



PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION



47th DIRECTING COUNCIL

58th SESSION OF THE REGIONAL COMMITTEE

Washington, D.C., USA, 25-29 September 2006

Provisional Agenda Item 8.3

CD47/INF/4 (Eng.)

2 August 2006

ORIGINAL: ENGLISH

PROGRESS REPORT ON NATIONAL AND REGIONAL HEALTH DISASTER PREPAREDNESS AND RESPONSE

In 1976, 30 years ago, the ministries of health (MoHs) of the Western Hemisphere endorsed Resolution CD24.R10¹ establishing a disaster preparedness and response unit, both at Headquarters and at the country level. This resolution represented the first formal indication of a change in approach from an ad hoc disaster response system towards an approach focusing on disaster preparedness. Since that visionary resolution for the health sector, there has been constant progress in disaster preparedness; however, these advances have never been systematically measured.

The present survey was carried out by the Pan American Health Organization (PAHO) in response to a request from the ministries of health of the Western Hemisphere to report on the status of disaster preparedness and risk reduction activities in the Region. This survey illustrates that, as of 2006, nearly all countries of the Western Hemisphere have adopted formal measures within the ministries of health to continually improve their level of preparedness and risk reduction. This document discusses the status of disaster preparedness and risk reduction based on a series of qualitative questions which were answered by the health disaster coordinators in the ministries of health of each country in the Region. Although there are limitations to this survey, this report represents the first exercise towards an objective description of the present reality across the Region.

One of the main results of the survey is that nearly all countries in the Region have some form of a disaster office or program present. Other key results demonstrate the Member States' vulnerabilities to natural hazards, as well as the percentage of the population who live in at-risk areas. In assessing the status of the 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 towards the Safe Hospital Initiative in Member States of the Region. Ultimately, these results provide baseline data for measuring future progress in the Region, as well as evaluating areas for improvement in the existing disaster offices and programs.

¹ Resolution CD24.R10 Emergency Assistance to Countries of the Americas established the Unit on Emergency Preparedness and Disaster Relief by calling on the Director to "set up within the Pan American Sanitary Bureau a disaster unit with instructions to define the policy of the Organization."

CONTENTS

	<i>Page</i>
Introduction.....	3
Methodology and Data Validity	3
Limitations of the Study	4
Brief Summary of the Characteristics of Natural Hazards in the Americas.....	5
Type and Frequency of Disaster Events in the Countries according to EM-DAT	5
Results and Analysis of the Responses Received.....	6
Chapter 1: Characteristics of Natural Hazards	6
Number of Health Facilities Affected by Natural Disasters in the Last 30 Years.....	6
Percentage of General Population Living in At-Risk Areas.....	7
Percentage of Health Facilities and Hospitals Located in Disaster Risk Areas	7
Chapter 2: Institutionalization	8
Disaster Management Institutionalization in the Ministry of Health (MoH) at the National Level.....	8
Institutionalizing Disaster Management in the Health Sector at the Subnational Level	9
Positioning of the National Health Disaster Office	9
Full-Time Personnel for Health Disaster Management	10
Countries with a Specific Budget for Health Disaster Management	10
Chapter 3: Functions and Responsibilities.....	11
Formal Functions of the Health Disaster Office/Unit.....	11
Chapter 4: Response Capacity	12
Health Disaster Planning and Response Teams.....	12
Financial Resources, Emergency Supplies	12
Chapter 5: Coordination and Partnerships for Mitigation and Preparedness	13
Coordination with Other Health and Nonhealth Institutions.....	13
Chapter 6: Human Resources for Disaster Management.....	14
Training in Disaster Management.....	14
Chapter 7: Mitigation - Safe Hospitals	15
Conclusions.....	16

Introduction

1. The 46th Directing Council (September 2005, Resolution CD46.R14²) requested PAHO to report on the progress achieved by Member States in giving priority “to reduce the vulnerability of their population and health facilities and to strengthen preparedness and response mechanisms for major emergencies.”

2. Up until the mid-1970s, there was neither a regional response mechanism in place, nor was there a mutually agreed-upon regional technical approach for preparing countries to better respond to disasters in a coordinated way. The ministers of health at PAHO’s 1976 Directing Council agreed through Resolution CD24.R10 that countries could and should be better prepared to respond to disasters. This simple resolution was the first step in changing the approach of the health sector in the Americas, from an ad hoc response to a more systematic approach. Although most disaster experts recognize the progress achieved in the Region, no systematic records exist to give an objective idea of the advances attained.

3. In order to report on progress in the field of risk management and disaster preparedness and response, PAHO’s Area on Emergency Preparedness and Disaster Relief (PED) prepared a questionnaire for the ministries of health (MoHs) of 39 Member States and territories in the Americas, which was sent through the PAHO Country Representative Offices in March 2006. This report provides an analysis of the data collected from the surveys of 33 countries who responded to the questionnaire.

Methodology and Data Validity

4. In March 2006, questionnaires were sent to all of the ministries of health of the Americas, including Canada and the United States of America. These questionnaires were primarily completed by the disaster program coordinators within the MoHs, between March and July 2006. Of the 39 questionnaires, 33 were completed and validated; and the results were then tabulated, analyzed, and presented in this document. To date, six countries have not returned the questionnaires: Antigua and Barbuda, Guyana, Jamaica, Saint Lucia, Saint Vincent and Grenadines, and Venezuela.

5. The questionnaire contained 59 questions, grouped into seven chapters as follows: (1) characterization of natural hazards; (2) institutionalization; (3) functions and responsibilities of the disaster unit/office; (4) response capacity; (5) coordination and partnerships for mitigation and preparedness; (6) human resources for disaster management; and (7) mitigation - safe hospitals.

² <http://www.paho.org/english/gov/cd/CD46.r14-e.pdf>

6. Most countries had no major difficulties in answering the majority of the questions. However, some inconsistencies were noted. Several countries' responses referred to their national disaster response system—the overall national coordination entity—rather than the health sector's disaster response system. In other circumstances, the questions required greater precision as the responses did not refer clearly to what was requested. In those circumstances, it was necessary to clarify the requested answers, through PAHO's disaster focal points (PAHO staff in each country office in charge of disaster preparedness and risk reduction) in the Region, for clarification of the information provided.

7. Among the 59 questions included in the survey, this report focuses on the questions that were most clearly answered and provides an analysis of those that best characterize the disaster response situation of the countries.³ The omitted questions are not expected to change the overall picture regarding the state of disaster preparedness and risk reduction in the Region.

Limitations of the Study

8. Due to the short timeframe in which countries were requested to respond and to complete the questionnaire, some answers were incomplete or not given in-depth consideration. This was particularly true in the questions regarding the characterization of natural hazards in the Region, and regarding the preparedness and response capacity in their country. Furthermore, for the data we received, some countries did not specify the source of information.

9. The lack of baseline data on the existing state of disaster preparedness and response in the health sector was another issue that made the design of the questionnaire difficult, since there is no data with which to compare progress. Due to the complexity of the topic of disasters, assessing disaster policies and activities in the Region was further complicated. Moreover, countries in the Region are extremely varied and differ in regards to population size, economic development, and most importantly the organizational structure that governs each country. The questionnaires were not supported by explanatory materials such as a glossary of terms, which would have helped to obtain more objective and standardized answers.

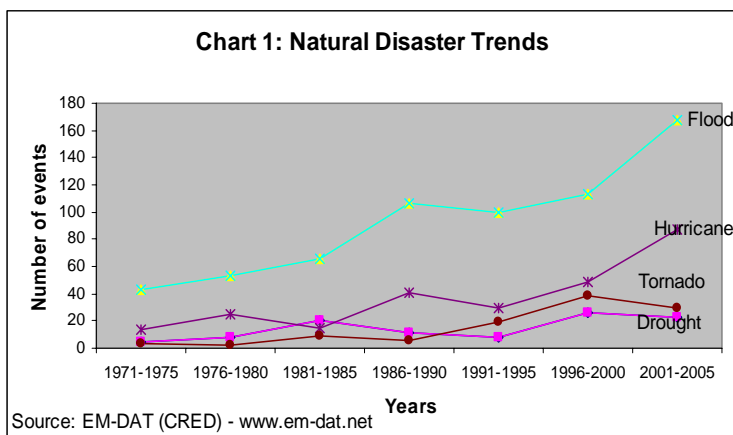
³ Questions omitted: questions 1 and 3 from Chapter I; questions 22-28, 30, and 32-34 from Chapter IV; questions 43 and 46 from Chapter VI; and questions 56 and 58 from Chapter VII.

Brief Summary of the Characteristics of Natural Hazards in the Americas

10. The EM-DAT Disasters Database⁴ of the Center for Research on the Epidemiology of Disasters (CRED), an authoritative source for data on international disasters, permitted us to briefly describe the regional picture of the major disaster events, between 1977-2005. EM-DAT data was used to calculate the average number of events in the Region during the specified period.

Type and Frequency of Disaster Events in the Countries according to EM-DAT

11. Since 1970, the Region has experienced a high number of destructive events. However, the number of natural hazards differs from country to country. In summary, the following frequency has been noted: droughts represent 3.66% of the total events; earthquakes, 5.76%; epidemics, 3.29%; floods, 23.46%; landslides, 3.95%; volcanoes, 1.88%; tsunamis and waves, 0.11%; hurricanes, 9.45%; winds storms and tornados, 12.06%; tropical storms, 1.45%; and snow, 2.24%.



12. Data on destructive man-made events in the Region is as follows: transport accidents represent 20.64% of the total; fires, 3.55%; and industrial accidents, 5.24%.

13. During the time period examined, the number of disasters has steadily increased, which is reflected in the frequency of events per decade. The general trend for selected disaster events in the Americas over the last 30 years is depicted in Chart 1, which shows

⁴ EM-DAT contains essential core data on the occurrence and effects of over 12,800 mass disasters in the world from 1900 to present. The database is compiled from various sources, including UN agencies, nongovernmental organizations, insurance companies, research institutes, and press agencies. www.em-dat.net

that the frequency of disasters has increased in the last few decades, particularly flooding. For example, in the Americas we observed the following trends:

- Between 1971 and 1975, an average of five droughts occurred. In comparison with the time period from 2001 to 2005 in which droughts averaged 23 disasters, this is almost four times higher. From the 1970s to the present, the estimated increased frequency of droughts is 360%.
- The number of hurricanes rose from an average of 14 between 1971 and 1975 among 10 countries in the Region to an average of 24 between 2001 and 2005 among 28 countries. In this period 87 disasters caused by hurricanes were reported. This reflects an increase of 521% in disaster frequency since the 1970s.
- Floods registered an average of 43 events between 1971 and 1975, and reached an average of 167 events between 2001 and 2005. This reflects an increase of 288% in frequency since the 1970s.

14. As there is no indication that this trend might change, the Region should be better prepared to face disasters.

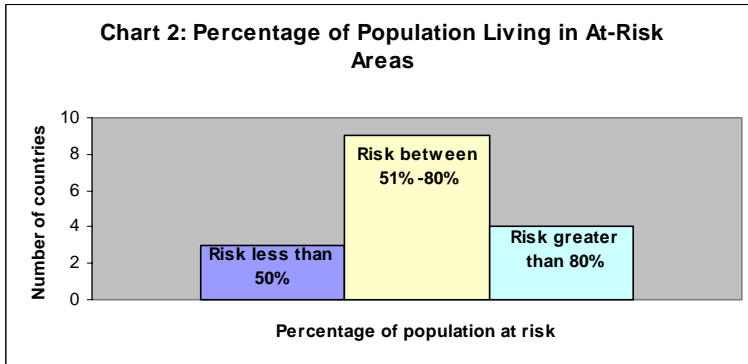
Results and Analysis of the Responses Received

Chapter 1: Characteristics of Natural Hazards

Number of Health Facilities Affected by Natural Disasters in the Last 30 Years

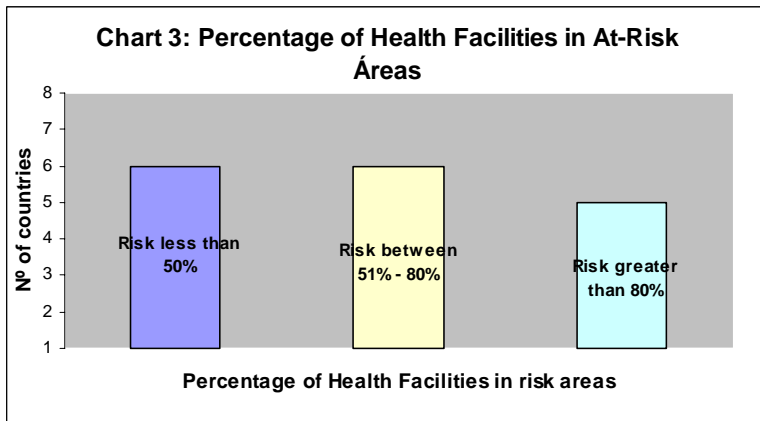
15. Of the 33 completed questionnaires, 18 countries responded to the question related to affected health facilities. According to the survey results, the number of health facilities affected by disasters in the last 30 years was 1,961 within Latin America and the Caribbean, although the same facility may have been affected several times in the last 30 years after reconstruction from previous damage. Currently, PAHO estimates there are 16,000 health facilities in the Region. Therefore, it can be concluded that if countries did not err in their reporting, in the last 30-year period, one in eight health facilities in the Americas has been affected at some point.

Percentage of General Population Living in At-Risk Areas



16. Of the 33 completed questionnaires, 16 countries responded to the question regarding the number and percentage of population that lives in at-risk areas. Among those 16 countries, on average 73% of the population are estimated to live in at-risk areas. While three countries have less than 50% of their population living in at-risk areas, nine countries have between 51% and 80% of their population living in at-risk areas, and four countries have more than 80% of the population living in at-risk areas.

17. We have to mention that, despite the fact that we had indicated categories of risk in analyzing the answer to this question, our categories bear very “subjective” values. The most reasonable explanation is that risks are still perceived differently. For example, none of the ministries of health has developed a well-documented hazard vulnerability list. Even for a hazard such as earthquakes, there is no common agreement among health disaster planners regarding at what point the population would start to be at risk according to the Mercali scale.



Percentage of Health Facilities and Hospitals Located in Disaster Risk Areas

18. From data provided by 17 countries, it is estimated that 67% of health facilities of the responding countries in Latin America and the Caribbean are located in disaster risk areas. Although the estimation of this risk is

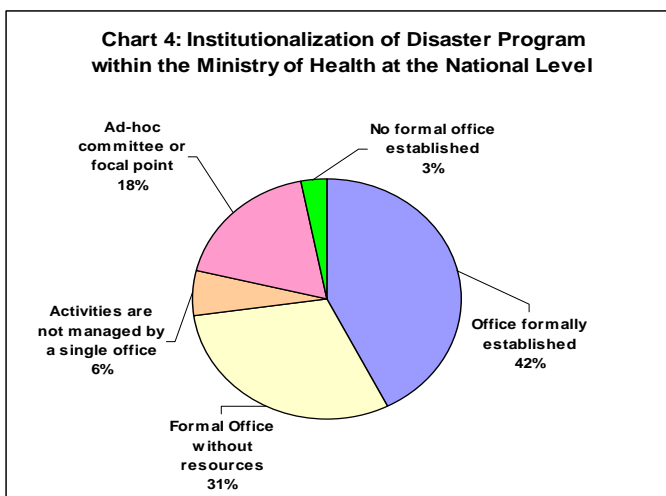
linked to the geographical location of health facilities (near human communities), the countries that respond to the previous question were not always the same as the ones that responded to this question.

19. From the 17 responses provided in the surveys, we observe that five countries are estimated to have more than 80% of their facilities in at-risk areas and six have less than

50% of their facilities in at-risk areas. The remaining six have between 51% and 80% of their facilities in at-risk areas.

20. Some responses are based on vulnerability studies, while others are based on the location of health facilities (hazard country maps). The overall data shows that countries estimate that most health facilities are generally at risk.

Chapter 2: Institutionalization



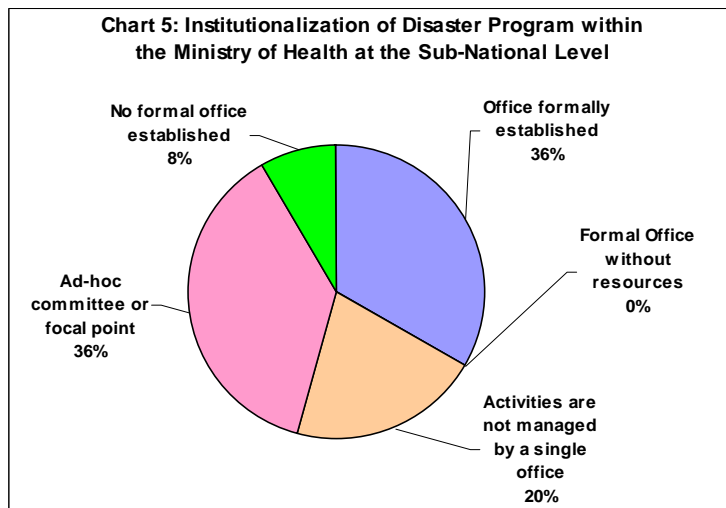
Disaster Management Institutionalization in the Ministry of Health (MoH) at the National Level

21. Ninety-six percent of the MoHs of the Americas have disaster programs at the national level. All large countries surveyed (those with more than 20 million inhabitants) have a formal disaster office within the MoH. This means that the country has a well-established office, with full-time

personnel specifically assigned to the office, and that specific financial resources have been allocated. Most countries with less than 500,000 inhabitants possess ad hoc committees or focal points within the government in charge of disaster issues. However, there are some small countries/territories (less than 500,000 inhabitants) which do have a formal disaster office: Belize, British Virgin Islands, Cayman Islands, and Martinique, Guadeloupe, and French Guiana.

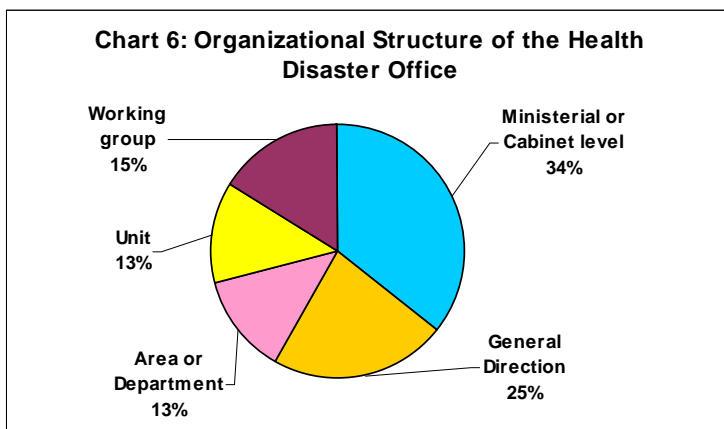
Institutionalizing Disaster Management in the Health Sector at the Subnational Level

22. Of the 33 respondents, 25 answered that they do have some kind of disaster function assumed at the subnational level, but only nine of them have a formal office working at this level. Four territories (Cayman Islands, Martinique, Guadeloupe, and French Guiana) have less than 500,000 inhabitants.



Positioning of the National Health Disaster Office

23. Nearly 60% of the countries have assigned the health disaster office to the MoH, at the level of the minister’s cabinet level, permanent secretary, or general direction.



Because the main function of these offices is health-sector response coordination in the case of disasters, it is important that they have direct and immediate access to the decision-making levels, in order to obtain the political support necessary to mobilize the maximum capacity of the ministry of health, as well as to coordinate with other institutions, both within and

outside of the health sector. In other words, the position of the disaster program in the ministry of health’s organizational chart not only projects the importance that the minister gives the topic, but it also predicts the likelihood that the ministry of health will be able to effectively mobilize the rest of the health sector.

Full-Time Personnel for Health Disaster Management

Countries	Full-time personnel
Bahamas – Barbados – Belice – Dominica – Saint Kits and Nevis – Suriname – Trinidad and Tobago	0
Brazil – Cayman Island – Haití – Cuba – Dominican Republic – Nicaragua – Martinique-Guadeloupe-French Guiana – Paraguay – British Virgin Island – Uruguay - Turks and Caicos	1-5
Anguilla – Chile – El Salvador – Bolivia – Costa Rica – Grenada – Guatemala – Ecuador – Honduras – Panamá	6-10
Argentina – Colombia – México – Perú - Cánada	> 11

24. There is an extreme variation among countries in the number of staff dedicated to disasters issues. For example, Canada has 185 staff in the emergency center, while smaller territories have only part-time focal points assigned. Out of the 33 respondents, seven reported the absence of full-time personnel. Twenty-five countries which answered have full-time personnel assigned for such purposes. Eleven countries have between one and five people working full time in the disaster office at the central level.

25. Ten countries, or 30% of the respondents, have between 6 and 10 people working full time in their disaster office, and five countries or 15% of the

respondents have more than 12 people working in the disaster office at the central level.

26. Disaster management is becoming an area of specialty on its own. Undergraduate and postgraduate degrees now exist and are increasingly required for national and international posts. Also, the increasing complexity of disaster management issues at the national level requires a minimum of one full-time staff person assigned at the central level. However, this reasoning is difficult to sustain for smaller territories. For countries with a higher number of personnel assigned to the disaster office, this could also be explained by the fact that some disaster programs may include either emergency services or other very similarly related activities in these offices.

Countries with a Specific Budget for Health Disaster Management

27. Of the 33 countries, 15, or 45% of the total respondents, have a specific budget assigned for their disaster office. Five countries/territories—the British Virgin Islands, Costa Rica, Honduras, Paraguay, and Turks and Caicos Islands—have assigned between US\$ 11,000 and \$89,000 to their disaster office program. Four countries—Argentina, Colombia, Mexico and Peru— have assigned financial resources ranging from \$817,000 to \$2.7 million. Canada has the largest budget of all the countries surveyed in the Americas with \$20 million, excluding the United States of America.

28. In the questionnaire, some countries responded that they have a budget line item allocated by the MoH, but they did not include the amount. These countries are Brazil, Cayman Islands, Chile, and Cuba. Chile also indicated that their allocated budget includes the salaries of their personnel.

29. Budget allocations per 1,000 inhabitants differ greatly depending on population size. For example, small islands like the British Virgin Islands and Turks and Caicos Islands allocated more money per capita compared to larger countries such as Argentina, Mexico, and Peru. However, this data is seriously affected by the fact that the survey only requested the budget spent by the national disaster program. This figure only represents what was informed to the management of the central entity. It is not an accurate reflection of what was spent per inhabitant, especially for countries that have a decentralized budgeting system.

Chapter 3: Functions and Responsibilities

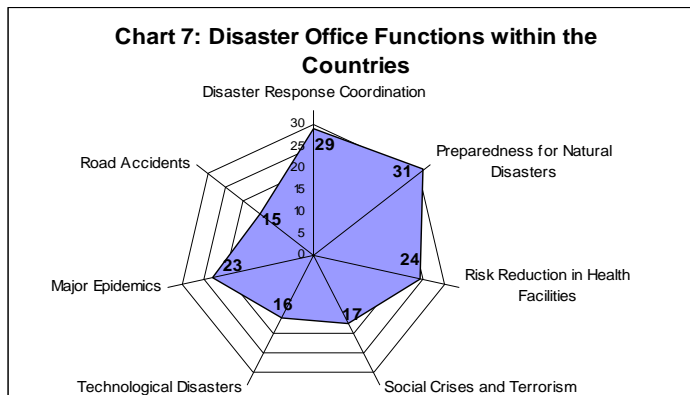
Formal Functions of the Health Disaster Office/Unit

30. Of the 33 respondents, 31 answered the question on the formal functions of the health disaster office, and all of them indicated that they have preparedness for natural disasters as a function of their disaster office.

31. Twenty-nine health disaster offices, or 88% of respondents, have the responsibility for coordinating health

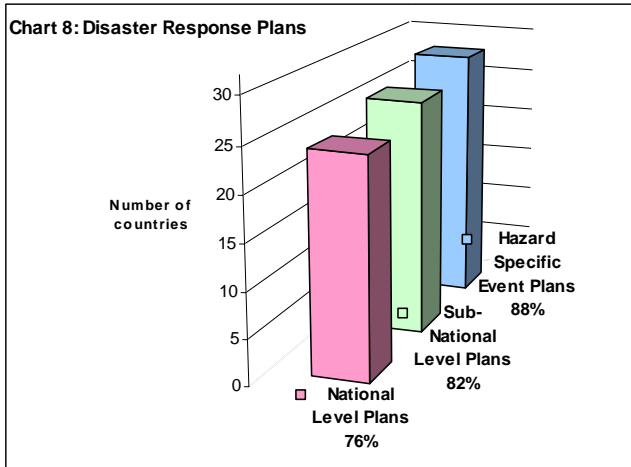
response issues following a natural disaster. However, for some this is not the case; for example, in Guatemala and Paraguay, this responsibility is not assumed by the health disaster program, as it is formally under the direct coordination of the cabinet of the minister of health. Risk reduction (mitigation and vulnerability reduction) in health facilities is carried out by 24 countries, or 73% of the health disaster offices.

32. Nearly 70% of the health disaster offices have the responsibility for coordination in the event of a major epidemic outbreak, while response to road traffic accidents is also a function of 45% of the offices. More than half of the MoHs (52%) have assigned to their disaster offices the responsibility for coordinating the health-sector response to social crises, terrorism, and technological disasters.

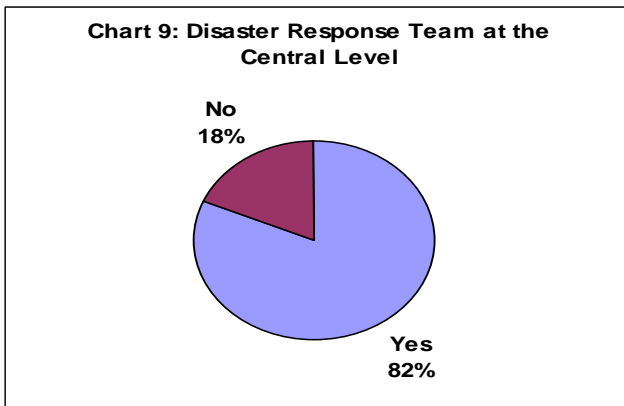


Chapter 4: Response Capacity

Health Disaster Planning and Response Teams

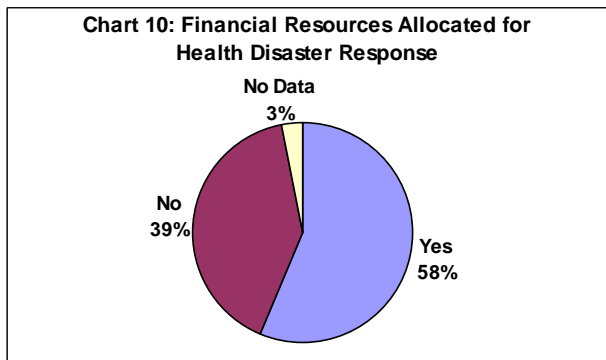


33. Seventy-six percent of the responding health disaster offices have a national and subnational disaster plan, which means that multihazard plans are prepared with the participation of other units within the MoH or other sectors, which are then formally approved by the health authorities. Eighty-eight percent of the responding countries also have hazard-specific contingency plans.



34. Eighty-two percent of the countries report having health disaster response teams at at the national or subnational levels. All the countries which have comprehensive multi-hazard disaster plans also have health disaster teams, with the exception of Bolivia and Grenada, which have a response team but not a a multihazard response plan.

Financial Resources, Emergency Supplies



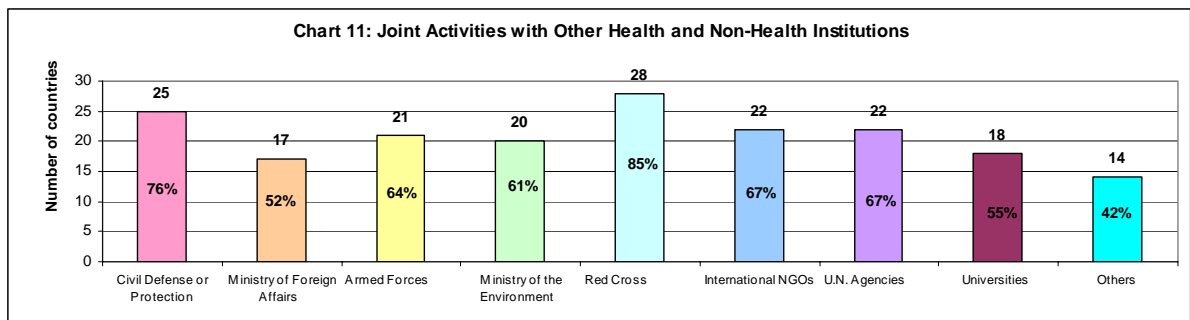
35. All 33 countries responded to the question regarding financial resources and emergency supplies for disaster response. Among these, 58% of the health disaster offices have specifically designated financial resources for disaster response operations. There is still concern that the other half of the offices do not have specific resources allocated for disaster response. However, in disaster

situations, these emergency funds may be provided by the MoH or other sources such as external funding.

36. Seventy-two percent of the MoHs have stocks of medicines and emergency supplies for disaster response. However, six countries do not have any financial resources for health disaster response nor do they have stocks of emergency supplies; these countries include Bolivia, Ecuador, El Salvador, Guatemala, Haiti, and Honduras.

Chapter 5: Coordination and Partnerships for Mitigation and Preparedness
Coordination with Other Health and Nonhealth Institutions

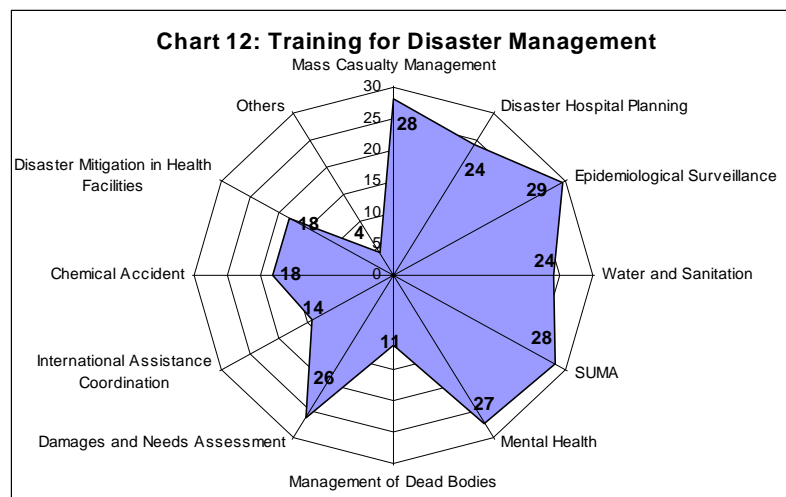
37. One of the most important activities of the disaster offices is the coordination with other institutions inside and outside the health sector. Fortunately, all health disaster offices, with only one exception (Ecuador), mentioned that they coordinate with other health institutions for disaster preparedness and mitigation. Most of them also coordinate and carry out joint activities with a series of institutions in other sectors including civil defense or civil protection, Red Cross, UN agencies, international nongovernmental organizations, and the military, among others.



38. Although the percentages are high, we had expected to observe 100% of existing disaster programs—whose primary function is coordination—to have joint activities with at least the national disaster institution. Coordination with other key actors in disaster response, such as the Red Cross, the armed forces, and other major stakeholders, is also extremely important.

Chapter 6: Human Resources for Disaster Management
Training in Disaster Management

39. Most of the health disaster offices organize, coordinate, promote, or participate in training activities for health personnel both at the national and subnational levels. Where training is performed, the main topics include: mass casualty management; epidemiological surveillance; humanitarian supplies management; damage, and needs assessment; mental health; water and sanitation; and hospital disaster planning.



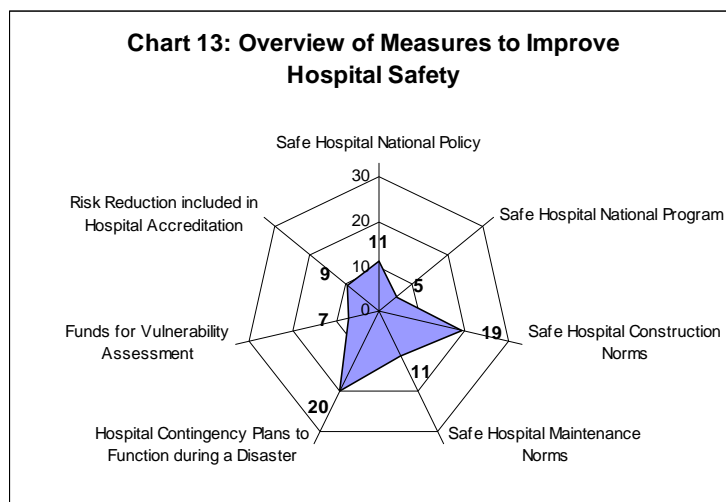
40. Training is a basic and continual necessity in preparedness and mitigation, because there is a constant need to review the rapidly evolving concepts. The absence of training in particular areas, such as the management of dead bodies could be explained by the novelty of the subject, but other topics such as chemical accidents or mitigation in health facilities illustrates the absence of support or promotion of the subject at the country level. Other topics, such as epidemiology in disasters, mental health, and water and sanitation, are more familiar in the Region, which is likely the reason for the institutionalization of the topic.

41. Thirty-three, or all of the respondents, report that their universities have formal training programs in disaster management at the undergraduate level, and 40% have included it as a curriculum component for postgraduate students. However, it is also possible that more universities have formal courses that the national MoH disaster program may be unaware of. The questionnaires were not designed to investigate the informal short-term training that the universities may have in place; however, the questionnaires also did not discriminate between disaster and emergency training. The number of formal courses offered in the Region indicates that a large number of professionals that are being trained in that field.

Chapter 7: Mitigation - Safe Hospitals

42. The 45th Directing Council approved Resolution CD45.R8⁵ on safe hospitals that was later endorsed at the global level at the World Conference on Disaster Reduction and adopted in Kobe, Hyogo, Japan, in January of 2005.⁶ The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters calls on nations to “Integrate disaster risk reduction planning into the health sector; promote the goal of ‘hospitals safe from disaster’ by ensuring that all new hospitals are built with a level of resilience that strengthens their capacity to remain functional in disaster situations and implement mitigation measures to reinforce existing health facilities, particularly those providing primary health care.”

43. Currently, 11 countries have a national policy on safe hospitals and they are implementing mitigation activities or the national disaster institution is participating on this topic. Most countries have specific norms for hospital construction and hospital planning for disaster response, but lack financial resources for vulnerability assessment and regulations maintenance. The hospital accreditation process does not include risk reduction as a category; and, therefore, this issue is not addressed in most countries.



44. Taking into consideration these results, there is a need to continue promoting and implementing the Safe Hospitals Initiative for existing and new health facilities in order

⁵ Resolution CD45.R8 Disaster Preparedness and Response.
<http://www.paho.org/english/gov/cd/CD45.r8-e.pdf>

⁶ <http://www.unisdr.org/wcdr/>

to assist countries to reach the goal of safe hospitals by 2015. Currently, 13, or 39% of all responding countries, have their national disaster organization participate in the Safe Hospitals Initiative. PAHO/WHO will use the 2008 International Strategy for Disaster Reduction Campaign on Safe Hospitals as a platform to step up efforts in this field.

Conclusions

45. The countries in the Region are exposed to different types of vulnerabilities and no country in the Region is immune to natural hazards, much less to technological hazards, civil strife, terrorism, or even biological threats including epidemics. The frequency of disasters among the surveyed countries follows the general global trend, which has increased in the period we analyzed from 1970 to 2005. Floods and droughts increased by an average of 324%, while hurricanes increased by 521% in that period of time.

46. The number of disasters and the affected populations can only increase as countries are recognizing new types of threats everyday. PAHO strongly supports that response plans or risk reduction programs must cover all hazards that exist in each country. The responses also illustrate the need for a universal agreement on the hazards present in each country and the need for the MoH disaster programs to have better access to hazard maps.

47. Some of the answers provided in this survey lacked precision or the questions were not answered. In some cases this was related to the formulation of the question, but in other instances, this observation is most likely attributed to the fact that the respondent did not have access to the information. A reasonable question would be to ask if proper response planning can be expected without accessing hard data on the exact magnitude and date of events. Some of the most significant results of the survey include the following:

- Three-quarters of the countries' populations live in at-risk areas. This high percentage is a matter of concern and requires a more in-depth analysis of these areas.
- Two-thirds of the health facilities are estimated to be in at-risk areas. An analysis of the level of vulnerability will be necessary to identify the likelihood of these particular facilities being able to operate after a disaster.
- Almost all of the MoHs of the Latin American and Caribbean countries incorporate the subject of disasters in their organizational structure. Among the countries in the Region, the size of a country is correlated with the type of disaster office and whether full-time personnel are dedicated in the country. In this

respect, the countries with more than 500,000 inhabitants usually have a formal office and personnel dedicated to work full time at the national level. For countries with populations smaller than 500,000, ad hoc committees or focal points are in charge of disaster issues. For smaller territories, with no full-time staff and in the framework of the CARICOM common market, the option should be explored for a full-time staff person to be shared among several islands.

- Less than half of the disaster offices within the MoHs are not under the direct coordination of the minister of health. This is worrisome inasmuch as in those countries it is unlikely that the staff are specially trained for disaster response or that they would be sufficiently exposed to the top political decision-making level in order to be useful in disaster response coordination.
- Only half of the countries in the Region have a specific budget assigned to develop activities within the ministry of health. Having a specific budget line item is not an absolute requirement in order to fund the disaster program; however it is nevertheless something useful to ensure proper visibility and appropriate political support in the institution.
- There is a significant difference in budget allocations for disaster programs at the central level.
- The response budget is less important than the preparedness budget, since most countries allocate response budgets at the moment of the disaster. However, it is notable that half of the health disaster offices have financial resources ready for disaster response. That budget appears not to be related to the level of risk which countries are exposed to, or to the contingency plans that exist within the country.
- Several countries in the Region do have national and subnational disaster plans developed. However, 24% of the countries do not have multihazard plans at the national level.
- The main function of a disaster response program is to coordinate with other related agencies, other government institutions, and particularly with the national defense. We are particularly preoccupied by the fact that 20% of countries do not report joint activities with other national disaster coordination entities, and more than 30% do not report joint activities with the implementing health institutions such as the Red Cross.
- The disaster offices of the MoHs are currently marginally considering social crisis, terrorism, technological disasters, and road traffic accidents as part of their mandates. Therefore, these issues must be addressed at the next health disaster coordinators' meeting.
- In accordance with the recently adopted Hyogo Framework for Action, countries are taking steps to implement the Safe Hospitals Initiative. The survey shows the

need to have a single common scoring methodology that would measure the vulnerability and likelihood for a facility to continue providing health services after a disaster. This would allow national monitoring and reporting on the International Strategy on Disaster Reduction (ISDR) regarding progress on the Safe Hospitals Initiative.

48. The survey illustrates that all of the 33 countries which have returned the questionnaire have made many decisions and developed activities to improve their preparedness and risk reduction. Even if this progress represents significant advances in the field of disaster preparedness, there are still many areas that require sustained attention.

49. This survey is the first comprehensive and objective account of the status of disaster preparedness and response in the Region. However, it also shows that most decisions made by the heads of disaster programs in the MoHs are still not based on fact, but rather on “instincts or perceptions.” At a regional meeting of health disaster coordinators in Lima, Peru, in May 2006, these representatives committed to routinely measure progress which will help to change the way disasters are handled in the Region. This pledge paves the way for more coherent and sustainable regional disaster preparedness and risk reduction programs. This survey provides the first step towards measuring progress in the Region.

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