



Michigan Flu Focus

Weekly Influenza Surveillance Report

February 24, 2023

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Week Ending February 18, 2023 | WEEK 7

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Data provided in this report are preliminary and will be updated as additional data are received

Updates of Interest

The Michigan Department of Health and Human Services (MDHHS) has confirmed the first influenza-associated pediatric death in Michigan for the 2022-2023 influenza season. The reported death involves a child from Ingham County who contracted Influenza A/H3. Please visit [this link](#) for the full press release.

Seasonal Flu Vaccination Coverage

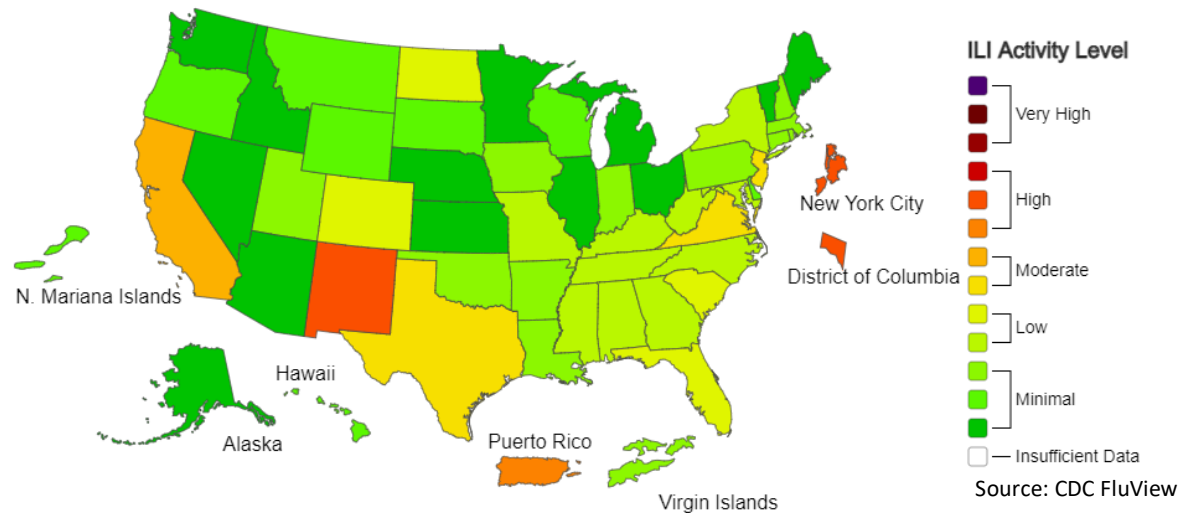
Michigan's goal is to vaccinate **4 million** residents during the 2022-2023 flu season.

As of **February 18, 2023**, there have been **3,096,795** doses administered (**77.4%** towards goal) for the 2022-2023 flu season.

Please visit the Flu Vaccination Dashboard at www.michigan.gov/flu for more info.

Outpatient Respiratory Illness Activity Map Determined by Data Reported to ILINet

This system monitors visits for respiratory illness that includes fever plus a cough or sore throat, also referred to as ILI, not laboratory confirmed influenza and may capture patient visits due to other respiratory pathogens that cause similar symptoms.
2022-23 Influenza Season Week 7 ending Feb 18, 2023



Note: This map represents U.S. ILI activity levels reported to ILINet. The display used in past seasons showing Geographic spread of influenza has been suspended for the 2022-2023 influenza season

Influenza-associated Pediatric Mortality

Nationally, 115 influenza-associated pediatric deaths have been reported for the 2022-2023 flu season.

One (1) pediatric death has been confirmed by MDHHS for the 2022-2023 flu season to date.

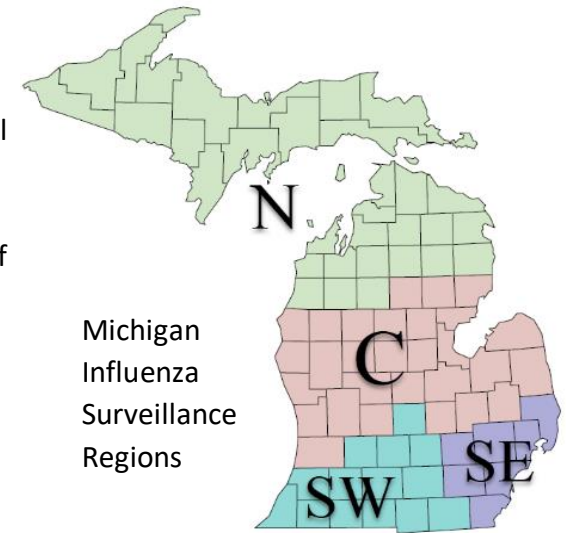
U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)

Michigan participates in ILINet, a collaborative effort between the CDC, state and local health departments, and volunteer sentinel clinicians as part of Michigan’s influenza surveillance. ILINet provides data on the total number of outpatient visits to health care providers seen for any reason and the number of those patients with influenza-like illness (ILI[†]). Participating Michigan emergency department and urgent care facilities send syndromic data voluntarily in near real-time to the Electronic Surveillance System for the Early Notification of Community Based Epidemics (ESSENCE). Discharge diagnosis and chief complaint data elements are used to determine whether visits meet the ILI case definition. One-hundred and forty-one (141) Michigan facilities contributing data to ESSENCE were validated and enrolled in ILINet starting the 2021-2022 flu season.

[†]ILI is defined as fever (>100°F) and a cough and/or a sore throat.

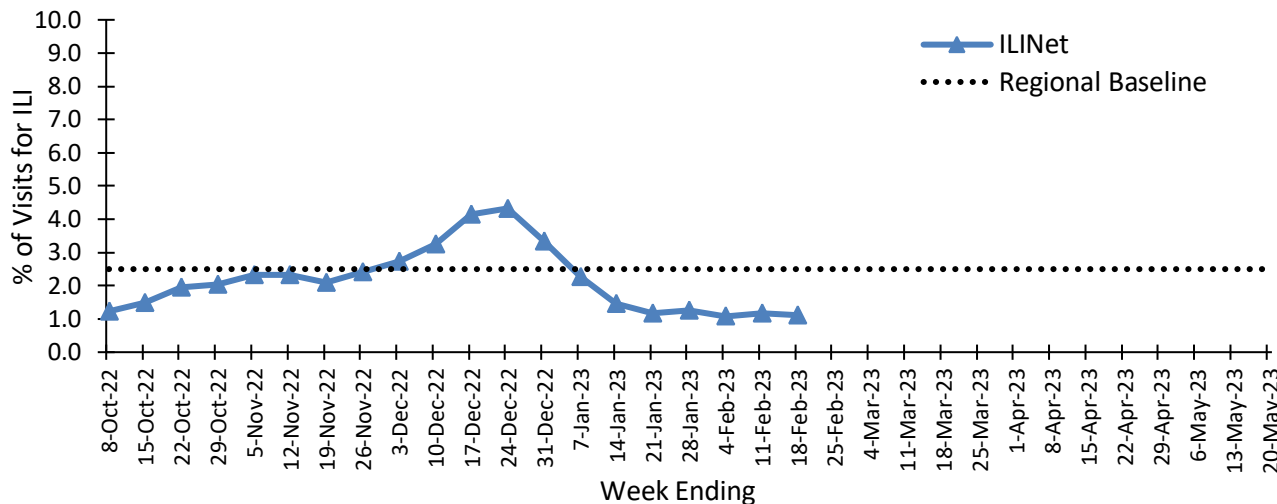
Number of Reports and ILI % by Region during this time period:

Region	C	N	SE	SW
No. of Reporters (147)	47	18	55	27
ILI %	1.1	1.4	1.1	1.0



Michigan Influenza Surveillance Regions

Percentage of Visits for ILI in Michigan Reported by ILINet, 2022-2023



Note: ILINet monitors visits for ILI (fever and cough and/or sore throat) and may capture patient visits due to other respiratory pathogens that cause similar symptoms.

Michigan ILI Activity: **1.1%**

(Last week: 1.2%)

Regional Baseline*: 2.5%

A total of **892** patient visits due to ILI were reported out of **80,367** outpatient visits.

*Regional baseline is determined by calculating the mean percentage of patient visits due to ILI during non-influenza weeks for the previous three seasons and adding two standard deviations.

National Surveillance

In the United States, **2.6%** of outpatient visits were due to ILI (Last week: 2.6%)

This is **above** the national baseline of 2.5%

Become an ILINET provider!

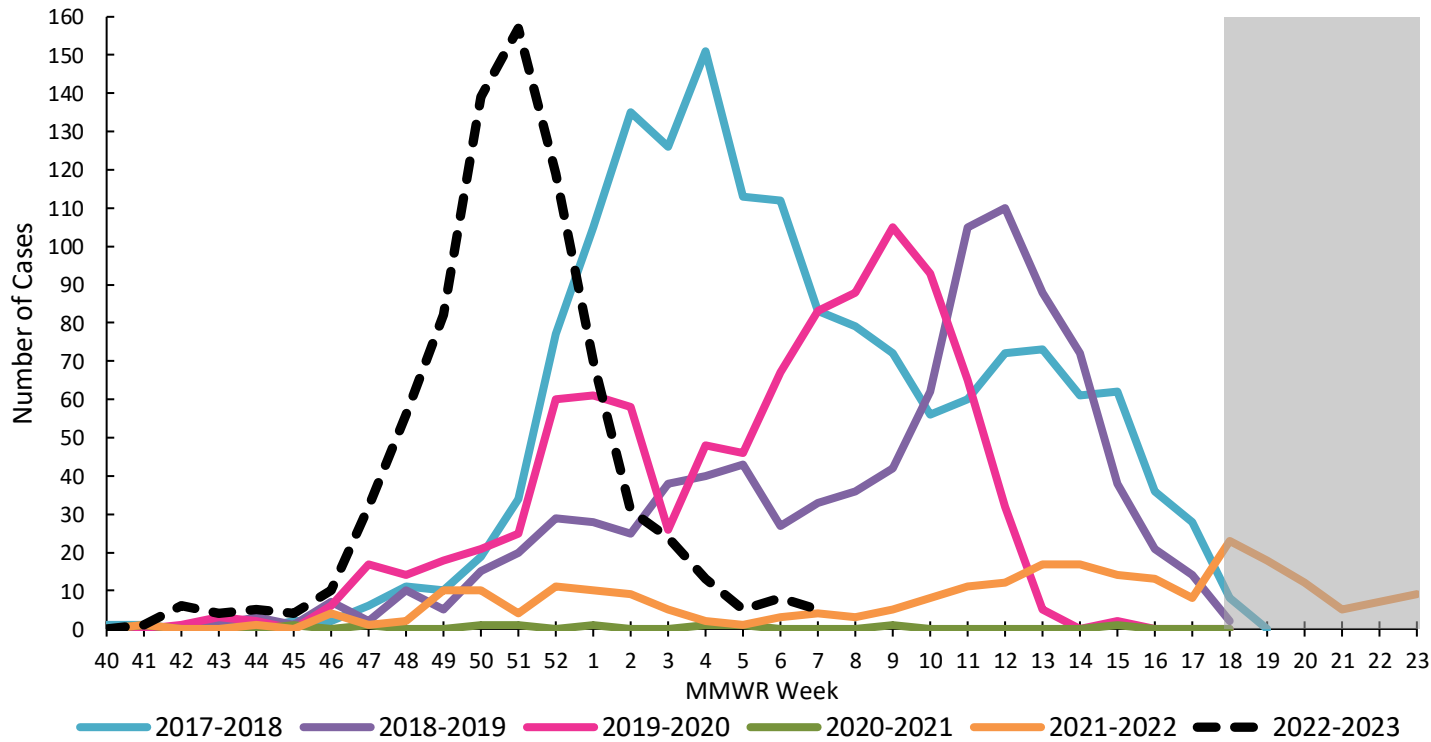
Contact Shelly Doeblen at DoeblerM@michigan.gov

Influenza Hospitalization Surveillance Project (IHSP)

The CDC's Influenza Hospitalization Surveillance Network (FluSurv-NET) provides population-based rates of laboratory-confirmed influenza-associated hospitalizations from October 1st through April 30th each year. Michigan participates as an IHSP state in FluSurv-NET for Clinton, Eaton, Genesee, Ingham, and Washtenaw Counties.

There were 5 (0 pediatric, 5 adult) influenza-associated hospitalizations reported to MDHHS for the IHSP during this time period. Since October 1st, 771 (126 pediatric, 645 adult) influenza-associated hospitalizations were reported in the catchment area for the 2022-2023 season.

IHSP Cases, 2017-18 Through 2022-2023



Washtenaw County was added in the 2017-2018 season

Note: Due to late season activity in 2022, IHSP was extended to Week 23 during the 2021-2022 season.

Join the Influenza Sentinel Hospital Network (ISHN)!

What is it? ISHN is a group of hospitals in Michigan that voluntarily report weekly aggregate counts of influenza positive inpatients to assist MDHHS with statewide influenza surveillance.

How it works: As a participating hospital in the ISHN, you would complete a brief Survey Monkey every week containing:

- Number of hospitalizations with a positive influenza test by age group during that time period
- The total number of hospitalizations due to any condition during that time period (if available)

The data you provide will assist public health in recognizing changes in the age or geographic distribution of influenza in this population.

If your facility is interested in participating or would like more information, please contact Sue Kim (KimS2@michigan.gov)

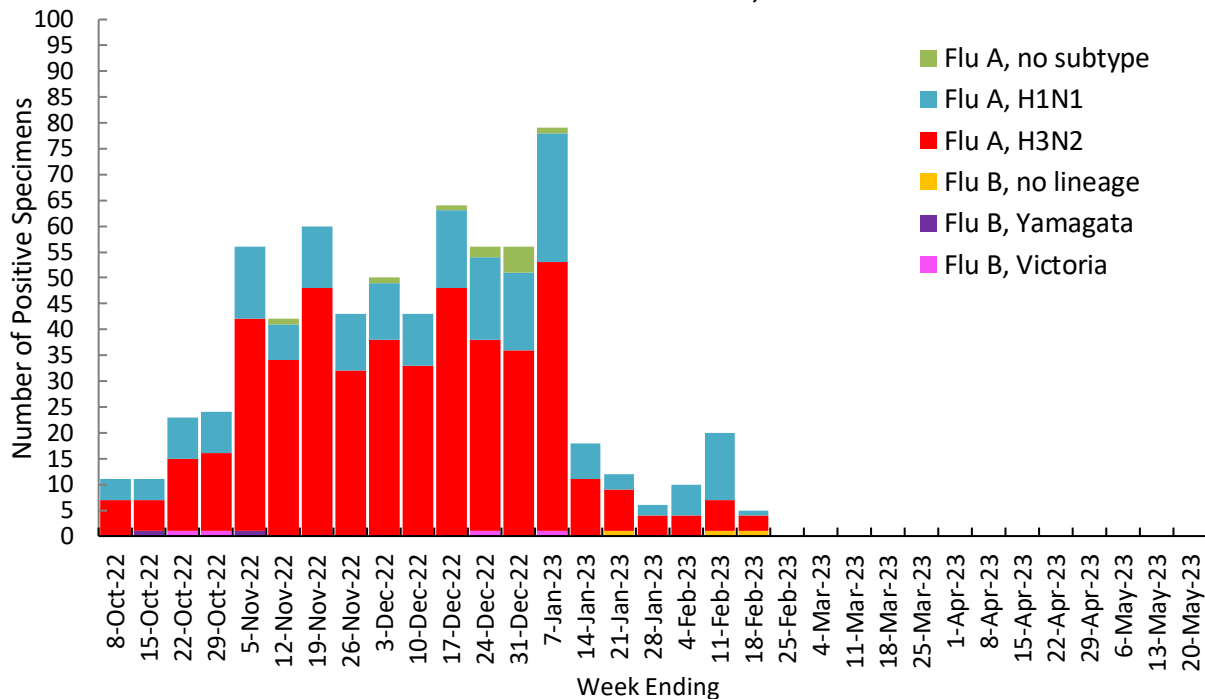
MDHHS BOL Virology Laboratory Data

There were 5 (2C, 0N, 3SE, 0SW) positive influenza results reported by the MDHHS Bureau of Laboratories (BOL) during this time period. Positive flu results for the 2022-2023 season are summarized below.

of Positive Influenza Virus Results by Region

	C	N	SE	SW	Total
H1N1	54	4	76	58	192
H3N2	99	2	178	198	477
Infl B	1	0	8	0	9
Total	154	6	262	256	678

Influenza Positive Test Results, 2022-2023



Note: Based on Specimen Collection Date. Flu B lineage data will be reported based on MDHHS BOL testing runs and will be backtracked into this graph

Michigan Sentinel Clinical Lab Network Respiratory Virus Data

Eight (8) sentinel clinical labs (2SE, 0SW, 5C, 1N) reported for the weeks ending 2/11 – 2/18/2023.

Southeast Region

Influenza A:	elevated
Influenza B:	sporadic – low
Parainfluenza:	low
RSV:	elevated
Adenovirus:	elevated
hMPV:	elevated

Central Region

Influenza A:	low – elevated
Influenza B:	sporadic – low
Parainfluenza:	low
RSV:	low
Adenovirus:	low – slightly elevated
hMPV:	low – slightly elevated

Southwest Region

Influenza A:	no data available
Influenza B:	no data available
Parainfluenza:	no data available
RSV:	no data available
Adenovirus:	no data available
hMPV:	no data available

North Region

Influenza A:	low
Influenza B:	sporadic
Parainfluenza:	sporadic
RSV:	elevated
Adenovirus:	no activity
hMPV:	low

There was 1 (0C, 0N, 0SE, 1SW) influenza outbreak reported to MDHHS during this time period. Influenza outbreaks for the 2022-2023 season are summarized below.

of Influenza Outbreaks by MI Region

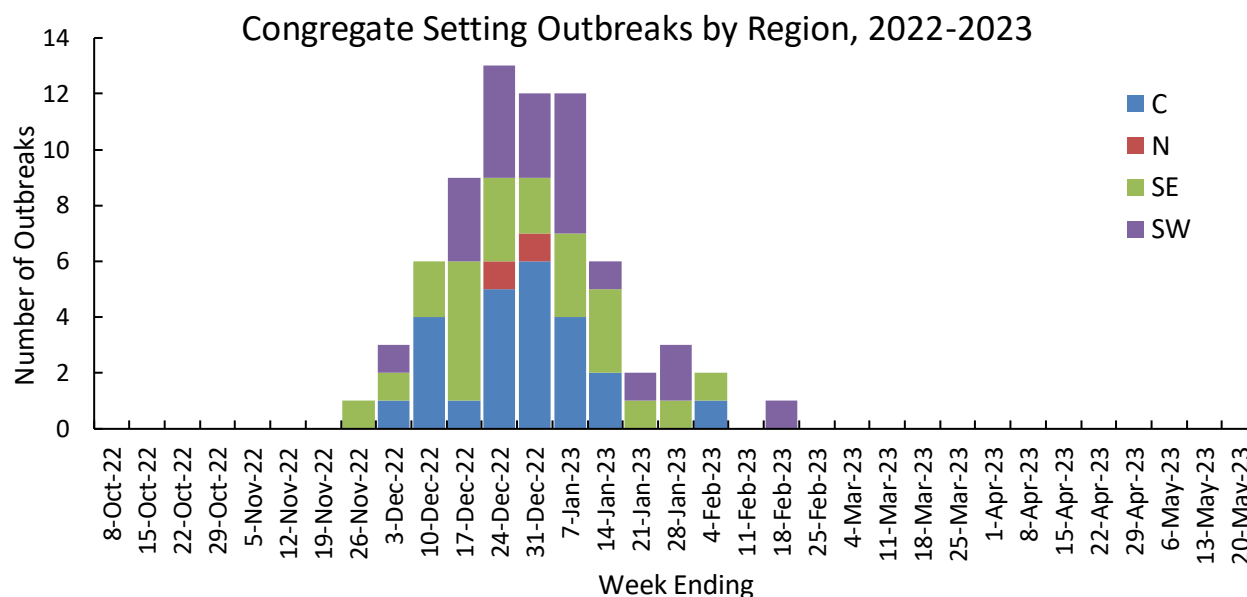
Facility Type	C	N	SE	SW	Total
Schools: K-12 & College	2	0	7	0	9
Long-term Care / Assisted Living Facility	21	2	14	18	55
Healthcare Facility	0	0	1	1	2
Daycare	0	0	0	0	0
Homeless Shelter	0	0	0	0	0
Correctional Facility	1	0	1	2	4
Other	0	0	0	0	0
Total	24	2	23	21	70

Did you know?

Congregate setting outbreaks of viral respiratory illness are required to be reported to your local health department? See:

- [Influenza Guidance for Healthcare Providers](#)
- [Guideline for influenza and Respiratory Virus Outbreaks in Long-Term Care Facilities](#)
- **NEW!** [Respiratory Virus Outbreaks in Nursing Homes Flow Diagram](#)

Note: Data are reported on laboratory confirmed influenza outbreaks. Non-flu, non-COVID outbreaks and ILI outbreaks without confirmatory flu testing are not reported in the table and graph. **Mixed outbreaks with confirmed flu (including COVID) will be included in the table and graph. There were 0 mixed outbreaks reported during this time period.**



Interim Vaccine Effectiveness Estimates 2022-2023 Flu Season

During the February 2023 ACIP meeting, [interim vaccine effectiveness \(VE\) estimates](#) were presented for the 2022-2023 flu season influenza vaccine. Three networks were utilized to evaluate vaccine effectiveness against laboratory-confirmed influenza-associated outpatient visits, emergency department visits, and hospitalization.

The New Vaccine Surveillance Network (NVSN) evaluates VE against influenza-associated hospitalization and emergency department visits among children aged 6 months through 17 years. The Investigating Respiratory Viruses in the Acutely Ill (IVY) network reviews VE against influenza-associated hospitalization among patients aged 18 years and older. Finally, the VISION Network evaluated influenza VE against flu-associated hospitalization and emergency department/urgent care visits among adults aged 18 years and older.

All flu VE networks utilize a test-negative study design to compare vaccination odds among case patients with influenza A versus control patients testing negative for influenza and COVID-19. Vaccination status is evaluated through medical records, immunization registries, claims data, and/or self-report.

Across three flu VE platforms, consistent influenza vaccine effectiveness during the 2022-2023 flu season was observed. Influenza vaccination provided substantial protection against inpatient, emergency department, and outpatient illness among all ages. Influenza vaccination also provided substantial protection among important high-risk groups, including adults aged 65 years and older and immunocompromised individuals.

For more information review the slides presented at the February 2022 ACIP meeting, [here](#).

Influenza News Blast

- [Researchers getting closer to a “universal” flu vaccine](#)
- [STUDY: Vaccine Effectiveness Against Life-Threatening Influenza Illness in Children](#)
- [STUDY: Comparison between Patients Hospitalized with Influenza and COVID-19 at a Tertiary Care Center](#)
- [Flu Disparities Among Racial and Ethnic Minority Groups](#)
- [World Health Organization \(WHO\) Influenza Update](#)
- [Mandatory Influenza Vaccination for Healthcare Personnel Honor Roll](#)

Additional Resources

- [MDHHS Influenza Webpage](#)
- [MDHHS Bureau of Laboratories \(BOL\) Webpage and Test Request Forms](#)
- [Influenza Surveillance in Michigan](#)
- [Immunization Action Coalition: Ask the Experts - Flu](#)
- [CDC Healthcare Professionals Flu Toolkit](#)
- [CDC FluView Weekly Report](#)

View Michigan Flu Focus Report archives [here](#).

2022-2023 Influenza Season Preliminary Burden Estimates

The Centers for Disease Control and Prevention (CDC) have released [preliminary in-season burden estimates](#) for the 2022-2023 flu season.

CDC estimates that, from **October 1, 2022 through February 18, 2023** there have been:

- **25 million – 49 million** flu illnesses
- **12 million – 24 million** flu medical visits
- **280,000 – 610,000** flu hospitalizations
- **18,000 – 54,000** flu deaths

MDHHS Contributors

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