

Texas Influenza Surveillance Report 2023-2024 Season/ 2024 MMWR Week 01

(December 31, 2023 – January 6, 2024)
Report produced on 1/12/2024

Summary

*This report excludes COVID-19 data. For information about COVID-19 in Texas, please visit www.dshs.texas.gov/coronavirus.

Compared to the previous week, the percentage of specimens testing positive for influenza reported by hospital laboratories has increased. The percentage of patient visits due to influenza-like illness (ILI) has decreased. One influenza associated pediatric death was reported. Three influenza-associated institutional outbreaks were reported in long-term care facilities.

Table 1: Summary of Texas Influenza (Flu) and Influenza-like Illness (ILI) Activity for the Current Week

Texas Surveillance Component	Change from Previous Week	Current Week	Previous Week [†]	Page of Report
Statewide ILINet Activity Indicator assigned by CDC (intensity of influenza-like illness)	No Change	Very High	Very High	-
Percentage of specimens positive for influenza by hospital laboratories	▲2.71%	25.38%	22.67%	1
Percentage of visits due to ILI (ILINet)	▼0.37%	6.91%	7.28%	4
Number of regions reporting increased flu/ILI activity	No change	4	4	6
Number of regions reporting decreased flu/ILI activity	No change	4	4	6
Number of variant/novel influenza infections	No change	0	0	6
Number of ILI/influenza outbreaks	▲2	3	1	6
Number of pediatric influenza deaths	▲1	1	0	7

[†]Data displayed have been updated since last week's flu report with any new reports received.

Laboratory Results

Influenza

Hospital laboratories across Texas voluntarily report influenza tests (antigen, culture, and PCR) to the National Respiratory and Enteric Virus Surveillance System (NREVSS). Providers throughout Texas also submit specimens for influenza testing (PCR) to Texas public health laboratories, including the Texas Department of State Health Services (DSHS) state laboratory in Austin and the nine Texas Laboratory Response Network (LRN) laboratories. The results reported by Texas NREVSS participants and public health laboratories for the current week are summarized in the two tables below. Additional influenza test results (rapid tests, culture, PCR) and ILI activity were reported from providers and public health departments throughout the state (see county map at the end of this report).

Table 2: Influenza Testing Performed by Texas Hospital Laboratories for the Current Week

	Week 01	Season to Date Week Ending: January 6, 2024
Number of labs reporting flu tests	19	
Number of specimens tested	6650	122291
Number of positive specimens (%)	1688 (25.38%)	15543 (12.71%)
Percentage of total tests that were antigen detection tests	24.29%	
Positive specimens by type/subtype [n (%)]		
Influenza A	1037 (61.43%)	9508 (61.17%)
Subtyping performed	234 (22.57%)	1316 (13.84%)
A (H1N1)	195 (83.33%)	1145 (87.01%)
A (H3N2)	39 (16.67%)	171 (12.99%)
Subtyping not performed	803 (77.43%)	8192 (86.16%)
Influenza B	651 (38.57%)	6035 (38.83%)

Figure 1: Number and Percentage of Tests (Antigen, Culture, PCR) Positive for Influenza by Type and Subtype Reported by Texas Hospital Laboratories, 2023-2024 Season

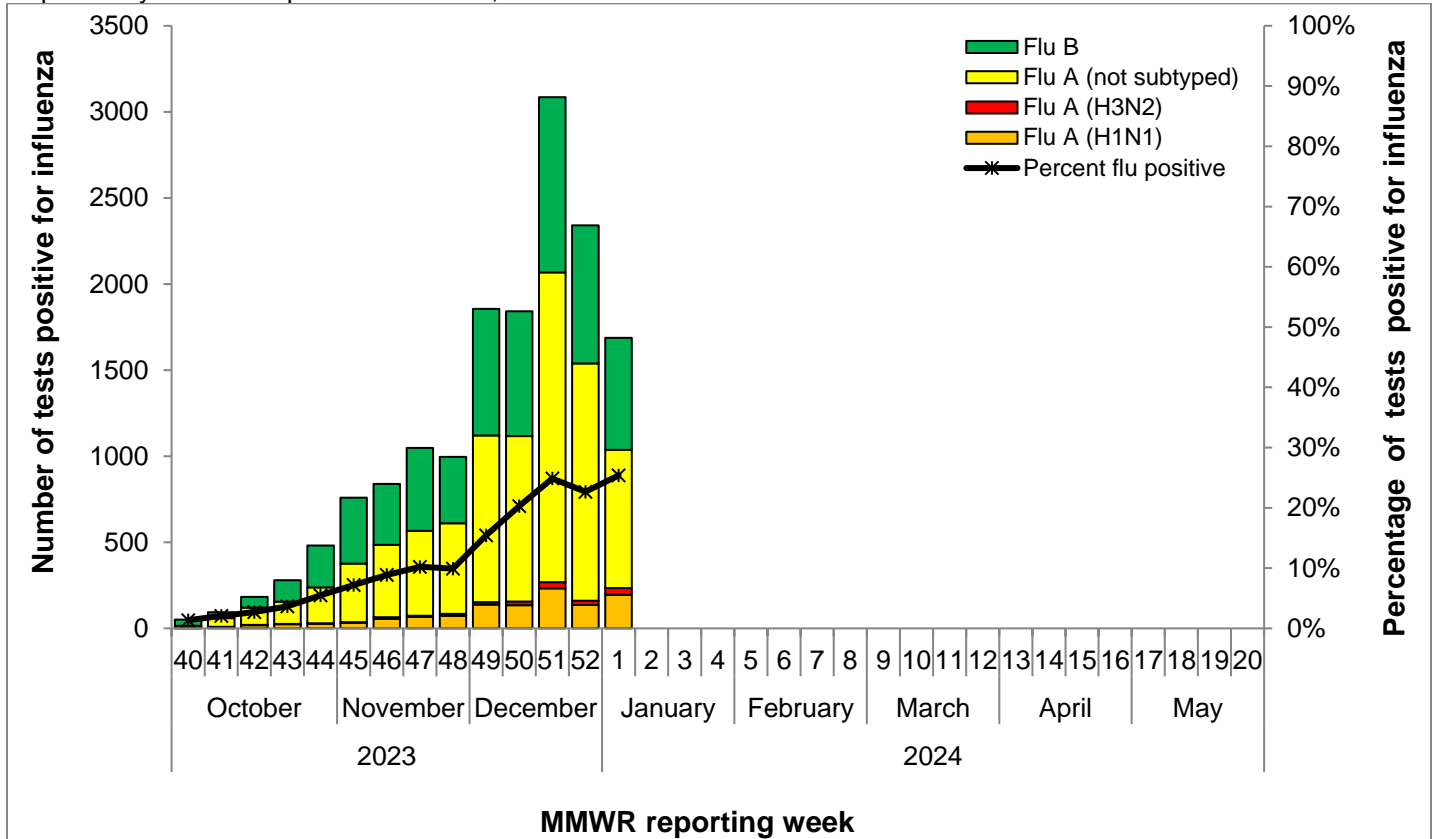
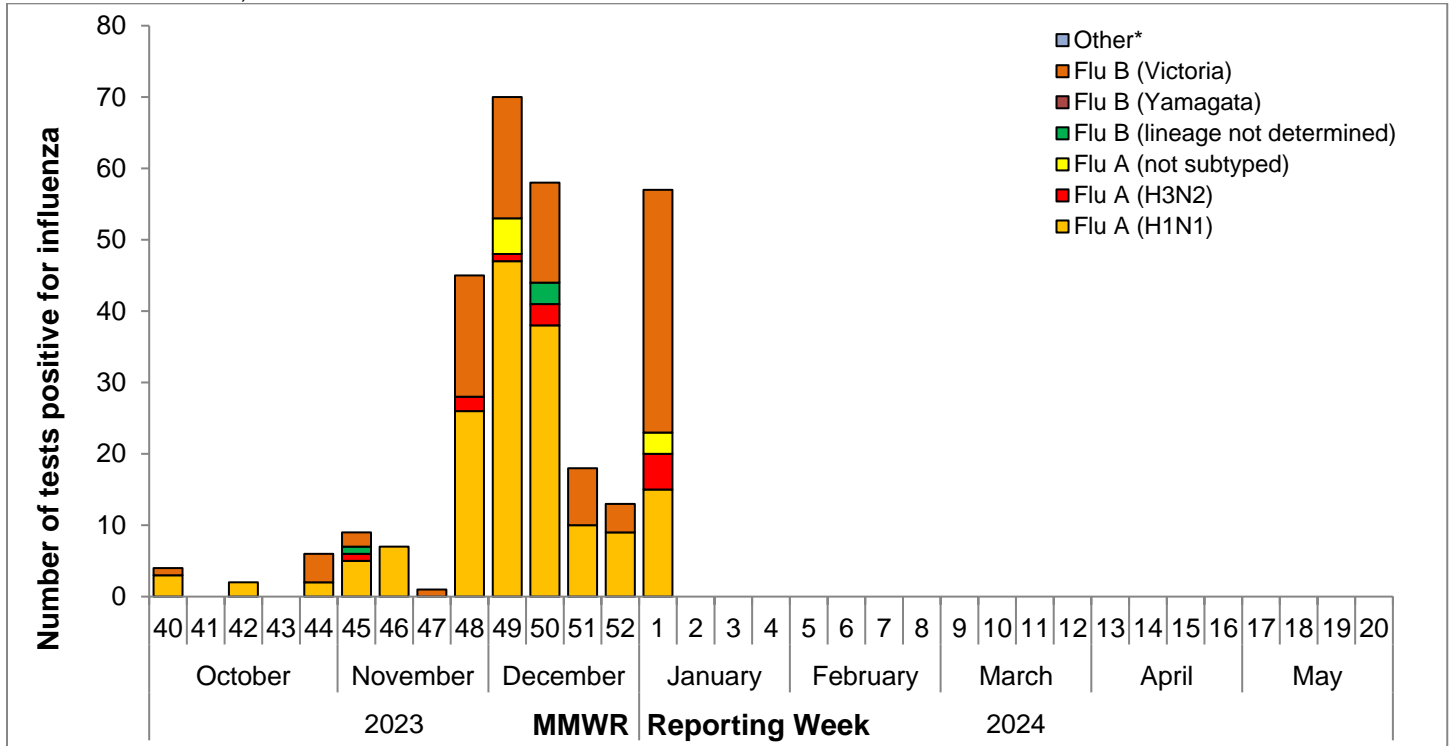


Table 3: Influenza Testing Performed by Texas Public Health Laboratories for the Current Week

	Week 01	Season to Date Week Ending: January 6, 2024
Number of labs reporting flu tests	3	
Number of specimens tested	60	802
Number of positive specimens (%)	57 (95.00%)	290 (36.16%)
Positive specimens by type/subtype/lineage [n (%)]		
Influenza A	23 (40.35%)	184 (63.45%)
Subtyping performed	20 (86.96%)	176 (95.65%)
A (H1N1)	15 (75.00%)	164 (93.18%)
A (H3N2)	5 (25.00%)	12 (6.82%)
Subtyping not performed	3 (13.04%)	8 (4.35%)
Influenza B	34 (59.65%)	106 (36.55%)
Lineage testing performed	34 (100.00%)	102 (96.23%)
B/Victoria	34 (100.00%)	102 (100.00%)
B/Yamagata	0 (0.00%)	0 (0.00%)
Lineage testing not performed	0 (0.00%)	4 (3.77%)
Other*	0 (0.00%)	0 (0.00%)

*Other denotes specimens with coinfections (i.e. one specimen was positive for both influenza A (H1N1) and influenza A (H3N2))

Figure 2: Number of Tests (PCR) Positive for Influenza by Type, Subtype, and Lineage Reported by Texas Public Health Laboratories, 2023-2024 Season



*Other denotes specimens with coinfections (i.e. one specimen was positive for both influenza A (H1N1) and influenza A (H3N2))

Other Respiratory Viruses

The NREVSS system collects information on a variety of respiratory viruses in addition to influenza including parainfluenza virus, respiratory syncytial virus (RSV), rhinovirus, human metapneumovirus (HMPV), seasonal coronavirus, and respiratory adenovirus. The results for the current week are summarized below.

Table 4: Non-Influenza Respiratory Virus Testing Performed by Texas NREVSS Laboratories for the Current Week

Virus	Number of Laboratories Testing	Tests Performed	Positive Tests	Percentage of Tests Positive
Adenovirus (respiratory)	15	1970	81	4.11%
HMPV	15	1970	53	2.69%
Parainfluenza virus	15	1970	108	5.48%
Rhino/enterovirus	15	2072	324	15.64%
RSV [†]	18	4831	496	10.27%
Seasonal coronavirus (does not include MERS-CoV or COVID-19)	15	1928	126	6.54%

[†] RSV tests displayed in the table are a combination of antigen detection, PCR, and culture tests. Some non-NREVSS reporters also contribute to the RSV data.

[^] Numbers and percentage may differ from the weekly RSV report. The weekly RSV report may be accessed at <https://www.dshs.state.tx.us/RSV/disease/rsv-Data.aspx>.

Antigenic Characterization

Since October 1, 2023, CDC has reported antigenic characterization results from two Influenza A (H1N1) viruses and four Influenza B viruses received from the Texas Department of State Health Services (DSHS) Laboratory. The DSHS Laboratory and participating LRN Laboratories send a representative sample of influenza viruses to the CDC throughout the flu season.

Influenza A (H1N1) [2]

- Two (100.0%) viruses have been characterized as an A/Wisconsin/67/2022-Like virus; included as an influenza A component of the 2023-2024 Northern Hemisphere influenza vaccine.

Influenza B [4]

- Victoria lineage [4]: 4 (100.0%) influenza B/Victoria-lineage virus has been characterized as a B/Austria/1359417/2021-Like virus; included as an influenza B component of the 2023-2024 Northern Hemisphere influenza vaccine.

Antiviral Resistance

No antiviral resistance testing data for Texas specimens are available presently.

U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)

Table 5: Texas ILINet Reporting and Patient Visit Summary for the Current Week

	Week 01
Number of providers reporting	38
Number of providers reporting patient visits	38
Number (%) of providers with at least one ILI case	35 (92.1%)
Percentage of all visits due to ILI	6.91%
Texas ILINet baseline [‡] , 2023-2024	4.32%

[‡]The baseline is the mean percentage of patient visits for ILI during non-influenza weeks for the previous three seasons plus two standard deviations. A “non-influenza week” is defined as a week that accounted for less than 2% of the season’s total number of specimens that tested positive for influenza

Special Note: The case definition was changed to capture respiratory pathogens causing illness, including CoVID-19, through the ILINet. The Influenza-like Illness (ILI) case definition is a patient with fever ($\geq 100^{\circ}\text{F}$, 37.8°C) AND cough and/or sore throat. There is no longer a restriction on the cause.

Table 6: Percentage of Visits for Influenza-like Illness Reported by Texas ILINet Providers (as of 1/11/2024 11:05AM)

Week	Providers Reporting	Number of ILI Cases by Age Group (Years)					Total ILI (all ages)	Total Patients	% ILI
		0-4	5-24	25-49	50-64	65+			
202340	51	343	835	360	104	70	1712	53613	3.19%
202341	52	391	832	301	114	77	1715	53193	3.22%
202342	52	455	991	374	131	82	2033	54875	3.70%
202343	53	502	1127	400	112	97	2238	55666	4.02%
202344	53	491	1209	343	105	84	2232	50967	4.38%
202345	53	631	1512	486	157	109	2895	51463	5.63%
202346	54	729	1732	526	171	112	3270	54834	5.96%
202347	55	540	1127	542	224	128	2561	41588	6.16%
202348	39	455	1319	677	252	147	2850	47499	6.00%
202349	39	465	1513	625	261	143	3007	47921	6.27%
202350	54	564	1850	697	295	161	3567	52850	6.75%
202351	38	582	1881	1024	362	224	4073	52366	7.78%
202352	50	192	696	863	373	1314	3438	47242	7.28%
202401	38	403	1088	1053	475	291	3310	47892	6.91%

Figure 3: Percentage of Visits Due to Influenza-like Illness Reported by Texas ILINet Participants, 2023-2024 Season

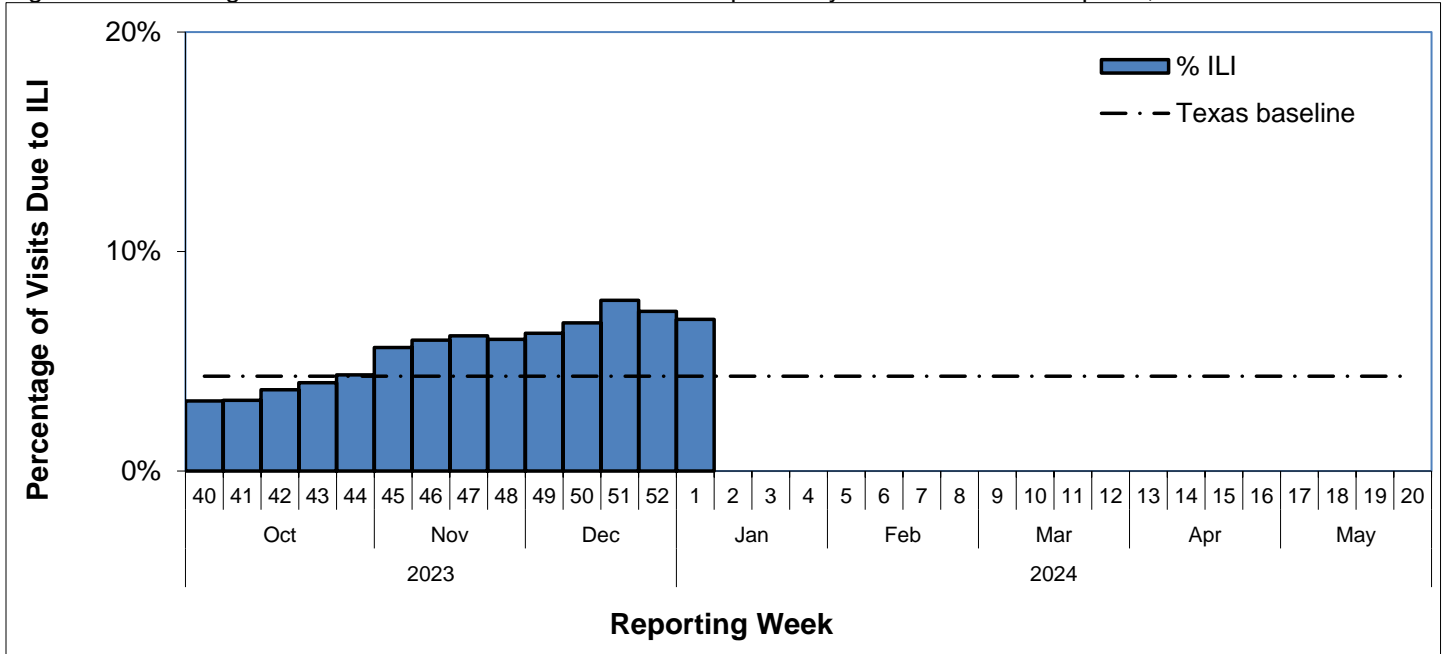
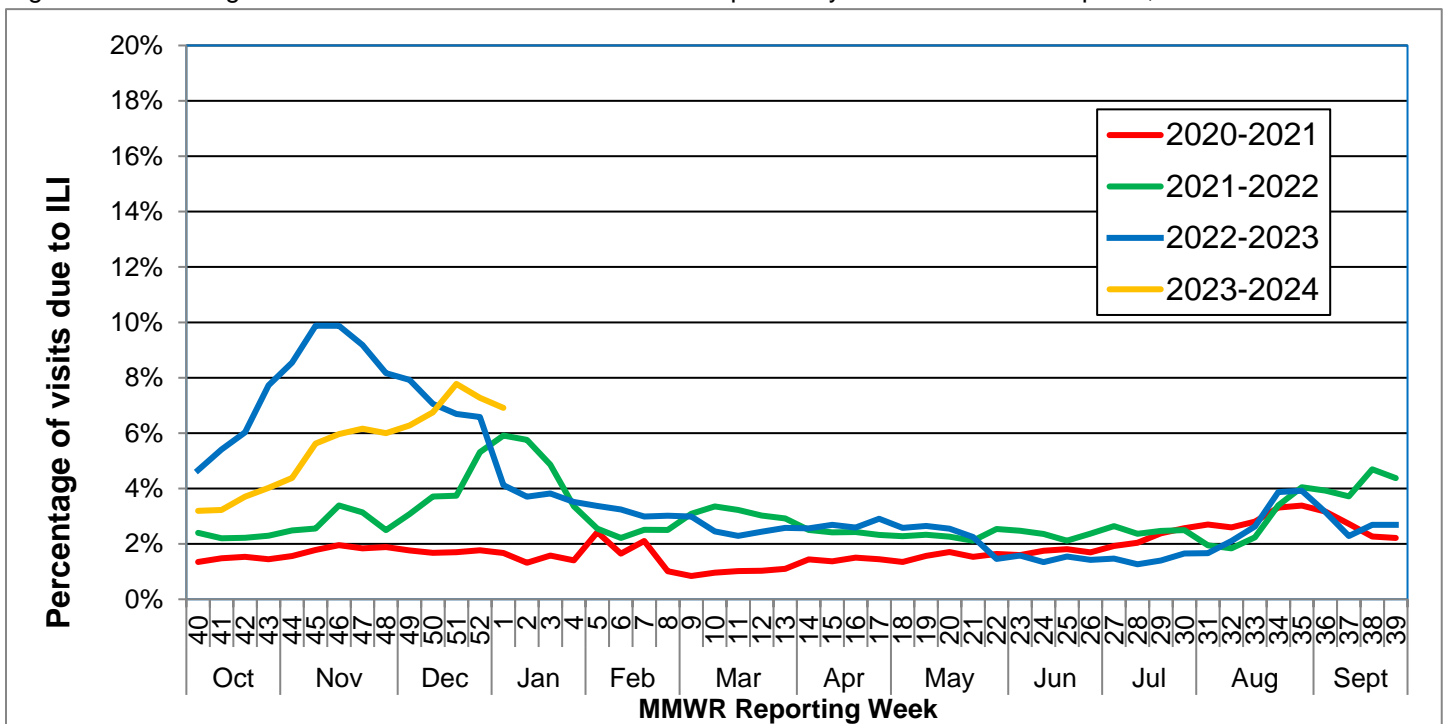


Figure 4: Percentage of Visits Due to Influenza-like Illness Reported by Texas ILINet Participants, 2020–2024 Seasons



Note: The 2020-2021 Flu Season contains MMWR week 202053. For graphical display compatibility with seasons containing 52 weeks, average values were generated using MMWR week 52 and 1.

Reports from Health Service Regions

Reports were received from all Health Service Regions (HSRs) during week 01.

Table 7: Influenza Activity compared to week 52 by Health Service Region (HSR)

Influenza Activity Comparison	
Increased	1, 6/5S, 7, 11
Same	
Decreased	2/3, 4/5N, 8, 9/10
Unsure	

Variant Influenza Viruses

No variant or novel influenza viruses have been detected in Texas during the 2023-2024 season.

Institutional Outbreaks and School Closures

Three respiratory disease outbreaks were reported for week 01.

Texas DSHS received reports of respiratory outbreaks from Health Service Regions 1, and 2/3. All outbreaks were reported from long-term care facilities. The reported outbreak from region 1 was identified through testing as an RSV outbreak. The two reported outbreaks from region 2/3 were Identified as influenza with no known typing information yet available.

Preventative precautions and measures have been enacted in facilities to mitigate spread of infection. Health jurisdictions remain in contact with facilities to provide guidance, education, and assistance when necessary.

P&I Mortality Surveillance Data

*Deaths due to COVID-19 may be classified as pneumonia deaths or influenza deaths (deaths due to “flu” or “flu-like illness”) in the absence of positive SARS-CoV-2 test results. Pneumonia and influenza (P&I) death data are obtained from death certificates of Texas residents whose underlying or contributing cause(s) of death is reported as pneumonia or influenza. P&I deaths are identified based on ICD-10 multiple cause of death codes. P&I deaths are based on ICD-10 pneumonia and influenza mortality codes.

Two thousand, five hundred and two (2502) P&I deaths have been reported in Texas during the 2023-2024 influenza season.

Table 8: Texas P&I Deaths Occurring October 1, 2023– January 6, 2024* by Age

Age Category (years)	Number of P&I Deaths ⁺	Mortality Rate (per 100,000)
0 - 4	<10	-
5 - 17	<10	-
18 - 49	151	1.08
50 - 64	419	7.91
65 +	1919	41.93
Overall	2502	7.90

*NOTE: Data are provisional and subject to change, errors, and duplicates
 + If the cell count is less than 10, the number of P&I deaths is suppressed and <10 is written in the cell.

Table 9: Texas P&I Deaths Occurring October 1, 2023– January 6, 2024* by Health Service Region (HSR)

HSR	Number of P&I Deaths ⁺	Mortality Rate (per 100,000)
1	71	7.66
2/3	687	7.43
4/5N	204	13.07
6/5S	603	7.01
7	304	7.85
8	259	7.69
9/10	134	7.82
11	239	10.00
Unknown	1	-
Overall	2502	7.90

*NOTE: Data are provisional and subject to change, errors, and duplicates
 + If the cell count is less than 10, the number of P&I deaths is suppressed and <10 is written in the cell.

Influenza-Associated Pediatric Mortality

One influenza-associated pediatric mortality was reported in week 01.

Patient was an 8-year-old female with no underlying health conditions. Patient resulted rapid test positive for influenza A after experiencing influenza like symptoms, further testing resulted as influenza A (H1N1). Patient was unvaccinated for current influenza season.

Two influenza-associated pediatric mortalities have been reported in Texas during the 2023-2024 influenza season. Cases of influenza-associated pediatric mortality (children <18 years of age) are reportable year-round by law in Texas.

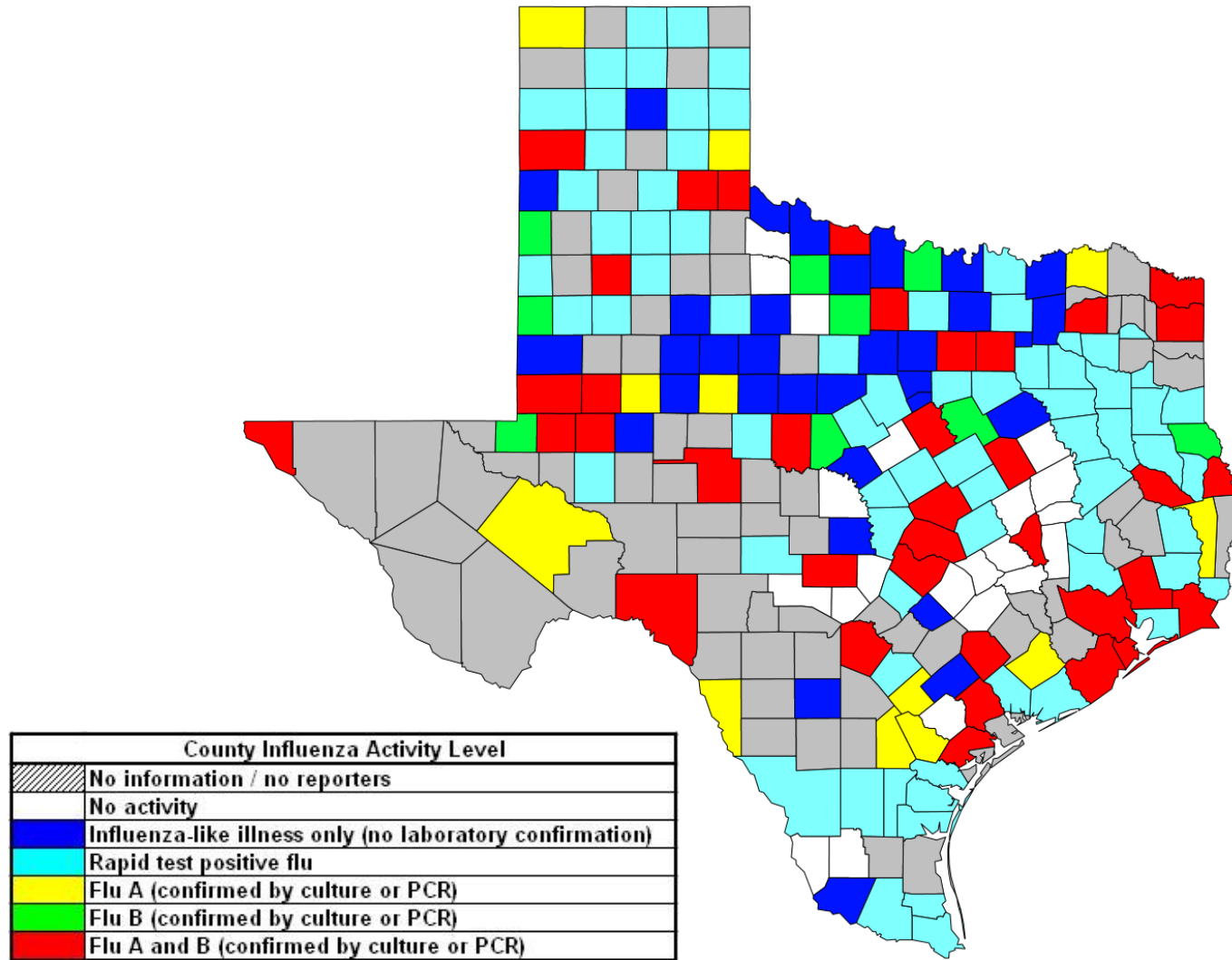
Table 10: Influenza-Associated Pediatric Deaths Reported in Texas during the 2023-2024 Season

Month of Pediatric Death	Influenza A (H1N1)	Influenza A (H3N2)	Influenza A (Not Subtyped)	Influenza B	Influenza, Not Typed / Not Differentiated	Influenza virus co-infection: A (not subtyped) and B	Total, All Influenza Types / Subtypes
2023							
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	0	0	0	1	0	0	1
2024							
January	1	0	0	0	0	0	1
Total*	1	0	0	1	0	0	2

*Total count of typed cases may be adjusted as lab testing and case investigation is completed, this does not alter total count of all cases (final column).

Statewide Influenza Activity Map

Figure 5: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending January 6, 2024 (MMWR Week 01)



Please note: The majority of influenza cases are not reportable by law in Texas. This map contains data from sentinel sites and only displays influenza and ILI cases that were reported to public health. Positive laboratory results are reported according to specimen collection date, or date received in the laboratory if the former is unknown.

Texas Influenza Surveillance Components and Measures

Activity codes (see <http://www.cdc.gov/flu/weekly/overview.htm>)

Statewide influenza activity level

A code reported weekly by states and territories to CDC indicating the geographic spread of influenza in the state. Levels are no activity, sporadic, local, regional, and widespread.

ILINet Activity Indicator

A statewide level of influenza-like illness intensity (on a scale of 1-10, with 1 being the lowest level) assigned to each state weekly by CDC based on data reported through ILINet.

Morbidity

Novel/variant influenza

Thorough investigations are performed on all cases of novel/variant influenza. *This condition is reportable by law in Texas.*

Texas ILINet

Providers voluntarily report weekly to CDC's ILINet system on the number of outpatient visits for ILI and total outpatient visits. Providers may submit up to 5 specimens per month for influenza testing. See <http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/ILINet/> for information on how to become an ILINet provider.

ILI activity

Non-ILINet providers report ILI or influenza data weekly to local or regional health departments.

Outbreaks

Healthcare, schools, childcare, and correctional facilities report ILI and influenza outbreaks to health departments in Texas. *This condition is reportable by law in Texas.*

Mortality

Pneumonia and Influenza (P&I) Mortality Surveillance

The DSHS Vital Statistics Unit collects death certificate information for all deaths on Texas residents from various partners such as funeral homes and local registrars around the state. The death certificates are then sent to the National Center for Health Statistics (NCHS) where the cause of death and underlying causes of death on the death certificates are coded with ICD-10 mortality codes. Once death certificates are coded, the information is sent back to DSHS Center for Health Statistics (CHS). CHS produces a Weekly Pneumonia and Influenza (P&I) Death Report and sends it to the State Influenza Surveillance Coordinator for inclusion in the Texas Weekly Flu Report. P&I deaths are identified based on ICD-10 multiple cause of death codes, and in particular, pneumonia and influenza mortality codes. Delays inherent in death reporting and coding practices may cause the number of reported P&I deaths to vary considerably each week.

Influenza-associated pediatric deaths

Deaths that are associated with influenza in children < 18 years of age are reported to health departments in Texas. *This condition is reportable by law in Texas.* <http://www.dshs.state.tx.us/idcu/disease/IAPM/>

Laboratory

DSHS Austin laboratory

Providers voluntarily submit specimens to the DSHS Austin laboratory for influenza PCR testing throughout the season. Providers sign up for this program through their local health departments.

Laboratory Response Network (LRN) laboratories

Providers voluntarily submit specimens to one of the 9 Texas LRNs for influenza PCR testing throughout the season. Providers sign up for this program through their local health departments.

NREVSS

Laboratories voluntarily report influenza and other respiratory virus data weekly through the CDC's online NREVSS reporting system. **Laboratories sign up for this program by contacting DSHS.** <http://www.cdc.gov/surveillance/nrevss/>

Recommended Resources

Texas Department of State Health Services

DSHS influenza page: <http://www.texasflu.org/>

Influenza surveillance data and reports: <http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/>

Map of Texas Health Service Regions: <http://www.dshs.state.tx.us/regions/state.shtm>

Centers for Disease Control and Prevention

National FluView weekly flu report: <http://www.cdc.gov/flu/weekly/>

Variant influenza viruses: <http://www.cdc.gov/flu/swineflu/variant.htm>

Avian influenza viruses: <http://www.cdc.gov/flu/avianflu/index.htm>

Swine influenza viruses: <http://www.cdc.gov/flu/swineflu/index.htm>

Infection Control in Healthcare Facilities: <http://www.cdc.gov/flu/professionals/infectioncontrol/>

Seasonal Flu Information for Schools and Childcare Providers: <http://www.cdc.gov/flu/school/index.htm>

World Health Organization

Influenza page: <http://www.who.int/topics/influenza/en/>

Disease Outbreak News: <http://www.who.int/csr/don/en/>