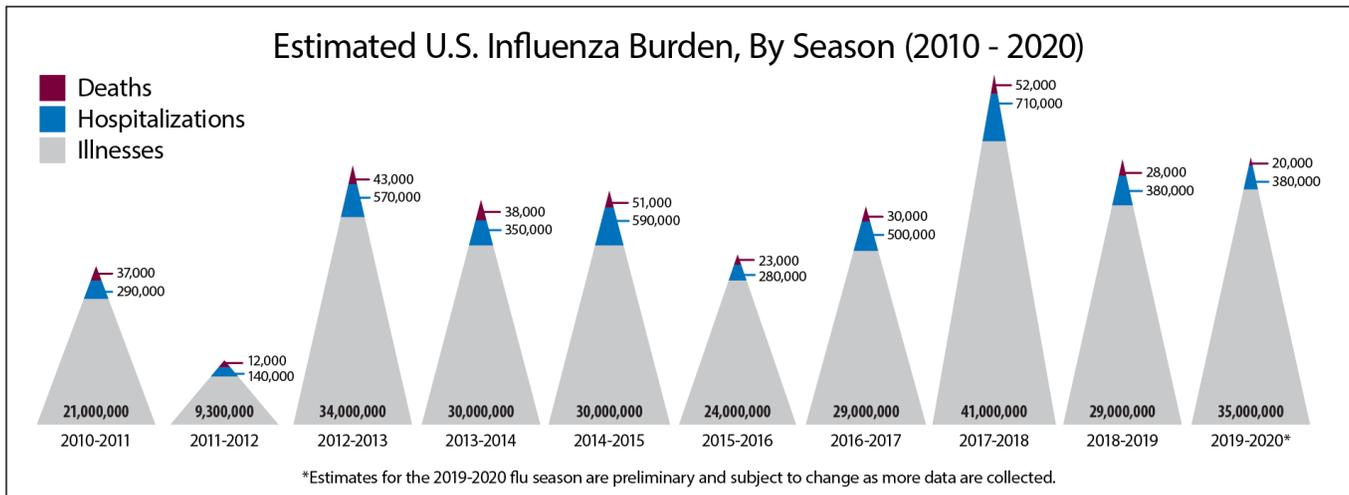




Mid-Michigan District Health Department, Wednesday, December 15, 2021
Central Michigan District Health Department, Wednesday, December 15, 2021
District Health Department 10, Friday, December 17, 2021

Influenza Update

Following COVID-19, influenza is the vaccine-preventable illness that causes the most deaths in the United States. In the 10 years prior to the COVID-19 pandemic, influenza caused approximately 9 to 41 million illnesses, 4 to 21 million medical visits, 140,000 to 710,000 hospitalizations and 12,000 to 52,000 deaths per year. On average, 133 children died each of those years from influenza (range 37 to 199). There was very limited influenza circulation during the influenza season of 2020-2021 while measures to prevent the spread of COVID-19 were in place, such as social distancing, mask wearing, and reduction in travel and gatherings.



The Advisory Committee on Immunization Practices (ACIP) extended the recommendation for annual influenza vaccines to everyone 6 months of age and older in 2010 because the vaccine is safe and effective, and healthy children and adults can get severe influenza or die from influenza and its complications. The risks for complications and death are higher for children younger than 5 years, adults 50 years and older, pregnant women, Alaska Natives and American Indians, residents of nursing homes or other long-term care facilities, and people with certain medical conditions (listed here <https://www.cdc.gov/flu/highrisk/chronic-conditions/index.htm>).

All available influenza vaccines are quadrivalent this year, meaning they contain two influenza A and two influenza B strains. The vaccine virus recommendations for the yearly flu vaccine are made by the World Health Organization and, in the US, finalized by the Food and Drug Administration (FDA). These decisions are based on information from a global system of nearly 200 public health institutions and laboratories.

The components of the influenza vaccines this year are:

Egg-based Vaccines

- an influenza A/Victoria/2570/2019 (H1N1)pdm09-like virus*
- an influenza A/Cambodia/e0826360/2020 (H3N2)-like virus*
- an influenza B/Washington/02/2019 (Victoria lineage)-like virus
- an influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus.

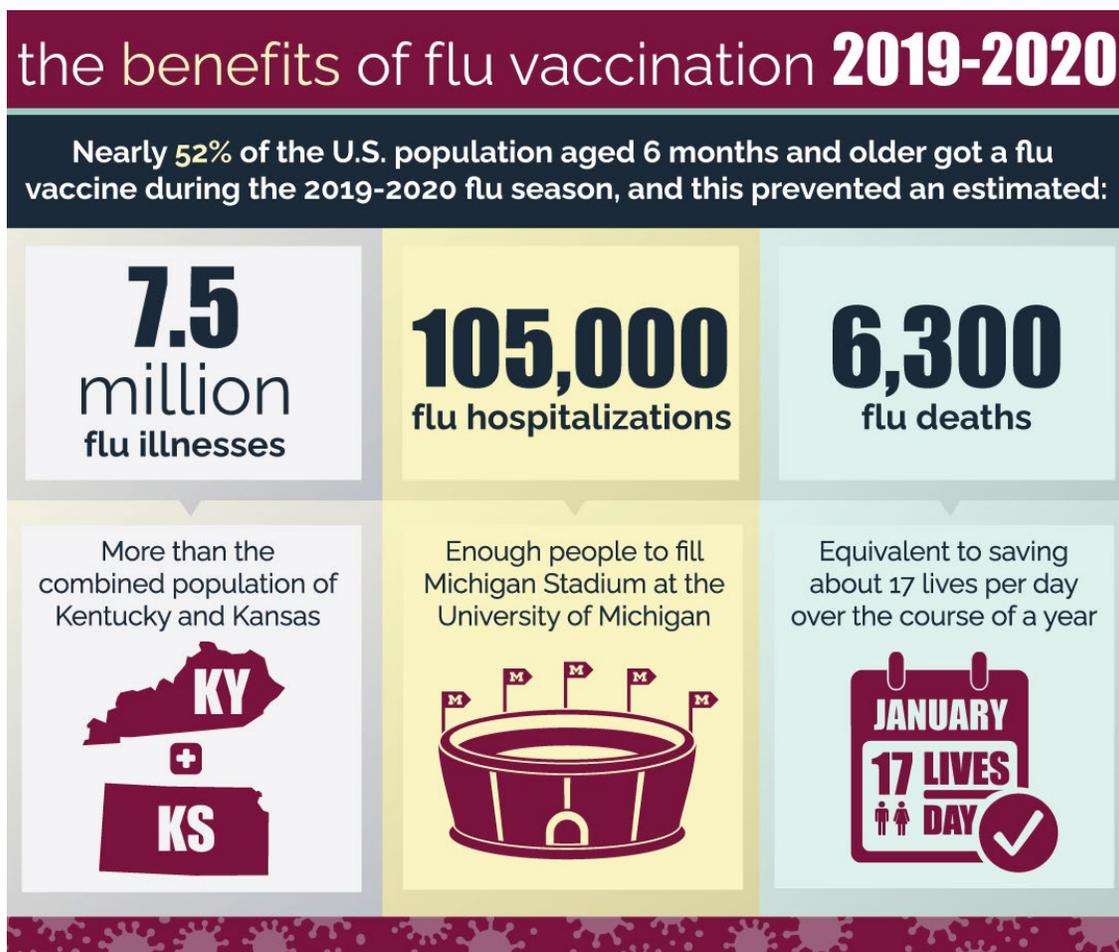
Cell- or recombinant-based Vaccines

- an influenza A/Wisconsin/588/2019 (H1N1)pdm09-like virus*
- an influenza A/Cambodia/e0826360/2020 (H3N2)-like virus*
- an influenza B/Washington/02/2019 (Victoria lineage)-like virus
- an influenza B/Phuket/3073/2013 (Yamagata lineage)-like virus.

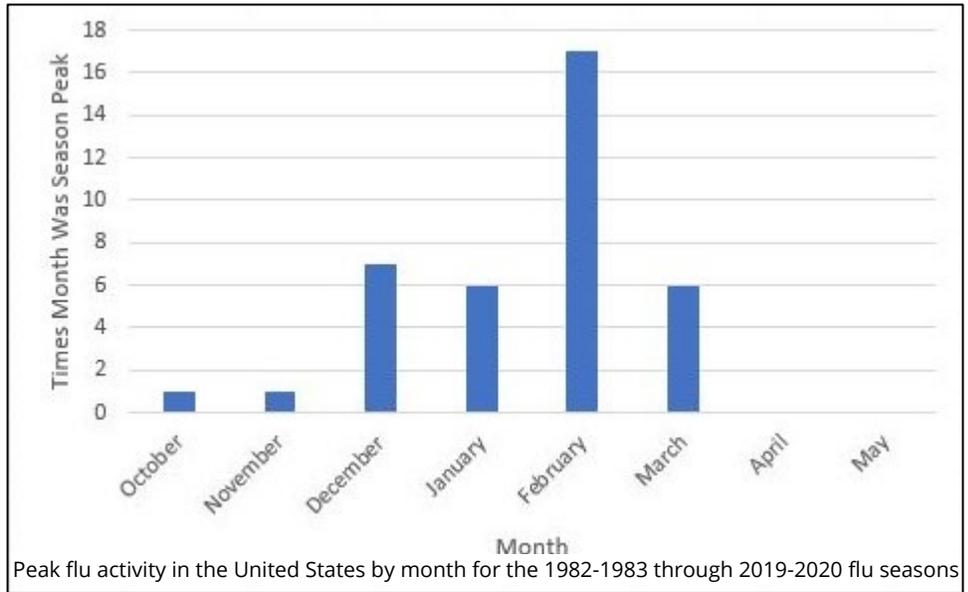
*Updated this year

There are several different influenza vaccines. They are all safe and effective when used as indicated. A good explanation of the different types of flu vaccine is available here <https://www.familiesfightingflu.org/types-of-flu-vaccines/> and <https://www.cdc.gov/flu/prevent/different-flu-vaccines.htm>. There are only a few vaccine types that have significant differences. One is FluMist®, or the nasal spray form of the vaccine. This is a “live attenuated” vaccine, which uses a weakened live virus. While it should not be capable of causing illness, it does have more restrictions, such as only being available to healthy people aged 2 to 49 years old who are not pregnant. Another unique flu vaccine is Fluzone® High-Dose Quadrivalent, which contains four times as much antigen, or the part of the vaccine that helps your body build up protection against flu viruses. It is used in those 65 years and older and helps give them better immunity. The final unique vaccine is also for people 65 and older and is the FLUAD® Quadrivalent. It is a standard dose, but contains an adjuvant, which is an ingredient that is added to cause the immune system to have a stronger response. FLUAD had the adjuvant MF59, which is a naturally occurring oil.

As of November 19, 40.9% of adults in the U.S. have received a flu vaccine. As of November 27, only 26.77% of Michigan adults have been vaccinated.



The flu season typically peaks between December and February. So far this season, Influenza activity remains low nationally but is increasing. Most testing is finding influenza A(H3N2) as the cause of flu illness, and over 80% of the positive results so far have been in those aged 5 to 24 years. A large outbreak of A(H3N2) occurred among U of M students from October 6 through November 19. There were 745 cases identified during that time, 74% of whom were not vaccinated.



A Weekly Influenza Surveillance Report Prepared by the Influenza Division

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

This system monitors visits for ILI (fever and cough or sore throat), not laboratory confirmed influenza and may capture patient visits due to other respiratory pathogens that cause similar symptoms.

2021-22 Influenza Season Week 47 ending Nov 27, 2021

ILI Activity Level

- Very High
- High
- Moderate
- Low
- Minimal
- Insufficient Data

*This map uses the proportion of outpatient visits to healthcare providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.

*Data collected in ILINet may disproportionately represent certain populations within a state, and therefore may not accurately depict the full picture of influenza activity for the whole state.

*Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map are based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data is received.

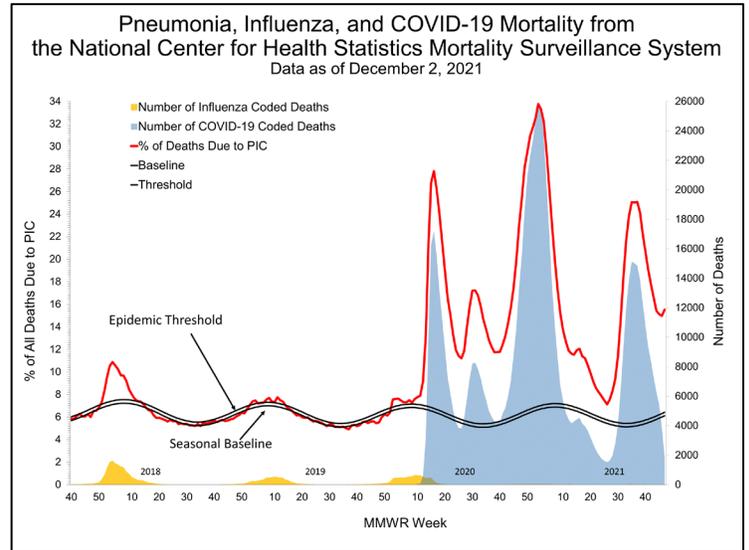
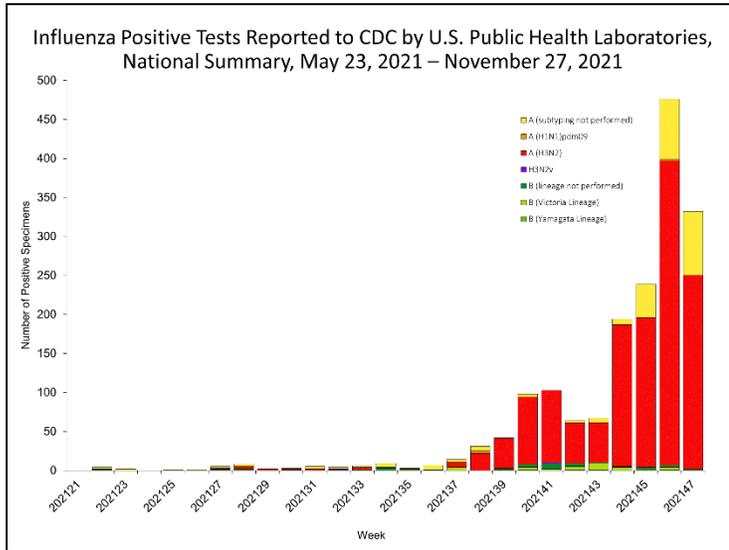
*Differences in the data presented by CDC and state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.

*For the data download you can use Activity Level for the number and Activity Level Label for the text description.

*This graphic notice means that you are leaving an HHS Web site.

For more information, please see CDC's Exit Notification and Disclaimer policy.

For more information on the methodology, please visit Outpatient Illness Surveillance methods section.



Symptoms of the flu may start very suddenly and can include fever or feeling feverish, chills, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches, and fatigue (tiredness). Some people may have vomiting and diarrhea, though this is more common in children than adults. There are many similarities and some differences between flu and COVID-19, which are well described at <https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm>.

The flu can be mild or very severe, may get better in a few days or take up to two weeks to improve. It can lead to pneumonia, sinus infections, ear infections, and other more serious complications such as myocarditis, encephalitis, and organ failure. These complications can happen in anyone but are more likely in people at higher risk (listed at <https://www.cdc.gov/flu/highrisk/index.htm>). If you are at higher risk for complications, or are having more serious symptoms, follow up with a healthcare provider right away. There are effective antiviral medications available to treat the flu but are most effective when started early in the illness. Antiviral medications are also used in some cases after exposure to the flu in those at high risk for infection and serious illness, such as in nursing home residents during an outbreak in the facility.

Measures used to prevent the spread of COVID-19 also help prevent the spread of influenza. Avoid large gatherings, especially where sick people are present, stay home when you are ill, cover coughs and sneezes, wash hands often, avoid touching your face, and clean and disinfect often. Using a face covering or mask for COVID-19 will also help prevent influenza infection.

Recommendations:

1. If you have not gotten your influenza vaccine yet, do so as soon as possible. Find a site near you at www.vaccinefinder.org
2. Help prevent influenza in the following ways:
 - a. Avoid large gatherings, especially where sick people are present
 - b. Stay home when you are ill
 - c. Cover coughs and sneezes
 - d. Wash your hands often or use hand sanitizer if soap and water are not available
 - e. Avoid touching your face
 - f. Clean and disinfect surfaces often

- g. Follow healthy habits, such as getting enough sleep, exercising, and eating a healthy diet
- h. Use a face covering or mask as recommended for COVID-19 as a way to also prevent influenza
- i. If you have risk factors and are sick with or exposed to influenza, contact your healthcare provider to see if you should be prescribed antiviral medication.

Sources

- Influenza. Immunization Action Coalition. https://www.immunize.org/askexperts/experts_inf.asp
- CDC. Burden of Flu. <https://www.cdc.gov/flu/about/burden/index.html>
- Grohskopf LA, Alyanak E, Ferdinands JM, et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices, United States, 2021–22 Influenza Season. MMWR Recomm Rep 2021;70(No. RR-5):1–28. DOI: <http://dx.doi.org/10.15585/mmwr.rr7005a1>
- CDC. Weekly U.S. Influenza Surveillance Report. <https://www.cdc.gov/flu/weekly/index.htm#ILIActivityMap>
- WHO. Recommended composition of influenza virus vaccines for use in the Northern hemisphere 2021-2022 influenza season and development of candidate vaccine viruses for pandemic preparedness. https://www.who.int/influenza/vaccines/virus/recommendations/202102_qanda_recommendation.pdf?ua=1
- CDC. Estimated Influenza Illnesses, Medical visits, and Hospitalizations Averted by Vaccination in the United States – 2019-2020 Influenza Season. <https://www.cdc.gov/flu/about/burden-averted/2019-2020.htm>
- Influenza Vaccination Coverage, Michigan. <https://www.michigan.gov/flu/0,6720,7-321-101697---,00.html>
- MDHHS. MI COVID Response Data and Modeling Update. https://www.michigan.gov/documents/coronavirus/20211130_Data_and_modeling_update_vMEDIA_742386_7.pdf