



Williamson County & Cities Health District

Flu Surveillance Update

Week Ending 10/08/11 through Week Ending 02/19/12

Background

Although reporting of flu cases to health departments is not required in Texas, WCCHD receives reports of flu throughout the year. During each flu season local, state, and federal public health agencies use enhanced surveillance systems to determine what type of influenza viruses are circulating. Enhanced surveillance allows WCCHD to monitor the progress and severity of a flu season at the community level. Enhanced flu reporting usually starts in October (week 40) and ends in May (week 20). During pandemics, flu surveillance may continue throughout the summer to monitor trends and severity of illness. However, the number of flu and ILI reports received by WCCHD decreases dramatically during the summer months as school attendance diminishes, and flu reports come almost exclusively from hospitals. Because of these changes in reporting patterns, routine updates to the WCCHD flu pages will stop after week 20 (week ending in May).

The WCCHD flu surveillance system does not attempt to capture all cases of influenza or influenza-like illness. The number of reporters sending in flu reports may vary from week to week. These data should be used to look for trends over time rather than for estimating the total number of cases.

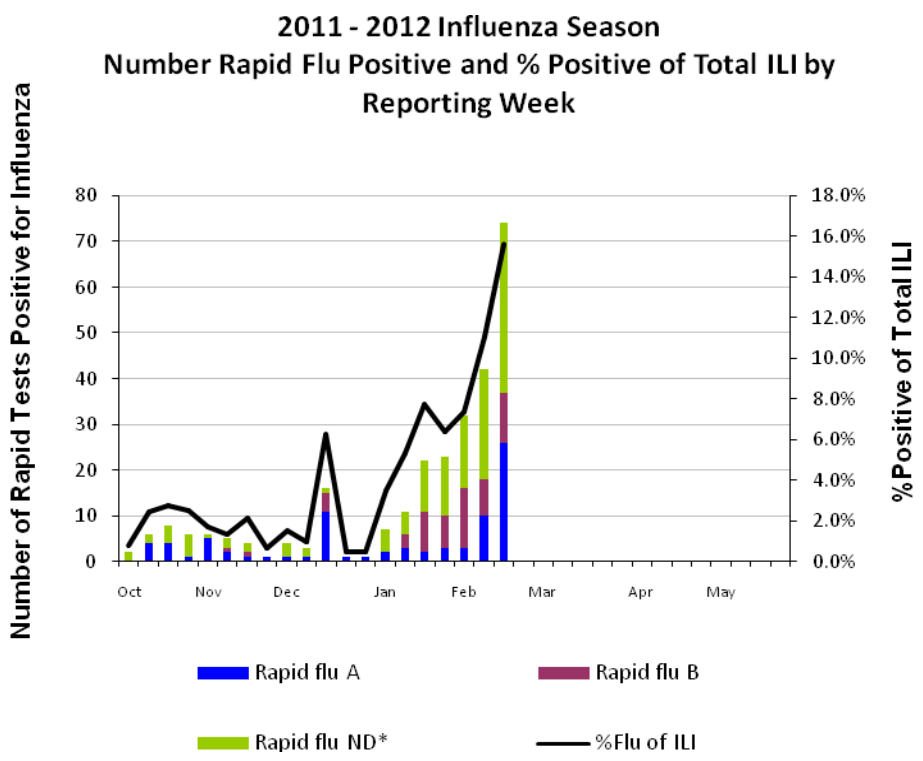
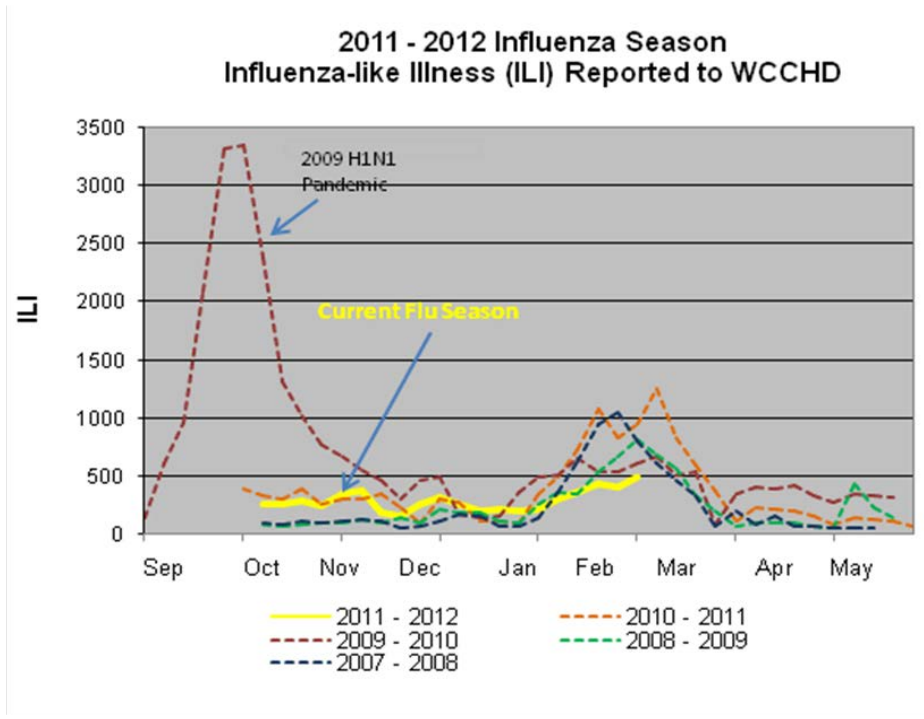
Trend charts showing the number of influenza-like illnesses and influenza cases reported during the flu season in Williamson County are posted on the website starting in September or October. Throughout the flu season, the charts may be updated for previous weeks to reflect data submitted late to WCCHD. Note that the number of reports received from school districts decreases during weeks 47, 52, 1, and 11 due to the Thanksgiving, Christmas, New Years, and Spring Break holidays respectively. The lower number of ILI and flu cases is most likely due to fewer reporters collecting surveillance data rather than an actual decrease in ILI and flu in the community.

CDC Recommendations for Influenza Antiviral Medications

A recent review of randomized clinical trial (RCT) data for the influenza neuraminidase inhibitor antiviral medications raised questions about the value of antiviral medications for the prevention and treatment of influenza (Lasserson T, Tovey D. Neuraminidase inhibitors for influenza: methods change, principles don't [editorial]. *The Cochrane Library* 2012 (18 January). <http://www.thecochranelibrary.com/details/editorial/1442857/Neuraminidase-inhibitors-for-influenza-methods-change-principles-dont.html> [accessed 10 February 2012]). After careful consideration of all available evidence, the Centers for Disease Control and Prevention (CDC) guidance on the use of antiviral medications remains unchanged. The CDC continues to recommend the use of the neuraminidase inhibitor antiviral drugs (oral oseltamivir and inhaled zanamivir; <http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>) as an important adjunct in the prevention and treatment of influenza.

The Advisory Committee on Immunization Practices (ACIP) and CDC consider all of the published evidence available from RCTs and observational studies, including safety data, when issuing recommendations on antiviral treatment of influenza. These ACIP and CDC recommendations emphasize early antiviral treatment as soon as possible for patients who are severely ill and for those who are at greatest risk for complications from influenza. This includes hospitalized patients with suspected or confirmed influenza, those with severe or progressive illness, and outpatients who are at high risk for influenza complications (for example, young children, people 65 and older, pregnant women, and persons with

certain underlying chronic medical conditions). In addition, because reviews of RCTs and observational studies have found consistent clinical benefit of early oseltamivir treatment in reducing the risk of lower respiratory tract complications such as those requiring antibiotics, persons with uncomplicated influenza who are not in a high risk group and who present within 48 hours of illness onset can be treated with antiviral medications based upon clinical judgment.



*ND: Rapid Flu Positive, Type Not Determined

Special Projects Designed to Improve Surveillance for Acute Respiratory Illness

Influenza Incidence Surveillance Project (IISP) – Conducted in partnership with Lone Star Circle of Care, the Austin Travis County Health and Human Services Department and the Texas Department of State Health Services

The Texas Department of State Health Services (DSHS) was selected by the Council for State and Territorial Epidemiologists and the CDC to participate in the Influenza Incidence Surveillance Project (IISP). The goal of IISP is to calculate age specific incidence of ILI and influenza among people who seek outpatient care. There are currently 6 providers from 5 counties participating in the IISP. Each recruited provider reports aggregate numbers of total patients seen by age group and total patients seen with ILI by age group every week starting at the beginning of August 2011 through the end of July 2012. Each provider also collects a nasopharyngeal swab on the first ten patients seen each week with ILI. The specimens collected are tested for influenza by the DSHS lab in Austin. All negative specimens are also tested using a respiratory panel to identify other respiratory viruses.

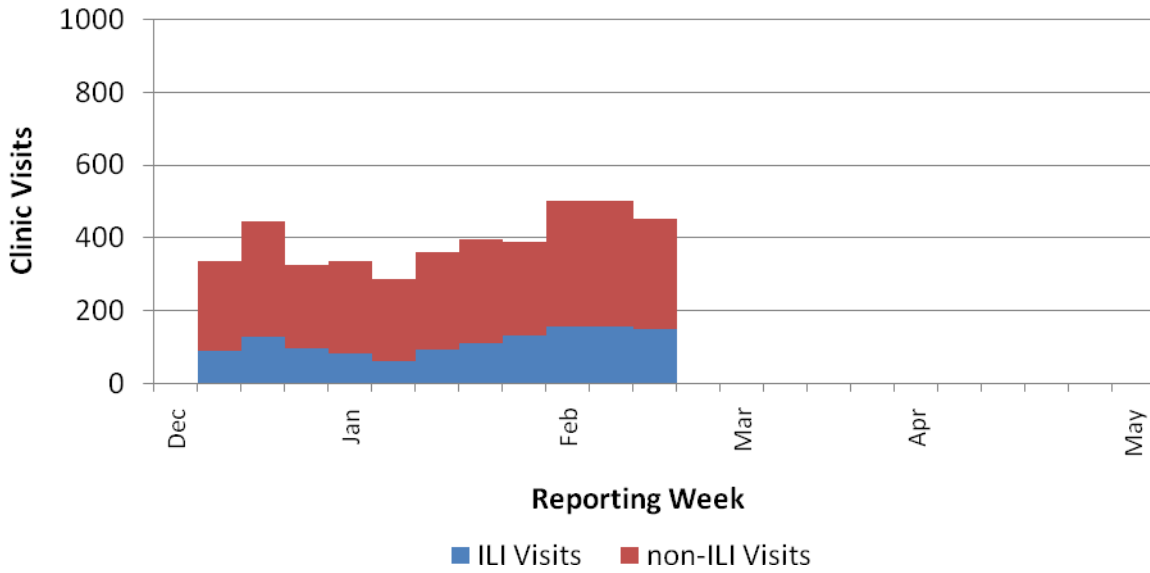
- Influenza activity remains low. The seventh week of 2012 saw no IISP specimens positive for influenza. Incidence of ILI is estimated at 204 cases per 100,000 population.
- Reporting by DSHS of respiratory pathogens other than influenza should resume by the end of February.

Lone Star Circle of Care Pilot Project – Enhanced Surveillance for Influenza and Influenza-like Illness Using Electronic Medical Records (EMR) System

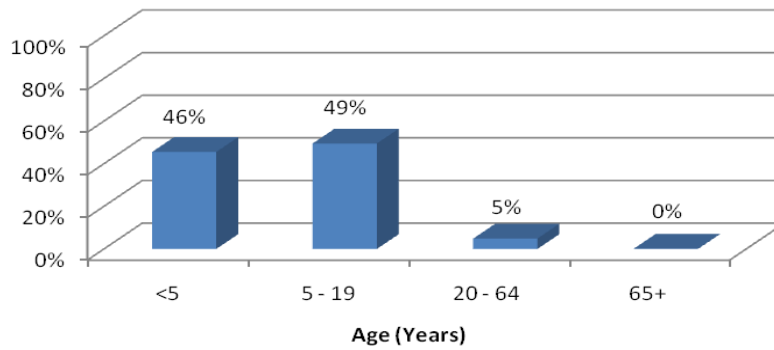
Electronic medical record (EMR) systems have the potential to improve reporting of modifiable diseases. Current passive surveillance systems are burdensome to clinicians and reporting of suspect cases is often delayed. Electronic laboratory reporting may serve as an alternative means of identifying cases that warrant further investigation. There are many advantages to partnering with LSCC. LSCC providers meet frequently, allowing any issues related to coding and information gaps (e.g., patient signs and symptoms, prescribed treatments, and pregnancy status) to be discussed and solutions developed. The ultimate goal of this project is to improve patient and public health outcomes by improving efficiency of reporting and response. In addition, this project helps build a foundation for developing algorithms and a system which taps into consolidated data collected via a Health Information Exchange.

Project Definition for ILI Cases: patient has a fever AND cough and/or sore throat and has one of the following ICD-9 codes documented for the encounter: 079.99 (unspecified viral infection), 462 (acute pharyngitis), 465 (acute upper respiratory infections of multiple or unspecified sites), 487 (influenza), 488 (influenza due to certain identified influenza viruses), 780.60 (fever, unspecified), 784.1 (throat pain), 786.2 (cough), or 780.99 (other general symptoms). If the selected ICD-9 diagnoses are 780.99, the assessment had to include the terminology "influenza-like symptoms".

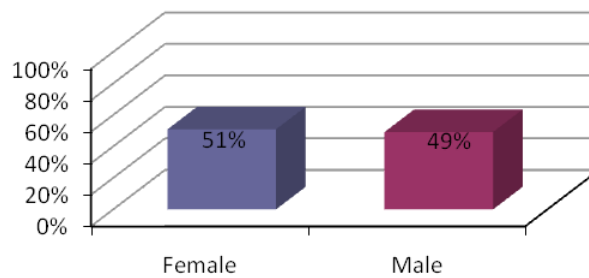
Lone Star Circle of Care Clinic Visits by Reporting Week



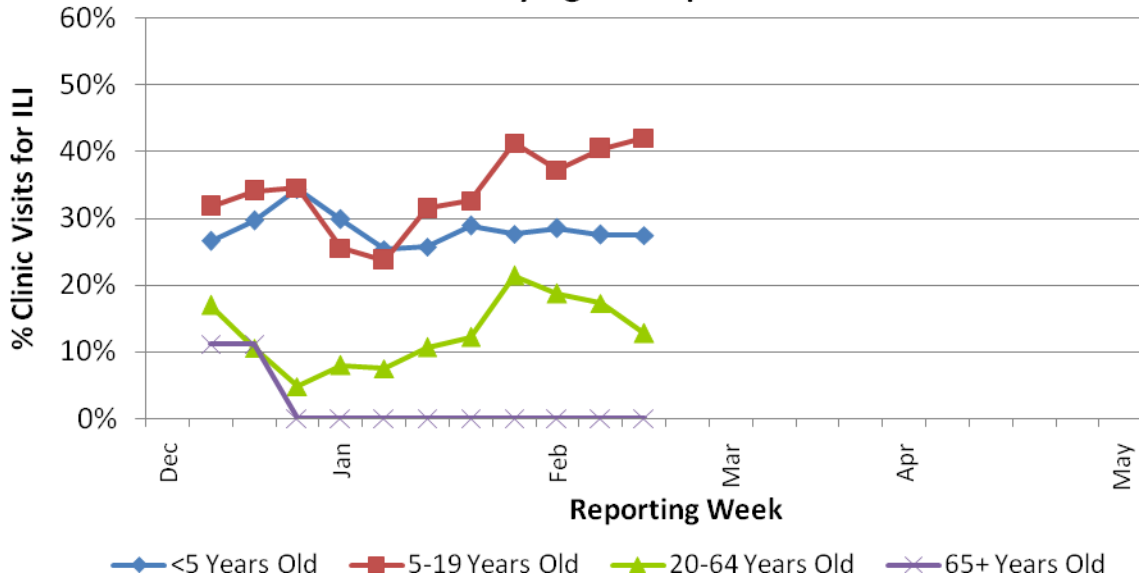
LSCC Pilot Project EMR Surveillance - % of ILI Reports by Age (thru 02/19/2012)



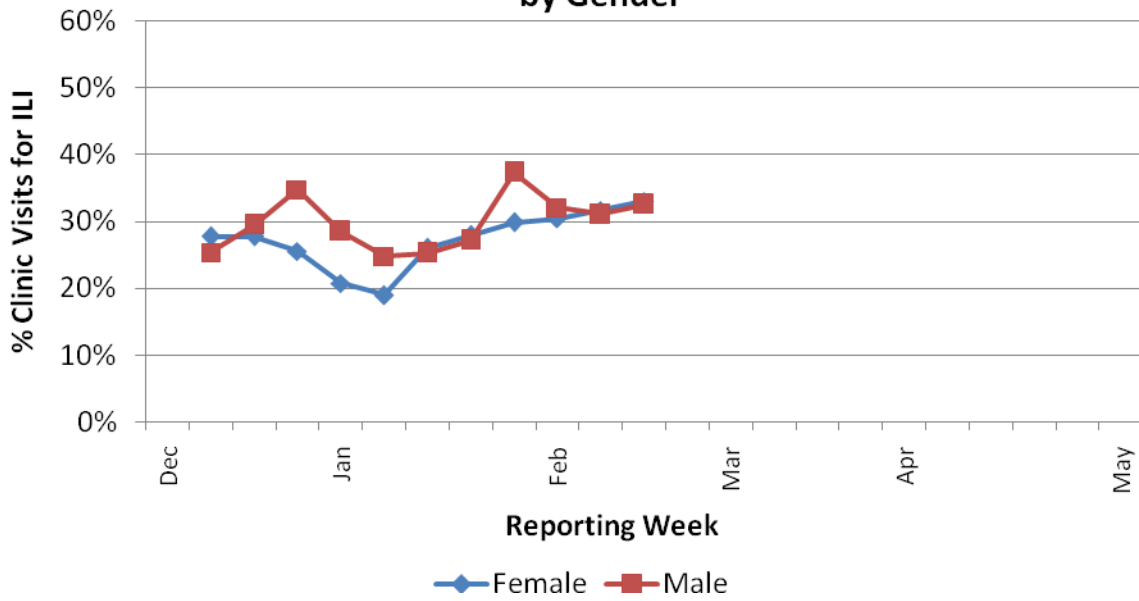
LSCC Pilot Project EMR Surveillance - % of ILI Reports by Gender (thru 02/19/2012)



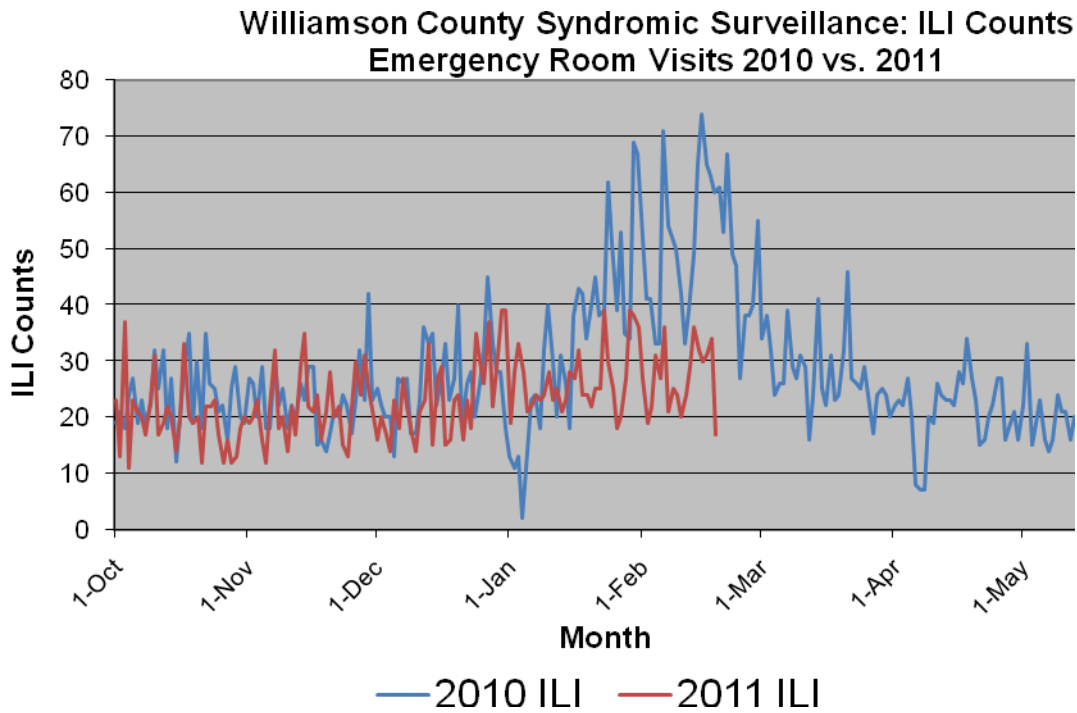
**% of Total Clinic Visits Attributed to ILI
by Age Group**



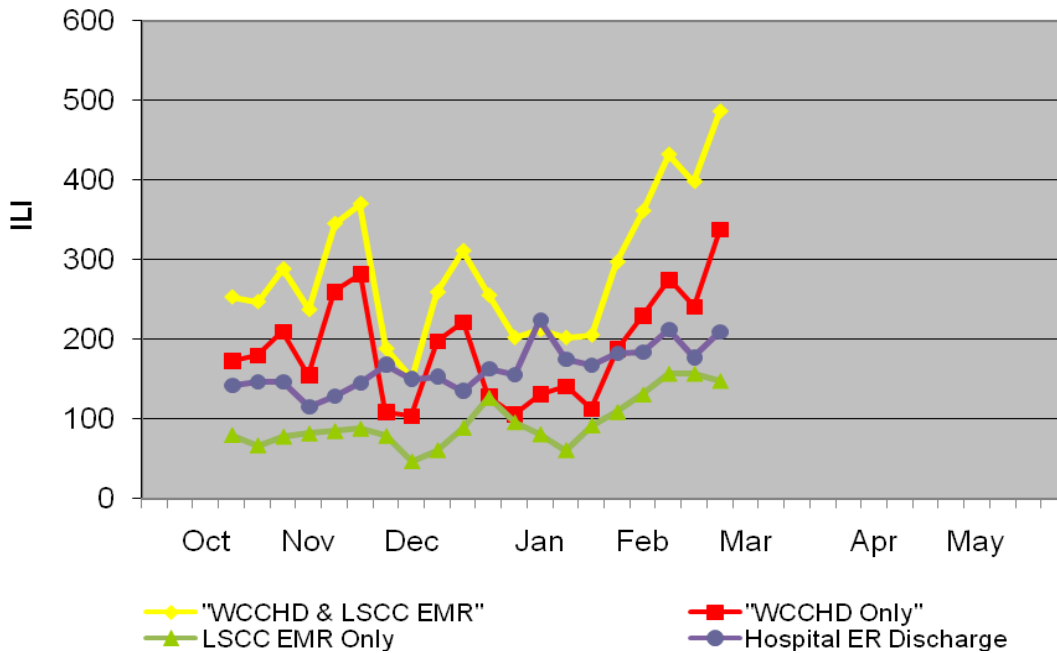
**% of Total Clinic Visits Attributed to ILI
by Gender**



Regional Syndromic Surveillance & Comparison with Other Systems



**2011 - 2012 Influenza Season
Comparison of Influenza-like Illness (ILI) Surveillance
Systems**



Related Links

www.texasflu.org

www.flu.gov

Google Flu Trends: www.google.org/flutrends

CDC Weekly Surveillance Reports: <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

Overview of national flu surveillance: www.cdc.gov/flu/weekly/pdf/flu-surveillance-overview.pdf

CDC Recommendations for Influenza Antiviral medications:
http://www.cdc.gov/media/haveyouheard/stories/Influenza_antiviral.html

2011-2012 Influenza Antiviral Medications: <http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS) <http://www.cdc.gov/surveillance/nrevss/>

Influenza surveillance in Texas: www.dshs.state.tx.us/idcu/disease/influenza/surveillance/

www.preventinfluenza.org

www.familiesfightingflu.org

www.facesofinfluenza.org

DSHS Health Services Region 7 Epidemiology Program: www.dshs.state.tx.us/region7/Epidemiology.shtm

For more information contact the WCCHD Disease Surveillance Program at (512) 943-3660 or email Mindy Powell, RN, Program Lead, mpowell@wcchd.org.