

Community Surveillance of Respiratory Viruses Among Families in the Utah Better Identification of Germs-Longitudinal Viral Epidemiology (BIG-LoVE) Study ^{FREE}

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 Author Notes

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Original Investigation | Infectious Diseases

December 16, 2021

Estimation of the Timing and Intensity of Reemergence of Respiratory Syncytial Virus Following the COVID-19 Pandemic in the US

Zhe Zheng, MPhil, MBBS¹; Virginia E. Pitzer, ScD¹; Eugene D. Shapiro, MD²; [et al](#)

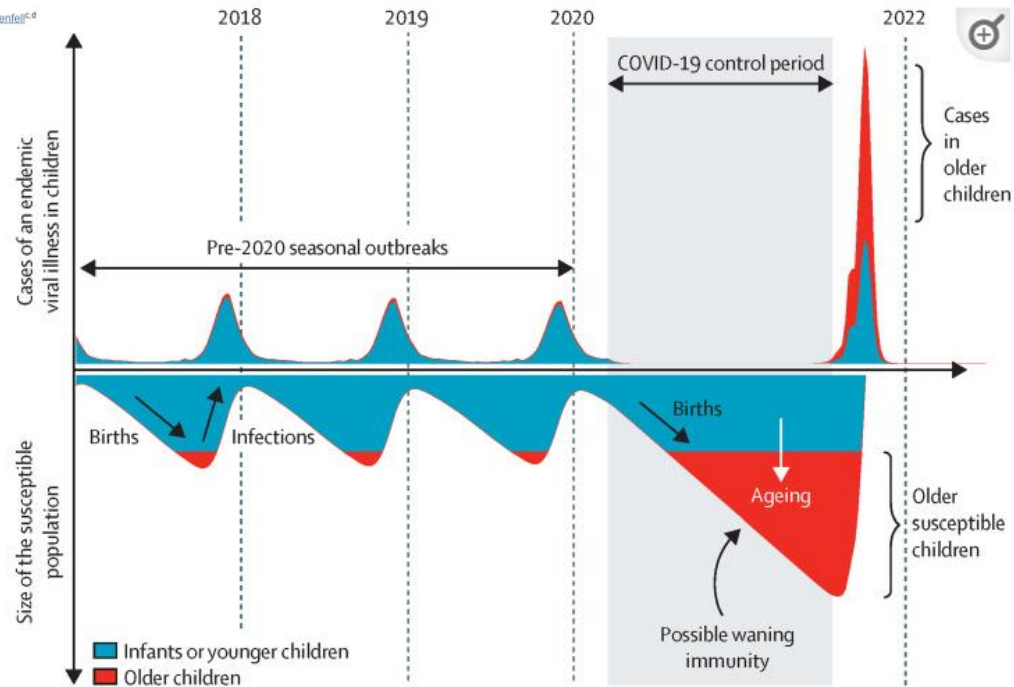
» [Author Affiliations](#) | [Article Information](#)

JAMA Netw Open. 2021;4(12):e2141779. doi:10.1001/jamanetworkopen.2021.41779

Findings In this simulation modeling study of a simulated population of 19.45 million people, virus introduction from external sources was associated with the spring and summer epidemics in 2021. Reemergent RSV epidemics in 2021 and 2022 were projected to be more intense and to affect patients in a broader age range than in typical RSV seasons.

Preparing for uncertainty: endemic paediatric viral illnesses after COVID-19 pandemic disruption

Kevin Messacar,^{a,b} Rachel E. Baker,^c Sang Woo Park,^c Hai Nguyen-Tran,^a Jessica R. Cataldi,^{a,b} and Bryan Grenfell^{c,d}

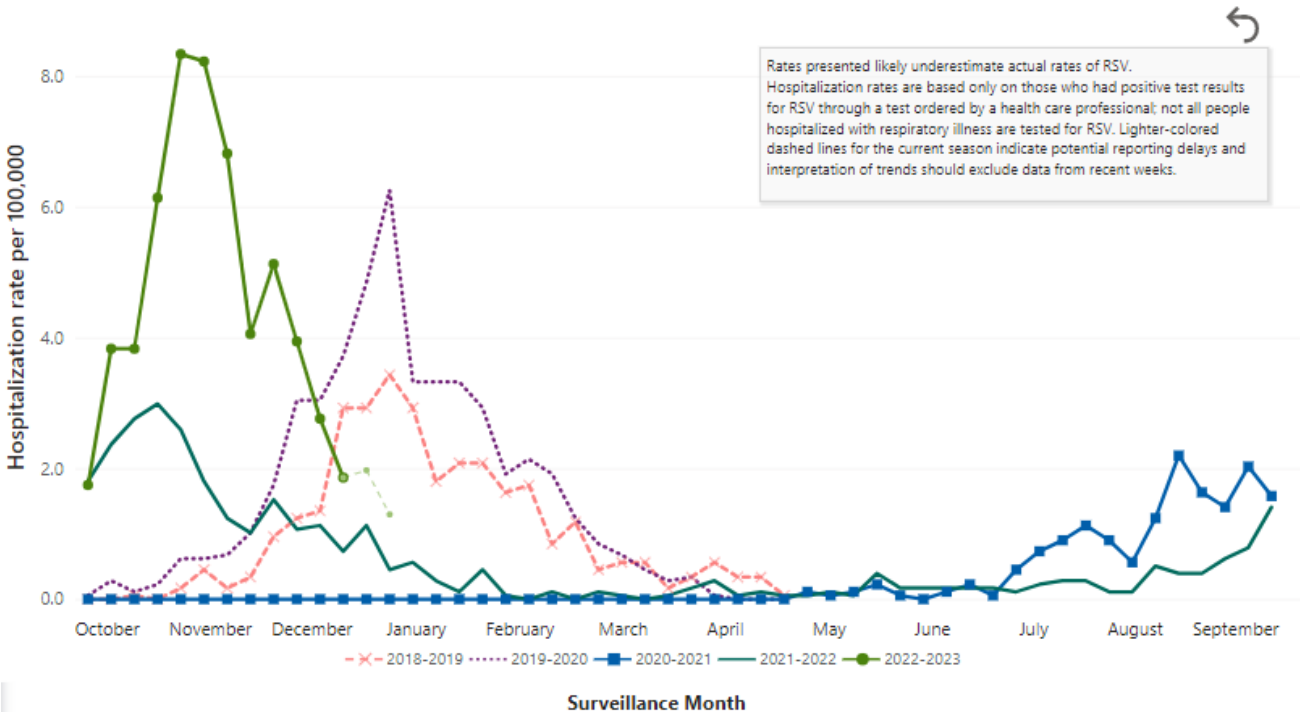


Modelling of endemic virus circulation in children following COVID-19 pandemic disruption

Schemata depicts the possible trajectory of seasonal outbreaks of cases of an endemic viral illness in children pre-2020 and post-2020 following COVID-19 control period with non-pharmaceutical interventions (NPIs) and alterations in societal behaviours due to the COVID-19 pandemic. Model is based on data from Baker and colleagues' study² and age categorisations are illustrative. COVID-19 NPIs dampen transmission of endemic viruses leading to an immunity gap in a larger, older population of susceptible children that might change the age structure of return outbreaks.

RSV Hospitalizations, RSV-Net - New York

Rates of RSV-Associated Hospitalization, all seasons

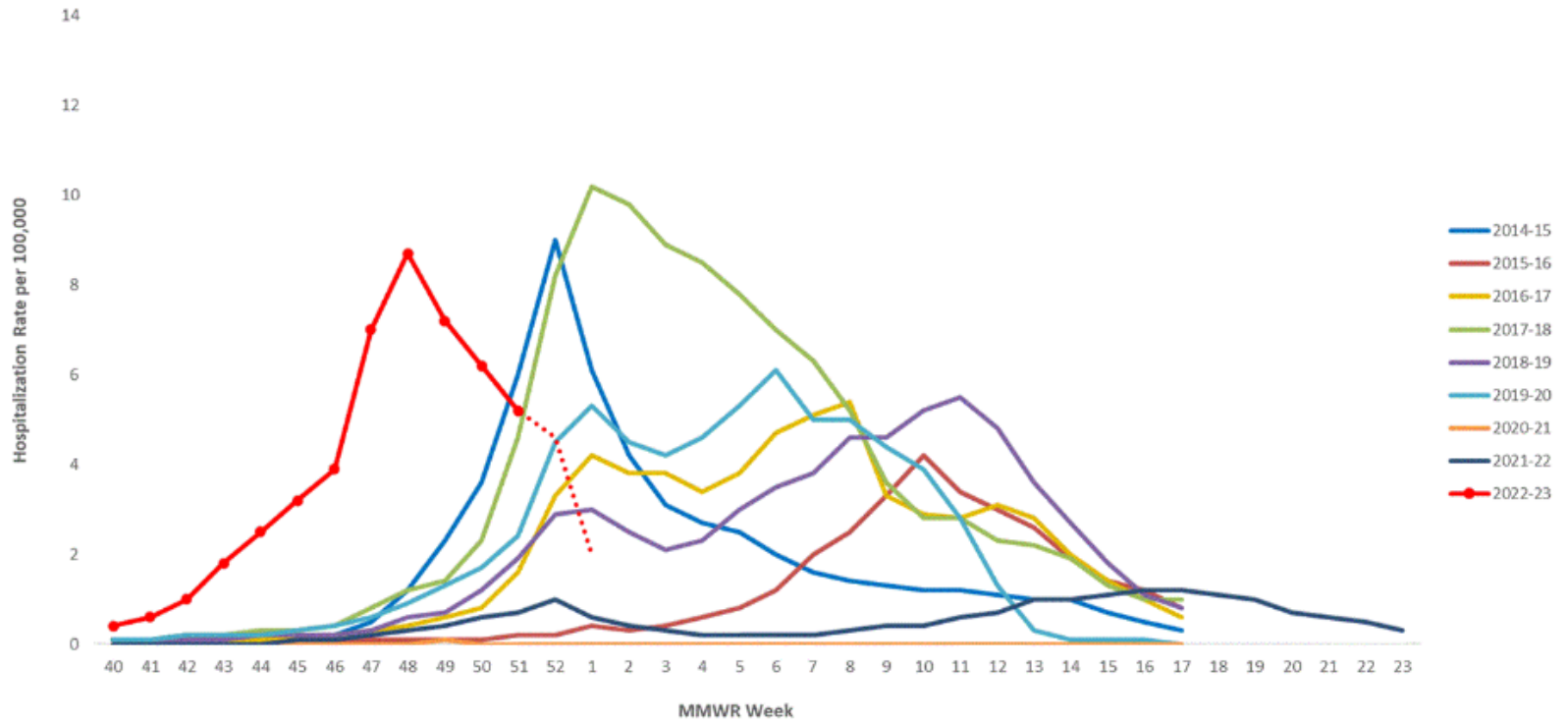


Rates presented likely underestimate actual rates of RSV. Hospitalization rates are based only on those who had positive test results for RSV through a test ordered by a health care professional; not all people hospitalized with respiratory illness are tested for RSV. Lighter-colored dashed lines for the current season indicate potential reporting delays and interpretation of trends should exclude data from recent weeks.

Data last updated: 01/11/2023 | Accessibility: Hover over graph area to display options such as show data as table and copy visual. Note: AI/AN, American Indian or Alaska Native; A/PI, Asian and Pacific Islander.

National Influenza Data - Hospitalizations

Weekly Rate of Laboratory-Confirmed Influenza Hospitalizations among cases of all ages, 2014-15 to 2022-23, MMWR Week 01



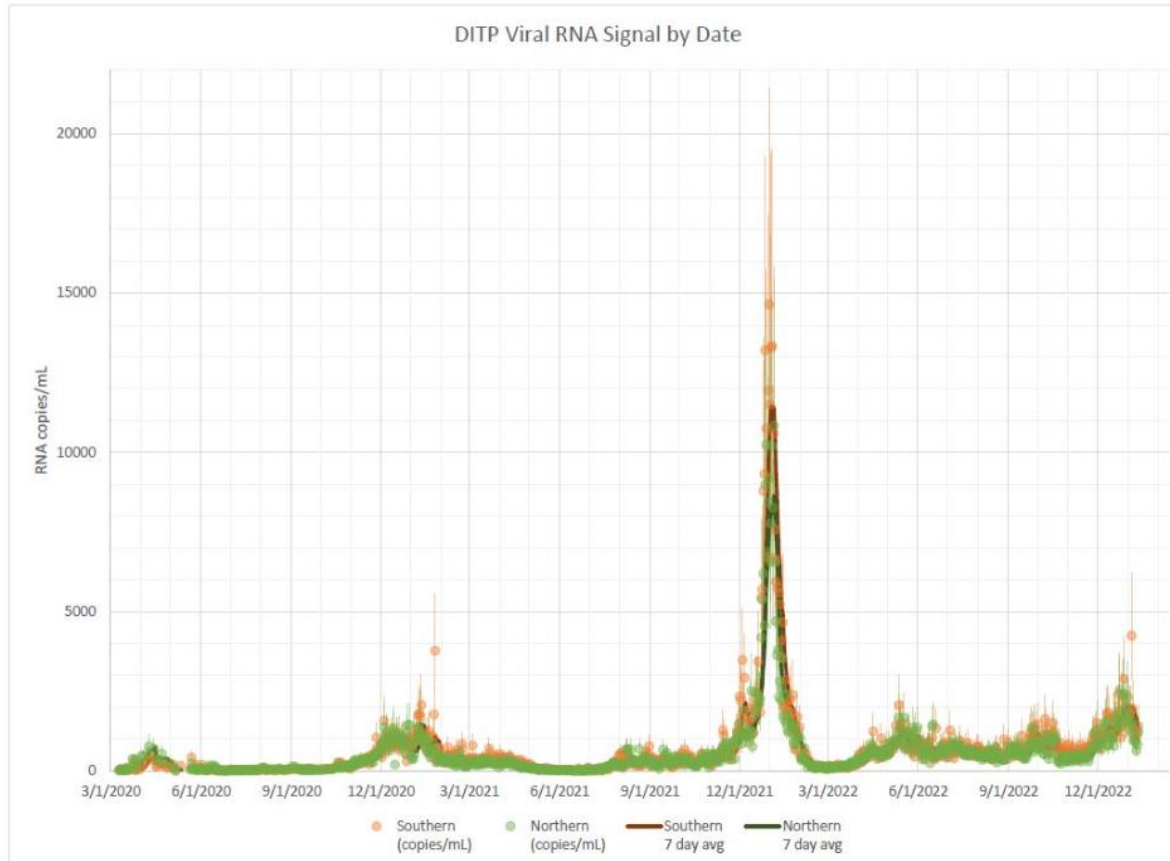


The flu shot is a good match for this year's circulating strains
Everyone 6 months and above should get flu shot now
Walk-in clinics have additional hours but will close Jan 31st

<https://www.healthvermont.gov/disease-control/covid-19/vaccine#walkinclinic>

Massachusetts COVID Wastewater Data

Biobot Data - samples submitted through 01/11/2023



Summary

- Households with young children have frequent illnesses
- Return of endemic viral respiratory illness has been difficult to predict but was expected
- RSV trending down but still circulating
- Flu A trending down but expect a Flu B bump
 - still time for everyone 6 months and older to get their flu shot



2022-2023 Season Updates

John Davy, Ph.D

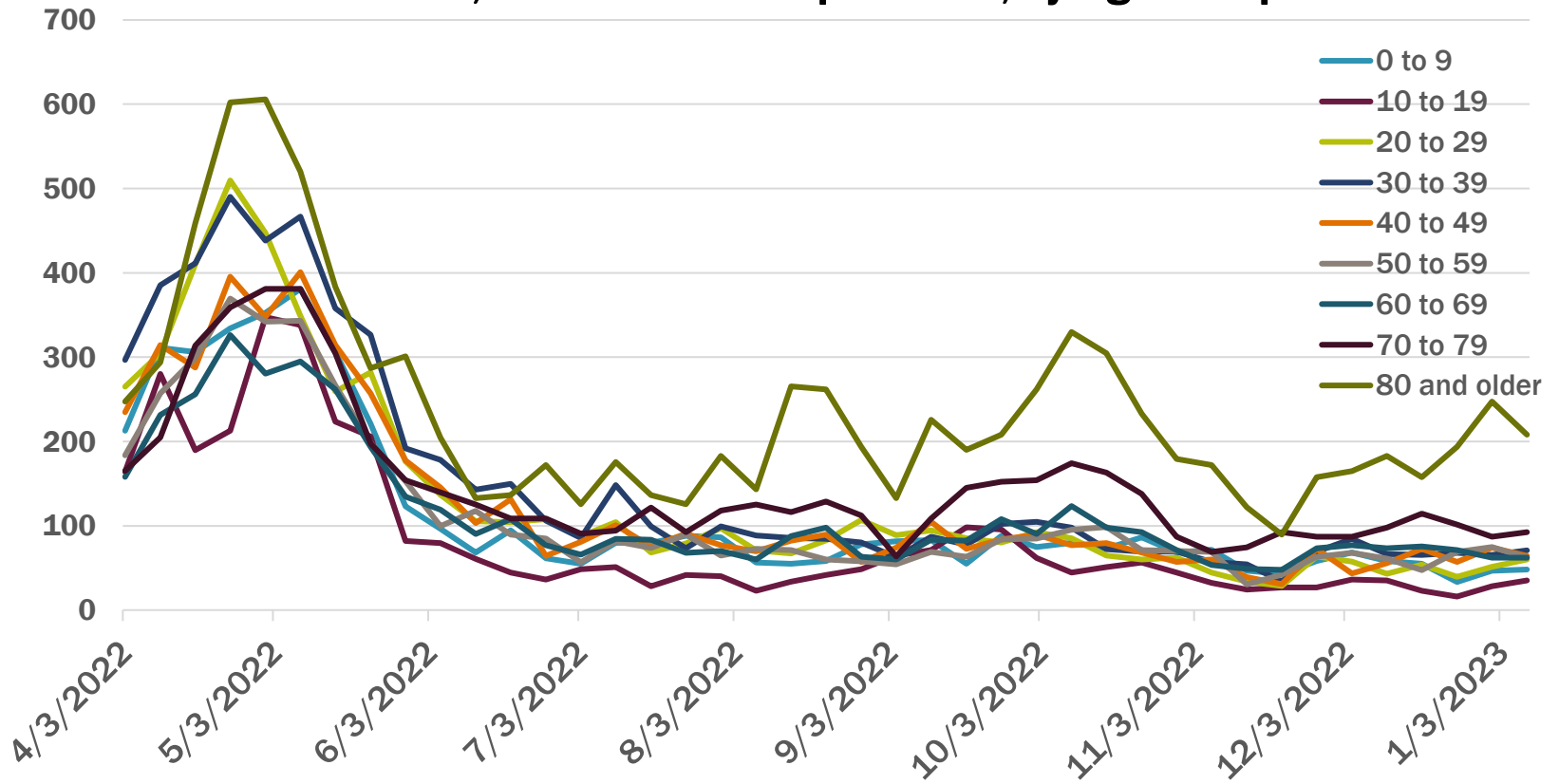
Hilary Fannin, MPH

**Division of Laboratory Sciences & Infectious
Disease**

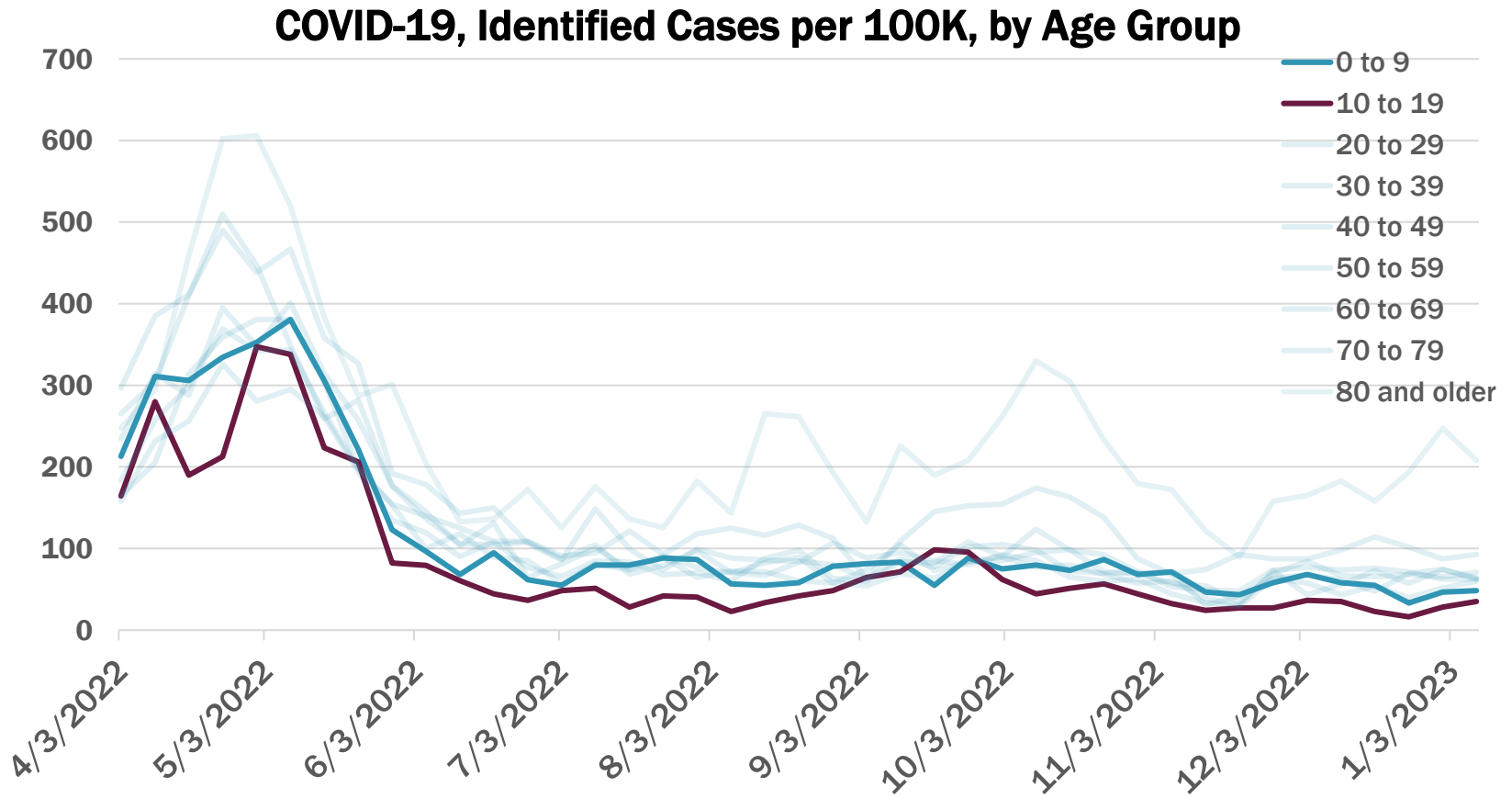
19 January 2023

Quick COVID-19 Update

COVID-19, Identified Cases per 100K, by Age Group

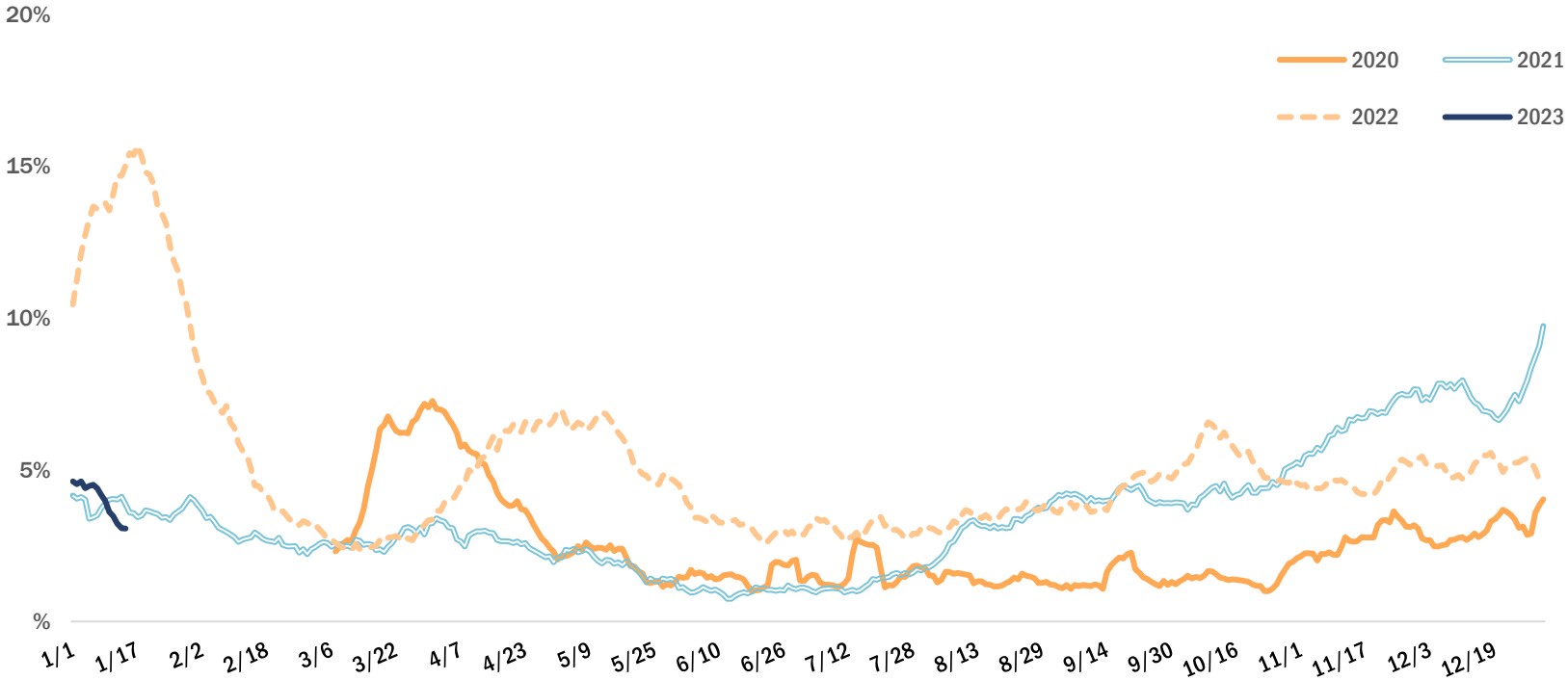


Quick COVID-19 Update



Quick COVID-19 Update

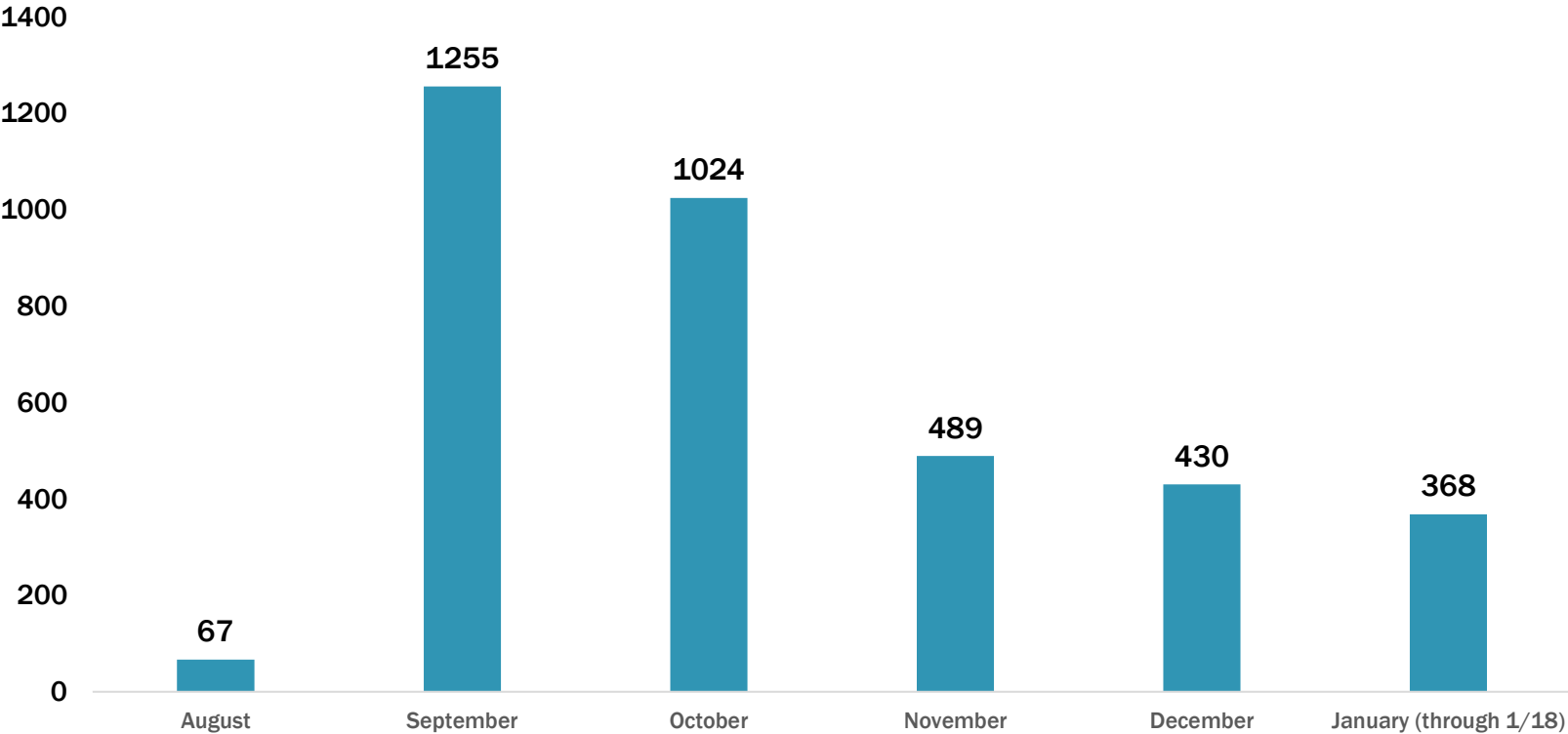
**Percent of Emergency Visits with COVID-Like Illness
Seven-Day Rolling Average, over Calendar Year**



Source: Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE)

Quick COVID-19 Update

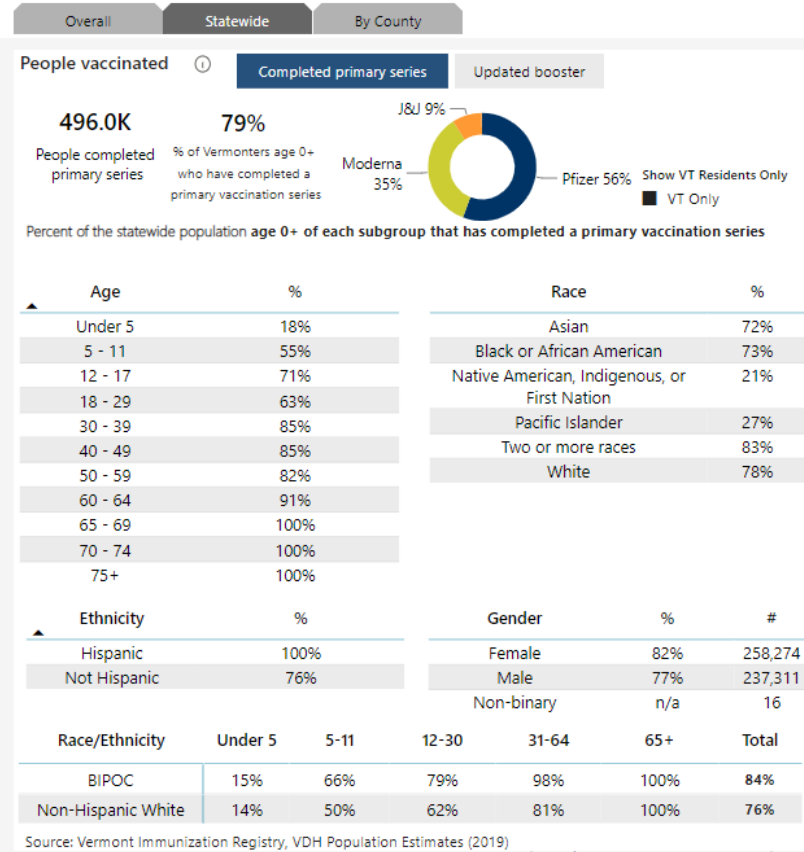
COVID-19 Sickness Reporting by Schools Age <18, SY 2022-2023



Quick COVID-19 Update

Vermont Vaccination Data

Updated 1/18/23 2:05 PM



Data notes

Statewide numbers and percentages are capped at 100%. To protect the identity of individuals, data is suppressed when there are fewer than six people vaccinated in a subgroup. This is shown with an asterisk (*).

Race information is not reported for 3% of people vaccinated.

Race/ethnicity information is not reported for 5% of people vaccinated.

Ethnicity information is not reported for 4% of people vaccinated.

BIPOC refers to Black, Indigenous, and people of color.

Gender information is not reported for <0.5% of people vaccinated. The categorization of male/female for some people is based on sex assignment at birth, while for others, it is based on gender. This is due to the varying sources and ways the information is reported.

Gender not reported may mean the provider did not collect that information, the patient did not provide it, or the provider or the patient selected a category other than male or female.

Non-binary means a person whose gender identity is not exclusively male or female, including, but not limited to, a person whose gender identity is intersex, agender,

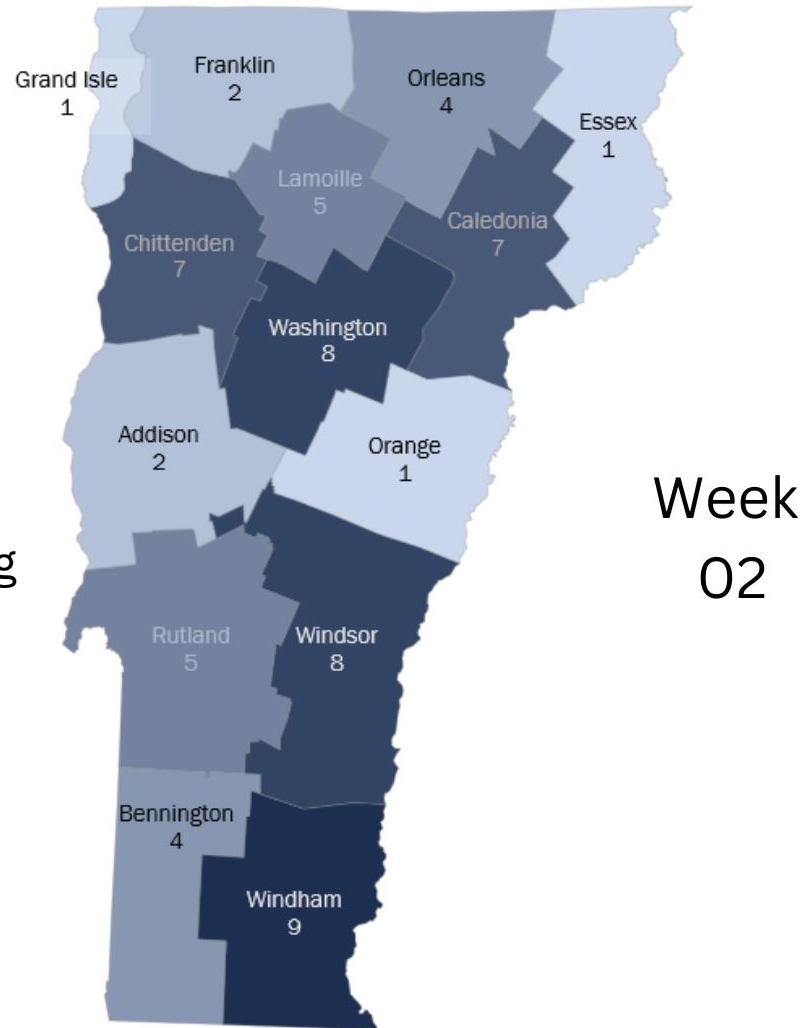
Seasonal Influenza Updates

- Vermont Seasonal Influenza Surveillance Updates (outbreak reporting, sentinel provider program, syndromic data)
- National Seasonal Influenza Information
- Vermont flu vaccination information
- Pediatric influenza communication – CDC EPIC
- Questions
- Resources

2022-23 Cumulative Outbreak Reporting:

www.healthvermont.gov/fluoutbreak

Click on the map for an animation of outbreak reporting during the flu season from Week 40 (week ending October 8) to Week 02 (week ending January 14).



ILINet Surveillance Provider recruitment is always open!

Influenza Surveillance Facilities by Region and District Office

District Office	Flu Region	Syndromic Surveillance Facility	ILINet Providers	District Office	Flu Region	Syndromic Surveillance Facility	ILINet Providers
Barre	Central	Central Vermont Medical Center	The Health Center	Newport	Northeast		NVU Lyndon Health & Counseling
Bennington	Southwest	Southwestern Vermont Medical Center		Rutland	Southwest	Rutland Regional Medical Center	
Burlington	Northwest	UVM Medical Center UVM Medical Center Walk-In Clinic	UVM Student Health Center	Springfield	Southeast	Springfield Hospital	Springfield Hospital
			St. Michael's College Student Health	St. Johnsbury	Northeast		Northeast Vermont Regional Hospital
			Champlain College Student Health Center	White River Junction	Central		White River Family Practice Mt. Ascutney Hospital
Middlebury	Southwest	Porter Medical Center	Rainbow Pediatrics				
Morrisville	Northwest	Copley Hospital	Lamoille Family Medicine, Stowe				

ILINet Surveillance Provider recruitment is always open!



Sentinel Flu Provider Information

Sentinel flu providers help improve flu surveillance.



Sentinel flu providers help the Health Department monitor flu activity and understand how flu is affecting Vermonters by submitting data each week to the national flu surveillance network.

What is ILINet?

ILINet is the U.S. Outpatient Influenza-like Illness (ILI) Surveillance Network. Providers across the country volunteer to send year-round ILI data to CDC. This is used in combination with other influenza surveillance data by Vermont and CDC to get a picture of influenza activity within the state and across the country.

Who can be a sentinel provider?

Physicians, physician assistants and nurse practitioners of any specialty and in any type of practice are eligible. Practice settings that are not eligible are elementary, middle or high school health centers and any type of institutional setting, like long-term care facilities or correctional facilities.

What is required of sentinel providers?

Sentinel providers spend a few minutes each week entering the total number of patient visits and the number of patient visits for ILI by age group (0-4, 5-24, 25-49, 50-64, and 65+) through the ILINet Internet Reporting System.

What is the case definition for ILI?

ILI is defined as fever (recorded temperature of >100°F) and cough and/or sore throat.

How does a provider become a sentinel provider?

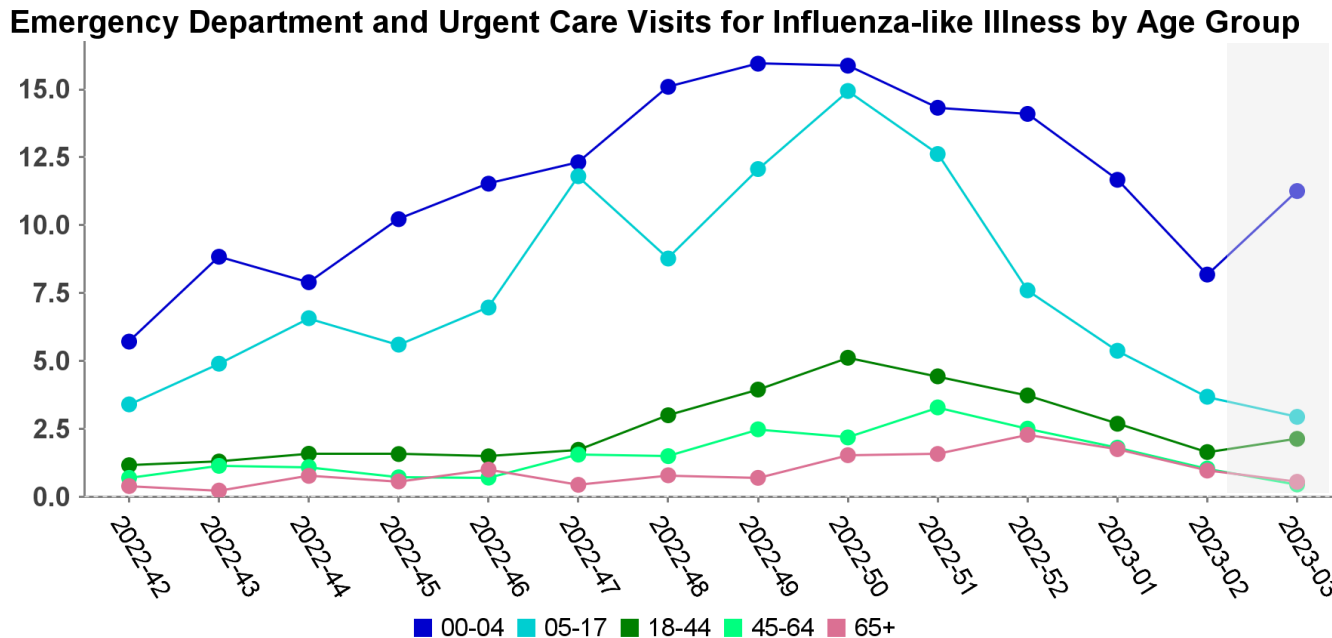
To enroll as a sentinel provider, please e-mail the information below to Hilary Fannin at hilary.fannin@vermont.gov:

- Name
- Practice name and type
- Address, city, zip
- Telephone number
- Fax number
- Primary and secondary e-mail address

If the provider is not the primary contact for flu surveillance and someone else in the office will be submitting weekly data, please list the name and email address of that person.

Vermont Syndromic Surveillance

Percent of total visits to emergency departments and urgent cares with patient age reported are consistently highest in patients ages 0-17 (ESSENCE).



Week 3 data submission is ongoing and likely to change by reporting on 1/27

Source: Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE)

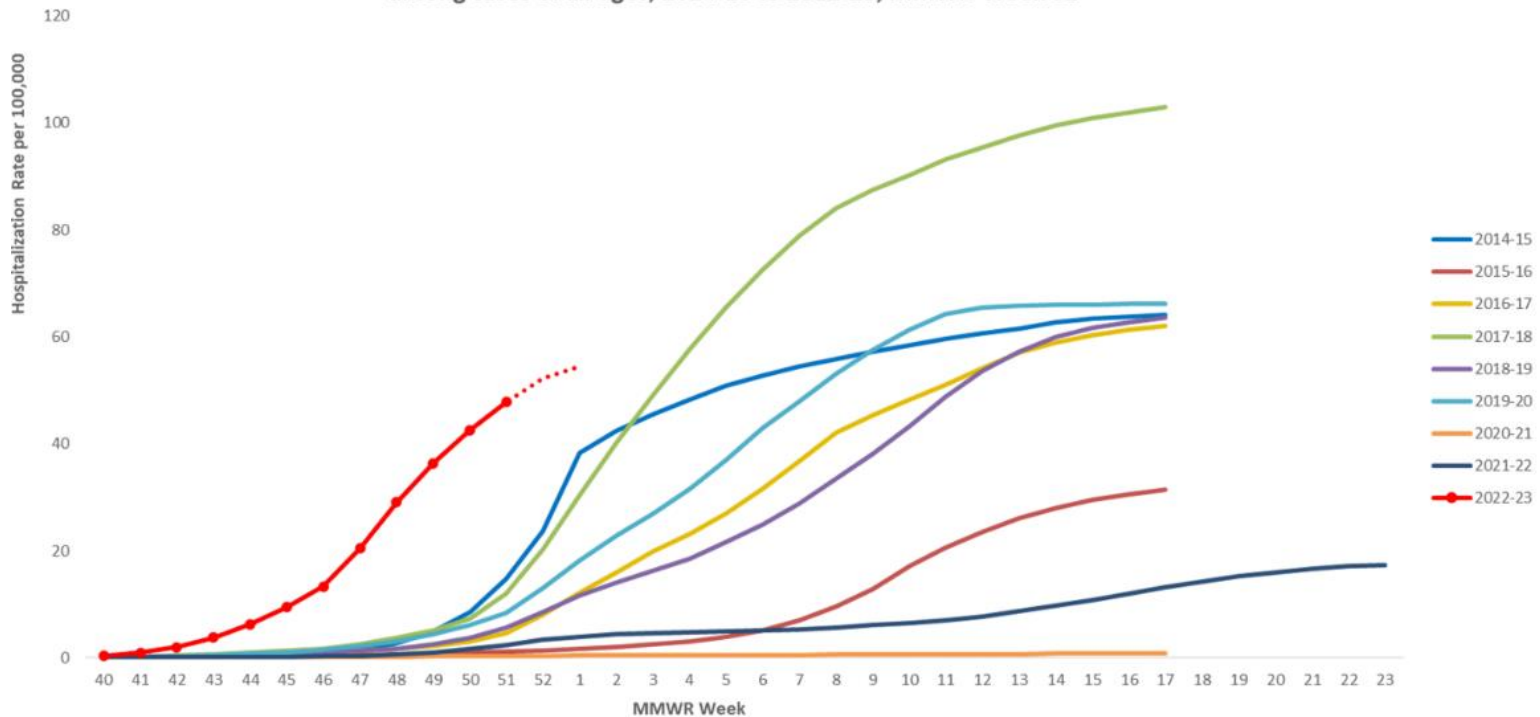
Vermont NREVSS Data – Week 02

The **National Respiratory and Enteric Virus Surveillance System** (NREVSS) collects data on the number of PCR flu tests performed by participating Vermont labs and how many were positive. This helps determine flu activity in the community.

6.2% of PCR tests run this week were positive, a decrease compared to 11.95% the previous week. Of the total positive tests this week, all were influenza A. During the 2022-23 season, 16.7% of flu PCR tests reported through NREVSS have been positive.

National Syndromic Data – CDC EPIC Webinar

Cumulative Rate of Laboratory-Confirmed Influenza Hospitalizations among cases of all ages, 2014-15 to 2022-23, MMWR Week 01



**In this figure, weekly rates for all seasons prior to the 2022-23 season reflect end-of-season rates. For the 2022-23 season, rates for recent hospital admissions are subject to reporting delays and are shown as a dashed line for the current season. As hospitalization data are received each week, prior case counts and rates are updated accordingly.

National Syndromic Data – CDC

<https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm>

CDC estimates* that, from **October 1, 2022** through **January 7, 2023**, there have been:

24 – 47 million
flu **illnesses**



11 – 23 million
flu **medical visits**



260,000 – 560,000
flu **hospitalizations**

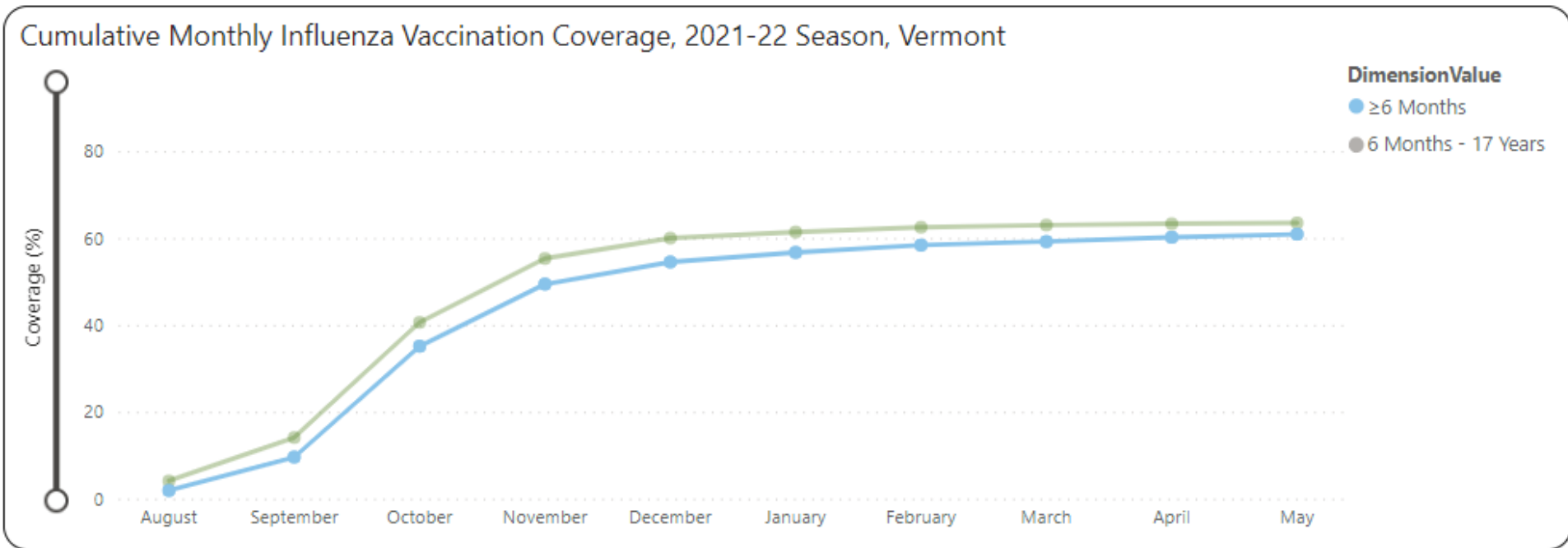


16,000 – 48,000
flu **deaths**



*Because influenza surveillance does not capture all cases of flu that occur in the U.S., CDC provides these estimated ranges to better reflect the larger burden of influenza. These estimates are calculated based on data collected through CDC's Influenza Hospitalization Surveillance Network (FluSurv-NET) and are **preliminary**.

Previous season vaccination coverage



<https://www.cdc.gov/flu/fluview/interactive-general-population.htm>

Communication tools for vaccination and flu:

<https://www.cdc.gov/flu/resource-center/shareable-resources.htm>



Communication tools for vaccination and flu:

Healthcare Provider Fight Flu Toolkit

<https://www.cdc.gov/flu/professionals/vaccination/prepare-practice-tools.htm>

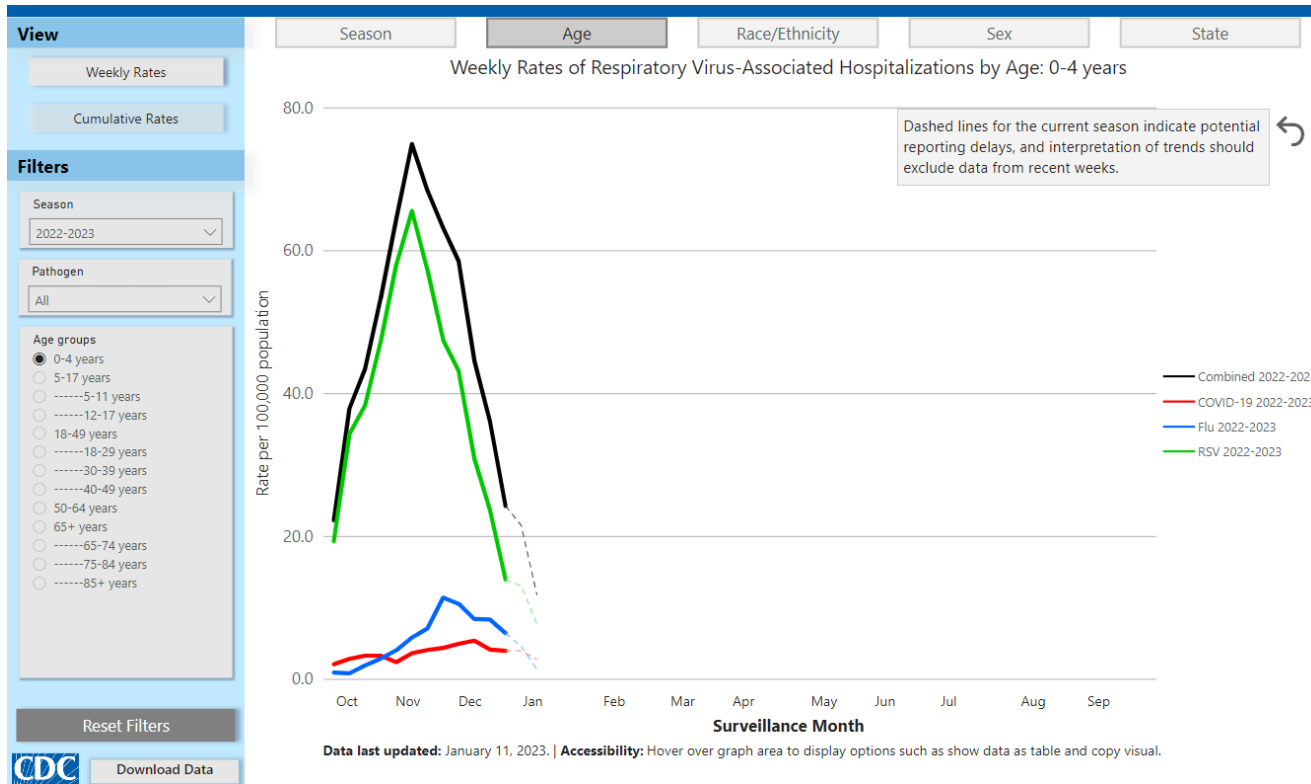


CDC EPIC Presentation 11/29/22: Flu, RSV, COVID-19 and other Respiratory Threats this Fall and Winter

- Prevention steps (slide 15)
- COVID-19 and Flu vaccine advice
 - Who should get vaccines?
 - What are the vaccines?
- Signs and symptoms of viruses (slide 24)
 - Emergency warning signs for children (slide 29)
 - Testing guidance (slide 31)
- Communications Resources (side 36)

https://emergency.cdc.gov/epic/learn/2022/webinar_20221129.asp

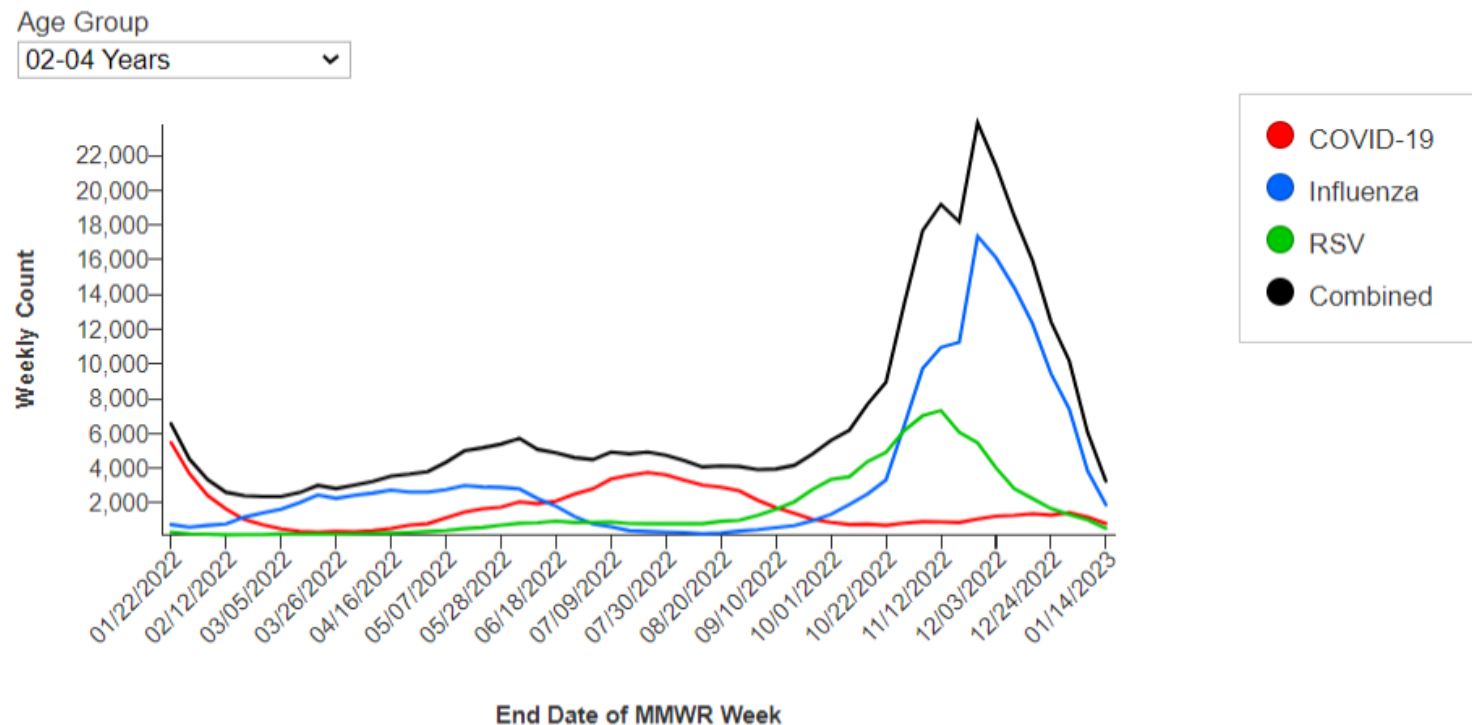
NEW! Respiratory Virus Hospitalization Surveillance Network (RESP-NET)



The [Respiratory Virus Hospitalization Surveillance Network \(RESP-NET\)](#) interactive dashboard comprises data from acute care hospitals in select counties in 13 states covering more than 29 million people and include an estimated 8-10 percent of the U.S. population. (Does not include Vermont)

NEW! National Emergency Department Visits for COVID-19, Influenza, and Respiratory Syncytial Virus

Weekly Emergency Department Visits by Age Group



<https://www.cdc.gov/ncird/surveillance/respiratory-illnesses/>

Shared Links

CDC EPIC Webinar:

https://emergency.cdc.gov/epic/learn/2022/webinar_20221129.asp

Vermont ILI/Flu Outbreak Resources:

www.healthvermont.gov/fluoutbreak

Vermont Flu Surveillance:

<https://www.healthvermont.gov/immunizations-infectious-disease/influenza/flu-activity-and-surveillance>

VT Dept. of Health COVID-19 and Flu Communication Toolkit:

https://drive.google.com/drive/folders/1FkbsqNqbAE7b68Y8xxnA_Eliw2F-UAdL

CDC Flu Communication Toolkits:

<https://www.cdc.gov/flu/resource-center/toolkit/index.htm>

<https://getmyflushot.adcouncilkit.org/psas/tv/>

Shared Links

CDC FluView: <https://www.cdc.gov/flu/weekly/index.htm>

CDC Seasonal Flu Burden:
<https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm>

CDC HAN Interim Guidance for Clinicians to Prioritize Antiviral Treatment of Influenza in the Setting of Reduced Availability of Oseltamivir:
<https://emergency.cdc.gov/han/2022/han00482.asp>

Resources for sourcing flu antivirals:

- [Availability of Antiviral Medications](#)
- [FDA Drug Shortage Website with Searchable Database](#) -- Please also note the influenza antiviral report linked on the website about halfway down the page.



Thank you!

Let's stay in touch.

Email: hilary.fannin@vermont.gov

Web: healthvermont.gov

Social: [@healthvermont](https://twitter.com/healthvermont)

Brief Recommendations for Respiratory Illnesses



Recommendations for Respiratory Illnesses in School and Child Care

December 2022

Our shared goal is to keep children in school and child care whenever possible while ensuring optimal health and safety for children and staff. If a child or staff member is not well enough to participate, they should stay home or be sent home if already in school or care.

To promote better outcomes for the children in your community, prioritize good communication with pediatric medical homes in your area and align your sickness policies with the medical homes and Health Department recommendations.

Summary of Recommendations

	RSV and Flu	COVID-19
Is a test recommended?	No, unless a health care provider recommends it if it will change the course of treatment	If symptomatic, yes
How long should someone stay home?	Once symptoms improve and fever has resolved (without fever-reducing medication) for 24 hours, return to work or school. There is not a recommended specific time period.	Isolate for 5 days after a positive test or onset of symptoms. End isolation after day 5 if symptoms have improved and no fever for at least 24 hours without the use of fever-reducing medication.
Is a negative test or doctor's note recommended to return to school or child care?	No	No

General Prevention and Treatment

- Everyone over the age of 6 months should be vaccinated against flu and COVID-19. Encourage families to reach out to their health care providers (and pharmacies for children ages 3 and up) to receive their vaccines.
- Most children with respiratory illness will recover with home care. Encourage families to talk to their health care provider if they have concerns.
- Encourage general prevention tips: Wash your hands often, avoid contact with others if you or they are sick, cover up coughs and sneezes, and consider wearing a mask, especially if you or people you are with are at higher risk of serious illness, or if you have recently been around someone with symptoms of COVID-19
- For more information, visit the [Centers for Disease Control and Prevention](#) and the [American Academy of Pediatrics](#).

Can be found on [COVID-19 Guidance for Child Care and Out-of-School Programs](#) page