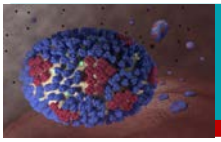

Background

Influenza virologic surveillance is an essential function of all state health agencies and requires a partnership between the PHL, epidemiologists including the influenza surveillance coordinators, and the health care community. The 2009 H1N1 influenza pandemic highlighted the importance of a robust public health virologic surveillance system but also areas we need to improve to effectively and efficiently keep up with the ever changing threat of influenza viruses. Therefore, the CDC-APHL Influenza Virologic Surveillance Right Size project was launched in 2010 to systematically define the rationale, vital capabilities and optimal size for influenza virologic surveillance and address the following questions:

- How much influenza surveillance is really needed? What is the "right size"?
- Do we need more or less laboratory testing?
- How do we know the surveillance data we have provides an accurate picture of what is really happening?

Purpose

In order to sustain existing virologic surveillance capacity during periods of funding declines, it was felt that it is critically important that health departments, PHLs and partners look strategically at optimizing the efficiency and effectiveness of influenza virologic surveillance.

As such the primary purpose and benefits of the "right size" approach are to:

- Standardize virologic surveillance practices across jurisdictions;
- Aid in the development and definition of public health surveillance priorities;
- Provide requirements, resources and statistical calculators to aid in planning and justifying budget and resource requests;
- Increase understanding and support of political leaders and the public;
- Allow epidemiologists and laboratorians to more systematically establish virologic sample sizes for different surveillance objectives and scenarios based on minimum thresholds of detection and acceptable confidence levels;
- Establish a common language between the laboratorians and epidemiologists resulting in improved communication;
- Provide information to assist decision makers in analyzing the impacts of budget cutbacks on national surveillance objectives (e.g. decreased confidence levels, reduced pandemic preparedness capacity, inability to perform additional influenza testing such as virus culture).

Approach

The Roadmap recommendations were developed over three years based on extensive stakeholder input obtained through meetings, teleconferences, webinars, pilot studies and a table-top exercise. The project has been a highly iterative process during which considerable input was gathered from key influenza partners including: APHL and CSTE members, CDC partners, clinician organizations, and clinical/commercial laboratories.

What is the Roadmap?

The Influenza Virologic Surveillance Right Size Roadmap is meant to be a tool and resource to assist states in optimizing their virologic surveillance system. The Roadmap is designed to achieve more effective and efficient virologic surveillance by helping identify:

- Where you are,
- Where you want to get to, and
- How to get there.

The Roadmap describes the system requirements and provides information, guidance, and best practices for decision-making and system implementation. The Roadmap also provides tools such as the sample size calculators. The calculators are a useful resource to assist in determining not only sample sizes but also to provide evidence based information for influenza surveillance, whether for a crisis due to the detection of a novel influenza virus, identification of a large outbreak, information for situational awareness or analysis of resources due to fiscal constraints. The roadmap is not intended to be an SOP (standard operating procedure) manual, but rather a resource to provide multiple ways to assist states in achieving an effective and efficient influenza virologic surveillance system.

What is a Requirement?

A requirement is an essential component of virologic surveillance that is needed to produce reliable results to achieve state and national surveillance goals. These are functional requirements that can be used to design and build an optimal virologic surveillance system, measure and improve existing systems approaches, focus resources and efficiencies, inform policymakers, and justify national, state and local funding needs. These requirements should be interpreted as desired practices and not as criteria for receipt of federal funds. Each state will need to determine how to achieve the requirements to meet both national and state needs.

Where does the Roadmap Lead?

The first edition of the Influenza Virologic Surveillance Right Size Roadmap is, by no means, a completed work. Influenza viruses are constantly changing, and efforts to monitor and characterize the virus similarly need to be flexible and adaptive to changes in health care, laboratory technology, and financial and staff resources. A second edition is planned for release prior to the 2014-2015 influenza season, and we invite continued input and feedback to improve these recommendations for achieving a right size for influenza virologic surveillance.

For more Information

Visit the Influenza Virologic Surveillance Right Size websites:

www.aphl.org/Right-Size-Influenza
www.aphl.org/Right-Size-Influenza/Calculators

For questions, please contact Tricia Aden, APHL Influenza Program Manager, at tricia.aden@aphl.org.