



# Michigan Flu Focus

Weekly Influenza Surveillance Report

December 27, 2021

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## Week Ending December 18, 2021 | WEEK 50

Editor: Sue Kim

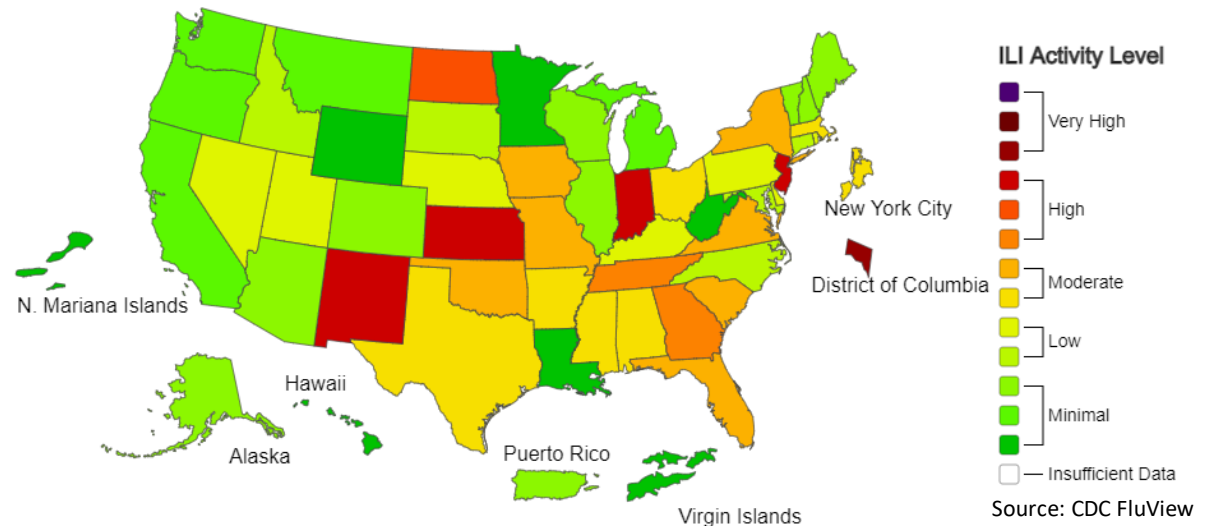
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*Data provided in this report are preliminary and will be updated as additional data is received*

### 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.

2021-22 Influenza Season Week 50 ending Dec 18, 2021



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 2021-2022 influenza season

### Updates of Interest

Nationally, seasonal influenza activity is increasing, with the eastern and central parts of the country seeing the largest increases. Indicators also show hospitalizations and percentage of outpatient visits due to respiratory illness have been increasing.

Please see the following link to CDC's FluView report for more details: <https://www.cdc.gov/flu/weekly/>

### Seasonal Flu Vaccination Coverage

Michigan's goal is to vaccinate **4 million** residents during the 2021-2022 flu season.

As of **December 21, 2021** there have been **2,801,847** doses administered (**71.8%** towards goal) for the 2021-2022 flu season.

Please visit the Flu Vaccination Dashboard at [www.michigan.gov/flu](http://www.michigan.gov/flu) for more info.

### Influenza-associated Pediatric Mortality

Nationally, two (2) influenza-associated pediatric deaths have been reported thus far for the 2021-2022 flu season.

No pediatric deaths have been confirmed by MDHHS for the 2021-2022 flu season to date.

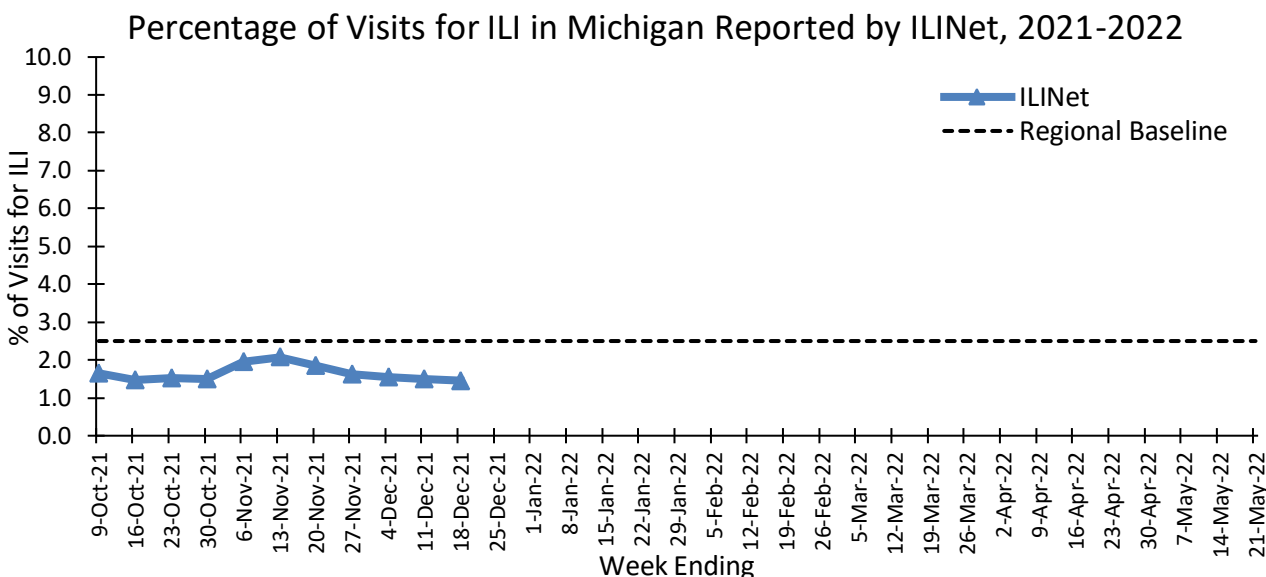
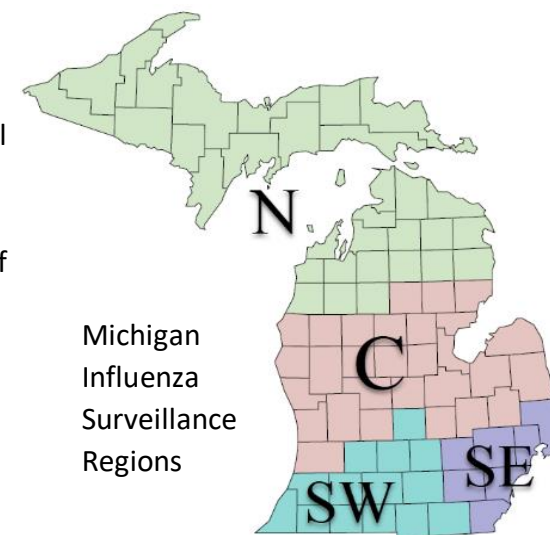
## U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)

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<sup>‡</sup>). 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 for the 2021-2022 flu season.

<sup>‡</sup>ILI is defined as fever (>100°F) and a cough and/or a sore throat (new definition for the 2021-2022 season).

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

Region	C	N	SE	SW
No. of Reporters ( <b>152</b> )	53	18	52	29
ILI %	1.4	1.4	1.4	1.6



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: 1.5%**  
 (Last week: 1.5%)  
 Regional Baseline\*: 2.5%

A total of 1,061 patient visits due to ILI were reported out of 72,927 outpatient visits for Week 50.

\*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, **3.1%** of outpatient visits were due to ILI (Last week: 2.6%)  
 This is **above** the national baseline of 2.5%

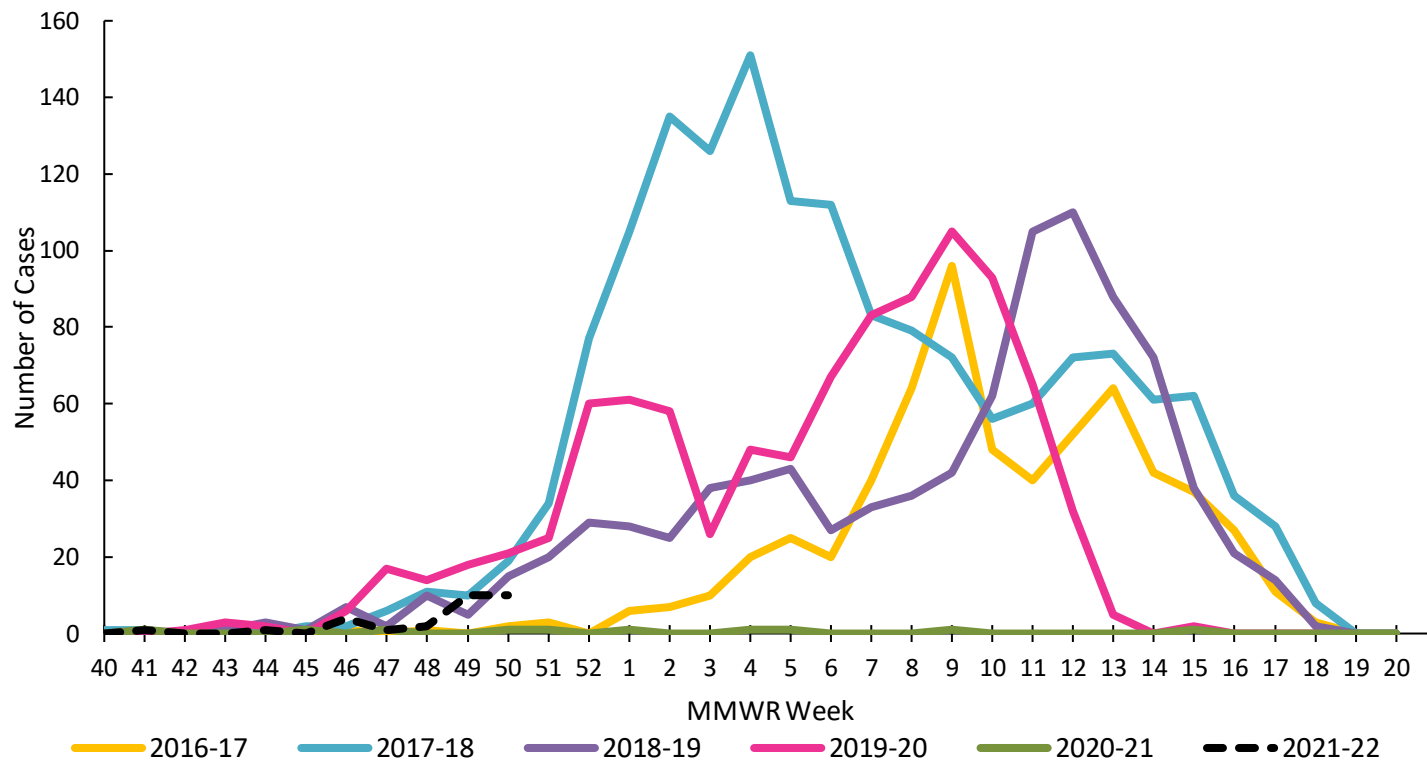
**Become an ILINET provider!**  
 Contact Shelly Doebler at [DoeblerM@michigan.gov](mailto:DoeblerM@michigan.gov)

## 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 1<sup>st</sup> through April 30<sup>th</sup> each year. Michigan participates as an IHSP state in FluSurv-NET for Clinton, Eaton, Genesee, Ingham, and Washtenaw Counties.

There were 10 (0 pediatric, 10 adult) influenza-associated hospitalizations reported to MDHHS for the IHSP during this time period. Since October 1<sup>st</sup>, 29 (4 pediatric, 25 adult) influenza-associated hospitalizations were reported in the catchment area for the 2021-2022 season.

IHSP Cases, 2016-2017 through 2021-2022



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 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](mailto:KimS2@michigan.gov))

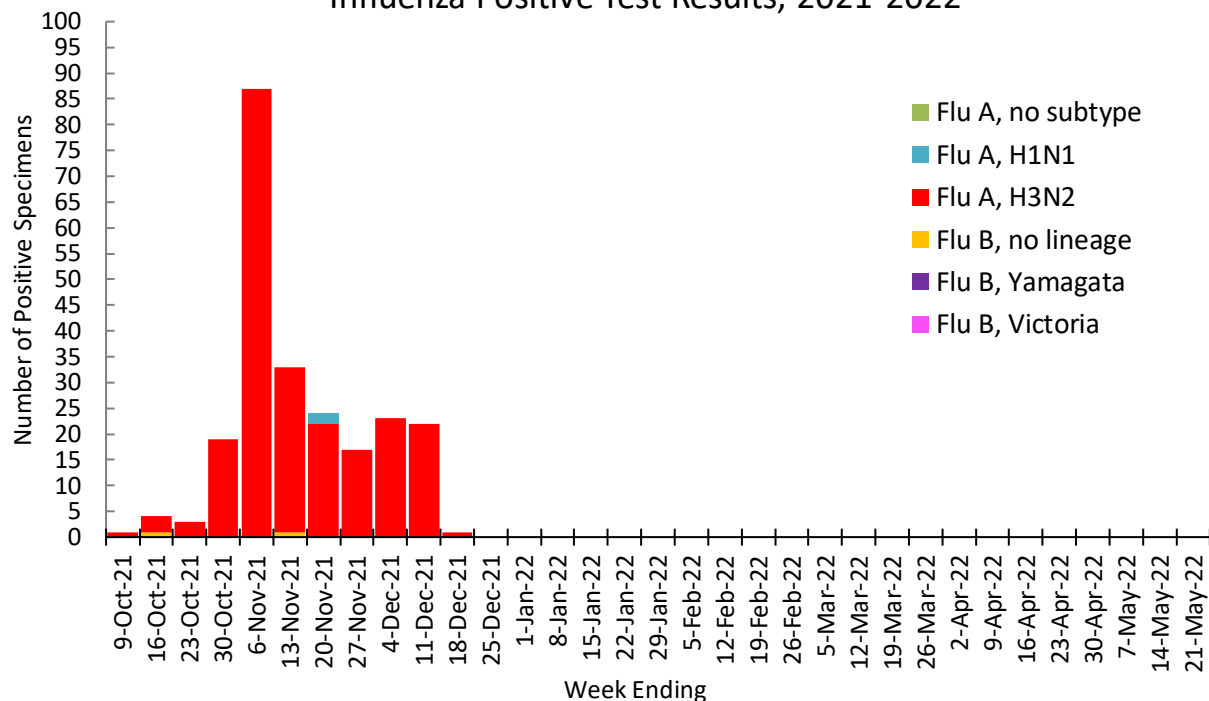
## MDHHS BOL Virology Laboratory Data

There was 1 (0C, 0N, 1SE, 0SW) positive influenza result reported by the MDHHS Bureau of Laboratories (BOL) during this time period. Positive flu results for the 2021-2022 season are summarized below.

# of Positive Influenza Virus Results by Region

	C	N	SE	SW	Total
H1N1	0	0	2	0	2
H3N2	20	0	166	44	230
Infl B	0	0	2	0	2
<b>Total</b>	<b>20</b>	<b>0</b>	<b>170</b>	<b>44</b>	<b>234</b>

Influenza Positive Test Results, 2021-2022



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

Nine (9) sentinel clinical labs (2SE, 1SW, 5C, 1N) reported for the week ending 12/18

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

There was 1 (0C, 1N, 0SE, 0SW) influenza outbreak reported to MDHHS during this time period. Influenza outbreaks for the 2021-2022 season are summarized below.

**# of Influenza Outbreaks by MI Region**

Facility Type	C	N	SE	SW	Total
Schools: K-12 & College	1	1	1	2	5
Long-term Care / Assisted Living Facility	1	0	0	1	2
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
<b>Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>7</b>

### Did you know?

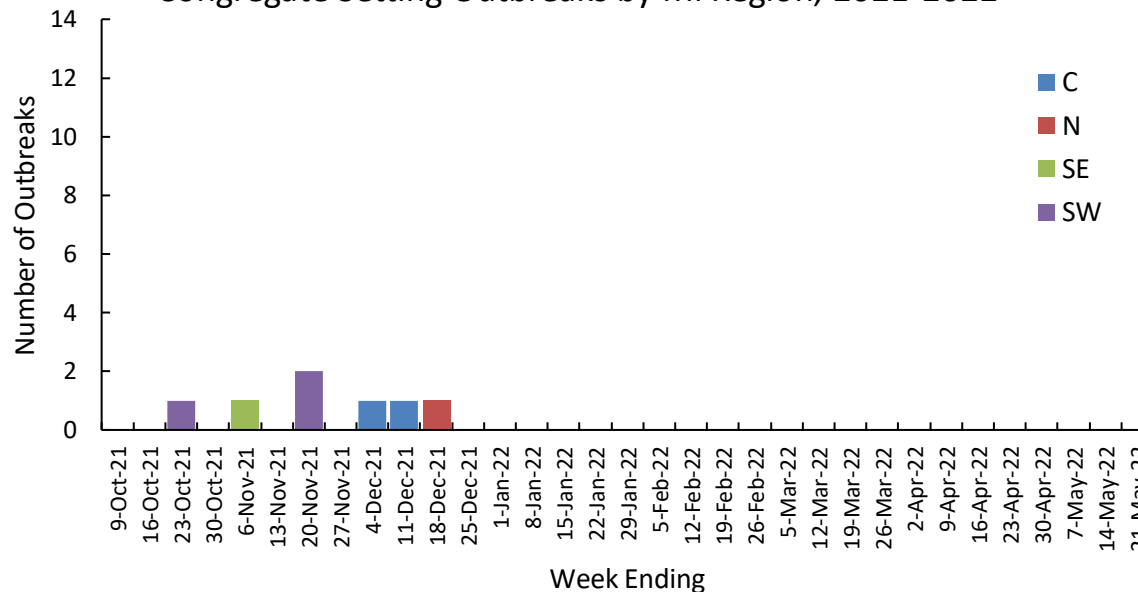
Congregate setting outbreaks of viral respiratory illness are required to be reported to your local health department? See:

- [Influenza Guidance for Healthcare Providers](#)
- [Guideline for influenza and Respiratory Virus Outbreaks in Long-Term Care Facilities](#)

Note: Data are reported on laboratory confirmed influenza outbreaks. For information on outbreaks exclusively associated with COVID-19, please visit the MDHHS Covid-19 webpage located under Additional Resources on the last page. 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 Week 50.**

**Congregate Setting Outbreaks by MI Region, 2021-2022**



## Influenza Vaccine Update

### Moderna Announces Positive Interim Phase 1 Data for mRNA Flu Vaccine

On December 10, 2021, Moderna published a [news release](#) announcing positive interim phase 1 data for Moderna's mRNA quadrivalent seasonal flu vaccine candidate, mRNA-1010.

Quadrivalent mRNA-1010 encodes for hemagglutinin (HA) protein from four seasonal influenza viruses (A/H1N1, A/H3N2, influenza B/Yamagata, and B/Victoria-lineages) which are based on the recommendations from the World Health Organization (WHO).

Participants in the phase 1 trial of mRNA-1010, were evaluated at a 50-µg, 100-µg and 200-µg dose levels in both younger (18 through 49 years old) and older (50 years and older) adults. No safety concerns were observed.

In younger adults who received a 50-µg dose, day 29 geometric mean titers (GMT) against influenza strains were 538 (H1N1), 530 (H3N2), 467 (B/Yamagata), and 261 (B/Victoria). In older adults who received a 50-µg dose, day 29 GMT against influenza strains were 310 (H1N1), 263 (H3N2), 305 (B/Yamagata), and 215 (B/Victoria).

Also announced, phase 2 is fully enrolled with 500 participants and preparation for phase 3 is in progress. Phase 2 of the mRNA-1010 started in November 2021 with three dose levels, which included a lower 25-µg dose. Interim analysis is set to be released early 2022.

Moderna also provided an update on their seasonal flu vaccine program including announcement of two additional beyond quadrivalent mRNA seasonal flu vaccine candidates mRNA-1011 and mRNA-1012. The flu vaccine candidate mRNA-1011 will have one additional hemagglutinin (HA) antigen and mRNA-1012 will have two additional HA antigens.

Everyone 6 months and older is recommended an annual influenza vaccination. Find where to get a flu vaccine at [www.vaccinefinder.org](http://www.vaccinefinder.org).

## Influenza News Blast

- [World Health Organization \(WHO\) Influenza Update](#)
- [Mandatory Influenza Vaccination for Healthcare Personnel Honor Roll](#)
- [Flu and Tdap Vaccination Coverage Among Pregnant Women – United States, April 2021](#)
- [CDC Program Engages Partners to Promote Vaccine Equity Among Racial and Ethnic Minority Groups](#)
- [Pediatric Flu Deaths During 2019-2020 Reach New High](#)
- [CDC 2021-2022 Flu Vaccination Campaign Kickoff](#)
- [Study: Identifies Racial and Ethnic Disparities in Severe Flu Outcomes](#)

## Additional Resources

- [MDHHS Influenza Webpage](#)
- [Influenza Surveillance in Michigan](#)
- [MDHHS Bureau of Laboratories \(BOL\) Webpage and Test Request Forms](#)
- [MDHHS COVID-19 Outbreak Reporting](#)
- [CDC FluView Weekly Report](#)
- [CDC Healthcare Professionals Flu Toolkit](#)
- [Immunization Action Coalition: Ask the Experts - Flu](#)

## MDHHS Contributors

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