SPECIAL ISSUE
Respiratory Viruses Report
HIGHLIGHTS

- This special issue reports on influenza virus and non-influenza respiratory viruses detected through the sentinel provider program at Houston Department of Health and Human Services (HDHHS).

- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 309 surveillance specimens. Of the 128 positive lab results, the Influenza A/H3 accounts for 107 (84%) of the positives. Of the 47 specimens positive for non-influenza respiratory viruses, Human Rhinovirus accounts for 19 (40%) of the positives.

- Swine influenza virus (H3N2v) can be transmitted from pigs to people for this reason it is important to raise awareness of the prevention and control measures. During the agricultural fair / stock show season it is important to take avoid contact with pigs.

- At the national level during week 08, 10.9% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI 2.5% was above the national baseline 2.5% and the proportion of deaths attributed to pneumonia and influenza 7.2% was at the epidemic threshold of 7.2% for week 08.

- Chief complaint data was not available to report Influenza Like Illness (ILI) this week.

- Houston Department of Health and Human Services, Bureau of Laboratory Services performs tests on clinical specimens from humans for Influenza strain and subtype including, H3 strain of influenza.
Laboratory Based Respiratory Viruses Surveillance: 2014-2015 Season

Influenza summary
- During the 2014 to 2015 flu season HDHHS OSPHP collected 306 specimens from sentinel providers (n=5 to 7) and detected Influenza A/H3 (n=107) and Influenza B (n=20)
- In 2015 subtype information for influenza B became available. Influenza B / Victoria (n=5) and influenza B / Yamagata (n=5) were detected.
- In 2014 MMWR week 50 had the highest percent (68%) of positive influenza lab results. In 2015 MMWR week 05 had the highest percent of positive influenza lab results (67%). This season on average 34% of the influenza lab test performed were

Non-influenza respiratory virus surveillance
- Non-influenza respiratory viruses detected include human rhinovirus (n=19), respiratory syncytial virus (n=9), parainfluenza 2 (n=8), parainfluenza 3 (n=1), adenovirus (n=6), and human metapneumovirus (n=4)
Swine influenza virus, H3N2v: Information from Texas DSHS

The stock show/agriculture (ag)-fair season is upon us. People from all over the state, even the country, will be traveling to different stock shows or ag-fairs across Texas and may have contact with a variety of animals at these shows, including swine.

With so many pigs at a stock show or ag-fair, there is a potential to have at least one pig with a swine influenza (flu) virus. Swine influenza viruses are different than human influenza viruses. Swine influenza viruses are usually spread among pigs, but they can spread from pigs to people though this is rare. Influenza viruses that normally circulate in pigs are called “variant” viruses when they are found in people. Spread of swine flu viruses from a pig to a person is thought to happen in the same way that human flu viruses spread—mainly through droplets from infected pigs coughing and sneezing.

Swine influenza virus such as H3N2v can be transmitted from pigs to people. Since swine influenza viruses such as H3N2-variant (H3N2v) may be spread to people, the CDC has provided background information and guidance, located at http://www.cdc.gov/flu/swineflu/h3n2v-healthcare.htm, for healthcare providers regarding the prevention, diagnosis, treatment and reporting of human infections with H3N2v. These are the recommendations to prevent the spread of influenza between people and pigs.

- Don’t take food or drink into pig areas; don’t eat, drink or put anything in your mouth in pig areas.
- Don’t take toys, pacifiers, cups, baby bottles, strollers, or similar items into pig areas.
- Wash your hands often with soap and running water before and after exposure to pigs. If soap and water are not available, use an alcohol-based hand rub.
- Avoid close contact with pigs that look or act ill.
- Take protective measures if you must come in contact with pigs that are known or suspected to be sick. This includes minimizing contact with pigs and wearing personal protective equipment like protective clothing, gloves, and masks that cover your mouth and nose when contact is required.
- To further reduce the risk of infection, minimize contact with pigs in the pig barn and arenas.
- Watch your pig (if you have one) for signs of illness and call a veterinarian if you suspect it might be sick.
- Avoid contact with pigs if you have flu-like symptoms. Wait 7 days after your illness started or until you have been without fever for 24 hours without the use of fever-reducing medications, whichever is longer. If you must have contact with pigs while you are sick, take the protective actions listed above.

Certain people are at higher risk for serious flu complications if they get infected with influenza viruses, including H3N2v. This includes children younger than 5 years, people 65 years and older, pregnant women, and people with certain long-term health conditions (like asthma and other lung disease, diabetes, heart disease, weakened immune systems, and neurological or neurodevelopmental conditions). CDC has issued guidance for “high risk” people attending fairs where swine might be present, and this guidance is located at http://www.cdc.gov/flu/swineflu/h3n2v-fairs-factsheet.htm. These people should avoid pigs and swine barns at fairs.

There are also CDC recommendations on the CDC’s Fact Sheet: Protect Yourself Against H3N2v website, (http://www.cdc.gov/flu/swineflu/h3n2v-factsheet.htm), if a person was to get sick after being exposed to pigs. If a person goes to his or her healthcare provider with influenza-like illness (ILI) or flu-like symptoms following direct or close contact with swine, the person should tell the healthcare provider about this exposure. In addition, it might be a good idea as well to remind providers to ask about recent animal exposure, including swine exposure at a stock show or ag-fair, if a patient comes to the provider with flu symptoms.

When a patient reports a recent, significant history of swine or avian exposure and has ILI symptoms, the provider should collect a specimen as soon as possible after the patient’s onset of illness and forward the specimen to a public health laboratory for influenza PCR testing, along with the appropriate and completed laboratory submission form. The preferred specimen type is a nasopharyngeal (NP) swab; however, a variety of other respiratory specimen types are also acceptable for testing (e.g., nasal aspirate or wash, combined nasopharyngeal swab with oropharyngeal swab, nasal swab, or oropharyngeal swab). Before sending the specimen, the provider should contact the local health department to inform them that a specimen is being sent for testing; the local health department should make sure that the testing laboratory is informed.

Additional information about swine influenza viruses/ influenza A H3N2v can be found at http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm. Finally, you may contact your local health department if you would like some material and resources that are intended for display or distribution in settings, such as agricultural fairs, where there may be direct or indirect contact between pigs and people to help prevent the spread of H3N2v. More resources may be found at http://www.cdc.gov/flu/swineflu/h3n2v-resources.htm.
Texas and National Influenza and ILI Activity

NOTE: Influenza activity level corresponds to current MMWR week only and does not reflect previous weeks’ activity. The majority of influenza cases are not reportable by law to the Texas Department of State Health Services. This map contains data from sentinel sites and does not represent all influenza cases in the state. Positive laboratory results are reported according to specimen collection date or date received in the lab if the former is unknown.

http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2015/

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet

2014-15 Influenza Season Week 8 ending Feb 28, 2015

NOTE: Data collected in ILINet are used to produce a measure of ILI activity by state. Activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation. This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels. Data collected in ILINet may disproportionately represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state. http://www.cdc.gov/flu/weekly/
The Houston **SPECIAL ISSUE** Respiratory Viruses Report is available on the Houston Department of Health and Human Services web site at:
http://www.houstontx.gov/health/weekly-flu-report

NOTE: Houston Department of Health and Human Services, Bureau of Laboratory Services performs tests on clinical specimens from humans for Influenza strain and subtype including, H3 strain of influenza.

Specimen guidelines

- Specimens may be from upper respiratory tract or lower respiratory tract
- Specimens should be collected and placed in viral transport media
- Specimens can be refrigerated at 2 degrees Celsius to 8 degrees Celsius for up to 72 hours from time of collection. Within 72 hours of collection, specimens must be transported on ice packs
- If longer storage is required, specimens can be frozen. Frozen specimens must be transported on dry ice
- All specimens must be accompanied with an HDHHS submission form. The collection date and time MUST be included on the form

For additional information, you may contact the Bureau of Laboratory Services at 832-393-3914 or Bureau of Epidemiology at 832-393-5080.

Additional information regarding Houston, Texas and national ILI activity can be accessed at:
http://www.houstontx.gov/health/
http://www.cdc.gov/flu/weekly/
http://www.who.int/csr/don/en/