

CEPI | The critical role of disease surveillance in CEPI's 100 Days Mission

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Background

The next pandemic is a question of when, rather than if.

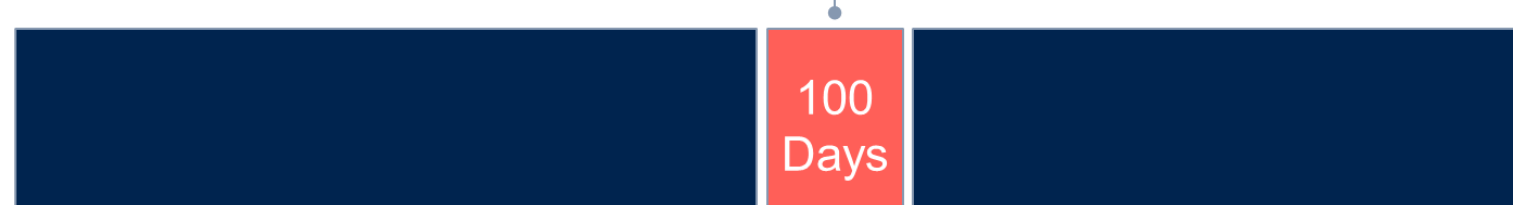
The **Coalition for Epidemic Preparedness Innovations**, CEPI, was established following the 2014-2016 Ebola virus disease outbreak in West Africa, aiming to **accelerate the development of vaccines and other biologic countermeasures against epidemic and pandemic threats so they can be accessible to all in need.**

CEPI focuses on priority pathogens that have known potential to cause major epidemics and pandemics, including the unknown pathogen "Disease X".

100 Days Mission

The 100 Days Mission is CEPI's vision for the world to respond to the next Disease X with development of a new vaccine within 100 days.

Response acceleration under different scenarios



Preparedness	Response	Roll-out and review
Prepare the scientific toolkit, development infrastructure & policy	Adapt, create & test the pathogen-specific vaccine	Release vaccine & expand clinical evidence

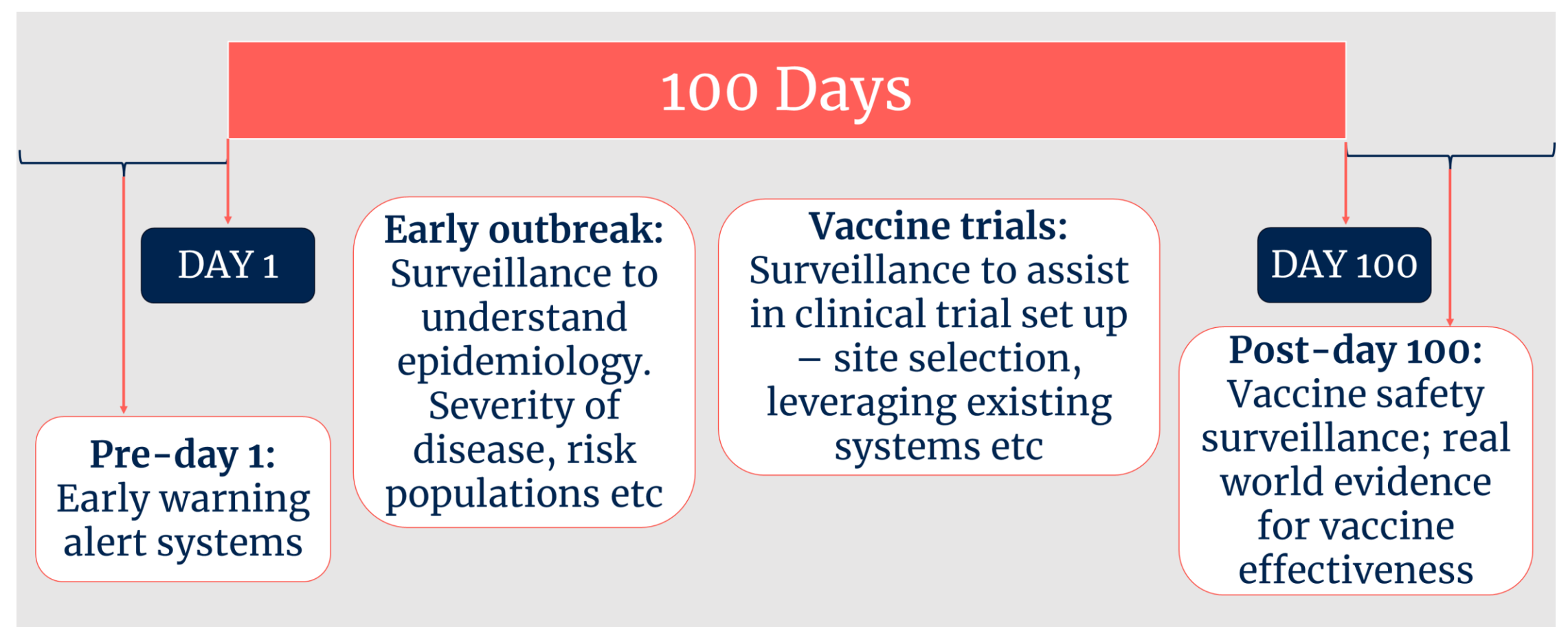


Paradigm shift: significant front-loading in preparedness, and breaking the firewall between development and intervention

Information for action

Disease surveillance is a critical element at both ends of the 100-days timeline, providing pivotal information for decision making.

- Pre "Day 1" surveillance data notify us of emerging threats. This informs a go/no-go 100 Days Mission investment decision into vaccines and other biologic countermeasures
- Within the 100 Days, surveillance data determine vaccine use cases and target populations, and provide critical inputs for clinical trial preparation
- Post "Day 100" and with a potential candidate vaccine now available, surveillance data assess vaccine safety and effectiveness in a real-world use setting



Disease surveillance typically occurs at local and national levels, though its impact extends regionally and internationally, necessitating collaboration for shared, readily available information. CEPI relies on publicly available data, utilising indicator and event-based surveillance to monitor global disease activity. **Existing systems are too fragmented to enable the rapid information sharing necessary for the 100 Days Mission's accelerated goals.**

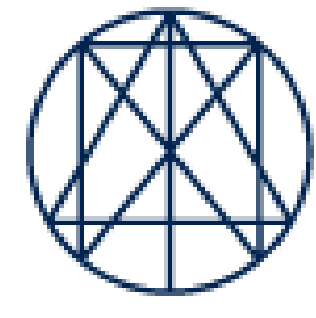
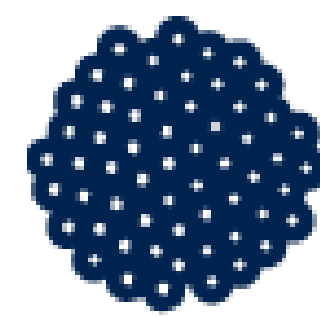
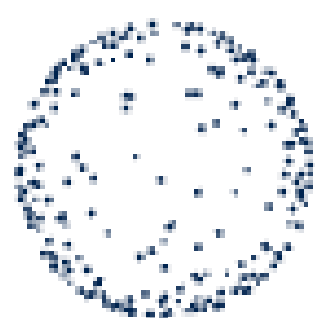
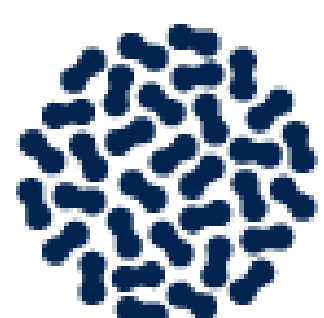
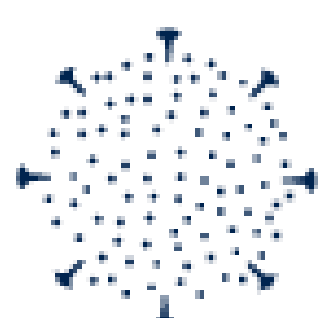
Vision for the future

A collaborative surveillance approach enhances our capacity to successfully achieve the 100 Days Mission.

Despite tireless efforts in vaccine development, including a vaccine libraries approach for Disease X (i.e. developing prototype vaccines against the different virus families that infect humans), **without robust early-warning surveillance, timely decision-making remains elusive, hindering the translation of research into action.**

If we want to make the world a safer place from epidemic and pandemic threats, supporting pandemic preparedness through interoperable and accessible surveillance systems is critical.

Priority pathogens



Betacoronavirus | Chikungunya | COVID-19 | filovirus | Lassa fever | MERS | mpox | Nipah | Rift Valley Fever | Disease X