

**INFORMATION SESSION** 

### **Preventing the next pandemic: using Early Action Reviews to enhance detection and response performance**

7 December 2023

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# New WHO Early Action Review and 7-1-7 guidance





#### Guidance for conducting an early action review (EAR):

rapid performance improvement for outbreak detection and response

31 August 2023



Guidance for conducting an early action review

> Dr. Landry Ndriko Mayigane Unit Head a.i. Country Simulation Exercises and Reviews Unit Health Security Preparedness Department WHO



## Can we prevent the next pandemic?

- By stopping outbreaks at their onset?
- Case Studies:
  - Nigeria: 2014 Ebola outbreak
  - Vietnam: COVID-19 outbreak
  - Kenya: 2019 Deadly Anthrax outbreak...



# What is an early action review?

- a rapid, easily conducted performance improvement approach
- to evaluate the timeliness of early detection, notification and response actions
- An agile approach strengthening gradual and continuous learning.
- Uses a single target to simplify and standardize assessment of systems involved in public health event detection, notification, and early response

# Continuum of learning for health emergencies

#### Early Action Review (EAR)

Learning from the response for real-time rapid performance improvement

#### Intra-Action Review (IAR)

Learning from the response for course correction

#### After Action Review (AAR)

Learning from the response to improve preparedness and health systems strengthening



Early phase of the response Detection, notification, early response Ongoing response Protracted responses (exceeding 90 days)

#### After the response

Larger scale responses, after official declaration of the end of the event







### How can the 7-1-7 approach improve outbreak response?

Performance improvement	Bottlenecks are easily identified and quantified, and short- and long-term actions are taken to drive rapid improvement
Prioritization for financing and systems strengthening	Data on real-world system performance informs prioritization of available and needed resources
Communication and advocacy	When presented with simple metrics, political leaders and donors can clearly visualize resource needs and necessary policy interventions, substantiated by clear data
Accountability and reporting	Reporting against simple metrics can monitor performance, evaluate interventions and improve transparency



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@ \$ ( 7-1-7: an organising principle, target, and accountability metric to make the world safer from pandemics

Thomas R Frieden, Christopher T Lee, Aaron F Bochner, Marine Buissonnière, Amanda McClelland

Implementation of the 7-1-7 target for detection, notification, and response to public health threats in five countries: a retrospective, observational study

Aaran F Bachner, Issa Makumbi, Olaolu Aderinola, Aschalew Abayneh, Ralph Jetoh, Rahel L Yemanaberhan, Jenom 5 Danjuma, Francis T Lazaro, Hani J Mahmoud, Trokon O Yeabah, Lydia Nakiire, Aperki K Yahaya, Renato A Teixeira, Mohammed Lamorde, Immaculate Nabukenya, John Oladeja, Ifedaya M O Adetifa, Wanderson Oliveira, Amanda McClelland, Christopher T Lee

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"[Early action reviews] encourage the principles of gradual learning from experiences and real-world outcomes, reflecting on wins and losses, and adjusting to changing factors as part of continuous improvement.

#### 7-1-7: the promise of tangible results through agility and accountability

In The Lancet Global Health, Aaron F Bochner and colleagues showed how implementing the 7-1-7 target promotes agility and accountability in global health security, using examples from five low-income and middle-income countries.1 The Article emphasises the importance of early action to stem morbidity and save lives, as any delays in detection, notification, and response directly affect the outcome of a public health event.' Early action also has applications for animal diseases, including zoonoses, where the impact of a disease, if not quickly contained, could decimate entire populations.<sup>1</sup>

The Article further presents how the timeliness of critical actions matters for effective outbreak management aiming to stop diseases where they occur and as soon as they start. It also provides a quick stepby-step process of review and immediate correction and improvement of the performance of national and local health systems.

The 7-1-7 approach is complementary to the WHO methodologies for intra-action and after-action review<sup>4</sup> by providing additional agile tools and approaches and supporting the emerging concept of "early action review" for the national and subnational health emergency planners and incident managers to use for rapid performance improvement for outbreak detection and response. It also encourages the principles of gradual learning from experiences and real-world

for conducting a country COVID-19 intra-action review on July 23, 2020.14 Countries are already knowledgeable of intra-action and after-action reviews, which is an enabling factor for the 7-1-7 framework to thrive.

According to the WHO global public health intelligence report published in 2022, between 2017 and 2021, the WHO African region reported 589 acute public health events-the highest number among all other WHO regions.1 Adoption of the 7-1-7 target for detection, notification, and response to public health threats will contribute to establishing more agile systems especially at local levels that can contain health threats as they emerge on the continent.

To accelerate its uptake, the 7-1-7 target might benefit from the development of a communication package with a clear explanation and justification of why it should take 7 days for detection, 1 day for notification, and 7 days for the response to be completed. Greater clarity around the 7-1-7 target itself would be beneficial For example, the 7-day target for detection might be challenging to achieve in many less resourced countries with limited access to reliable laboratories for differential diagnosis and where misdiagnosis occurs regularly.10 It might similarly be difficult to compute the number of days for detection, especially when there are many probable cases that had not been sampled and confirmed with laboratory testing. Uptake of 7-1-7 could also be accelerated by mainstreaming this target into existing

Cliquez sur "Interprétation" pour le français. | Haga clic en "Interpretación" para español. | Clique na interpretação para português.

Lancet Glob Health 2023

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hildsheil Online April 13, 3033 https://doi.org/10.1016/ \$3214-509X(23)00387-5 See Online/Articles

https://doi.org/10.1016/ \$2214-100X(2000133-X

# When to conduct an EAR?

## Document performance

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### 2

Review performance and calibrate response



The five Cs of the WHO health emergency prevention, preparedness, response and resilience (HEPR) global architecture.

Incorporate into national planning, advocacy and larger reviews (IAR/AAR)
Support in building IHR (2005) capacities



# EAR supporting tools:

Various tools have been developed to support the conduct of EAR

ΤοοΙ	Link	
Early action assessment tool	https://apps.who.int/iris/bitstream/handle/10665/372093/WHO-WPE-HSP-CER-2023.2-eng.docx	
2. Event review template	https://apps.who.int/iris/bitstream/handle/10665/372094/WHO-WPE-HSP-CER-2023.3-eng.pptx	
3. Post-EAR action tracker	https://apps.who.int/iris/bitstream/handle/10665/372096/WHO-WPE-HSP-CER-2023.4-eng.xlsx	
4. EAR synthesis report template	https://apps.who.int/iris/bitstream/handle/10665/372095/WHO-WPE-HSP-CER-2023.5-eng.docx	
5. EAR Country Case Study	https://apps.who.int/iris/bitstream/handle/10665/372097/WHO-WPE-HSP-CER-2023.6-eng.pptx	
	Country early action review (EAR) Early action assessment tool	World Health Organization



TOOL 1: EARLY ACTION ASSESSMENT TOOL

Rapid performance improvement for outbreak detection and response

#### Background

31 August 2023

The emergence of SARS-CoV-2 and the resultant COVID-19 pandemic have demonstrated the importance of timely and effective systems to detect, notify and respond to outbreaks before they become epidemics. The pandemic has highlighted limitations in existing measures of health security capacity and underscores the importance of evaluating not only the presence, but also the



- WHO Country Simulation Exercises and Reviews Unit (Candice Vente, Armand Mbanya & Elliot Brennan)
- WHO RO & WCO,
- Resolve to Save Lives
- CDC
- Uganda IDI



# **3** Country Example: Cambodia





# Using the 7-1-7 target and Action Reviews to enhance early detection and response in Cambodia

HE Dr. Ly Sovann Director, Communicable Disease Control Department Ministry of Health, Cambodia

# Outline

- Background
- Introducing 7-1-7 in Cambodia
- Early experience and lessons learned through action reviews
- Recommendations
- Next Steps
- Acknowledgements



# Cambodia

- WHO Western Pacific region
- 17.1 million people\*
  - 2.3 million in Phnom Penh
- Languages: >95% Khmer (<25% English)
- Capital City of Phnom Penh and 24 provinces

\*Population 2023 source: Kingdom of Cambodia Ministry of Planning, National Institute of Statistics. Population Projection 2020-2033, July 2023.







#### 7-1-7 target adoption activities

- Champion: Director, Communicable Diseases Control Department, Cambodia MoH
- High-level stakeholder engagement in MoH in early 2023
- Technical collaboration between Cambodia MoH and US CDC leveraged for adoption activities

#### June 2023

- Sensitization workshop for government departments and partners
- Full-day training (*including measles simulation exercise using 7-1-7 target*) for Field Epidemiology Training Program

# Context of 7-1-7 adoption and use in Cambodia

7-1-7 help maintain high level of vigilance across multiple events and identify common bottlenecks for timely detection, notification, and response

- In 2023 Cambodia reported 6 cases of Avian Influenza H5N1 in humans (including 4 deaths)
  - No human cases reported between 2015-2022
- Sentinel surveillance and event-based surveillance detected cases
- Multisectoral responses conducted

https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON495





https://www.nytimes.com/explain/2023/bird-flu-cambodia-death



https://www.nbcnews.com/health/health-news/bird-flu-father-daughtercambodia-not-spread-person-to-person-rcna73076

## Avian influenza A/H5N1 in humans, Cambodia 2023 By Date of Emergence



#### Avian influenza H5N1 cluster, Prey Veng Province, February 2023



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#### Avian influenza H5N1 cluster, Svay Rieng/Prey Veng Provinces, October 2023



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#### Avian influenza H5N1 cluster, Svay Rieng/Prey Veng Provinces, October 2023



#### Avian Influenza A(H5N1) Outbreak Investigation, Kampot Province, November 2023 (Ongoing)



# Using the 7-1-7 target in H5N1 outbreaks in 2023

#### Feb 2023 H5N1 outbreak (AAR)

• 7-1-7 target assessed and discussed during a one-day workshop after the outbreak and prior to the full AAR workshop

#### Oct 2023 H5N1 outbreak (AAR)

- National and local RRTs applied 7-1-7 target in the affected Svay Rieng and Prey Veng provinces
- Multisectoral AAR meeting held in Svay Rieng with MoH, MAFF, and MOE to discuss the 7-1-7 target, bottlenecks, enablers, and actions

#### Nov 2023 H5N1 outbreak (EAR)

Data collection and initial assessment for 7-1-7 conducted during the outbreak

Common bottlenecks have emerged, and immediate and longer-term actions have been identified, including community awareness/engagement and multisectoral collaboration



# Benefits and challenges

#### Benefits

- 7-1-7 can be used to strengthen vigilance and act faster for potentially high consequence events, including zoonotic diseases
- 7-1-7 facilitates multisectoral coordination, collaboration, communication and problem-solving
  - Recently applied in a multisectoral AAR and methodology welcomed by animal sector
- The Royal Government of Cambodia adopted One Health approach to address key public health issues including zoonotic diseases, AMR and food safety

#### Challenges

- Inter-sectoral coordination: increases complexity of incident management and communications
- Vertical programs not yet bought into 7-1-7 and have their own disease specific approach and metrics (malaria, vaccine preventable diseases)
- Limited human resources and budget to introduce the 7-1-7 into the system(s)



# Recommendations to improve early detection and early response systems in Cambodia

- Enhance community-based surveillance and public health education campaigns for key diseases, including H5N1
- Apply 7-1-7 to more event-based surveillance (EBS) outbreaks
  - Compile key barriers and enablers across types of disease outbreaks to focus and prioritize resources
- Increase and maintain capacity building for clinical and public health staff at the local, district, and national levels
  - Engage private providers to enhance EBS
  - Integrate 7-1-7 into FETP field work



# Recommendations for WHO and Global Fund

- Support integration of 7-1-7 into vertical disease programs, as appropriate
  - Outbreaks of endemic diseases
  - Programs striving for disease elimination or maintaining elimination
- Integrate 7-1-7 into M&E, IHR Core Capacity metrics



# Next steps in Cambodia

- Further sensitize high-level stakeholders and other sectors to EARs/7-1-7.
  - Additional MOH formal endorsement
- Integrate EAR guidance and the 7-1-7 target into existing systems and workflows at the national and subnational levels, with multi-sectoral engagement in the process
  - Establish formal guideline and integrate into standard operating procedures
- Train national, provincial and district-level teams on EARs and the 7-1-7 target
- Continue to apply EARs/7-1-7 in real-time to outbreaks from different diseases, and incorporate results into programs
- Use EARs/7-1-7 to facilitate multisectoral coordination, collaboration and communication for zoonotic outbreaks



# Acknowledgements

- One Health Rapid Response Team at national level
  - Ministry of Health
  - Ministry of Agriculture Forestry and Fisheries
  - Ministry of Environment
- RRT, Agriculture, and Environment at provincial/district level
- Local authorities
- US CDC, WHO-Cambodia, FAO-Cambodia, WCS-Cambodia, Institute Pasteur du Cambodge
- Resolves to Save Lives for their technical support and guidance



Daily coordination in the field: Day 1 with HE Dr. Ly Sovann, Director of Cambodian CDC

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# Country Example: South Sudan





# Ministry of Health Promotes Health & Provides Core

### Republic of South Sudan Presentation

# Adopting guidance on Early Action Reviews/7-1-7 Target in Republic of South Sudan

Dr. Angelo Goup Thon Kouch Ministry of Health Republic of South Sudan

# **Country Context and Background Information**



- The Republic of South Sudan shares borders with 6 countries (Kenya, Uganda, DRC, Ethiopia, Sudan and Central Africa Republic). It is a partner state of the East Africa Community.
- Independence July 9, 2011, the youngest in Africa and the second youngest country in the world.
- Administrative units states (10), Administrative areas (3), Counties (80), Payams (509) and Bomas (2500)
- Population est. **8.0 to 12.8 million** (2008) census.
- Large land mass and prone to outbreaks (cholera, measles, rift valley fever, COVID-19, Malaria, Ebola, etc)
  - → Early detection and response critical to prevent systems getting overwhelmed
  - $\rightarrow$  Cross-border challenges and opportunities

# South Sudan IHR Capacity Strengthening Cycle?



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- South Sudan is at the **NAPHS implementation phase.**
- NAPHS was developed after the JEE in 2017 and annual SPAR completion
- Plan is fully costed (69,067,059 \$), launched in December 2020 and implementation started in 2021.
- Conducted NAPHS resource mapping and implementation monitoring in December 2021.
- Developed **annual NAPHS operational plan** (one year plan from the strategic NAPHS plan).
- Multi-sectoral coordination platform (MCP) to coordinate NAPHS implementation formed and operation and meet biweekly.



## WHO AFRO Regional Strategy for Health Security and Emergencies 2022-2030 adopts the 7-1-7 target

### African health ministers adopt new regional strategy to transform health security

#### 25 August 2022

Lomé - Spurred by the devastating impact of the COVID-19 pandemic on fragile health systems, African health ministers this week adopted a new eight-year strategy to transform health security and emergency response in the region.

The Regional Strategy for Health Security and Emergencies 2022-2030, endorsed during the Seventy-second session of the World Health Organization (WHO) Regional Committee for Africa in Lomé, Togo, aims to reduce the health and socioeconomic impacts of public health emergencies.

Globally, the African region reports the heaviest burden of public health emergencies, with more than 100 such events occurring annually. Prior to the emergence of COVID-19, the top causes of epidemics in the region were cholera, measles, yellow fever, meningococcal



AFR/RC72/R3 24 August 2022

ORIGINAL: ENGLISH

World Health

#### REGIONAL STRATEGY FOR HEALTH SECURITY AND EMERGENCIES, 2022–2030

41. Adopt and use the novel global 7-1-7 target: Identify the outbreak within seven days of emergence, report to public health officials within one day, and effectively respond within seven days.19

	Baseline		Target		
Indicator	2022	2024	2026	2028	2030
0.00.099900	(%)	(%)	(%)	(%)	(%)
Number of countries that have identified the outbreak within 7 days of emergence, report to public health officials within 1 day of detection, and effectively respond within 7 days	0	47	47	47	47

# 7-1-7 Target/ EAR adoption and implementation progress

- COVID-19 demonstrated the need to review and standardize approaches for measurement of performance
- The 7-1-7 global framework has been proposed to evaluate outbreak detection, notification and response timeliness metrics.
- Awareness raised through online and inperson workshops organized by partners.
- South Sudan officially joined 7-1-7 Alliance on 19<sup>th</sup> May 2023.
- 7-1-7 Target orientation workshop for High leadership (stakeholders), One Health focal points, NRRT, PHEOC, IDSR and EPR.







### **Progress on Implementation**

- Country Interest on 7-1-7 Target (Done)
- 7-1-7 Target study tour to Uganda by S. Sudan team (Done).
- 3. Signing of MOU and Official joining the 7-1-7 Alliance (Done).
- 4. Leadership Orientation on 7-1-7 target and NAPHS (Done)
- 5. Technical team training on 7-1-7 Target (November 2023)
- 6. RRTs and PHEOC training on 7-1-7 Target (November 2023)

### Leadership and countryto-country learning on 7-1-7 /EARs

- Champion: Director General South Sudan National MoH
- Country to Country learning: Uganda MoH leadership hosted DG South Sudan National MoH and 3 other delegates for 3 days to demonstrate implementation of 7-1-7/EAR
  - Presentations, discussions, and site visits to National PHEOC, regional EOCs, Uganda Virus Research Institute Laboratory and IDI
  - Bilateral agreement to build capacity and support public health emergencies



### Next steps

- Focus on performance improvement
  - Conduct EARs during outbreak events
    - Immediate actions: for performance improvement during the event
    - Longer-term actions: use bottlenecks to identify priority activities in operational plans derived from the National Action Plan for Health Security. Collaborate with partners to address bottlenecks.
- **Document and share experiences** through a 7-1-7/EAR community of practice.
- **Cascading of 7-1-7/EAR training** to 10 states and 3 administrative areas (training SSOs, CSOs and SRRTs on 7-1-7 target tools).
- South Sudan applied to joint PMEP connect 2024
- Long term Bottlenecks will be incorporated in the JEE and NAPHS annual operational plan.

### Recommendations

- 1. Assess existing capacities related to detection, notification and early response in all 10 states and 3 administrative areas.
- 2. Capacity building
  - Cascade the 7-1-7 target training to all the 10 states and 3 administrative areas for States surveillance officers, Counties surveillance officers and States Rapid Response Team.
  - Support staff positions at the Department of Health Security, SCD and One Health for coordination and implementation of EAR and 7-1-7 Target.
  - Procure 3 vehicles for One Health department to easy deployment of One Health rapid response team which will enhance early response.
  - Train public and private hospitals workforce on IDSR and 7-1-7 target tools.

# Thank you for your attention.





# **5** Partner's support for Early Action Reviews roll-out

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# **Early Action Reviews Roll-out**

Mohammed Lamorde, Project Director, 7-1-7 Alliance, Resolve to Save Lives 7 December 2023

### The 7-1-7 Alliance

The 7-1-7 Alliance is a country-led initiative providing technical assistance, financial support and a growing, global community of practice to help all countries achieve the 7-1-7 target for outbreak detection and control



### **The 7-1-7 Alliance**

#### Accelerating progress for all countries to achieve the 7-1-7 target





Funding to establish a 7-1-7 learning network and joint research agenda supported by operational research grants PI: McClelland A

### Improving understanding of the approach



### **Community of Practice launched October 14**



### **Learning opportunities**

#### **Global Learning Network Webinar**

• Attendance: 236 unique views

Diverse participants (organization and country)

#### **Early Action Reviews Virtual Training Series**

- January 16, 23 and 31, 2024
- To build skills to use the 7-1-7 target and conduct EARs



Simulation exercise addressing public health and zoonotic emergencies

Country adoption and use

Performance improvement and NAPHS integration



### **Operational Research Grants**

#### Research agenda

 Aim: to build the evidence base for the 7-1-7 target as an effective organizing principle in prioritizing health security system improvements

Timeline

• Q1 2024





6 Q&A



