

Weekly Respiratory Virus Surveillance Report Description

1. **Predominant respiratory viruses:**

Source: Wisconsin Laboratory Information Network

This is based on weekly data from over 40 virus laboratories in Wisconsin that perform rt-PCR testing, and identifies the respiratory viruses that have the highest percentage of positive tests.

2. **Influenza-like illness activity (ILI) Wisconsin:**

Source: Centers for Disease Control and Prevention, Outpatient Influenza-like Illness Surveillance Network (ILINet)

Uses baseline (expected values data used for comparison) and threshold (upper limit) ILI percentages in each of the five public health regions in Wisconsin. ILI below baseline is considered **low** activity, ILI between baseline and threshold levels is considered **moderate** activity, and ILI above threshold is considered **high** activity.

3. **Influenza-like illness (ILI) percentage for Region V of the U.S (WI, MN, OH, MI, IL):**

Source: Centers for Disease Control and Prevention, Outpatient Influenza-like Illness Surveillance Network (ILINet)

The number of patients who present with influenza-like illness divided by the total number of patients seen for any reason in a given week, multiplied by 100. ILI data is collected from sentinel clinicians in each state.

4. **Predictive Value Positive (PVP) for rapid influenza and RSV tests:**

Source: Wisconsin State Laboratory of Hygiene

Predictive Value Positive (PVP) is the probability of disease in a patient with a positive test result. PVP increases when influenza activity is high.

5. **Predictive Value Negative (PVN) for rapid influenza and RSV tests:**

Source: Wisconsin State Laboratory of Hygiene

Predictive Value Negative (PVN) is the probability of not having disease when the test result is negative. PVN increases when influenza activity is low.

Examples:

A **positive** rapid test result during **increased** influenza activity (Likely a **true positive**)

A **positive** rapid test result during **decreased** influenza activity (May be a **false positive**)

A **negative** rapid test result during **increased** influenza activity (May be a **false negative**)

A **negative** rapid test result during **decreased** influenza activity (Likely a **true negative**)

6. **Influenza-associated pediatric mortality:**

Source: Wisconsin Electronic Disease Surveillance System (WEDSS)

Deaths among children <18 years old, with influenza as the main cause or associated cause of death. This is a statewide and nationally reportable condition.

7. **Antiviral resistance:**

Sources: Centers for Disease Control and Prevention

Testing a select number of influenza A and B viruses for resistance to influenza antiviral medications: Oseltamivir (Tamiflu), zanamivir (Relenza) and peramivir.

8. **Pneumonia and Influenza (P&I) Mortality:**

Source: National Center for Health Statistics, Mortality Surveillance System

The percentage of total deaths in a given week where influenza or pneumonia is the cause or associated cause of death compared to seasonal baseline and epidemic threshold percentages.

Definitions:

Influenza-like illness (ILI):

Patients who present with a fever $\geq 100^{\circ}$ F, and either a cough or sore throat.

Viral Culture:

Actual growth and subsequent identification of the virus.

Rapid Test:

Identification of an influenza or RSV antigen in a specimen. Virus is not grown.

Reverse Transcription Polymerase chained reaction (rt-PCR):

A molecular laboratory method used to detect nucleic acid (DNA/RNA) in viruses, including influenza and RSV.