

Texas Influenza Summer Surveillance Report 2015–2016 Season/2016 MMWR Week 39

(Sept. 25, 2016 – Oct. 01, 2016)
Report produced on 10/07/2016

Summary

Influenza activity remains low across Texas. Compared to the previous week, the percentage of specimens positive for influenza decreased and the percentage of patient visits due to influenza-like illness (ILI) marginally increased. No influenza-associated pediatric deaths were reported. No ILI or influenza-associated outbreaks were reported. In addition to flu, other respiratory viruses—especially rhinovirus/enterovirus—were detected in Texas during week 39.

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)	Not determined during the summer	N/A	N/A	--
Statewide ILINet Activity Indicator assigned by CDC (intensity of influenza-like illness)	Not determined during the summer	N/A	N/A	--
Percentage of specimens positive for influenza	▼ 1.86%	1.38%	3.24% [†]	1
Percentage of visits due to ILI (ILINet)	▲ 1.03%	3.88%	2.85% [†]	2
Number of regions reporting increased flu/ILI activity	No change	1	1	4
Number of regions reporting decreased flu/ILI activity	▲ 1	1	0	4
Number of variant/novel influenza infections	No change	0	0	4
Number of ILI/influenza outbreaks	No change	0	0	4
Number of Pneumonia and Influenza (P&I) Deaths	No New Deaths Reported	0	374	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 39	Season to Date
Number of labs reporting flu tests	9	
Number of specimens tested	724	89432
Number of positive specimens (%) [†]	10 (1.38%)	8847 (9.89%)
Percentage of total tests that were antigen detection tests	49.45%	
Positive specimens by type/subtype/lineage [n (%)]		
Influenza A	5 (50.00%)	4682 (52.92%)
Subtyping performed	1 (20.00%)	1631 (34.84%)
A (H1N1)	0 (0.00%)	901 (55.24%)
A (H3N2)	1 (100.00%)	730 (44.76%)
Subtyping not performed	4 (80.00%)	3051 (65.16%)
Influenza B	5 (50.00%)	4165 (47.08%)
Lineage testing performed	0 (0.00%)	237 (5.69%)
B/Victoria	0 (0.00%)	89 (37.55%)
B/Yamagata	0 (0.00%)	148 (62.45%)
Lineage testing not performed	5 (100.00%)	3928 (94.31%)

[†]Laboratory data in 2015-2016 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.

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 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)	4	320	5	1.56%
HMPV	5	340	6	1.76%
Parainfluenza virus	5	400	18	4.50%
Rhinovirus	4	320	117	36.56%
RSV [†]	9	441	9	2.04%
Seasonal coronavirus (does not include MERS-CoV)	3	310	4	1.29%

[†]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>.

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

Table 4: Texas ILINet Reporting and Patient Visit Summary for the Current Week

	Week 39
Number of providers reporting [†]	91
Number of providers reporting patient visits	88
Number (%) of providers with at least one ILI case	60 (68.18%)
Percentage of all visits due to ILI	3.88%
Texas ILINet baseline [‡] , 2015–2016	6.32%

[†]Reporting providers include both ILINet and RVSP providers.

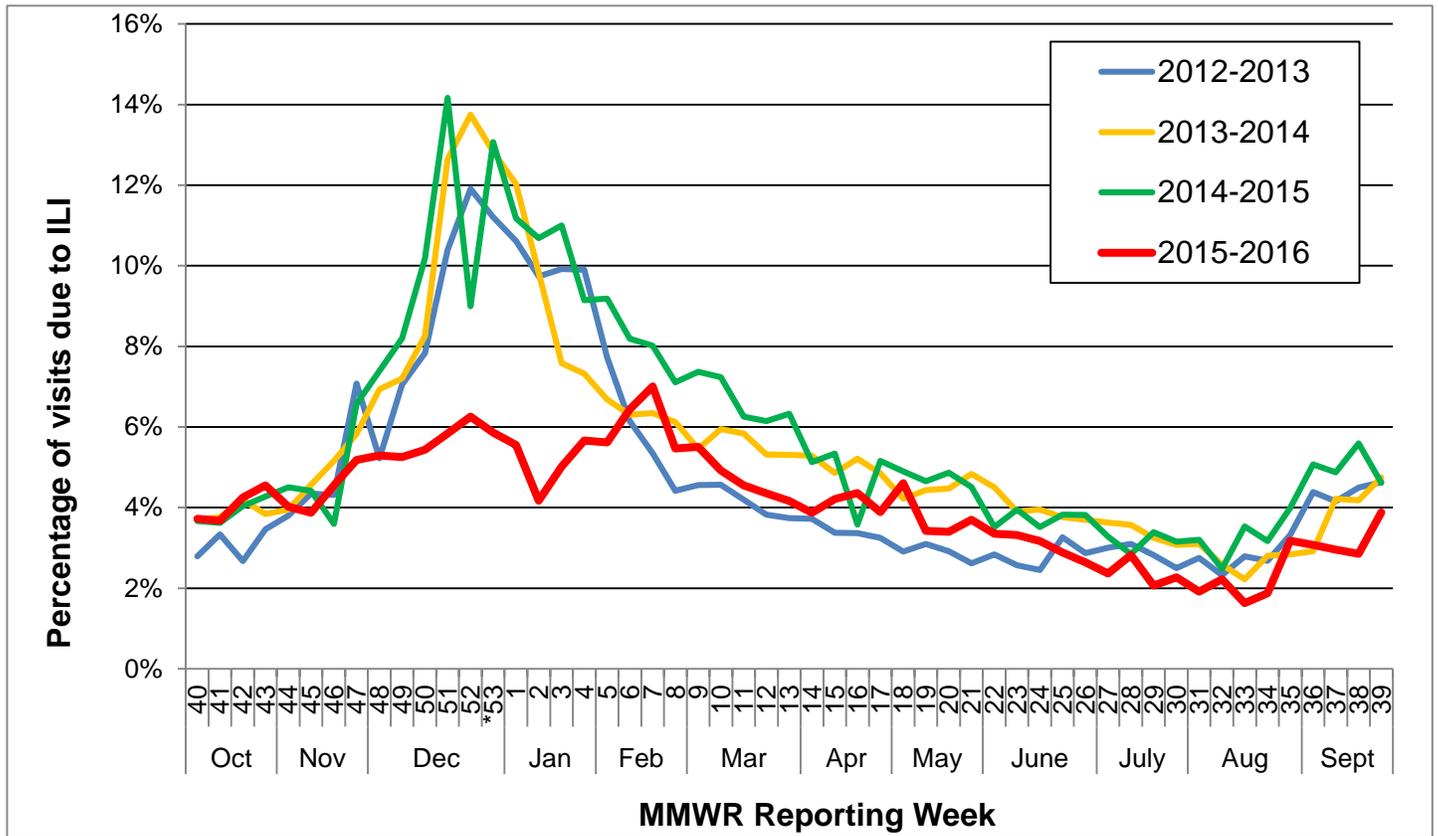
[‡]The baseline is the mean percentage of patient visits for ILI during non-influenza weeks for the previous three seasons plus two standard deviations. A "non-influenza week" is defined as a week that accounted for less than 2% of the season's total number of specimens that tested positive for influenza

Table 5: Percentage of Visits for Influenza-like Illness Reported by Texas ILINet Providers (as of 10/06/16 1:30 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+			
201540	132	204	395	350	197	125	1271	34147	3.72%
201541	128	220	438	304	141	92	1195	32520	3.67%
201542	128	249	475	392	187	137	1440	33882	4.25%
201543	129	250	500	352	201	150	1453	31953	4.55%
201544	132	253	453	322	213	160	1401	34837	4.02%
201545	124	263	512	296	122	41	1234	31875	3.87%
201546	129	243	533	376	224	187	1563	34348	4.55%
201547	128	218	385	339	182	114	1238	23895	5.18%
201548	128	279	503	478	290	249	1799	33996	5.29%
201549	125	276	451	410	300	218	1655	31497	5.25%
201550	127	324	411	486	279	219	1719	31627	5.44%
201551	127	193	333	418	222	175	1341	22965	5.84%
201552	126	213	294	488	295	178	1468	23460	6.26%

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+			
201601	126	201	364	511	315	247	1638	29503	5.55%
201602	122	226	398	321	150	69	1164	27924	4.17%
201603	129	278	467	430	221	214	1610	32091	5.02%
201604	128	284	638	450	306	200	1878	33160	5.66%
201605	129	300	630	451	285	191	1857	33054	5.62%
201606	128	323	743	605	328	215	2214	34384	6.44%
201607	126	332	829	625	362	244	2392	34140	7.01%
201608	91	298	551	246	200	211	1506	27540	5.47%
201609	89	304	629	244	173	166	1516	27533	5.51%
201610	87	226	437	244	175	166	1248	25375	4.92%
201611	87	193	306	213	150	127	989	21715	4.55%
201612	87	154	419	202	139	149	1063	24428	4.35%
201613	86	195	391	190	131	153	1060	25475	4.16%
201614	66	92	291	200	123	147	853	22013	3.87%
201615	83	175	423	219	138	159	1114	26426	4.22%
201616	81	205	445	188	137	142	1117	25599	4.36%
201617	85	183	370	191	138	148	1030	26512	3.89%
201618	83	156	307	172	114	372	1121	24354	4.60%
201619	79	159	205	131	121	155	771	22547	3.42%
201620	82	147	195	135	119	135	731	21500	3.40%
201621	78	141	225	139	112	122	739	19998	3.70%
201622	76	131	140	114	94	91	570	17013	3.35%
201623	52	65	97	113	110	132	517	15584	3.32%
201624	73	114	128	134	87	138	601	18957	3.17%
201625	72	111	97	104	97	127	536	18601	2.88%
201626	69	89	96	96	79	107	467	17660	2.64%
201627	72	62	77	74	71	93	377	15943	2.36%
201628	72	70	59	71	85	101	386	13687	2.82%
201629	71	79	94	59	64	89	385	18627	2.07%
201630	71	82	70	89	62	111	414	18223	2.27%
201631	71	64	89	63	63	78	357	18655	1.91%
201632	66	59	76	74	67	114	390	17556	2.22%
201633	102	63	80	95	76	76	390	23906	1.63%
201634	103	81	139	82	72	97	471	25149	1.87%
201635	98	101	279	79	71	104	634	19944	3.18%
201636	95	128	280	129	73	87	697	22685	3.07%
201637	96	108	260	131	110	146	755	25539	2.96%
201638	95	109	187	89	83	107	575	20155	2.85%
201639	91	117	158	95	91	143	604	15574	3.88%

Figure 1: Percentage of Visits Due to Influenza-like Illness Reported by Texas ILINet Participants, 2012–2016 Seasons*



*There was a week 53 in the 2014-2015 influenza season, but there is not a week 53 for the 2015-2016 influenza season or the other previous seasons; therefore the week 53 data point for those seasons is an average of week 52 and 1.

Reports from Health Service Regions

Reports were received from all Health Service Regions (HSRs) during week 39.

Table 6: Influenza Activity Compared to Week 38 by Health Service Region (HSR)

Influenza Activity Comparison	Health Service Region (HSR)
Increased	1
Same	2/3, 4/5N, 6/5S, 8, 9/10, and 11
Decreased	7
Unsure	

Variant Influenza Viruses

No variant or novel influenza viruses have been detected in Texas in 2015 or 2016.

Institutional Outbreaks and School Closures

No ILI or influenza-associated outbreaks were reported during week 39.

No school closures were reported during week 39.

TX P&I Mortality Surveillance Data

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. In particular, P&I deaths are based on ICD-10 pneumonia and influenza mortality codes.

Eight thousand four hundred fifteen P&I deaths have been reported in Texas during the 2015-2016 influenza season.

Table 7: Texas P&I Deaths Occurring Oct. 04, 2015-Oct. 05, 2016* by Age

Age Category (years)	Number of P&I Deaths ⁺	Mortality Rate (per 100,000)
0 - 4	42	2.06
5 - 17	21	0.39
18 - 49	491	3.93
50 - 64	1418	28.52
65 +	6443	191.46
Overall	8415	29.80

*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 8: Texas P&I Deaths Occurring Oct. 04, 2015-Oct. 05, 2016* by Health Service Region (HSR)

HSR	Number of P&I Deaths	Mortality Rate (per 100,000)
1	362	40.24
2/3	2348	28.76
4/5N	675	42.50
6/5S	1899	25.83
7	979	28.70
8	870	29.76
9/10	481	31.44
11	801	33.79
Overall	8415	29.80

*NOTE: Data are provisional and subject to change, errors, and duplicates

Influenza-Associated Pediatric Mortality

No influenza-associated pediatric deaths were reported during week 39.

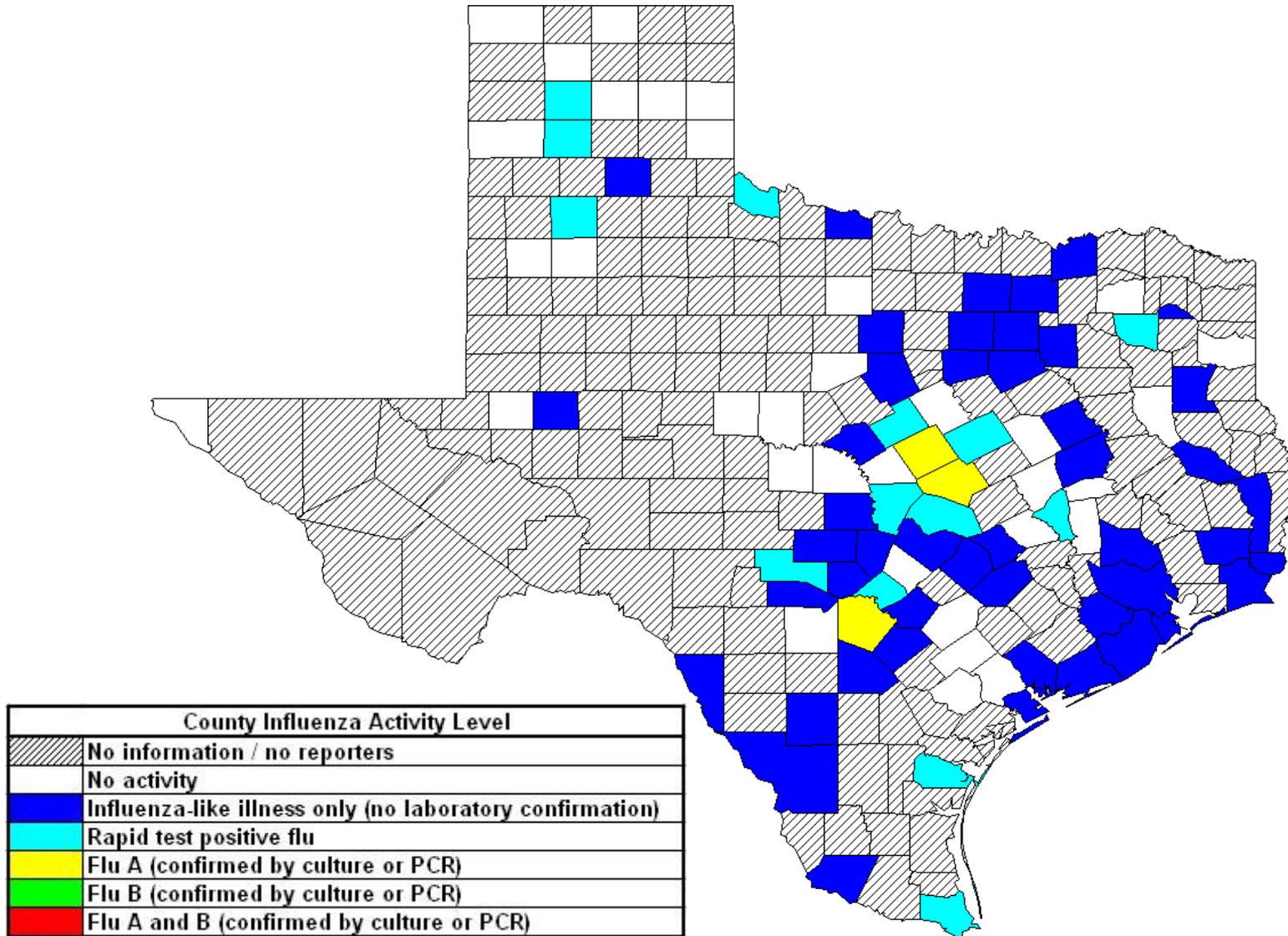
Seven influenza-associated pediatric deaths have been reported in Texas during the 2015-2016 influenza season. Cases of influenza-associated pediatric mortality (children <18 years of age) are reportable year-round and by law in Texas.

Table 9: Influenza-Associated Pediatric Deaths Reported in Texas during the 2015–2016 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
2015							
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	0	0	1	0	0	0	1
2016							
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	1	2	0	1	1	0	5
April	0	0	0	1	0	0	1
May	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
Total	1	2	1	2	1	0	7

Statewide Influenza Activity Map

Figure 2: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending Oct. 01, 2016 (MMWR Week 39)



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, and childcare 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 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/>