RESPIRATORY DISEASE SURVEILLANCE

VDH VIRGINIA DEPARTMENT OF HEALTH

What is Respiratory Disease Surveillance?

Respiratory disease surveillance is an ongoing process that collects and analyzes data related to respiratory diseases. The Virginia Department of Health (VDH) has multiple surveillance systems to monitor respiratory diseases such as COVID-19, influenza (flu), and respiratory syncytial virus (RSV).

Why We Do Respiratory Disease Surveillance

- To find out when and where respiratory viruses are circulating
- To improve strategies to slow the spread of disease
- To identify groups of people with higher rates of infection
- To help determine if vaccines need to be updated to provide better protection
- To monitor for new or highly infectious diseases

Surveillance Systems

Multiple surveillance methods and systems are used to provide a holistic picture of respiratory disease activity in Virginia:

Syndromic Surveillance

Uses visit data from emergency department (ED) visits and urgent care (UC) centers to help identify and monitor events of public health concern.

Outbreak Surveillance

Virginia's Outbreak Surveillance System (VOSS) is used to report, track, and manage outbreak investigations. Data from these investigations inform response strategies, measure disease trends, monitor effectiveness of prevention and control measures, and assess public health impact.

Laboratory Surveillance

Some respiratory diseases require that laboratory results are reported to VDH. In some cases, samples may be sent to the state laboratory for additional testing. This helps us know which viruses are circulating in Virginia.

Vaccinations

Vaccination records are reported by providers and offer an important insights into the health of Virginia's population and the impact of vaccination.

Wastewater Surveillance

Testing wastewater for respiratory disease pathogens can helps us know how much virus is spreading in the community, regardless of whether people are tested by a healthcare provider.

Case Surveillance

Healthcare providers must report certain health conditions to VDH. Monitoring reported case data helps us monitor trends and changing disease patterns.

Mortality Surveillance

Review of death certificate records can provide information about serious outcomes from respiratory diseases.

Creating Sustainable Surveillance

The success of respiratory disease surveillance is dependent on several factors like:

- Timely reporting of reportable diseases
- Support from healthcare providers, laboratorians, and community partners
- Adequate funding and a robust public health workforce
- Quality data from multiple sources

How We Conduct Respiratory Surveillance

A variety of surveillance systems must fit together like puzzle pieces to provide a complete picture of the impact, trends, and activity of respiratory diseases.

Detecting and Monitoring Respiratory Diseases

Epidemiologists monitor and evaluate various surveillance systems to inform public health actions. Each source of data can shed light on different answers to important public health questions.

Identifying Available Data Sources

Certain information about respiratory diseases is required by law to be reported to VDH. This includes vaccination records, outbreak reporting, and some patient-level data, like pediatric influenza-associated deaths. Other data sources to monitor disease trends include syndromic surveillance and testing of wastewater for pathogens.

Communicating Findings

VDH shares timely respiratory disease activity data by producing and updating publically available reports and dashboards. VDH also shares information through websites, social media, presentations, and newsletters to various partners, including healthcare providers.