



**TEXAS**  
Health and Human  
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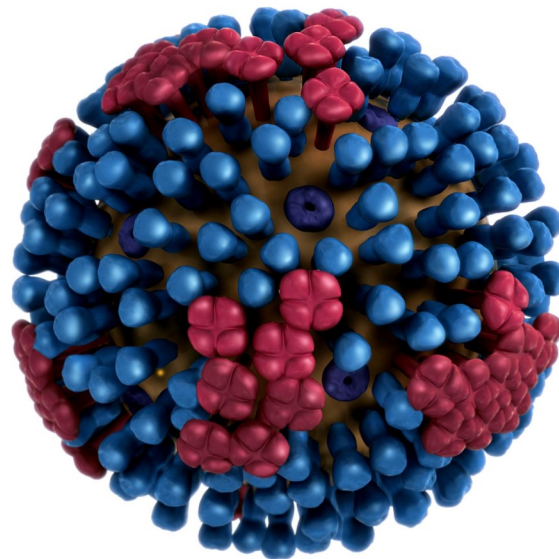
Texas Department of State  
Health Services

**DSHS Central Texas**

*Public Health Region 7 Serving You*

# **Public Health Region 7 End of Season Influenza Surveillance Report**

**October 2, 2022 – May 20, 2023**





# 2022–2023 Influenza Season

## Morbidity and Mortality Weekly Report (MMWR)

### Week 40 – Week 20



Influenza activity reports were submitted directly to DSHS Public Health Region 7 (PHR 7) by local health department (LHD), school (ISD), hospital, and clinic reporters distributed throughout the 30 counties within the region. Multiple methods of data collection were utilized to finalize the total respiratory illness counts within PHR 7.

This season, the majority of cases were Influenza-like-illness (ILI), similar to the 2021 –2022 season, followed by Influenza A and B, respectively. Many of the reported ILI were participants from the ILINet, ESSENCE reporting system, encrypted fax and email, and reports obtained from Qualtrics XM survey form. Influenza A and B subtyping and lineages were not performed, however Influenza A was predominant in most of the region.

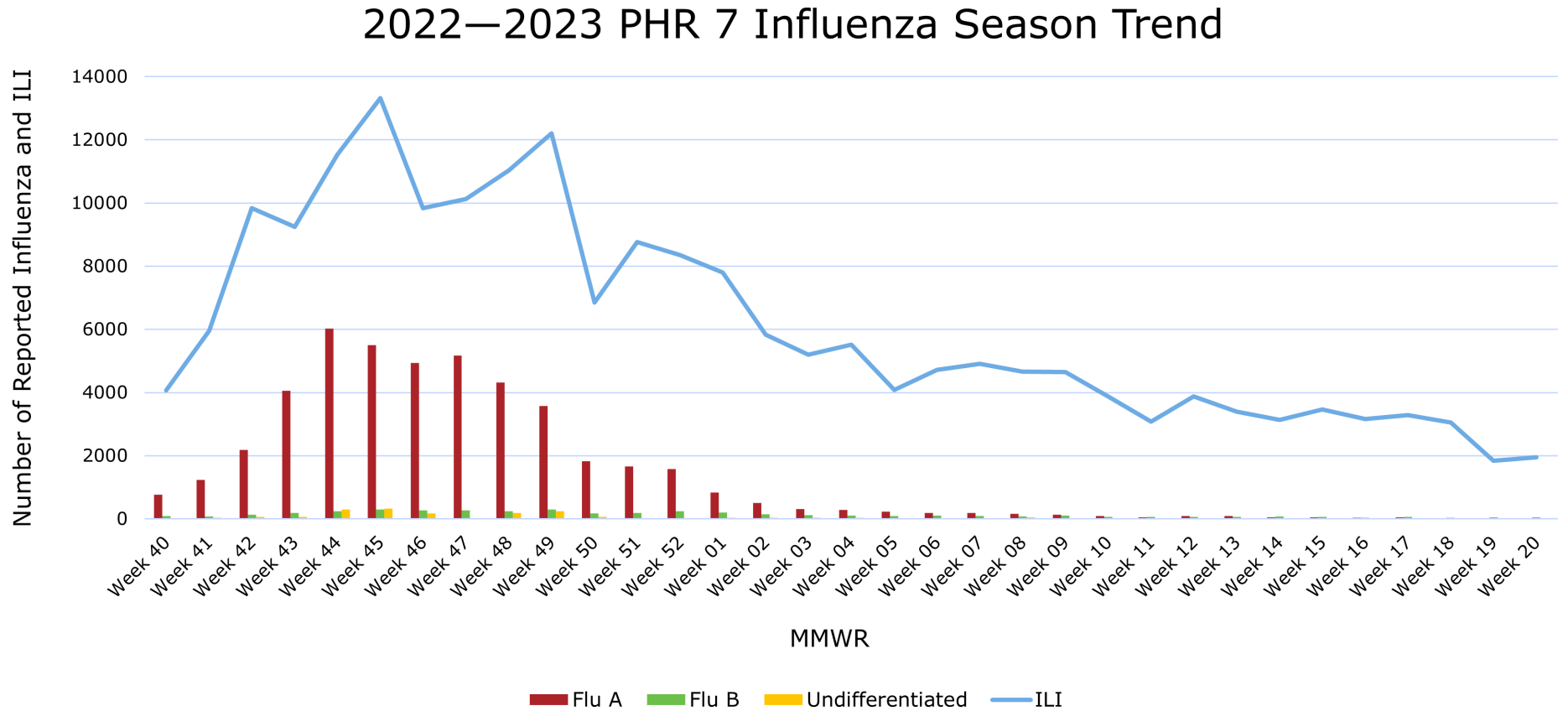
The overall vaccine effectiveness is unknown at this time. You can find more on vaccine effectiveness from previous years at <https://www.cdc.gov/flu/vaccines-work/effectiveness-studies.htm>.

PHR 7 investigated many influenza outbreaks this season. Three confirmed influenza-associated pediatric mortalities were reported within the region.

**\*Please note, some aspects of influenza surveillance may be affected by current COVID-19 response activities. For information about COVID-19 in Texas, please visit [www.dshs.texas.gov/coronavirus](http://www.dshs.texas.gov/coronavirus). For more information about the Regional Influenza Surveillance Program, please email at [phr7.episurveillance@dshs.texas.gov](mailto:phr7.episurveillance@dshs.texas.gov).**



Figure 1: PHR 7 Influenza Season 2022–2023



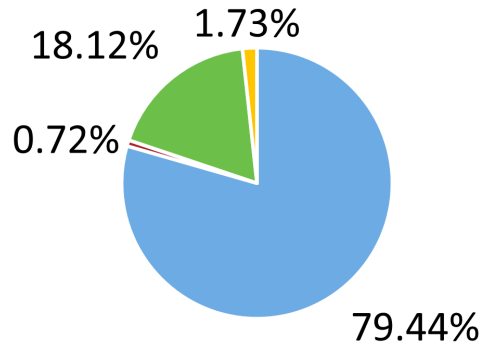
This influenza season, there was a significant increase from the week ending on October 8 (Week 40: OCT 2–8) to the week ending on November 12 (Week 45: NOV 6–12). The data shows a steady decline after the week ending on November 19 (Week 46: NOV 13–19).

The total number of reported cases vastly varied between ILI, influenza A and B, and undifferentiated influenza. However, the most common type of report was ILI, which does not require a confirmed lab report, and is based on the clinical definition of fever of 100°F or above with a cough and/or sore throat in the absence of a known cause other than influenza.



**Figure 2: Pie Chart**

Percentage Reported by  
Influenza Type



- ILI
- FLU A Combined
- Undifferentiated
- FLU B Combined

The vast majority of the reported cases were ILI with 79.44%, followed by Influenza A with 18.12%, Influenza B with 1.73%, and Undifferentiated influenza with 0.72%.

The peak of the season was on the week ending on November 12 (Week 45: NOV 6–12), highlighted in yellow on Figure 3 on the right. The combined total number of cases was **19,459**. The breakdown between each category for week ending November 12

(Week 45: NOV 6–12) are

as follows: **13,326** ILI cases, **5,508** Influenza A cases, **298** Influenza B cases, and **327** Undifferentiated Influenza cases.

The lowest total number of cases was on the week ending on May 13 (Week 19: MAY 7–13), highlighted in blue on Figure 3 on the right, with **1,905** cases. The breakdown between each categories for the week ending on May 13 (Week 19: MAY 7–13) are as follows: **1835** ILI cases, **13** Influenza A cases, **55** Influenza B cases, and **2** cases for Undifferentiated Influenza.

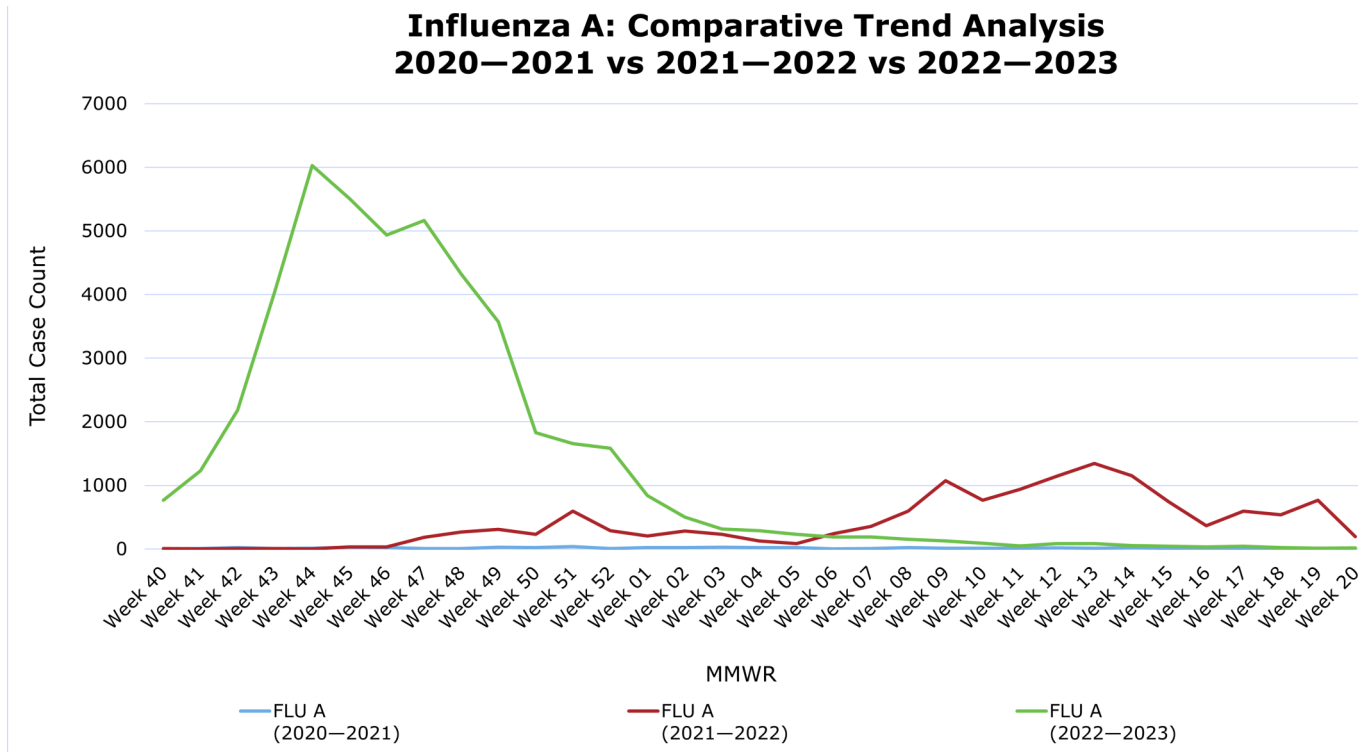
The largest increase (%) and decrease (%) took place from the week ending on October 15 (Week 41: OCT 9–15) to the week ending on October 22 (Week 42: OCT 16–22) and from the week ending on December 17 (Week 50: DEC 11–17) to the week ending on December 24 (Week 51: DEC 18–24), respectively.

**Figure 3: PHR 7 Influenza / ILI Season 2022–2023**

MMWR Week	Cases	Flu activity compared to last week?	Percentage	Difference
Week 40	4962			
Week 41	7307	Increase	↑ 47.26%	2345
Week 42	12226	Increase	↑ 67.32%	4919
Week 43	13551	Increase	↑ 10.84%	1325
Week 44	18102	Increase	↑ 33.58%	4551
Week 45	19459	Increase	↑ 7.50%	1357
Week 46	15221	Decrease	↓ -21.78%	-4238
Week 47	15594	Increase	↑ 2.45%	373
Week 48	15786	Increase	↑ 1.23%	192
Week 49	16310	Increase	↑ 3.32%	524
Week 50	8917	Decrease	↓ -45.33%	-7393
Week 51	10624	Increase	↑ 19.14%	1707
Week 01	10176	Decrease	↓ -4.22%	-448
Week 02	8878	Decrease	↓ -12.76%	-1298
Week 03	6510	Decrease	↓ -26.67%	-2368
Week 04	5661	Decrease	↓ -13.04%	-849
Week 05	5955	Increase	↑ 5.19%	294
Week 06	4406	Decrease	↓ -26.01%	-1549
Week 07	5019	Increase	↑ 13.91%	613
Week 08	5199	Increase	↑ 3.59%	180
Week 09	4938	Decrease	↓ -5.02%	-261
Week 10	4897	Decrease	↓ -0.83%	-41
Week 11	4032	Decrease	↓ -17.66%	-865
Week 12	3186	Decrease	↓ -20.98%	-846
Week 13	4037	Increase	↑ 26.71%	851
Week 14	3352	Decrease	↓ -16.97%	-685
Week 15	3263	Decrease	↓ -2.66%	-89
Week 16	3571	Increase	↑ 9.44%	308
Week 17	3245	Decrease	↓ -9.13%	-326
Week 18	3407	Increase	↑ 4.99%	162
Week 19	3119	Decrease	↓ -8.45%	-288
Week 20	1905	Decrease	↓ -38.92%	-1214
Week 21	2020	Increase	↑ 6.04%	115



Figure 4: PHR 7 Influenza A Season 2020–2021, 2021–2022, 2022–2023



For Influenza Season **2020–2021**, Influenza A was relatively low, indicating that the influenza circulation within the region was consistent with the state and national influenza season reported by DSHS and the CDC, respectively.

This may be a result of the mitigation and prevention measures and efforts that were conducted amid the COVID-19 pandemic during that time frame.

For Influenza Season **2021–2022**, there was an increase of Influenza A activity starting on the week ending on November 20 (Week 46:

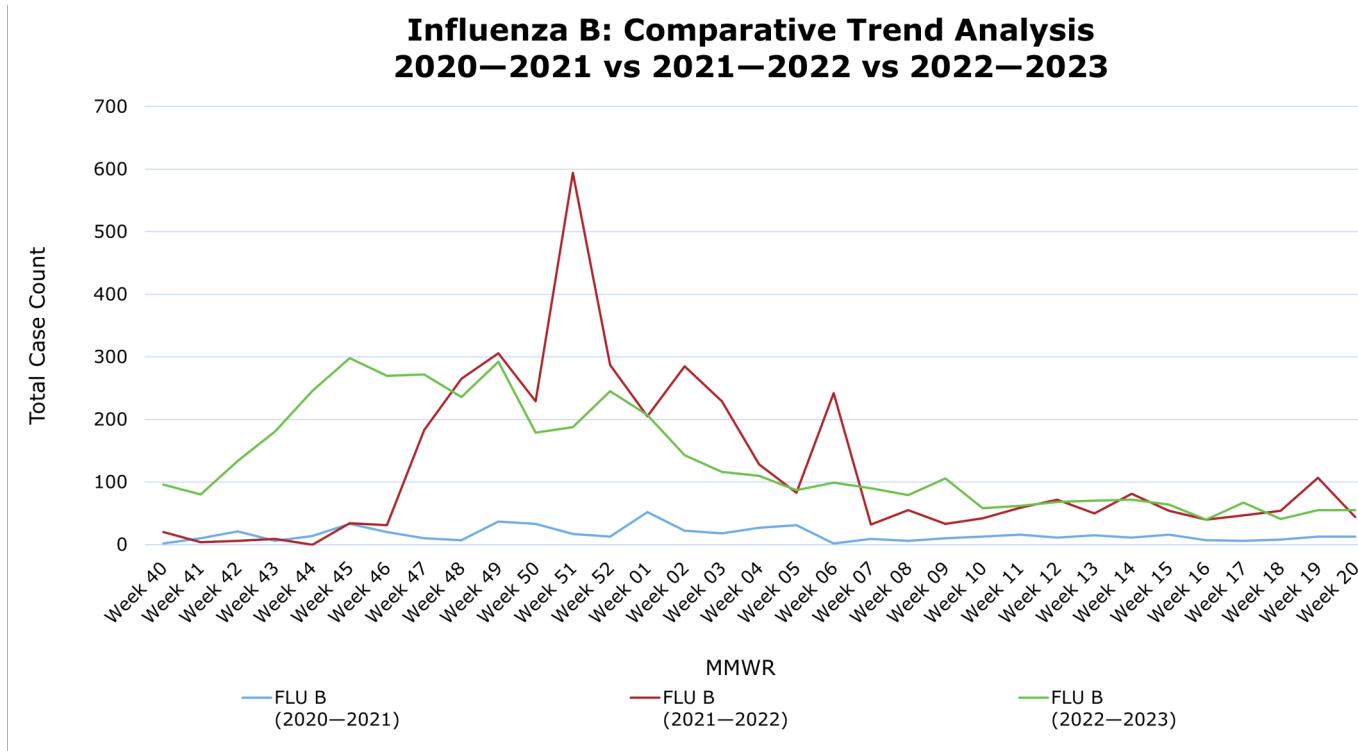
NOV 14–20) and the first

peak was on the week ending on December 25 (Week 51: DEC 19–25). The peak was followed by a decline for the following week with another increase starting at the week ending on February 5 (Week 5: JAN 30–FEB 05) and peaked at the week ending on March 5 (Week 9: FEB 27–MAR 5). This trend pattern was observed until the end of the influenza season. The week ending on April 2 (Week 13: MAR 27–APR 2) had the highest number of influenza case count reports.

Influenza Season **2022–2023** had a rapid surge of Influenza A, which peaked at the week ending on November 5 (Week 44: OCT 30–NOV 5) and was followed by a decline from the week ending on November 12 (Week 45: NOV 6–12) to the week ending on January 7 (Week 1: JAN 1–7). From the week ending on January 14 (Week 2: JAN 8–14) to the end of the influenza season, the number of reported Influenza A continued to gradually decline. This observation remained consistent with the state and national influenza season reported by both DSHS and the CDC, respectively. During the 2022–2023 Influenza Season, the region observed a dramatic and rapid increase of FLU A activity at the start of the traditional influenza season. Whereas the previous season in 2021–2022, FLU A activity gradually increased and would observe a rise during mid-November into late December.



Figure 5: PHR 7 Influenza B Season 2020–2021, 2021–2022, 2022–2023



For Influenza Season **2020–2021**, Influenza B activity was relatively low, similar to Influenza A. Despite the low activity, Influenza B continued to circulate within the region. There were several minor increases with the highest reported count occurring on week ending on January 9 (Week 1: JAN 3–9).

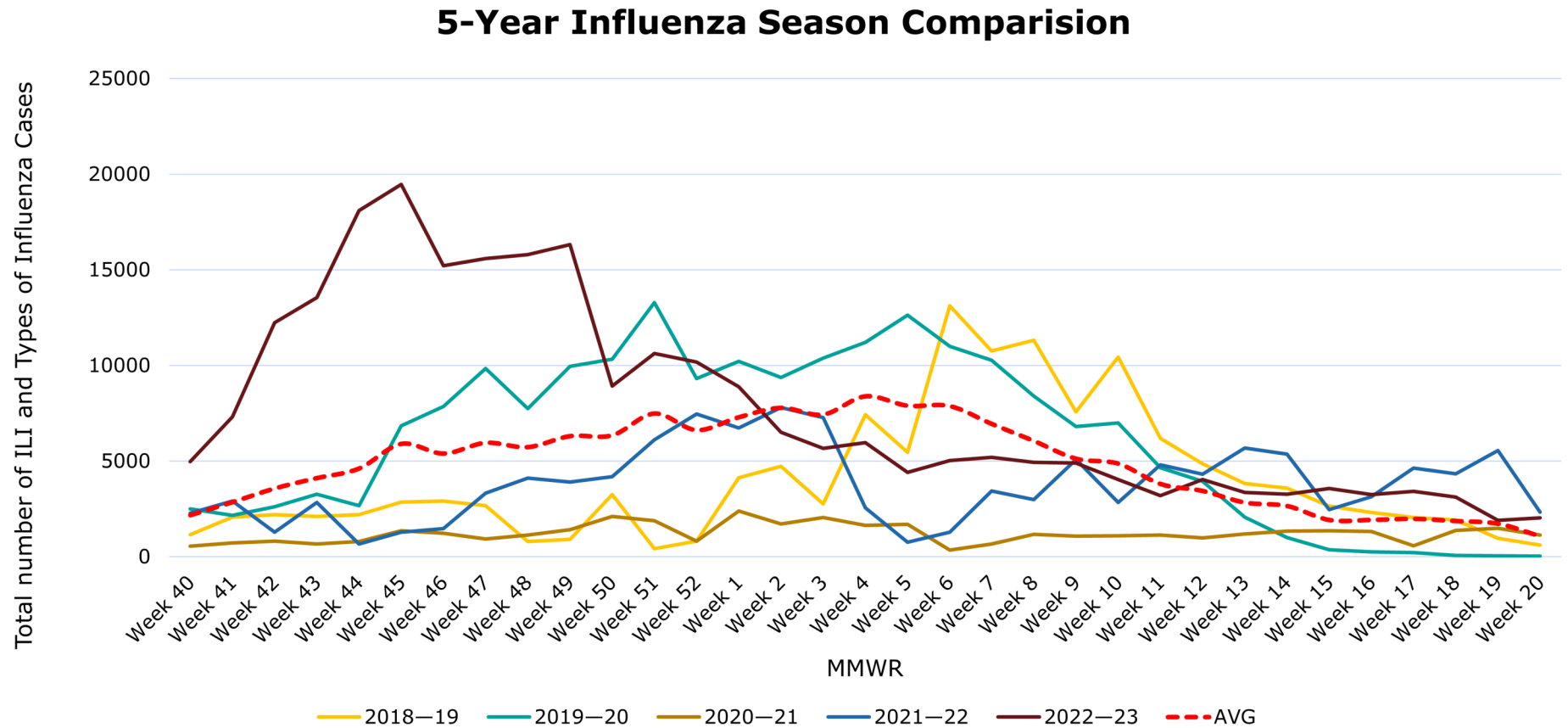
Aside from the minor spikes, the general trend remained constant throughout the season. Similar to Influenza A, this may be attributed to the mitigation and prevention measures and efforts that were conducted amid the COVID-19 pandemic during the time frame.

For Influenza Season **2021–2022**, an increase of Influenza B activity was observed starting on the week ending on November 13 (Week 45: NOV 7–13), with the first increased spike on the week ending on December 4 (Week 48: NOV 28–DEC 4) followed by a decline of reported Influenza B cases. However, the next week saw a significant increase in Influenza B activity leading to the highest number of reported cases. Over the course of the next several weeks, there was a rapid decrease followed by several minor increase spikes in the number of cases reported until the week ending on February 19 (Week 7: FEB 13–19). The trend remained relatively constant until the week ending on May 14 (Week 19: MAY 5–14), which peaked just above 100 reported influenza B cases.

For Influenza Season **2022–2023**, Influenza B had a similar increase, but not as rapid a surge as Influenza A. The surge had occurred on the week ending on October 15 (Week 41: OCT 9–15) with a highest peak on the week ending on November 12 (Week 45: NOV 6–12), followed by steady decline of the total number of reported Influenza B cases.



Figure 6: PHR 7 Influenza Season 5-Year Comparison

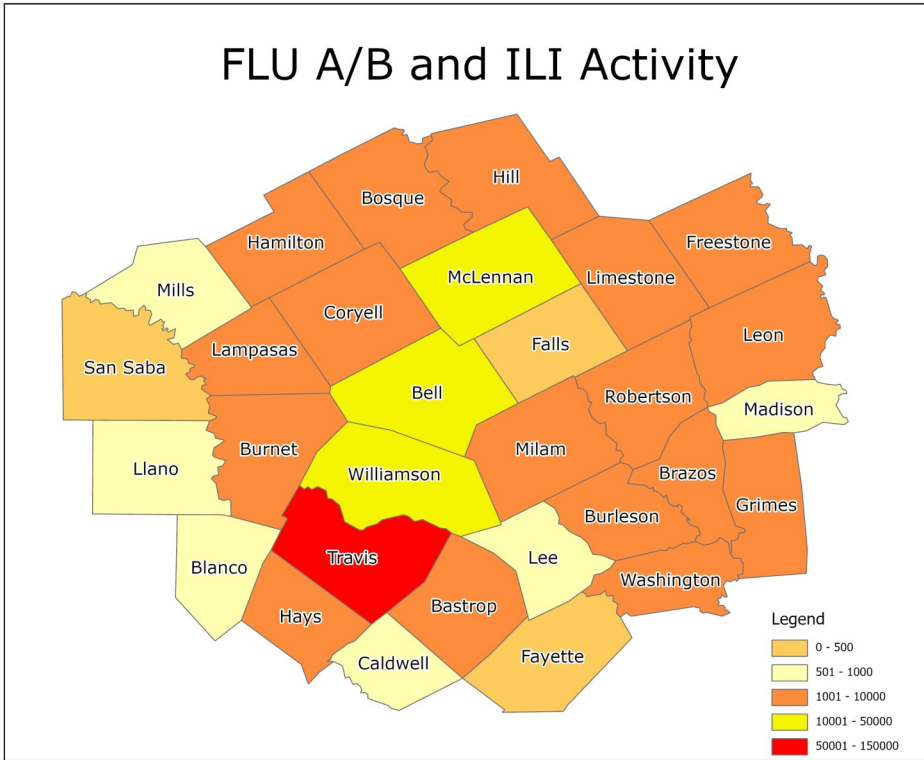


The 2022—2023 Influenza Season (n = 254,842) by far had the most cases compared to previous Influenza Seasons from 2018—2022. The total cases for each year are 130,910 cases for 2018—19, 198,225 cases for 2019—20, 40,113 cases for 2020—21, and 125,147 cases for 2021—22.

This may be attributed to the rapid increase in the number of reported cases in the first 10 weeks of the influenza season and gradually declined as the weeks went by. This is considered abnormal when compared to the preceding years, when all other influenza seasons observed a gradual rise or had a sudden rise mid-influenza season. The numbers on this trend graph represent all reported cases of ILI, Influenza A and B, and Undifferentiated Influenza combined for each year.



**Figure 7: PHR 7 County Aggregate Map**



**Figure 8: PHR 7 County ILI Map**

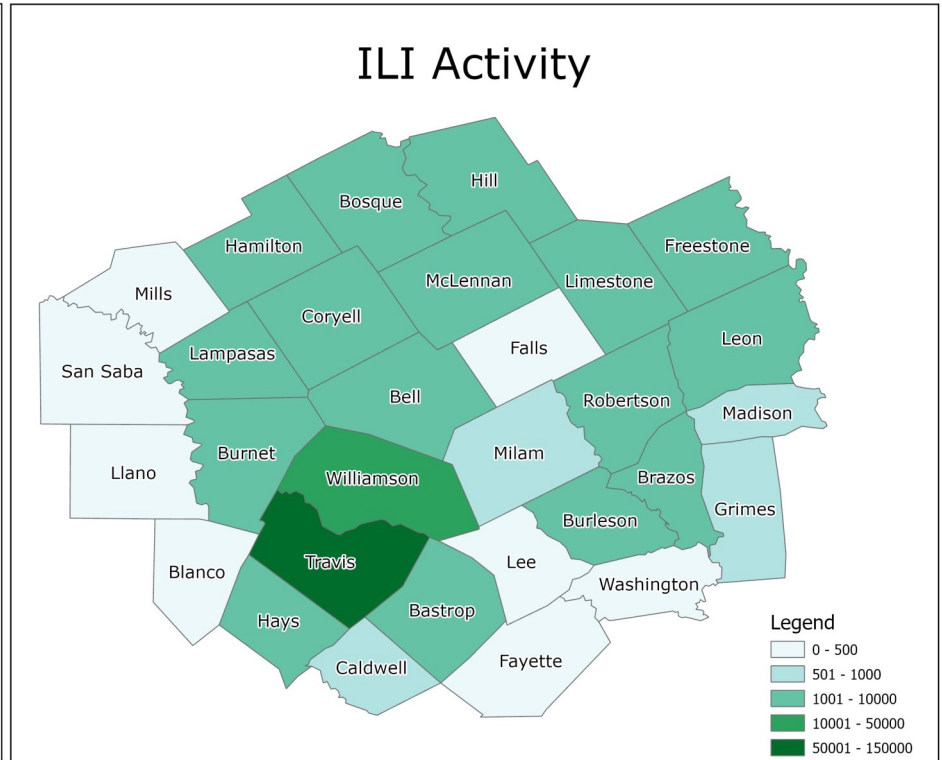


Figure 7 and Figure 8 help to visualize the breakdown of combined respiratory illness (ILI and Influenza A/B virus types) and ILI activity by each county.

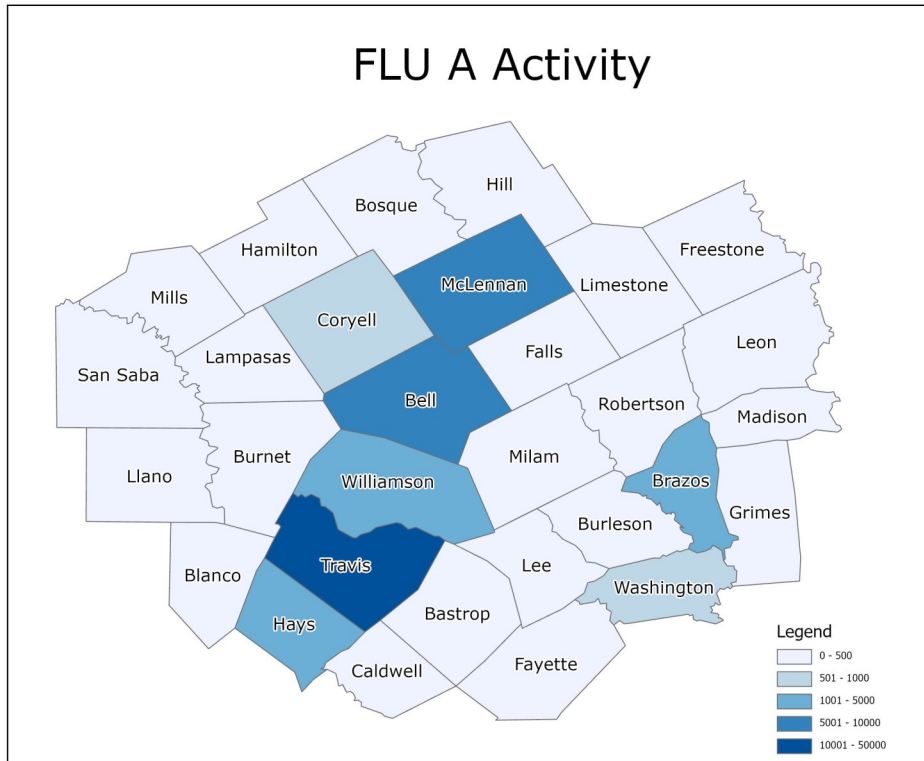
Figure 7 shows the total combined aggregate number of reported respiratory illness cases that were reported and collected. Travis County has the highest number of reported cases followed by Williamson, Bell, and McLennan counties. These counties have a larger population size when compared to neighboring rural counties, are geographically situated on the I-35 highway, and have at least one largely populated city.

Figure 8 shows the total counts of ILI activity, with Travis County having the highest number of cases reported as shown by the darker green color. The northern counties within PHR 7 reported cases between 1,001–10,000 cases whereas rural counties from the west and east had the lowest number of reported ILI cases.





**Figure 9: PHR 7 Influenza A Map**



**Figure 10: PHR 7 Influenza B Map**

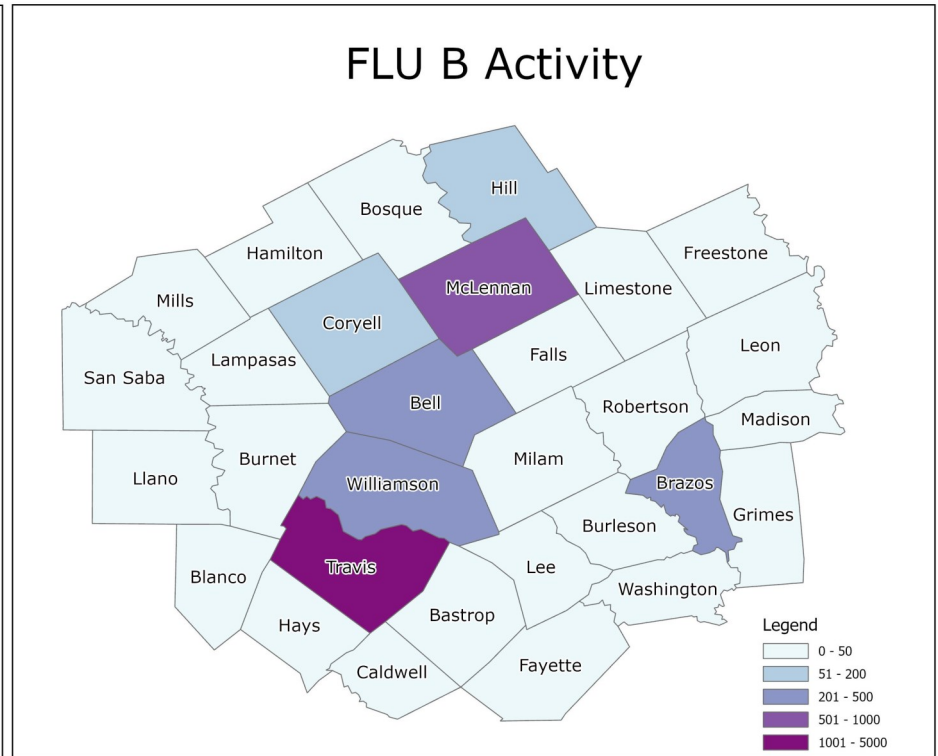


Figure 9 and Figure 10 show the breakdown of Influenza A and B by county.

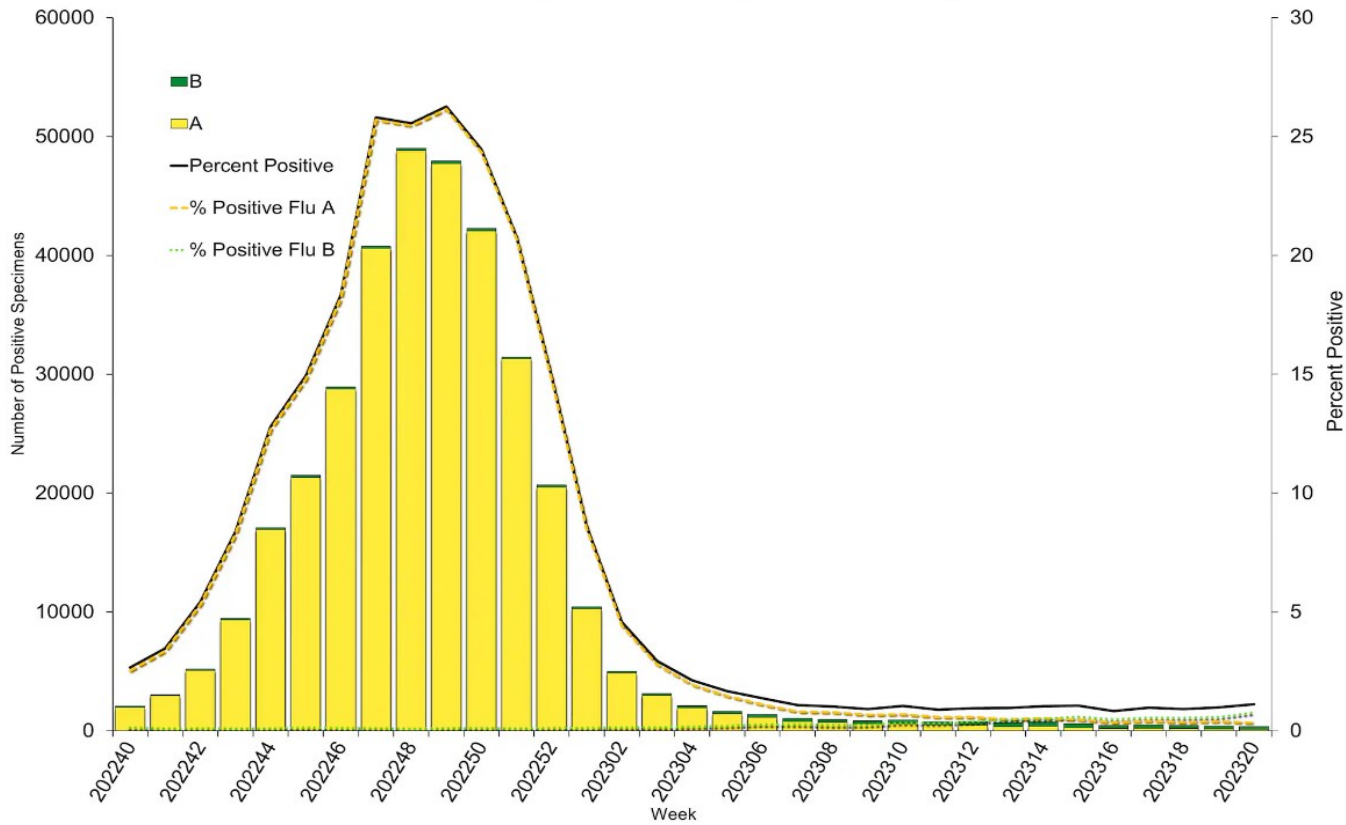
Both maps show that Travis County has the highest number of cases, followed by McLennan, Bell, Williamson, and Brazos counties. In addition, Hays County also had a large number of cases of reported Influenza A.

There were also notable counties that had high numbers of reported influenza cases, including Coryell, Washington, and Hill counties. The rest of the surrounding rural counties had relatively low levels of activity, which may be due to lower populations and less access to testing.



### Figure 11: CDC’s FLU Positive Tests Reports

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, October 2, 2022 – May 20, 2023



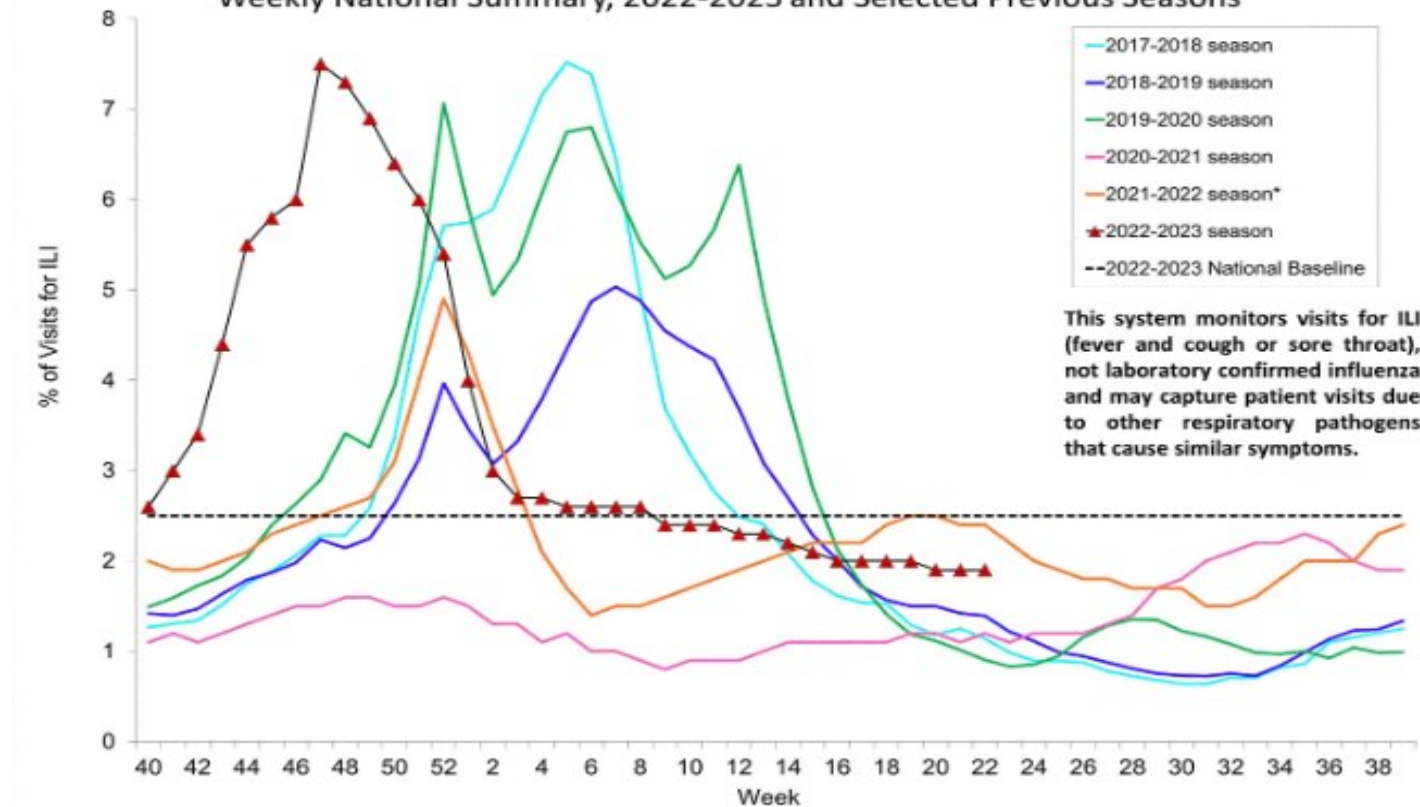
[Influenza Positive Tests Reported to CDC by US Clinical Laboratories](#)

Figure 11 shows the CDC’s influenza positive test reports by clinical laboratories. This Epi-curve represents all of the total positive tests conducted during the 2022–23 influenza season. The vast majority of the positive tests were Influenza A, which means that within the U.S., Influenza A virus was the most prevalent virus to circulate nationwide. Therefore, the CDC’s influenza positive test reports by clinical laboratories is consistent with our region’s and DSHS influenza season reports.



Figure 12: CDC’s Weekly National Respiratory Illness Trend

Percentage of Outpatient Visits for Respiratory Illness Reported By The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2022-2023 and Selected Previous Seasons



<https://www.cdc.gov/flu/weekly/index.htm>

Figure 12 shows the CDC’s Weekly National Respiratory Illness 5-year trend lines for the percentage of outpatient visits. The trend for this past year is similar to the PHR 7 and DSHS influenza trend. CDC’s national baseline is around 2.5% of visits for ILI. Based on this, at the start of the influenza season, each week had the percent of visits for ILI had been above the national baseline, however, by the week ending on March 4 (Week 9: FEB 26—MAR 4), the percent of visits for ILI had dipped below the estimated 2.5%.



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**Please contact our office if you or any clinic/hospital Infection Control Preventionist Nurse or an Epidemiologist interested in becoming a Flu Reporter and participating in the PHR 7 Influenza surveillance program.**

Ways to prevent the risk of seasonal flu:

1. Get vaccinated.
2. Avoid close contact with those who are sick.
3. If sick, stay home and rest.
4. When sneezing or coughing, cover your mouth and nose with a tissue.
5. Practice proper hand and other good hygiene habits and avoid contact with eyes, nose or mouth.

This upcoming influenza season, PHR 7 will be updating the respiratory illness reporting process. The update is utilizing Qualtrics XM, a cloud-based software platform as primary method, to streamline the respiratory illness reporting process. PHR 7 will continue to receive flu reports through secure email and secure fax as secondary method for flu surveillance.