

Health emergency preparedness and response

Strengthening the global architecture for health emergency prevention, preparedness, response and resilience

Report by the Director-General

Introduction

1. The global health emergency landscape is evolving rapidly, with crises becoming more frequent and complex. The coronavirus disease (COVID-19) pandemic exposed critical gaps in preparedness and response, underscoring the urgent need for stronger coordinated international action. In response, WHO launched the health emergency prevention, preparedness, response and resilience (HEPR) framework at the Seventy-sixth World Health Assembly in 2023. Built on lessons learned, the HEPR framework enhances countries' ability to prevent, detect and respond to health threats while strengthening health system resilience.
2. Growing pressures, exacerbated by geopolitical instability, climate change and emerging diseases, further highlight the need for sustained investment in preparedness. Attacks on healthcare infrastructure, widening inequities and critical funding gaps reinforce the need for international cooperation and predictable financing. The WHO Health Emergencies Programme is central to these efforts, aligned with the pillar on protecting health of the Fourteenth General Programme of Work, 2025–2028.
3. The present report provides a review of HEPR implementation in 2024, highlighting progress, challenges and financial constraints. It emphasizes the urgent need for stronger international cooperation and sustainable financing to build resilient health systems and ensure an effective response to future health threats and crises. The Standing Committee on Health Emergency Prevention, Preparedness and Response considered an earlier version of this report.¹

¹ Document EB/SCHEPPR/6/4.

Strengthening global governance

4. The amendments to the International Health Regulations (2005), adopted by the Seventy-seventh World Health Assembly, introduce key changes such as a definition of “pandemic emergency”, National IHR Authorities and the States Parties Committee for the Implementation of the International Health Regulations (2005).² The Secretariat has begun work in preparation for the entry into force of the amendments.
5. The outcome of the work of the Intergovernmental Negotiating Body to draft and negotiate a WHO convention, agreement or other international instrument on pandemic prevention, preparedness and response (INB) will represent an intergenerational commitment and serve as a tool of international health law by establishing a set of agreed principles, rules and approaches for strengthened pandemic prevention, preparedness and response. Supported by the Secretariat, the INB Bureau continues to facilitate and guide the work towards reaching consensus on a text ahead of the Seventy-eighth World Health Assembly.
6. Since 2022, the Standing Committee on Health Emergency Prevention, Preparedness and Response has held five regular meetings and one extraordinary meeting on mpox. The Executive Board, at its 156th session, extended the Standing Committee’s mandate until the closure of the Seventy-ninth World Health Assembly and requested the Director-General to prepare a report on the mandates and functions of governance and oversight mechanisms for health emergencies.³
7. Under the Universal Health and Preparedness Review, 11 countries have conducted voluntary assessments, with the first global peer review in 2024 featuring the Central African Republic, Portugal and Thailand. The Secretariat is aiming to expand participation in the Review and to integrate it with national HEPR financing strategies.
8. The 2024 GPMB report⁴ highlights the growing threat of pandemics and calls for increased One Health surveillance, improved risk communication and a sustained US\$ 10 billion annual increase in HEPR financing.⁵ WHO, GPMB and the World Bank will align these insights with implementation of the International Health Regulations (2005), the negotiations on a pandemic agreement, and financing strategies.

Strengthening the capabilities of HEPR systems

Collaborative surveillance

9. Collaborative surveillance improves early detection and rapid response by integrating public health intelligence, laboratory networks and event-based surveillance. In 2024, WHO hosted the Collaborative Surveillance Policy Makers Forum, advocating for increased investments in integrated disease surveillance. WHO has developed 13 country case studies to guide global scaling efforts for integrated disease surveillance systems and conducted a partner and donor landscape analysis.

² Document A78/11.

³ Decision EB156(37).

⁴ [The Changing Face of Pandemic Risk: 2024 Report](#). Geneva: GPMB Secretariat; 2024 (accessed 27 March 2025).

⁵ See document A76/10.

10. The Epidemic Intelligence from Open Sources (EIOS) initiative played a crucial role in strengthening global public health surveillance in 2024, providing training for 950 public health professionals through 40 workshops. Around 200 participants from 70 countries attended the 2024 EIOS Global Technical Meeting in Saly, Senegal, where artificial intelligence-driven innovations in surveillance were discussed. WHO's surveillance systems analysed over 1.2 million signals, verifying 494 public health threats for risk assessment and enhancing real-time detection and early warning capabilities globally.
11. WHO supported 179 laboratories in 136 countries, improving mpox testing, genomic sequencing and outbreak response capabilities. The International Pathogen Surveillance Network accelerated genomic surveillance and provided US\$ 4 million in catalytic funding to low- and middle-income countries.
12. WHO leads global laboratory networks and initiatives to enhance health security, notably through the Global Laboratory Leadership Programme. In 2024, it hosted a global public health laboratory webinar series, reaching more than 2500 experts from 162 countries.
13. The WHO Global Influenza Surveillance and Response System (GISRS), was expanded in 2024 to e-GISRS, and has integrated multi-pathogen surveillance for influenza, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and respiratory syncytial virus across 130 Member States. Furthermore, e-GISRS has strengthened early warning systems, accelerated pandemic vaccine development and reinforced global laboratory networks.

Community protection

14. The HEPR framework prioritizes risk communication, community-based surveillance and social protection measures. WHO strengthens community-centred approaches through partnerships, knowledge-sharing platforms and localized interventions to enhance resilience and trust during crises.
15. In 2024, WHO, in collaboration with IFRC, UNICEF and global partners, launched a community of practice on community-based surveillance, engaging 16 organizations in bi-monthly coordination efforts. WHO also expanded the Information Network for Epidemics to provide governments and communities with critical public health information. WHO also developed global guidance on the mpox response, ensuring a standardized approach to community-driven outbreak management.
16. The Community Protection Partners Network, launched in 2024, fosters cross-sectoral collaboration with over 1500 public health experts from 148 countries. The WHO Hive platform supports over 50 communities of practice, facilitating knowledge exchange on public health interventions, emergency preparedness and resilience-building.
17. To enhance evidence-based decision-making, the WHO Public Health and Social Measures (PHSM) Knowledge Hub indexes over 150 000 research articles on disease prevention, outbreak control and health system resilience. WHO developed eight study protocol templates for PHSM evaluations. A draft resolution on PHSM research is expected to be discussed at the Seventy-eighth World Health Assembly.
18. WHO trained over 10 000 practitioners in risk communication, community-based surveillance and emergency response and is developing a standardized competency framework for community health workers.

Safe and scalable care

19. The HEPR framework prioritizes resilient health systems, strong infection prevention and control, and scalable medical services for safe patient care while maintaining essential health services and protecting health workers during crises.

20. WHO's Global Clinical Platform supports real-time data collection and analysis for COVID-19, mpox, filoviruses and cholera. In 2024, WHO convened global experts to develop best practices for equitable and effective clinical trials, engaging 3000 stakeholders from 48 countries.

21. WHO leads the Access to Oxygen Initiative, supporting 64 Member States in developing costed national oxygen scale-up road maps. In 2024, WHO provided technical support to 45 countries, procured 28 pressure swing adsorption oxygen systems and facilitated investments exceeding US\$ 20 million.

22. WHO-led expert working groups guided outbreak response, prioritizing infection prevention and control, and water, sanitation and hygiene actions. In fragile, conflict-affected and vulnerable settings, WHO strengthened these measures by training over 600 health workers and supporting 1251 health facility assessments. Additionally, WHO and UNICEF conducted regional training for 15 Member States in the Eastern Mediterranean Region, improving health facility preparedness.

Access to medical countermeasures

23. Ensuring timely, equitable access to medical countermeasures is critical for pandemic preparedness and response. WHO has strengthened global research coordination, scalable manufacturing and supply chain resilience to support rapid deployment of vaccines, therapeutics and diagnostics.

24. WHO has also established Collaborative Open Research Consortia to accelerate clinical trial standardization and the development of medical countermeasures.

25. WHO is driving the expansion of regional manufacturing, particularly in low- and middle-income countries, by supporting scalable biomanufacturing platforms and strengthening supply chain logistics. The WHO BioHub System facilitates global sharing of biological materials for epidemic and pandemic preparedness.

26. The Interim Medical Countermeasures Network (i-MCM-net) has significantly improved collaborative access and allocation mechanisms. In 2024, 2.5 million mpox vaccine doses were secured through the access and allocation mechanism and distributed to high-risk countries. WHO also provided US\$ 44 million in emergency supplies to 77 countries, prioritizing high-risk and conflict-affected areas.

27. WHO and partners have created event-specific health logistics and supply coordination mechanisms to steer global health supply chains towards response priorities. In 2024, WHO signed a host agreement with the United Arab Emirates, expanding the Hub for Global Health Emergencies Logistics.

Emergency coordination

28. In 2024, WHO facilitated joint external evaluations in 21 countries, conducted strategic risk assessments in 34 locations and supported the development of 20 national action plans for health security. It also expanded the International Health Regulations Monitoring and Evaluation Framework.

29. Launched in 2023, the Global Health Emergency Corps enhances surge workforce coordination, linking regional and global response networks, and strengthens interoperability, leadership training and rapid deployment capabilities. In 2024, WHO deployed 67 technical experts through the Global Outbreak Alert and Response Network, while Emergency Medical Teams facilitated over 2.5 million medical consultations in crisis settings, including in the Gaza Strip. WHO also expanded national public health emergency operations centres.

30. In 2024, WHO supported 51 graded emergencies across 89 countries, with 21 requiring the highest response level. WHO also activated Incident Management Support Teams, released emergency funds, deployed medical supplies and ensured rapid risk assessments and surge workforce coordination.

Application of HEPR for specific threats and settings

31. In 2024, WHO supported 35 countries facing complex emergencies and coordinated 28 health clusters, reaching 72.1 million people through 900 humanitarian partners. It provided real-time data on the availability of health resources and services for 66 000 health facilities and implemented early warning, alert and response systems in 36 locations. WHO documented 1622 attacks on healthcare facilities across 16 countries that resulted in 937 deaths and 1774 injuries among health workers and patients.

32. In 2024, the Secretariat supported 102 countries in developing all-hazard national risk profiles and integrating them into preparedness frameworks. The Seventy-seventh World Health Assembly adopted resolution WHA77.8 on strengthening health emergency preparedness for disasters resulting from natural hazards, prioritizing multisectoral coordination. WHO is leading the G20 Working Group on Disaster Risk Reduction, aligning financing for pandemic preparedness and response mechanisms with climate-related health risks.

33. The Preparedness and Resilience for Emerging Threats initiative, launched in 2023, has broadened pandemic preparedness to include vector-borne and foodborne diseases alongside respiratory pathogens. In 2024, WHO facilitated 54 national bridging workshops to strengthen collaboration under a One Health approach, reinforcing coordination at the human–animal–environmental interface. It also conducted 10 joint risk assessments for zoonotic threats and updated its list of emerging pathogens.

34. WHO continues to provide direct technical support and strategic guidance for outbreak response to high-risk pathogens. In 2024, the Secretariat supported countries responding to outbreaks of Middle East respiratory syndrome coronavirus (MERS-CoV), Marburg virus, Crimean-Congo haemorrhagic fever, Oropouche virus, Zika virus, Nipah virus, dengue, cholera, influenza and mpox.

Sustainable and coordinated financing for HEPR

35. Effective HEPR requires sustainable, predictable financing. According to WHO–World Bank estimates, US\$ 30 billion per year is required, with a current US\$ 10 billion funding gap. WHO is advocating for long-term, diversified financing solutions, ensuring sustainable, scalable and equitable health security investments.

36. WHO is a key partner in the Pandemic Fund, supporting 41 projects across six regions, with a total allocation of US\$ 427 million to date. The Fund reallocated US\$ 20 million for mpox response and is preparing a third call for proposals, with a funding window of US\$ 500 million. WHO is developing a risk–needs metric to guide investments and optimize resource allocation.

37. In collaboration with major development banks, WHO launched the Health Impact Investment Platform to support countries in securing international financing for HEPR. Since 2024, the platform has supported 14 countries in developing a HEPR investment plan.

38. WHO, IMF and the World Bank are integrating pandemic preparedness into the IMF Resilience and Sustainability Trust. The Democratic Republic of the Congo and Jordan are pioneering pandemic preparedness reforms under this framework.

39. WHO, as secretariat of the G20 Joint Finance and Health Taskforce, is enhancing collaboration between the health and finance sectors. Under Brazil's G20 Presidency, WHO co-hosted a pandemic simulation exercise and is refining the framework for economic vulnerabilities and risks to support risk-based HEPR investments.

40. In 2024, the WHO Contingency Fund for Emergencies disbursed US\$ 51.5 million to respond to 28 emergencies. Contributions from 12 donors provided US\$ 22 million, reinforcing rapid response capabilities and ensuring that WHO is able to act swiftly in emerging crises.

Action by the Health Assembly

41. The Health Assembly is invited to note the report and to provide guidance on the following key questions.

- How can the Secretariat and Member States sustain and strengthen implementation of the HEPR framework amid the current financing constraints faced by WHO?
- What strategic measures would ensure continued investment in critical HEPR capacities, including collaborative surveillance, emergency coordination and access to countermeasures?
- What are the broader implications for global health security if HEPR implementation is not sustained?
- How can the Secretariat, Member States and partners mitigate risks of underfunding and maintain momentum in building resilient health systems worldwide?