. Office/unit formally established within the structure, but without resources. **3**. The program/issue has been assigned to an office or unit in charge of other issues. **2**. The program/issue has been assigned to a person, ad-hoc committee or focal point. **1**. A office does not formally exist.

p Disaster Office Hierarchy: **5**. High level (Ministry/Cabinet level). **4**. General Direction. **3**. Area/Department. **2**. Unit. **1**. Working group.

General Context

	Total Population (thousands) 2006 (a)	Gross National Income (US\$ per capita) 2004, current value (a)	Population below international poverty line (%) 1998-03 (a)	National Health Expenditure (% of GDP) 2004 (a)	Type of disasters by country (l)	Deaths (n)	Injured	Affected	Homeless	Number or percentage of health facilities affected by natural disasters in the last 30 years	Percentage of general population living in at-risk areas	Number or percentage of health posts, health centers, and hospitals located in disaster risk areas
ANGUILLA	13	-	-	4.7 d,e	Hurricanes	-	-	-	-	3	30%	-
ANTIGUA & BARBUDA	69	9,480	-	8.7 f	-	-	-	-	-	-	-	-
ARGENTINA	39,134	3,580	7	4.7 g	Earthquakes - Floods - Storms - Snow storms - Wild fires - Extreme temperatures	3,812	146,644	1,942,352	-	3	70%	64%
ARUBA	72	-	-	12.7 g,h	-	-	-	-	-	-	-	-
BAHAMAS	327	15,100	-	3.1 i	Hurricanes - Urban fires	4	-	-	-	28	70%	125
BARBADOS	270	10,530	-	4.3 i	Hurricanes - Floods	1	-	-	-	1	-	3
BELIZE	275	3,940	-	4.2 i	Floods - Hurricanes - Wild fires	23	-	-	-	13	75%	40%
BERMUDA	66	39,590 b	-	3.7 j	Hurricanes	-	-	-	-	-	-	-
BOLIVIA	9,354	960	23.2	4.2 i	Drought - Floods - Storms - Landslides - Wild fires - Extreme Temperatures	-	-	-	-	-	-	-
BRAZIL	188,883	3,000	7.5	3.4 i,j	Dry seasons - Drought - Floods - Storms - Extra tropical Cyclones - Wild fires - Landslides - Epidemics - Extreme Temperatures	-	-	-	-	-	-	-
CANADA	32,566	28,310	-	7.3	Epidemics - Floods - Wild Fires	-	-	-	-	-	-	-
CAYMAN ISLANDS	45	-	-	3.3	Hurricanes	-	-	-	-	-	-	-
CHILE	16,465	5,220	2	4.4 i	Earthquakes - Extreme Temperatures - Floods - Wild Fires	250	-	2,500,000	-	-	80%	80%
COLOMBIA	46,279	2,020	7	3.4 h	Earthquakes - Volcanic Activity - Landslides - Floods - Drought - Snow storms - Hurricanes - Wild Fires	3,334	-	7,152,379	-	67	80%	60%
COSTA RICA	4,399	4,470	2.2	5.0 i	Landslides - Earthquakes - Floods - Volcanic Activity	40	-	-	-	20%	35%	30%
CUBA	11,294	-	-	6.3 k,h	Hurricanes - Tropical cyclones - Drought - Earthquakes - Floods	-	-	-	-	-	-	-
DOMINICAN REPUBLIC	9,021	2,100	2.5	1.4 g	Floods - Tropical storms - Hurricanes - Earthquakes	1,001	861	144,046	300	-	70%	-
DOMINICA	69	3,670	-	4.4 f	Hurricanes - Earthquakes - Floods - Landslides	30	-	-	-	2	-	-
ECUADOR	13,419	2,210	15.8	2.2 h	Floods - Landslides - Volcanic activity - Earthquakes - Epidemics	292	-	63,896	-	60	80%	50%
EL SALVADOR	6,999	2,320	19	2.4 i	Drought - Epidemics - Earthquakes - Floods - Volcanic Activity	3,068	8,964	1,795,319	-	58%	87%	90%
GRENADA	90	3,750	-	4.5	Hurricanes	31	-	-	-	46	-	-
GUADELOUPE - FRENCH GUIANA - MARTINIQUE (m)	1,040	-	-	-	Hurricanes - Typhoons - Earthquakes	-	-	-	-	-	77%	100%
GUATEMALA	12,911	2,190	13.5	1.8 i	Earthquakes - Floods - Volcanic activity - Landslides - Wild Fires - Hail - Explosions - Epidemics - Extreme Temperatures	23,903	97,000	395,000	-	12%	30%	50%
GUYANA	752	1,020	3	1.1 g	Floods - Landslides	-	-	-	-	-	-	-
HAITI	8,650	400	53.9	2.7 h	Hurricanes - Epidemics - Storms - Floods - Landslides - Drought	22,000	-	6,000,000	-	-	80%	-
HONDURAS	7,362	1,040	20.7	3.5	Epidemics - Floods - Hurricanes - Landslides - Drought - Tsunamis - Earthquakes - Wild Fires	32,270	12,278	2,011,919	-	11%	20%	12%
JAMAICA	2,662	3,300	2	2.5 i	Drought - Floods - Hurricanes	-	-	-	-	-	-	-
MEXICO	108,327	6,790	4.5	2.4	Drought - Earthquakes - Extreme Temperatures - Floods - Landslides - Volcanic Activity	-	-	-	-	-	-	84%
MONTSERRAT	9	-	-	6.1	-	-	-	-	-	-	-	-
NETHERLANDS ANTILLES	184	-	-	11.7 g	-	-	-	-	-	-	-	-
NICARAGUA	5,600	830	45.1	3.3 d	Drought - Earthquakes - Floods - Heavy Rains - Hurricanes - Volcanic activity - Landslides - Wild Fires	2,897	-	-	-	11%	45%	47%
PANAMA	3,288	4,210	6.5	4.5 d	Earthquakes - Floods - Epidemics	-	-	-	-	-	-	-
PARAGUAY	6,301	1,140	16.4	2.2 i	Drought - Extreme Temperatures - Floods	-	-	-	-	-	-	-
PERU	28,380	2,360	12.5	2.3 i	Rains - Floods - Extreme Temperatures - Landslides - Drought - Earthquakes - Volcanic activity	-	-	-	-	840	-	-
PUERTO RICO	3,977	10,950 c	-	3.5	Hurricanes - Floods	-	-	-	-	-	-	-
SAINT KITTS & NEVIS	39	6,980	-	2.5 f	Hurricanes - Floods	-	-	-	-	7	-	-
SAINT LUCIA	162	4,180	-	3.3 f	Hurricanes	-	-	-	-	-	-	-
SAINT VINCENT & THE GRENADINES	3,977	10,950 c	-	3.5	-	-	-	-	-	-	-	-
SURINAME	452	2,230	-	3.8	Floods	-	-	-	-	0	-	-
TRINIDAD & TOBAGO	1,309	8,730	-	3.0 g	Landslides	-	-	-	-	-	-	-
TURKS & CAICOS ISLANDS	21	-	-	3.4 g	Hurricanes - Tropical Storms	-	-	-	-	-	100%	100%
UNITED STATES OF AMERICA	301,029	41,440	-	7.2	Drought - Earthquakes - Epidemics - Extreme Temperatures - Floods - Landslides - Volcanic Activity - Wild Fires - Hurricanes	-	-	-	-	-	-	-
URUGUAY	3,487	3,900	2	6.4 j	Drought - Extreme Temperatures - Floods - Wind storms - Fires	-	-	-	-	0	-	-
VENEZUELA	27,216	4,030	8.3	3.5 i	Floods - Landslides - Wind Storms	-	-	-	-	-	-	-
VIRGIN ISLANDS (UK)	23	-	-	1.8 d	Hurricanes - Floods - Earthquakes - Landslides	-	-	-	-	1	-	2
VIRGIN ISLANDS (US)	112	-	-	3	-	-	-	-	-	-	-	-

Figure 1: Occurrence of Disasters in the Americas, 1976 - 2006



Institutional Commitment

	Disaster program established at the national level (within the Ministry of Health) (o)	Disaster program established at the state or provincial level (within the Ministry of Health) (o)	Organizational structure of the health disaster office (p)	Number of professional staff working full-time in the disaster office	Annual budget (in thousands of US\$)	Formal functions of the Disaster Program within the Ministry of Health						Emergency Operations Center established within the Ministry of Health
						Risk Reduction	Preparedness	Response	Social Crisis	Technological Disaster	Epidemics	
ANGUILLA	2	-	3	6	0	YES	YES	YES	-	-	-	-
ANTIGUA & BARBUDA	-	-	-	-	-	-	-	-	-	-	-	-
ARGENTINA	5	5	5	49	1,000	YES	YES	YES	YES	YES	YES	YES
ARUBA	-	-	-	-	-	-	-	-	-	-	-	-
BAHAMAS	3	-	1	0	0	-	YES	YES	-	-	YES	YES
BARBADOS	2	2	1	0	0	YES	YES	YES	YES	YES	-	YES
BELIZE	4	2	5	0	0	YES	YES	YES	YES	-	-	YES
BERMUDA	-	-	-	-	-	-	-	-	-	-	-	-
BOLIVIA	4	-	3	6	0	YES	YES	YES	YES	YES	-	YES
BRAZIL	4	-	5	3	-	YES	YES	YES	-	YES	-	YES
CANADA	5	5	4	185	20,000	-	YES	YES	YES	-	YES	YES
CAYMAN ISLANDS	4	5	5	1	-	YES	YES	YES	YES	-	-	YES
CHILE	5	2	5	6	-	YES	YES	YES	-	-	-	YES
COLOMBIA	5	5	5	13	873	YES	YES	YES	YES	-	YES	YES
COSTA RICA	5	3	2	6	89	YES	YES	YES	YES	YES	-	-
CUBA	5	5	5	1	-	YES	YES	YES	YES	YES	-	YES
DOMINICAN REPUBLIC	4	-	4	5	0	YES	YES	YES	-	-	YES	YES
DOMINICA	3	5	5	0	0	YES	YES	YES	-	-	YES	YES
ECUADOR	5	2	4	9	0	YES	YES	YES	YES	YES	-	-
EL SALVADOR	4	2	4	6	0	YES	YES	YES	YES	YES	YES	YES
GRENADA	2	-	4	7	0	YES	YES	YES	-	-	YES	-
GUADELOUPE - FRENCH GUIANA - MARTINIQUE (m)	5	5	5	2	-	YES	YES	YES	YES	YES	YES	YES
GUATEMALA	4	2	1	10	0	YES	YES	-	-	YES	YES	-
GUYANA	-	-	-	-	-	-	-	-	-	-	-	-
HAITI	2	1	2	1	0	-	YES	YES	-	-	YES	-
HONDURAS	5	3	3	8	11	YES	YES	YES	-	YES	YES	YES
JAMAICA	-	-	-	-	-	-	-	-	-	-	-	-
MEXICO	5	3	4	19	817	-	YES	YES	-	-	-	YES
MONTserrat	-	-	-	-	-	-	-	-	-	-	-	-
NETHERLANDS ANTILLES	-	-	-	-	-	-	-	-	-	-	-	-
NICARAGUA	5	3	5	2	0	-	YES	YES	-	YES	YES	-
PANAMA	4	5	3	8	0	YES	YES	YES	YES	-	YES	-
PARAGUAY	5	2	2	2	15	YES	YES	-	YES	YES	-	-
PERU	5	5	4	30	2,700	YES	YES	YES	YES	YES	-	YES
PUERTO RICO	-	-	-	-	-	-	-	-	-	-	-	-
SAINT KITTS & NEVIS	2	2	1	0	0	-	YES	YES	-	-	YES	-
SAINT LUCIA	-	-	-	-	-	-	-	-	-	-	-	-
SAINT VINCENT & THE GRENADINES	-	-	-	-	-	-	-	-	-	-	-	-
SURINAME	1	-	-	0	0	-	-	-	-	-	-	-
TRINIDAD & TOBAGO	4	-	4	0	0	YES	YES	YES	YES	YES	YES	YES
TURKS & CAICOS ISLANDS	2	2	4	0	34	YES	YES	YES	YES	YES	YES	YES
UNITED STATES OF AMERICA	-	-	-	-	-	-	-	-	-	-	-	-
URUGUAY	4	1	3	2	0	-	YES	YES	-	-	YES	YES
VENEZUELA	-	-	-	-	-	-	-	-	-	-	-	-
VIRGIN ISLANDS (UK)	5	-	2	1	20	YES	YES	YES	YES	YES	YES	-
VIRGIN ISLANDS (US)	-	-	-	-	-	-	-	-	-	-	-	-

Figure 2: Institutionalization of Disaster Program within the Ministry of Health at the National Level

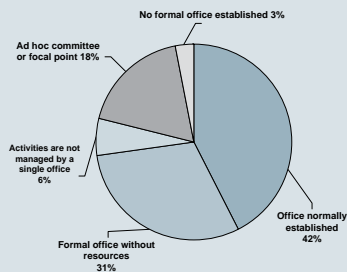


Figure 3: Organizational Hierarchy of the Health Disaster Office

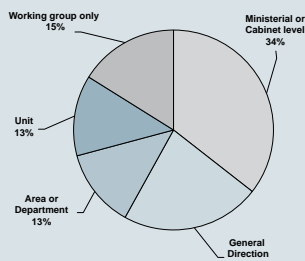
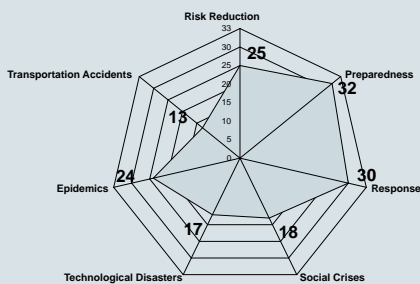


Figure 4: Formal Functions of the Disaster Program



Preparedness and Response Capacity

	Preparedness program and disaster response capacity						Adequate sectoral or multisectoral coordination level exists						Organization of meetings among health institutions and other sectors in order to coordinate health disaster objectives				Institutions with which joint activities are carried out						
	Natural Disaster Plan	Contingency Plan	Response Team	Pre-hospital health care network	Financial Resources	Stock of medicines	Damage Assessment	Response Mobilization	Decision Making	Integration with EOC	Report Preparation	Others	Health Sector Institutions	Other Sector Institutions	Civil Defense	Foreign Affairs Ministry	Armed Forces	Environment Ministry	Red Cross	United Nations Agencies	International NGOs	Universities	Others
ANGUILLA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	-	-	YES	-	YES	YES	-	-	YES	YES
ANTIGUA & BARBUDA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARGENTINA	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
ARUBA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BAHAMAS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	-	-	YES	-	-	-	-	YES	-
BARBADOS	YES	YES	YES	-	-	YES	-	-	-	-	-	-	-	YES	-	-	YES	-	YES	-	YES	-	-
BELIZE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
BERMUDA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BOLIVIA	-	YES	YES	YES	-	-	-	YES	-	-	-	-	-	YES	YES	-	-	YES	-	YES	YES	YES	-
BRAZIL	YES	YES	YES	-	-	YES	-	YES	YES	YES	YES	-	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	-
CANADA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	-	YES	YES	-	YES	YES	YES	YES	YES
CAYMAN ISLANDS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	-	-	YES	YES	YES	YES	YES	-	-
CHILE	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	-	YES	-	YES	-	YES
COLOMBIA	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
COSTA RICA	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES
CUBA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
DOMICAN REPUBLIC	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	-	YES	-	YES	YES	YES	YES	YES	-	-	-	-
DOMINICA	YES	YES	YES	-	-	YES	YES	YES	YES	YES	YES	-	YES	YES	-	YES	YES	YES	YES	YES	YES	YES	-
ECUADOR	YES	YES	YES	YES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	YES	-	-	-	-
EL SALVADOR	YES	YES	YES	YES	-	-	YES	YES	YES	YES	YES	-	YES	YES	YES	-	YES	-	YES	-	YES	YES	YES
GRENADA	-	YES	YES	YES	YES	YES	-	-	-	-	-	-	YES	YES	YES	YES	YES	YES	-	-	-	-	-
GUADELOUPE - FRENCH	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	-	YES	-	YES	-	YES	YES	YES
GUIANA - MARTINIQUE (m)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GUATEMALA	YES	YES	-	-	-	-	YES	-	YES	YES	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
GUYANA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HAITI	-	-	-	-	-	YES	-	-	YES	-	-	-	YES	YES	YES	YES	YES	YES	-	YES	-	YES	-
HONDURAS	YES	YES	YES	YES	-	-	-	YES	YES	YES	YES	-	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES
JAMAICA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
MEXICO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
MONTSERAT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NETHERLANDS ANTILLES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NICARAGUA	YES	-	YES	-	YES	YES	-	-	-	-	-	-	YES	-	-	YES	YES	YES	YES	YES	YES	YES	-
PANAMA	-	YES	YES	YES	YES	YES	-	YES	-	YES	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
PARAGUAY	-	YES	-	YES	YES	YES	-	-	-	-	-	-	YES	YES	YES	-	-	-	-	YES	-	-	-
PERU	YES	-	YES	-	YES	YES	YES	YES	YES	-	YES	-	YES	-	YES	-	-	-	YES	YES	-	-	-
PUERTO RICO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAINT KITTS & NEVIS	-	YES	-	-	-	YES	-	-	-	-	-	-	YES	-	-	-	-	-	YES	-	-	-	YES
SAINT LUCIA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAINT VINCENT & THE GRENADINES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SURINAME	-	-	-	-	-	-	-	-	-	-	-	-	YES	-	YES	-	-	-	-	-	-	-	-
TRINIDAD & TOBAGO	YES	-	YES	-	YES	YES	-	-	-	-	-	-	YES	YES	YES	YES	YES	YES	-	YES	-	YES	-
TURKS & CAICOS ISLANDS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	YES	YES	-	-	YES	YES	-	-	YES	-
UNITED STATES OF AMERICA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
URUGUAY	-	YES	-	-	-	YES	-	YES	-	YES	-	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-
VENEZUELA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VIRGIN ISLANDS (UK)	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	-	YES	-	YES	-	YES	YES	-	-	-	-	-
VIRGIN ISLANDS (US)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Figure 5: Disaster Preparedness and Response Capacity

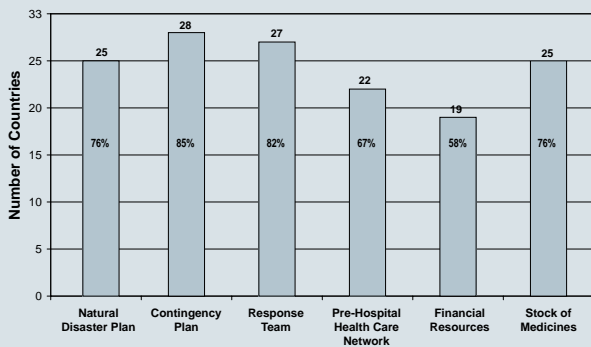
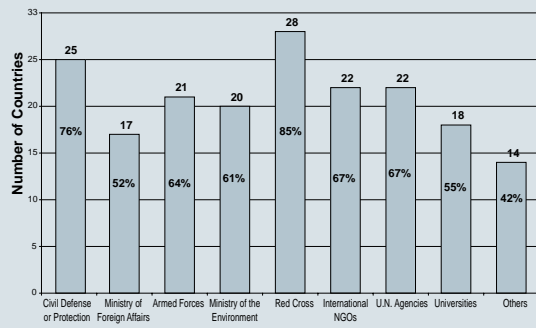


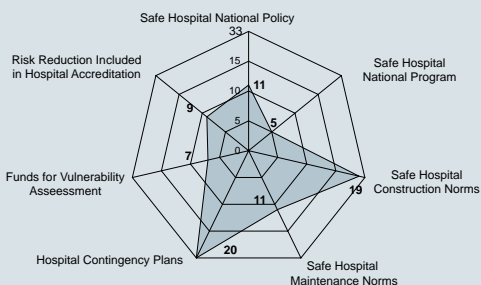
Figure 6: Joint Activities with Other Health and Non-Health Institutions



Safe Hospitals

	Is there a national policy on safe hospitals?	Is there a national program on safe hospitals?	Are there design and construction norms or regulations to build hospitals safe from disasters?	Are there maintenance regulations in place for hospital safety during disasters?	Are there rules that address hospital organization and functioning during disasters?	Participation of disaster national entity in the safe hospital initiative ?	Financial resources exist to evaluate structural and non-structural vulnerability of health facilities?	Inclusion of "risk reduction" in the hospital accreditation/certification process?
ANGUILLA	-	-	-	-	YES	-	YES	YES
ANTIGUA & BARBUDA	-	-	-	-	-	-	-	-
ARGENTINA	-	-	YES	-	YES	YES	-	YES
ARUBA	-	-	-	-	-	-	-	-
BAHAMAS	-	-	-	YES	YES	-	YES	YES
BARBADOS	-	-	-	-	YES	-	-	-
BELIZE	-	-	YES	-	YES	-	-	-
BERMUDA	-	-	-	-	-	-	-	-
BOLIVIA	-	-	-	-	-	YES	-	YES
BRAZIL	-	-	YES	-	-	-	-	-
CANADA	YES	YES	YES	YES	YES	-	YES	-
CAYMAN ISLANDS	YES	-	YES	YES	YES	YES	-	-
CHILE	YES	-	YES	-	-	YES	-	-
COLOMBIA	YES	-	YES	YES	YES	YES	YES	YES
COSTA RICA	-	-	YES	YES	-	YES	-	YES
CUBA	YES	YES	YES	YES	YES	YES	YES	YES
DOMICAN REPUBLIC	-	-	YES	-	-	-	-	-
DOMINICA	-	-	-	-	-	-	-	-
ECUADOR	-	-	-	-	-	-	-	-
EL SALVADOR	-	-	YES	YES	YES	YES	-	-
GRENADA	-	-	YES	-	YES	-	-	YES
GUADELOUPE - FRENCH GUIANA - MARTINIQUE (m)	YES	YES	YES	YES	YES	YES	-	-
GUATEMALA	-	-	-	-	-	-	-	-
GUYANA	-	-	-	-	-	-	-	-
HAITI	YES	-	-	-	-	-	-	-
HONDURAS	-	-	-	-	YES	-	-	YES
JAMAICA	-	-	-	-	-	-	-	-
MEXICO	YES	YES	YES	YES	YES	YES	YES	-
MONTSERRAT	-	-	-	-	-	-	-	-
NETHERLANDS ANTILLES	-	-	-	-	-	-	-	-
NICARAGUA	YES	-	-	-	-	-	-	-
PANAMA	YES	-	YES	-	-	YES	-	-
PARAGUAY	-	YES	-	-	YES	-	-	-
PERU	-	-	YES	YES	YES	YES	-	-
PUERTO RICO	-	-	-	-	-	-	-	-
SAINT KITTS & NEVIS	-	-	-	-	YES	-	-	-
SAINT LUCIA	-	-	-	-	-	-	-	-
SAINT VINCENT & THE GRENADINES	-	-	-	-	-	-	-	-
SURINAME	-	-	-	-	-	-	-	-
TRINIDAD & TOBAGO	YES	YES	YES	-	YES	YES	-	-
TURKS & CAICOS ISLANDS	-	-	YES	YES	YES	-	YES	-
UNITED STATES OF AMERICA	-	-	-	-	-	-	-	-
URUGUAY	-	-	-	-	-	-	-	-
VENEZUELA	-	-	-	-	-	-	-	-
VIRGIN ISLANDS (UK)	-	-	YES	-	YES	-	-	-
VIRGIN ISLANDS (US)	-	-	-	-	-	-	-	-

Figure 8: Measures to Improve Hospital Safety



Disaster Information Resources

Pan American Health Organization: www.paho.org

Health Action in Crises Department of the World Health Organization: www.who.int/hac

International Strategy for Disaster Reduction (ISDR): www.unisdr.org

ReliefWeb (an online information gateway of the United Nations Office for the Coordination of Humanitarian Affairs): www.reliefweb.int

Coordination Center for the Prevention of Natural Disasters in Central America: www.cepredenac.org

The Caribbean Disaster Emergency Response Agency: www.cdera.org

Andean Committee for Disaster Prevention and Response: www.caprade.org

International Federation of Red Cross and Red Crescent Societies: www.ifrc.org

Regional Disaster Information Center for Latin America and the Caribbean: www.crid.or.cr

Virtual Health Library for Disasters: www.helid.desastres.net

“Leaders” (International Course for Managers on Health, Disaster and Development): www.disaster-info.net/LIDERES

Logistics Support Systems (LSS/SUMA): www.lssweb.net

Publications Catalog on Emergencies and Disasters: www.disasterpublications.info

Basic Health Indicators: www.paho.org/english/dd/ais/coredata.htm

Our Offices

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CARIBBEAN

PAHO Subregional Disaster Office in Barbados
P. O. Box 508
Bridgetown, Barbados
Tel: (246) 436-6448
Fax: (246) 436-6447
www.disaster-info.net/PED-Caribbean

CENTRAL AMERICA

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Fax: (507) 317-0600
www.disaster-info.net/PED-Centroamerica

SOUTH AMERICA

PAHO Subregional Disaster Office in Ecuador
P.O. Box 17-07-8982
Quito, Ecuador
Tel: (593-2) 2460-277; 2460-274
Fax: (593-2) 2256-174
www.disaster-info.net/PED-Sudamerica

Updated data are available on the internet at: www.paho.org/disasters