



Flu, RSV, and COVID-19: Understanding Today's Respiratory Viral Landscape

Respiratory Disease Program

Presented by

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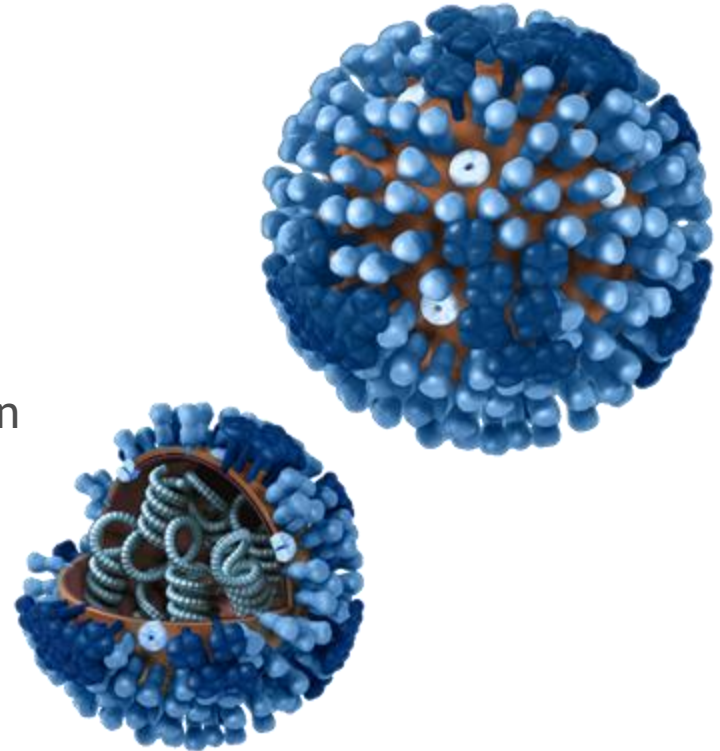
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Overview

1. Symptoms - Similarities & differences
2. Current Situation
3. Burden Estimate
4. Risk group, Infection control and Prevention
5. Vaccination Recommendations
6. Importance of Testing



Symptoms - Similarities & differences

What virus do I have?

Symptoms	COVID-19	RSV	Flu
Onset of symptoms	Gradual onset then sudden escalation	Mild onset with sudden escalation	Abrupt onset
Severity of symptoms	Mild to severe	Mild to severe	Mild to severe
Length of symptoms	7-25 days	3-7 days	7-14 days
Loss of taste and/or smell	Common	Rare	Rare
Trouble breathing	Sometimes (can be severe)	Common	Not common
Cough	Common (usually dry)	Common	Common (usually dry)
Sneezing	Not common	Common	Rare
Runny/stuffy nose	Not common	Common	Sometimes
Sore throat	Sometimes	Common	Common
Fever	Common	Common	Common
Fatigue	Sometimes	Sometimes	Common
Headaches	Sometimes	Rare	Common
Body aches	Sometimes	Rare	Common
Diarrhea/nausea/vomiting	Sometimes	Rare	Sometimes

- Influenza (flu), Respiratory Syncytial Virus (RSV) and COVID-19 are all contagious respiratory illnesses, but they are caused by different viruses.
- COVID-19 is caused by infection with a coronavirus (SARS-CoV-2) first identified in 2019. Flu is caused by infection with a flu virus ([influenza viruses](#)). And RSV is caused by a virus called respiratory syncytial virus.
- It is difficult to differentiate between flu, RSV and COVID-19 by the symptoms alone because they have some of the same signs and symptoms.
- Specific [testing](#) is needed to tell what the illness is and to confirm a diagnosis.



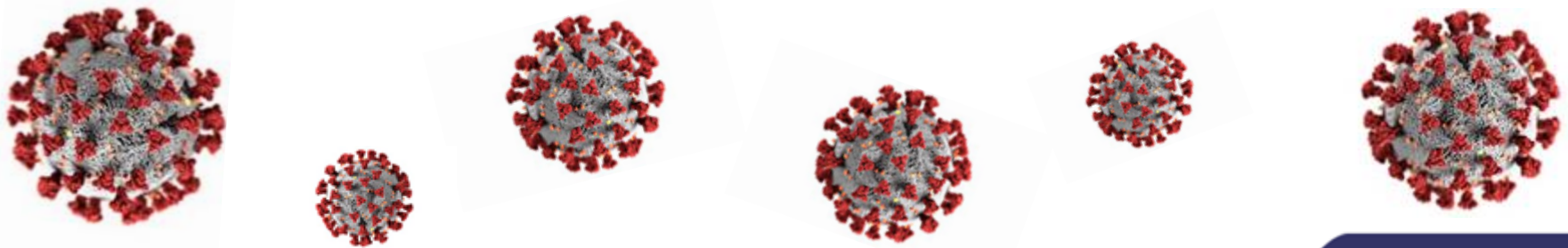
COVID-19

What is COVID-19?

- COVID-19 is a new disease, caused by a novel (or new) coronavirus that has not previously been seen in humans
- A novel coronavirus is a new coronavirus that has not been previously identified.
- The virus causing coronavirus disease 2019 (COVID-19), is not the same as the coronaviruses that commonly circulate among humans and cause mild illness, like the common cold

How does it Spread?

- The virus is thought to spread mainly from person to person.
- Between people who are in close contact with one another (within 2 meters)
- Through respiratory droplets produced when an infected person coughs, sneezes or talks
- These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. □
- Some people who are not showing symptoms may be able to spread COVID-19.

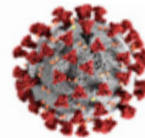
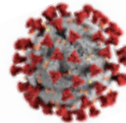
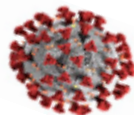
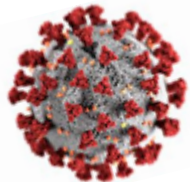
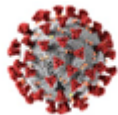
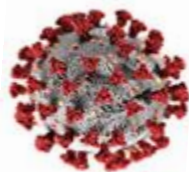
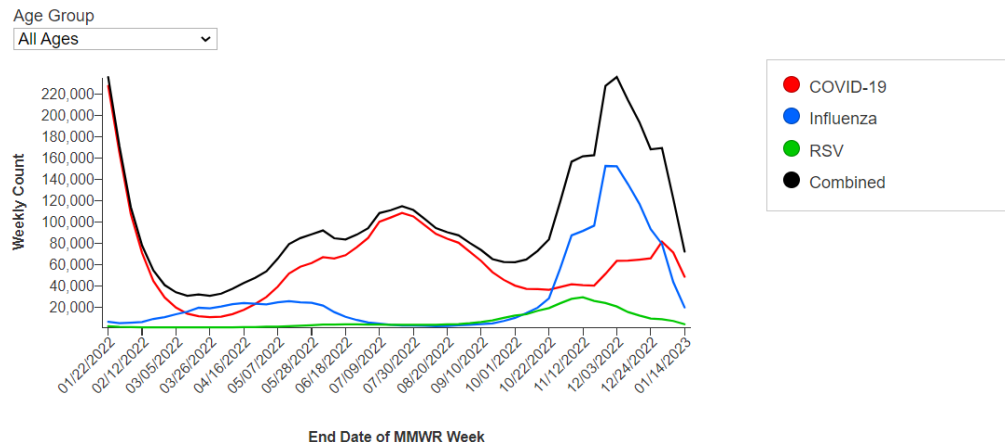


Current Situation

Current Situation

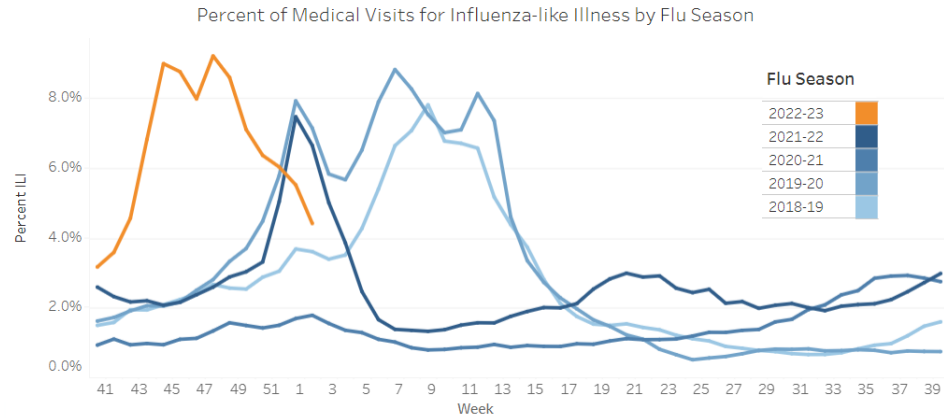
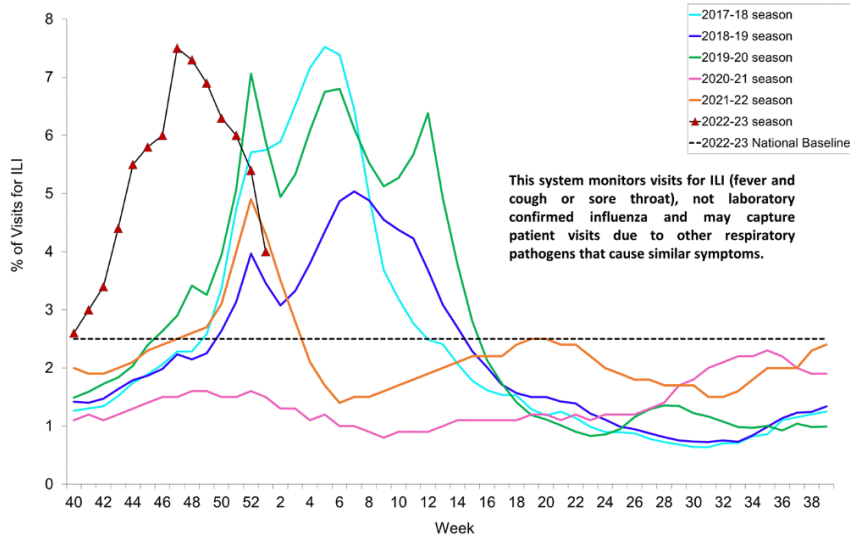
- VA observed an increase in influenza, RSV, and COVID-19 activity early in the 2022-23 influenza season. RSV peaked early, followed by flu and then COVID in late December.
- We are in the middle of the season and trends for diagnosed RSV and healthcare visits for flu-like illness have decreased significantly since November, 2022. COVID-19 cases have plateaued as well.

Weekly Emergency Department Visits by Age Group



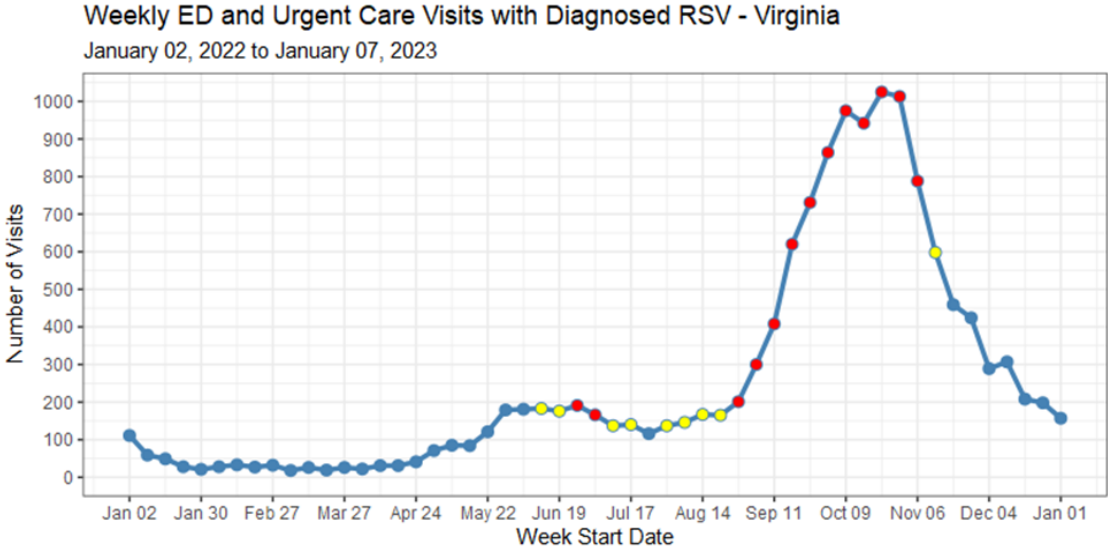
ED and Urgent Care visits for ILI, diagnosed RSV & COVID-19

Percentage of Outpatient Visits for Respiratory Illness Reported By The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2022-2023* and Selected Previous Seasons



ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat.

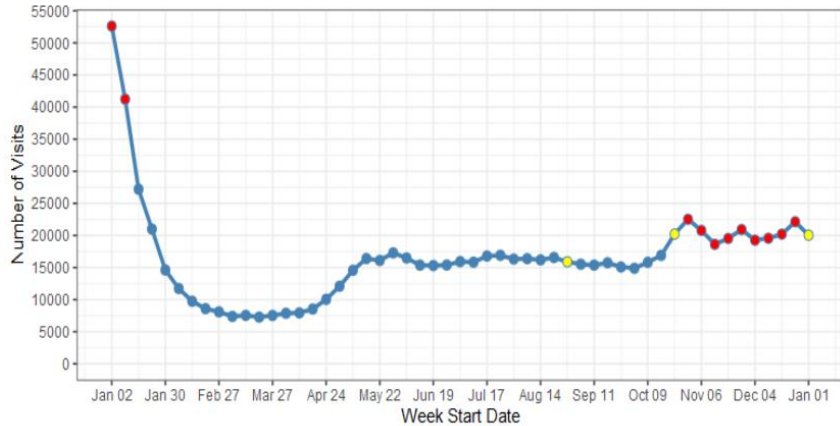
ED and Urgent Care visits for ILI, diagnosed RSV & COVID-19 (Cont.)



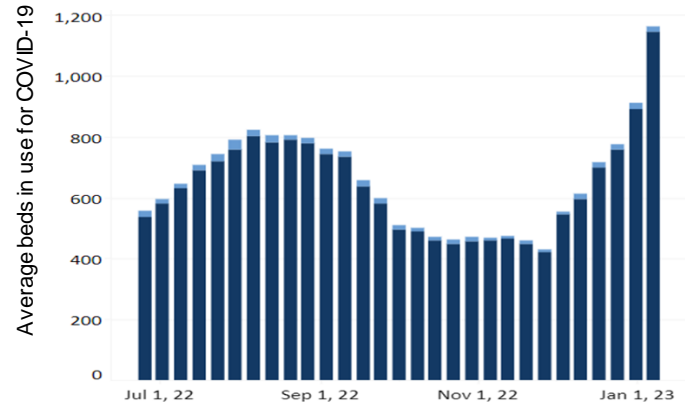
Source: VDH Respiratory Disease Report – MMWR Week 1, 2023

ED and Urgent Care visits for ILI, diagnosed RSV & COVID-19 (Cont.)

Weekly ED and Urgent Care Visits for COVID-Like Illness, VA, 01/02/22 - 01/07/23



COVID-19 Hospital Census Trends Virginia, July 2022 – January 2023



For the week ending Jan 7, 2023, MMWR week 1 (Compared to last week)

- ED and urgent care visits for COVID-like illness in Virginia: **decreased 9%** with 20,035 visits
- Hospital Census Data shows an **increase of 28%** to 1163 average beds in use for COVID-19
- 14 COVID-19 Associated Deaths for this week

Burden Estimate

Influenza, RSV & COVID-19 Burden Estimate

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**



RSV Burden Estimates

Each year in the United States, RSV leads to approximately:

- 2.1 million outpatient (non-hospitalization) visits among children younger than 5 years old.⁽¹⁾
- 58,000-80,000 hospitalizations among children younger than 5 years old.^(2,3)
- 60,000-120,000 hospitalizations among adults 65 years and older.^(4,5)
- 6,000-10,000 deaths among adults 65 years and older.^(6,7)
- 100-300 deaths in children younger than 5 years old.⁽⁷⁾

Influenza, RSV & COVID-19 Burden Estimate (Cont.)

Estimated COVID-19 Infections, Symptomatic Illnesses, Hospitalizations and Deaths
-- February 2020- September 2021 -

146.6

Million

Estimated Total
Infections

124.0

Million

Estimated
Symptomatic
Illnesses

7.5

Million

Estimated
Hospitalizations

921,000

Estimated Total
Deaths

Risk group, Infection control and Prevention

People at Risk of Flu Complications

Information for Specific Higher Risk Groups

 [Adults 65 Years and Older](#)

 [Pregnant People](#)

 [Young Children](#)

 [Asthma](#)

 [Heart Disease & Stroke](#)

 [Diabetes](#)

 [HIV/AIDS](#)

 [Cancer](#)

 [Children with Neurologic Conditions](#)

 [Chronic Kidney Disease](#)

 [Racial and Ethnic Minority Groups](#)

 [People with Disabilities](#)

For more information visit- <https://www.cdc.gov/flu/highrisk/index.htm>

Risk Factors for RSV

In Infants and Young Children:

- Premature infants
- Infants, especially those 6 months and younger
- Children younger than 2 years old with chronic lung disease or congenital heart disease
- Children with suppressed immune systems
- Children who have neuromuscular disorders, including those who have difficulty swallowing or clearing mucus secretions

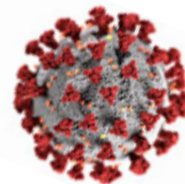
In Older Adults and Adults with Chronic Medical Conditions

- Older adults, especially those 65 years and older
- Adults with chronic lung or heart disease
- Adults with weakened immune systems

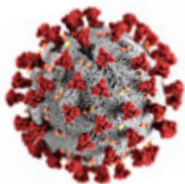
RSV can sometimes also lead to exacerbation of serious conditions such as:

- Asthma
- Chronic obstructive pulmonary disease (COPD)
- Congestive heart failure

Risk Factors for COVID-19



- Children
 - With underlying health conditions such as obesity, diabetes, asthma or chronic lung disease, sickle cell disease, or who have a weakened immune system
- Adults 50 Years of age and older are at highest risk of getting very sick from COVID-19
 - More than 81% of COVID-19 deaths occur in people over age 65
- Medical conditions (e.g. cancer, chronic kidney disease, chronic liver disease, diabetes, heart conditions, HIV, pregnant woman, smokers, mental health conditions, etc.)

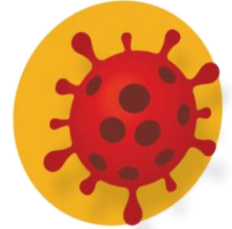


General Prevention Tips

- Get vaccinated!
- Avoid close contact with people who are sick.
- Stay home when you are sick.
- Cover your mouth and nose with a tissue when coughing or sneezing.
- Wash your hands often and avoid touching your eyes, nose or mouth.
- Practice other good health habits.



COVID-19 Prevention Best Practices



- Vaccination
 - Staying up to date with COVID-19 Vaccines
 - Monitor the level of COVID-19 spread in the community
 - Your own health status, such as whether you have a weakened immune system
 - Handwashing
 - Encourage those who are sick to stay home and get tested
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- Ventilation
 - Distancing
 - Routine cleaning
 - Masking - consider masking to help offer protection against COVID-19, as appropriate. Consider;
 - Based on community levels
 - If you have symptoms of COVID-19
 - Until 10 days after a positive COVID-19 test and are around other people
 - In crowded spaces and/or with limited ventilation

Vaccination Recommendations

Influenza Vaccine



Annual vaccination is the most important measure to prevent seasonal influenza infection!

- The basic recommendation for flu vaccine has not changed. Everyone 6 months and older are recommended to receive an influenza vaccination each year with rare exceptions.
- For the 2022-2023 flu season, there are three flu vaccines that are preferentially recommended for people 65 years and older
- For most people who need only one dose for the season, September and October are generally good times to get vaccinated.

COVID-19 Vaccine

COVID-19 Vaccine Data

Updated January 11, 2023

People with at Least 1 Dose (Age 5+ Years)	85.4%
Fully Vaccinated People (Age 5+ Years)	73.1%
People with an Updated Booster (Age 5+ Years)	15.9%

CDC recommends everyone stay up to date with COVID-19 vaccines for their age group:

- [Children and teens aged 6 months–17 years](#)
- [Adults aged 18 years and older](#)



Updated Boosters Are Recommended

CDC recommends one updated (bivalent) booster dose:

- For everyone **aged 5 years and older** if it has been at least **2 months** since your last dose.
- For children **aged 6 months–4 years** who **completed the Moderna** primary series and if it has been at least **2 months** since their last dose.

Multiple Vaccinations

- Good news - you can get vaccinated for COVID-19 AND Influenza at the same time!
 - With both influenza and SARS-CoV-2 circulating, getting both vaccines is important for prevention of severe disease, hospitalization, and death.
 - Getting both vaccines at the same visit increases the chance that a person will be up to date with their vaccinations.
- There is no vaccine to prevent RSV yet

Importance of Testing

Importance of Testing

- Getting tested matters!
 - Differentiates between Flu, RSV and COVID-19
 - Can test at home for COVID-19 and (sometimes) Influenza
 - Testing results may be used to inform:
 - Treatment
 - Need for further diagnostic tests
 - Consideration for home care
 - Recommendations for ill persons living with others who are at high-risk for influenza, RSV or COVID-19



Questions?

For questions, please contact flu@vdh.virginia.gov

Resources

- Weekly Respiratory Disease Surveillance Report - shared every Friday
- [Weekly Influenza Activity Report/Influenza Dashboard](#) - updated every Thursday
- For any specific influenza related information - Please visit [VDH Flu landing page](#).
- [COVID-19 best practices for Faith based organizations](#)
- [COVID Comms Hub - Containment + Mitigation \(google.com\)](#)
- [COVID Comms Hub - Rural Communities \(google.com\)](#)
- [Print Resources | CDC](#)

References

- Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010
 - <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5908a1.htm>
- Respiratory Hygiene/Cough Etiquette in Healthcare Settings
 - <https://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm>
- Interim Clinical Considerations for COVID-19 Vaccines: Bivalent Boosters
 - <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-09-01/09-COVID-Hall-508.pdf>
- Guide for considering influenza testing when influenza viruses are circulating in the community
 - <https://www.cdc.gov/flu/professionals/diagnosis/consider-influenza-testing.htm>
- Stay Up to Date with COVID-19 Vaccines Including Boosters
 - <https://www.cdc.gov/flu/professionals/diagnosis/consider-influenza-testing.htm>
- COVID-19 Dashboards -
 - <https://www.vdh.virginia.gov/coronavirus/see-the-numbers/covid-19-in-virginia/>