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GHEC:
The role of NPHIs in health emergencies

April 10, 2025
3.30-5.30pm
Mozambique

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Overview of the session

- Introduction to the session
- Presentation of key findings of the IANPHI GHEC Survey
- GHEC – progress, Dr Scott Dowell, WHO Global Health Emergency Corps
- Round table discussions on connected leadership and regional collaboration
- Conclusions

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Objective of the session

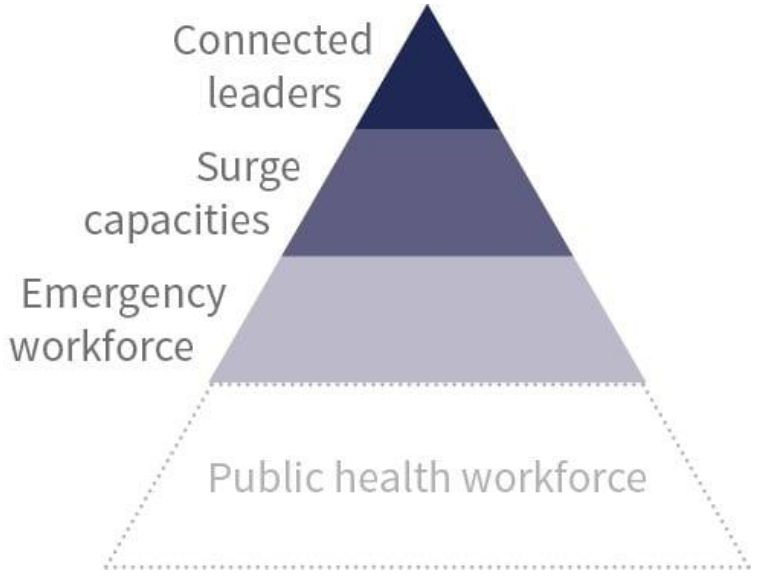
To discuss and verify the findings of the survey with the NPHIs in order to further inform GHEC and IANPHI on how to support NPHIs in their work related to health emergency preparedness and responses.

Global Health Emergency Corps (GHEC)

GHEC is a **framework** for enhancing health emergency workforce capacity within health emergency prevention, preparedness, response and resilience (HEPR) work, and a **collaboration platform** for countries and health emergency networks.

The vision of Global Health Emergency Corps (GHEC) is a health emergency workforce centred in countries and coordinated regionally and globally, composed of:

- Connected health emergency leaders
- Health emergency surge capacities
- Health emergency workforce



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A health emergency workforce centered in countries

Connected leaders

- Connect senior national health emergency leaders in a trusted network.

Surge capacities

- Standardize quality and enhance interoperability between national, regional and global rapid response capacities.

Emergency workforce

- Strengthen local and national health emergency preparedness and response workforce.

> There is no global health security without local and national health security.
>
> **Dr Tedros Adhanom Ghebreyesus**
> *WHO Director-General*

IANPHI GHEC Survey

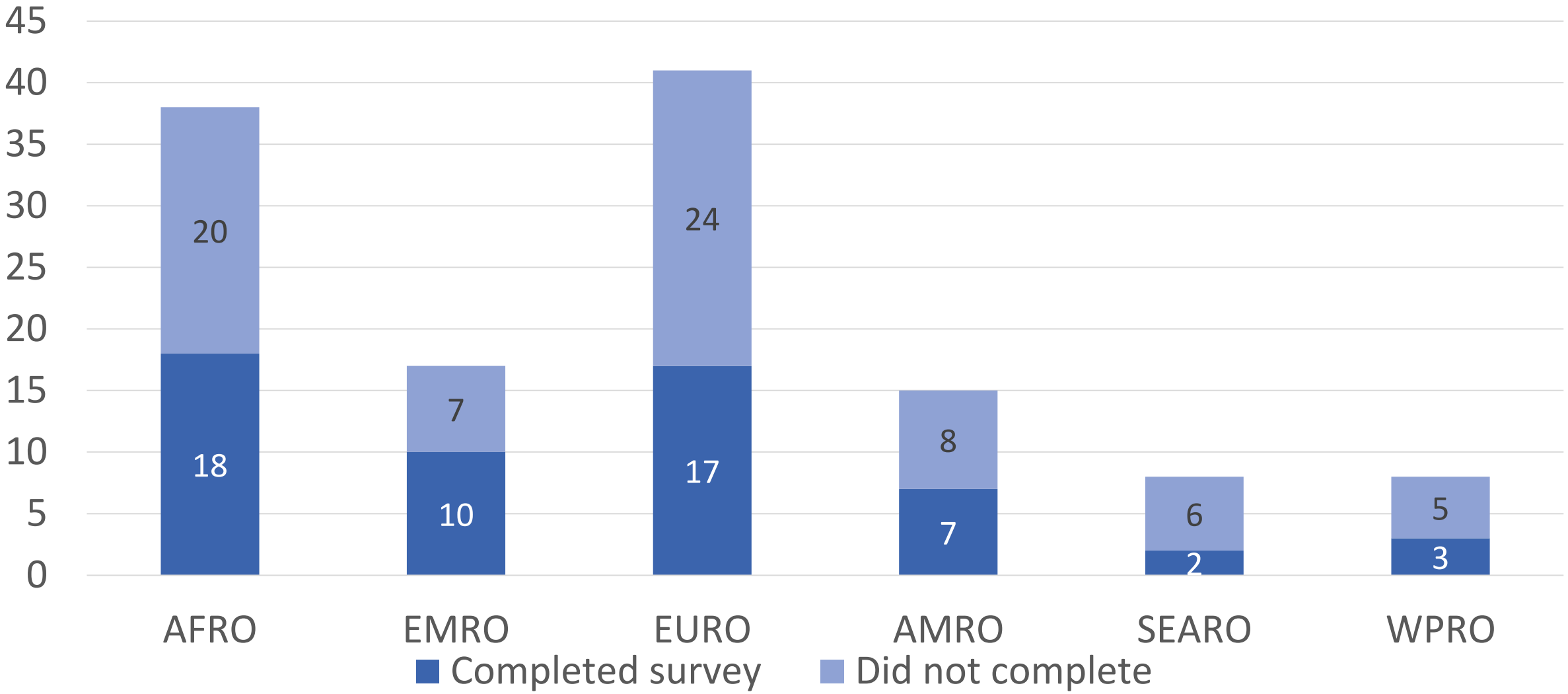
The focus of this survey is on the role and functions of NPHIs, to understand the extent to which the NPHI is leading or involved in the key domains outlined by the GHEC framework.

The information collected seeks to:

- Provide an overview of the current landscape and support needed for NPHIs to strengthen their roles in rapid response to health emergencies.
- Provide evidence to support the development of IANPHI guidelines for NPHIs reviewing, planning or developing surge capabilities to respond to domestic, regional, and international emergencies.
- Generate position papers and publications to advocate for investment, support and strengthening of the roles and responsibilities of NPHIs in health emergencies.
- Identify recommendations to support further GHEC development

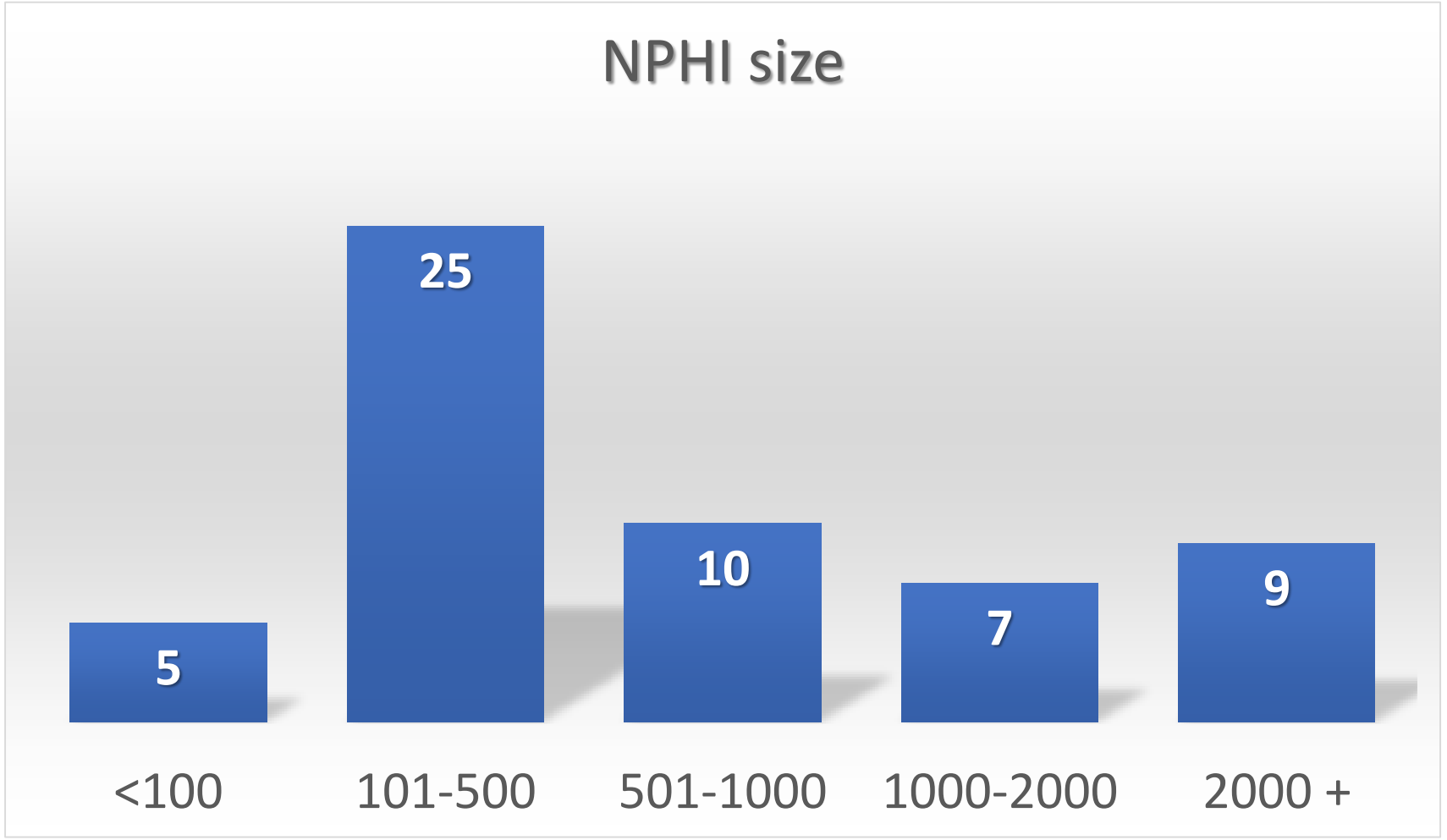
Survey

57 NPHIs responded (46% response rate)



Survey respondents

Considerable diversity in NPHIs; by size, mandate, structure, context, etc



NPHI mandates

- 84% of NPHIs have **legally mandated role** for health emergencies
- 16% have a role but not legally mandated
- Most had a **national remit**, but only 17 (30%) have an international remit (tended to be HIC & AMRO)

NPHI scope for health emergencies	No.	%
Local remit with teams operating at the subnational level	25	*44%*
National remit with teams operating at the national level	53	*93%*
International remit with teams operating internationally	17	*30%*

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Emergency public health functions

Public Health Functions in emergencies vary considerably by NPHIs

- Top 3 functions where NPHI is the lead:
  - **Specialist lab/scientific diagnostic capability** (74%),
  - **Surveillance capability** (65%), and
  - **Risk assessment** (58%)

- NPHIs in lower income countries tend to lead on the coordination of emergency response, mounting field response, and related functions (emergency planning, emergency training, emergency needs assessment, evaluation of response)

- Top 3 functions where NPHI is not involved (especially higher income countries):
  - **Disaster recovery planning** (30%)
  - **Mobilization of field response** (20%)
  - **Post disaster debriefing and lessons learning** (15%)

Hazard and topics covered

- Almost all NPHIs are involved in *infectious disease* hazards

- NPHIs in higher income countries more likely to also be involved in *Environmental, Chemical, Biological, Radiological/Nuclear* hazards.

- High proportion of NPHIs are not involved in *Water & Sanitation, Animal health, Climate change adaptation*, or *Health equity* (e.g. marginalized groups).

Image source: A Lee

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Public health emergency preparedness & response plans

- Most NPHIs (75%) have a **formal framework or plan in place**.
  - Slightly higher in high income countries (87%) and larger NPHIs, and lowest in AFRO region (71%).
- Most NPHIs (76%) had updated this plan since the COVID-19 pandemic.
- The majority of respondents reported that this **plan was collaboratively produced** with other departments, agencies, or organisations (81%).
- 47% of NPHI reported contributing to a regional or international plan
- 23% of respondents reported contributing at a regional and/or international level for certain hazards only
- 9% reported that they did not contribute to plans for emergency preparedness and response at any of these levels.

Public health emergency workforce

- Since 2014, 76% of NPHIs reported having deployed workforce in response to a national level health emergency.
- Types of workforce deployed reflected the higher frequency of infectious diseases, environmental and biological hazards:
  - **public health rapid response teams** (81%),
  - **epidemiology/data and analytics** staff (81%),
  - **surveillance** staff (79%),
  - **laboratory** staff (79%),
  - public health technical experts(64%),
  - leadership staff (55%).
- Trend for deploying more types of workforce was also noted at LMIC and AFRO region.

Image source: A Lee

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Deployments

- Most NPHIs were **able to deploy nationally** (62%), less so internationally (51%)
- Most international **deployments tended to be within the same WHO Region or neighbouring countries**.
- More distant deployments tended to be from NPHIs in higher income countries.
- Most deployments **via existing mechanisms**, e.g. GOARN (48%), or regional networks, e.g., ECDC, African CDC (44%).
- Some deployments were on an ad hoc basis (37%), and a few via NGOs (15%)
- Deployment rates are not high. Most **deployments tend to be short** (3 months or less). Larger NPHIs tended to be more able to deploy.

Surge capacity challenges

For increasing national surge capacity

- Staff deployment **logistics** (62%)
- Lack of **deployable staff** (55%)
- **Rapid recruitment challenges** (53%)
- Lack of **protocol for deployment** (51%)
- Lack of deployment **budget** (43%)
- Lack of **skillset** in deployable staff (42%)
- **Delayed identification of surge needs** (40%)

For integrating external staff

- **Understanding organisational processes, remit, responsibilities** (60%)
- **Orientation & management** of external staff (40%)
- **Language, culture, organisational familiarity** (33%)
- Lack of **appropriate skills/experience** (27%)

Collaborations

In terms of collaboration agreements with institutions from other countries for health emergency response (e.g., legal agreements, MoUs, data sharing agreements, etc)

- Most NPHIs have **agreements with other NPHIs and with international organizations**, but not with non-NPHI government agencies in other countries
- Nature of collaboration varies: **share health intelligence** (75%), **lab samples** (52%), **testing capacity** (42%), or **staff support** (40%)
- **Wide range of stakeholders**: MoH, other government department, civil defence or disaster management agency, subnational government, NGOs, academic institutions (e.g. universities) and regional agencies (e.g. Africa CDC, WHO Regional Office)
- Civil society & NGOs stakeholders less common in HIC, military more common in LMIC

Role of NPHIs in health emergency response:
Preliminary reflections from interviews

Interviews with 18 DGs/deputies of NPHIs exploring:

- Enablers and barriers to NPHIs responding to national, regional and international health emergencies
- Connected leadership for all-hazards emergencies
- Role of IANPHI in health emergencies

Image source: A Lee

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Key themes

Contextual & Environmental factors

- Legal: Mandates & remits; Roles, responsibilities & authority; Permissions & autonomy
- Political: Political support, policy framework, "politics"
- Sociocultural: "Administrative culture"

Image source: A Lee

Mechanisms & processes

- Multiplicity of processes/routes, surge mechanisms & issues, coordination mechanisms & challenges, operationalisation, flexibility needed

Resource domain

- Funding, different modalities, capacity & capacity gaps, skills & competencies, knowledge & info sharing, logistics & infrastructure

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Key themes

System domain

- Multisectorality, network of networks, system strengthening

Perceived value & need

- Needs driven, articulating value & advocacy, clarity of purpose

Relational domain

- Reciprocity & mutual benefit, opportunities for collaboration – networking & "to prepare together"

Connected leadership

- Leadership at all levels, collaborative leadership, global norms, relationships of trust, network of networks, "bridge connectors"

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Summary so far

- International deployments tend to be short, within region/neighbours, narrow in scope
- Full range of PH emergency response functions and needs are not addressed through current NPHI deployment mechanisms
- Need functional components (staff, skills, resourcing) and process components (mandate, protocols, logistics/infrastructure to support) but also relational elements (connected leadership, collaborative space)
- Also requires clearly defined need and specific ask

Questions then:

- *What are the critical functions? Where are the gaps?*
- *How do we avoid duplication with existing mechanisms?*
- *How can a small limited international deployment force be used to maximal effect?*
- *How do we make connected leadership and greater collaboration a reality?*

Acknowledgements

With thanks to the gracious support, time and participation of the many NPHIs who took part in the survey and interviews.

Also for their expert input to

- Scott Dowell and Christophe Schmacthel, WHO GHEC
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- Meng Khaw, Public Health Wales / IANPHI

BMGF funding that enabled the survey work to be done.

Project team:

Erin Rees, PHA Canada; Vicky Ng, PHA Canada; Naomh Gallagher, UKHSA; Janine Bezuidenhoudt, NICD South Africa; Julie Collins, UKHSA; Alex Thompson, University of Sheffield; Jose Langa, INS Mozambique; Raphaele Ismail, IANPHI; Rosita Wigand, PHA Sweden/ IANPHI; Sadaf Lynes, IANPHI; Andrew Lee, UKHSA/University of Sheffield.

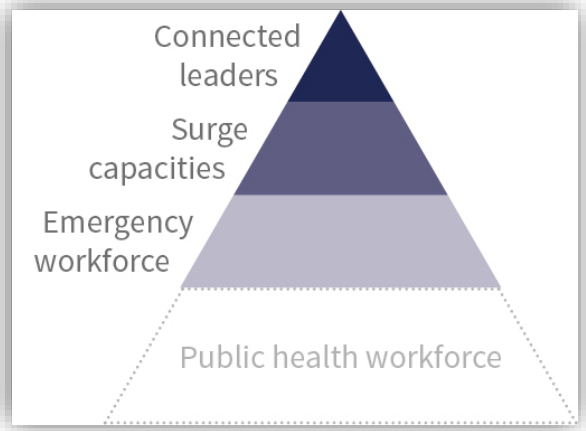
Global Health Emergency Corps
NPHIs Are Vital

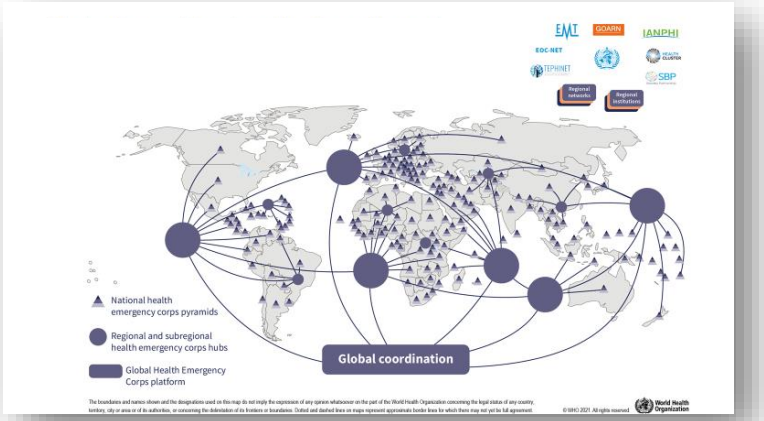
IANPHI Annual Meeting, April 2025

World Health Organization

GHEC| What is it?

The body of experts in ministries and agencies in every country who work on health emergencies …





… and the global ecosystem through which they coordinate.

Sovereignty	Equity	Solidarity

Guiding principles

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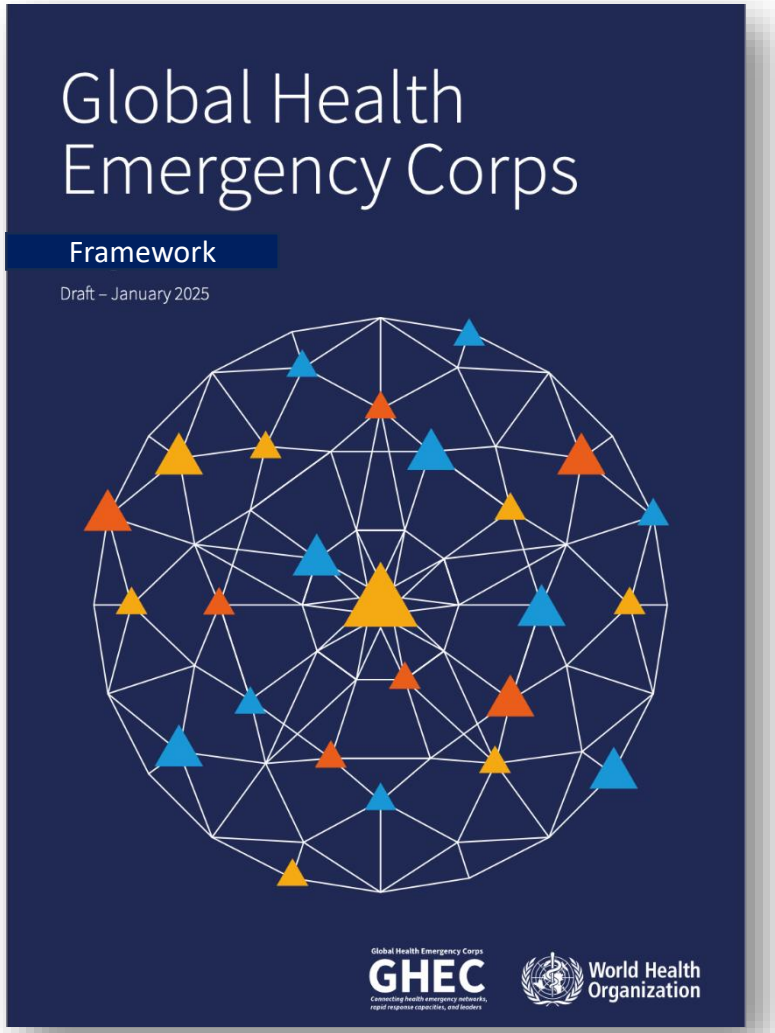
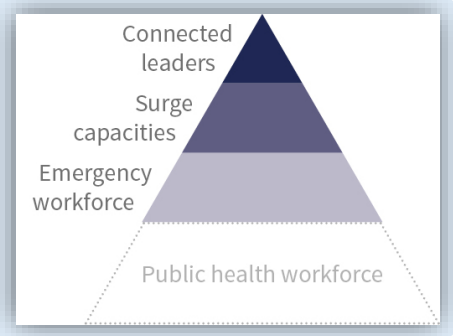
The Framework



Developed by the GHEC Design Group in 2024, this document sets the guiding principles, core components and suggested actions for strengthening emergency workforce structures and coordination within and across countries.

Suggests a structure to strengthen national health workforces for countries to adopt and adapt



Embraces an approach to coordination across the core health emergency capability areas

Identifies the ecosystem of health emergency networks through which countries collaborate

Welcome to Exercise Polaris!

3–4 April 2025

World Health Organization

EXERCISE – EXERCISE – EXERCISE

Global Health Emergency Corps
GHEC
Connect to protect

Exercise Polaris | Aim and objectives

Aim

Simulate and test a coordinated response to a globally evolving health threat, engaging the existing health emergency workforce and coordination structures under the Global Health Emergency Corps (GHEC) framework.

Objectives

- ✓ To practice sharing of information between countries
- ✓ To raise awareness and exercise coordinated activation of expertise and surge capacities available to countries
- ✓ To stimulate coordinated leadership and decision-making on response strategies

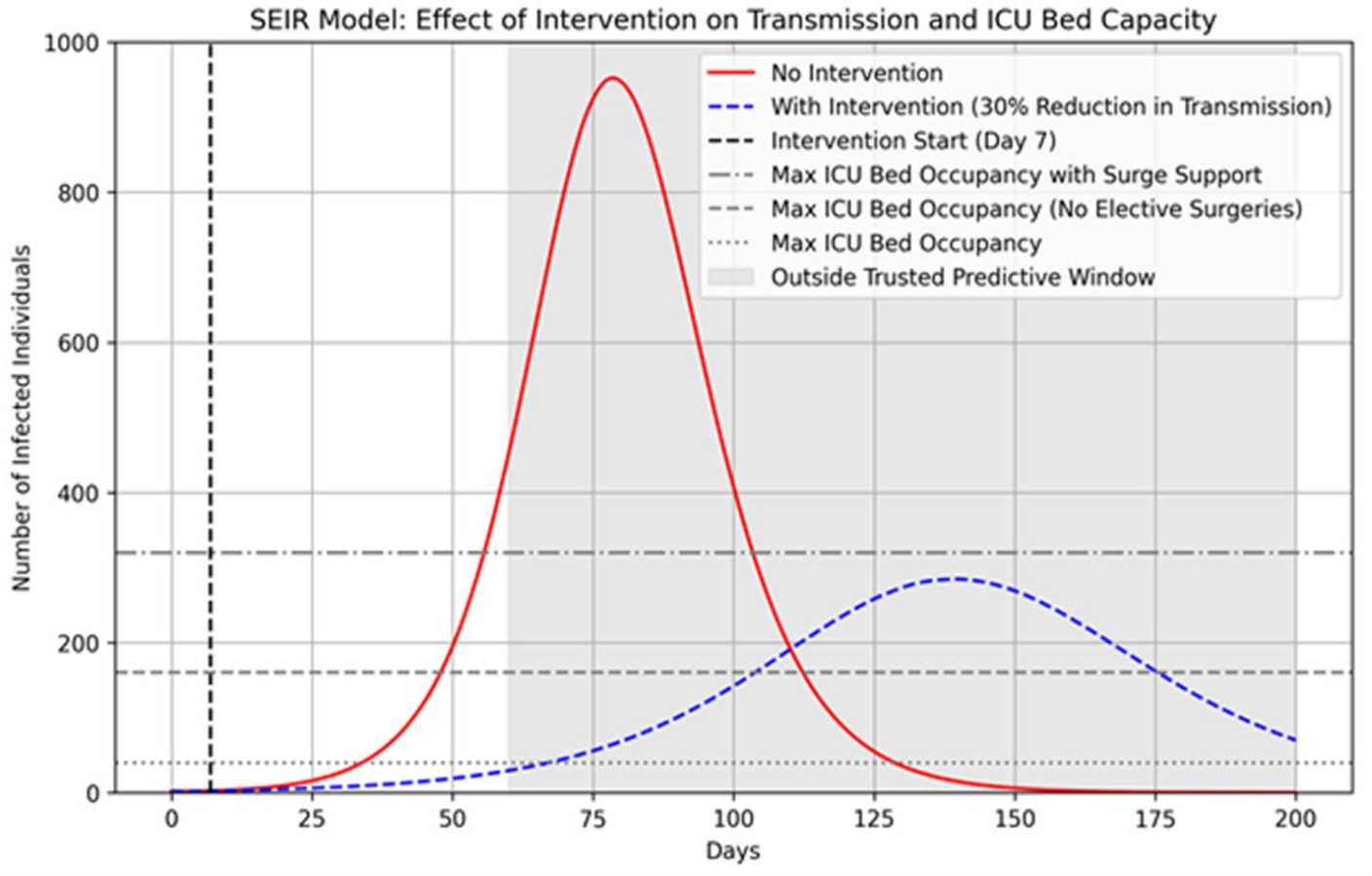
17 countries | **6 WHO regions** | **> 20 organizations and emergency networks** | **> 300 persons**

Exercise Polaris | Scenario

The rapid increase in global land and sea temperatures over the last 3 years has resulted in the **Arctic permafrost experiencing extensive melting**, leading to exposure of the remains of woolly mammoths and other ancient species that have been frozen in the ice.

A **multinational team of scientists**, support staff and a film crew embarked on an expedition in the Arctic, searching for prehistoric woolly mammoth remains. The team discovered a remarkably well-preserved woolly mammoth.

Exercise Polaris | Use of Artificial Intelligence and Modeling - Example



Initial (cruise ship) parameters
- Ro 2.0
- Serial interval 8 days
- 40% require Intensive Care
- 100 ICU beds, 80% occupied

What if?
- Re reduced to 1.4
- ICU bed expansion
- Others

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Next Steps for GHEC and NPHIs

- Regional simulation exercises
  - Modified from mammothpox model
  - Building on existing networks
- Country adoption and adaptation
  - Generative AI assistance
  - Adapting GHEC framework to unique national settings
  - Including transparent disease modeling
- Engaging and connecting NPHI leaders

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Roundtable discussions

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Roundtable discussions

- Introduction
  - Smaller groups of 8, one rapporteur per group, template
  - 4 online groups, with 4 facilitators, template.

- Round table discussions around two themes (40 minutes):
  - What does connected leadership look like in an all-hazards health emergency and what is the role of the NPHIs?
  - How can NPHIs foster regional collaboration to address cross border threats?

- Feedback from the discussions (35 minutes)
  - Present up to 3 key points for each theme, 3 minutes per group. Please, hand in your answers! Thank you!
  - Comments from participants

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Roundtable discussion around two themes

- What does connected leadership look like in an all-hazards health emergency*? What is the role of the NPHIs?

- How can NPHIs foster regional collaboration to address cross border threats?

* The concept of All-Hazards refers to disaster preparedness and response activities that address any hazard whether it be natural, technological, or human-caused. These include infectious disease threats, chemical, radiological, nuclear hazards and natural disasters.

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Conclusions

Announcement

Pandemic fund third call for proposals in two phases

Phase 1: open to single or multi-country proposals, March 2025

Phase 2: open in June 2025 to Regional Entity* proposals. In developing proposals, as laid out in the medium-term Strategic Plan, particular attention should be paid to four underlying themes:

- One Health
- Community and civil society engagement
- Gender and health equity
- As well as investments in strengthening two cross-cutting enablers – **National Public Health Institutes (or other institutions) and regional or global networks, organisations or hubs**

*Definition of Regional Entity to be updated and will be shared ahead of opening of the portal for regional proposals in June 2025.

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Thank you!