



## WORLD HEALTH ORGANIZATION

### Topic 2: The Question of Enhancing Global Health Security to Combat Future Pandemics

## Committee overview

The World Health Organization (WHO) is the specialized agency of the United Nations responsible for international public health. Its primary purpose is to direct and coordinate global health efforts, prevent and respond to disease outbreaks, establish international medical standards, and support member states in strengthening their healthcare systems. WHO plays a critical role in providing scientific guidance, coordinating emergency responses, and promoting equitable access to healthcare worldwide.

## Background on the topic

The topic concerns how the global community can better prevent, respond to future pandemics, and detect them before they escalate into global crises. In other words, it focuses on weaknesses revealed by COVID-19 and similar minor outbreaks. Late detection of outbreaks is a first cause, and it comes from many countries lacking surveillance systems and lab capacity, and delayed reporting under the WHO framework, allowing pathogens to spread more quickly before containment. Secondly, unequal access to medical countermeasures such as vaccines, diagnostics, and antibiotics, which are usually concentrated in high-income countries, mechanisms like the International Coordinating Group on Vaccine Provision and global stockpiles exist, but supplies are highly insufficient during large-scale pandemics. This brings hospitals to become overwhelmed, and essential treatments (maternal care, chronic disease treatments) collapse. Finally, lack of coordination between countries can greatly increase the gravity and fallout of the previous statements.

Global health security developed gradually as infectious diseases demonstrated that pathogens spread faster than political borders. With each major outbreak, more and more flaws in international coordination, surveillance, and equitable access to medical countermeasures were uncovered. From the late 2000s onward, many repeated outbreaks revealed persistent weaknesses in international health preparedness. The 2009 H1N1 influenza pandemic highlighted highly unequal vaccine access, the 2014–2016 Ebola epidemic exposed slow international response, and the Zika outbreak demonstrated inadequate surveillance in many regions. To improve emergency logistics, coordination mechanisms, and stockpiles, including the International Coordinating Group on Vaccine Provision, were strengthened to distribute vaccines and antibiotics during crises, yet many countries still lacked the resources to meet preparedness obligations under the World Health Organization framework. These structural gaps became fully visible during COVID-19 (2019–2023), when delayed reporting, competition for protective equipment and vaccines, overwhelmed health systems, and severe inequities in vaccine distribution turned a public-health emergency into a global economic and political crisis, intensifying calls for a permanent international preparedness architecture.

## Key terms and definitions

**Global Health Security (GHS):** The collective capacity of countries and international systems to prevent, detect, and respond to infectious disease threats that cross borders.

**International Health Regulations (IHR 2005):** Legally binding framework adopted by the World Health Organization requiring states to build core surveillance and response capacities and notify potential public-health emergencies.

**Public Health Emergency of International Concern (PHEIC):** A formal declaration by WHO signaling an extraordinary event requiring coordinated international action.

**Surveillance Systems:** Continuous, systematic collection and analysis of epidemiological data to identify outbreaks early (indicator-based and event-based surveillance).

**Early Warning & Rapid Response (EWAR):** Mechanisms enabling quick detection and containment of emerging infectious diseases.

**One Health Approach:** Integrated management of human, animal, and environmental health risks to prevent zoonotic spillover.

**Zoonotic Disease:** Infection transmitted from animals to humans (e.g., novel influenza strains, coronaviruses).

**Pandemic Preparedness:** Planning, infrastructure, and policies developed before outbreaks to ensure readiness.

**Health System Resilience:** Ability of healthcare systems to maintain essential services during crises.

**Risk Communication & Community Engagement (RCCE):** Transparent communication strategies to build public trust and encourage protective behavior.

**Non-Pharmaceutical Interventions (NPIs):** Measures such as masking, distancing, isolation, and quarantine used before medical countermeasures are available.

**Medical Countermeasures (MCMs):** Vaccines, therapeutics, diagnostics, and personal protective equipment used to control outbreaks.

**Global Emergency Stockpiles:** International reserves of vaccines, medicines, and supplies coordinated through WHO mechanisms such as the International Coordinating Group on Vaccine Provision.

**Equitable Access:** Fair distribution of vaccines and treatments across countries regardless of income level.

**Supply Chain Resilience:** Ability to maintain manufacturing, procurement, and distribution of critical health goods during disruptions.

**Genomic Surveillance:** Sequencing pathogens to detect variants and guide public-health interventions.

**Antimicrobial Resistance (AMR):** Reduced effectiveness of antibiotics and antivirals, complicating outbreak control.

**International Cooperation & Multilateralism:** Cross-border coordination among governments, UN agencies, and regional organizations to manage global health threats.

**Capacity Building:** Strengthening laboratories, workforce training, and infrastructure in low-resource settings to improve preparedness.

**Biosecurity & Biosafety:** Measures preventing accidental or intentional release of dangerous pathogens.

## Relevant UN bodies and resolutions

### UN Bodies

- **World Health Organization (WHO)** - Leads global outbreak coordination, declares international health emergencies, sets regulations (IHR), and manages technical guidance and emergency stockpiles.
- **International Coordinating Group on Vaccine Provision (ICG)** - Coordinates the distribution of emergency vaccines and antibiotics to countries during major outbreaks.
- **United Nations (UN)** - Provides political coordination, humanitarian response, and crisis financing through agencies and emergency mechanisms.
- **World Bank** - Funds preparedness programs and health system strengthening in developing countries.

### Key country groupings

- **High-income countries** - Major funders of research, vaccine production, and global response programs; also central to export policies and supply chains.
- **Low- and middle-income countries (LMICs)** - Often outbreak epicenters due to limited surveillance capacity but rely on international support for response and recovery.

## Major actors and their relevance

### Organisations

- National public health agencies (e.g., CDC-type authorities)
- Research laboratories and genomic surveillance networks
- Universities and epidemiological research consortia
- Pharmaceutical manufacturers - Develop vaccines, therapeutics, and diagnostics
- Medical supply manufacturers - Produce PPE, ventilators, and testing kits
- Logistics and transport companies - Enable global distribution chains
- International NGOs (medical and humanitarian relief groups)
- Philanthropic foundations funding vaccine access and preparedness programs
- Community organizations involved in risk communication and vaccination campaigns
- Healthcare workers - frontline responders
- Media - influences public perception and compliance
- Populations - adherence to public-health measures determines the effectiveness of interventions

## Guiding questions

- 1. How should the international community strengthen early warning and surveillance systems to detect outbreaks before they become pandemics?
- 2. What mechanisms can ensure equitable access to vaccines, diagnostics, and therapeutics for low- and middle-income countries during a health crisis?
- 3. How can the WHO's International Health Regulations (IHR) be reformed to improve compliance and accountability among Member States?
- 4. What role should the private sector play in pandemic preparedness, particularly in vaccine manufacturing and supply chain resilience?
- 5. How can international cooperation be strengthened to prevent delays in information sharing and coordinated response during public health emergencies?
- 6. What measures can help health systems in low-resource settings build resilience to maintain essential services during a pandemic?
- 7. How can the One Health approach be integrated into national preparedness frameworks to reduce the risk of future zoonotic spillover events?
- 8. What financing mechanisms should be established to ensure sustainable and predictable funding for global health security?
- 9. How can biosafety and biosecurity standards be harmonized internationally to reduce the risk of accidental or deliberate release of dangerous pathogens?
- 10. What immediate steps are necessary to prevent further civilian casualties and humanitarian consequences in Egypt and the Sinai Peninsula?

## Works cited

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