

Texas Influenza Surveillance Report 2014–2015 Season/2014 MMWR Week 46

(November 09, 2014 – November 15, 2014)
Report produced on 11/21/2014

Summary

Influenza activity has increased in the last couples of weeks. According to Texas influenza laboratory data, the percentage of specimens positive for influenza increased compared to last week. However, ILI activity decreased compared last week and is below the 2014-2015 state ILINet baseline of 5.42%.

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 influenza activity level reported to CDC (geographic spread of influenza)	Increased	Regional	Local	--
Statewide ILINet Activity Indicator assigned by CDC (intensity of influenza-like illness)	No change	Minimal	Minimal	--
Percentage of specimens positive for influenza	▲ 2.14%	15.47%	13.33% [†]	1
Percentage of visits due to ILI (ILINet)	▼ 0.86%	3.32%	4.18% [†]	3
Number of regions reporting increased flu/ILI activity	No change	5	5	5
Number of regions reporting decreased flu/ILI activity	▲ 1	1	0	5
Number of variant/novel influenza infections	No change	0	0	5
Number of ILI/influenza outbreaks	▲ 3	3	0	5
Number of pediatric influenza deaths	No New Cases Reported	0	0	5

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

Laboratory Results

Influenza

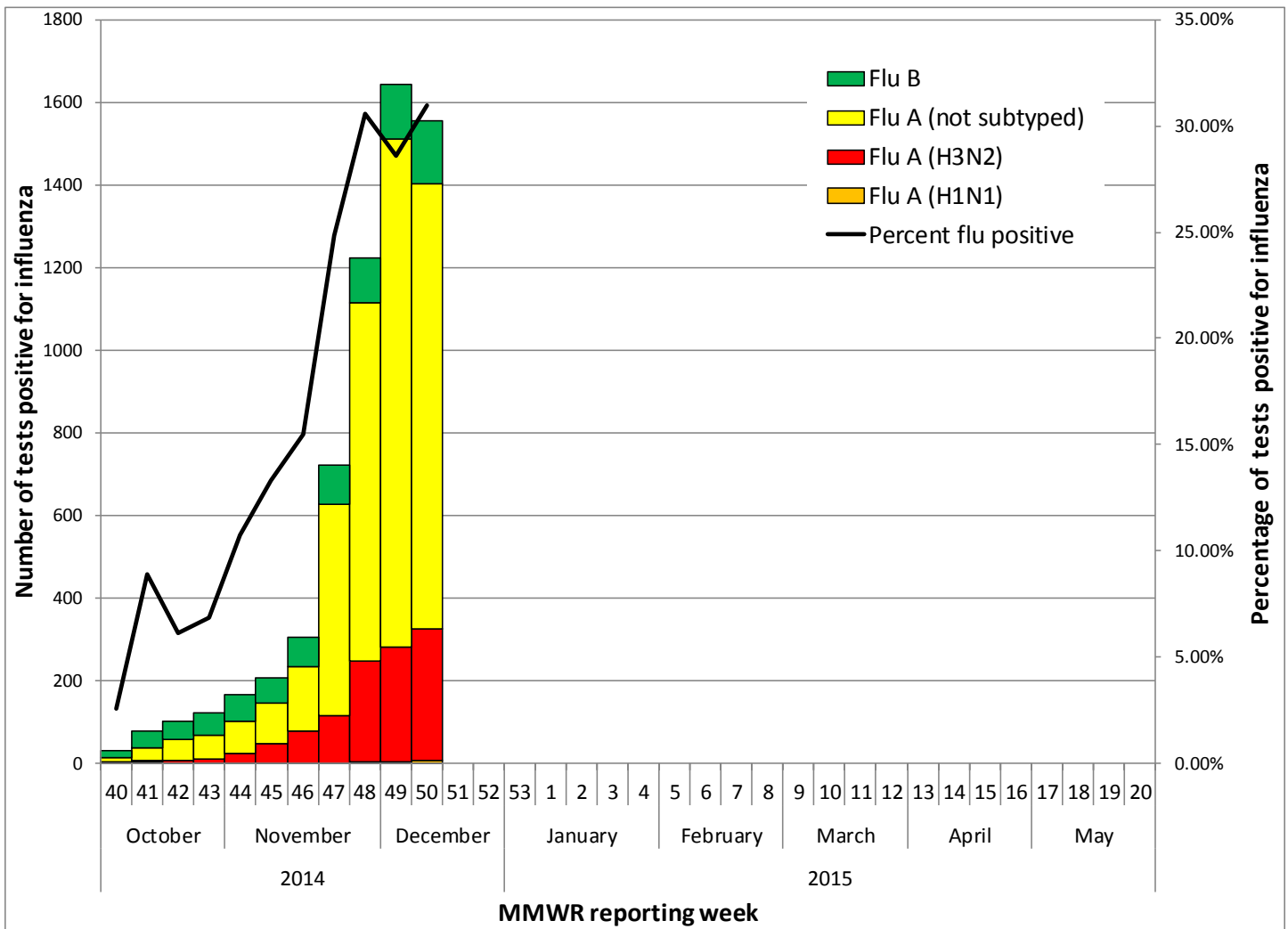
Hospital laboratories across Texas voluntarily report influenza tests (antigen, culture, and PCR) to the National Respiratory and Enteric Virus Surveillance System (NREVSS). Providers throughout Texas also submit specimens for influenza testing (PCR) to Texas public health laboratories, including the 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 is summarized in the table 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 Laboratories for the Current Week

	Week 46
Number of labs reporting flu tests	17
Number of specimens tested	1965
Number of positive specimens (%) [†]	304 (15.47%)
Percentage of total tests that were antigen detection tests	58.07%
Positive specimens by type/subtype [n (%)]	
Influenza A	232 (76.32%)
Subtyping performed	76 (32.76%)
A (H1N1)	0 (0.00%)
A (H3N2)	76 (100.00%)
Subtyping not performed	156 (67.24%)
Influenza B	72 (23.68%)

[†]Laboratory data in 2014-2015 season reports may not be comparable to reports from previous seasons because of the inclusion of DSHS and LRN laboratory data for the current season.

Figure 1: Number and Percentage of Tests (Antigen, Culture, PCR) Positive for Influenza by Type and Subtype Reported by Texas Laboratories, 2014–2015 Season



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), and respiratory adenovirus. The results for the current week are summarized below.

Table 3: 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)	6	571	17	2.98%
HMPV	6	554	5	0.90%
Parainfluenza virus	6	562	45	8.01%
Rhinovirus	5	420	129	30.71%
RSV [†]	11	1014	197	19.43%

[†]RSV tests displayed in the table are antigen detection tests only. Some non-NREVSS reporters also contribute to the RSV data.

Antigenic Characterization

Since September 28, 2014, CDC has reported antigenic characterization results from 2 influenza A (H3N2) viruses and 3 influenza B viruses received from the Texas Department of State Health Services (DSHS) Laboratory. The DSHS Laboratory sends a representative sample of influenza viruses to the CDC throughout the flu season.

Influenza A (H3N2) [2]

- Two (100%) viruses were related to A/Texas/50/2012, the influenza A (H3N2) component of the 2014-2015 Northern Hemisphere influenza vaccine.

Influenza B [3]

- Yamagata lineage [1]: One (33%) influenza B/Yamagata-lineage virus has been characterized from Texas. A B/ Massachusetts/2/2012-like virus is included as an influenza B component of the 2014-2015 Northern Hemisphere trivalent and quadrivalent influenza vaccines.
- Victoria lineage [2]: Two (67%) influenza B/Victoria-lineage viruses were characterized as B/Brisbane/60/2008-like, which is included as an influenza B component of the 2014-2015 Northern Hemisphere quadrivalent influenza vaccine.

Antiviral Resistance

No antiviral resistance testing data for Texas specimens are available at this time.

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

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

Week 46	
Number of providers reporting [†]	71
Number of providers reporting patient visits	71
Number (%) of providers with at least one ILI case	54 (76.06%)
Percentage of all visits due to ILI	3.32%
Texas ILINet baseline [‡] , 2014–2015	5.42%

[†]Reporting providers include both ILINet and Enhanced ILINet/IISP providers.

[‡]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.

Table 6: Percentage of Visits for Influenza-like Illness Reported by Texas ILINet Providers (as of 11/06/2014 1:22 PM)

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+			
201440	107	155	377	310	111	92	1045	28539	3.66%
201441	107	173	382	307	135	93	1090	29964	3.64%
201442	107	230	427	292	131	92	1172	29074	4.03%
201443	110	204	455	363	133	100	1255	29625	4.24%
201444	106	190	481	346	107	116	1240	28010	4.43%
201445	107	160	473	331	117	87	1168	27962	4.18%
201446	71	189	308	89	30	22	638	19189	3.32%

Figure 2: Percentage of Visits Due to Influenza-like Illness Reported by Texas ILINet Participants, 2014–2015 Season

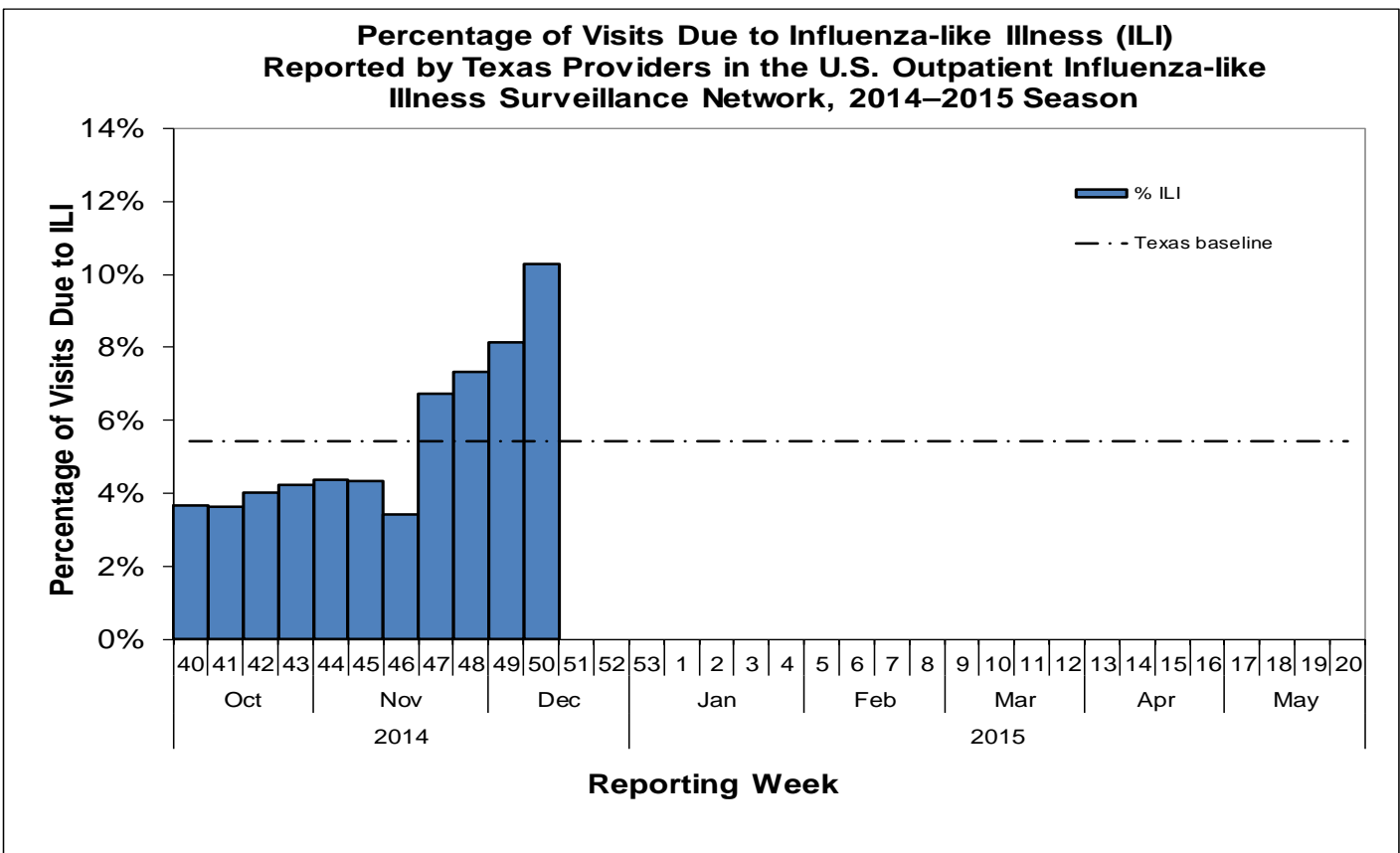
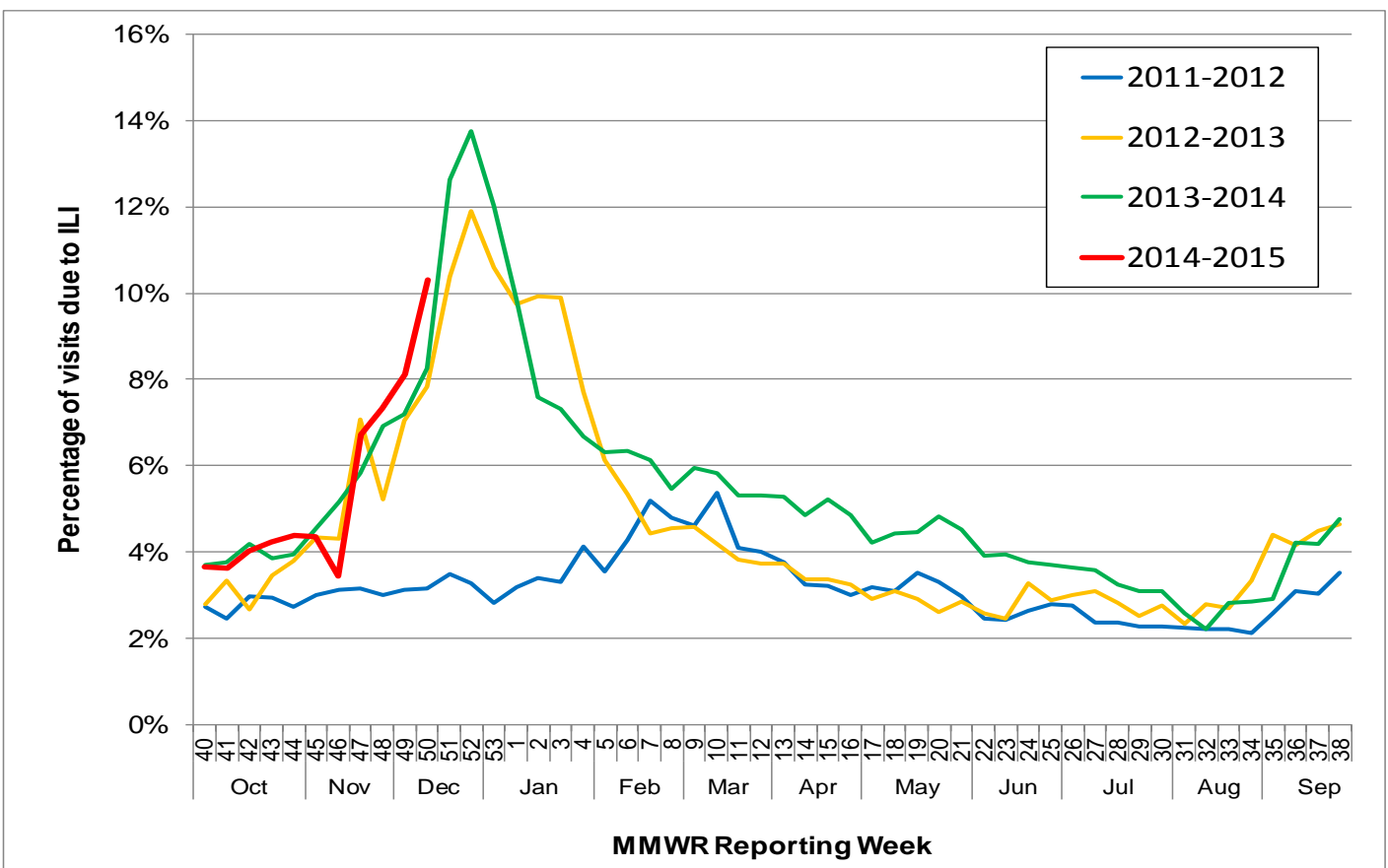


Figure 3: Percentage of Visits Due to Influenza-like Illness Reported by Texas ILINet Participants, 2011–2015 Seasons



Reports from Health Service Regions

Reports were received from all Health Service Regions (HSRs) during week 46. HSRs 2/3, 4/5N, 7, 9/10 and 11 reported an increased level of flu activity compared to week 45. HSR 1 reported a decreased level of flu activity compared to week 45. The remaining HSRs reported the same level of flu activity compared to week 45.

Variant Influenza Viruses

No variant or novel influenza viruses have been detected in Texas in 2014.

Institutional Outbreaks and School Closures

During week 46, one influenza outbreak was reported in a nursing home in HSR 8. Seven of eight patients tested positive for influenza A via rapid flu test. All the patients were unvaccinated and two patients have been hospitalized. Patients who are not immunized or are symptomatic are being given Tamiflu. Additionally, an influenza-like illness outbreak was reported in a child care center in HSR 7. Patients were being treated with Tamiflu.

An influenza outbreak was reported in a school in HSR 6/5S during week 46. Two children were positive for influenza A H3 by PCR.

No school closures were reported during week 46.

Influenza-Associated Pediatric Mortality

No influenza-associated pediatric deaths were reported during week 46.

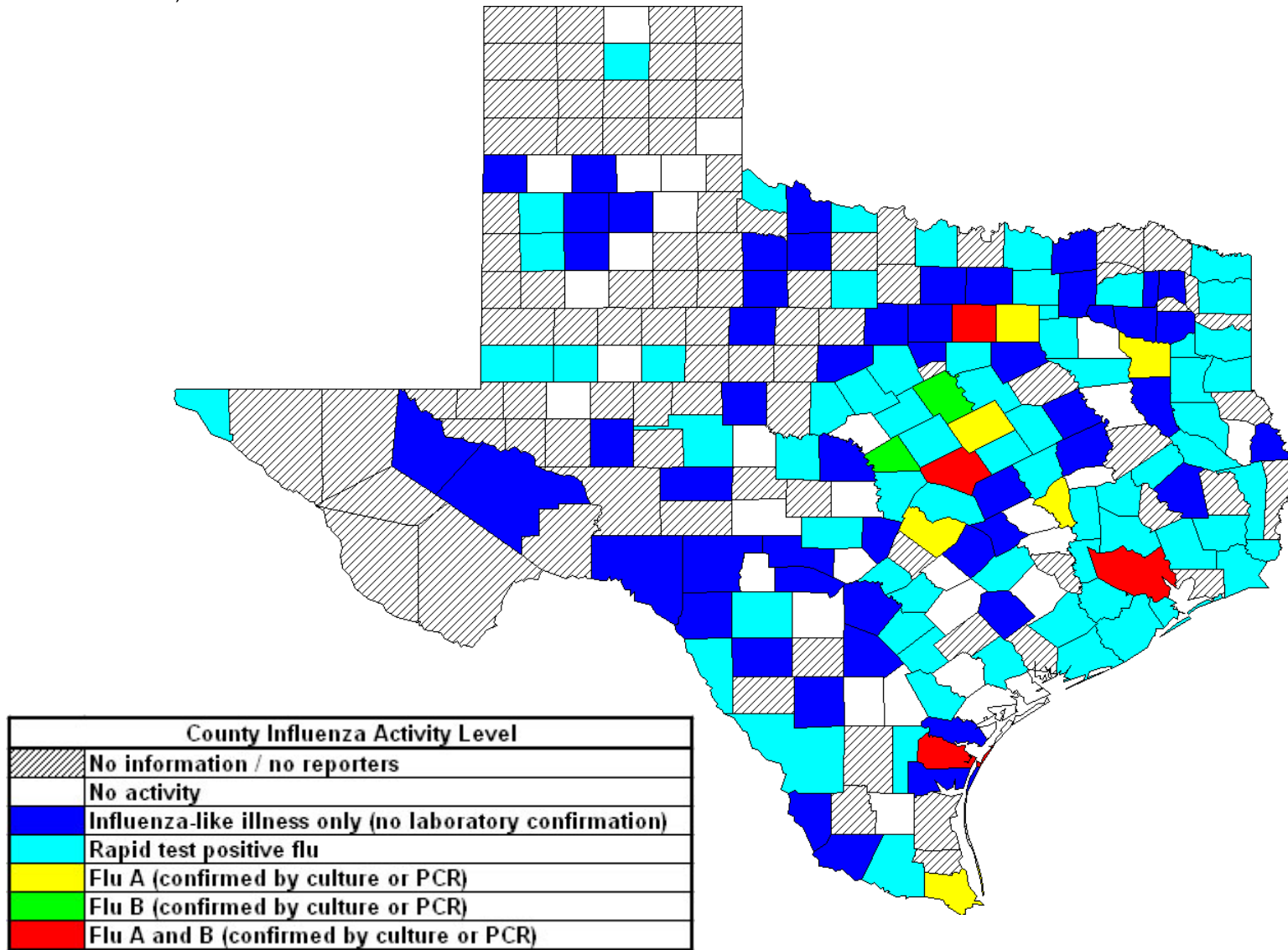
No influenza-associated pediatric deaths have been reported in Texas during the 2014-2015 influenza season. Cases of influenza-associated pediatric mortality (children <18 years of age) are reportable year-round and by law in Texas.

Table 7: Influenza-Associated Pediatric Deaths Reported in Texas During the 2014–2015 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
2014							
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

Statewide Influenza Activity Map

Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending November 15, 2014 (MMWR Week 46)



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.**

Enhanced ILINet/IISP

Providers report weekly to ILINet and submit specimens on the first 10 patients seen with ILI each week. Specimens are tested for a variety of respiratory viruses.

ILI activity

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

Outbreaks

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

Mortality

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 and novel influenza viruses: <http://www.cdc.gov/flu/avianflu/index.htm>; <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/>