Adopting 7-1-7 in the United States

How the 7-1-7 target can strengthen epidemic preparedness nationwide

Why timeliness matters

Speed is essential for responses to infectious disease outbreaks due to the exponential nature of their growth. Detecting and responding as fast as possible in the first few days of an outbreak provides the best chance for containment and the prevention of a major epidemic. Program and operational adjustments in the early days based on real-time data also have the biggest impact.

The 7-1-7 target establishes a clear set of timeliness standards for infectious disease outbreak events. The 7-1-7 performance improvement process provides adaptable tools to assess timeliness, analyze bottlenecks and enablers, and determine immediate and longer-term actions. Priority actions identified through 7-1-7 reviews can be used by public health and political leaders for planning, budgetary, advocacy, and accountability purposes.

Measurement of outbreak response timeliness across multiple U.S. states and jurisdictions with 7-1-7 can inform national stakeholders about the performance of the entire public health preparedness system and allow them to prioritize resource allocation and technical assistance to underperforming locations.

7-1-7 at the local level

Five local health departments[1] across the United States have piloted 7-1-7 since 2022 to evaluate their response to outbreaks in healthcare facilities, congregate living facilities, schools and daycares, restaurants, migrant shelters, transportation settings, and communities.

Collectively, these local health departments have improved their surveillance and analytical capacities, internal and external coordination mechanisms (e.g., with healthcare systems and laboratories), standard operating procedures and external-facing technical guidance.

> **Outbreak events analyzed with 7-1-7 in the U.S. (2022-2023)**
>
> Measles
> Mpox
> COVID
> Varicella
> Norovirus
> Gastroenteritis
> Hand Foot Mouth Disease
> Candida Auris
> ESBL-Kp
> Unspecified respiratory
> Unspecified gastrointestinal

The U.S. 7-1-7 pilot has shown that:

- **7-1-7 is viable and practical at the local level.** The local level is where outbreak responses are commonly initiated in the U.S. public health system. The 7-1-7 target and performance improvement tools are effective both for routine outbreak responses in common settings and for outbreaks of higher epidemic risk such as measles, mpox and norovirus.

[1] Health Department of the City of Fitchburg (Massachusetts), Franklin County Public Health (Ohio), Public Health – Seattle & King County (Washington), Mecklenburg County Public Health (North Carolina), Pima County Health Department (Arizona)

- **National and state-level leadership, coordination, and technical support are necessary** to ensure that outbreaks are detected and responded to promptly. Coordination, collaboration and consistency across agencies and levels of the health systems can be both a critical enabler or a major bottleneck. There are common challenges faced across multiple jurisdictions that state and federal policy change could impact to improve outbreak response times.

7-1-7 at the national level

In countries with centralized public health systems, 7-1-7 can be adopted from the top down when national authorities integrate the target into their preparedness and response guidance, adapt the tools for their country and cultural contexts, and build capacity and processes within their subnational regions and districts. However, in complex federal public health systems where authority is decentralized and capacity is local, adopting 7-1-7 nationally is not as streamlined or straightforward.

Based on 7-1-7 pilots and scaleup activities, we postulate **five domains where 7-1-7 should be adopted, integrated, and prioritized in a federal system to improve timely outbreak detection and response**:

- Policy, governance, and planning

- Data standards, systems, interoperability

- Capacity building & technical assistance to jurisdictions

- Interinstitutional coordination, collaboration, and learning

- Communications, accountability, and advocacy

Through engagement with implementing partners in the United States, Brazil, and Nigeria, the 7-1-7 Global Community of Practice is still learning about the most effective and efficient strategies to adopt 7-1-7 into federal systems.

We already know that 7-1-7 has the potential to simplify outbreak monitoring standards and provide actionable data to public health and political leaders for policy making and funding priorities. When frontline outbreak investigators and emergency responders are continually learning and improving from routine outbreaks, they are better prepared to contain and mitigate the major outbreaks before they become widespread epidemics. **7-1-7 has the potential to foster a culture of accountability and system-wide improvement across the United States.**

References

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Gall AJ et al. (2024) Pilot Study of the 7-1-7 metric and outbreak response performance improvement approach within Local Health Departments across the United States. *Manuscript in preparation*

World Health Organization, Guidance and tools for conducting an early action review (EAR): rapid performance improvement for outbreak detection and response

7-1-7 Alliance resources:

- 7-1-7 for Accountability, Monitoring and Evaluation
- Continuous Improvement with 7-1-7
- Advocacy as easy as 7-1-7
- 7-1-7 Digital Toolkit
- Why 7-1-7? The evidence behind the global target