

RESPIRATORY VIRUS EPIDEMIOLOGY

LITERATURE REVIEW

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TRANSMISSION

Upper respiratory infections (URIs) can be transmitted through contact with droplets from the nose or throat of infected people when they cough or sneeze. These can also be spread by:

- Hugging/kissing and other close physical contact
- Being within six feet of a person who is coughing or sneezing
- Touching doorknobs or other objects with respiratory droplets on them

SEASONS & RISK FACTORS

Virus	Season	High Risk Groups:
Influenza ^{1,2}	Autumn - Spring	Kids in school (K-12) Older population (greater than 65) People with underlying health conditions
Respiratory Syncytial Virus (RSV) ³⁻⁶	Fall - Spring	Can cause severe respiratory illness and hospitalizations in children less than 1 Severe in older populations
Common Cold ⁷⁻⁹	Autumn - Spring	Children and young adults affected due to active social interactions
SARS-CoV-2 ¹⁰⁻¹²	Year-round	Older adults (greater than 65) Individuals with underlying health conditions

Overall Risk Factors¹⁶

Age	Children less than 5 and adults 65 and older
Decreased immune function	HIV/AIDS, cancer, pregnancy, post-organ transplant
Underlying health conditions	Chronic lung or heart disease, obesity

Note: URIs can infect anyone, but the above factors confer increased risk.

PREVENTION

Healthcare Infection Control^{2,18}

Some actions you can take to protect yourself from upper respiratory viruses are:

- Hand washing
- Covering your mouth with a mask, tissue, or elbow when sneezing or coughing
- Personal protective equipment (PPE), including masks and gloves

Vaccinations¹⁷

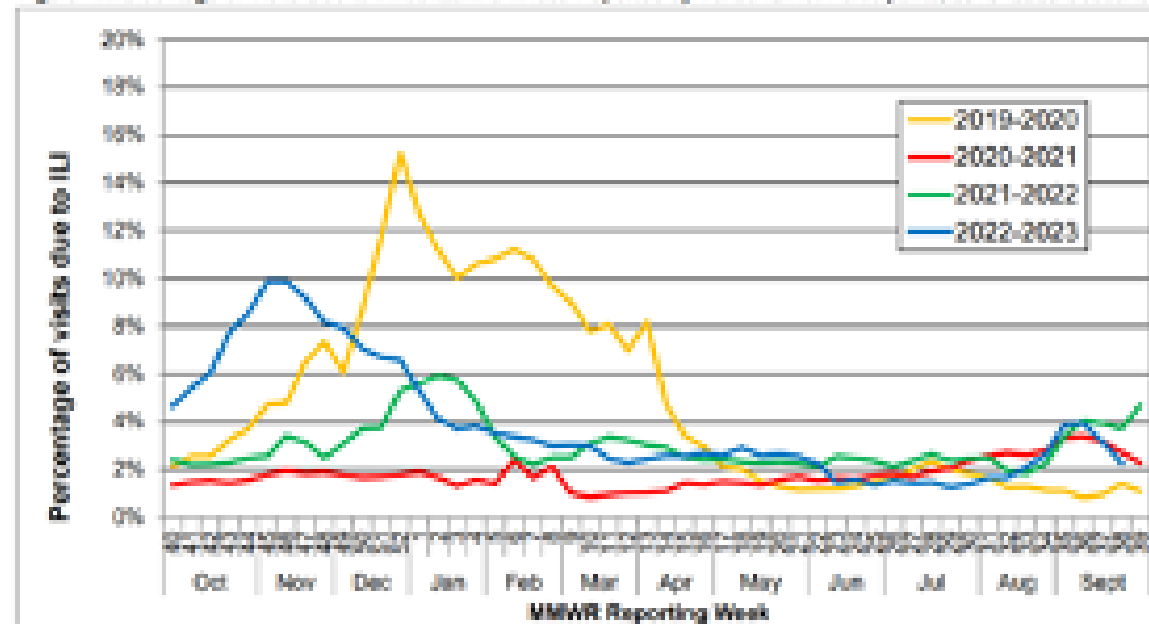
For more information on respiratory virus vaccines, consider reviewing the Vaccines ID RREAP page.

Vaccines can help prevent the spread of respiratory viruses, decrease symptoms, protect vulnerable populations, and reduce hospitalizations. Vaccines teach the immune system how to fight off specific diseases and protect you from getting sick in the future. Some guidelines regarding vaccines for each upper respiratory virus are as follows:

- The flu vaccine is available each year for anyone 6 months of age and older is ideal to receive it before the end of October
- The RSV vaccine is recommended for individuals aged 60 and older and pregnant women between weeks 32-38.
 - This vaccine is given between September and January
- The COVID-19 vaccine is available for everyone aged 5 years and older
 - There are updated 2023-2024 vaccines from Pfizer-BioNTech, Moderna, or Novavax

KEY STATISTICS

Figure 4: Percentage of Visits Due to Influenza-like Illness Reported by Texas ILINet Participants, 2019-2023 Seasons



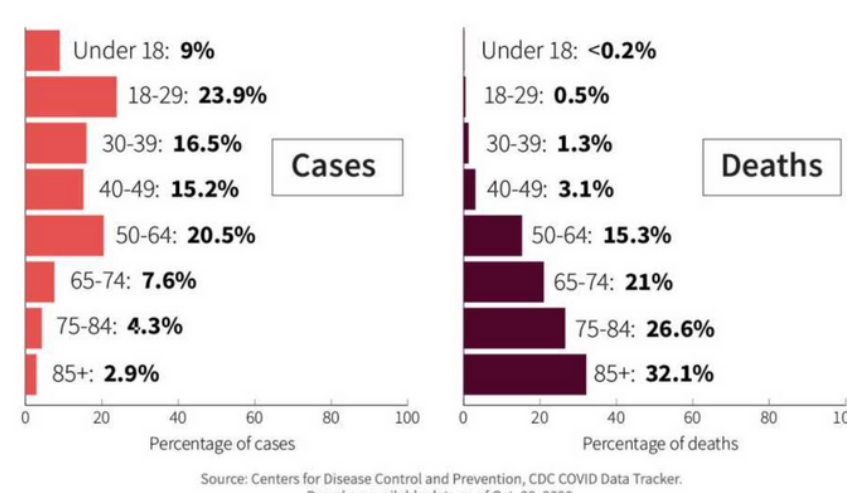
Note: The 2020-2021 flu season contains MMRW week 202005. For graphical display compatibility with seasons containing 52 weeks, average values were generated using MMRW week 52 and 1 for Seasons: 2019-2020, 2021-2022, and 2022-23.

Most patients with the **seasonal Influenza (Flu)** have fever, cough and fatigue. But severe cases can lead to hospitalizations, which is why Influenza is associated with **increased mortality**.¹ The percent of doctor visits associated with Influenza have been highest from **November to April** (noted from 2019-2022).¹⁶

Additional Epidemiology Reference Guide



COVID-19 is still a significant condition affecting DFW area. The median **daily Infection rate is 7.92** in DFW area (measured on March 3rd, 2023).²⁰ While COVID-19 affects 18 to 65 year olds more, those over 85+ are at a higher risk of developing severe illnesses related to COVID-19, which can result in death.¹⁰



References