This is the fifteenth weekly Florida influenza surveillance report for the 2008-09 season. Influenza surveillance in Florida consists of seven surveillance components: 1) Florida Sentinel Physician Influenza Surveillance Network (FSPISN); 2) Florida Pneumonia & Influenza Mortality Surveillance System; 3) State laboratory viral surveillance; 4) County influenza activity levels; 5) Notifiable Disease Reports: Influenza-associated deaths in children & post-influenza infection encephalitis; 6) Influenza or ILI outbreaks; 7) Syndromic surveillance.

During week 1 (01/04/09-01/10/09), the proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 1.94 percent. This is below the state threshold for moderate activity of 2.98 percent. Nine of the fifteen ILI specimens tested by Bureau of Laboratories were positive for influenza. No counties reported widespread activity and four counties reported localized activity. Twenty-one counties reported sporadic activity and 22 counties reported no activity. Twenty counties did not report. The graph below shows the progression of the 2007-08 & 2008-09 Florida influenza seasons as monitored by three of seven surveillance systems.

Each week an activity code for the state as a whole is reported to the Centers for Disease Control and Prevention (CDC). There are five possible categories: No Activity, Sporadic, Local, Regional, or Widespread. Local activity has been reported in Florida for this reporting week (week 1). Florida meets the CDC local activity definition. The CDC definition for local activity is: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state. The CDC report can be viewed at http://www.cdc.gov/flu/weekly/usmap.htm.

*The purposes of these surveillance systems are to determine when and where influenza activity is occurring, to identify circulating viruses, to detect changes in the circulating influenza viruses, to track patterns of influenza-associated morbidity and mortality and estimate the overall impact of influenza in the state of Florida.

**1) FSPISN, 2) State Laboratory Viral Surveillance, and 3) County Activity Levels.
II. FSPISN INFLUENZA-LIKE ILLNESS STATEWIDE GRAPH

During week 1, 1.94%* of patient visits to Florida sentinel providers were due to ILI. This percentage is below the statewide threshold for moderate activity of 2.98%**. The percentage of visits ranged from 0.38% in the Centralwest to 6.54% in the Northwest region.

III. FLORIDA PNEUMONIA AND INFLUENZA MORTALITY SURVEILLANCE

Please refer to the most recent national data compiled by the CDC below. Three major metropolitan locations participate in the national 122 Cities Mortality Reporting System. Florida is currently in the process of updating the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS). Twenty-three counties participate in the FPIMSS. During week 1, seven counties did not report. Data from all participating counties.
During week 1, Florida Department of Health Bureau of Laboratories tested a total of 15 specimens for influenza viruses. Nine (60%) of 15 were positive for influenza. Two were influenza AH1, two were influenza B Malaysia, one was influenza B Florida and four were Influenza B unknown. The Bureau of Laboratories have tested a total of 196 specimens so far this season. Laboratory information is preliminary and may change as additional results are received. Totals from previous weeks will be adjusted to reflect correct specimen numbers.

*Please note that the graph displays positive influenza isolates in each county reported during week 1. Totals will be adjusted to reflect actual week of positive specimen.
The table below shows the weighted ILI activity by region as reported by Florida sentinel physicians for the 2007-08 & 2008-09 seasons. The graphs below include ILI activity as reported by sentinel physicians and FDOH laboratory data.

<table>
<thead>
<tr>
<th>REGION</th>
<th>2008-09 ILI %</th>
<th>2007-08 ILI %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centraleast</td>
<td>0.75%</td>
<td>1.12%</td>
</tr>
<tr>
<td>Centralwest</td>
<td>0.38%</td>
<td>0.87%</td>
</tr>
<tr>
<td>Northcentral</td>
<td>0.81%</td>
<td>0.67%</td>
</tr>
<tr>
<td>Northeast</td>
<td>1.46%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Northwest</td>
<td>6.54%</td>
<td>1.16%</td>
</tr>
<tr>
<td>Southeast</td>
<td>3.63%</td>
<td>0.80%</td>
</tr>
<tr>
<td>Southwest</td>
<td>2.70%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Influenza Surveillance Regions

The table above shows the weighted ILI activity by region as reported by Florida sentinel physicians for the 2007-08 & 2008-09 seasons. The graphs below include ILI activity as reported by sentinel physicians and FDOH laboratory data.

V. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

- Influenza A specimens FDOH Laboratories
- Influenza B specimens FDOH Laboratories
- % of visits for ILI, reported by sentinel providers
During week 1, no counties reported widespread activity, four counties reported localized activity (Collier, Okaloosa, Pasco, Pinellas). Twenty counties (Alachua, Baker, Brevard, Duval, Escambia, Gilchrist, Hamilton, Hardee, Lake, Lee, Manatee, Marion, Martin, Okeechobee, Orange, Osceola, Palm Beach, Polk, Seminole, Volusia, Walton) reported sporadic activity. Twenty-two counties reported no activity. Twenty counties did not report.
COUNTY INFLUENZA ACTIVITY LEVEL DEFINITIONS

0 = No Activity:
Overall clinical activity remains low with no laboratory confirmed cases† in the county.

1 = Sporadic:
   And/or
   a. Isolated cases of laboratory confirmed influenza† in the county.
   b. An ILI§ outbreak in a single setting‡ in the county. (No detection of decreased ILI§ activity by surveillance systems*)

2 = Localized:
   And/or
   a. ILI§ activity detected by a single surveillance system* within the county.
      ILI§ activity has not been detected by multiple ILI surveillance systems.
   b. Two or more outbreaks (ILI§ or lab confirmed†) detected in a single setting‡ in the county.
   AND
   c. Recent (within past three weeks) laboratory evidence† of influenza activity in the county.

3 = Widespread:
   And/or
   a. An increase in ILI§ activity detected in ≥2 surveillance systems in the county.
   b. Two or more outbreaks ((ILI§ or laboratory confirmed†) detected in multiple settings‡ in the county.

No Report: (No report was received from the county at the time of publication)
† Laboratory confirmed case = case confirmed by rapid diagnostic test, antigen detection, culture, or PCR.
§ILI = Influenza-like illness, fever ≥ 100°F AND sore throat and/or cough in the absence of another known cause.
*ILI surveillance system activity can be assessed using a variety of surveillance systems including sentinel providers, school/workplace absenteeism, long-term care facility (LTCF) surveillance, correctional institution surveillance, hospital emergency department surveillance and laboratory surveillance.
‡Settings include institutional settings (LTCFs, hospitals, prisons, schools, companies) & the community.

VII. REPORTS OF INFLUENZA OR INFLUENZA-LIKE ILLNESS (ILI) OUTBREAKS

During week 1, there were no reports of influenza or influenza-like illness outbreaks in the state.

County Health Department epidemiologists should report Influenza and ILI outbreaks via EpiCom at: https://fdens.com/vabtrs/GateStart.aspx within the Influenza Forum.

VIII. NOTIFIABLE DISEASE REPORTS: INFLUENZA-ASSOCIATED DEATHS AMONG CHILDREN (<18 YEARS) & POST-INFLUENZA INFECTION ENCEPHALITIS

As of the week ending January 10, 2009, there were no influenza-associated deaths among those <18 years of age and/or post-influenza infection encephalitis reported in the state of Florida.

<table>
<thead>
<tr>
<th>Reportable Disease</th>
<th># of Cases 08-09 Influenza Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza-associated deaths among those &lt;18 years of age</td>
<td>0</td>
</tr>
<tr>
<td>Post-influenza infection encephalitis</td>
<td>0</td>
</tr>
</tbody>
</table>

Influenza-associated deaths among those <18 years of age and/or post-influenza infection encephalitis are reportable; case report forms can be accessed at: http://www.doh.state.fl.us/disease_ctrl/epi/topicscrforms.htm.
Syndromic surveillance ILI data as monitored through the ESSENCE system is a newly added component of the overall state influenza surveillance program. Florida uses the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for syndromic surveillance, which currently collects data from 86* hospitals. These data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is influenza-like illness (ILI), which is composed of chief complaints that include the words "influenza" or "flu", or either fever and cough or sore throat. The data are collected on a daily basis from participating hospital emergency departments (ED) across the state. Displayed below are the percentage of ILI visits to local EDs from 2006 to 2008 by week.

*The total number of facilities participating in ESSENCE has increased steadily from 2006 to 2008. In 2007 ESSENCE was implemented as the state syndromic surveillance system. Please note that numbers may change as facility data is updated.
Since the outbreak activity began at the end of December 2003, there have been a total of 393 confirmed human cases and 248 deaths. Cases and deaths have occurred in the following nations: Azerbaijan 8 cases and 5 deaths; Bangladesh 1 case 0 deaths; Cambodia 8 cases and 7 deaths; China 31 cases and 21 deaths; Djibouti 1 case 0 deaths; Egypt 51 cases and 23 deaths; Indonesia 139 cases and 113 deaths; Iraq 3 cases and 2 deaths; Lao People’s Democratic Republic 2 cases and 2 deaths; Myanmar 1 case and 0 deaths; Nigeria 1 case and 1 death; Pakistan 3 cases and 1 death. Thailand 25 cases and 17 deaths; Turkey 12 cases and 4 deaths; and, Vietnam 107 cases and 52 deaths. For a complete analysis and summary of WHO confirmed human cases of H5N1 from 12/1/2003 to current, please visit: http://www.who.int/csr/disease/avian_influenza/ai_timeline/en/index.html


During week 1, the Ministry of Health in China reported a confirmed case of human infection with H5N1 avian influenza virus. The case was a 19-year old female from Chaoyang District, Beijing. She developed symptoms on December 24th, 2008, was hospitalized and died on January 5th, 2009. Close contact with poultry prior to the illness was noted. All contacts of the case have been placed under observation.

The current phase of alert as defined by the WHO global influenza preparedness plan is phase 3, which states that human infections with a new subtype are occurring, but no human-to-human spread, or at most rare instances of spread to a close contact. At the present time the WHO is not recommending restrictions on travel to areas affected by H5N1 avian influenza, but is suggesting that travelers to these areas avoid contact with live animal markets and poultry farms, and any free-ranging or caged poultry. Evidence suggests that the primary route of infection at this time is associated with direct contact with infected poultry, or surfaces and objects contaminated by their droppings.

Human cases of influenza due to infection from novel or pandemic strains are reportable in Florida. Reports should be made to the Department 24/7 upon initial suspicion.

Find more information at: http://www.doh.state.fl.us/disease_ctrl/epi/htopics/BirdFlu.htm