Disrupted Futures

Disruptions to Global Health Security and the changing role of NPHIs

Catherine Smallwood

WHO Hub for Pandemic and Epidemic Intelligence

WHO Health Emergencies Preparedness and Response Programme

World Health Organization

NPHA Strengthening National Public Health Agencies for Emergencies

Disruptions to global health security

Shocks

E.g.: Outbreaks, War, Financial crash

Changing Health Risks

Emerging Science & Technology

Shifting World Order

New Global Health Instruments

Drifts

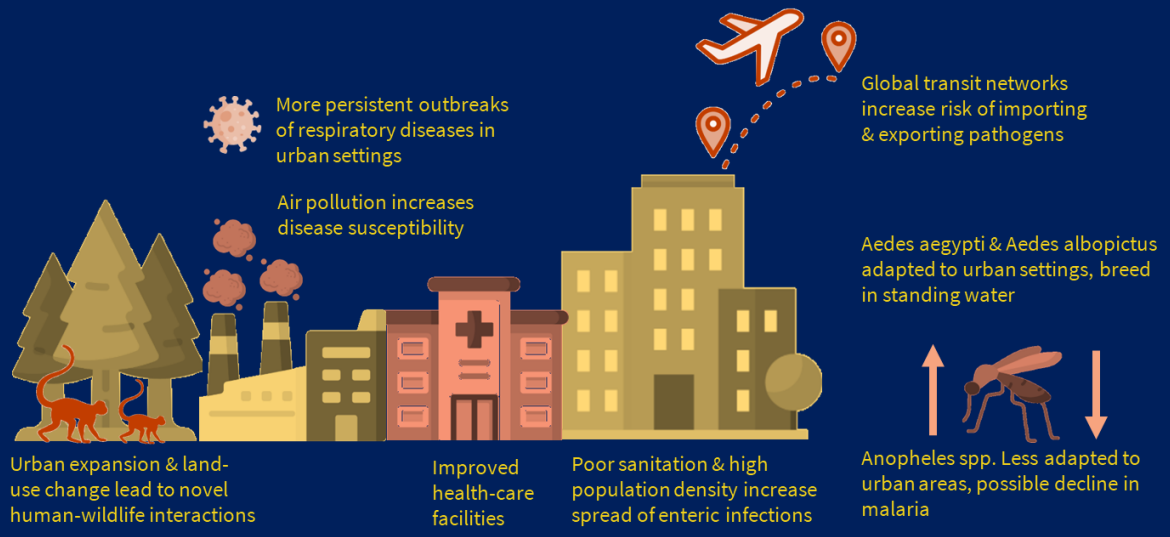
E.g.: Demographic shifts, Antimicrobial resistance, Political instability

Adapt

Perish

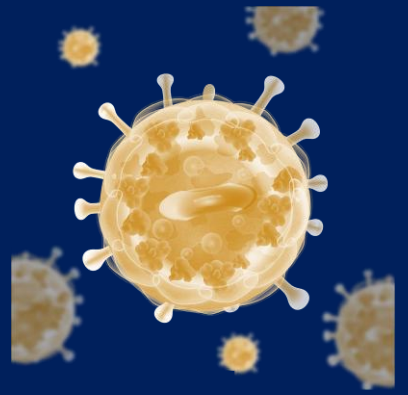
Changing Health Risks

Impacts of urbanization on infectious disease



Source: Baker et al., *Infectious disease in an era of global change*

Crowded, well-connected cities enable spread of diseases. More close contact and fast travel means outbreaks start sooner, amplify locally, and leap between cities more quickly.



Mpox

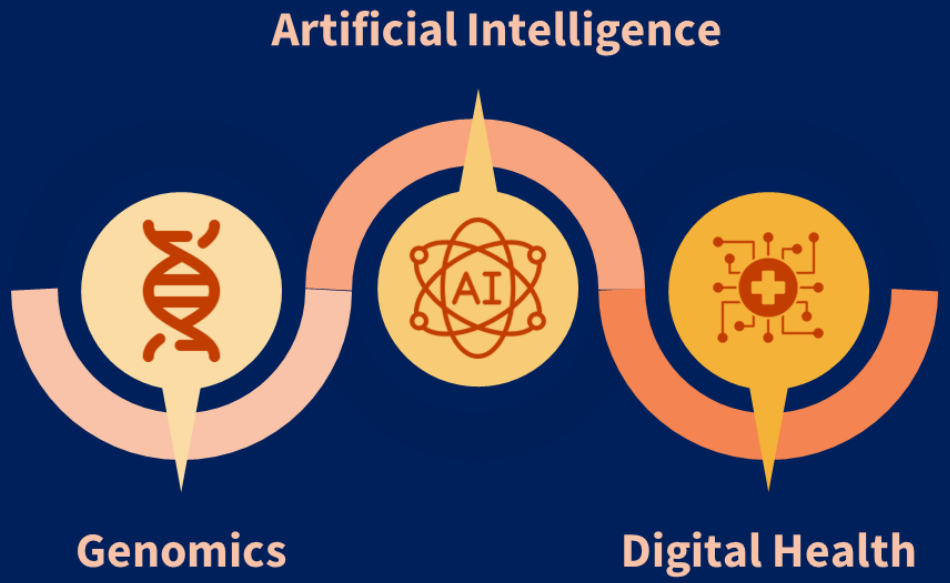
Increased susceptibility due to:

- Waning smallpox immunity
- Animal-to-human spillover
- Increased human transmission due to sexual contact

Are high-income countries ready to learn from places they overlooked? Which diseases qualify as health-security threats and who decides?

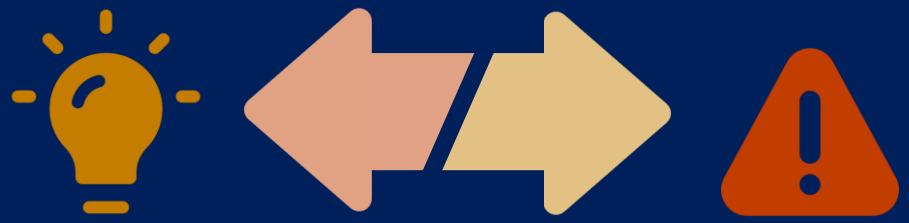
Emerging Science & Technology

Converging technologies such as AI, genomics, and digital health, are accelerating detection, diagnosis, and response. However, uneven capacity and governance, erosion of trust in science, and potential misuse may hinder benefits.



AI, genomics and digital health compress the path from signal to decision resulting in earlier detection, faster diagnosis & more targeted response.

The payoff from new technologies is limited by variation in infrastructure, data quality, and trust turning breakthroughs into isolated pilots.



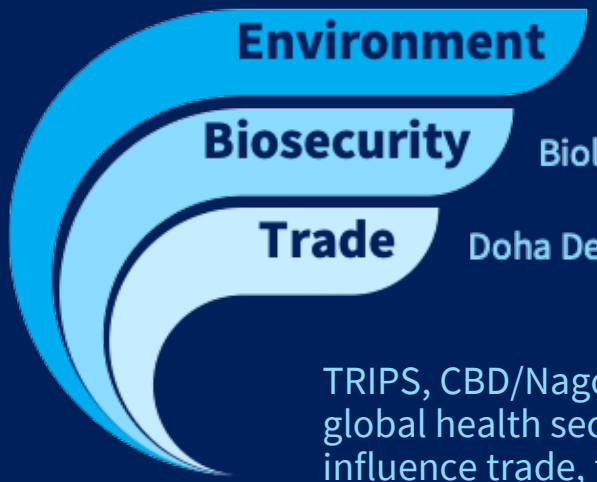
How will the erosion of trust in science risks hamper preparedness and response?

New Global Health Instruments

IHR remains the backbone of global health security but cross-sector rules (trade, environment, biosecurity) shape outcomes. A new Pandemic Agreement along with the Pandemic Fund provide the opportunity to strengthen preparedness and response.

IHR
INTERNATIONAL HEALTH REGULATIONS

New amendments to IHR enter into force and bring new rights and obligations to the existing regulations.



Paris Agreement, Convention on Biological Diversity (CBD)

Biological Weapons Convention (BWC)

Doha Declaration, TRIPS Waiver

TRIPS, CBD/Nagoya ABS regime, and BWC, shape global health security by establishing rules that influence trade, technology transfer, and equitable countermeasure access.


World Health Organization

Seventy-eighth World Health Assembly

Agenda item 16.2 WHA78.1

20 May 2025

WHO Pandemic Agreement

The Seventy-eighth World Health Assembly,

The Pandemic Fund
FOR A RESILIENT WORLD

Pandemic Agreement (May 2025) has emerged as part of the post-COVID reforms but significant parts remain under negotiation.

Shifting World Order

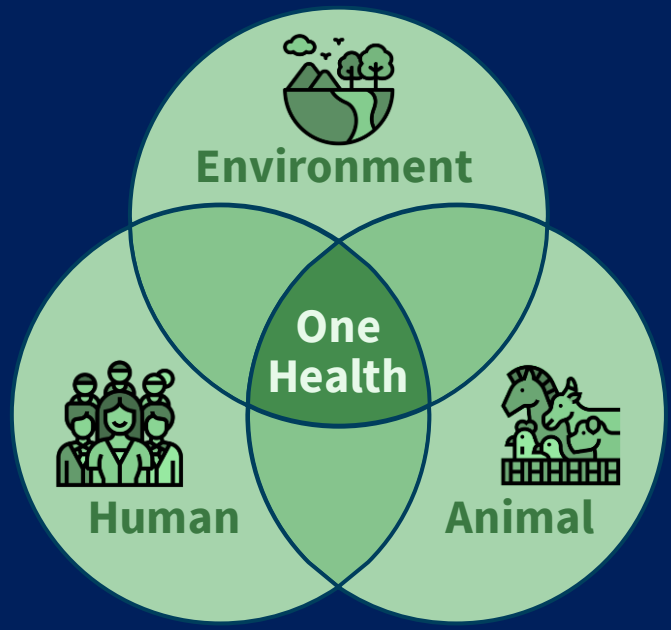
Power and financing in global health are shifting as long-standing actors recalibrate and regional players (ECDC, Africa CDC) gain prominence. Equity debates & mainstreaming of One Health are prompting steady adjustments to rules and investments.

BRICS

G20 INDONESIA 2022

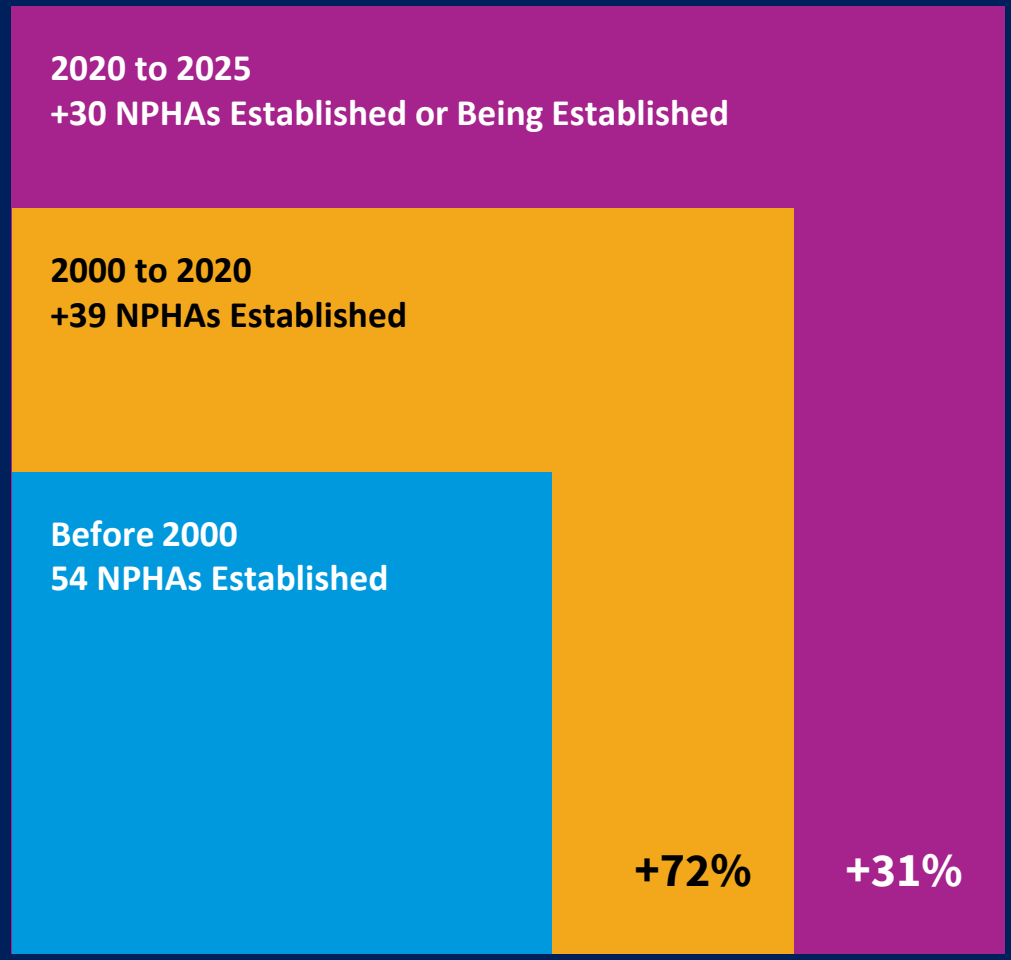
AfricaCDC
Centres for Disease Control and Prevention

ecdc



The global health landscape is shifting. Established donors adjust participation & funding, while other actors expand their roles in governance & financing.

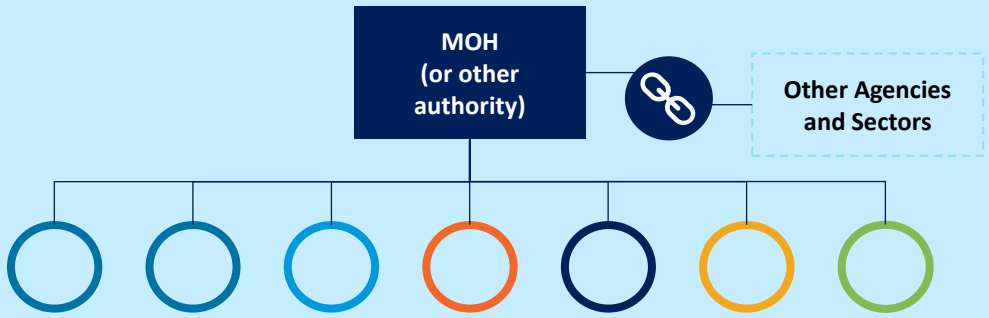
There are 68 new NPHIs/NPHAs that have been established over the last 25 years, and over 30 since 2020.



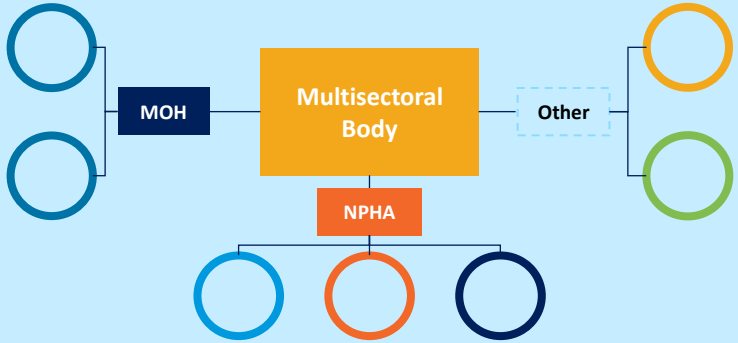
World Health Organization

But their role in EPR and level of autonomy vary immensely

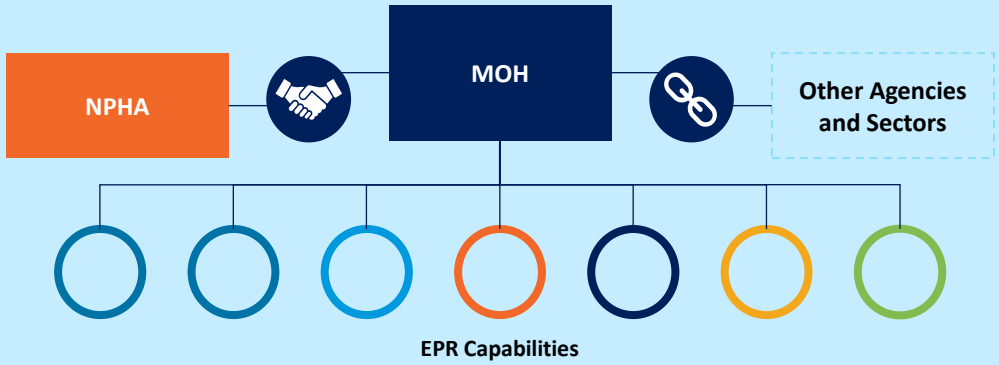
EPR led by a MOH or other authority with no distinct NPHA



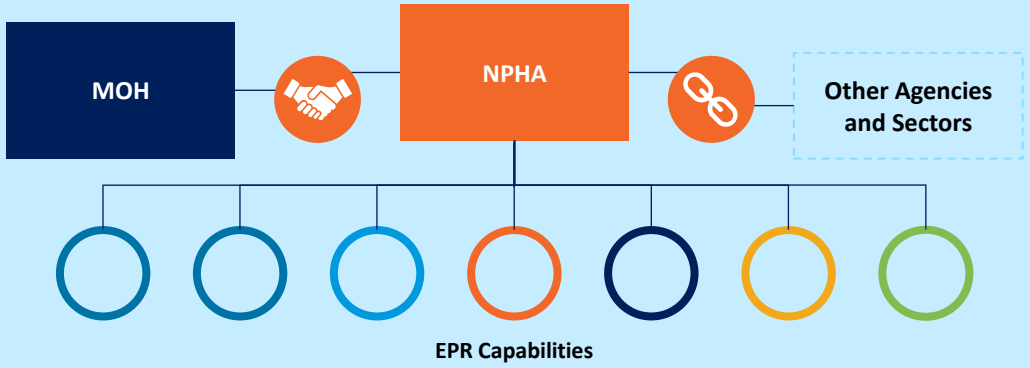
EPR led by a coordinating multisectoral governance body, with MoH and NPHA



EPR led by MoH with NPHA support



EPR led by NPHA with MoH support



In 2023, NPHAs requested WHO's emergencies programme to support across six areas

- Framework under development (to be finalized in 2025)

- WHO and the Health Alliance documenting NPHA governance models in 11 countries. To be published early 2026
- Global mapping of NPHAs in EPR (planned)

- Quarterly discussion series topics
- NPHA Exchange Programme (in design)

- Engagement with financing partners
- G20 Joint Finance an Health Task Force report for 2025

NPHA Strengthening National Public Health Agencies for Emergencies

12 NPHA capabilities for emergency preparedness and response across 2 domains

Foundational Domain

- C1 Governance and legal instruments
- C3 Evidence, guideline and policy development
- C2 Financing for EPR functions

Technical Domain

- C4 Coordination, monitoring and evaluation for EPR
- C5 Public health emergency management
- C6 Emergency workforce and surge deployment
- C7 Surveillance, intelligence and analytics
- C8 Diagnostics, laboratory systems and pathogen surveillance
- C9 Risk communication, community engagement and infodemic management
- C10 Public health and social measures
- C11 Generating evidence and tools for safe, scalable clinical care
- C12 Countermeasures research, guidelines and deployment strategy

World Health Organization

NPHA Strengthening National Public Health Agencies for Emergencies

In summary

- Major disruptions are rocking longstanding foundations of global multilateralism and health security.
- These offer an opportunity to adapt or perish.
- The role of NPHIs and regional entities is increasing.
- We must work collectively to ensure EPR governance and systems are strengthened.
- Importance of function over form.

Our engagements:

116 **Member states engaged**

85 **Member states with established NPHAs or in process of establishment engaged**

Thank you

World Health Organization

NPHA Strengthening National Public Health Agencies for Emergencies