

SUMMARY

TESTING PLAYBOOK FOR BIOLOGICAL EMERGENCIES

WHAT

The Testing Playbook for Biological Emergencies provides U.S. decision-makers at the federal, state, and local level, with a clear and evidence-based guide for making rapid and effective decisions regarding the development, implementation, and scale-up of diagnostic testing in an infectious disease emergency. It provides easy-to-use information to inform their planning on how timely, equitable access to accurate testing can quickly be provided to all communities during an emerging biological event and how the data from testing can inform emergency decisions at each stage of a crisis. We consider testing broadly, from diagnostic testing for individuals, to group surveillance and testing, to at home testing and wastewater surveillance.

WHY

Testing is fundamental to improving preparedness and response in another biological emergency. This is critical, as it is widely believed, there will be another pandemic. This is a plan for a targeted, rapid response based on accurate and timely information – information that can only be garnered through widespread testing. **This playbook aims to significantly speed access to testing to stop the spread of infectious disease and save lives in an outbreak in the United States.** While every disease outbreak will unfold differently, testing will always be at the center of response. Experience during previous outbreaks in the United States has shown that a variety of testing approaches is necessary as an outbreak evolves. This rapidly changing environment has resulted in uncertainty for decision makers, as well as members of the public. The Testing Playbook is explicitly designed to reduce uncertainty by illustrating the steps to be taken at each stage, while consistently enabling rapid and equitable access to testing.

WHO

This Playbook was developed collaboratively by subject matter experts at the [Pandemic Center at the Brown University School of Public Health](#), [Arizona State University College of Health Solutions](#) and [Illumina Ventures](#), the [Association of Public Health Laboratories](#), and the [STAT Public Health Network](#) at the Brown University School of Public Health, with funding from the [Peterson Foundation](#). Importantly, 37 public health leaders were consulted to inform its creation with experience from across federal agencies, state and local governments, commercial and hospital laboratories, academic medical centers, and diagnostic manufacturers.

HOW

The Playbook is divided into six sequential phases of a biological emergency.

- **Phase One** begins when a novel pathogen is first detected globally, outside the US.
- **Phase Two** starts with introduction of the pathogen into this country.
- **Phase Three** follows the rapid early spread of infections.
- **Phase Four** looks at the broad acceleration phase.
- **Phase Five** describes sustained high levels of cases nation-wide.

- **Phase Six** occurs when the outbreak has been brought under control, and case numbers are declining.

Achieving effective outbreak testing requires the following steps as early as possible and throughout a disease emergency:

1. Public health laboratories (PHLs), as first responders, must have access to accurate test kits and necessary reagents immediately (in a “ready state”) to quickly identify new health threats and perform testing.
2. As quickly as possible, testing must be scaled in hospitals, academic medical centers, and commercial laboratories.
3. Healthcare providers, their patients, and other individuals must consistently have broad access to all testing modalities, including home tests, to detect infection, stop transmission, and support treatment and recovery.
4. Each of these sectors provides unique and critical capabilities to stop disease spread and save lives. National coordination of these sectors is essential to optimize capacities and contributions.

This is a Living Document – The developers envisage that it will be updated over time as we derive more knowledge. It also can be adapted for use in state and local government as well as for employers by asking questions pertinent to individual institutions and specific regions. To facilitate broad access to the Playbook, and to foster edits, additions, and future versions, Brown University School of Public Health has established a website at bettertestingnow.org where the document and additional information can be accessed.

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