



**Indiana**  
**Department**  
**of**  
**Health**

# RESPIRATORY ILLNESS IN LONG-TERM CARE FACILITIES

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INFECTIOUS DISEASE EPIDEMIOLOGY &  
PREVENTION DIVISION

10/24/2023

## OUR MISSION:

To promote, protect, and improve the health and safety of all Hoosiers.

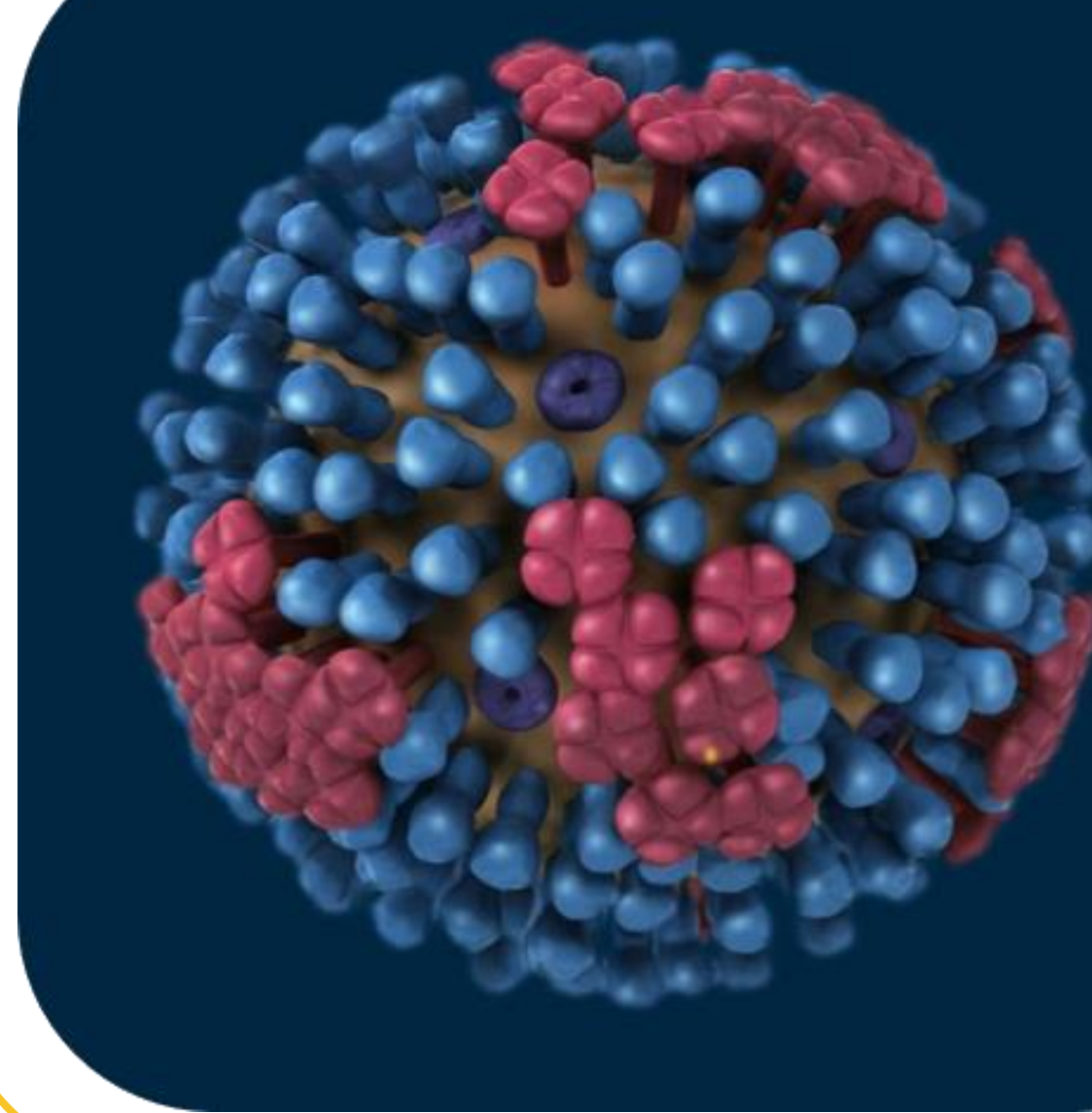
## OUR VISION:

Every Hoosier reaches optimal health regardless of where they live, learn, work, or play.



# Presentation Overview

1. Introduction
2. LTCF Respiratory Outbreaks: Detection, Response and Challenges
3. LTCF Respiratory Outbreak Resources
4. Q&A







# Introduction to Influenza

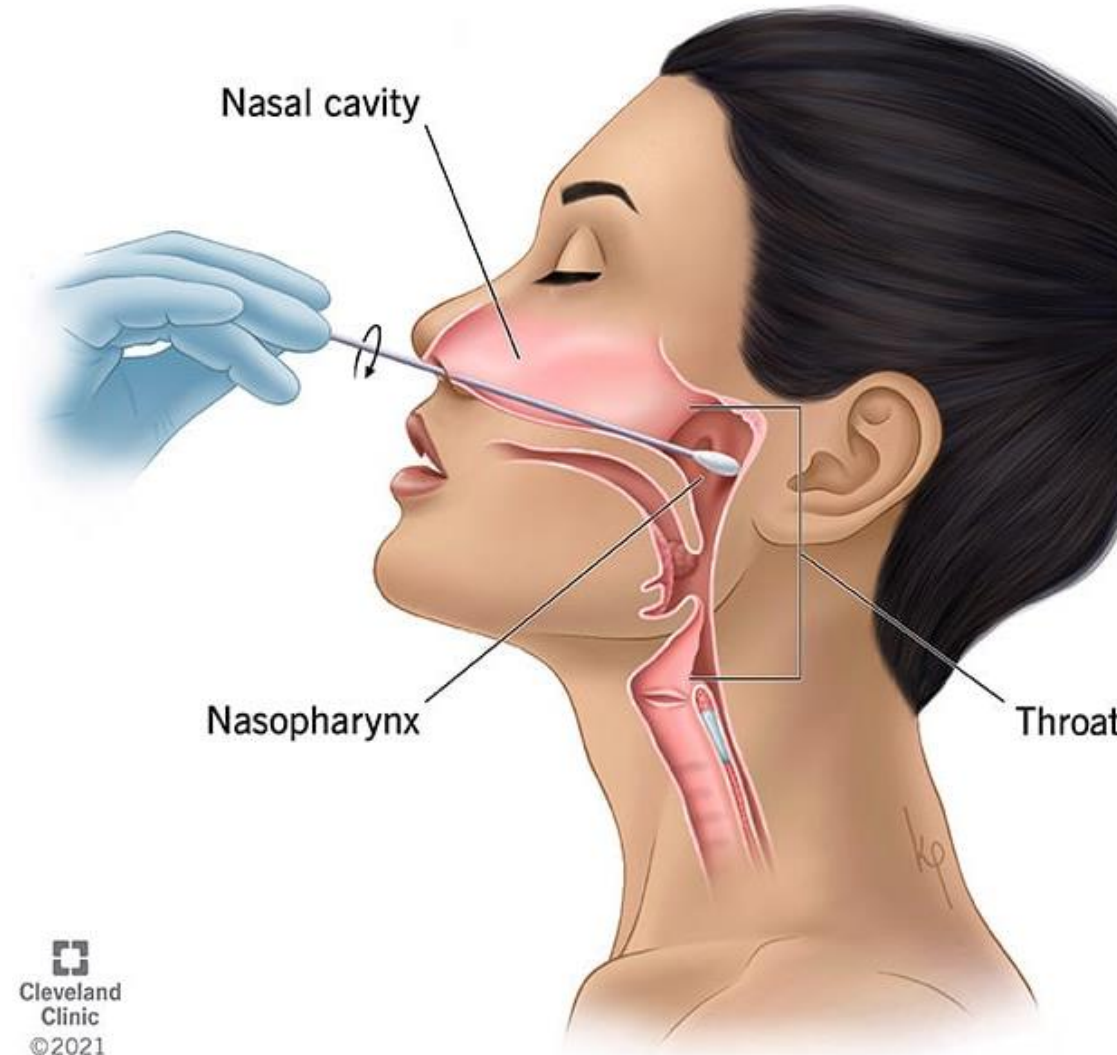


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# Flu Diagnosis

- Flu is diagnosed via one of the following methods, using a nasopharyngeal (NP) swab:
  - “Rapid” test
    - Polymerase chain reaction (PCR)
      - RT-PCR
      - Respiratory viral panel PCR
    - Antigen test
  - Culture - rare



# Flu Epidemiology

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- Influenza (flu) is a contagious respiratory illness caused by the **influenza virus, types A and B**
- Transmitted via **droplets**, released into the air
  - Droplets may remain infectious for minutes to hours, or even days
- Influenza viruses can **infect the nose, throat, and/or lungs**
- Illness can range from mild to severe and **can result in hospitalization or even death**
- Flu season runs **October – May in the U.S.**, activity typically peaks December - January
- Annual vaccination is the most effective way to reduce the risk of flu infection and complications

# Respiratory Reporting

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- Individual cases of flu **are not reportable** to IDOH by healthcare providers
  - Flu/ILI outbreaks and flu-associated deaths **are reportable**
- The following respiratory pathogens are also reportable under outbreak conditions, and circulate during flu season:
  - Respiratory syncytial virus (RSV)
  - Human parainfluenza virus
  - Human metapneumovirus
  - Adenovirus
  - Rhinovirus/enterovirus
  - SARS-CoV-2 (COVID-19)
  - Seasonal coronaviruses



# Long-Term Care Facility (LTCF) Outbreaks



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# LTCF Outbreak Detection

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**Definition:** “At least three (3) residents with the same infection in one defined area (such as hall, unit, neighborhood, street, pod, secured unit, vent unit) in a 48-hour period OR 10% or more of the current building census with the same infection.” – *IDOH Long-Term Care Division*

- Cases may be lab-confirmed, or meet influenza-like illness (ILI) criteria
  - **ILI** = Fever (> 100°F, 37.8°C) AND cough AND/OR sore throat
- Not limited to residents - should include staff, even those who were not tested at facility and are reporting outside results
- Individuals may test negative but still meet ILI criteria and should be included in the outbreak count

# LTCF Outbreak Process

1. IDOH notified via LTC Division incident reporting portal; occasionally by local health department (LHD), IDOH field staff, or directly by facility staff.

2. IDOH central office epidemiologist receives information, confirms outbreak, initiates outbreak response, notifies field and IP team.

3. Field team completes outbreak investigation. Investigations housed in IDOH REDCap.  
Ex: "2023OUT-RESP[FLU]-001"

As a public health agency, **the health department has the authority** to declare outbreaks.

# LTCF Outbreak Response

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## Investigation:

- IDOH field team interviews facility leadership or clinical staff and collects the following information:
  - Timeline of symptoms
  - Facility description/layout
  - Case counts
  - Clinical and laboratory summary

## Control:

- Respiratory pathogen testing (for outbreak purposes) free of charge at IDOH Lab
- IDOH monitors for two (2) incubation periods after last date of symptom onset before closing outbreak

# LTCF Outbreak Response cont.

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## Recommendations:

- Recommendations may include hand hygiene, PPE, transmission-based precautions, room restrictions, restriction of group activities, dining or visitor restrictions, prophylaxis, vaccination, exclusion of ill staff, cohort staff/residents, and/or enhanced environmental cleaning

## Resources:

- Field team provides affected facility with Respiratory Outbreak Toolkit and line list
- IDOH IP may provide additional education or resources for infection control practices



# LTCF Outbreak Challenges

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- **Delays in reporting**
  - Impact recommendations and control measures
- **Initial information may be minimal or non-specific**
  - Ex: “The flu” could also mean stomach bug - different program area
- **Multiple illnesses circulating** = possibility of coinfections
- **Immunocompromised individuals**
- **Etiology may be unknown** – ex: community-acquired pneumonia (CAP), bronchitis
  - May still be unknown following outbreak closure and medical record review

# LTCF Outbreak Challenges cont.

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## Case counts:

- Staff should be included in counts, but may test outside of the facility without reporting results back
- Staff may not initially report symptoms to facility

## Outbreak closure:

- Single new case resets incubation period = outbreaks can become lengthy

## LTCF conditions:

- Older facilities may have less effective ventilation systems
- Congregate living facilities tend to be more housing-dense, contributing to transmission



# 2022-2023 Flu Season: By the Numbers



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# 2022-2023 Season Summary

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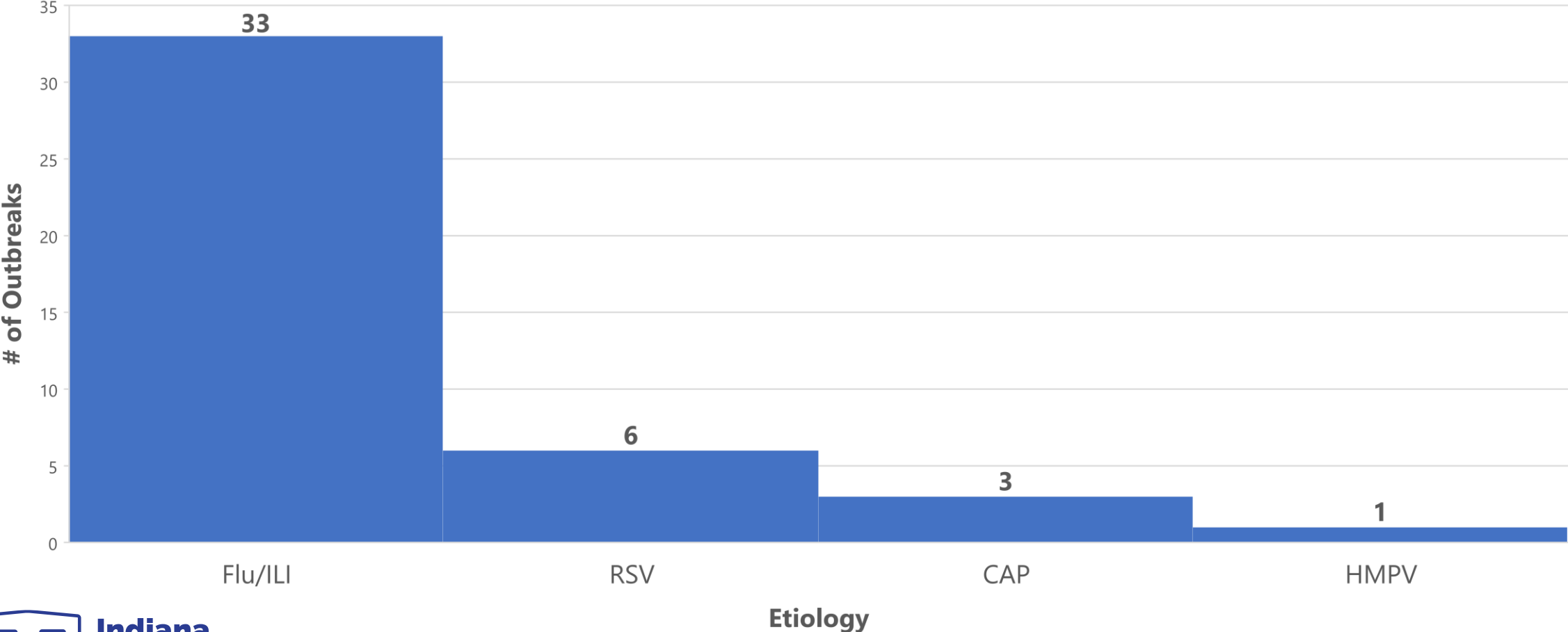
## Long-Term Care Facility (LTCF) Data Indiana, 2022-2023

<b>Respiratory Outbreaks</b>	<b>n = 43</b>
<b>Residents Ill</b>	<b>n = 334</b> (42 of which were hospitalized)
<b>Staff Ill</b>	<b>n = 49</b>
<b>Flu-Associated Deaths</b>	<b>n = 59</b> (3 of which were part of an outbreak)



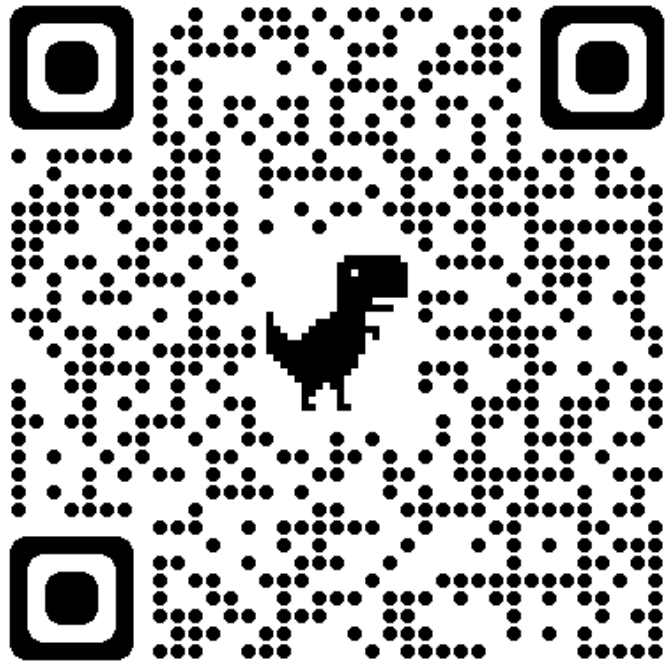
# LTCF Outbreaks by Etiology

Indiana, 2022-2023

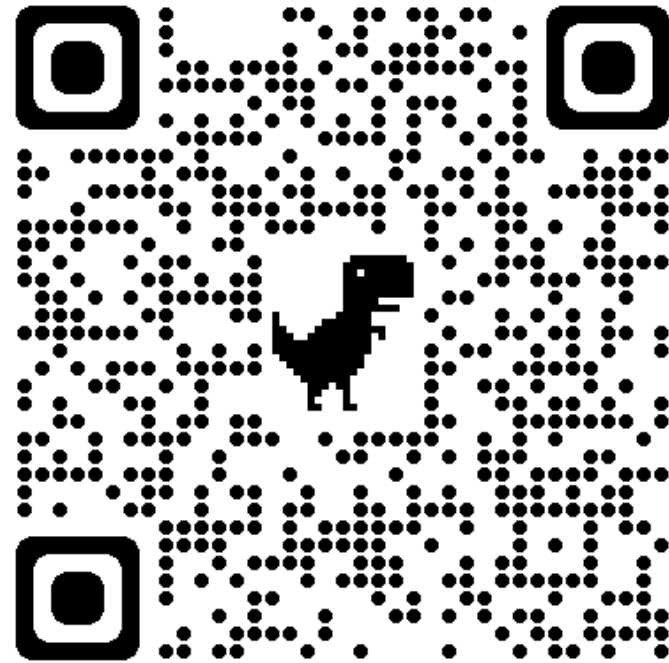


# Respiratory Resources

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LTCF Respiratory Outbreak Toolkit



IDOH Flu Dashboard

# Contact:

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