PLAN OF ACTION FOR DISASTER RISK REDUCTION
2016-2021: FINAL REPORT

Background

1. The purpose of this document is to report to the Governing Bodies of the Pan American Health Organization (PAHO) on the achievements made in the implementation of the Plan of Action for Disaster Risk Reduction 2016-2021 (Document CD55/17, Rev. 1 and Resolution CD55.R10 [2016]) (1, 2).

2. The plan aimed to strengthen disaster risk reduction in order to prevent death, disease, disability, and the psychosocial impact resulting from emergencies and disasters.

Analysis of Progress Achieved

3. This report is based on information obtained at the regional and subregional meetings of emergency and disaster coordinators of the ministries of health in 2021 and 2022, and on the results of a questionnaire developed for monitoring the plan, to which 36 countries and territories responded.1 The criteria for rating the progress of the indicators in Addendum I, Annex B (End-of-Biennium Assessment Process and Methodology) are applied to the Report of the End-of-Biennium Assessment of the PAHO Program and Budget 2018-2019/Final Report on the Implementation of the PAHO Strategic Plan 2014-2019 (Document CD58/5, Add. I) (3).

4. During the period covered by this plan of action, 703 disasters occurred in the Region of the Americas, resulting in 15,395 lives lost, more than 145 million people affected, and more than US$ 676,000 million in damage (4). The COVID-19 pandemic negatively affected implementation of the plan of action; however, it increased the capacity of countries to deal with emergencies resulting from biological hazards.3

---

1 As of 5 April 2022, 36 countries and territories had responded to the questionnaire on implementation of the Plan of Action for Disaster Risk Reduction 2016-2021.

2 Estimated value. Unless otherwise indicated, all monetary figures in this report are expressed in United States dollars.

5. During the period 2016-2021, two collaborating centers have supported emergency preparedness and disaster risk reduction work: the Yale New Haven Center For Emergency Preparedness And Disaster Response (United States of America) and the Collaborating Center for Resilient Health Systems (Mexican Social Security Institute—IMSS) (5). In addition, collaboration with Evidence Aid has provided disaster risk management professionals and organizations in the health sector with the evidence they need to make decisions based on a collection of summaries on resilient health systems in the context of disasters and other health emergencies (6).

6. Implementation of the plan of action integrated cross-cutting approaches—people-centered actions; multi-hazard approach; a gender, equity, ethnic group, human-rights, and disability approach—that contributed to the alignment of cooperation to help countries meet the goals of the Sendai Framework for Disaster Risk Reduction 2015-2030 (7). In 2016, the Latin American and Caribbean Network for Inclusive Disaster Risk Reduction and Disability (GIRDD-LAC Network) was established to promote the inclusion of people with disabilities (8). In 2019, the Indigenous Knowledge and Disaster Risk Reduction Network (9) was created to advance disaster risk reduction with an emphasis on health and resilience in indigenous communities in the Region. That same year, PAHO published a Guidance Note on Health Disaster Risk Management with Indigenous Peoples (10), and simulation exercises were conducted to improve health disaster risk management with indigenous peoples, employing a methodology using scenarios with parallel perspectives (11). Regarding the gender approach, at the beginning of the COVID-19 pandemic, a guide was published with key considerations for integrating gender equality into the response to health emergencies and disaster risk reduction, including the pandemic (12).

**Strategic Line of Action 1: Recognizing disaster risk in the health sector**

7. The number of countries and territories that evaluate risk as a key element of disaster risk management in the health sector increased from six countries in 2017 to 19 in 2021. A disaster risk assessment with a multi-hazard approach that includes the evaluation of hazards, capacities, and vulnerabilities was carried out by 19 countries and territories, representing 53% progress (19 out of 36) toward achieving the target. However, during this period, 25 countries conducted a national health sector hazard assessment, 23 had a national health sector vulnerability assessment, and 26 had a national assessment of their response capacities.

8. During this period, the World Health Organization (WHO) collaborated in the development of the Strategic Toolkit for Assessing Risks (STAR) (13), and together with experts from the countries, the Preparedness Index for Health Emergencies and Disasters was developed (14). Bolivia, Chile, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Nicaragua, Panama, Paraguay, Saint Lucia, and the Turks and Caicos Islands used these risk assessment tools during the process of updating their multi-hazard response frameworks for the health sector (15). In the Region, 500 health and risk management professionals were trained in these methodologies. At the subnational level, Nicaragua assessed the risk of emergencies and disasters in the country’s 153 municipalities, despite the pandemic.
Objective 1.1: To evaluate disaster risk in the health sector

<table>
<thead>
<tr>
<th>Indicator, baseline, and target</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1 Number of countries that have evaluated disaster risk in the health sector</td>
<td>Partially achieved. A total of 19 countries have evaluated disaster risk in the health sector. Another 11 countries are making progress toward achieving this indicator. This represents 85% progress toward achieving this indicator.</td>
</tr>
</tbody>
</table>

Strategic Line of Action 2: Governance of disaster risk management in the health sector

9. Twenty-five countries reported that they have a formal coordination office with full-time staff and a budget (24 countries at the national level and one at the subnational level), while eight countries indicated that they lack an official coordination office with an operating budget. During the regional consultation meeting in February 2022, countries expressed concern about the limited progress made in strengthening emergency and disaster risk management offices; in some cases, there has even been a decrease in staff and funding for already established structures.

10. Thirty-two countries and territories have a national committee for health emergencies and disasters. The Ministry of Health is represented on these committees in 100% of cases; local government is represented in 50% of cases; nongovernmental organizations, 66%; social security institutes, 59%; military and civil defense, 66%; and private sector, 53%. Guatemala established a national roundtable for strengthening the inclusion of persons with disabilities in health risk management, a milestone in the inclusion of persons with disabilities in the Region. The objective of the roundtable is to coordinate joint actions between the Ministry of Public Health and Social Assistance of Guatemala, civil society, and other key actors to develop and promote strategies with an inclusive approach to health risk management (16).

Objective 2.1: To strengthen the organizational structure of disaster risk management offices in the ministries of health

<table>
<thead>
<tr>
<th>Indicator, baseline, and target</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1 Number of countries with full-time staff assigned to disaster risk reduction</td>
<td>Partially achieved. A total of 25 countries have full-time staff and a budget allocated to health emergency and disaster risk management (24 countries at the national level and one at the subnational level). This represents 83% progress toward achieving the target.</td>
</tr>
</tbody>
</table>
Objective 2.2: To promote country leadership in disaster risk management for health, fostering sectoral and intersectoral work

<table>
<thead>
<tr>
<th>Indicator, baseline, and target</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.2.1</strong> Number of countries that have a sectoral mechanism for coordination, implementation, and monitoring of disaster risk management for health. Baseline (2016): 9 Target (2021) 15</td>
<td><em>Exceeded.</em> A total of 32 countries have a sectoral mechanism for coordination, implementation, and monitoring of disaster risk management for health One more is in progress. This exceeds the target number.</td>
</tr>
</tbody>
</table>

**Strategic Action Line 3: Safe, smart hospitals**

11. Twenty-three countries reported that they have included the five criteria of the Safe Hospitals initiative and nine countries are in the process of including them. These 32 countries have reported actions to improve the security of integrated health service networks.\(^4\) Twenty-one countries have had inter-agency and multisectoral participation in the creation and operation of the safe hospitals program; 23 countries identified priorities for intervention in hospitals; 22 countries have guidelines, standards, and procedures for implementing the Safe Hospitals program at the national and subnational levels; and 17 countries have tools to monitor and evaluate the progress of the Safe Hospitals program. Nineteen countries are applying the Hospital Safety Index (HSI) \((17)\), and seven countries and territories report that they are in the process of implementing assessments. During the period of this plan of action, the second edition of the HSI (HSI-2) was published, the assessment tool was updated, and the self-instruction course on assessment of health facilities using the HSI-2 was implemented at the PAHO Virtual Campus for Public Health; as of 5 April 2022, 2670 people from nine countries and territories had passed the course.

12. Thirty-one countries and territories have considered adaptations to climate change in emergency and disaster reduction plans and programs in the health sector. Fifteen have implemented mitigation actions and measures for adaptation to climate change, and 16 report that they are in the process of implementing the Smart Hospitals initiative.\(^5\)

13. Since 2018, the evaluation-action methodology for disability inclusion in hospital disaster risk management (INGRID-H, Spanish acronym) has been developed and

---

\(^4\) The five criteria are: a) implementation of assessments and monitoring of the probability that health facilities will continue to function in disaster situations; b) inter-institutional and multisectoral participation in the creation and operation of the Safe Hospitals Program; c) identification of priorities for intervention in hospitals; d) preparation of guidelines, standards, and procedures for implementing the Safe Hospitals program at the national and subnational levels; e) availability of tools to monitor and evaluate the progress of the Safe Hospitals program.

\(^5\) The Smart Hospitals initiative focuses on improving the resilience of hospitals, strengthening structural and operational aspects, and providing green technologies that—in addition to reducing energy consumption and the carbon footprint of the health sector on the environment—provide hospitals with energy independence, allowing them to continue operating during emergencies and disasters.
implemented to improve the level of inclusion of people with disabilities in disaster risk management in the health sector, particularly in hospital preparedness and response to emergencies and disasters (18). Chile, Ecuador, Guatemala, Honduras, Nicaragua, Panama, and Peru have implemented the INGRID-H methodology in a total of 33 hospitals.

<table>
<thead>
<tr>
<th>Objective 3.1: To improve the security of integrated health services networks through the application of safe hospital criteria in the planning, design, construction, and operation of these services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicator, baseline, and target</strong></td>
</tr>
<tr>
<td>3.1.1 Number of countries that include safe hospital criteria in the planning, design, construction, and operation of health services</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 3.2: To improve the security of integrated health services networks through the development and application of criteria to address climate change through both adaptation and mitigation in the planning, design, construction, and operation of these services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicator, baseline, and target</strong></td>
</tr>
<tr>
<td>3.2.1 Number of countries that include criteria for disaster mitigation and for adaptation to climate change in the planning, design, construction, and operation of health services</td>
</tr>
<tr>
<td>Baseline (2016): 2 Target (2021): 15</td>
</tr>
</tbody>
</table>

Strategic Line of Action 4: Health sector capacity for disaster preparedness, response, and recovery

14. Thirty-three countries have a plan that guides and coordinates the multi-hazard national response to health emergencies and disasters, 21 countries have updated their plan in the last two years, and six countries are testing them for updating. A total of 32 countries report having an emergency operations center (30 of them are operational and two are being activated). Twenty-six countries have a national emergency response team in the multidisciplinary health sector.

15. Twenty-five countries have a logistics and supply system to support disaster response in the health sector. This has helped improve the efficiency of emergency and disaster response in this area, with benefits in relation to disasters caused by hydrometeorological events and during the COVID-19 pandemic. Five countries are in the implementation process. Seven countries have a training program in the Humanitarian Supply Management System/Logistics Support System (SUMA/LSS).
16. Thirty-three countries and territories have established training programs on hospital planning for disasters, focusing on different aspects: epidemiological surveillance (28 countries), drinking water (13 countries), mental health (26 countries), corpse management (18 countries), damage assessment and needs analysis (18 countries), coordination of humanitarian assistance (19 countries), chemical emergencies (13 countries), incident management system (20 countries), risk communication (20 countries), and early warning and surveillance (21 countries).

<table>
<thead>
<tr>
<th>Indicator, baseline, and target</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.1.1 Number of countries that have tested plans and procedures for emergency and disaster response and early recovery</strong></td>
<td><strong>Achieved.</strong> A total of 33 countries have tested plans and procedures for emergency and disaster response and early recovery, and six countries are testing their plans. This represents 94% progress toward achieving the target.</td>
</tr>
</tbody>
</table>

**Lessons learned**

17. The health sector needs to integrate sustainable development as a strategic line of disaster risk management. The exchange of experiences, intersectoral cooperation strategies, and shared information management systems has proven to be one of the main strengths derived from implementation of the plan of action. The COVID-19 pandemic has underlined the need to increase the capacities of health systems and health facilities, and to improve operations within a services network in order to achieve a more efficient response to multiple hazards.

**Measures needed to improve the situation**

18. The following actions are presented for consideration by the Member States:

a) In order to increase knowledge about disaster risks, it is necessary to implement a standardized methodology for strategic assessment of disaster risk in the health sector. This will make it possible to identify and prioritize risks to facilitate the planning process.

b) Health sector governance needs to be strengthened through a national program with an office or unit that coordinates actions with other programs, both within the health authority itself and with other sectors. It is necessary to strengthen the structure through training, continuous education, and recruitment of human resources. International cooperation mechanisms are needed in order to exchange information and share resources to achieve objectives.

c) The Safe Hospitals initiative is a strategy that has promoted the improvement of hospital safety in order to have health facilities whose services remain accessible.
and can operate at their maximum installed capacity and rely on their own infrastructure in emergency and disaster situations. Within the framework of current developments and the new challenges that the pandemic has presented, it is necessary to move toward a framework of hospital resilience that includes training for evaluators of the new hospital safety index (HSI-2), strengthening the program’s structure in more countries, and receiving information on the interventions carried out.

d) Dissemination and implementation of the multi-hazard response framework for the health sector should be strengthened in order to design, test, and update response plans, following specific plans and standardized operating procedures to progressively operationalize them. This will allow the national and subnational levels to respond more efficiently during emergencies and disasters.

**Action by the Executive Committee**

19. The Executive Committee is invited to take note of this report and provide any comments it deems pertinent.

**References**


