

Cincinnati Influenza Activity Report: Week 23-17 (4/23/23 to 4/29/23)

Background

The US influenza surveillance season runs from the 40th week of the year (using CDC's MMWR calendar) through the 20th week of the next year. For the 2022-2023 season, week 40 (21-40) began on 10/02/22 and reporting for week 20 will end on 05/21/23 (23-20).

Influenza, by itself, is not a reportable disease, meaning that it is not one of the diseases that Ohio law mandates be reported to public health authorities. This means that public health authorities do not have a single simple data source to measure the incidence (occurrence) and impact of influenza. For this reason, influenza surveillance is conducted by looking at different factors and data sources. In Ohio, pediatric deaths due to influenza and hospitalizations of persons of any age due to influenza are reportable.

Pediatric Deaths (2022-2023 season to date)

- Cincinnati: 0
- Ohio*: 5
- United States*: 149

**As of week 23-17,*

Hospital Admissions

- From 10/02/2022 through 4/29/2023, 247 Cincinnatians have been hospitalized for influenza (Table 1).
 - This total is larger than last year's influenza season. By this time last year, 49 Cincinnati residents had been hospitalized for influenza.
 - Statewide, there are 9,082 residents that have been hospitalized (through 4/29/2023); influenza-associated hospitalizations for Ohio are below the seasonal threshold.

| Hospitalizations Due to Influenza by Month in Cincinnati to Date | |
|---|---|
| <i>Month</i> | <i>Number of Hospitalized Influenza Cases</i> |
| October | 31 |
| November | 128 |
| December | 72 |
| January | 9 |
| February | 4 |
| March | 3 |
| April | 0 |

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- Figure 1 below shows the number of cases of influenza associated hospitalization among Cincinnati residents reported to the Cincinnati Health department by week of admission. Which as of this report is **247**.

Figure 1: Epidemic Curve: Cincinnati Residents Hospitalized for Influenza by Week of Admission

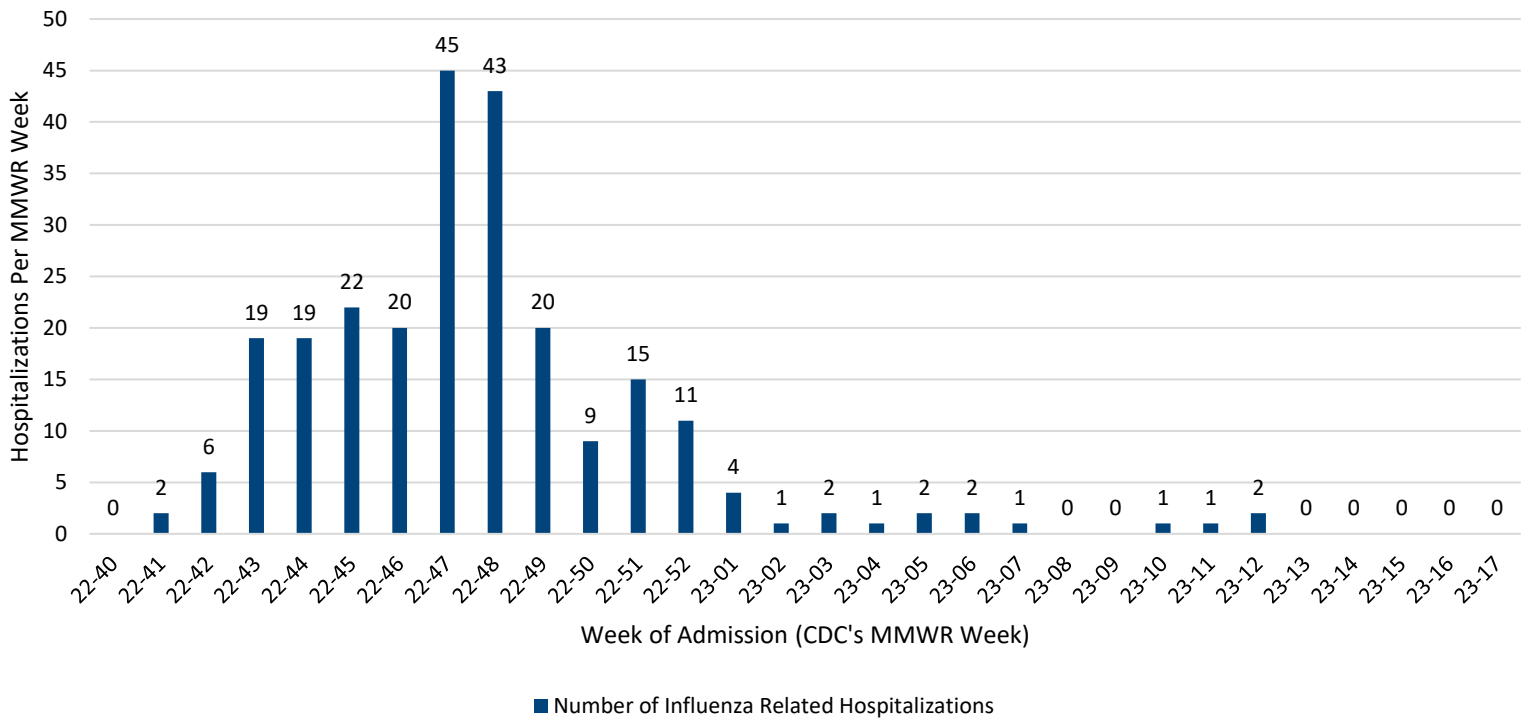


Figure 3: Influenza Related Hospitalization By Sex, 2022-2023

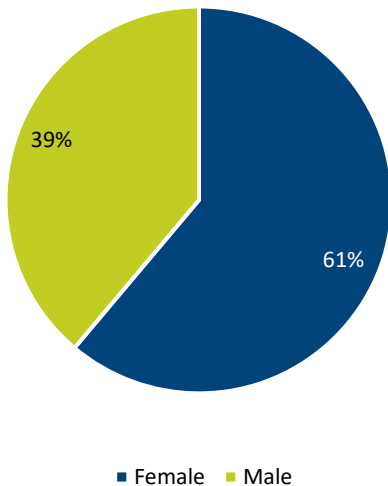
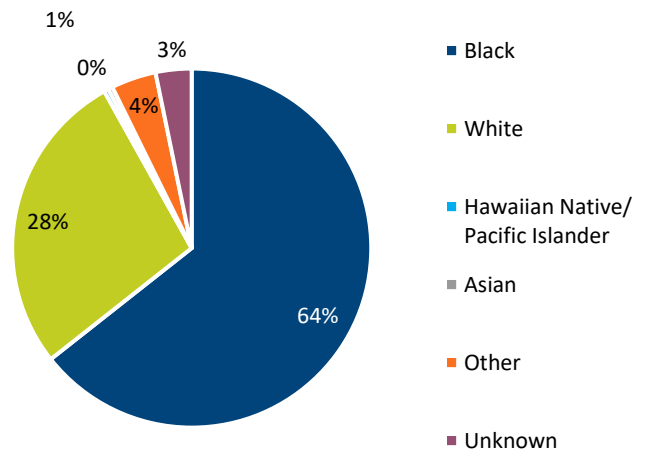
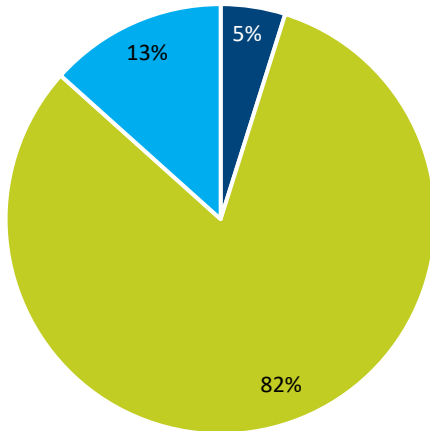


Figure 4: Influenza Related Hospitalization By Race 2022-2023



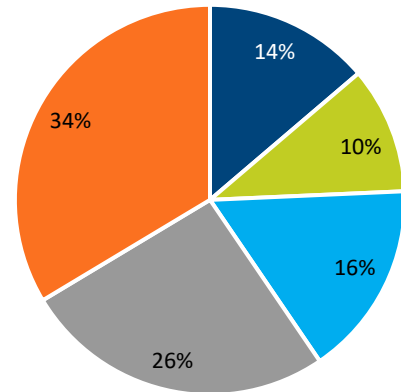
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Figure 5: Influenza Related Hospitalization By Ethnicity, 2022-2023



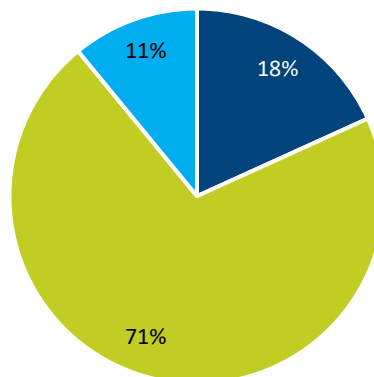
■ Hispanic Or Latino ■ Non Hispanic Or Latino ■ Unknown

Figure 6: Influenza related Hospitalizations by Age Group, 2022-2023



■ 0-4 ■ 5-24 ■ 25-49 ■ 50-64 ■ 65 and Older

Figure 7: Influenza Related Hospitalizations of Vaccinated Individuals, 2022-2023



■ Vaccinated ■ Not Vaccinated ■ Unknown

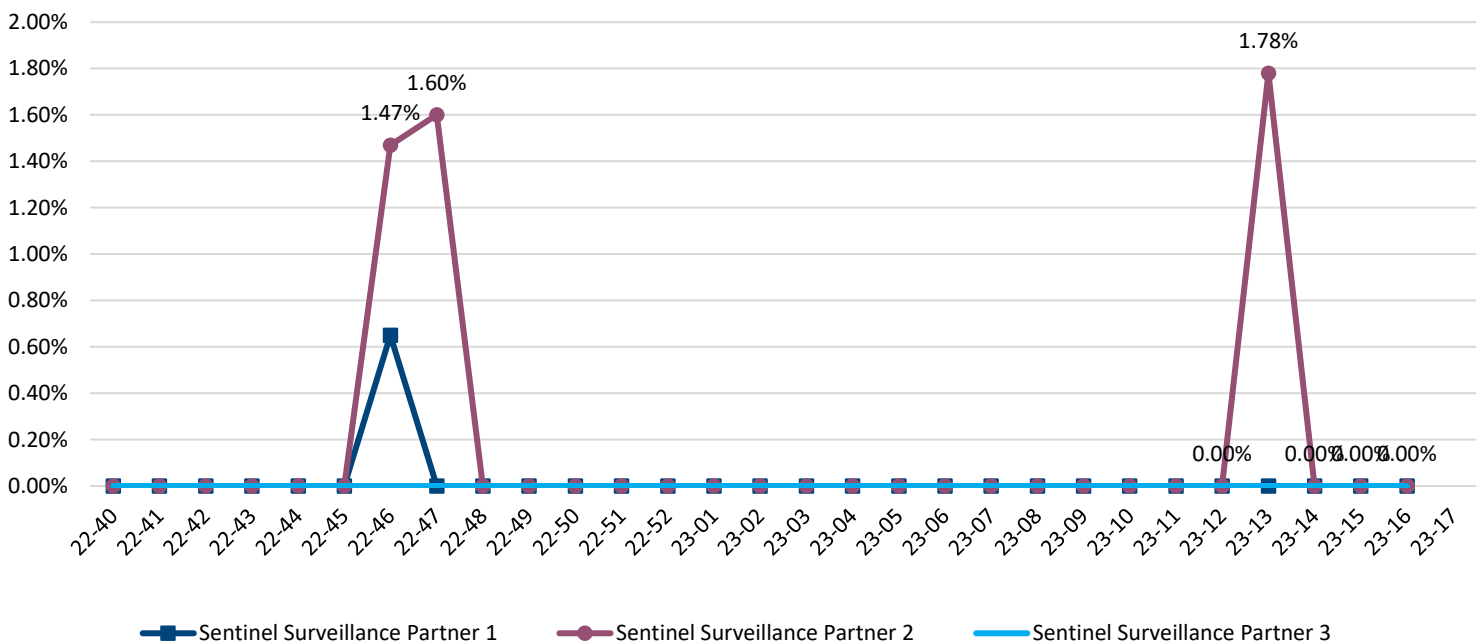
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Outpatient Visits: Sentinel Influenza Program

To get a broader picture of the impact of influenza on the community, the Centers for Disease Control and Prevention (CDC) partners with clinics and medical practices in a voluntary program called ILINet, through which the number of individuals with a fever over 100F, and a cough and/or sore throat, these certain symptoms ("Influenza-Like-Illness, or ILI")¹ are reported weekly, along with the total number of patients seen at the clinic or practice. This voluntary ("sentinel") reporting allows the calculation of the percentage of outpatient visits attributable to ILI. Within Cincinnati, three sites participate in this program, with the three coordinated through the Cincinnati Health Department (CHD). The three sites in Cincinnati are two full-scale primary care health centers, and one school-based health center at a high school.

As of **week 23-17**, our three sentinel surveillance partners have begun surveillance, they will send in at least **two** ILI specimen to the state of Ohio for testing.

Figure 8: Percent of Outpatient Visits Due to ILI by Week

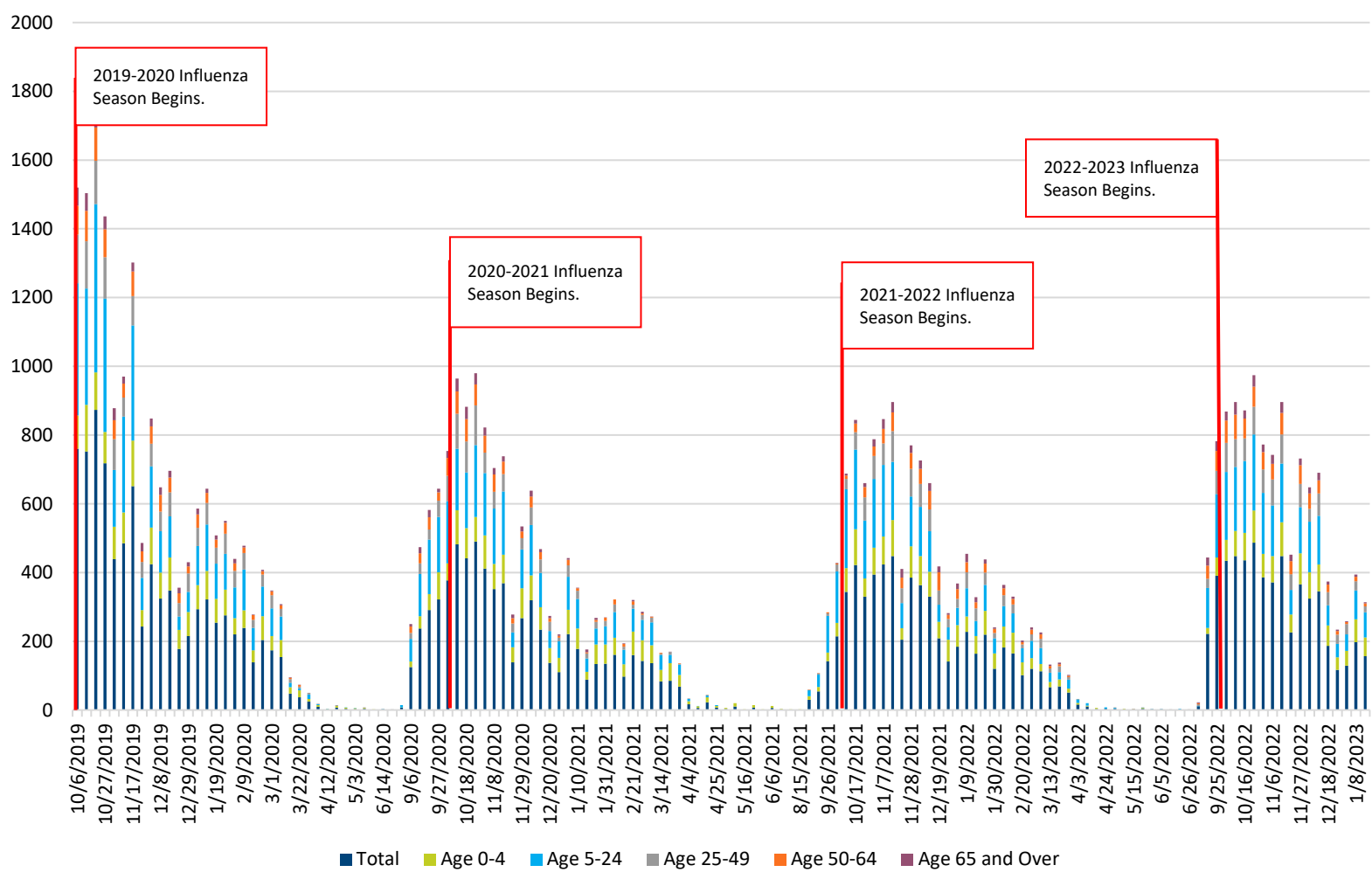


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Influenza Immunizations

The graph below (figure 9), shows the number of influenza vaccinations given by age group per week to patients through CHD's Cincinnati Community Primary Care (CCPC) Health centers. A red line has indicated the beginning of each Influenza season. As of 1/15/23 a total of 6,376 influenza vaccines have been given since the beginning of the 2022 influenza season (MMWR week 40). This total is higher than the previous year 2021, during that time, CHD had given 5,763 Influenza vaccines from the start of the influenza season to 1/16/22. For further comparison, in 2019, (before the COVID-19 pandemic) the number of vaccines provided by CHD from beginning of influenza season to 1/12/20 was 9,664, significantly higher than both 2021 and 2022. Communications continue to urge residents that it is still just as important to receive their influenza vaccine this year as in previous years before the COVID-19 pandemic.

Figure 9: Number Of Influenza Vaccines Given at CCPCs By Week
(10/06/2019 - 1/15/23)

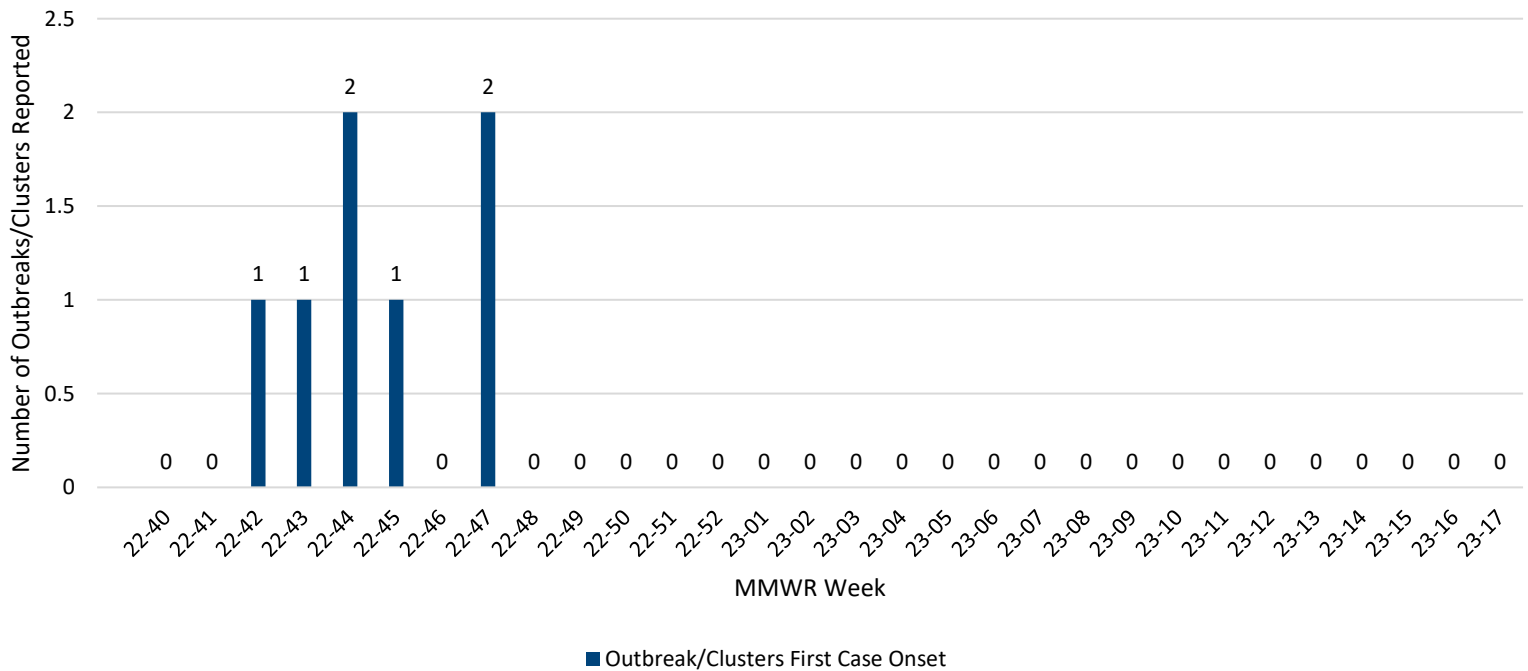


Outbreaks and Clusters

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As of week 23-15, of influenza season, there have been 7 confirmed/suspected influenza institutional outbreaks/clusters. These initial clusters outbreaks were amongst academic institutions. For the 2022-2023 School year, all Cincinnati School Based Health Centers are offering the Influenza Vaccine, for students with insurance there is not out of pocket cost for this vaccine, and those who are uninsured this vaccine costs about \$20.

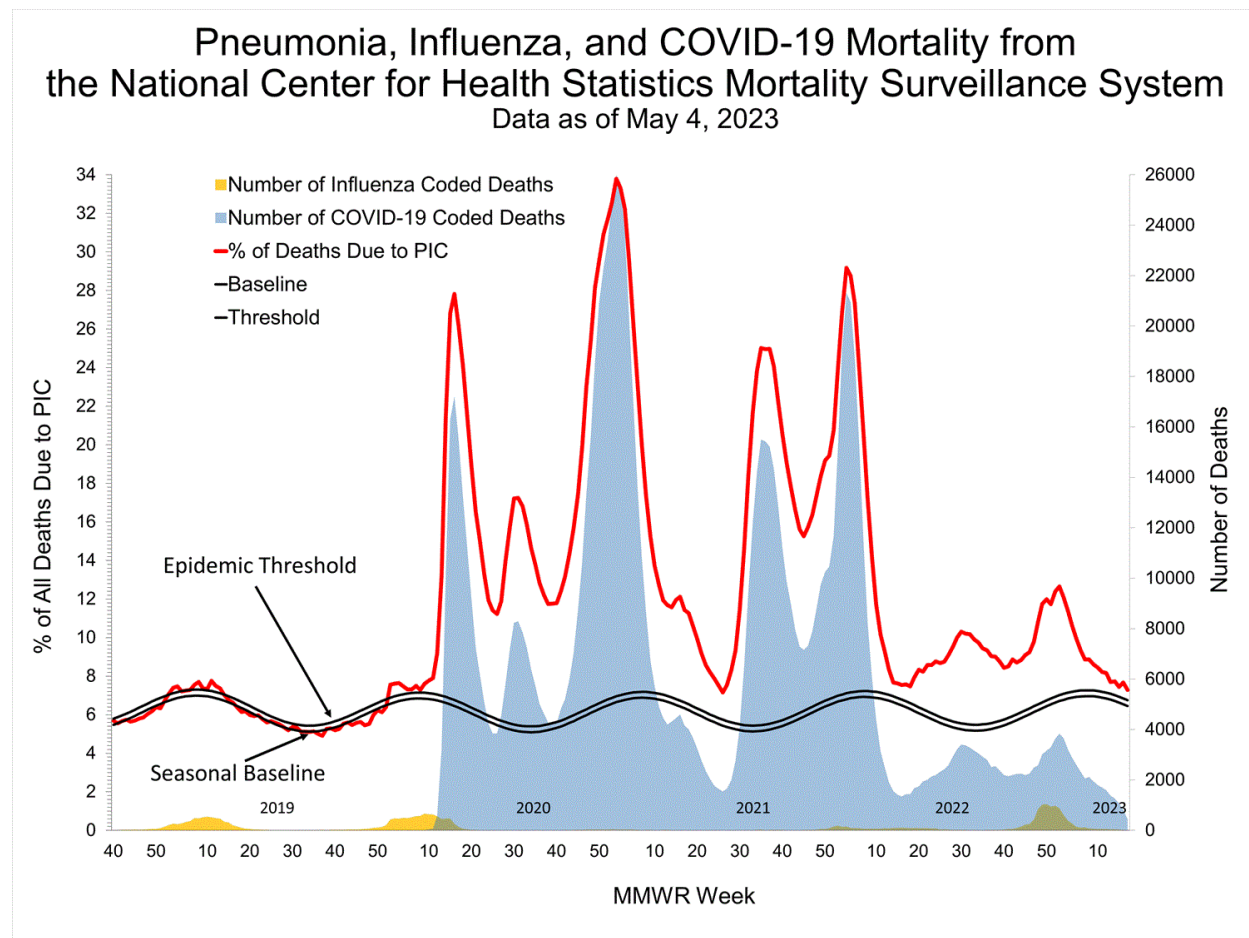
Figure 10: Influenza Outbreak and Clusters Reported to CHD



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Influenza, Pneumonia, and COVID-19 Mortality

Based on NCHS mortality surveillance data available on May 4, 2023, 7.3% of the deaths that occurred during the week ending April 29, 2023 (week 17), were due to pneumonia, influenza, and/or COVID-19 (PIC). This percentage decreased (> 0.3 percentage point change) compared to week 16 and is above the epidemic threshold of 6.8% for this week. Among the 1,585 PIC deaths reported for this week, 439 had COVID-19 listed as an underlying or contributing cause of death on the death certificate, and 14 listed influenza. The data presented are preliminary and may change as more data are received and processed. This figure was provided by and can be found at <https://www.cdc.gov/flu/weekly/index.htm#Clinical>



Summary

To date the influenza activity for both Cincinnati City and the State of Ohio is higher than the 2021 influenza season. As of 4/29/23, five pediatric deaths have been reported in Ohio by the Ohio Department of Health (ODH). In total ODH, has reported 9,082 hospitalized cases of influenza so far this season. According to weekly CDC influenza reporting, the percent of outpatient illness is 2.0%, which is below the United States baseline of 2.5%. The Ohio Department of Health (ODH) has reported low percentages of ILI in outpatient settings from sentinel ILINet providers, the percentage of emergency room visits exhibiting fever/ILI have remained the same since last week, and are below the seasonal baseline for Ohio.

According to **Figure 7** above, 82% of those hospitalized for Influenza so far this season have either not been vaccinated or status is unknown for this year's influenza virus. Shown in **figure 9**, CHD's vaccination rates increase to its peak through the end of November. The slow uptake in influenza vaccines in September and October combined with the early arrival of the influenza season gave Cincinnati a high number of hospitalizations early in the influenza season. The number of hospitalized influenza cases have continued to decrease in Cincinnati and Ohio for the past several months. CHD has not reported any hospitalized cases of influenza in two weeks.

References and Links

- US Influenza Activity: <https://www.cdc.gov/flu/weekly/index.htm#Clinical>
- Ohio Flu Activity Reports: <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/seasonal-influenza/influenza-dashboard/influenza-dashboard>
- Past Cincinnati Influenza Reports: <https://www.cincinnati-oh.gov/health/community-health-data/seasonal-influenza-activity-reports/>
- WHO Flu Factsheet: [https://www.who.int/en/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/en/news-room/fact-sheets/detail/influenza-(seasonal))