Weekly Narrative

Seasonal indicators continue to decline as the influenza season closes. The number of cases reported for week 20 was four. North Dakota’s level of influenza activity is similar to what is currently being seen across the United States. Geographic activity is being reported as Sporadic. This will be the last weekly report for the influenza season. Summer updates will be sent roughly monthly, and a final seasonal summary will be published in August. It is important to keep in mind that limited influenza circulation does occur during summer months, and influenza testing should be considered for patients presenting with severe respiratory illness. Patients with respiratory illness that may have been exposed to novel influenza (through recent contact with pigs or sick birds) should be reported immediately to Disease Control and tested for novel influenza by NDDoH Division of Laboratory Services. Commercial testing is not reliable for these patients.

All laboratory-identified cases of influenza (including identification via rapid test) are reportable in North Dakota. Statistics do not include data from people who did not seek medical care for their illness, or who sought medical care but were diagnosed based on symptoms, not with a laboratory test.
Demographic Data

Case Count for Lab-Confirmed Cases by Age Group

- <10: 652
- 10-19: 191
- 20-29: 203
- 30-39: 270
- 40-49: 200
- 50-59: 194
- 60+: 224

Case Count for Lab-Confirmed Cases by Gender

- Male: 977
- Female: 957

Lab-Confirmed Cases by County

Reported Influenza Deaths and Hospitalizations*

- Hospitalizations: 68
- Deaths: 4

*Data obtained from ad-hoc reports and state Vital Statistics. Hospitalizations and deaths are not required to be reported in North Dakota, although pediatric flu deaths are nationally reportable. Due to the increase in electronic lab reporting, which does not include hospitalization status, hospitalization numbers are likely lower than and not comparable to previous seasons.
Outbreaks and Multi-season Comparison

Outbreaks The have been 9 reported outbreaks of influenza-like illness in long term and basic care setting so far this season. Five outbreaks were attributed to influenza A, one attributed to rhinovirus, and for three no agent was identified via lab test.

We also receive reports for outbreaks in other community settings. For this season, 3 influenza outbreaks have been confirmed in daycare settings. One was confirmed as influenza A 2009 H1N1, and the two as unsubtyped influenza A.

Outbreaks in schools, assisted living facilities, workplaces, and in the general community are common during the influenza season.

<table>
<thead>
<tr>
<th>Season</th>
<th>Total Cases</th>
<th>Peak Week (week ending)</th>
<th>Predominant Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>1487</td>
<td>3/24/2012</td>
<td>A H3N2</td>
</tr>
<tr>
<td>2012-13</td>
<td>4831</td>
<td>12/29/2012</td>
<td>A H3N2</td>
</tr>
<tr>
<td>2013-14</td>
<td>2923</td>
<td>1/4/2014</td>
<td>2009 A H1N1</td>
</tr>
<tr>
<td>2015-16</td>
<td>1934</td>
<td>3/12/2016</td>
<td>2009 A H1N1</td>
</tr>
</tbody>
</table>

Multi-Season Comparison The 2015-16 influenza season is shaping up to be a later season than the previous three seasons. Influenza A 2009 H1N1 (the pandemic strain) has been the predominant strain this season. The current age distribution for our cases (see page 2) is indicative of A 2009 H1N1 circulation, with fewer cases in the elderly than is typical, and larger percentage of cases in children.

North Dakota Lab-Confirmed Influenza Cases by Week, 2011-Current

Week Number

- 2011-12 Season
- 2012-13 Season
- 2013-14 Season
- 2014-15 Season
- 2015-16 Season
Sentinel Surveillance: Outpatient Influenza-like Illness

**Outpatient Surveillance** The North Dakota Department of Health (NDDoH) participates with other states and jurisdictions in the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINET). Participating outpatient clinics send data on the number of patients in each of five age groups experiencing ILI, and the number of patients seen for any reason each week. ILI is defined as:

- Fever of 100°F or greater
- with
- A cough AND/OR sore throat

Data for all providers is pooled, and a state-wide statistic for percent of visits for ILI is produced. In North Dakota, a percent ILI of **1.4%** or greater is considered season-level activity.

**Current Activity** This week ILI is **0.53%**, below the seasonal baseline.

<table>
<thead>
<tr>
<th>Week Number</th>
<th>2015-16 Percent ILI</th>
<th># ILI 0-4 age group</th>
<th># ILI 5-24 age group</th>
<th># ILI 25-49 age group</th>
<th># ILI 50-64 age group</th>
<th># ILI 65+ age group</th>
</tr>
</thead>
<tbody>
<tr>
<td>201618</td>
<td>0.23%</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>201619</td>
<td>0.69%</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>201620</td>
<td>0.53%</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Percent of Outpatient Visits Due to Influenza-like Illness by Week, Current and Previous Season
**Sentinel Surveillance: Laboratory Data**

**Laboratory Surveillance: Influenza** The NDDoH receives influenza testing data from participating sentinel laboratories across North Dakota. The total number of influenza tests (all testing methodologies) and the total number of those tests that are positive are reported each week. Data for all labs is pooled, and a state-wide percent positivity statistic is produced. Percent positivity for influenza tests of 10% or greater is considered a general indicator for season-level influenza activity. **This week percent positivity for influenza is 3.55%.**

![Percent Positivity of Influenza Testing and the Total Number of Tests Conducted](chart)

**Laboratory Surveillance: Respiratory Syncytial Virus (RSV)** The NDDoH receives similar testing data for RSV. RSV is a common respiratory virus best known for affecting children, however a person in any age group can become ill and people can get RSV multiple times. RSV also occurs seasonally, over a time period similar to influenza. **This week percent positivity for RSV is 0%.**

![Percent Positivity of RSV Testing and the Total Number of Tests Conducted](chart)
Other Surveillance Methods

Other Surveillance Methods: Syndromic Surveillance The NDDoH receives data from emergency departments, hospitals, and clinics across the state participating in the NDDoH’s Syndromic Surveillance program. Syndromic surveillance is the receipt of near-real time reason-for-visit data for all visits at participating locations. Visits are automatically sorted into “syndromes” (gastrointestinal, neurologic, rash, ILI, etc.). Because it is based off of data such as chief complaints or diagnosis codes, the ILI syndrome has a lower specificity than the traditional outpatient ILI definition. Nonetheless, syndromic data is well correlated with our other influenza indicators.

Current Activity This week ILI in our syndromic surveillance system is 0.16%.

Percent of Outpatient, Emergency Department, and Hospital Visits Due to Influenza-like Illness by Week, Current and Previous Season

Week Number

Percent ILI 2015-16

Percent ILI 2014-15
Other Surveillance Methods

Other Surveillance Methods: Influenza and Respiratory Viral Pathogen Testing

The NDDoH’s Division of Laboratory Services conducts testing for influenza and a variety of respiratory viruses. Influenza samples come from providers across the state. Most of respiratory viral pathogen the samples tested come from sentinel sites participating in the Influenza Incidence Surveillance Project (IISP), which is like an extended version of ILINet.

State Lab Influenza and Respiratory Viral Pathogen Testing

National Influenza Surveillance

National influenza activity and surveillance information is available from the CDC FluView website at: www.cdc.gov/flu/weekly/, and is updated every Friday.

Contact Information

For information on influenza surveillance, contact the North Dakota Department of Health Division of Disease Control at 701.328.2378 or visit www.ndflu.com.