



# COLLIN COUNTY HEALTH CARE SERVICES

## Epidemiology Influenza Report

### Weekly Report 52, Ending 12/27/2008

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### Overview

(All data are preliminary and may change as more reports are received)

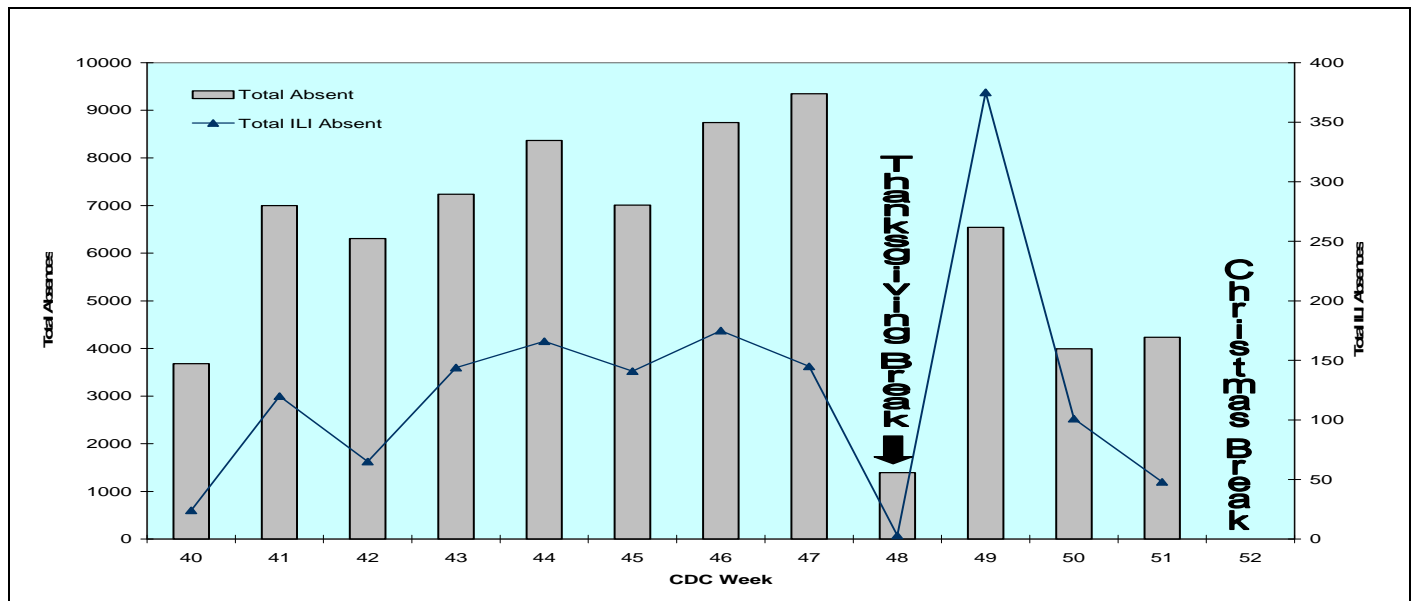
Influenza Activity Level	
United States	Sporadic
Texas	Local
Texas Viral Activity	
Dominate influenza isolate submitted	Influenza A/H1
Influenza-associated pediatric deaths	0

Figure 1. Weekly Provider & Hospital Influenza Testing Results, Collin County

Week Ending	11/1	11/8	11/15	11/22	11/29	12/6	12/13	12/20	12/27
CDC Week 2008-09	44	45	46	47	48	49	50	51	52
# Influenza Tests Performed Weekly	24	47	32	66	46	62	89	75	71
# Positive Influenza Tests	0	3	6	10	1	2	1	7	9
% Positive Influenza Tests <sup>1</sup>	0	6.4	18.8	15.2	2.2	3.2	1.1	9.3	12.7
# Positive A Influenza	0	0	4	7	1	0	1	5	5
# Positive B Influenza	0	1	2	2	0	2	0	1	3
# Non-differentiated Influenza	0	2	0	1	0	0	0	1	1

<sup>1</sup> Percentages based on small numbers should be interpreted with caution. This is particularly evident early in the season in Collin County. As influenza reports become more numerous, this statistic should be less erratic.

Figure 2. Reported School Influenza-like Illness and Total Absences, Collin County



<sup>2</sup> Courtesy Collin County Independent School Districts

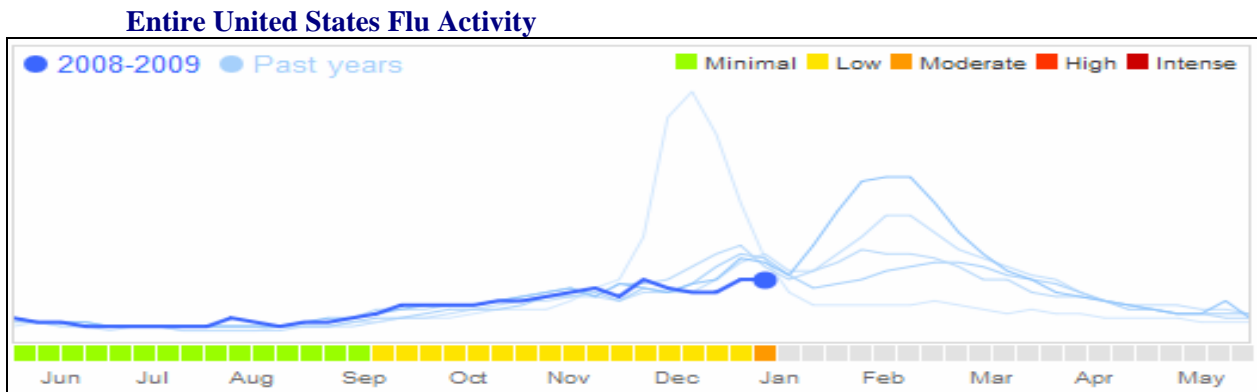
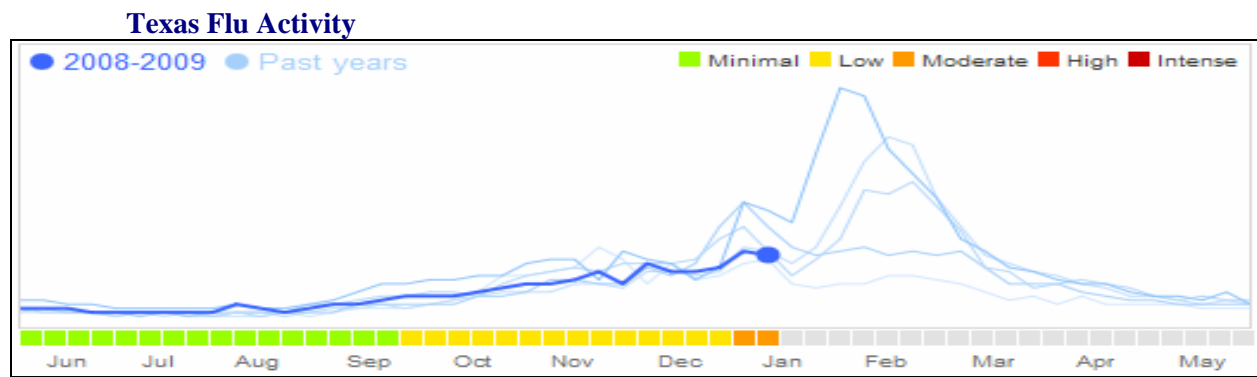
**Figure 3. Antigenic Characteristics of Influenza Isolates 2008-2009, Texas**

Subtype	Submitted Influenza Isolates	Vaccine Composition
Influenza A H1	11 of 11 (100%) A/Brisbane/59/2007	A/Brisbane/59/2007
Influenza A H3	0 of 0	A/Brisbane/10/2007-like
Influenza B	10 of 10 (100%) Victoria lineage	B/Florida/04/2006-like (Yamagata lineage)

<sup>3</sup>Courtesy <http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2009>; through Week 52

**Figure 4. Google Flu Trends 2008-2009, Texas and United States**

**How it works?** Online health information continues to improve. The CDC and Google used millions of anonymous, aggregated counts of flu-related search queries from 2004 through 2008 to develop Google Trends. It is another method of estimating flu activity



<sup>4</sup>Courtesy Google; <http://www.google.org/flutrends/>

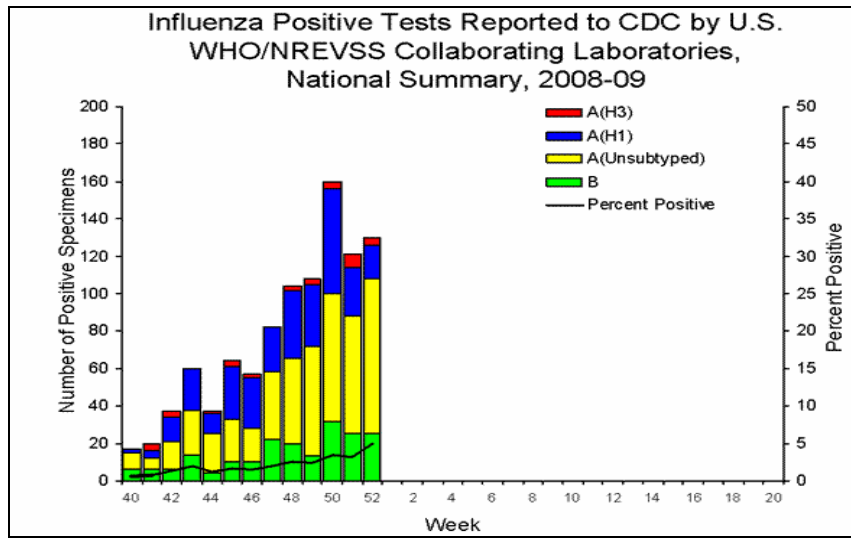
**Figure 5. Antiviral Resistance, CDC**

	Isolates tested (n)	Resistant Viruses, Number (%)		Isolates tested (n)	Resistant Viruses, Number (%)
		Oseltamivir	Zanamivir		
<b>Influenza A (H1N1)</b>	73	72 (99%)	0 (0)	73	0 (0%)
<b>Influenza A (H3N2)</b>	11	0 (0)	0 (0)	11	11 (100%)
<b>Influenza B</b>	33	0 (0)	0 (0)	N/A*	N/A*

\*The adamantanes (amantadine and rimantadine) are not effective against influenza B viruses.

<sup>5</sup>Courtesy CDC; <http://www.cdc.gov/flu/weekly/>

**Figure 6. National Respiratory and Enteric Viruses Surveillance System (NREVSS) United States, 2008-09 season, Week 52**



<sup>6</sup>Courtesy CDC; <http://www.cdc.gov/flu/weekly/>

## Interim Recommendations for the Use of Influenza Antiviral Medications in the Setting of Oseltamivir Resistance among Circulation Influenza A (H1N1) Viruses 2008-09 Influenza Season

Due to the high level of resistance of the circulating influenza A (H1N1) strain to oseltamivir, the CDC is issuing interim recommendations for antiviral treatment and chemoprophylaxis of influenza for the 2008-2009 influenza season. They are as follows:

1. Review local or state influenza virus surveillance data weekly during the influenza season to determine the type and subtype of the circulating strain(s) of influenza
2. Consider use of influenza tests that can distinguish influenza A from influenza B.
  - a. If a patient test positive for influenza B, either oseltamivir or zanamivir may be given if treatment is indicated.
  - b. If a patient test positive for influenza A, zanamivir should be considered if treatment is indicated. Oseltamivir should only be used alone if the local influenza data indicate the circulating viruses to be influenza A (H3N2) or influenza B viruses. Combination treatment with oseltamivir and rimantadine is an acceptable alternative when zanamivir is not indicated (See source for additional information)
  - c. If a patient tests negative for influenza, consider treatment based on the local influenza activity and clinical impression (See source for additional information)
  - d. When available, confirmatory testing with a diagnostic test to distinguish influenza A (H1N1) from influenza A (H3N2) or influenza B virus can be used to guide treatment. **Please contact Collin County Health Care Services at 972-548-4707, if you would like to utilize this service.**
3. Persons who are candidates for chemoprophylaxis (see source) should be provided with medications most likely to be effective against the influenza virus that is the cause of the outbreak. Zanamivir should be used when persons require chemoprophylaxis due to exposure to influenza A (H1N1) virus (see source).

Please view this CDC Health Advisory in its entirety at  
<http://www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00279>

### Interim recommendations for the selection of antiviral treatment using laboratory test results and viral surveillance data, United States, 2008-09 season<sup>‡</sup>

Rapid antigen or other laboratory test	Predominant virus(es) in community	Preferred medication(s)	Alternative (combination antiviral treatment)
Not done or negative, but clinical suspicion for influenza	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Not done or negative, but clinical suspicion for influenza	H3N2 or B	Oseltamivir + Rimantadine*	None
Positive A	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Positive A	H3N2 or B	Oseltamivir + Rimantadine*	None
Positive B	Any	Oseltamivir + Rimantadine*	None
Positive A+B**	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Positive A+B**	H3N2 or B	Oseltamivir + Rimantadine*	None

\*Amantadine can be substituted for rimantadine but has increased the risk of adverse events. Human data are lacking support the benefits of combination antiviral treatment of influenza; however, these interim recommendations are intended to assist clinicians treating patients who might be infected with oseltamivir-resistant influenza A (H1N1) virus.

\*\*Positive A+B indicates a rapid antigen test that cannot distinguish between influenza A and influenza B viruses.

<sup>‡</sup>Influenza antiviral medication used for treatment are most beneficial when initiated within the first two days of illness. Clinicians should consult the package insert of each antiviral medication for specific dosing information, approved indications and ages, contraindications/warnings/precautions, and adverse effects.