

How to Use the Roadmap

The success of the influenza virologic surveillance system in any jurisdiction requires a strong partnership and collaboration between epidemiology and the PHL, as well as active support of leadership and policy makers. The infrastructure, capabilities and surveillance system of each state differ, requiring each state to independently evaluate its current surveillance system and determine how to incorporate the right size surveillance recommendations. The Roadmap is designed to help identify "where you are, where you want to get to and how to get there" to achieve more effective and efficient virologic surveillance.

The primary audiences for this Roadmap are the state and local epidemiologists, influenza surveillance coordinators, PHL directors and other senior infectious disease laboratory staff responsible for coordinating policy, decisions, and relations with state epidemiologists for influenza virologic. The list of requirements and the descriptions of these essential elements in the Requirements Intent Section will also be useful to policymakers and leadership making resource and funding decisions. Guidance and information in this document will assist each state in identifying strengths and weaknesses in the existing virologic surveillance system, determining the optimal amount of surveillance required and identifying priority implementation activities. The Roadmap will also be a useful tool to assist in crisis management, whether the crisis is the result of detection of a novel virus, a large outbreak or a crisis of resources due to fiscal constraints. This is not intended to be an SOP (standard operating procedure) manual, but rather a guide, or "roadmap," to assist states in achieving an effective influenza virologic surveillance system.

The most important partnership for effective virologic surveillance is the relationship between the PHL and the epidemiologists/influenza surveillance coordinators. Collaboration to implement these guidelines will be more successful if there is broad understanding of each partner's role.

In addition to the previous Introduction and list of Requirements, this document includes three major sections:

1. Virologic Surveillance Objectives: Thresholds and Representativeness which defines the key surveillance objectives, describes specific considerations to ensure that specimens are broadly representative of the population as a whole and establishes national thresholds for detection. In this context, a threshold is defined as the level (proportion) which triggers some action.

A major outcome of the pilot studies was having epidemiology and laboratory staff come together in-person to discuss the influenza program in detail, using the roadmap document to facilitate the discussion.

2. Requirements Intent, which describes the essential elements for an effective national influenza virologic surveillance system and the rationale for applying these requirements at the state local and national level is explained.
3. Implementation Guidelines, which provides suggestions to assist states operationalize the requirements. The calculator tools that can be used to estimate the appropriate sample size for key surveillance objectives are described and guidelines for using the on-line calculator tools are provided. The model practices provided in this section are based on experience with the surveillance system since its inception in the late 1990s, a series of stakeholder meetings, a table-top exercise conducted in December 2012 testing the utility of the roadmap recommendations and data gathered through pilot projects conducted in four states during the 2012-2013 influenza season.

Checklist: Recommended Steps for Utilizing the Roadmap

Each state will need to determine how best to implement the Roadmap recommendations. Although the requirements have been presented in categorical format, all these elements are inextricably linked. This checklist provides a series of steps that can be used collaboratively by epidemiologists/influenza coordinator and PHL leadership to assist in using the Roadmap and implementing the recommendations. Many of the recommended practices may already be in place in state or local influenza virologic surveillance systems.

- Review the document in its entirety to become familiar with the content. Although some sections may seem more relevant to program or laboratory functions, collaboration to implement these guidelines will be more successful if there is broad understanding of each partner's role.
 - Individual sections may stand alone only when considered in context with the Introduction and the list of all Requirements. The on-line version of the Roadmap provides options to download specific sections pertinent to specific audiences (e.g., epidemiologists, PHLs, and policy makers).
- Identify key partners who should be included in discussions on specific sections or overarching surveillance decisions.
- Convene a meeting (preferably in-person) between program and laboratory staff to address all components of the roadmap document, including use of sample size calculators. Include external partners as needed to address relevant requirements.
- Refer to the list of Requirements and identify existing practices that meet the roadmap requirements as well as gaps in the virologic surveillance system. Utilize the Questions for Consideration provided in relevant sections.
- Use the sample size calculators (or the pre-calculated sample size tables in Appendix B) to assess the reliability of data (confidence levels and error rates) obtained through current sampling practices and testing volumes.
- Determine which elements or practices will provide the most significant improvement to the existing surveillance system (i.e., the most “bang for your buck”). Draft a plan for implementing recommendations. Identify the changes that can be most easily executed. Consider a staged implementation, rather than an immediate redesign the entire system.
- Identify available funding and resources from all sources. Prioritize capabilities; ensure flexibility and capacity to respond to seasonal variations and emergence of a novel virus.
- Engage public health leaders and policymakers to garner support for implementation.