About our flu activity reporting

MSDH relies upon selected sentinel health practitioners across the state to report the percentage of total patient visits consistent with an influenza-like illness (ILI: fever of 100°F or higher AND cough and/or sore throat). Also, providers are supplied with specimen collection kits. Samples are submitted to the Mississippi Public Health Laboratory for influenza PCR testing. Reports are used to estimate the state’s ILI rate and the magnitude of the state’s influenza activity. Reports represent only the distribution of flu in the state, not an actual count of all flu cases statewide. Information is provisional only and may change depending on additional reporting from sentinel providers.

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During week 14 (04/05/15-04/11/15), the overall state ILI rate (3.1%) was comparable to the previous week (3.2%), but was higher than this time last year (2.3%).

**Figure 1**

Total number of patients treated by sentinel providers in the last three weeks. | **Table 1**

<table>
<thead>
<tr>
<th>2014-2015 Influenza Season</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>CDC Week</td>
<td>Week Ending</td>
</tr>
<tr>
<td>14</td>
<td>Apr. 11</td>
</tr>
<tr>
<td>13</td>
<td>Apr. 04</td>
</tr>
<tr>
<td>12</td>
<td>Mar. 28</td>
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</table>

During week 14, two districts (3 and 7) had an increase in ILI activity, while two districts (2 and 6) had a decrease. Five districts (1, 4, 5, 8, and 9) remained about the same. Information is provisional only and may change depending on additional reporting from sentinel providers. | **Table 2**

**MSDH District ILI Rates (%) 2014-2015**

<table>
<thead>
<tr>
<th>District</th>
<th>Week 13</th>
<th>Week 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>3.2</td>
<td>3.1</td>
</tr>
<tr>
<td>I</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td>II</td>
<td>4.9</td>
<td>1.4</td>
</tr>
<tr>
<td>III</td>
<td>4.6</td>
<td>7.1</td>
</tr>
<tr>
<td>IV</td>
<td>2.9</td>
<td>3.3</td>
</tr>
<tr>
<td>V</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>VI</td>
<td>9.3</td>
<td>7.0</td>
</tr>
<tr>
<td>VII</td>
<td>1.9</td>
<td>3.1</td>
</tr>
<tr>
<td>VIII</td>
<td>1.7</td>
<td>1.3</td>
</tr>
<tr>
<td>IX</td>
<td>4.3</td>
<td>4.2</td>
</tr>
</tbody>
</table>
Since week 35, the percentage of reported ILI cases has been highest among those in the 5-24 years of age group.

Overall, this trend continued, but during week 14, the 0-4 years of age group and 5-24 years of age group had the same rate. | Figure 2

The 2014-15 state ILI rate was above the national and Region 4 baselines, but was below the state baseline, during week 14. | Figure 3
Mississippi ILI Rates 2011-2015 | Figure 4

State ILI/URI Rates 2011-2015 (YTD)

Percent of Patients

Reporting Year/Week

2011 2012 2013 2014

0 2 4 6 8 10 12 14

010509131721252933374145490105091317212529333741454901050913172125293337414549010509131721252933374145490105091317212529333741454953 4 8 12
Flu Testing Reports

From week 40 (week ending October 4th) through week 14 (week ending April 11th), 193 positive influenza samples were identified by MSDH. One hundred sixty-one (83%) samples were identified as influenza A (H3), eight (4%) as influenza A (H1), and twenty-four (12%) were identified as influenza B. The last positive influenza sample identified by MSDH occurred in week 12 (week ending March 28th).

The influenza cases were identified from the following counties: Alcorn (1), Attala (4), Benton (5), Bolivar (3), Choctaw (1), Coahoma (1), Copiah (3), Covington (2), DeSoto (2), Forrest (1), Franklin (3), Harrison (14), Hinds (3), Holmes (2), Humphreys (1), Itawamba (3), Jackson (1), Jefferson (2), Jefferson Davis (1), Jones (5), Kemper (3), Lafayette (3), Lauderdale (6), Leake (2), Lee (3), Leflore (1), Lowndes (5), Madison (9), Marion (5), Marshall (10), Monroe (5), Neshoba (5), Noxubee (3), Oktibbeha (3), Pearl River (5), Pike (2), Pontotoc (1), Prentiss (5), Rankin (9), Simpson (8), Sunflower (2), Tallahatchie (3), Tate (4), Tishomingo (2), Union (1), Walthall (1), Warren (2), Washington (7), Webster (9), Wilkinson (3), and Yazoo (6). Two cases were from unidentified counties. | Figure 5
Nationally, **no** influenza-associated pediatric deaths were reported to CDC during week 14. To date, **125** influenza-associated pediatric deaths have been reported nationally during the 2014-2015 influenza season. | **Figure 6**

Of the **125** influenza-associated pediatric deaths reported nationally during the 2014-2015 season, 103 (82%) have been attributed to influenza A viruses, 19 (15%) to influenza B viruses, two (2%) to an influenza A/B virus not distinguished, and one (1%) to an influenza A and B virus co-infection. | **Figure 7**

Mississippi has had **one** influenza-associated pediatric death reported during this influenza season. The death occurred during week 10 (week ending March 14th). For additional information on influenza-associated pediatric deaths, please refer to the CDC's FluView.
National ILI Surveillance

For week 14, the MS ILI rate (3.1%) remained above the national ILI rate (1.8%). Figure 8

![Comparison of Nationwide ILI Rates to Mississippi ILI Rates](image)

Mississippi reported “Sporadic” flu activity for week 14. Table 3

<table>
<thead>
<tr>
<th>Level of Flu Activity</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Activity</td>
<td>Overall clinical activity remains low and there are no lab confirmed cases.</td>
</tr>
<tr>
<td>Sporadic</td>
<td>Isolated cases of lab confirmed influenza in the state; ILI activity is not increased OR A lab-confirmed outbreak in a single institution in the state; ILI activity is not increased.</td>
</tr>
<tr>
<td>Local</td>
<td>Increased ILI within a single region AND recent (within the past 3 weeks) laboratory evidence of influenza in that region. ILI activity in other regions is not increased OR two of more institutional outbreaks (ILI or lab confirmed) within a single region AND recent (within the past 3 weeks) lab confirmed influenza in that region. Other regions do not have increased ILI and virus activity is no greater than sporadic in those regions</td>
</tr>
<tr>
<td>Regional</td>
<td>Increased ILI in at least 2 regions but fewer than half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the affected regions OR Institutional outbreaks (ILI or lab confirmed) in at least 2 regions but fewer than half of the regions AND recent lab confirmed influenza in the affected regions.</td>
</tr>
<tr>
<td>Widespread</td>
<td>Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the state.</td>
</tr>
</tbody>
</table>
During week 14, influenza activity continued to decrease in the United States.¹ | Figure 9

For up-to-date information on flu activity nationwide, please refer to the CDC’s website: http://www.cdc.gov/flu/weekly/fluactivitysurv.htm.

Additional information:

<table>
<thead>
<tr>
<th>Source</th>
<th>Website</th>
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</thead>
<tbody>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td><a href="http://cdc.gov/flu/">http://cdc.gov/flu/</a></td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention FluView</td>
<td><a href="http://www.cdc.gov/flu/weekly/">http://www.cdc.gov/flu/weekly/</a></td>
</tr>
<tr>
<td>Flu.gov</td>
<td><a href="http://www.flu.gov/">http://www.flu.gov/</a></td>
</tr>
<tr>
<td>MSDH Flu and Pneumonia</td>
<td><a href="http://msdh.ms.gov/msdhsite/_static/14,0,199.html">http://msdh.ms.gov/msdhsite/_static/14,0,199.html</a></td>
</tr>
<tr>
<td>Google Flu Trends</td>
<td><a href="http://www.google.org/flutrends/">http://www.google.org/flutrends/</a></td>
</tr>
</tbody>
</table>
Appendix

Figure 1

Statewide ILI Data, Week 14 ending April 11, 2015
Current Season compared to Previous Season

*There was not a week 53 during the 2013-2014 season. This value is an average of week 52, 2013 and week 01, 2014.
Figure 2

Percentage of ILI Cases by Age Group, Mississippi,
August 24, 2014 - April 11, 2015
(CDC Week 35, 2014 - Week 14, 2015)

- 0-4
- 5-24
- 25-49
- 50-64
- 65+

Percentage of ILI Cases

CDC Week
Figure 3

Mississippi ILI Rates,
2014-2015 and Previous Seasons

- 2014-2015
- 2013-2014
- 2012-2013
- 2011-2012
- MS Baseline
- National Baseline
- Region 4 Baseline

% of ILI Patients

Week

*Region 4 consists of AL, FL, GA, KY, MS, NC, SC, and TN.
Figure 4

State ILI/URI Rates 2011-2015 (YTD)
Figure 5

Comparison of Statewide ILI Rate to Positive Influenza Isolates by Type and Subtype, Mississippi, September 28, 2014 - April 11, 2015 (CDC Weeks 40, 2014 - 14, 2015)

![Graph showing comparison of Statewide ILI Rate to Positive Influenza Isolates by Type and Subtype, Mississippi, September 28, 2014 - April 11, 2015 (CDC Weeks 40, 2014 - 14, 2015).]
Number of Influenza-Associated Pediatric Deaths by Week of Death and Influenza Type, Nationwide, September 28, 2014- April 11, 2015
(CDC Week 40, 2014- Week 14, 2015)
Figure 7

Percentage of Influenza-Associated Pediatric Deaths by Influenza Type, Nationwide, September 28, 2014 - April 11, 2015 (CDC Week 40, 2014 - Week 14, 2015)

N = 125
Figure 8

Comparison of Nationwide ILI Rates to Mississippi ILI Rates
Weeks 40-14 | 2014-2015 Flu Season

Figure 9

FLUVIEW

A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending April 11, 2015 - Week 14

*This map indicates geographic spread and does not measure the severity of influenza activity.