



# COLLIN COUNTY HEALTH CARE SERVICES

## Epidemiology Influenza Report

### Weekly Report 3, Ending 1/24/2009

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### Overview

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

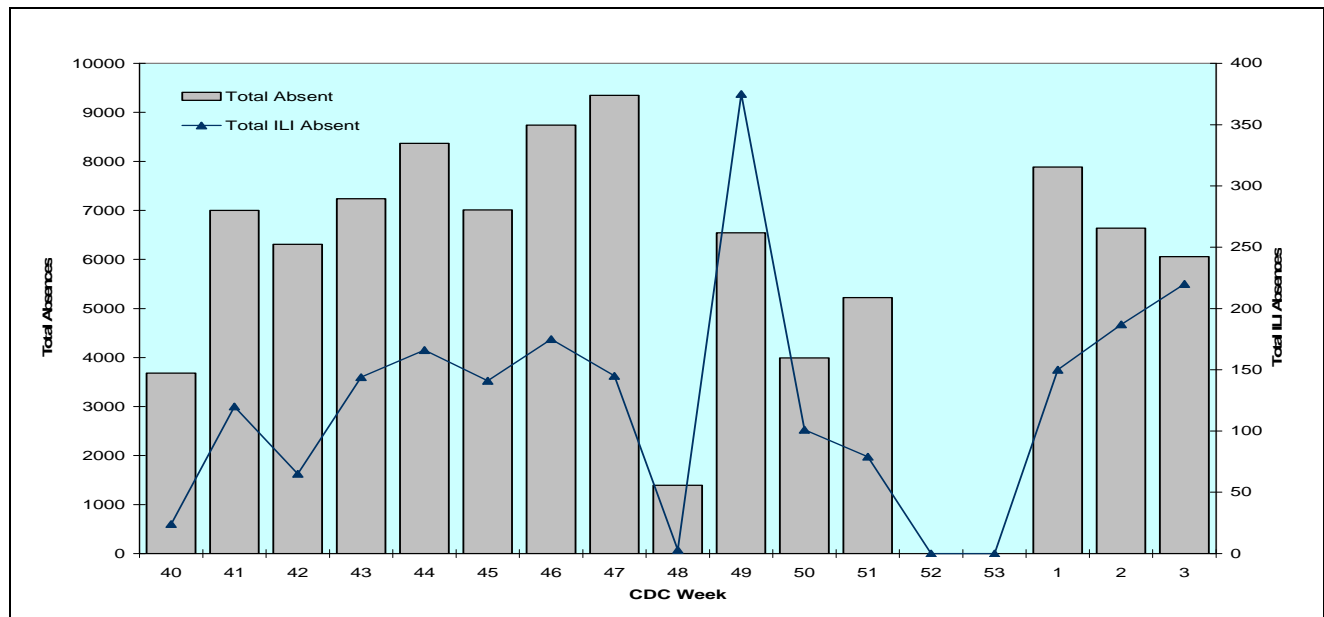
Texas Viral Activity	
Influenza activity level	<b>Widespread</b>
Dominate influenza isolate submitted	<b>Influenza A/H1</b>
Influenza-associated pediatric deaths	<b>None</b>

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

Week Ending	12/6	12/13	12/20	12/27	1/3	1/10	1/17	1/24
<b>CDC Week 2008-09</b>	<b>49</b>	<b>50</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>1</b>	<b>2</b>	<b>3</b>
# Influenza Tests Performed Weekly	69	98	116	135	121	142	206	347
# Positive Influenza Tests	2	2	7	14	5	25	51	114
% Positive Influenza Tests <sup>1</sup>	<b>2.9</b>	<b>2.0</b>	<b>6.0</b>	<b>10.4</b>	<b>4.1</b>	<b>17.6</b>	<b>24.8</b>	<b>32.9</b>
# Positive A Influenza	0	1	5	10	5	21	34	75
# Positive B Influenza	2	1	1	3	0	3	16	34
# Non-differentiated Influenza	0	0	1	1	0	1	1	5

<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**



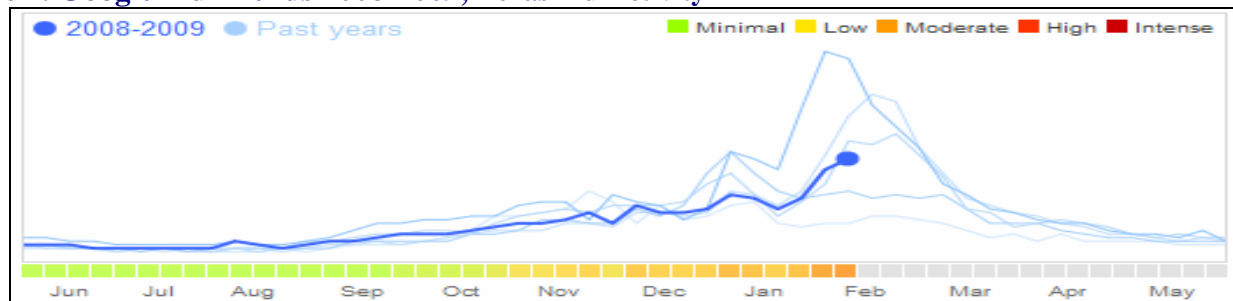
<sup>2</sup> Courtesy Collin County Independent School Districts

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

Antigenic Characteristics of Influenza Isolates, Texas, 2008-09		
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	1 of 11 (9%) Yamagata lineage 10 of 11 (91%) 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 3

**Figure 4. Google Flu Trends 2008-2009, Texas 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>	165	162 (98.2%)	0 (0)	165	2 (1.2%)
<b>Influenza A (H3N2)</b>	37	0 (0)	0 (0)	37	37 (100%)
<b>Influenza B</b>	67	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/>

### Interim Recommendations for the Use of Influenza Antiviral Medications in the Setting of Oseltamivir Resistance among Circulating Influenza A (H1N1) Viruses

*CDC Health Advisory: December 19, 2008*

Because preliminary data are indicating a high prevalence of influenza A (H1N1) virus strains with resistance to oseltamivir, CDC has issued interim recommendations for antiviral treatment and chemoprophylaxis of influenza during the current 2008-09 season: <http://www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00279>

- Review local surveillance data to determine which types and subtypes of influenza are currently circulating in the area.
- Consider use of influenza tests that can distinguish influenza A from B. Confirmatory testing with a diagnostic test capable of distinguishing influenza caused by influenza A (H1N1) virus from influenza A (H3N2) or influenza B can also be used to guide treatment.
- When influenza A (H1N1) infection is suspected, zanamivir or a combination of oseltamivir and rimantadine are more appropriate options than oseltamivir alone.
- Persons who are candidates for chemoprophylaxis should be provided with medications most likely to be effective against the influenza virus which is the cause of the outbreak. Zanamivir should be used when persons require chemoprophylaxis due to exposure to influenza A (H1N1) virus.

See the attached table (from the Health Advisory) for a more detailed summary of treatment recommendations, and also: <http://www.cdc.gov/flu/professionals/antivirals/index.htm>

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

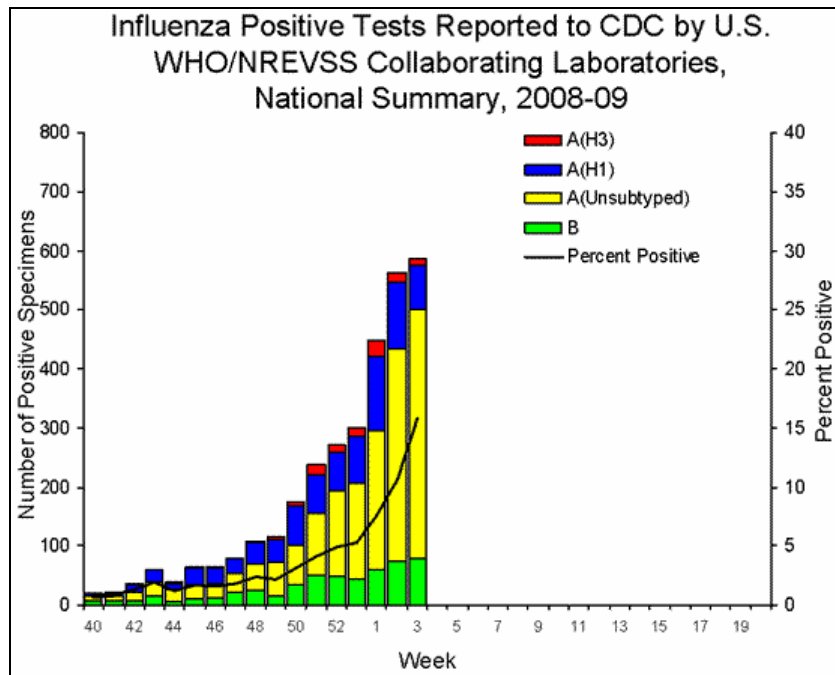
Rapid antigen or other laboratory test	Predominant virus(es) in community	Preferred medication(s)	Alternative (combination antiviral treatment)
Not done or negative, but clinical suspicion for influenza	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Not done or negative, but clinical suspicion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

**Figure 6. National Respiratory and Enteric Viruses Surveillance System (NREVSS) United States, 2008-09 season, Week 3**



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

**Thank you for participating in our disease reporting system.  
Please send any comments or inquiries to Collin County Health Department:  
Health Care Analyst: [bpollard@co.collin.tx.us](mailto:bpollard@co.collin.tx.us)  
Chief Epidemiologist: [pwittie@co.collin.tx.us](mailto:pwittie@co.collin.tx.us)**