Delaware’s Respiratory Overview
2023 Immunization Summit
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RSV
Respiratory Syncytial Virus, also known as RSV, is a common respiratory illness that has cold-like symptoms such as coughing, sneezing, wheezing, runny nose, fever, or decrease in appetite.

COVID-19
SARS-CoV-2, also known as COVID-19, is a respiratory virus that can feel similar to cold, flu, or pneumonia. This respiratory virus is highly contagious and spreads quickly affecting an individual’s lungs and respiratory system.

Influenza
Influenza, commonly known as Flu, is a respiratory illness caused by the influenza virus. This virus can infect the nose, throat, and sometimes the lungs in a mild to severe manner of the infected individual with fatality sometimes occurring.

Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Influenza
Influenza Cases by County, Delaware, 2022-2023

Respiratory Season Dates
10/2/2022-5/20/2023

- 9,132 cases
  - 4,208 in New Castle County
  - 2,266 in Kent County
  - 2,660 in Sussex County
- Predominant strain Influenza A (un-subtyped) followed by Influenza A(H3)
- 72 Hospitalizations

Source: Delaware Department of Health and Social Services, Division of Public Health, My Healthy Community, Influenza Case Data: Total Flu Cases by County (Cumulative), November 14, 2023
Influenza Case Counts by MMWR Week, Delaware, 2022-2023 Respiratory Season

Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Dotted line indicates the epidemiological curve for the respiratory season displaying the disease trend for the respiratory season
2022-2023 respiratory season is from MMWR ~ Week 40 – Week 20 of following year
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Influenza Case Counts by County and MMWR Week, Delaware, 2022-2023 Respiratory Season

Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Respiratory Season October – May (MMWR ~ Week 40 – Week 20 of following year)
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Influenza Case Counts by Age Group and MMWR Week, Delaware, 2022-2023 Respiratory Season

Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Respiratory Season October – May (MMWR ~ Week 40 – Week 20 of following year)
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Influenza Case Counts by Strain and MMWR Week, Delaware 2022-2023 Respiratory Season

Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Respiratory Season October – May (MMWR ~ Week 40 – Week 20 of following year)
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Influenza Cases by Respiratory Season, Delaware, 2010 - 2023

Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Respiratory Season October – May (MMWR ~ Week 40 – Week 20 of following year)
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Delaware Total Influenza Cases\(^1\) Per Month, 2019-2022

**Note:** National COVID-19 emergency declared March 13\(^{th}\)

Surveillance month – flu season start the month of October and ends in May

Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
DE ILINet-symptom tracking

Influenza-like Illness (ILI) Sentinel Reporting Sites

• 35 Sites:
  • 9 Federally Qualified Health Centers
  • 5 Clinics
  • 8 Hospital networks
  • 2 University Wellness Clinics
  • 8 Correctional Center Clinics
  • 1 Urgent Care.

Note: ILINet is the reporting portal for Influenza-like Illness (ILI).
ILI has been defined for surveillance purposes as an illness with fever or feverishness plus either cough or sore throat.
Percentage of Sentinel Provider Reported Influenza-like Illness (ILI) by Respiratory Season and MMWR week, Delaware, 2019-2023

Notes: Influenza Like Illness (ILI) has been defined for surveillance purposes as an illness with fever or feverishness plus either cough or sore throat.
Sentinel Providers are healthcare providers who report how many visits they have weekly for ILI to CDC.
Source: Delaware Department of Health and Social Services, Division of Public Health, My Healthy Community, Influenza: Hospitalizations, Hospitalization Trends, November 14, 2022
Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) and COVID-19 Like Illness (CLI) by Week, Delaware, 2022 - 2023

Note: ILI has been defined for surveillance purposes as an illness with fever or feverishness plus either cough or sore throat.
CLI is defined as fever and cough or shortness of breath or difficulty breathing with or without the presence of a coronavirus diagnosis code
Source: Delaware Department of Health and Social Services, Division of Public Health, My Healthy Community, Influenza: Hospitalizations, Hospitalization Trends, November 14, 2022
Long Term Care Unit Pilot Reporting Program for rapid influenza tests, RSV tests, and respiratory panels.
COVID-19
COVID-19
2022-2023 Season Statistics

Seasonal Reporting
10/2/2022-5/20/2023

24,806 Total Cases
12,982 New Castle
4,863 Kent
6,900 Sussex
61 Unknown

Source: Delaware Department of Health and Social Services,
Division of Public Health, November 14, 2023
COVID-19 Case Counts by MMWR Week, Delaware, 2022-2023 Respiratory Season

Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Respiratory Season October – May (MMWR ~ Week 40 – Week 20 of following year)
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
COVID-19 Case Counts by County and MMWR Week, Delaware, 2022-2023 Respiratory Season

Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Respiratory Season October – May (MMWR ~ Week 40 – Week 20 of following year)
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Note: Mortality and Morbidity Weekly Report (MMWR) numbers CDC reporting weeks
Respiratory Season October – May (MMWR ~ Week 40 – Week 20 of following year)
Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
COVID-19 Long Term Care Unit Cases by Month and Year, Delaware, 2020-2023

Note: Long Term Care Units (LTC) include Skilled nursing facilities, Assisted living facilities, Behavioral units, and Rest Residentials

Source: Delaware Department of Health and Social Services, Division of Public Health, Office of Infectious Disease Epidemiology, November 14, 2023
Preventative Measures

• Wash hands appropriately for more than 20 seconds.

• Clean and disinfect frequently touched surfaces at home, work, or school, especially when someone is ill.

• Cover your mouth and nose if you cough or sneeze with a tissue or a shirt – never with one’s hands.

• Avoid touching your eyes, nose, and mouth.

• Avoid sharing personal items, food, or drink.

• Avoid contact with people who have suspected or confirmed respiratory illness.

Source: Center for Disease Control and Prevention, COVID-19, Prevention, How to protect yourself and others, November 15, 2023
Preventative Measures Continued

• Improve ventilation.

• Get tested for respiratory illnesses when suspected and stay home if you have suspected or confirmed respiratory illness.

• Follow CDC recommendations if or when exposed to respiratory illnesses.

• Seek treatment if you are at high risk for severe illness.

• Stay up to date with vaccinations.

Source: Center for Disease Control and Prevention, COVID-19, Prevention, How to protect yourself and others, November 15, 2023

Vaccinations
RSV VACCINES

- **RSVPreF3 (Arexvy, GSK)**
  - Arexvy contains an adjuvant.
  
  - In Phase III clinical trials, Arexvy was 82.6% effective at preventing lower respiratory tract infections from RSV in adults age 60 and older.

- **RSVpreF (Abrysvo, Pfizer)**
  - ABRYSVO (Respiratory Syncytial Virus Vaccine) is a sterile solution for intramuscular injection.
  
  - Supplied as a vial of Lyophilized Antigen Component that is reconstituted at the time of use with a Sterile Water Diluent Component. The antigen component contains recombinant RSV preF A and RSV preF B.

Source: Center for Disease Control and Prevention, RSV, RSV Vaccines, November 15, 2023
Influenza

- Everyone 6 months and older in the United States should get an influenza (flu) vaccine every season with rare exception. CDC’s Advisory Committee on Immunization Practices has made this “universal” recommendation since the 2010-2011 flu season.

- Adults aged 65+ should receive any one of the higher dose or adjuvanted flu vaccines:
  - Quadrivalent high-dose inactivated flu vaccine (HD-IIV4)
  - Quadrivalent recombinant flu vaccine (RIV4)
  - Quadrivalent adjuvanted inactivated flu vaccine (allIV4).

Source: Center for Disease Control and Prevention, Seasonal Influenza Vaccines, November 15, 2023
https://www.cdc.gov/flu/prevent/flushot.htm#:~:text=There%20are%20different%20flu%20vaccines,Fluad%20Quadrivalent%20adjuvanted%20flu%20vaccine.

Everyone aged 5 years and older ‡ should get 1 dose of an updated COVID-19 vaccine to protect against serious illness from COVID-19.

Children aged 6 months–4 years need multiple doses of COVID-19 vaccines to be up to date, including at least 1 dose of updated COVID-19 vaccine.

People who are moderately or severely immunocompromised may get additional doses of updated COVID-19 vaccine.

Source: Center for Disease Control and Prevention, COVID-19, Vaccines, Overview of COVID-19 Vaccines, November 15, 2023
Further Prevention Approaches
Mitigation Strategies for Long Term Care

Cohorting
Group patients with common traits and conditions and/or common infections.
Cohorting is often used to confine and contain transmission of virus.

Close Contact (CDC Definition)
Individuals within 6 feet of an infected person for 15 minutes or more (within 24 hours).
An infected person can spread COVID-19 starting from 48 hours before the person has any symptoms or tests positive for COVID-19.

Focus-Based Testing
May be implemented if contact tracing is possible.
Those who are identified as close contacts should be tested for 14 days from last exposure date.

Broad-Based Testing
Recommended if unable to conduct contact tracing.
Staff/residents should be tested for 14 days from last case identified.

Source: Delaware Department of Health and Social Services, Division of Public Health, November 14, 2023
Treatment Options

COVID-19

- Nirmatrelvir with Ritonavir (Paxlovid)
- Remdesivir (Veklury)
- Molnupiravir (Lagevrio)


Influenza

- Rapivab (peramivir)
  - One dose is usually prescribed intravenously
- Relenza (Zanamivir)
  - Prescribed for five-day use
- Tamiflu (Oseltamivir Phosphate)
  - Prescribed for five-day use
- Xofluza (Baloxavir Marboxil)
  - One dose orally is usually prescribed

Source: Center for Disease Control and Prevention, COVID-19 Treatments and Medications, November 15, 2023
Reporting Influenza, COVID-19, and RSV

reportdisease@delaware.gov

HL7 electronic health/medical record interface

Rapids for influenza and RSV are non-reportable.
Influenza
- https://www.cdc.gov/flu/about/index.html
- https://www.cdc.gov/flu/about/keyfacts.htm
- https://www.cdc.gov/flu/about/disease/spread.htm
- https://www.cdc.gov/flu/about/viruses/index.htm

RSV
- https://www.cdc.gov/rsv/index.html
- https://www.cdc.gov/rsv/about/prevention.html

COVID-19
- Infection Control: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) | CDC
- https://myhealthycommunity.dhss.delaware.gov/locations/state
Questions or Comments?

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