Michigan Flu Focus

Weekly Influenza Surveillance Report

April 14, 2023 **Vol. 20; No. 26**

Week Ending April 8, 2023 | WEEK 14

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

Updates of Interest

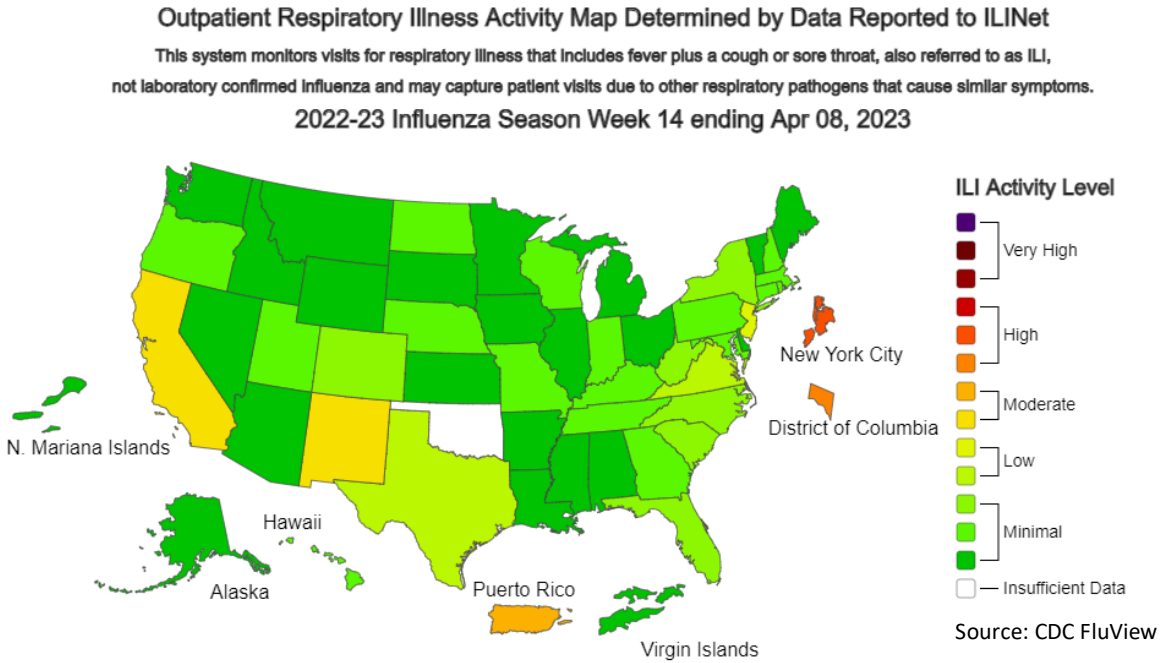
The Michigan Department of Health and Human Services (MDHHS) has confirmed one additional influenza-associated pediatric death. The reported death involves a child from the north region of Michigan and was infected with Influenza A. This will be counted in the National counts for Week 14 and brings the current confirmed total to four in Michigan for the 2022-2023 influenza season.

Seasonal Flu Vaccination Coverage

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

As of **April 1, 2023,** there have been **3,157,579** doses administered (**78.9%** towards goal) for the 2022-2023 flu season.

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



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

Four (4) pediatric deaths have been confirmed by MDHHS for the 2022-2023 flu season to date.

Influenza-like Illness Outpatient Surveillance

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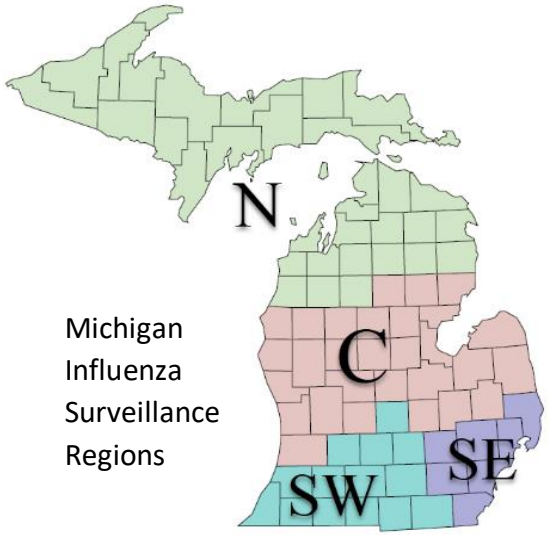
U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)

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.*

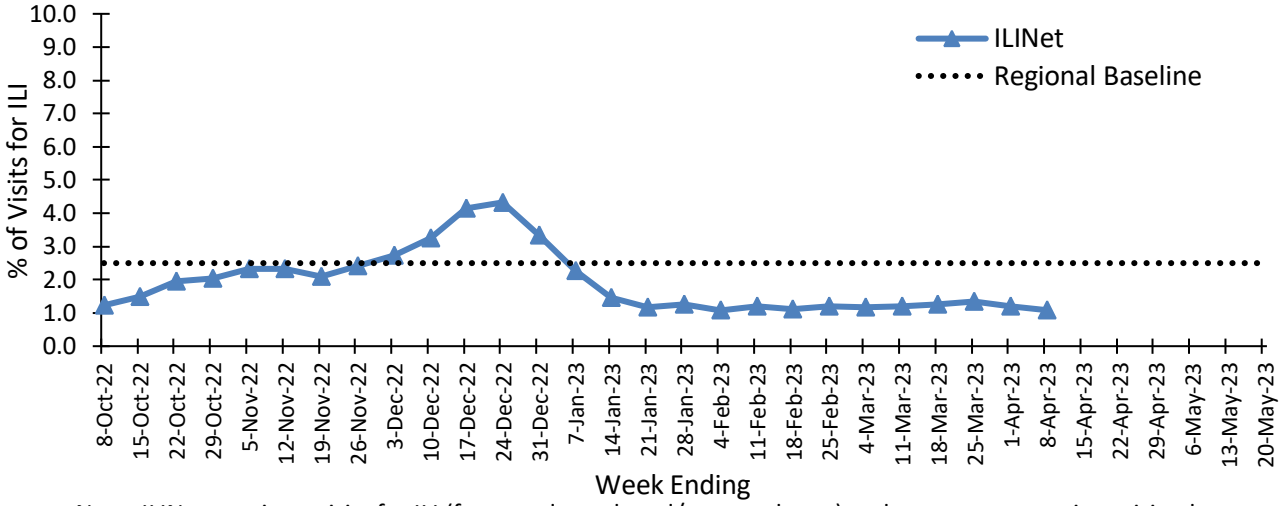


Michigan Influenza Surveillance Regions

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

Region	C	N	SE	SW
No. of Reporters **(152)**	50	18	55	29
ILI %	1.1	1.3	1.1	0.9

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 **895** patient visits due to ILI were reported out of **82,465** 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, **2.1%** of outpatient visits were due to ILI (Last week: 2.3%)

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

Become an ILINET provider!

Contact Shelly Doebler at DoeblerM@michigan.gov

Influenza-associated Hospitalization Surveillance

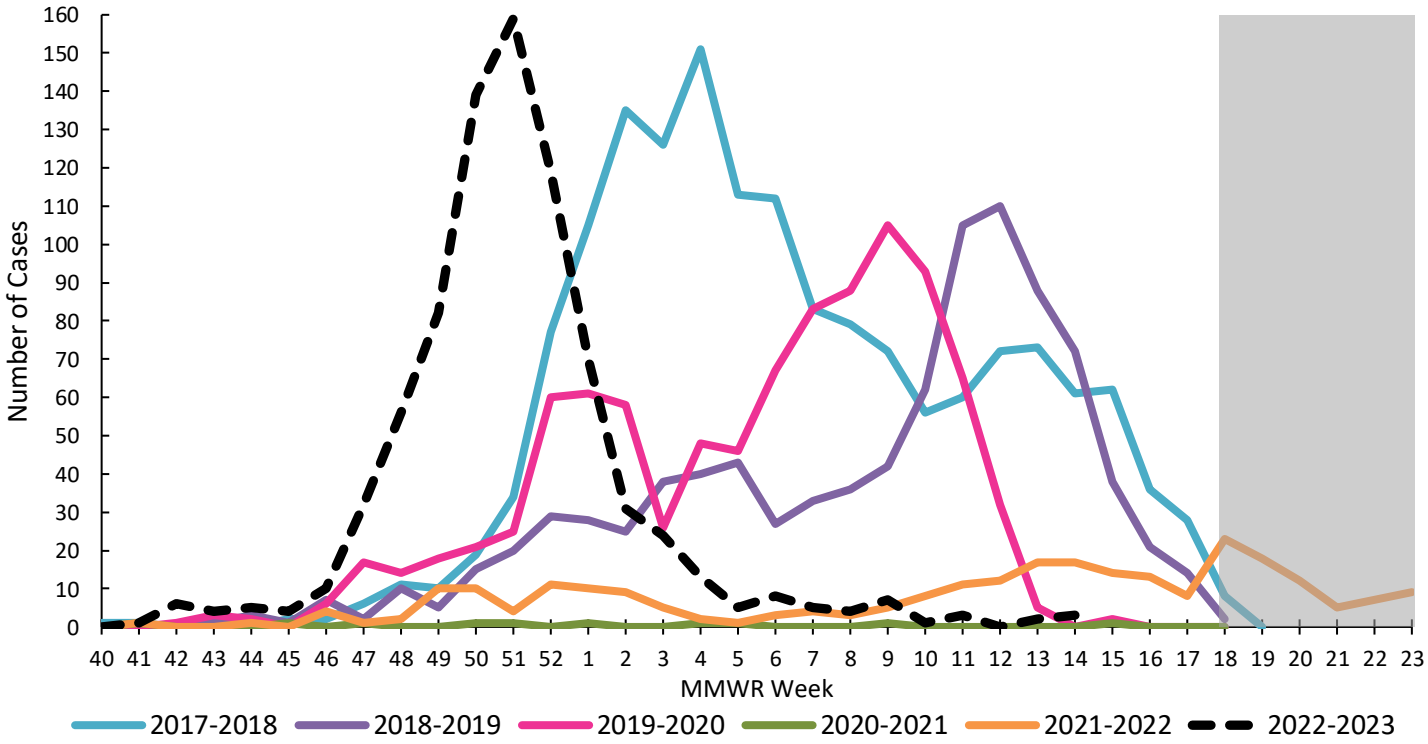
Week Ending Apr 8, 2023

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 **3** (1 pediatric, 2 adult) influenza-associated hospitalizations reported to MDHHS for the IHSP during this time period. Since October 1st, 793 (128 pediatric, 665 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)

Laboratory (Virologic) Surveillance

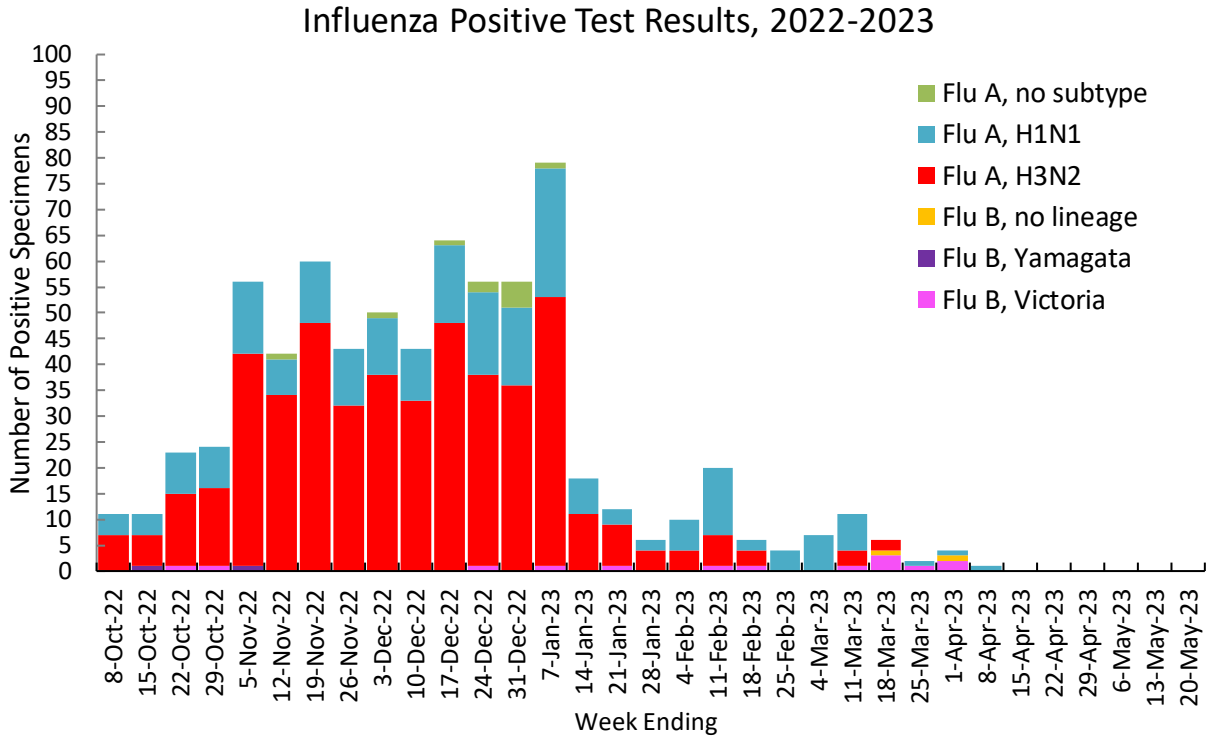
Week Ending Apr 8, 2023

MDHHS BOL Virology Laboratory Data

There was **1** (0C, 0N, 0SE, 1SW) positive influenza result 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	56	4	81	73	**214**
H3N2	100	2	181	199	**482**
Infl B	1	0	17	0	**18**
Total	**157**	**6**	**279**	**272**	**714**



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 4/1 – 4/8/2023.

Southeast Region	
Influenza A:	low
Influenza B:	low – slightly elevated
Parainfluenza:	low – elevated
RSV:	low
Adenovirus:	elevated
hMPV:	moderate

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

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

Congregate Setting Outbreaks

Week Ending Apr 8, 2023

There were **0** influenza outbreaks reported to MDHHS during this time period. Influenza outbreaks for the 2022-2023 season are summarized below.

# of Influenza Outbreaks by MI Region

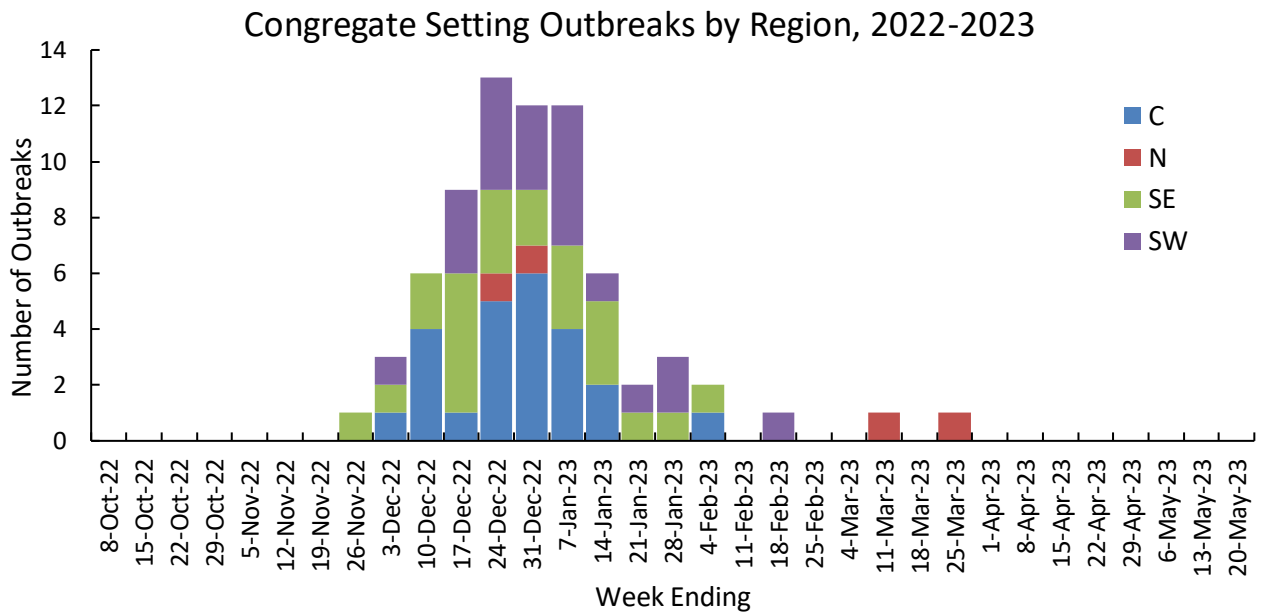
Facility Type	C	N	SE	SW	Total
Schools: K-12 & College	2	0	7	0	**9**
Long-term Care / Assisted Living Facility	21	4	14	18	**57**
Healthcare Facility	0	0	1	1	**2**
Daycare	0	0	0	0	**0**
Homeless Shelter	0	0	0	0	**0**
Correctional Facility	1	0	1	2	**4**
Other	0	0	0	0	**0**
Total	**24**	**4**	**23**	**21**	**72**

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.**

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



Flu Bytes

Week Ending Apr 8, 2023

Recommendations announced for the influenza vaccine composition for the 2023-2024 northern hemisphere influenza season

The World Health Organization (WHO) announced the recommendations for the viral composition of the 2023-2024 influenza season flu vaccines for the northern hemisphere on February 24, 2023. Recommendations were made based on evolving nature of influenza viruses, including those circulating and infecting humans and is necessary for continued effectiveness.

The WHO recommends that quadrivalent vaccines for use in the 2023-2024 northern hemisphere influenza season contain the following:

Egg-based vaccines

- an A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- an A/Darwin/9/2021 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.*

Cell culture- or recombinant-based vaccines

- an A/Wisconsin/67/2022 (H1N1)pdm09-like virus;
- an A/Darwin/6/2021 (H3N2)-like virus;
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.*

*Trivalent vaccines will not include the B-Yamagata lineage virus.

WHO recommended specific viruses for egg-based and cell culture or recombinant-based vaccines which are made to result in the best yield for the specific production system. For more information, please click 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 April 8, 2023** there have been:

- **26 million – 51 million** flu illnesses
- **12 million – 24 million** flu medical visits
- **290,000 – 630,000** flu hospitalizations
- **18,000 – 56,000** flu deaths

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