Risk Assessment

Respiratory Illnesses in the United States

Summary: Respiratory Illnesses (COVID-19, Influenza, RSV) Scenario-Based Human Health Risk Assessment for the United States

Published November 2, 2026

Currently, the Center for Outbreak Response Innovation (CORI) judges that the national respiratory virus activity is in Scenario 1, *meaning that, nationally, respiratory illness activity is very low.*

According to CDC, national respiratory illness activity (as determined by ED diagnoses for acute respiratory illnesses ranging from the common cold to the more well-known viruses such as flu, RSV, and COVID-19) is **very low**. When looking at individual viruses, national COVID-19 ED visits remain **low** and are decreasing; however, seasonal influenza and RSV ED visits are **low** but increasing.[1] Despite these low national severity indicators, regional trends continue to show an early and worsening start to the influenza season. Western and southern states have test positivity rates around 8% and 11%, respectively, compared to around 1% at the same time last year. Emergency department visits in the West and South are also elevated, currently at around 1.6%, compared to 0.2-0.4% at the same time last year. Similarly, RSV is continuing to increase, though activity is still low and on par with last year; the South is still most impacted, with Florida experiencing the highest activity.[2]

Together, these data indicate that the majority of the U.S. population is at a low risk for health impacts related to respiratory viruses; however, regional data continue to show an early and worsening flu season and vulnerable populations (e.g., older adults (ages 65 and older), young children (<5), people with certain medical conditions) are at **low-moderate** risk.

See the detailed risk assessment analysis beginning on the next page.

	Risk to Highest Vulnerability Populations*	Risk to Healthcare Workers	Risk to the US General Public**
Scenario 1- Very Low Respiratory Illness Activity	**Low-Moderate**	**Low**	**Low**

*According to CDC[10], older adults (ages 65 and older), young children (<5), people with certain medical conditions (weakened immune systems, people with disabilities, pregnant women) have the highest risk of severe illness for respiratory viruses like COVID-19, flu, and RSV. ** The US General Public column serves as the baseline reference. Individuals within the general public who belong to one or more of the named populations carry the risk level of those specific groups, not the baseline. Other factors, such as vaccination status, prior infection, and engagement in congregate settings (e.g., schools, group homes, etc.) impact risk.

Our **confidence** in these risk scores is **high**, supported by the breadth of available reporting. To prevent respiratory illnesses, CORI recommends:

- Everyday precautions like handwashing, covering coughs, and cleaning surfaces can help protect you and those around you
- Stay up to date on recommended immunizations and take steps for cleaner air as much as possible where you live and work

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Background

Respiratory viruses, including influenza, SARS-CoV-2 (COVID-19), and respiratory syncytial virus (RSV), represent a persistent threat to public health in the United States, contributing to an estimated 1.7 million hospitalizations and 110,000 deaths each year.[3] The US Centers for Disease Control and Prevention (CDC) monitors national respiratory virus activity through a comprehensive surveillance system[4], integrating data from emergency department visits, laboratory testing, wastewater surveillance, and hospitalization reporting. These data are also available in a summarized format on the Respiratory Illnesses Data Channel[1], and can be viewed nationally or at the state or county level. These data are available to assist public health practitioners, epidemiologists, policymakers, and the general public in making decisions about their health and the health of their communities. This risk assessment aims to interpret the CDC data and provide actionable guidance for specific risk populations given the current level of respiratory virus activity.

Current Risk Assessment

Currently, the Center for Outbreak Response Innovation (CORI) judges that the national respiratory virus activity is in Scenario 1, *meaning that, nationally, respiratory illness activity is very low.*

This judgment is based on United States respiratory illness activity, emergency department visits from COVID-19, flu, and RSV, United States community viral activity level,[1] as well as national trends in COVID-19,[5] flu,[6] RSV[7] hospitalization rates and positivity rates,[4] and influenza-like-illness (ILI)[8] outpatient visits. As noted on the summary page, some regional trends have begun to emerge that may indicate a future national upward trend. [2]

Our **confidence** in these risk scores is **high**, supported by the breadth of data available from the CDC Data Channel, RESP-NET, and FluView.

CORI is continuing to monitor and adapt this risk assessment in response to the evolving respiratory season, which typically begins in October and ends in April of the following year. Factors that may change this assessment include emergence of viruses

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with increased ability to evade population immunity (e.g., a new SARS-CoV-2 variant that is sufficiently different from circulating variants or new mutations in a predominating influenza subtype that results in antigenic drift and reduced immunity), increased viral severity, and/or lower immunization uptake or effectiveness. The CDC's 2026–2027 Respiratory Disease Season Outlook[9] projects that the current respiratory season, beginning in October, will be similar to last year's. As CDC continues to provide updated data and seasonal outlooks, CORI will update the risk assessment to support individuals in their decision-making.

Human Health Risk Assessment Scenario Table

	Risk to Highest Vulnerability Populations*	Risk to Healthcare Workers	Risk to the US General Public**
Scenario 1- Very Low Respiratory Illness Activity	**Low-Moderate**	**Low**	**Low**
Scenario 2- Low Respiratory Illness Activity	**Moderate**	**Low**	**Low**
Scenario 3-Moderate Respiratory Illness Activity	**Moderate-High**	**Moderate**	**Low-Moderate**
Scenario 4- High Respiratory Illness Activity	**High**	**Moderate-High**	**Moderate**
Scenario 5- Very High Respiratory Illness Activity	**High**	**High**	**Moderate-High**

*According to CDC[10], older adults (ages 65 and older), young children (<5), people with certain medical conditions (weakened immune systems, people with disabilities, pregnant women) have the highest risk of severe illness for respiratory viruses like COVID-19, flu, and RSV.

** The US General Public column serves as the baseline reference. Individuals within the general public who belong to one or more of the named populations carry the risk level of those specific groups, not the baseline. Other factors, such as vaccination status, prior infection, and engagement in congregate settings (e.g., schools, group homes, etc.) impact risk.

Recommended Actions

As noted in the summary, to decrease the risk to human health in the current situation, CORI recommends:

- Everyday precautions like handwashing, covering coughs, and cleaning surfaces can help protect you and those around you
- Stay up to date on recommended immunizations and take steps for cleaner air as much as possible where you live and work

Methods

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Respiratory Illnesses in the United States

Risk assessment can be very helpful in times of significant uncertainty because it enables structured consideration of complex scenarios, likelihoods, and consequences to inform decisions around policy and operational action, as well as implementation of protective measures and future planning for worst-case scenarios. It is important not to wait for perfect information to estimate potential risk, because decisions must be made even in the absence of plentiful data.

Therefore, the Center for Outbreak Response Innovation (CORI) conducted a scenario-based risk assessment to consider human health risks both now and in potential future scenarios.

The purpose of this document is to consider possible future developments in this respiratory season and describe corresponding risks to human populations should a given scenario occur. A risk score is determined for each key population across multiple possible scenarios.

Risk scores are evaluated on a five-point scale, with scores including low, low-moderate, moderate, moderate-high, and high. The confidence in each of these risk level assignments is based on the breadth, depth, and quality of information available. The overall confidence of each risk score determination is based on a three-point scale, which includes low, moderate, and high.

In each scenario, we consider the risk to three distinct populations: 1) highest vulnerability populations[10], which include older adults (ages 65 and older), young children (<5), people with certain medical conditions (weakened immune systems, people with disabilities, pregnant women), 2) healthcare workers, and 3) the general US public.

In determining these risks, we consider several factors, including individual factors that may make someone more susceptible to infection (e.g., young children without prior viral infect ion), as well as individual factors that may make someone more likely to experience severe infection (e.g., certain medical conditions like immunocompromise). This assessment also considered the role of risk prevention strategies, such as appropriate vaccination for influenza, COVID-19, or RSV or the use of medical-grade personal protective equipment (PPE) by healthcare workers to reduce occupational exposures.

When determining the scenario, national data from CDC regarding emergency department visits, hospitalization rates, wastewater concentration, and test positivity are reviewed. For influenza, the frequency of outpatient influenza-like-illness is also considered. This risk assessment also references three key summary measurements from the CDC Respiratory Illnesses Data Channel[1], which include 1) United States

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respiratory illness activity[1] (defined as the number of people going to the emergency department for respiratory illness as either very low, low, moderate, high, or very high in comparison to "baseline" levels of respiratory illness activity), 2) United States emergency department visits from COVID-19, flu, and RSV, and 3) United States community viral activity level (defined as the level of viral activity detected in wastewater).

Scenario Details:

***Please note:** We are evaluating the risks to human health should each scenario occur, **not** the relative risk of any one scenario occurring.

Scenario 1 – Very Low Respiratory Illness Activity: Respiratory illness activity is at or below typical levels. In this scenario, the overall risk to human health is low. Highest vulnerability populations begin to be impacted, but the impact to healthcare workers and the general public remains low. Population health consequences remain minimal, with healthcare systems operating under normal parameters and no significant disruption to daily activities.

Scenario 2 – Low Respiratory Illness Activity: Respiratory illness activity is slightly above typical levels but remains manageable. Emergency departments report small increases in respiratory illness-related visits, but the overall population health consequences remain low, with the general population experiencing minimal disruption to normal activities. Infections may become more common among highest vulnerability populations. Healthcare workers likely remain unaffected due to personal protective equipment (PPE) utilization during occupational exposures.

Scenario 3 – Moderate Respiratory Illness Activity: There is a noticeable increase in respiratory illness activity. Healthcare systems may experience strain but can maintain routine functions. Work and school absences may increase noticeably as people in all three populations become more impacted by viral transmission.

Scenario 4 – High Respiratory Illness Activity: Respiratory illness activity has risen significantly above baseline. Emergency departments are substantially impacted. Elective procedures may be delayed, preserving capacity. Individuals in all three populations are impacted; older adults (ages 65 and older), young children (<5), and people with certain medical conditions (weakened immune systems, people with disabilities, pregnant women) are at high risk for the first time.

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Scenario 5 – Very High Respiratory Illness Activity: Respiratory illness activity is exceptionally high, far exceeding typical levels. Emergency departments are seeing substantially higher numbers of visits for respiratory illnesses. The combined peak hospitalization burden may approach or exceed levels seen during the highest periods of recent respiratory seasons. Healthcare systems are potentially approaching or exceeding capacity, necessitating activation of crisis response measures. Widespread societal impacts affect many aspects of daily life.

References

1. US Centers for Disease Control and Prevention. Respiratory Illnesses Data Channel. Updated October 30, 2026. Accessed November 2, 2026. https://www.cdc.gov/respiratory-viruses/data/index.html

2. Rivers C. Outbreak Outlook – Nov 1. Force of Infection. Accessed November 2, 2026. https://www.forceofinfection.com/outbreak-outlook-nov-1/

3. Hansen CL, Shaikh N, Naeger S, Torcel-Pagnon L, Chaves SS, Viboud C. Hospitalizations and deaths from major respiratory viruses in the US: an ensemble time series modeling study, 2016–2025. Journal of Infection. 2026;93(2):106811. Accessed November 2, 2026. https://doi.org/10.1016/j.jinf.2026.106811

4. US Centers for Disease Control and Prevention. Illness Levels Over Time. Accessed November 2, 2026. https://www.cdc.gov/respiratory-viruses/data/activity-levels.html

5. US Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19) Hospitalization Surveillance Network (COVID-NET). Accessed November 2, 2026. https://www.cdc.gov/covid/php/covid-net/index.html

6. US Centers for Disease Control and Prevention. FluView. Accessed November 2, 2026. https://www.cdc.gov/fluview/index.html

7. US Centers for Disease Control and Prevention. Respiratory Syncytial Virus Hospitalization Surveillance Network (RSV-NET). Accessed November 2, 2026. https://www.cdc.gov/rsv/php/surveillance/rsv-net.html

8. US Centers for Disease Control and Prevention. Weekly Influenza Surveillance Report: Key Updates for Week 42, ending October 23, 2026. Accessed November 2, 2026. https://www.cdc.gov/fluview/surveillance/2026-week-42.html

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9. US Centers for Disease Control and Prevention. CDC's 2026–2027 Respiratory Disease Season Outlook. Accessed November 2, 2026. https://www.cdc.gov/cfa-qualitative-assessments/php/data-research/season-outlook26-27.html

10. US Centers for Disease Control and Prevention. People at increased risk for severe respiratory illnesses. Updated August 18, 2025. Accessed November 2, 2026. https://www.cdc.gov/respiratory-viruses/risk-factors/index.html

https://www.forceofinfection.com/second-look-at-flu/https://www.forceofinfection.com/outbreak-outlook-oct-4/https://www.forceofinfection.com/outbreakoutlook20261011/?ref=force-of-infection-newsletterhttps://www.cdc.gov/respiratory-viruses/data/activity-levels.htmlhttps://www.cdc.gov/respiratory-viruses/data/index.htmlhttps://www.cdc.gov/fluview/surveillance/2026-week-37.htmlhttps://www.cdc.gov/respiratory-viruses/risk-factors/index.htmlhttps://www.cdc.gov/rsv/php/surveillance/rsv-net.htmlhttps://www.cdc.gov/covid/php/covid-net/index.htmlhttps://www.cdc.gov/cfa-qualitative-assessments/php/data-research/season-outlook26-27.html**The Center for Outbreak Response Innovation is supported through Cooperative Agreement NU38FT000004 between CDC's Center for Forecasting and Outbreak Analytics and Johns Hopkins University's Bloomberg School of Public Health.**

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