



Michigan Flu Focus

Weekly Influenza Surveillance Report

March 19, 2021

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Week Ending March 13, 2021 | WEEK 10

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

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet

2020-21 Influenza Season Week 10 ending Mar 13, 2021

Updates of Interest

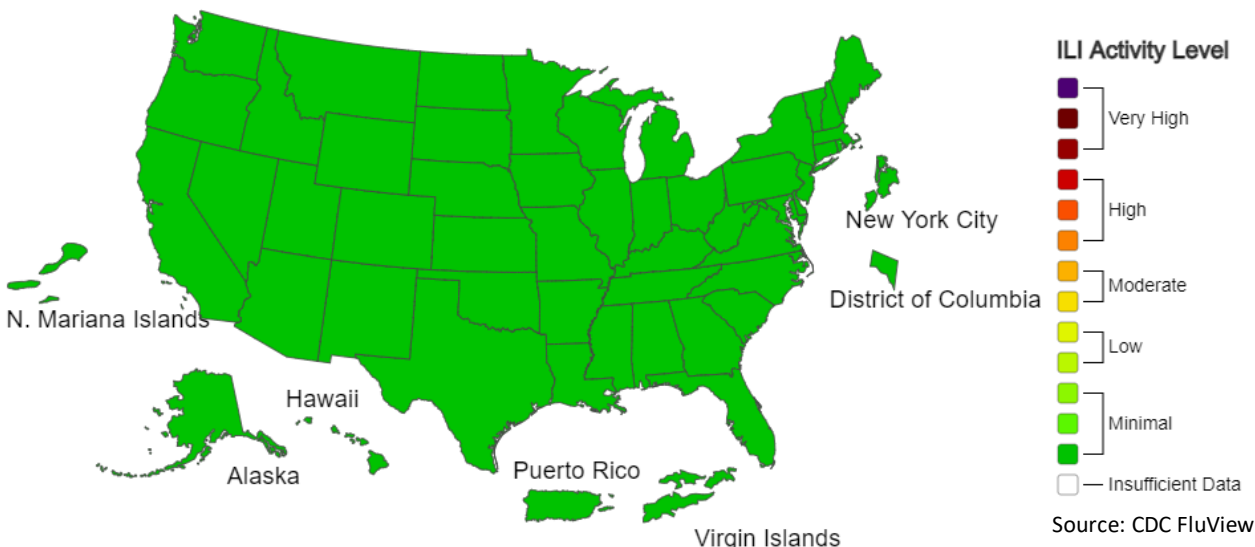
Seasonal influenza activity remains lower than usual for this time of year in Michigan and nationally.

Seasonal Flu Vaccination Coverage

Michigan's goal is to vaccinate more than **4.3 million** residents during the 2020-2021 flu season.

As of February 20, 2021, there have been **3,384,931** doses administered (**78.43%** towards goal) for the 2020-2021 flu season.

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



Note: This graph represents U.S. ILI activity levels reported to ILINet. Geographic spread of influenza has been suspended for the 2020-2021 influenza season

Influenza-associated Pediatric Mortality

Nationally, one (1) influenza-associated pediatric death has been reported thus far for the 2020-2021 flu season.

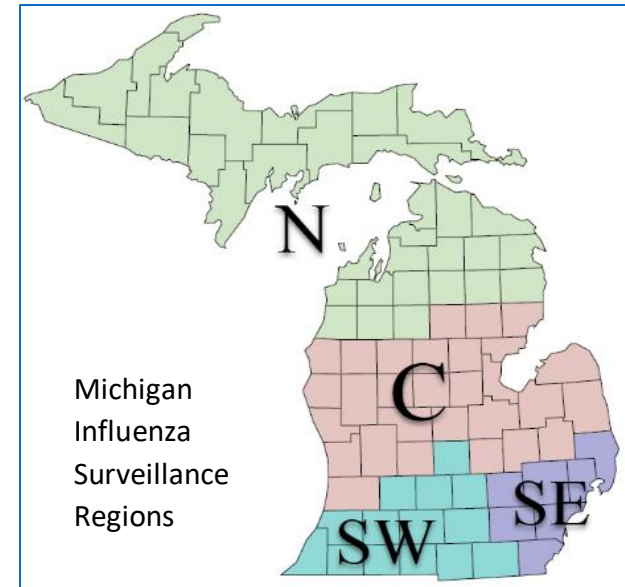
No (0) pediatric deaths have been confirmed by MDHHS for the 2020-2021 flu season.

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

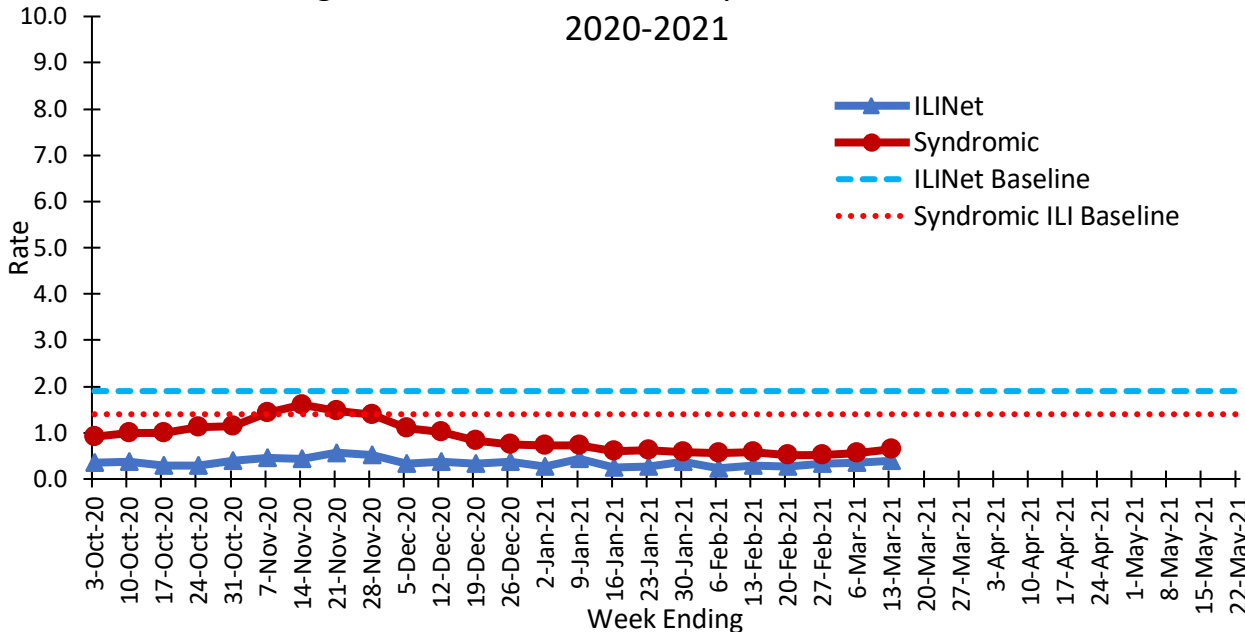
Michigan participates in ILINet, a collaborative effort between the CDC, state and local health departments, and volunteer sentinel clinicians as part of Michigan's influenza surveillance. ILINet provides data on the total number of outpatient visits to health care providers seen for any reason and the number of those patients with influenza-like illness (ILI). *ILI is defined as fever ($\geq 100^{\circ}F$) and a cough and/or a sore throat without a known cause other than influenza.*

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

Region	C	N	SE	SW
No. of Reporters (19)	6	3	7	3
ILI %	0.0	1.3	0.3	0.0



Michigan Statewide ILINet and Syndromic Surveillance, 2020-2021



Michigan ILI Activity: 0.4%

(Last week: 0.3%)

Regional Baseline*: 1.9%

A total of 25 patient visits due to ILI were reported out of 6,217 office visits for Week 10.

*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, 0.9% of outpatient visits were due to ILI (Last week: 0.8%)

This is **below** the national baseline of 2.6%

Become an ILINET provider!

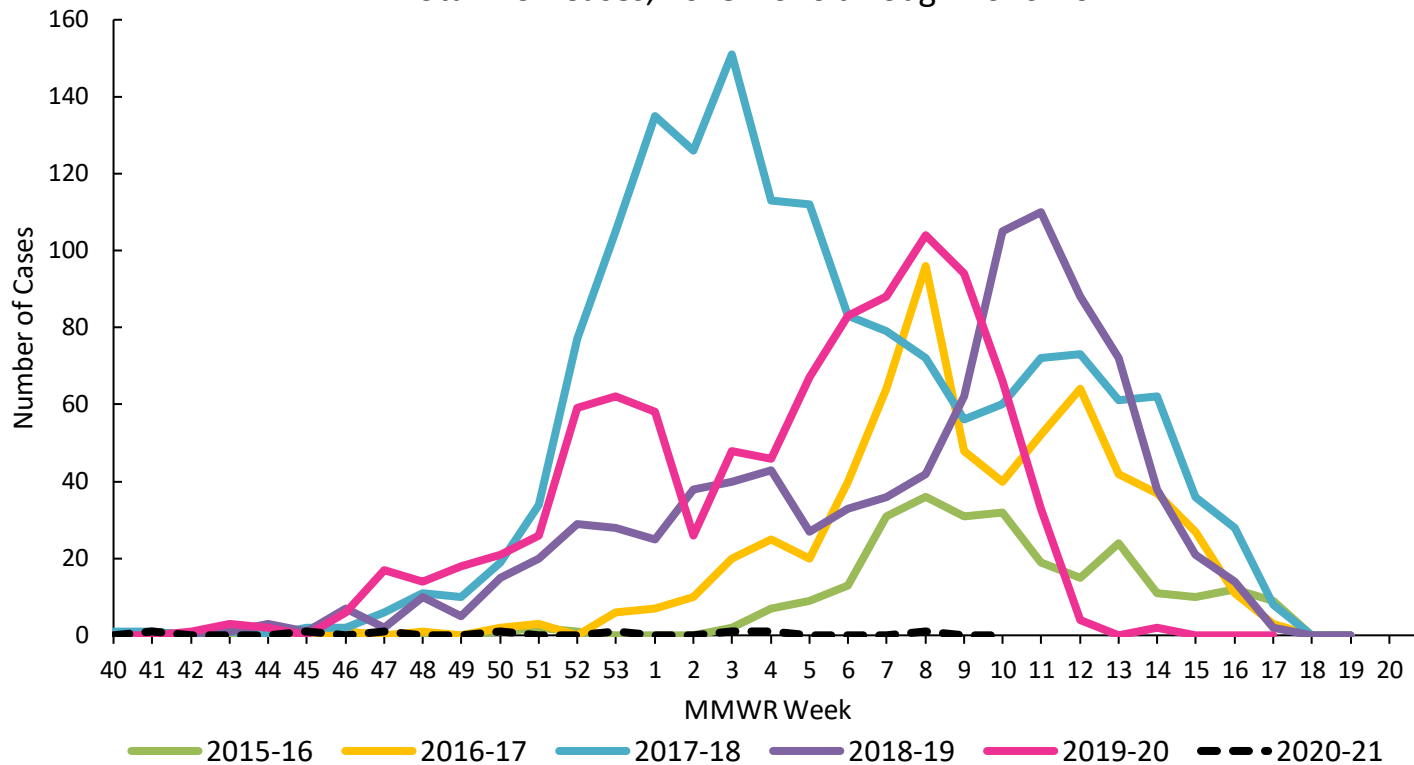
Contact Shelly Doebler at DoeblerM@michigan.gov

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 no influenza-associated hospitalizations reported to MDHHS for the IHSP during this time period. Since October 1st, **8** (1 pediatric, 7 adult) influenza-associated hospitalizations were reported in the catchment area for the 2020-2021 season.

Total IHSP Cases, 2015-2016 through 2020-2021



Washtenaw County was added in the 2017-2018 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 flu 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 can assist providers and public health in recognizing changes in the age or geographic distribution of flu in this population.

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

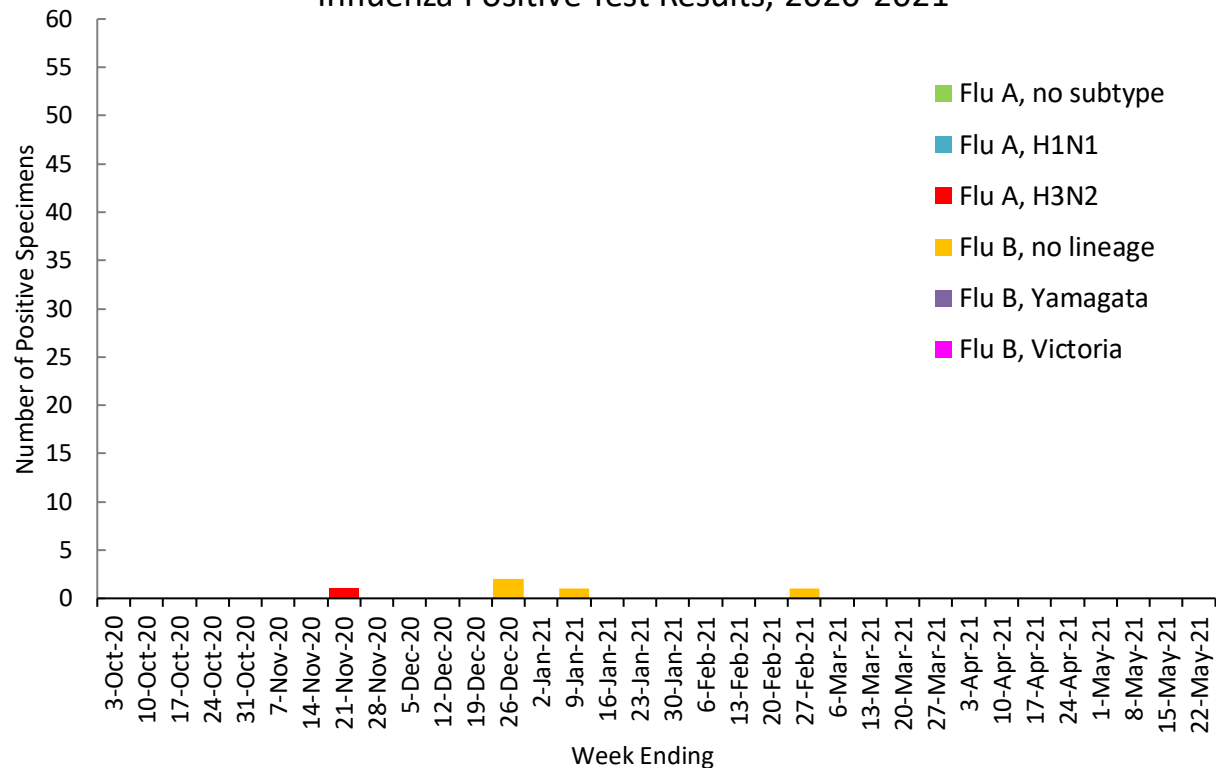
MDHHS BOL Virology Laboratory Data

There were **0** new positive influenza results (OC, ON, OSE, OSW) reported by the MDHHS Bureau of Laboratories (BOL) during this time period.

of Positive Respiratory Virus Results by Region

	C	N	SE	SW	Total
H1N1	0	0	0	0	0
H3N2	0	0	1	0	1
Infl B	0	0	4	0	4
Total	0	0	5	0	5

Influenza Positive Test Results, 2020-2021



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

Ten (10) sentinel clinical labs (3SE, 2SW, 4C, 1N) reported for the week ending 03/13

SE Region	
Influenza A:	no activity
Influenza B:	no activity
Parainfluenza:	sporadic
RSV:	sporadic
Adenovirus:	low
hMPV:	no activity
Central Region	
Influenza A:	no activity
Influenza B:	sporadic
Parainfluenza:	sporadic
RSV:	no activity
Adenovirus:	low
hMPV:	no activity
SW Region	
Influenza A:	no activity
Influenza B:	no activity
Parainfluenza:	no activity
RSV:	no activity
Adenovirus:	low
hMPV:	no activity
North Region	
Influenza A:	no activity
Influenza B:	no activity
Parainfluenza:	no activity
RSV:	no activity
Adenovirus:	no activity
hMPV:	no activity

There were **0** new respiratory outbreaks (OC, ON, OSE, OSW) reported to MDHHS during this time period. Respiratory outbreaks for the 2020-2021 season are listed in the table below.

of Congregate Setting Outbreaks by Region

Facility Type	C	N	SE	SW	Total
Schools: K-12 & College	0	0	0	0	0
Long-term Care / Assisted Living Facility	0	0	0	0	0
Healthcare Facility	0	0	0	0	0
Daycare	0	0	0	0	0
Homeless Shelter	0	0	0	0	0
Correctional Facility	0	0	0	0	0
Other	0	0	0	0	0
Total	0	0	0	0	0

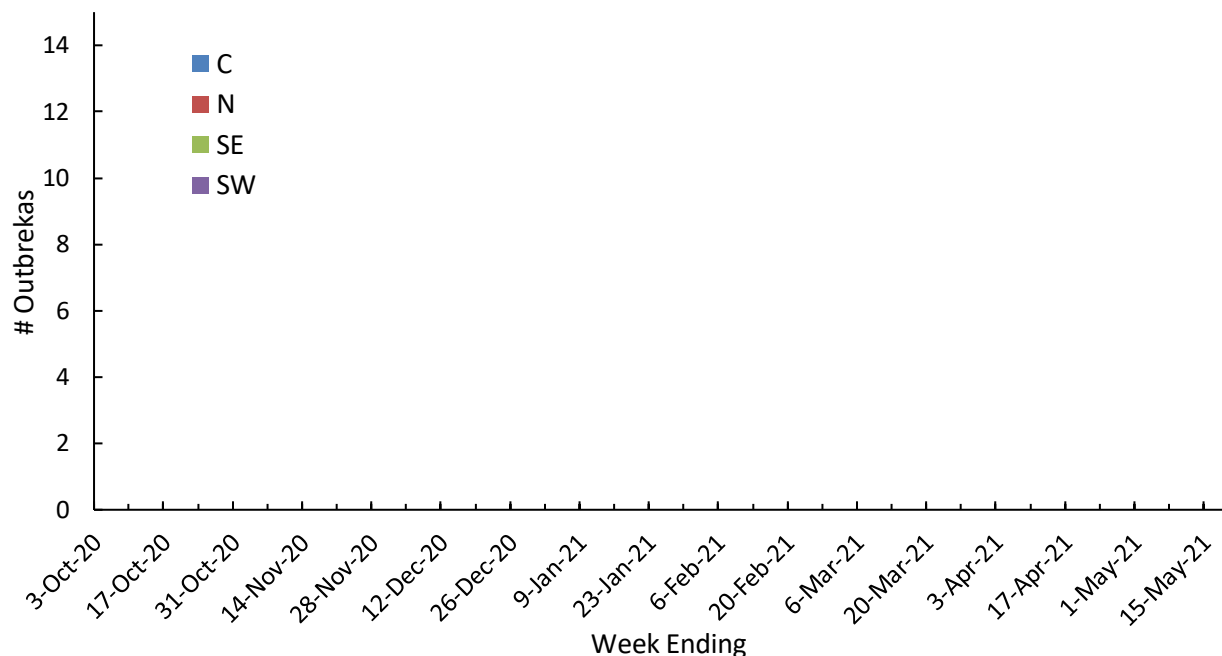
Did you know?

Congregate setting outbreaks of viral respiratory illnesses 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](#)

Note: Outbreaks associated with COVID-19 are not reported in this table (above) or graph (below).

Congregate Setting Outbreaks by Region, 2020-2021



Influenza Vaccine Updates

CRISPR-Based Anti-viral Therapy Could One Day Foil the Flu and COVID-19

On March 16, 2021, the National Institutes of Health (NIH) posted a [Director's Blog article](#) about the future of flu anti-viral technology.

CRISPR- is a gene-editing technology that has the potential to make non-heritable DNA changes that can treat or even cure a wide range of devastating disorders. A [recent study](#), published in the journal *Nature Biotechnology*, found that another CRISPR system, which targets viral RNA instead of human DNA, could be utilized as an anti-viral therapeutic. The study shows that this anti-viral could be programmed to seek out and destroy almost any flu strain and other respiratory viruses, including SARS-CoV-2, the coronavirus that causes COVID-19.

The new anti-viral CRISPR utilizes a different bacterial enzyme compared to traditional CRISPR gene technologies. Once this enzyme has been guided to the right spot in the flu viral genome, it will bind and cleave the viral RNA to stop the viruses from replicating in lung cells.

The researchers report that this approach has the potential to work against 99 percent of the flu strains that have circulated around the world over the last century. The team indicates that future studies must occur to determine the safety of this anti-viral technology before testing in humans. However, these technological advances could be the key to help us fight life-threatening respiratory viruses, such as flu and coronaviruses.

Read the entire article [here](#) on the NIH Director's Blog.

Influenza News Blast

- [STUDY: Development of CRISPR as an Antiviral Strategy to Combat SARS-CoV-2 and Influenza](#)
- [STUDY: Programmable Inhibition and Detection of RNA Viruses Using Cas13](#)
- [STUDY: Intranasal Influenza Vaccine Spurs Strong Immune Response in Phase 1](#)
- [STUDY: Effect of Vaccination on Preventing Influenza-Associated Hospitalizations Among Children](#)
- [NEW STUDY: Study Finds Adjuvanted Flu Vaccine Helps Lower U.S. Nursing Home Outbreaks](#)
- [2020 NFID Influenza News Conference](#)

Additional Resources

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

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

Influenza Burden Estimates

The Centers for Disease Control and Prevention (CDC) have released [preliminary burden estimates](#) for the 2019-2020 flu season.

Between October 1, 2019 through April 4, 2020, it is estimated that there have been:

- **39 million – 56 million flu illnesses**
- **18 million – 26 million flu medical visits**
- **410,000 – 740,000 flu hospitalizations**
- **24,000 – 62,000 flu deaths**

NOTE: The week of April 4 was the last week in-season influenza burden estimates will be provided for the 2019-2020 season.

2020-2021 preliminary burden estimates are expected to be released later in the flu season.

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