Why 7-1-7?

The evidence behind the global target for containing epidemic threats

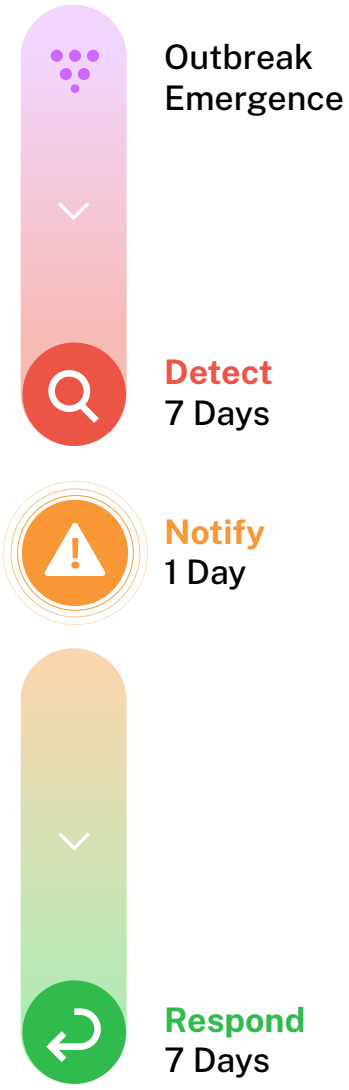
A growing body of evidence shows that, during outbreaks of infectious disease, early action is essential to limiting infections, deaths and the broad socio-economic impacts of epidemics and pandemics.[1]

To support country efforts to improve their early detection and response systems, the 7-1-7 target was designed to provide ambitious yet achievable standards for timely detection, notification and response to infectious disease outbreaks—before they spread.

Why was the 7-1-7 target developed?

- In the wake of COVID-19, international experts highlighted the importance of early detection, notification and response and called for "better align[ment of] preparedness measurement with operational capacities in real-world stress situations."[2]
- Clear targets, such as 90-90-90 for HIV, have been shown to help countries identify gaps and introduce course corrections, strengthen accountability frameworks, standardize reporting, facilitate learning and create momentum for global progress.[3]
- Several groups have previously proposed using timeliness metrics to monitor performance of disease surveillance systems. However, these metrics have not been linked to a target or incorporated into a performance improvement framework that provides clear measurement and evidence-based suggestions on how to detect outbreaks earlier. As a result, attempts to improve early detection and response have remained ad hoc and unsystematic.[4]

The 7-1-7 target was developed based on available evidence on event timeliness, prior work developing timeliness metrics, existing frameworks and guidance documents and piloting the approach in multiple countries.



Why 7 days to detect?

The incubation period for most priority diseases is ≤ 7 days according to the World Health Organization's Integrated Disease Surveillance and Response (IDSR) Technical Guidelines (3rd Edition).[5] Although some diseases may be on longer or shorter timelines, studies have shown that this target provides a good starting point for measuring detection performances and balances the need for a clear target against multiple diseases' specific benchmarks.

EVIDENCE BASE:

- IDSR Technical Guidelines include a 7-day target from emergence to notification.[6, 4]
- A review of 2,087 outbreaks in four countries in the Mekong Basin Disease Surveillance Network found that all included diseases could be detected in ≤ 7 days.[7]
- A review by Ending Pandemics and partners across 9 countries found that the median time to detect outbreaks ranged from 1 to 8 days.[1]
- A review of 296 outbreaks in the WHO African region found a median of 8 days for detection.[8]
- A review of 41 outbreaks in 5 countries found that 54% met the 7-day target.[10]

Why 1 day to notify?

Notifying the public health entities responsible for action within 1 day or less is critical to ensure that an early response is launched as soon as a threat is identified. Evidence supports the idea that detection in one or fewer days is achievable for most diseases around the world.

EVIDENCE BASE:

- IDSR Technical Guidelines include a target that suspected health events should be notified to the next level of authority within 24 hours.[9]
- A review of 33 outbreaks in Nigeria found a median 1 day to notify public health authorities.[10]
- A review of 296 outbreaks in the WHO African region found a median of 3 days for notification to WHO.[8]
- A review of 41 outbreaks in 5 countries found that 71% of events met the 1-day target.[12]
- International Health Regulations (2005) require notification of a Public Health Emergency to WHO within 24 hours.[10]

To achieve effective early containment of outbreaks, it is critical that all three components of the 7-1-7 target be reached.

Why 7 days to commence early response actions?

Early action across key response categories is essential for stopping the spread of infectious diseases. Studies have shown that a 7-day target to commence response actions is within reach.

EVIDENCE BASE:

- Specific early response actions that are broadly applicable across infectious diseases were identified through a review of recommended public health response actions for IDSR priority diseases.[5]
- A review of 33 events in Nigeria found a median 5 days to initiate the initial response actions.[11]
- A review across 5 countries found that the median time to initiate the response ranged from 1 to 7 days.[1]
- A review of 41 events from 5 countries found that 49% of events met the 7-day target to complete all early response actions.[12]

The 7-1-7 target: Early response actions

- ✓ Initiate investigation or deploy investigation or response team
- ✓ Conduct epidemiological analysis of burden, severity, and risk factors, and perform initial risk assessment
- ✓ Obtain laboratory confirmation of the outbreak etiology
- ✓ Initiate appropriate case management and infection prevention and control measures in health facilities
- ✓ Initiate appropriate public health countermeasures in affected communities
- ✓ Initiate appropriate risk communication and community engagement activities
- ✓ Establish a coordination mechanism

To achieve effective early containment of outbreaks, it is critical that all three components of the 7-1-7 target be reached: detection, notification and early response.

A review of 41 public health events showed that just 27% of events met the complete 7-1-7 target.[10] Countries were able to find and respond to most outbreaks quickly – but they had yet to do so consistently.

Find out how you can use the 7-1-7 target to improve your early detection, notification and response systems.

Ready to use the 7-1-7 target? To learn more, visit 717alliance.org

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