



# Provider Update Call

## July 11, 2024

Katie Mahuron, RN – *Adult Coordinator*

Meghan Carey, RN – *Nurse Program Coordinator*

# Please note this meeting will be recorded

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# Today's Agenda

- **COVID-19**
- **Flu**
- **RSV**
- **General Vaccine Recommendations**
- **Compliance Reminders**
- **IMR Updates**
- **Questions**



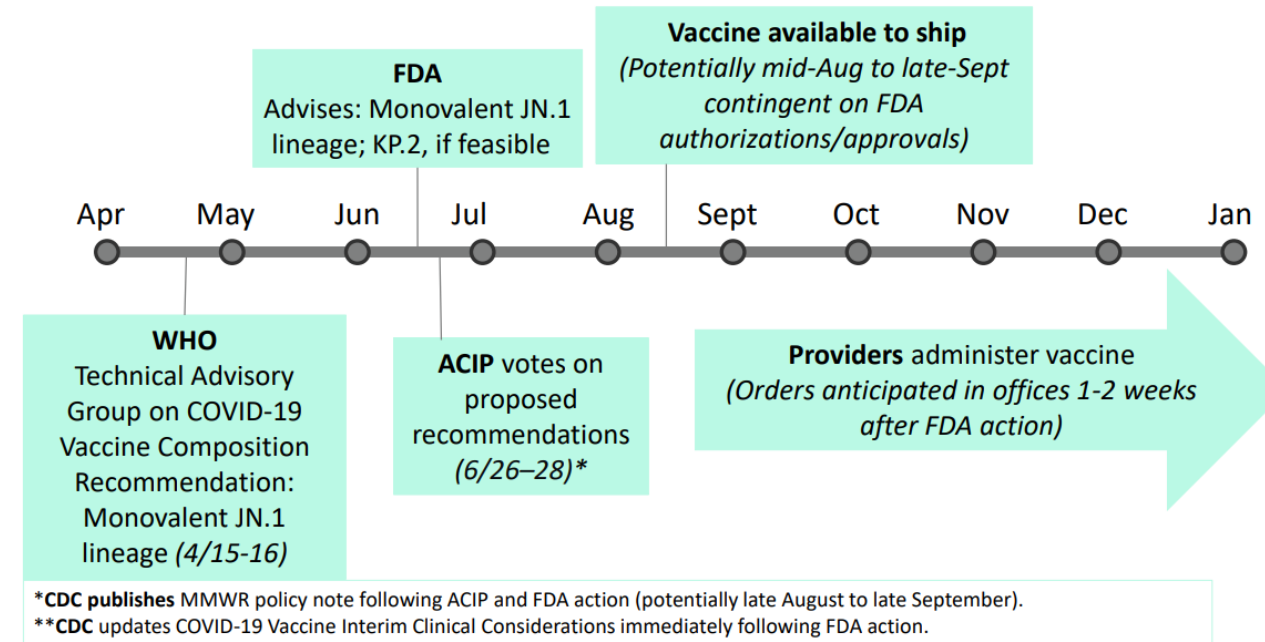
# COVID-19



# 2024-2025 COVID-19 Vaccines

- FDA recommended manufacturers monovalent JN.1 lineage
  - Recommended KP.2, if feasible
- ACIP recommends 2024-2025 COVID-19 vaccines as authorized or approved by FDA in persons  $\geq 6$  months of age.
  - Do not anticipate significant changes to clinical considerations.

## Prospective 2024 COVID-19 vaccine timeline



[CDC Presentation](#)

# 2024-2025 COVID-19 Vaccines

## mRNA COVID-19 vaccines:

- Moderna – 6m+ (PFS)
- Pfizer – 6m+ (PFS 12+; SDV 5-11 yrs; MDV 6m – 4 yrs)

## Protein subunit COVID-19 vaccine:

- Novavax – 12 yrs+ (PFS)
- Available upon request
  - email Immunization Program



# Community Access

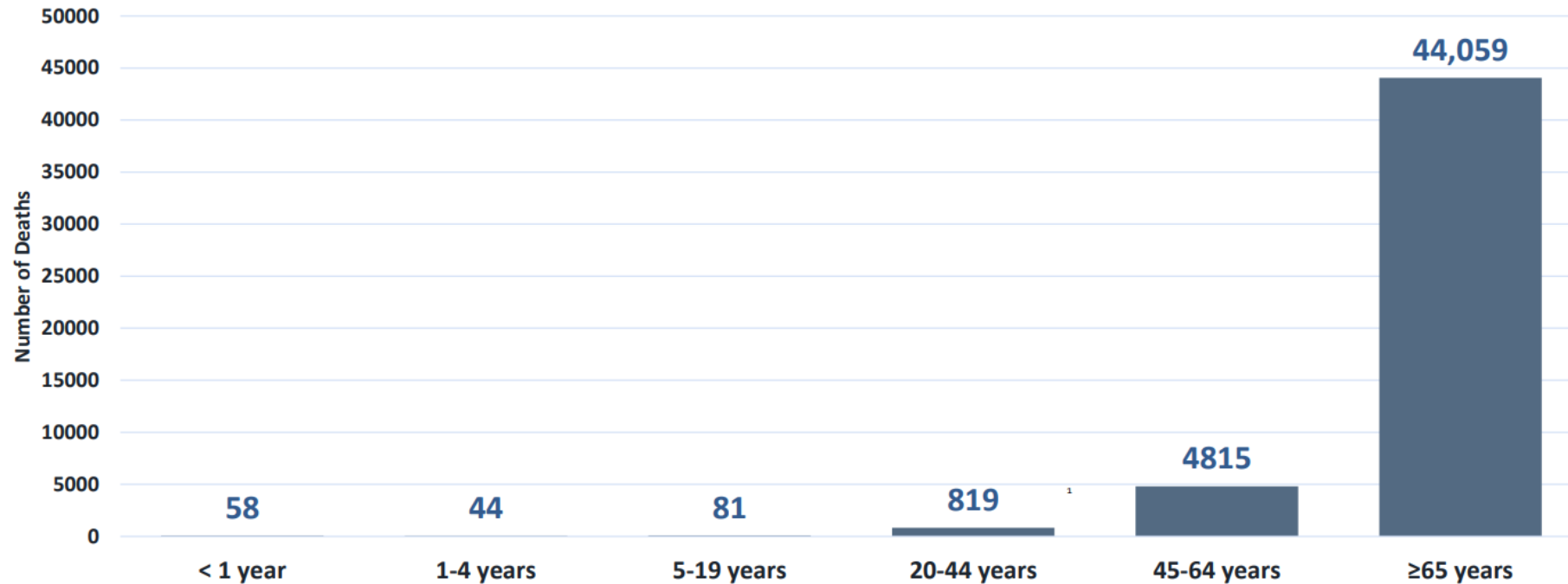
- 2024-2025 will be the second year of commercialized COVID-19 vaccine
  - COVID-19 vaccine must be private purchased for 65 years and older
- Bridge Access Program has ended– federal program that provided vaccines at no cost to underinsured and uninsured adults at FQHCs and participating pharmacies (Walgreens, CVS, Kinney Drugs, etc.)
  - Funding through program to offer EMS clinics is no longer available
- No funding for large-scale community clinics
  - AAP grants will be available to providers
- Pharmacy capacity, VNA and provider capacity in some areas remain strained
- **Please consider private purchasing COVID-19 vaccine for those who are 65 years and older.**
  - Provider offices are the preferred access point for many older Vermonters.





# COVID-19: Burden of Disease

## Total number of COVID-19-associated deaths<sup>1,2</sup> in 2023, by age group, United States



[CDC Presentation](#)

<sup>1</sup> Provisional data

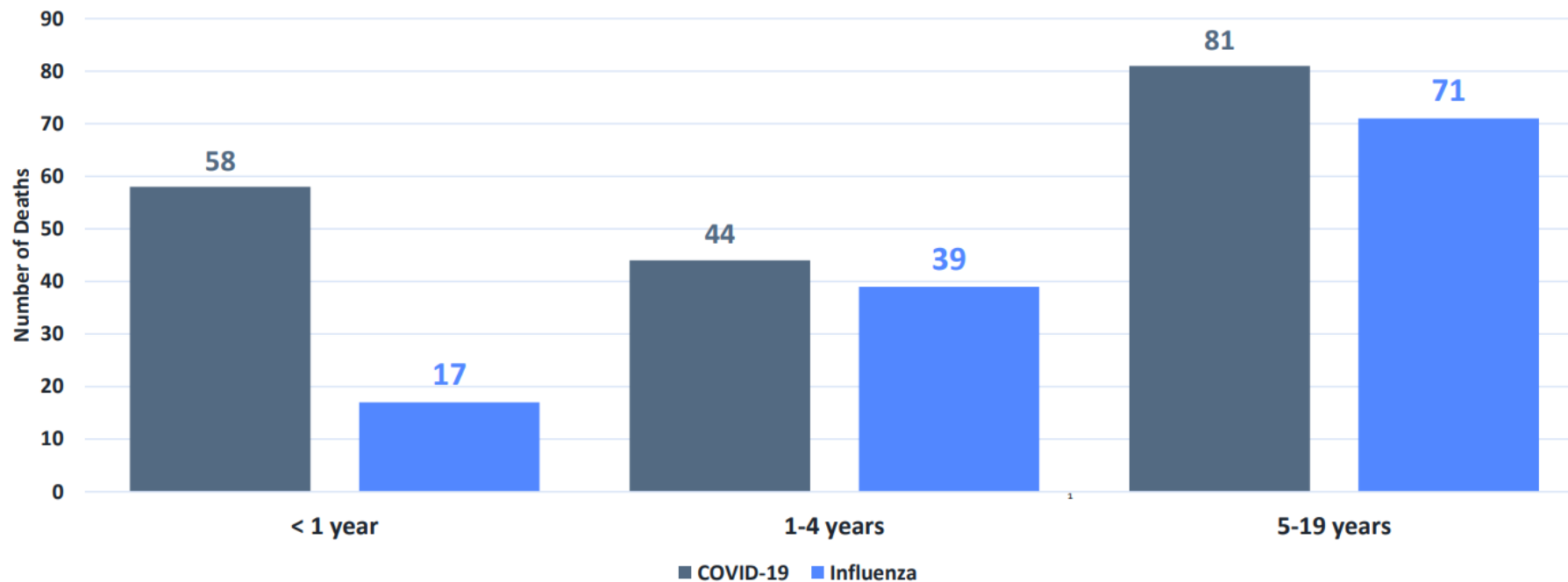
<sup>2</sup> Underlying cause of death

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Provisional Mortality on CDC WONDER Online Database. Data are from the final Multiple Cause of Death Files, 2018-2022, and from provisional data for years 2023-2024, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Number of deaths includes COVID-19 code (U07.1) as the underlying cause of death. Accessed at <http://wonder.cdc.gov/mcd-icd10-provisional.html> on June 5, 2024



# COVID-19: Burden of Disease: Pediatric COVID-19 vs. Flu Deaths

Total number of COVID-19 and Influenza-associated deaths<sup>1,2</sup> in 2023, by age group, United States



[CDC](#)  
[Presentation](#)

<sup>1</sup> Provisional data

<sup>2</sup> Underlying cause of death

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Provisional Mortality on CDC WONDER Online Database. Data are from the final Multiple Cause of Death Files, 2018-2022, and from provisional data for years 2023-2024, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Number of deaths includes influenza codes (U09) and COVID-19 code (U07.1) as the underlying cause of death. Accessed at <http://wonder.cdc.gov/mcd-icd10-provisional.html> on June 5, 2024

Note: Estimates of pediatric influenza deaths reported to CDC can be found here: <https://www.cdc.gov/flu/weekly/index.htm>. Estimates will vary due to differences in reporting methods and timeframes used.

# INFLUENZA

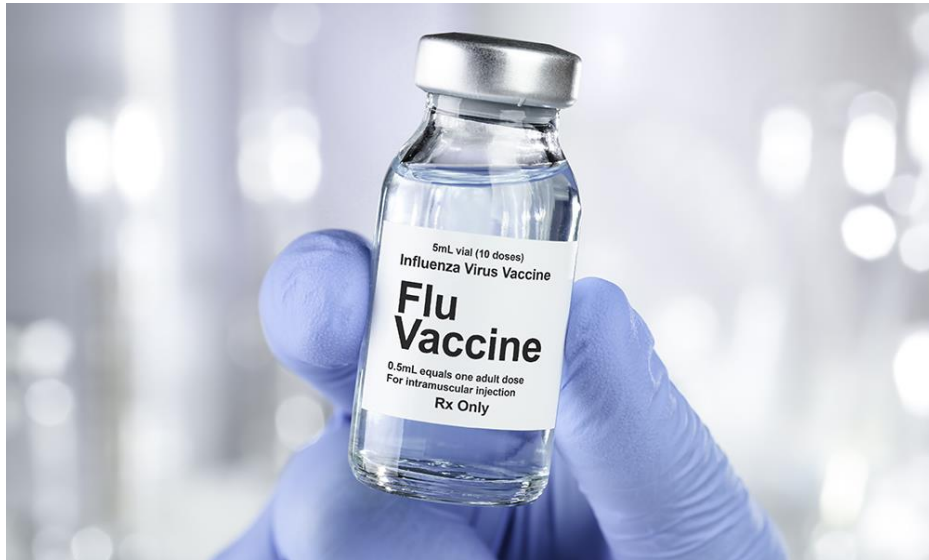


# 2024-2025: Trivalent Influenza Vaccines

- All flu vaccines for the upcoming flu season will be trivalent.
- Have removed B/Yamagata strain.
  - B/Yamagata flu viruses have not circulated in the population after March 2020
  - WHO recommended removal of B/Yamagata viruses due to theoretical risk of reintroduction
- Other countries may still be using quadrivalent as they manufacturers switch to trivalent.



# Flu Vaccine Composition



## Egg-based vaccines

- an A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- an A/Thailand/8/2022 (H3N2)-like virus; and **(Updated)**
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

## Cell- or recombinant-based vaccines

- an A/Wisconsin/67/2022 (H1N1)pdm09-like virus;
- an A/Massachusetts/18/2022 (H3N2)-like virus; and **(Updated)**
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

[Information for the 2024-2025 Flu Season | CDC](#)

# ACIP Recommendations



- ACIP reaffirms the recommendation for routine annual influenza vaccination of all persons aged  $\geq 6$  months who do not have contraindications.
- ACIP recommends high-dose inactivated (HD-IIV3) and adjuvanted inactivated (aIIV3) influenza vaccines as acceptable options for solid organ transplant recipients aged 18 through 64 years who are on immunosuppressive medication regimens, without a preference over other age-appropriate IIV3s or RIV3

# Timing and Vulnerable Populations

- September and October are preferred timing for vaccination.
- Some children (6 months – 8 years) need two doses of influenza vaccine.
- Pregnant individuals are at [increased risk](#) for [serious complications](#).
  - [2023 JAMA Pediatrics study](#) demonstrated that infants younger than 6 months birthed by individuals who were vaccinated during pregnancy were protected from flu-related ED visits and hospitalizations
- Preferential recommendation for individuals 65 years and older to receive high-dose or adjuvanted flu vaccines
  - If unavailable, acceptable to get a standard-dose, unadjuvanted inactivated flu vaccine.
  - National data demonstrates vulnerability of this group: [estimated 70-85 percent](#) of seasonal flu-related deaths have occurred in people 65 years and older.



# H5N1 (Highly Pathogenic Avian Influenza A)

- Multistate outbreak of A(H5N1) in dairy COWS
  - 4 human cases: 1 in TX, 2 in MI, 1 in CO
  - All have been very mild
- No cases in dairy (or humans) in New England
- Current risk to public is low
- Seasonal flu vaccine does not protect against H5N1
  - Vaccine is being developed for Strategic National Stockpile
- CDC recommends seasonal flu vaccination to prevent co-infection and potential genetic mutation of virus.
  - Consider presumptive language with farmers/farmworkers.





# RSV



# Protecting Infants: RSV vaccine or RSV monoclonal antibody

Pregnant individual can get  
RSV vaccine (Abrysvo) during  
pregnancy

Infant can get RSV antibody  
(nirsevimab) after birth

September

October

November

December

January

February

March

April

May

June

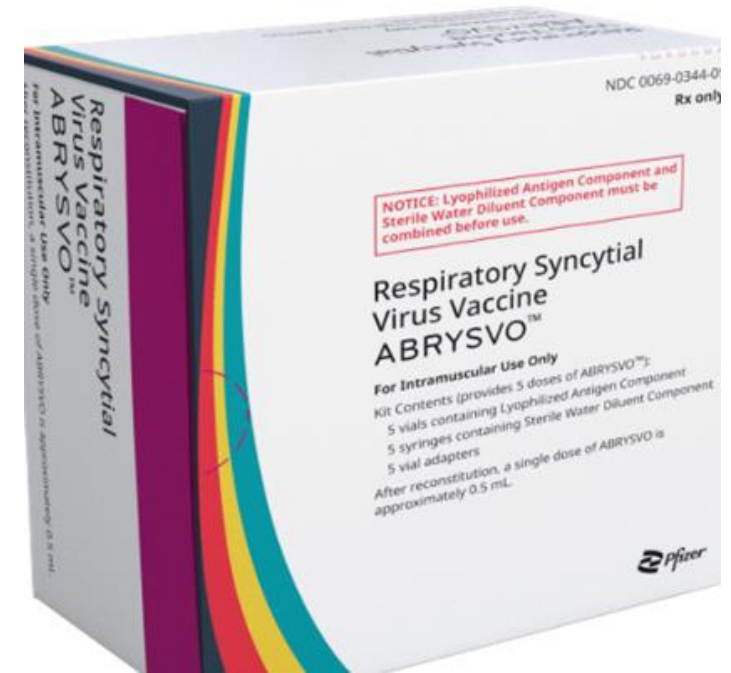
July

August

Babies born during these months  
should get **RSV antibody**  
(nirsevimab) in October

# RSV for Pregnant Individuals: Abrysvo

- Provides protection to infant from severe RSV disease through passive immunity.
- Administer September 1 – January 31 to pregnant individuals who are 32 weeks, 0 days – 36 weeks, 6 days gestation
- **Abrysvo** is the *only* RSV vaccine approved for use during pregnancy
- Can be accessed through VFC/VFA enrolled OB/GYNs or PCPs and at pharmacies
- No effectiveness data available at this time due to limited uptake
- Currently only a single dose per lifetime per pregnant individual
  - If a pregnant individual received Abrysvo in 2023-2024, do not administer an additional dose during a subsequent pregnancy in 2024-2025



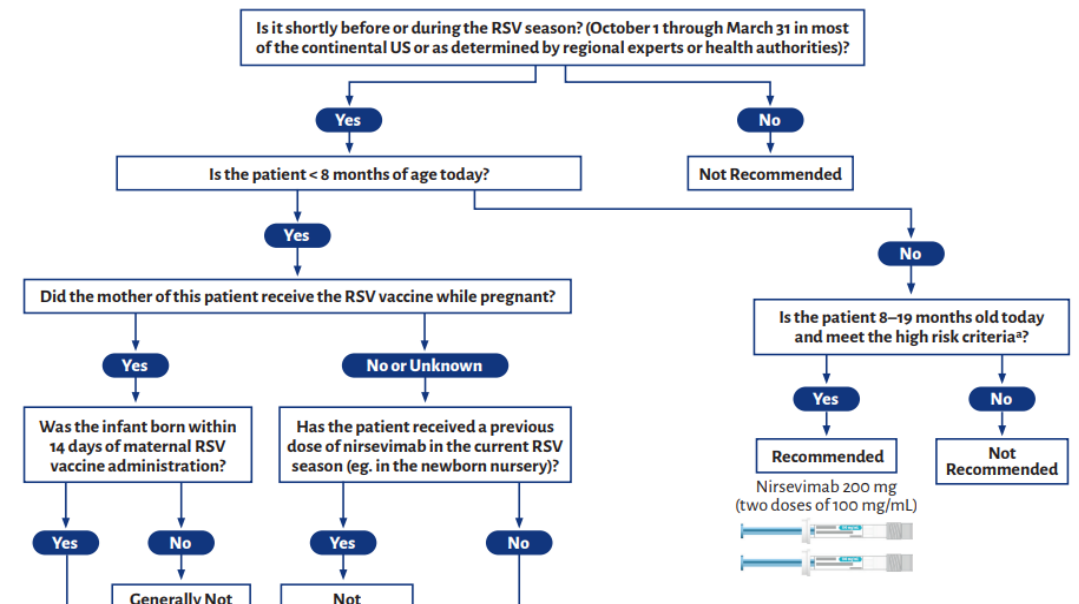
# Nirsevimab

- ACIP recommendation:
  - Universal recommendation for infants 8 months and younger\*
  - 50 mg dose for infants < 5kg
  - 100 mg dose for infants  $\geq$  5kg
- Children 8-19 months at increased risk of severe RSV disease
- Single 200 mg dose of nirsevimab

\*Do not need nirsevimab if born to a pregnant individual who received RSV vaccine during pregnancy (unless infant was born within 14 days of RSV vaccination during pregnancy)

## Nirsevimab Administration Visual Guide

American Academy of Pediatrics  
DEDICATED TO THE HEALTH OF ALL CHILDREN®



[Nirsevimab-Visual-Guide.pdf \(aap.org\)](#)

# Considerations for Administration of Nirsevimab

- Coordinate with OB/GYNs and birthing facilities to determine plan for protection.
  - Consider plan for ensuring pregnancy/birth immunization history as a part of discharge/warm handoff.
- Primary care provider will be single source for access for older infants (those born April – August).

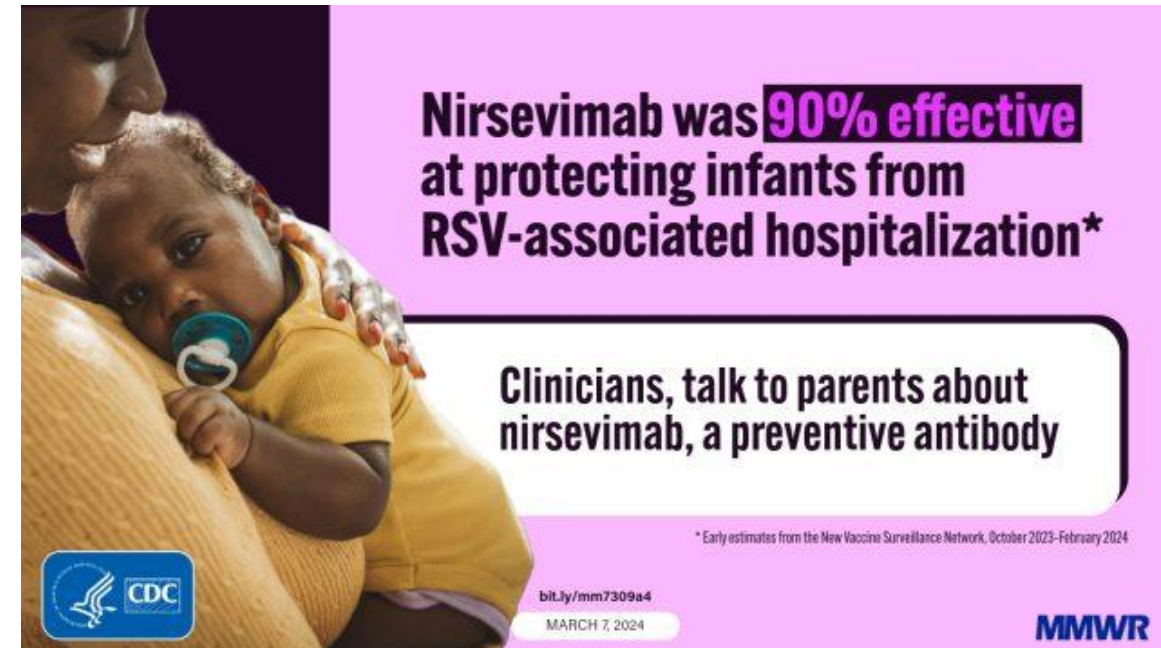
## *Enrolled Birthing Facilities:*

- UVM Medical Center – NICU
- UVM Medical Center – NTS (Step Down)
- UVM Medical Center – Mother Baby Unit
- SVMC – Women's & Children's Services
- Gifford Medical Birth Center
- Rutland Regional Medical Center – Birthing Center
- UVMHN CVMC Birthing Center
- Brattleboro Memorial Hospital – Birthing Hospital
- Northwestern Medical Center – Family Birth Center
- Porter Medical Center – Birthing Center

# Nirsevimab (Beyfortus) - Monoclonal antibody

## 2024-2025 Availability:

- Manufacturer has stated they conservatively believe we will have enough product for around 80% of the birth cohort nationally.
- Plan to front load 100 mg doses for older infants entering into respiratory virus season.
- Sanofi analyzed additional data for nirsevimab that supports a cumulative temperature excursion which aligns with other immunizations in the units.
- Limited availability early September, ramping up during September, broadly available by October 1 (administration period starts October 1)



[Early Estimate of Nirsevimab Effectiveness for Prevention of Respiratory Syncytial Virus–Associated Hospitalization Among Infants Entering Their First Respiratory Syncytial Virus Season — New Vaccine Surveillance Network, October 2023–February 2024 | MMWR \(cdc.gov\)](https://www.cdc.gov/mmwr/preview/mmwrhtml/early-estimate-nirsevimab-effectiveness-20240307a4.htm)

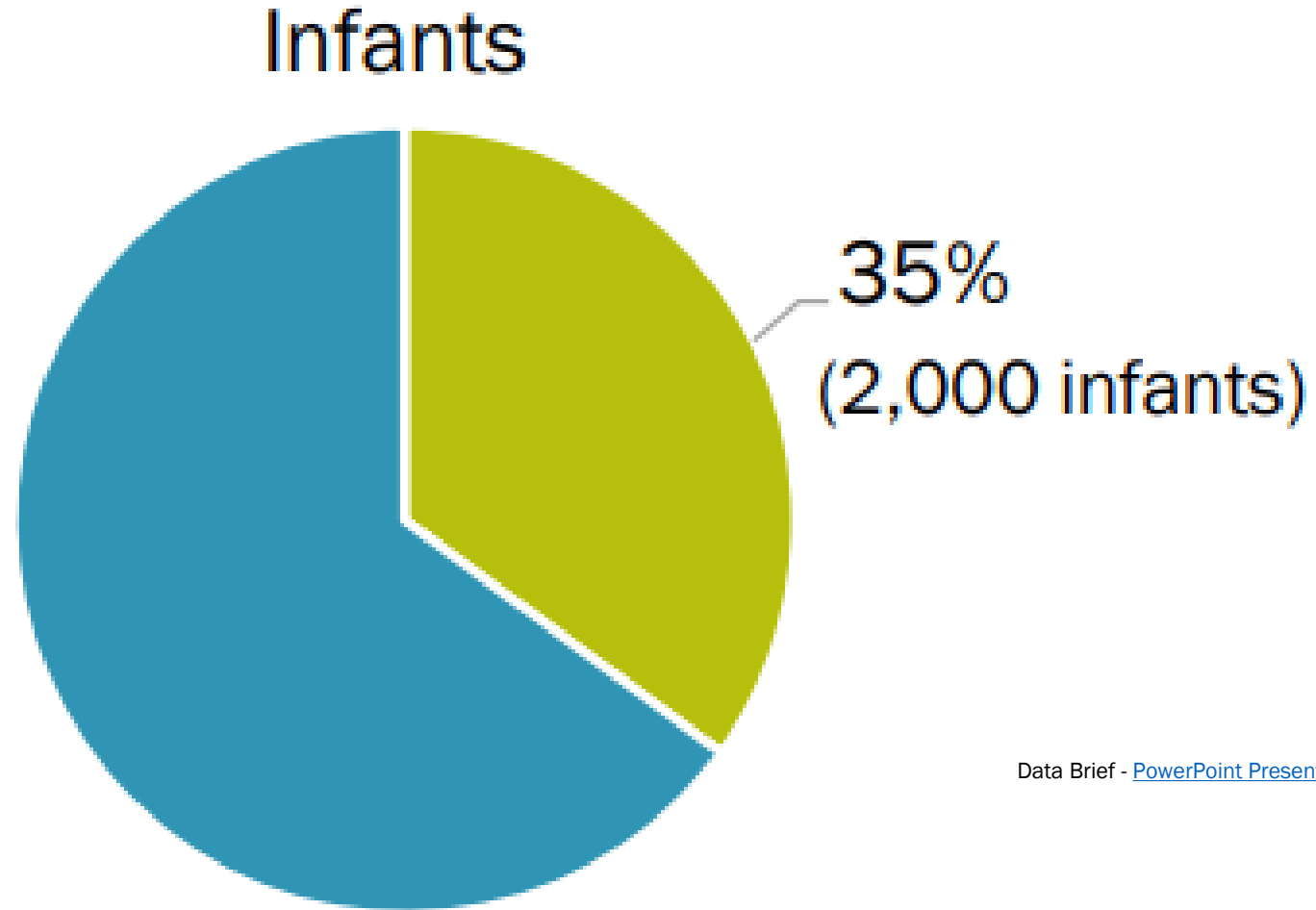
# Post-marketing surveillance

- Most frequently reported adverse events involved patients who reportedly developed breakthrough RSV infections despite receiving nirsevimab, and included signs, symptoms, or complications of these infections (e.g., bronchiolitis)
- Cases of serious [hypersensitivity reactions](#) with nirsevimab were identified in the post-marketing setting and the product labeling was updated in February 2024:

*Serious hypersensitivity reactions have been reported following BEYFORTUS administration. These reactions included urticaria, dyspnea, cyanosis, and/or hypotonia.*
- Hypersensitivity reactions in young infants are rare and can be difficult to discern from startle reactions or vasovagal reactions



# Looking Back: 2023-2024 Season



Data Brief - [PowerPoint Presentation \(healthvermont.gov\)](https://healthvermont.gov)

# ACIP Recommendation for RSV for Older Adults



- ACIP recommends adults 75 years and older receive a single dose of RSV vaccine
- ACIP recommends adults 60-74 who are at increased risk of severe RSV disease receive a single dose of RSV vaccine

# Why the change?

- Feedback received on challenges of implementing shared clinical decision-making recommendations.
- Based on preliminary post marketing surveillance, there were excess GBS cases associated with protein subunit RSV vaccines beyond what would occur in this population without vaccination.
  - Data is preliminary
    - Pfizer: 16 GBS cases per 1 million doses administered
    - GSK: 3 GBS cases per 1 million doses administered
- Conducted risk analysis – estimated numbers of avertable deaths are much larger than potential GBS cases for adults 75 years and older and for adults 60-74 years with at least one chronic condition.
  - Estimated numbers of avertable deaths are larger, but more similar in magnitude, than potential GBS cases for adults 60-74 w/o chronic conditions and adults 50-59 with at least one chronic condition.

Cost effectiveness data also reviewed as a part of the decision

# When To Recommend RSV Vaccination for Adults 60-74

## Chronic medical conditions and risk factors for a risk-based recommendation for RSV vaccination in adults aged 60–74 years

- **Chronic cardiovascular disease** (e.g., heart failure, coronary artery disease, congenital heart disease; *excluding isolated hypertension*)
- **Chronic lung disease** (e.g., chronic obstructive pulmonary disease [COPD], emphysema, asthma, interstitial lung disease, cystic fibrosis)
- **Chronic kidney disease, advanced** (e.g., stages 4–5, dependence on hemodialysis or other renal replacement therapy)
- **Diabetes mellitus with end-organ damage** (e.g., diabetic nephropathy, neuropathy, retinopathy, or cardiovascular disease)
- **Severe obesity** (body mass index  $\geq 40$  kg/m<sup>2</sup>)
- **Decreased immune function** from disease or drugs (i.e., **immunocompromising conditions\***)
- **Neurologic or neuromuscular conditions** (e.g., neuromuscular conditions causing impaired airway clearance or respiratory muscle weakness; *excluding history of stroke without impaired airway clearance*)
- **Liver disorders** (e.g., cirrhosis)
- **Hematologic conditions** (e.g., sickle cell disease, thalassemia)
- **Frailty**
- **Residence in a nursing home or other long-term care facility**
- **Other chronic medical conditions or risk factors that a health care provider determines would increase the risk of severe disease due to respiratory infection**

\*List of immunocompromising conditions would match the existing list from the COVID-19 vaccination Interim Clinical Considerations:



# Timing & Coadministration



- RSV vaccine can be coadministered with other vaccines.
  - Still limited data available on coadministration with clinical information primarily based on influenza coadministration.
  - Consider potential for increased reactogenicity as well as likelihood to return.
- Can be administered year-round but best time for administration is late summer/early fall before respiratory virus season begins
  - Consider likelihood to return for vaccination
  - Other factors include patient willingness for coadministration, etc.
- Current recommendation is one dose only – *not* one dose per season
  - Clinical trials are currently underway to review waning immunity and if there is a need for an additional dose after a few years

# mRESVIA: Moderna RSV Vaccine for Older Adults



- Single dose (0.5 mL) IM injection
  - Each dose of mRESVIA contains 50 mcg of nucleoside modified mRNA encoding the RSV F glycoprotein stabilized in the prefusion conformation (pre-F protein).
- mRESVIA is supplied as a pre-filled syringe that contains a frozen suspension that must be thawed prior to administration
  - Thaw each syringe before use, either in the refrigerator or at room temperature, following the instructions in [package insert](#).
  - Do not refreeze.

# mRESVIA: Moderna RSV Vaccine for Older Adults

- Most commonly reported adverse reactions included injection-site pain (55.9%), fatigue (30.8%), headache (26.7%), myalgia (25.6%), arthralgia (21.7%), axillary (underarm) swelling or tenderness (15.2%), and chills (11.6%).
- No cases of ADEM; no safety concern for GBS, no imbalance of atrial fibrillation and no confirmed cases of acute myocarditis or acute pericarditis (w/ onset of <42 days)





# RSV Summary

Population	Product	Dosage	Timeline for Administration	What else should I know?
Infants 8 months and younger	Nirsevimab (Beyfortus)  monoclonal antibody product	Weight-based: 50 mg: <5 kg 100 mg: ≥5 kg	RSV season only (October 1 – March 31)	Should not receive if birthed by someone who received the RSV vaccine during pregnancy (unless has not been 14 days since vaccination)
Infants 8 - 19 months* AND high-risk  *8 months, 1 day – 19 months, 30 days	Nirsevimab (Beyfortus)  monoclonal antibody product	200 mg	RSV season only (October 1 – March 31)	
Pregnant individuals	Abrysvo (Pfizer)  vaccine	0.5 mL	September 1 – January 31; 32 – 36 weeks* gestation *32 weeks 0 days – 36 weeks 6 days	Available in pharmacies
Adults 60-74 yrs: Risk-based recommendation Adults 75 yrs+: universal recommendation	Abrysvo (Pfizer) Arexvy (GSK)** mRESVIA (Moderna)  vaccine	0.5 mL	Can be administered at any time throughout year	VAVP supply for 60-64 yrs. who meet ACIP recommendation  **FDA approval only for 50-59 years (not ACIP approved)

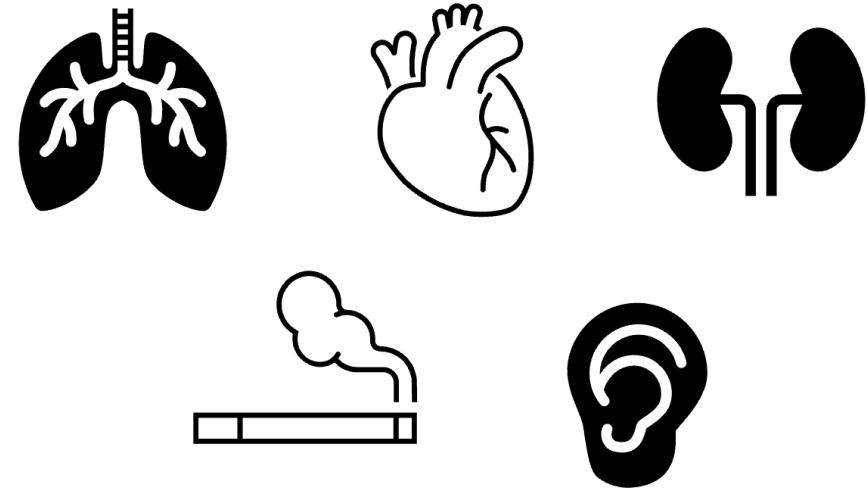
# Other Updates



## PCV21 (CAPVAXIVE)

ACIP recommends PCV21 as an option for **adults** aged  $\geq 19$  years who currently have a recommendation to receive a dose of PCV.

- We will let you know as soon as it is available to order – currently unavailable on CDC contract.



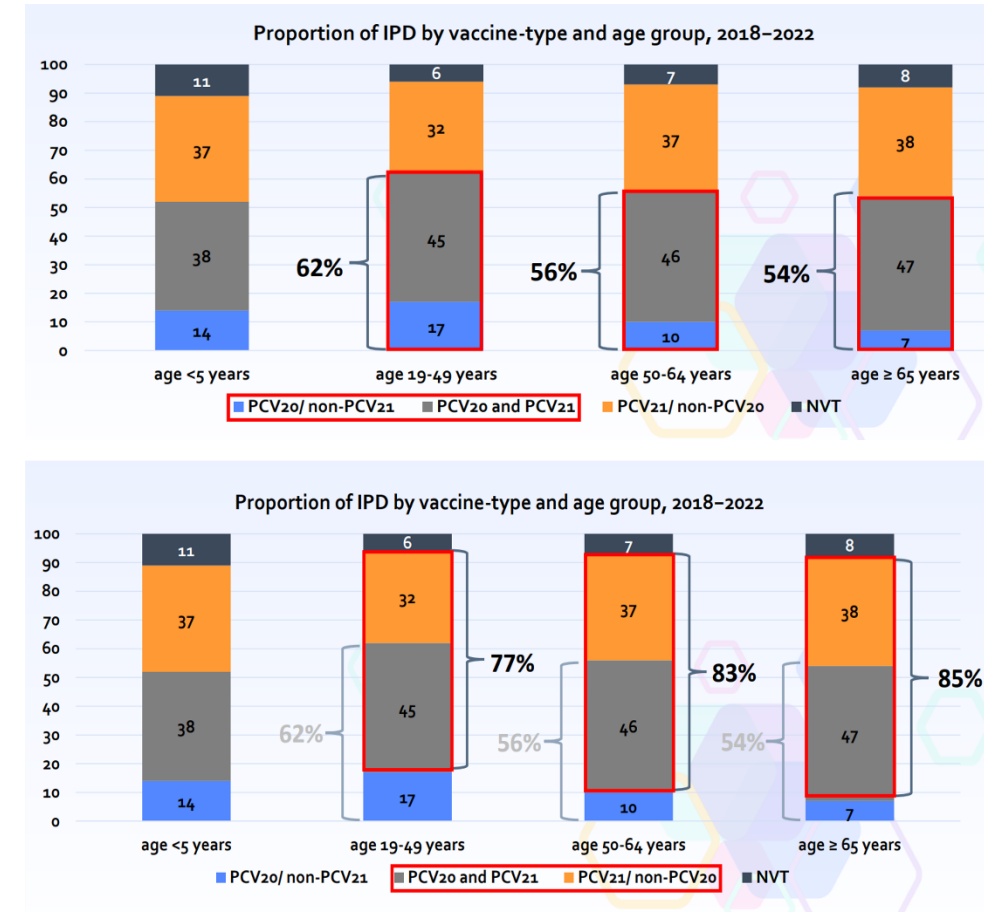
# Comparison of Serotypes

## Adult Pneumococcal Vaccines

	1	3	4	5	6 A	6 B	7 F	9 V	1 4	1 8 C	1 9 A	1 9 F	2 3 F	2 2 F	3 3 F	8	1 0 A	1 1 A	1 2 F	1 5 B	2	9 N	1 7 F	2 0	1 5 A	1 5 C	1 6 F	2 3 A	2 3 B	2 4 F	3 1	3 5 B
PCV <sub>15</sub>																																
PCV <sub>20</sub>																																
PPSV <sub>23</sub>																																
PCV <sub>21</sub>																																

# Invasive Pneumococcal Disease (IPD) Cases

- 54-62% of IPD cases in adults were due to PCV20 serotypes
- 77-85% of IPD cases in adults were due to PCV21 serotypes



[PowerPoint Presentation \(cdc.gov\)](https://www.cdc.gov/powerpoint/presentation)

# Other ACIP Updates: Vaxelis



- ACIP voted to include DTaP-IPV-Hib-HepB (Vaxelis®) with PRP-OMP (PedvaxHIB®) in the preferential recommendation for American Indian and Alaska Native infants based on the *Haemophilus influenzae* type b (Hib) component.
- This change:
  - Increases flexibility for patients and providers.
  - May reduce the number of injections required to complete the series for those who receive it.
- Vaxelis® is not recommended for use as a booster dose. A different Hib-containing vaccine should be used.

# Meningococcal Vaccine Updates

- ACIP discussed meningococcal vaccine recommendations – no clear decisions or votes.
- Working group will continue to discuss, review and bring back recommendations back to ACIP for vote.
- VDH holding off on adding pentavalent (Penbraya) until we have updated ACIP recommendations to limit vaccine errors.





# GSK Products

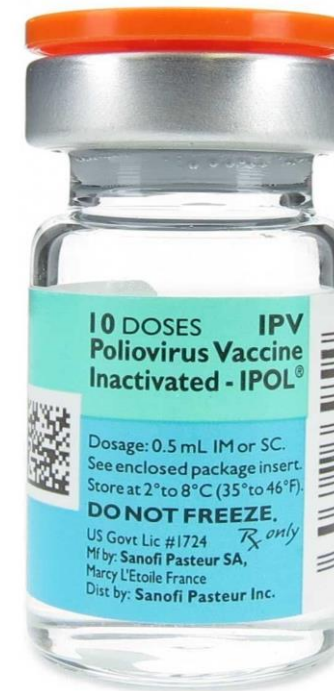


- Some GSK pre-filled syringe tip caps may contain natural rubber latex posing a latex allergy risk for some individuals.
- GSK is transitioning to latex free production- but it may take several years to phase out the latex containing products.
- Use caution when administering GSK vaccine.
- To determine if a product contains latex:
  - Check the package insert and vaccine box prior to administration,
  - Do not refer to the package insert on the FDA page as it reflects the product currently being produced without latex.

# Polio for Adults

In general, unless there are specific reasons to believe they were not vaccinated, most adults who were born and raised in the United States can assume they were vaccinated for polio as children

- Per [CDC](#), "For people age 18 years and older, verbal reports of previous polio vaccination administered outside the U.S. can be accepted unless the clinician has specific reasons to believe the patient was not vaccinated such as they did not receive consistent medical care as an infant, parents were against vaccination, or the person has other reason to doubt their vaccination status."  
"



# ACIP Recommendations: Polio Vaccine for Adults

Adults aged  $\geq 18$  years who are known or suspected to be unvaccinated or incompletely vaccinated against polio should complete a primary vaccination series with IPV.

Adults who have received a primary series of tOPV or IPV in any combination and who are at increased risk for exposure to poliovirus may receive another dose of IPV. Available data do not indicate the need for more than a single lifetime booster dose with IPV for adults.

# Mpox Vaccine (JYNNEOS)

- Jynneos recently became available commercially and is no longer being supplied through the federal government as a part of the outbreak response.
- Jynneos is available to all enrolled providers through Vermont Vaccine Purchasing Program.
  - Will likely transition to being in catalogs in the fall; email Immunization Program to order until available in catalogs.
- Continuing to see cases and outbreaks nationwide (including cases in Vermont) as well as an ongoing outbreak in the Democratic Republic of Congo (Clade I)
  - Continue to assess and offer Jynneos as appropriate – now a routine immunization
  - Individuals need two doses for the highest level of protection
    - Reminder/recall for second dose



# Medicare Vaccine Coverage



## PART B

- Flu
- Pneumococcal
- COVID-19
- Hep B (intermediate & high risk only)
- Tdap/Td for wounds



## PART C

- All vaccines if have prescription drug coverage
- If don't have prescription drug coverage, can select Medicare Part D plan



## PART D

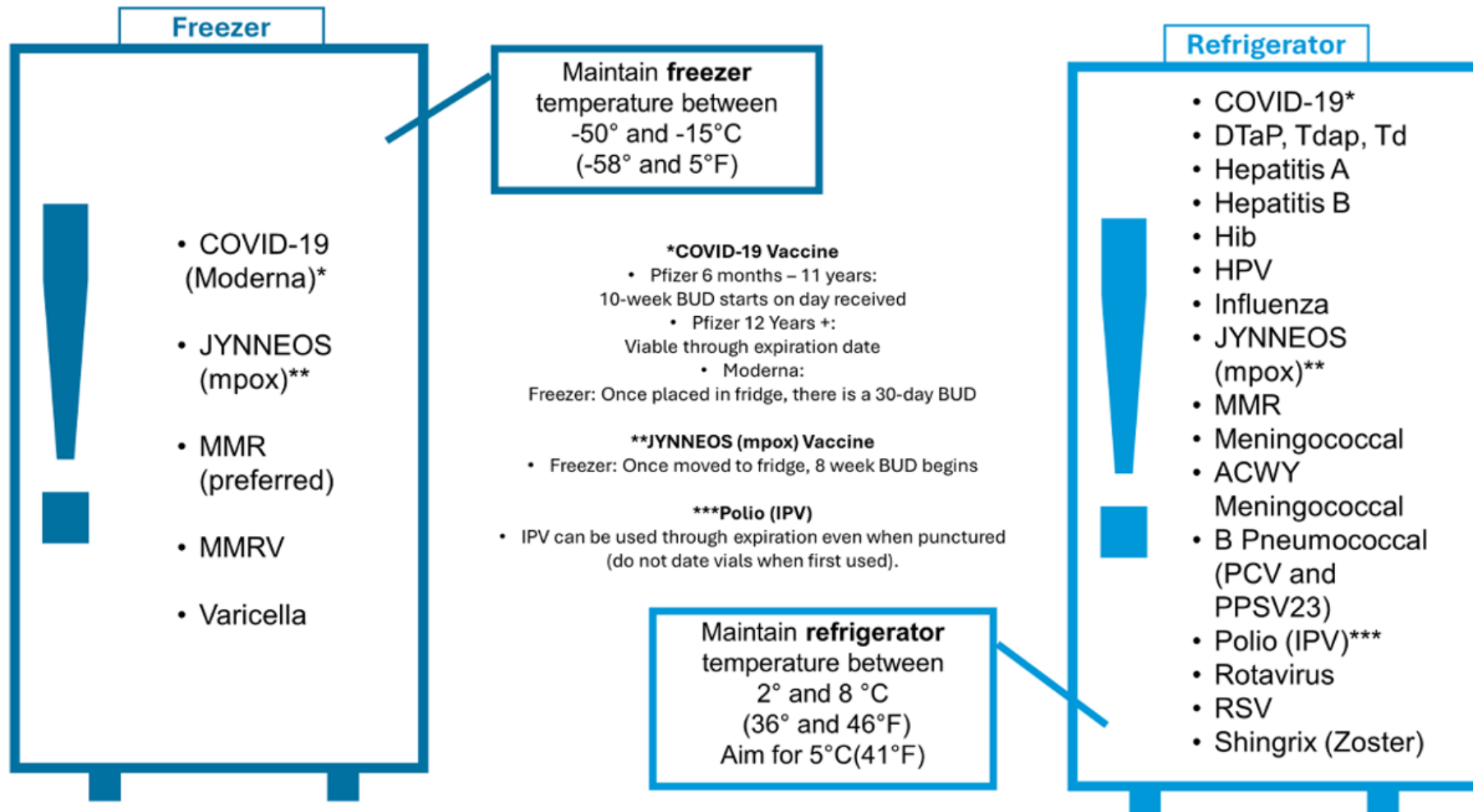
- RZV/Shingrix
- Preventive Tdap/Td (non-wound)
- RSV
- Travel vaccines
- All other ACIP recommended vaccines (MMR, etc.)

# Compliance Reminders





# Vaccine Storage



# COVID-19 Storage & Beyond Use Dates (BUD)



- **6 months – 4 years (MDV) & 5 – 11 years (SDV):** Shipped on dry ice then placed in a monitored refrigerator and marked with a 10-week BUD
- **12+ Comirnaty (SDV):** Shipped at refrigerated temperatures and then placed in a monitored refrigerator until expiration.



- 30 days BUD after removal from a standard freezer
- May store in a monitored freezer through expiry.
- 30-day BUD starts when placed in the refrigerator. **Never Refreeze.**

# CDC COVID-19 AT-A-GLANCE

Guidance below summarizes basic storage, preparation, scheduling, administration, and dosage for all 2023–24 Pfizer-BioNTech COVID-19 Vaccine products.

**Distributed in:**

**Ages: 6 months through 4 years**  
Multiple-dose vial:  
yellow cap and yellow label

**Ages: 5 through 11 years**  
Single dose vial:  
blue cap and blue label

**Ages: 12 years and older**  
Single-dose vial: gray cap and gray label  
Plastic Manufacturer-filled syringe  
Glass Manufacturer-filled syringe

**Storage and Handling**  
Find additional guidance on storing vaccine properly at:  
[CDC Vaccine Storage and Handling Toolkit](#)     [Pfizer-BioNTech COVID-19 Vaccine | cvdvaccine.com](#)  
[Comirnaty | FDA](#)

Ages	6 months through 4 years	5 through 11 years	12 years and older		
<b>Supplied in:</b>	3-dose multiple-dose vial (MDV)	Single-dose vial (SDV)	Single-dose vial (SDV)	Plastic Manufacturer-filled syringe (MFS)	Glass Manufacturer-filled syringe (MFS)
<b>Cap and/or label color:</b>	Yellow cap and yellow label	Blue cap and blue label	Gray cap and gray label	N/A	Carton with a pink stripe
<b>Storage temperature before puncture or use after puncture</b>	<p><b>Between:</b></p> <ul style="list-style-type: none"> <li>-90°C and -60°C (-130°F and -76°F) until the expiration date</li> <li>2°C and 8°C (36°F and 46°F) for up to 10 weeks</li> <li>8°C and 25°C (46°F and 77°F) for up to 12 hours prior to the first puncture or use.</li> </ul> <p><b>Do not store in a standard freezer</b></p> <p><b>NOTE:</b> The beyond-use date (10 weeks) replaces the manufacturer's expiration date but <b>NEVER</b> extends it. Always use the earliest date. Do NOT use vaccine after the expiration date or beyond-use date.</p>				
<b>Thawing frozen vaccine</b>	<p><b>Between:</b></p> <ul style="list-style-type: none"> <li>2°C and 8°C (36°F and 46°F) for up to 2 hours</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Up to 25°C (77°F) for 30 minutes</li> </ul> <p><b>OR</b></p> <p><b>Between:</b></p> <ul style="list-style-type: none"> <li>2°C and 8°C (36°F and 46°F) for 2 hours (preferred method)</li> <li>Up to 25°C (77°F) for 60 minutes</li> </ul> <p><b>Note:</b> Individual</p>				

Guidance below summarizes basic storage, preparation, scheduling, administration, and dosage for all 2023–24 Moderna COVID-19 Vaccine products.

**Distributed in:**

**Ages: 6 months through 11 years**  
Single-dose vial:  
Dark blue cap and green label

**Ages: 12 years and older**  
Single-dose vial:  
Dark blue cap and blue label  
Manufacturer-filled syringe

**Storage and Handling**  
Find additional guidance on storing vaccine properly at:  
[CDC Vaccine Storage and Handling Toolkit](#)     [Moderna COVID-19 Vaccines | Modernatx.com](#)  
[Spikevax | FDA](#)

Ages	6 months through 11 years	12 years and older	
<b>Supplied in:</b>	Single-dose vial (SDV)	Single-dose vial (SDV)	Manufacturer-filled syringe (MFS)
<b>Cap and/or label color:</b>	Dark blue cap and green label	Dark blue cap and blue label	N/A
<b>Storage temperature before puncture</b>	<p><b>Between:</b></p> <ul style="list-style-type: none"> <li>-50°C and -15°C (-58°F and 5°F) until the expiration date</li> <li>2°C and 8°C (36°F and 46°F) for up to 30 days</li> <li>8°C and 25°C (46°F and 77°F) for a total of 24 hours. Discard vial or syringe and unused vaccine after 24 hours.</li> </ul> <p><b>NOTE:</b> The beyond-use date (30 days) replaces the manufacturer's expiration date but <b>NEVER</b> extends it. Always use the earliest date. Do NOT use vaccine after the expiration date or beyond-use date.</p>		
<b>Thawing frozen vaccine</b>	<p><b>Between:</b></p> <ul style="list-style-type: none"> <li>2°C and 8°C (36°F and 46°F) for 45 minutes. Let stand at room temperature (between 15°C and 25°C [59°F and 77°F]) for 15 minutes.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>15°C and 25°C (59°F and 77°F)</li> </ul>	<p><b>Between:</b></p> <ul style="list-style-type: none"> <li>2°C and 8°C (36°F and 46°F) for 45 minutes. Let stand at room temperature (between 15°C and 25°C [59°F and 77°F]) for 15 minutes.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>15°C and 25°C (59°F and 77°F)</li> </ul>	<p><b>Between:</b></p> <ul style="list-style-type: none"> <li>15°C and 25°C (59°F and 77°F) for 45 minutes.</li> </ul>

# Audit Node

**AUDIT NODES**

Confirm that you have viewed a node's current status.

- 1 Select the "MONITORING" tab in the main menu.
- 2 Mark the checkbox in the rightmost column of the node(s) you want to audit.
- 3 Click the "Audit Node" button at the bottom of the page.

The screenshot shows the Sensoscientific Monitoring interface. At the top, there's a navigation bar with tabs: ALARM, MONITORING (selected), REPORT, CONFIGURATION, CALIBRATION, and HELP. Below the navigation bar, there's a 'Current Status' section with buttons for 'Current Status', 'Battery Status', and 'Reset Min/Max'. The main area displays a table of nodes with columns: Node Name, Node ID, Location, Alarm High, Alarm Low, Alarm Delay, Sensor, Range, Last Updated, Value Status, Connecting Status, Alarm Status, and Notification Status. A red circle with a '1' points to the 'MONITORING' tab. A red circle with a '2' points to the checkboxes in the 'Notification Status' column. A red circle with a '3' points to the 'Audit Node' button at the bottom.

- Auditing your node in Senso replaces the need to record temperatures on paper.
- It is a federal requirement to audit your node at the beginning of each clinic day
- When you audit the node it records the time of the reading and the email of who audited the node.
- Although senso continually monitors its still a requirement to take responsibility and confirm the temperature for the unit and that is essentially what auditing your node means.

# IMR Team



# IMR & HL7 Bidirectional/Forecaster Updates



The Vermont Department of Health is excited to announce the newest update to the Immunization Registry.

# What is the IMR?

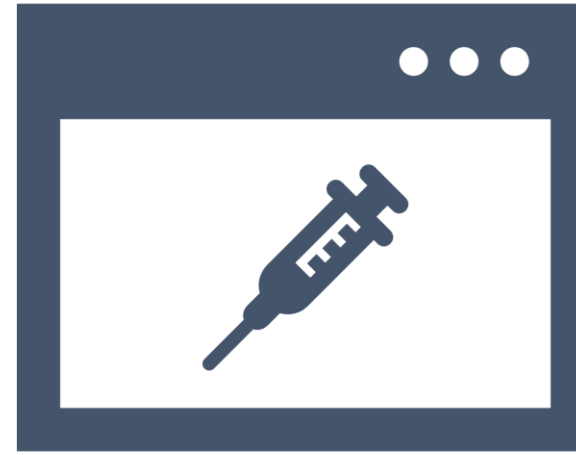


The Immunization Registry (IMR) is a health information system that contains immunization records for Vermonters.



# How Vaccines are reported to the IMR

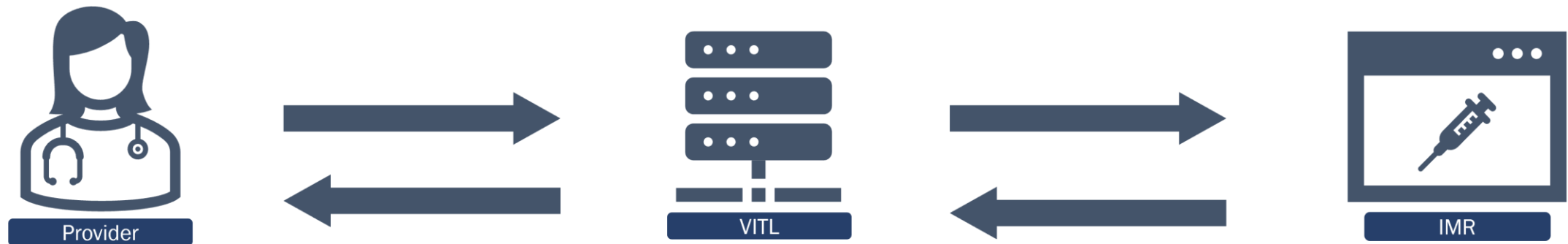
Vaccine records are reported to the registry from a variety of sources such as:



Other sites including health insurance, etc.



# Bidirectional Query & Response



# Bidirectional Responses



The IMR will automatically return the requested immunization data if only one match is found.

If there are zero patient matches the IMR will return a response indicating "no patient found".

If there are multiple patient matches found, the IMR will return a list of match possibilities for the provider to choose from.

If more than seven queries per ten seconds are received, the IMR will return an error message.



## Bidirectional Query & Response

How an EHR accepts and displays a response depends on the settings configured by the EHR Vendor.



```
MSH|^~\&|VDH|VDH|||CurrentDate/Time||RSP^K11^RSP_K11|MessageControlID|P|2.5.1|
||NE|NE||||Z32^CDCPH INVS|VDH MSA|AA|MessageControlID
QAK|QueryTag|OK|Z34^Request Immunization History^CDCPHINVS QPD|Z34^Request
Immunization
History^CDCPHINVS|QueryTag01|30F3CBAAF7BC771F5269B2AAEABFA488F6958D31D70ABE
E9D14F70F20E9FDCFB^^^VDH ^SR|Killington^Amarylis^^^^L||19810101|F|10 Patient
Street^^Burlington^VT^^M
PID|1||30F3CBAAF7BC771F5269B2AAEABFA488F6958D31D70ABEE9D14F70F20E9FDCFB^
^^VDH^SR||Amarylis^Killington^^^^L||19810101|F||10 Patient
Street^^Burlington^VT^05401^^M|||||||ORC|RE||416485^VDH
ORC|RE||416486^VDH
RXA|O|1|20220225||21^varicella^CVX|999|||01^^NIP001|||||U020240|20230628|MS
D^^MVX|||CP RXA|O|1|20220315||208^COVID-19, mRNA LNP-S, PF, Pfizer^CVX|999|
||01^^NIP001|||||98765F|20220729|PFR^^MVX|||CP
RXR|C28161^^NCIT|LA^^HL70163 RXR|C28161^^NCIT|RA^^HL70163
```

## Evaluated History and Forecast

This response will allow the EHR to display the vaccine forecaster: a list of the immunizations due for a patient today or in the future.



Vaccines Recommended by Tracking Schedule				
Vaccine	Earliest Date	Recommended date	Overdue Date	Status
COVID-19		6/20/2023		Recommended
MMR	3/5/2005	3/5/2005	3/5/2005	Recommended
Tdap	7/28/1986	7/28/1986	7/28/1986	Recommended
Hep B	5/10/2023	7/1/2023		Future Recommendation
Pneumococcal		7/28/2044		Future Recommendation
Zoster	7/28/2029	7/28/2029		Future Recommendation
Rotavirus	Vaccine not recommended at this age; too old to initiate			

# Before Implementation

The process begins with a site level agreement and any other related legal agreements and documentation specific to bidirectional queries.



# Before Implementation



The provider organization and EHR vendor will then work with VITL to develop an Onboarding Implementation Plan.

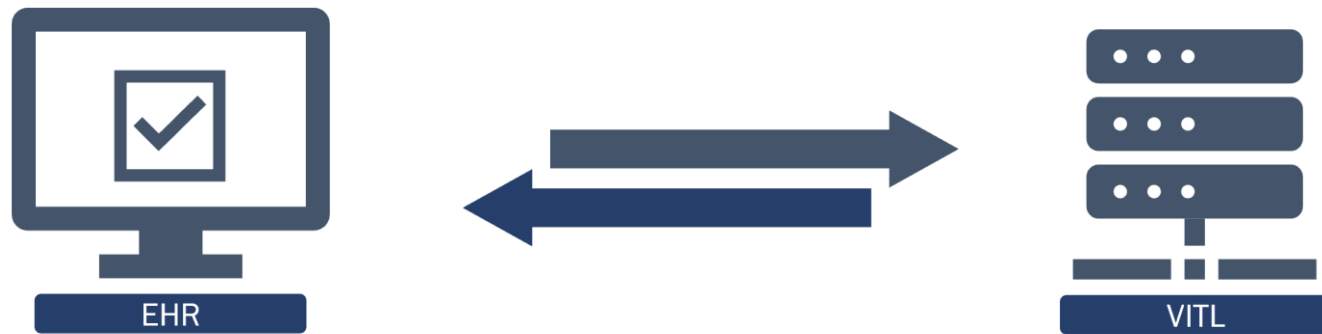


# Onboarding Implementation – Development Phase

In the **development phase** the EHR vendor configures the organization's EHR to send queries and map the responses to fields in the EHR so they display correctly.



# Onboarding Implementation – Connectivity Testing



In the **connectivity testing** phase, the organization EHR exchanges sample queries and responses with the VITL test environment.

## Onboarding Implementation – Validation Testing

In the **validation testing** phase, the organization EHR will send queries through VITL to the IMR.



# Go Live

Following **Go Live**, the IMR and VITL will provide monitoring and support as the provider EHR continues to receive records from the IMR.



# Interested in QBP?

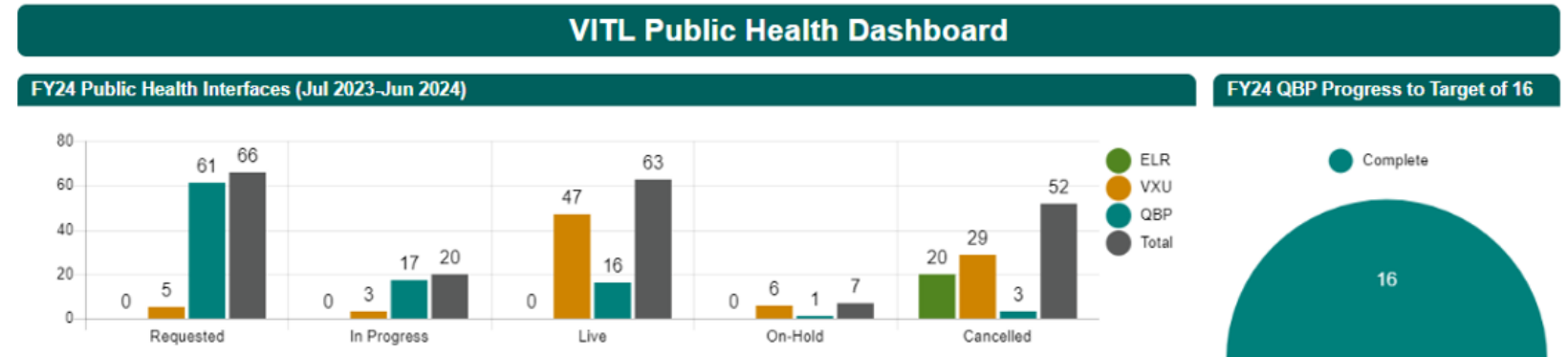
Practices (office managers or IT department) that are interested in QBP functionality should outreach Regi Wahl, Senior Applications Systems Analyst at VITL.

- [Rwahl@VITL.net](mailto:Rwahl@VITL.net)

# Practices/Sites In all Stages of Onboarding

Stages (Updated  
7/9/2024)

- Complete
  - 16 Practices Using QBP (51 Separate Sites)
- In Progress/Requested
  - 15 Practices In Progress with QBP (35 Separate Sites)
  - 61 Practices Requested QBP (175 Separate Sites)



# IMR Forecaster Update Process

## Process for these updates

- ICE sends an email out to all subscribers stating that a new update (release) is available on the ICE website.
- VDH IT downloads this new release after a few weeks (~2 weeks) to ensure and “bugs” or issues have been worked out and release is stable.
- VDH IMR team creates test cases based off of the new release to test that this new logic will work as expected.
- IT runs test cases through the IMR TEST environment
- VDH validates test case scenarios and once all test cases pass, IT is given the ok to move the new release into the LIVE IMR.
- Total process takes up to 3 months.
- Possible for IMR reports to run slower than normal due to this update, for about one to two weeks.

The IMR uses the Immunization Calculation Engine (ICE) for vaccination recommendation and forecasting updates.

ICE Website [News - ICE - Confluence \(atlassian.net\)](#)



# IMR Forecaster Updates Troubleshooting

Very possible for vaccine updates to be delayed in the forecaster due to the time needed for ICE to implement new releases.

Also, there might be many ICE releases within a year. This year (2024) there have been 2. Last year (2023) there were 6.

If you notice the forecaster isn't up to date with CDC recommendations, to verify, please use the ACIP recommendations here for evaluating a patients history or vaccine recommendations.

- <https://cdsframework.atlassian.net/wiki/spaces/ICE/pages/14352468/Default+Immunization+Schedule>

# Communications



# Measles Vaccine Promotion – Currently active

- Encourages parents to stay current with child's MMR vaccinations, especially if international travel is planned
- Paid digital ads on Google, Meta, Front Porch Forum, streaming radio, and KidsVT (Seven Days)
- Launched May 2024 and ends July 31, 2024
- [www.HealthVermont.gov/Measles](http://www.HealthVermont.gov/Measles)



# Upcoming Campaigns: Routine Vaccines

A year-long campaign to promote routine vaccines to different audiences. The campaign will be split into three messaging packages at different times of the year.

**Coming soon:** Adolescent vaccine promotion (August – September 2024)

[www.HealthVermont.gov/TeenVax](http://www.HealthVermont.gov/TeenVax)

Parents of young children and infants (May – June 2025)

[www.HealthVermont.gov/Immunization/Parents](http://www.HealthVermont.gov/Immunization/Parents)

Vermont adults (March – April 2025 and June – Mid-July 2025)

[www.HealthVermont.gov/disease-control/immunizations/recommended-vaccines-adults](http://www.HealthVermont.gov/disease-control/immunizations/recommended-vaccines-adults)



# Upcoming Campaigns: Respiratory Virus Season

- Annual campaign that combines flu, COVID-19, and RSV prevention and vaccine messaging
  - Planning begins August 2024, launch by September/October 2024
- [www.HealthVermont.gov/MyVaccine](http://www.HealthVermont.gov/MyVaccine)

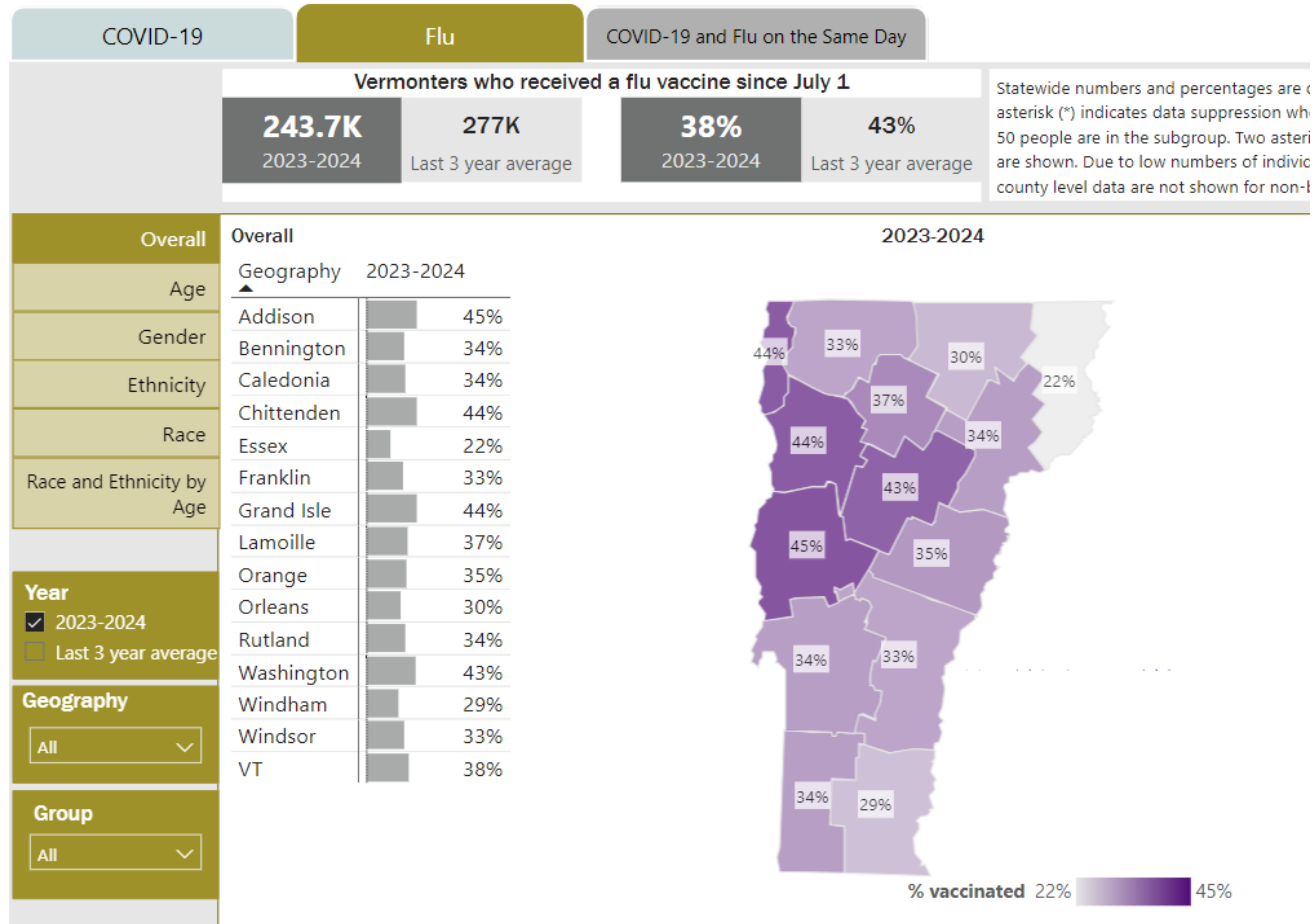


# VDH Vaccination Data Dashboard

- Updated weekly during respiratory virus season with information about COVID-19, flu and RSV vaccine coverage
  - Will be updated with 2024-2025 coverage information approximately the last week of October

[Vermont COVID-19 and Flu Vaccination Data | Vermont Department of Health \(healthvermont.gov\)](https://healthvermont.gov)

## 2023-2024 Vermont COVID-19 and Flu Vaccination Data





# QUESTIONS?







[AHS.VDHImmunizationProgram@vermont.gov](mailto:AHS.VDHImmunizationProgram@vermont.gov)