

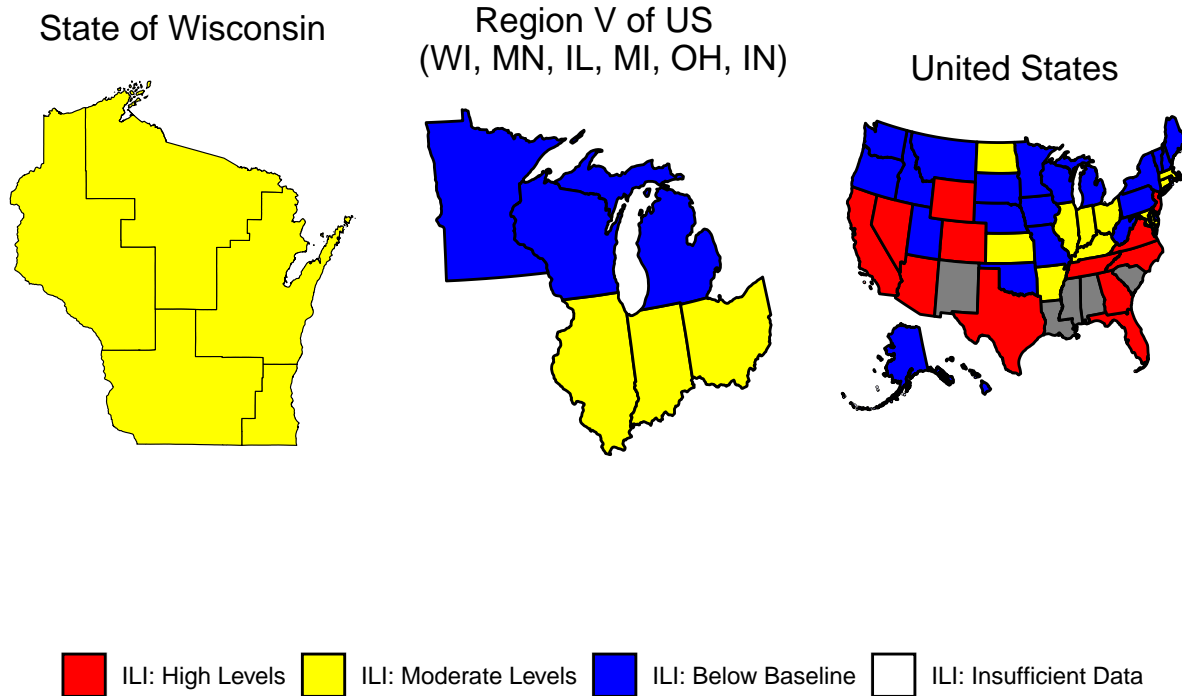


Respiratory Virus Surveillance Report

Week 49, Ending December 9, 2023

Wisconsin Department of Health Services | Division of Public Health |
Bureau of Communicable Diseases | Communicable Diseases Epidemiology Section |
www.dhs.wisconsin.gov/dph/bcd.html | dhsdphbcd@dhs.wi.gov

Influenza-like Illness (ILI) Activity



Weekly Respiratory Virus Data, At-A-Glance

Predominant virus of the week:

Rhinovirus/Enterovirus

Current Alerts:

- The Wisconsin Division of Public Health has made RSV and COVID-19 hospitalizations and pediatric deaths reportable as of November 1, 2023.
- Influenza-like illness activity is moderate in all regions of Wisconsin.
- Influenza, RSV, and COVID-19 are all circulating at significant levels, with percent positivity above 10% for all three viruses.
- RSV activity continues to increase, especially among children <5 years of age, influenza activity is increasing sharply in school-aged children.

Influenza-associated pediatric deaths reported:

	Week 49, 2023	Since September 3
<i>Wisconsin</i>	0	0
<i>Nationwide</i>	2	14

For National US influenza surveillance statistics visit: www.cdc.gov/flu/weekly/

Respiratory Virus and Pneumonia-Associated Mortality

Percent of deaths associated with influenza, RSV, COVID-19, or pneumonia by week, Vital Records



Respiratory virus and pneumonia associated deaths by most recent 3-week period, Vital Records

Season week	Pneumonia (P)	Influenza (I)	COVID-19 (C)	RSV (R)	P, I, C or R	Percent PICR of all
47	60	0	30	1	81	7%
48	50	0	31	0	71	6%
49	57	1	33	3	82	9%

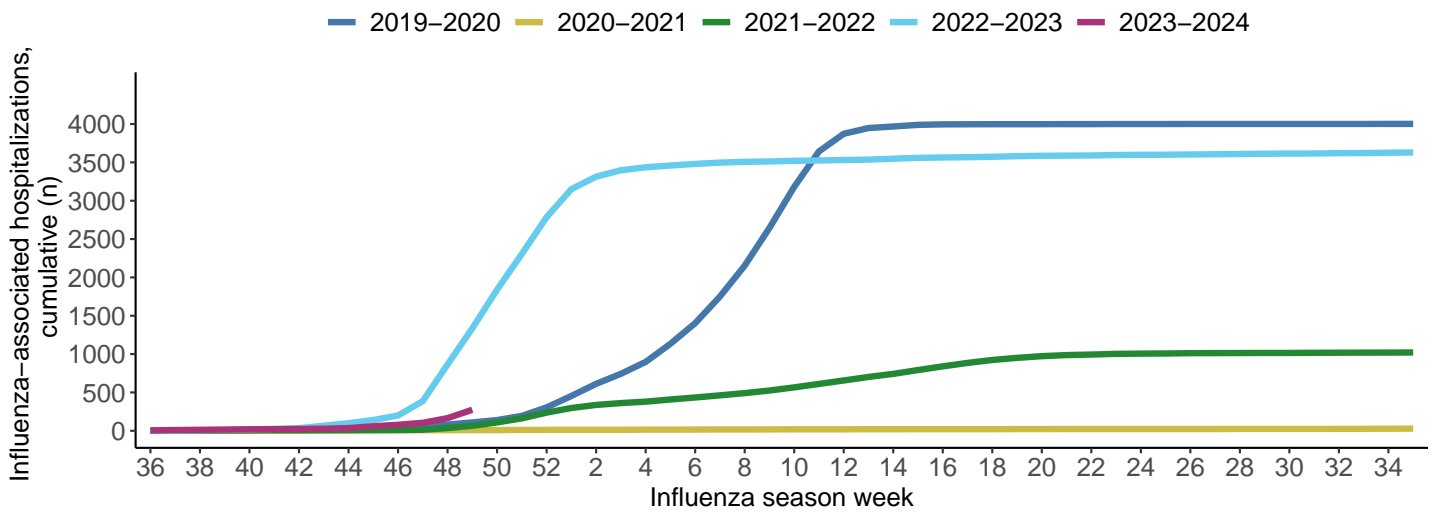
Influenza-Associated Hospitalizations

Influenza-associated hospitalizations, WEDSS

September 3, 2023 to present

Age Group	Total Reported (n)	A (2009 H1N1)	A (H3N2)	A (Unknown)	B	Admitted to ICU	Required Mechanical Ventilation	Pregnant
<1	5	0	1	2	0	0	0	0
1-4	2	0	0	1	0	0	0	0
5-17	19	2	1	4	3	3	0	0
18-49	38	2	4	17	1	4	0	2
50-64	69	4	3	32	3	10	1	0
65+	141	9	7	70	5	13	0	0
Total	274	17	16	126	12	30	1	2

Reported cumulative influenza-associated hospitalizations by influenza season, WEDSS

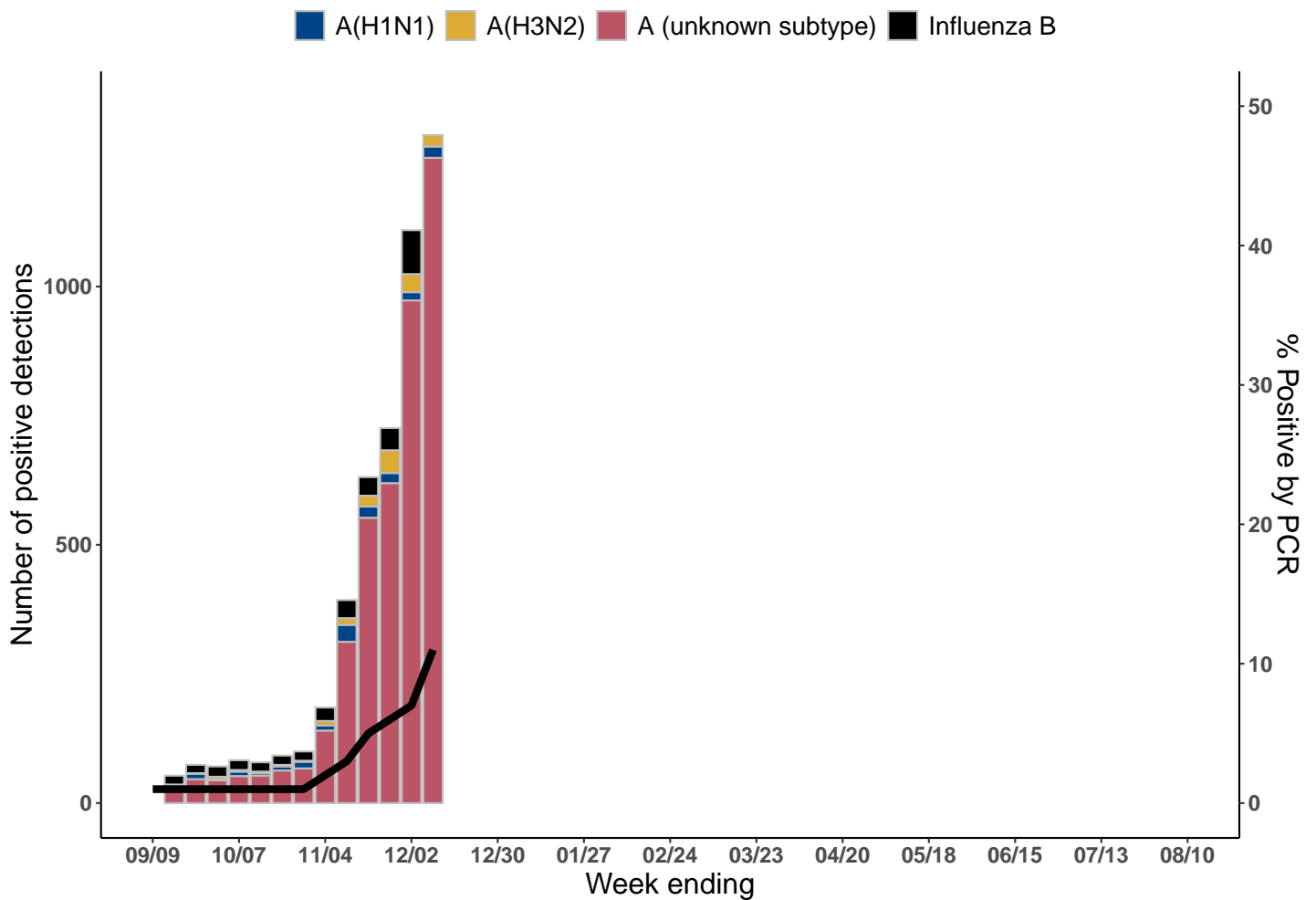


Influenza Season	Through Week 49	Entire Season
2019-2020	109	4002
2020-2021	9	28
2021-2022	65	1021
2022-2023	1,336	3629
2023-2024	274	-

These data are preliminary and subject to change as more information is received.

Wisconsin Laboratory Surveillance

Wisconsin positive influenza results and subtypes by PCR, NREVSS

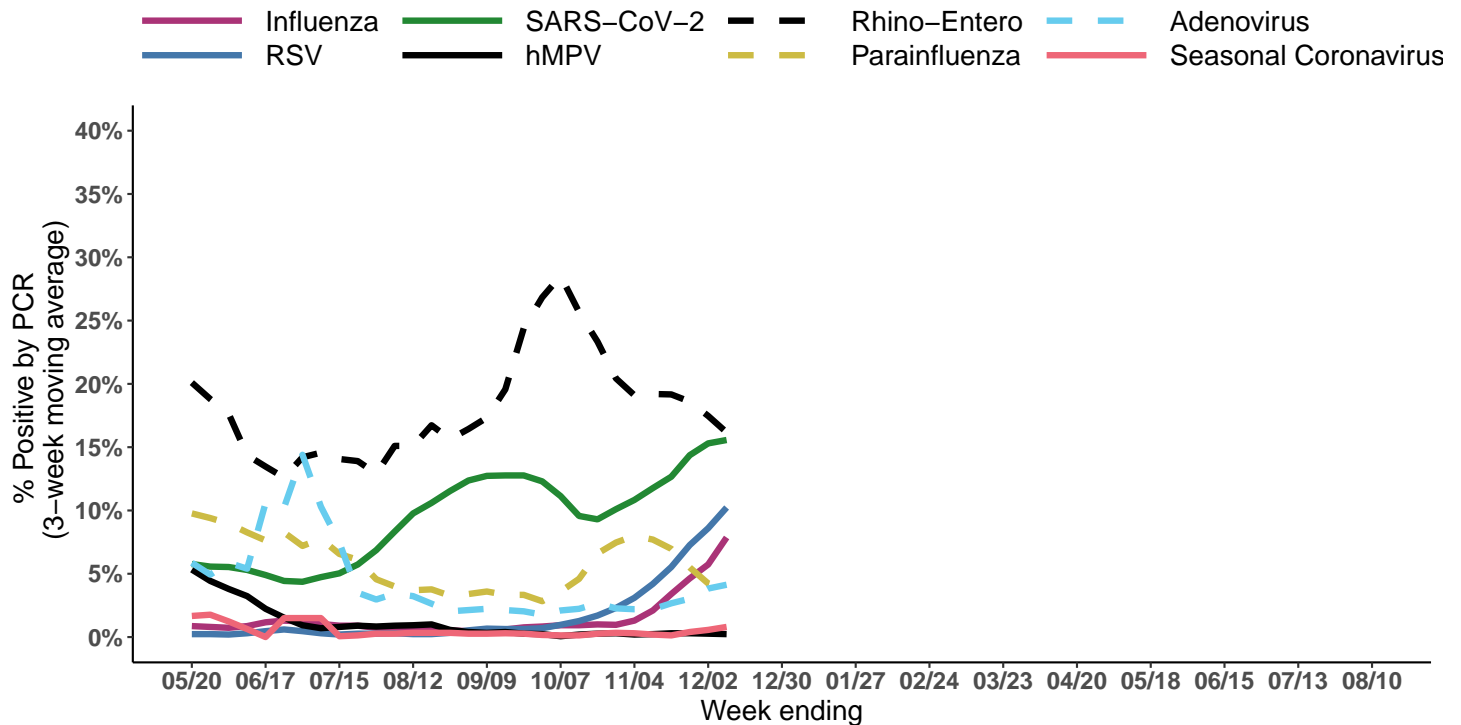


Cumulative number of positive influenza PCR tests by subtype, NREVSS September 3, 2023 to present

Measure	Influenza A(H1N1)pdm2009	Influenza A(H3N2)	Influenza A Unknown	Influenza B	Total
Total positive (n)	179	165	4219	456	5019
% of total positive	4%	3%	84%	9%	100%

Wisconsin Laboratory Surveillance for Respiratory Viruses

Percent positivity of respiratory viruses tested by PCR, NREVSS



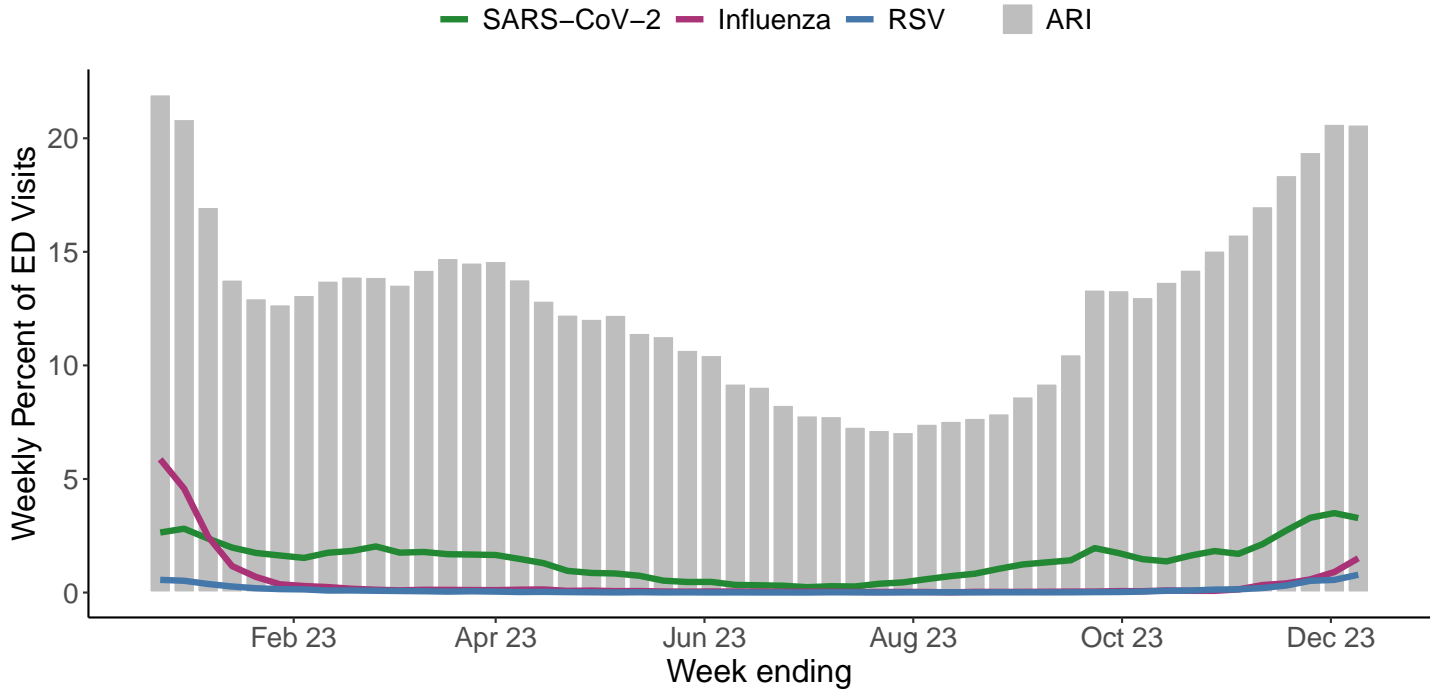
Number and percent positivity of respiratory viruses tested by PCR, NREVSS
Week 49, Ending on December 09, 2023

Respiratory virus	Tested	Positive (n)	Positive (%)	H3N2	2009 H1N1	Unknown	Influenza B
Influenza	12,297	1,393	11.3%	22	22	1,249	100
Respiratory virus	Tested	Positive (n)	Positive (%)	Parainfluenza 1	Parainfluenza 2	Parainfluenza 3	Parainfluenza 4
Parainfluenza	980	36	3.7%	13	10	1	12

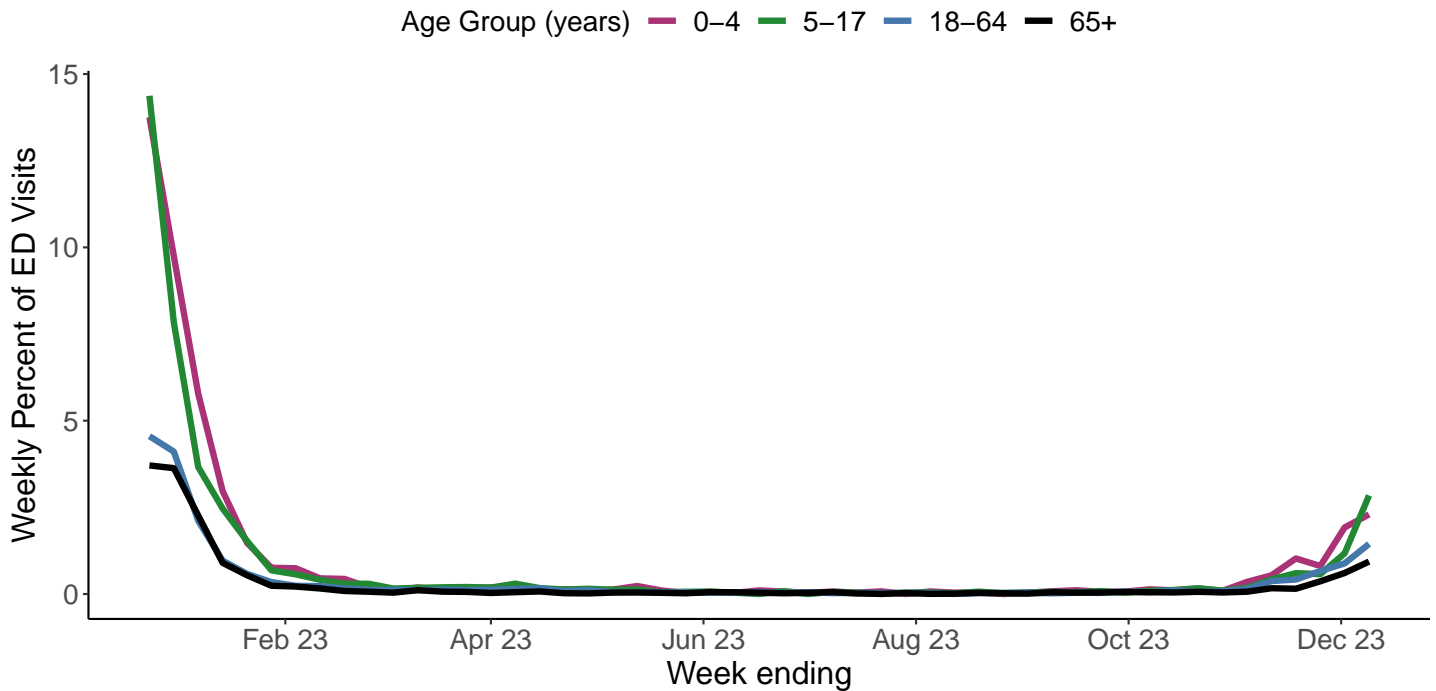
Respiratory virus	Tested	Positive (n)	Positive (%)
Respiratory Syncytial Virus	9,157	1,102	12%
Adenovirus	1,059	42	4%
Seasonal Coronavirus	810	7	0.9%
HMPV	966	3	0.3%
Rhinovirus/Enterovirus	1,444	217	15%
COVID-19	14,597	2,193	15%

Respiratory Virus Activity in the Emergency Department (ED)

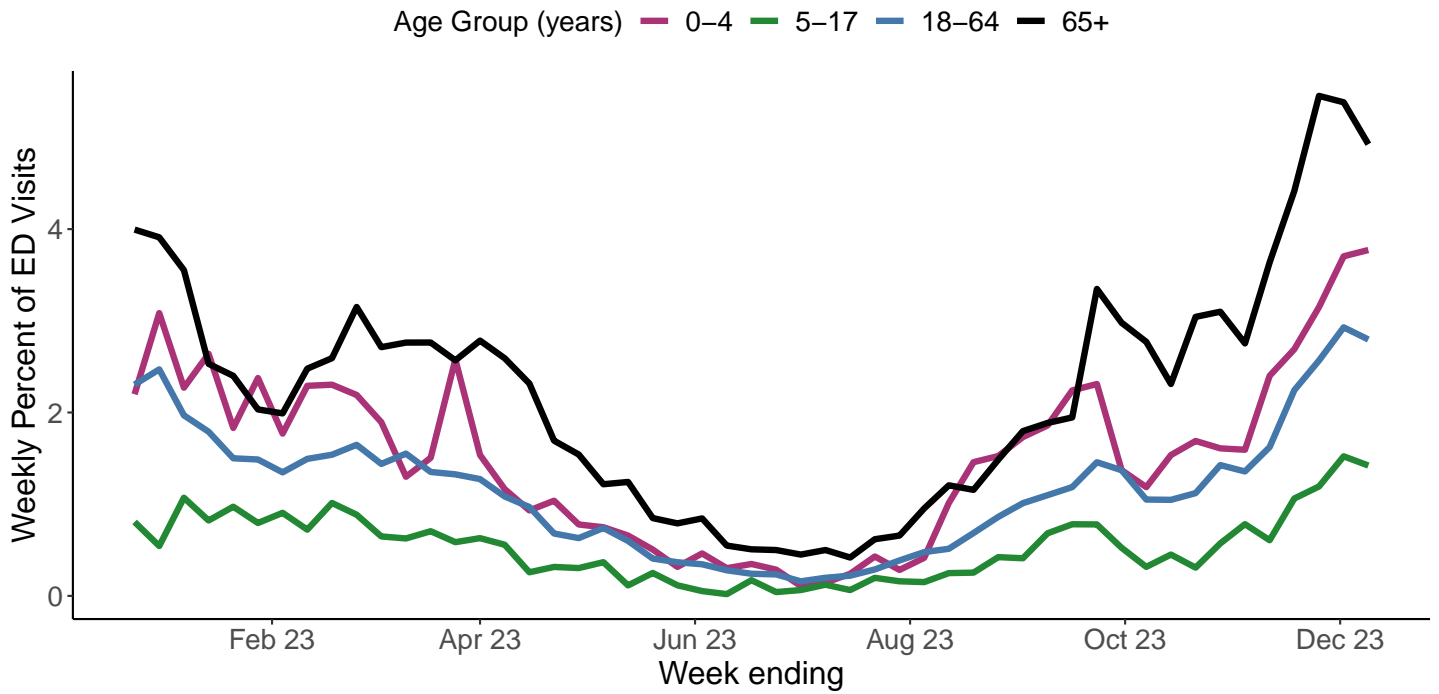
Percent of ED visits with a diagnosis for a respiratory virus or acute respiratory infection (ARI), NSSP



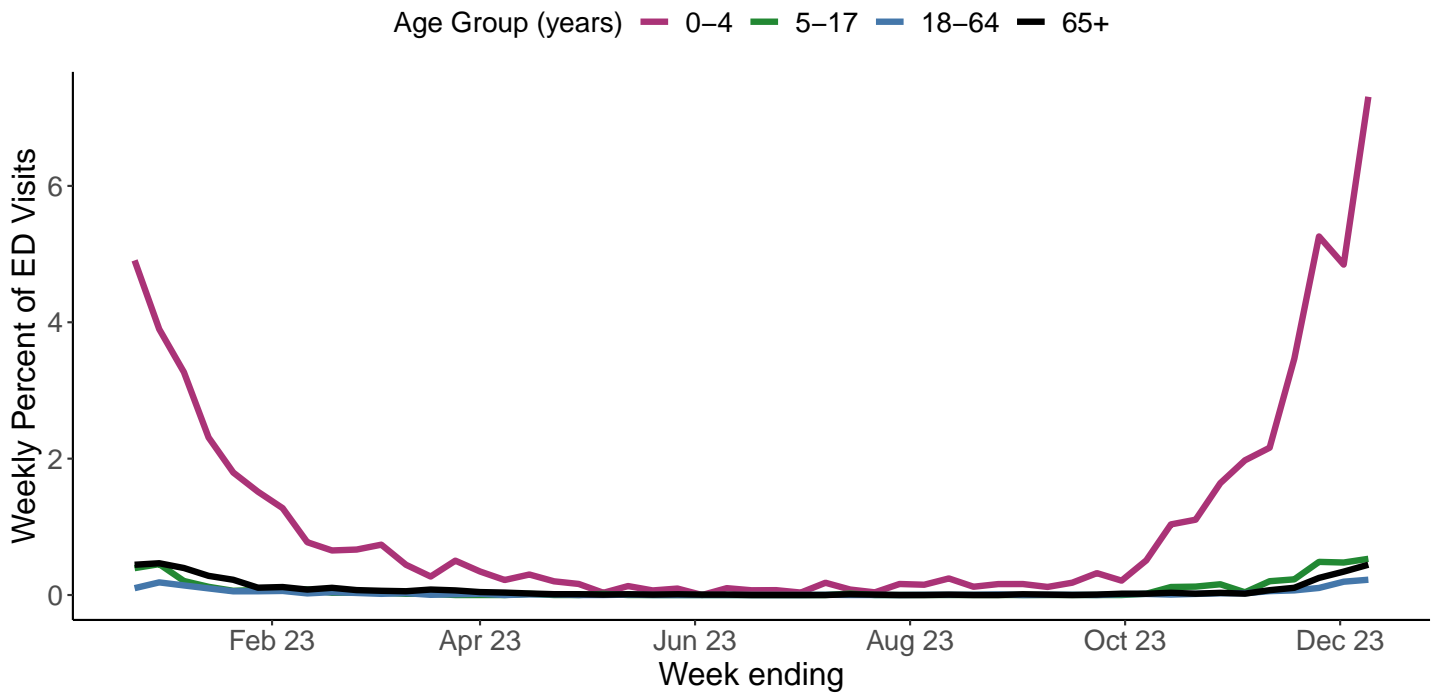
Percent of ED visits with a diagnosis for influenza by age group, NSSP



Percent of ED visits with a diagnosis for SARS-CoV-2 by age group, NSSP

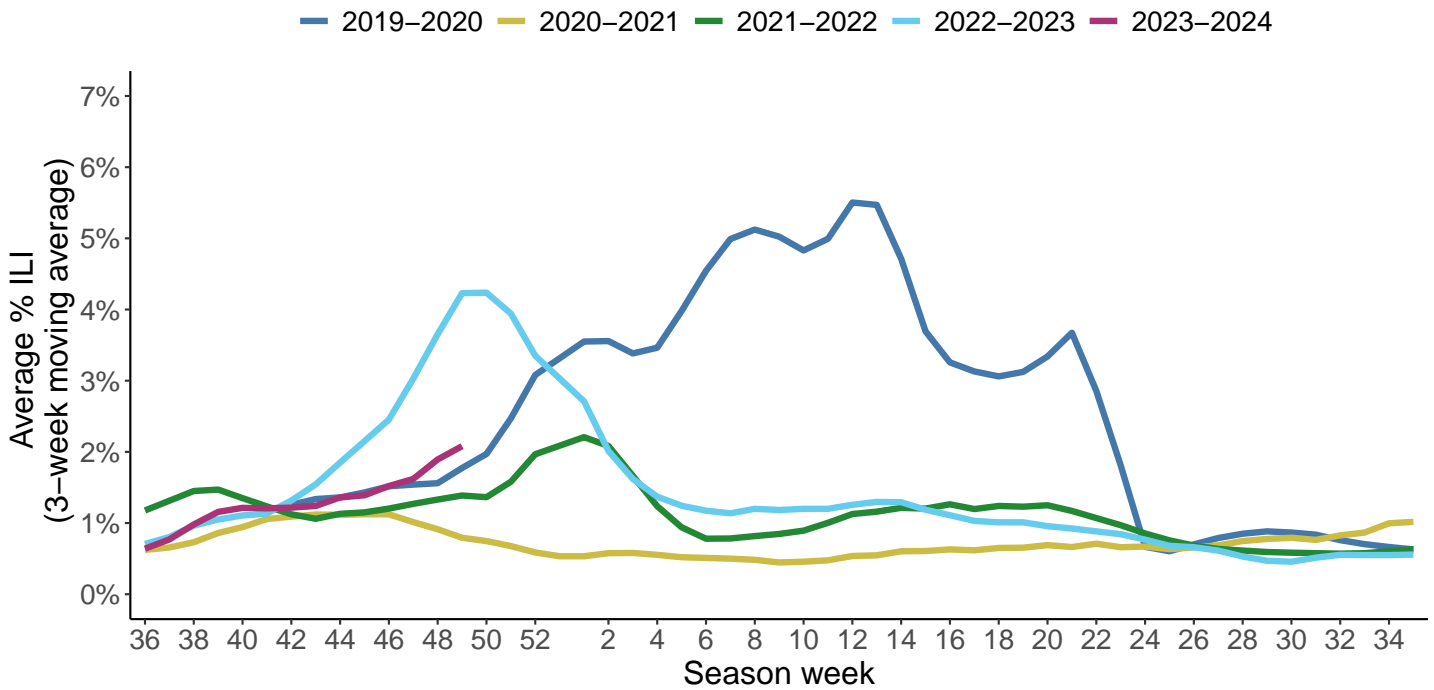


Percent of ED visits with a diagnosis for RSV by age group, NSSP



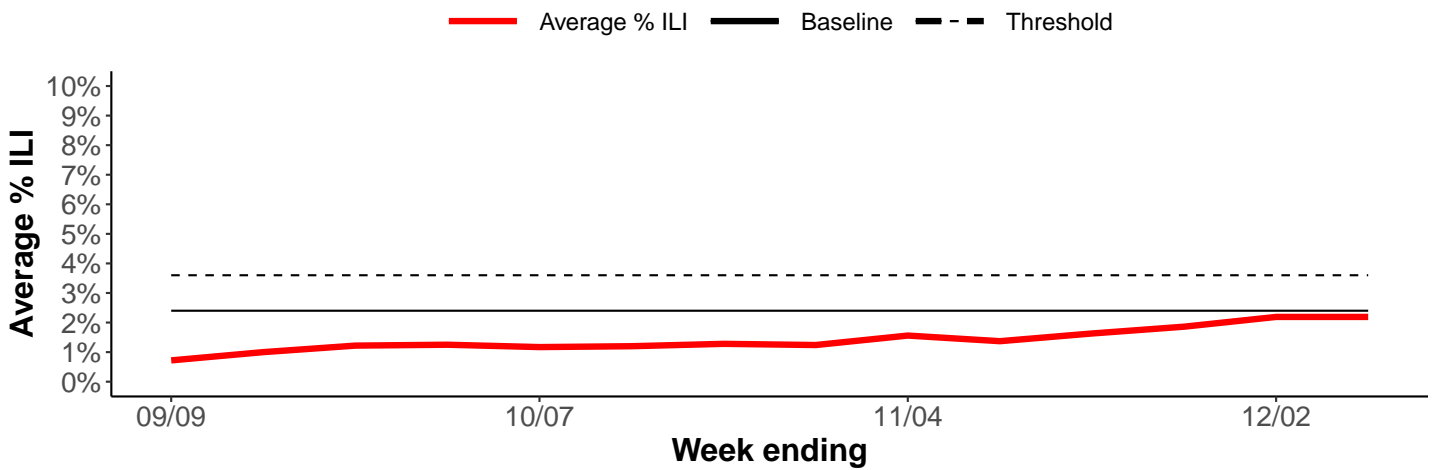
Wisconsin ILI Activity

Three-week average percent of visits for ILI by influenza season, ILINET

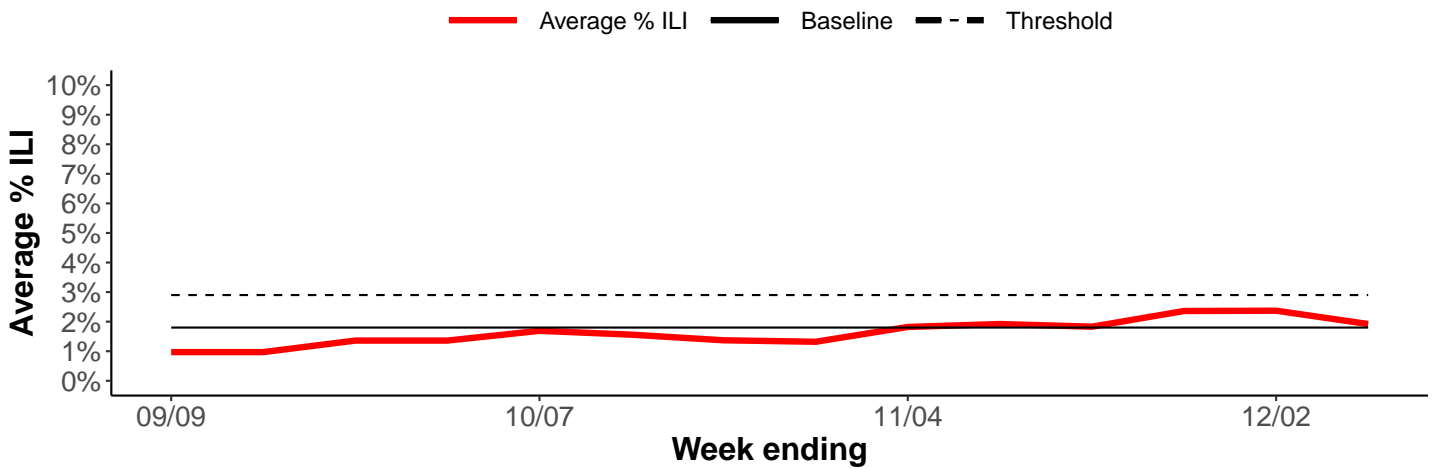


Average percent of visits for ILI by public health region, ILINET

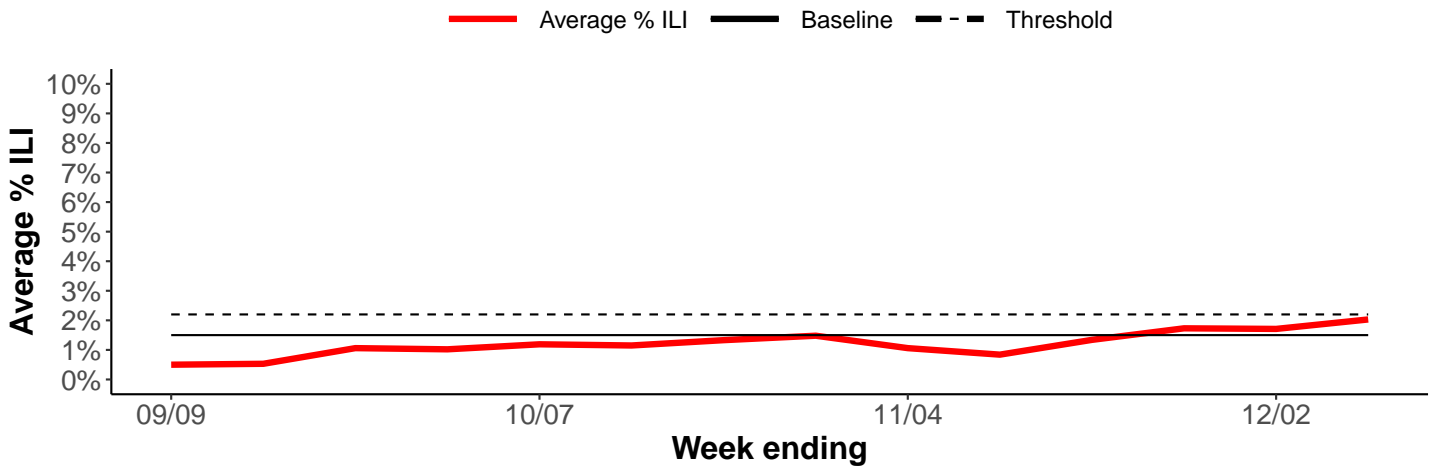
Wisconsin



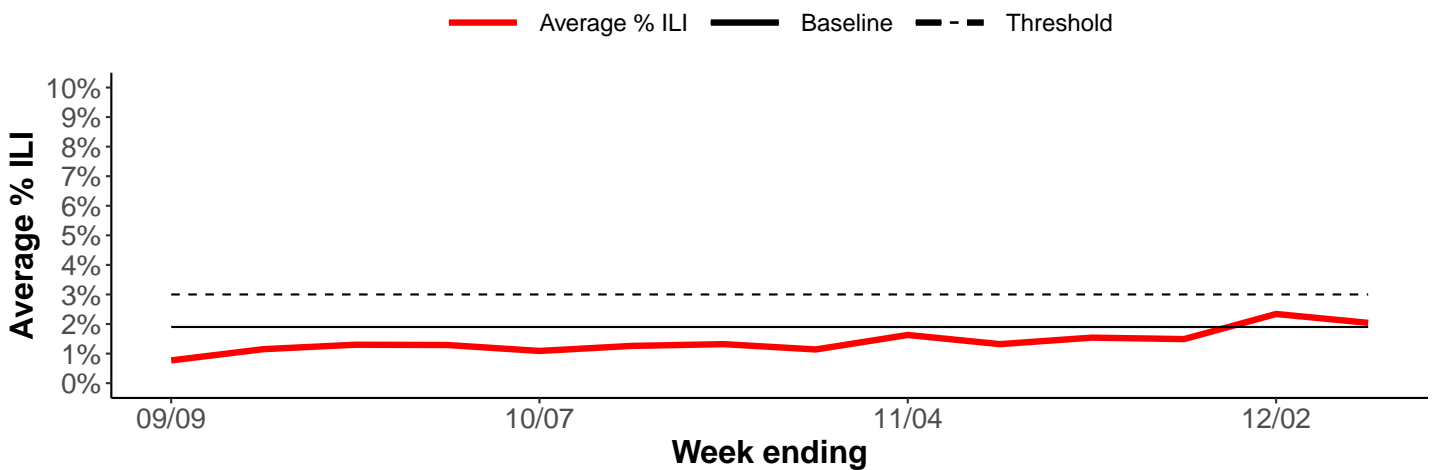
Northeastern Region



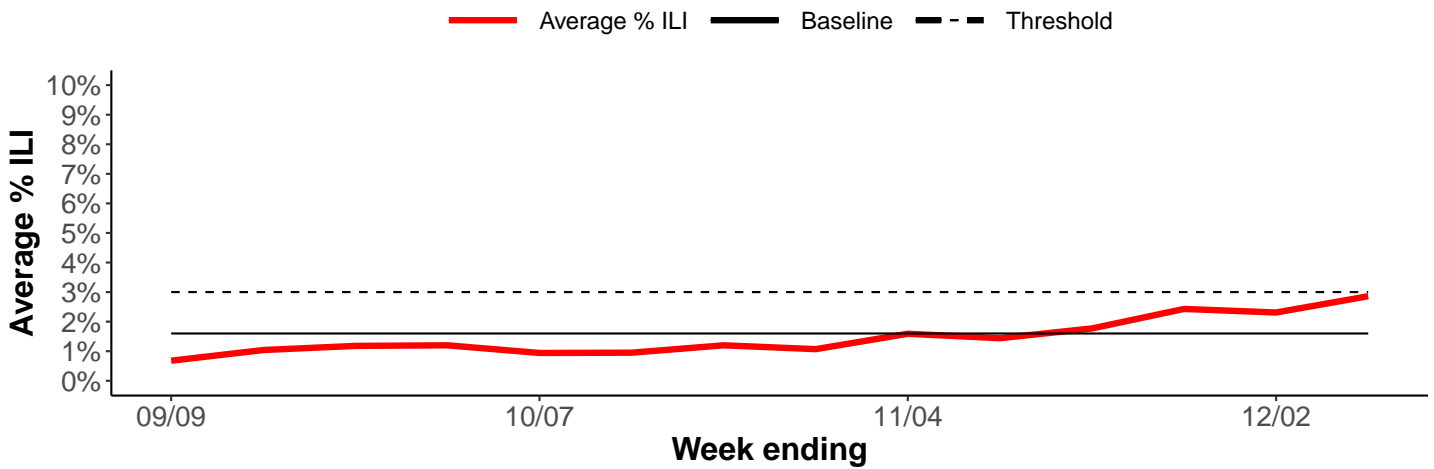
Northern Region



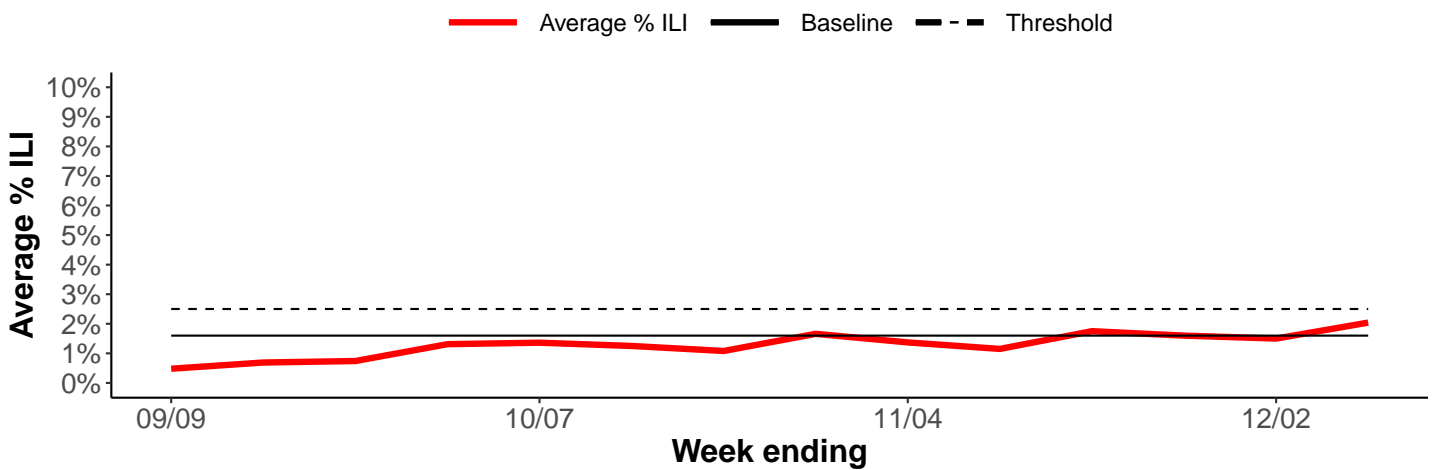
Southeastern Region



Southern Region



Western Region



Understanding the Data

Surveillance Report Description

Influenza-like Illness (ILI)	Patients who present to a clinician with a fever ≥ 100 degrees F and either a cough or sore throat.
Influenza-like Illness (ILI) Activity	Using baseline (expected value data used for comparison) in each of the public health regions in Wisconsin (https://www.dhs.wisconsin.gov/lh-depts/counties/index.htm), ILI below baseline is considered low activity, ILI between baseline and threshold levels is considered moderate activity and above threshold is considered high activity. (1)
Acute Respiratory Illness (ARI)	ARI is a broad definition designed to capture all diagnoses related to respiratory illness, including SARS-CoV-2, influenza, pneumonia, and cough
Predominant virus of the week	These data are compiled from over 40 laboratories in Wisconsin that perform rt-PCR testing, and shows the viruses that have the highest percentage of positive tests.(2)
Influenza-Associated Pediatric Mortality	Deaths among children < 18 years old, with influenza as the cause of associated cause of death. This is a state and nationally reportable condition. (3)
Deaths Due to Pneumonia, SARS-CoV-2, Influenza and RSV	Proportion of deaths due to pneumonia, RSV, influenza, and SARS-CoV-2 are extracted from Vital Records managed by the Office of Health Informatics through ICD-10 codes and death certificate text searches. (4)
Respiratory Viruses by PCR	A molecular laboratory method used to detect nucleic acid (DNA/RNA) in viruses, including influenza and RSV.
Influenza-Associated Hospitalizations	Patients hospitalized for > 24 hours with a laboratory-identified (by rapid antigen or rt-PCR tests) influenza.(3)
Emergency Department Data	These data are from the National Syndromic Surveillance Program or NSSP. Visit information from almost all EDs in Wisconsin are reported from hospital electronic medical records to NSSP in near-real-time. Diagnoses used included the CDC Broad Acute Respiratory DD v1, the CDC COVID-Specific DD v1, CDC Influenza DD v1, and the CDC Respiratory Syncytial Virus DD v1.(5)

Additional Resources

- The CDC Influenza Homepage (<https://www.cdc.gov/flu/>)
- The National Respiratory and Enteric Virus Surveillance System (NREVSS) (<https://www.cdc.gov/surveillance/nrevss/index.html>)

Data Sources

1. CDC Outpatient Influenza-like Illness Surveillance Network (ILINet)
2. Wisconsin Laboratory Information Network and CDC National Respiratory and Enteric Virus Surveillance System (NREVSS)
3. Wisconsin Electronic Disease Surveillance System (WEDSS)
4. Division of Public Health, Office of Health Informatics, Vital Records
5. National Syndromic Surveillance Program (NSSP) data from ESSENCE (Electronic Surveillance System for Early Notification of Community Based Epidemics).