



PAN AMERICAN HEALTH ORGANIZATION  
WORLD HEALTH ORGANIZATION



**45th DIRECTING COUNCIL**  
**56th SESSION OF THE REGIONAL COMMITTEE**

*Washington, D.C., USA, 27 September-1 October 2004*

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*Provisional Agenda Item 10.4*

CD45/27 (Eng.)  
9 August 2004  
ORIGINAL: ENGLISH

**REPORT ON REDUCING THE IMPACT OF DISASTERS  
ON HEALTH FACILITIES**

This document invites Member States to assign priority to keeping hospitals functioning in the aftermath of major catastrophes. It also makes the case for ensuring that reducing the functional vulnerability of hospitals be designated a benchmark or indicator of success in global reduction programs and that this be reflected in the outcome of the United Nations World Conference on Disaster Reduction in early 2005.

Given the limited resources available, the countries of Latin America and the Caribbean, and in particular the health sector, have been working proactively to develop efficient and effective strategies to face the loss of health assets in the wake of disasters. A number of strategies have been explored over the course of the last two decades and there has been a good deal of success, primarily on a pilot basis. Concretely, we have learned that with current knowledge, existing resources, and a strong political commitment, it is possible to achieve visible results.

## **Background on the United Nations Conference**

1. The United Nations General Assembly has requested the Secretariat of the International Strategy for Disaster Reduction (ISDR) to organize a World Conference on Disaster Reduction (WCDR). This Conference will take place in Kobe, Japan, from 18-22 January 2005. All UN member countries are invited to make a political declaration on the topic of disaster reduction, with a strategy and vision for the period 2005-2015.

2. A Preparatory Committee has been established to review and discuss the final draft documents for the WCDR. The second meeting of the Preparatory Committee will take place 13-14 October 2004 in Geneva. At the conclusion of this meeting, the Conference Secretariat expects to have identified the main policy lines. The Ministry of Foreign Affairs in each country is responsible for consolidating the input of all sectors into one national position on disaster reduction. It is imperative that health sector priorities be reflected in the documents emanating from the WCDR if we are to benefit from the high visibility this topic is expected to receive over the next 10 years and from the resulting programs and activities. Therefore, the Ministry of Health is asked to make their views known to the Ministry of Foreign Affairs prior to the October Preparatory Meeting to ensure their appropriate inclusion.

## **The Relevance of Disaster Reduction for the Health Sector**

3. Presently and in the foreseeable future, disaster mitigation initiatives in the health sector lack sustainable funding support. However, the all-too-frequent loss of health facilities and services in the aftermath of disasters is not acceptable. To effect significant change, the health sector must explore other strategies besides the mobilization of important financial resources. One possibility is to look at ways to make the health sector more efficient.

4. Natural disasters have clearly provided evidence of the need for society to have a functioning health sector in crisis situations. In addition, Member States also recognize the importance of providing appropriate and timely health services in other catastrophic scenarios, such as bioterrorism events or complex emergencies. The increasing involvement of the military and of civil defense and civil protection organizations also points to significant interest in improving lifesaving measures in major crises.

5. Up until the 1985 earthquake in Mexico, it was commonly accepted that the collapse of health facilities in the wake of disasters was inevitable. Since then, many health sector experts in the Americas have studied realistic alternatives to this fatalistic scenario, proposing solutions that are accessible to low-income countries. The 1996 International Conference on Disaster Mitigation and subsequent disaster mitigation

projects as well as scientific publications have demonstrated that safe hospitals are feasible.

6. This fact has been acknowledged for some time in wealthier countries, such as the United States of America and Japan, where building codes have made hospitals disaster-resistant or where large-scale investments have been made in infrastructure to reduce vulnerability. However, this is also true for less economically advanced countries. A 2004 PAHO/WHO study reports that 21 Caribbean and Latin American nations have undertaken specific action to reduce disaster vulnerability in the health sector. For example, Chile (home of the PAHO/WHO Collaborating Center on Hospital Disaster Mitigation) has assessed the vulnerability of its hospital network, Colombia and Costa Rica have reinforced hospitals, and El Salvador is rebuilding its health services network incorporating modern disaster mitigation criteria into the design stage. Jamaica, Peru, and the British Virgin Islands are looking at opportunities to reduce hospital vulnerability, while Chile and Colombia have established a legal framework to ensure safer hospitals, under which the construction of new health infrastructure must incorporate disaster mitigation and prevention measures. Bolivia and El Salvador are also moving in this direction and are in the process of preparing building codes.

7. More than half of the 16,000 hospitals in Latin America and the Caribbean are situated in areas at high risk for disasters. Many have been lost in earthquakes, hurricanes such as Mitch, and serious floods. Nature alone is not responsible for the collapse of hospitals. The construction of new hospitals without taking into account risk or natural hazards and the progressive deterioration or lack of maintenance in existing health infrastructure also contribute to the destruction of infrastructure and the death of its occupants. Hazards may often be natural, but the vulnerability of facilities to hazards is not. Although the vulnerability of health facilities increases progressively over the years, it is possible to reverse this trend. The following table outlines damage to health facilities from selected disasters from 1985 to 2001.

Location and Event	Year	Type and Nature of the Phenomenon	Overall Effects
Mexico City, Mexico	1985	Earthquake 8.1	Structural collapse of five hospital facilities and major damage to another 22. At least 11 facilities evacuated. Direct losses estimated at US\$ 640 million.
San Salvador, El Salvador	1986	Earthquake 5.4	Over 11 hospital facilities affected; 10 evacuated and one condemned; 2,000 beds were lost. Total damage estimated at \$97 million.
Peru	1997-1998	Floods associated with El Niño	15 hospitals, 192 health centers and 348 health posts affected.
Dominican Republic, Hurricane Georges	1998	Hurricane; Category 3	87 hospitals and health centers damaged or destroyed.
Saint Kitts and Nevis, Hurricane Georges	1998	Hurricane; Category 3	Joseph N. France Hospital in Saint Kitts suffered severe damages; 170 beds lost.
Honduras, Hurricane Mitch	1998	Hurricane; Category 5	78 hospitals and health centers damaged or destroyed. Honduras' national health network severely affected and rendered inoperative just as over 100,000 people needed medical attention.
Nicaragua, Hurricane Mitch	1998	Hurricane; Category 5	180 hospitals and health centers damaged or destroyed.
Armenia, Colombia	1999	Earthquake 5.8	61 health facilities damaged.
El Salvador	2001	Earthquake 7.6	1,917 hospital beds (39.1 percent of the country's total capacity) put out of service. Affected hospitals include San Rafael Hospital, Rosales Hospital San Juan de Dios (San Miguel), and San Pedro (Usulután) and the Oncology Hospital.
Bolivia	2002	Hail and heavy rains	57 dead. Functional and structural collapse of the Policonsultorio de la Caja Nacional
Argentina	2003	Flooding due to rivers overflowing	Severe damage to Dr. Alassia's Children's Hospitals and the Vera Candiotti Rehabilitation Hospital, as well as to 14 health centers of the 49 that serve Health Area V in Argentina.

8. Everyday deficiencies in providing routine health services can be compensated for by a number of measures, such as referring patients to other facilities. However, in large-scale emergencies, the backbone of lifesaving health services must be preserved. Hospitals provide a great social value to communities and an essential sense of security. Communities do not put a price tag on this; rather they consider it one of their most basic needs. Although the social, political and economic justification for maintaining the functionality of hospitals in the aftermath of disasters is strong enough, there is an even stronger justification within the health sector itself. The cost of running hospitals in Latin America and the Caribbean represents approximately 70% of the budget of the ministries of health, with most of the money going to salaries. In remote areas and in small island nations, frequently there is only one facility of this type; if it is not functioning, this represents a 100% loss. Every day the health sector invests large sums of money in building, remodeling or expanding its health infrastructure. We cannot let the opportunity pass to draw attention to the importance of incorporating disaster mitigation measures for the sustainability of these investments.

9. Recently, two regional meetings in Nicaragua and Trinidad and Tobago reviewed the status of disaster vulnerability in the health sector in the Americas. The countries provided not only pioneering success stories in health sector vulnerability reduction but also accounts of its limitation. A forward-looking strategy through 2015, was proposed and topics for discussion at the WCDR were identified. The principal lessons learned to date include:

- Low-and middle-income countries have demonstrated, through pilot projects, that it is possible to significantly reduce vulnerability to disasters with existing technical and financial resources.
- Every new hospital must be designed, built and maintained so that it continues to function immediately after a disaster.
- For the most part, technical or financial difficulties do not stand in the way of making hospitals safe. Any significant advancement in vulnerability reduction in the health sector now depends essentially on other sectors, a stronger political commitment and higher international visibility.

### **Visibility of the Health Sector at the Conference**

10. A number of groups with different interests will put forward their own specific concerns at the World Conference on Disaster Reduction. The objective for the health sector is to ensure that at least one message relating to the importance of health sector disaster vulnerability reduction is included in the political statement or policy measures emanating from the conference.

11. The message must be simple, easy-to-understand and achievable by 2015, within existing budgetary and other realities.

12. The health sector is urged to propose that hospital vulnerability reduction be recommended as a global indicator for measuring multisectoral disaster reduction for several reasons:

- Hospitals are among the few facilities that *must* remain operational immediately after a disaster.
- Safer hospitals represent a sense of security for a community and a factor of social trust.
- Vulnerability reduction depends on a number of factors. Although completely reducing overall vulnerability is not feasible by 2015, focusing on one easily-identifiable type of infrastructure—in this case, hospitals—will help make the objective achievable and will allow nations to demonstrate significant progress.

### **Conclusions and Recommendations**

13. Vulnerability reduction has become a much more complex issue than was recognized 10 years ago. Focusing on one topic within this broad field, without excluding others, will heighten the chance of global success.

14. Reducing the vulnerability of hospitals so that they are safe and remain functional not only will save lives the day a disaster strikes, but will also have positive repercussions on daily operations. The benefit of making hospitals more efficient, safer for communities and a contributing factor to national security extends far beyond the ministry of health to all sectors of society, and recognition of this fact should lead to its inclusion in the global disaster reduction agenda.

15. It is recommended that the ministers of health of the Americas:

- adopt “hospitals safe from natural disasters” as a measurable indicator to be used to reflect progress toward vulnerability reduction.
- request the World Conference on Disaster Reduction in Kobe, Japan in January 2005 to adopt this as a global indicator.

- ensure that by 2015, all new and remodeled hospitals will be built safely in order to be able to continue functioning after a disaster.
- continue strengthening their disaster programs to better promote risk reduction and ensure the safety of the health infrastructure.

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