

North Dakota Weekly Influenza Update 2015-16 Influenza Season



Through week **201613**, the week ending **4/2/2016**

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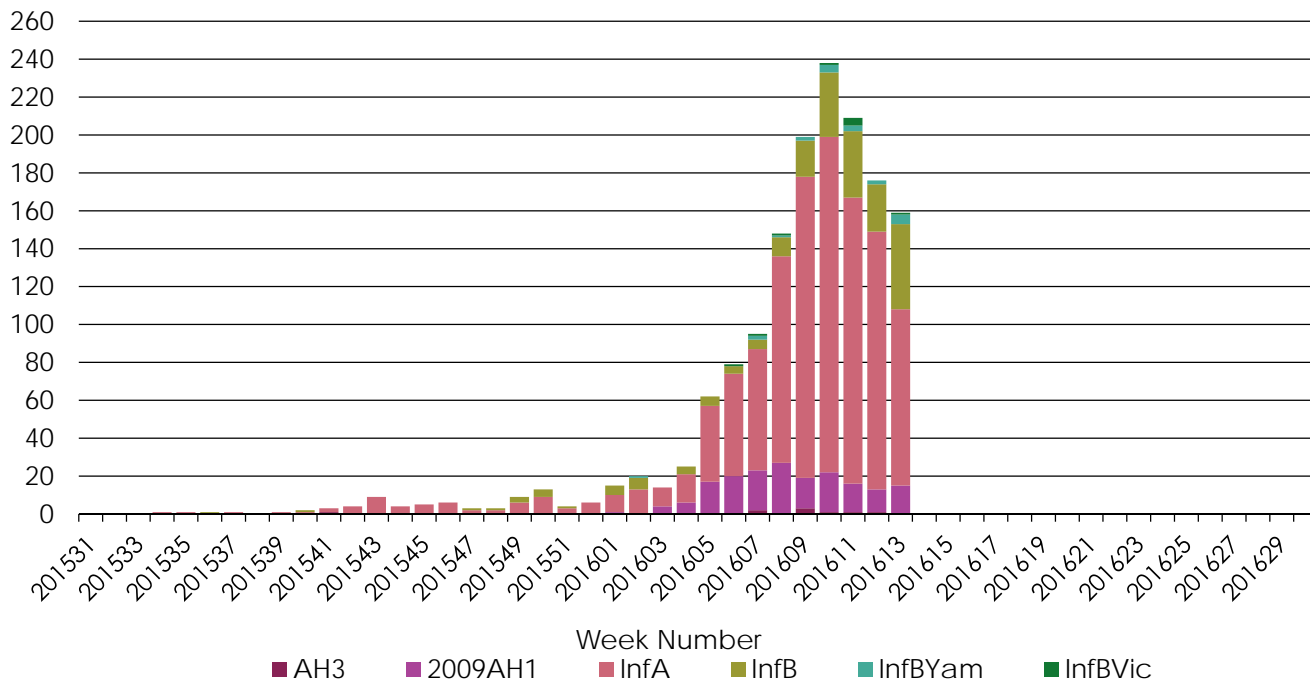
All data are preliminary and based on reports received at the time of publication.

Published 4/7/2016

| Influenza Cases by Type | |
|-------------------------|-------------|
| A, unspecified | 1093 |
| 2009 A H1N1 | 175 |
| A H3 | 9 |
| B, unspecified | 209 |
| B Yamagata | 20 |
| B Victoria | 9 |
| Total | 1515 |

Weekly Narrative Case counts for influenza decreased again during week 13. Influenza surveillance indicators are still elevated to seasonal levels, and several respiratory indicators increased slightly this week. Most cases for a “typical” influenza season in North Dakota occur from January to March, so this season’s timing is later, but not unusual. The proportion of reported influenza B cases has increased in recent weeks, a normal occurrence for the later half of an influenza season. 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 **Widespread**. Sentinel site surveillance indicates Respiratory Syncytial Virus (RSV) activity also remains elevated.

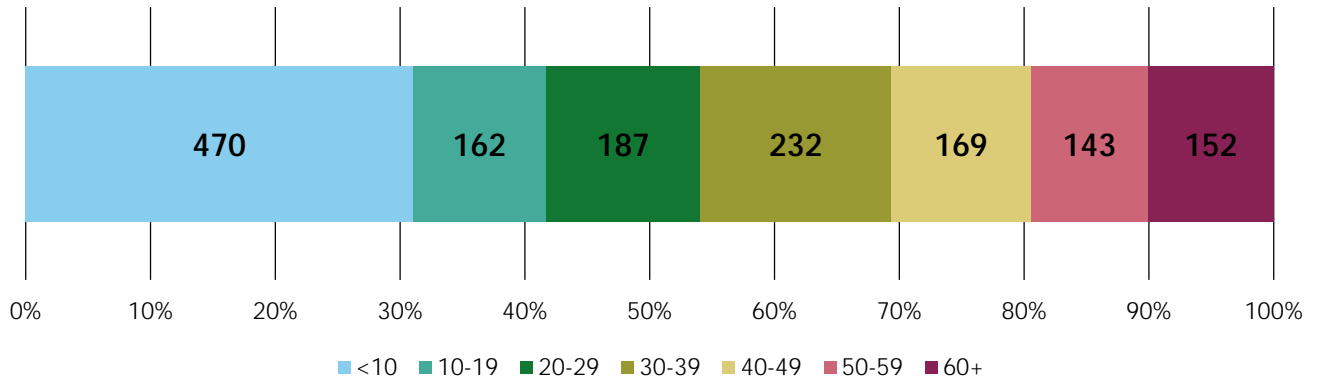
Number of Reported Laboratory-Identified Influenza Cases by Week



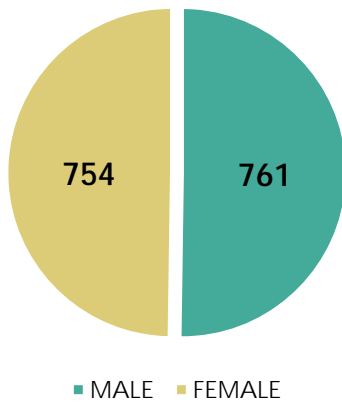
All laboratory-identified cases of influenza (including identification via rapid test) are reportable in North Dakota. Statistics do not include data from people who did not seek medical care for their illness, or who sought medical care but were diagnosed based on symptoms, not with a laboratory test.

Demographic Data

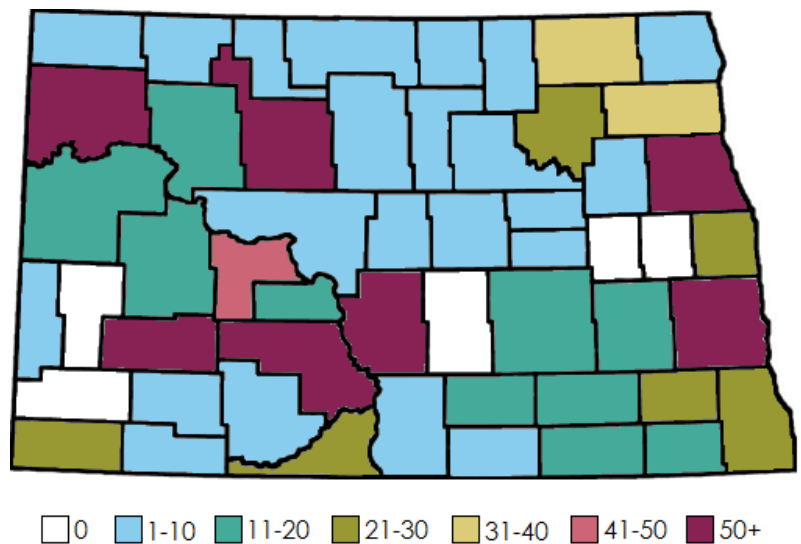
Case Count for Lab-Confirmed Cases by Age Group



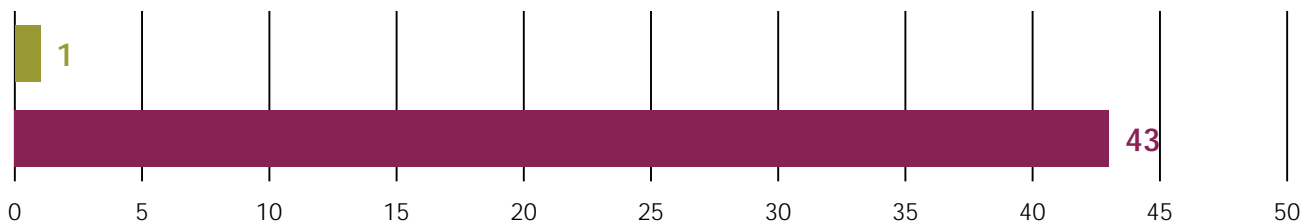
Case Count for Lab-Confirmed Cases by Gender



Lab-Confirmed Cases by County



Reported Influenza Deaths and Hospitalizations*



*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 There have been **8** reported outbreaks of influenza-like illness in long term and basic care setting so far this season. Four 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 unsubtype influenza A.

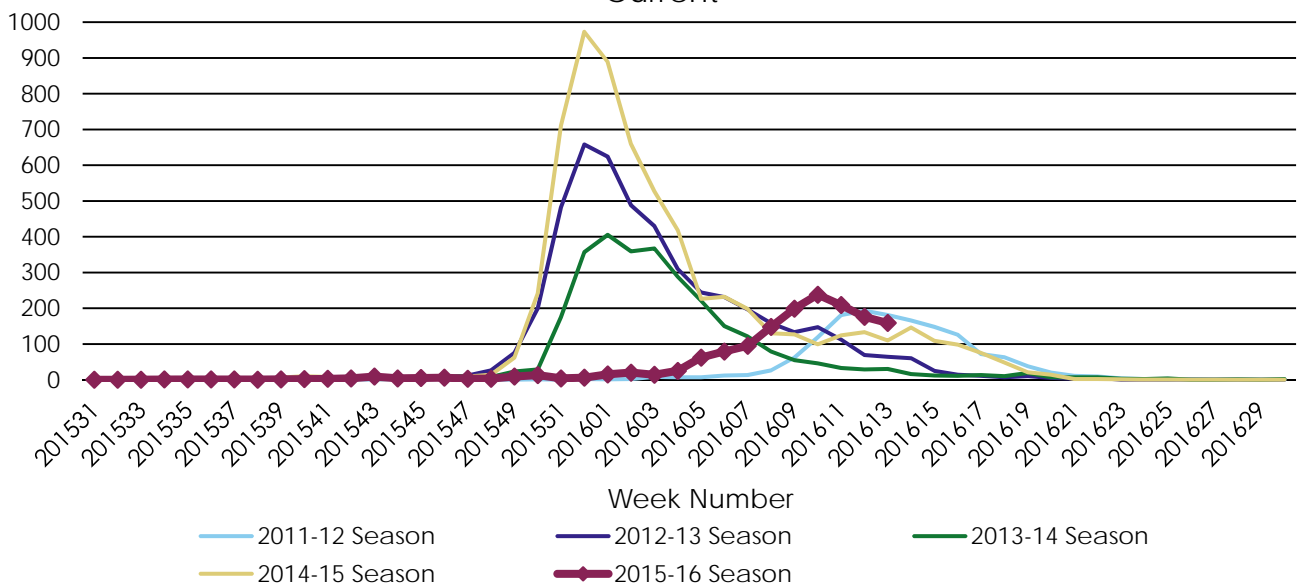
Outbreaks in schools, assisted living facilities, workplaces, and in the general community are common during the influenza season.

| Season | Total Cases | Peak Week (week ending) | Predominant Strain |
|---------|-------------|-------------------------|--------------------|
| 2011-12 | 1487 | 3/24/2012 | A H3N2 |
| 2012-13 | 4831 | 12/29/2012 | A H3N2 |
| 2013-14 | 2923 | 1/4/2014 | 2009 A H1N1 |
| 2014-15 | 6443 | 12/27/2014 | A H3N2 |
| 2015-16 | 1515 | 3/12/2016 | 2009 A H1N1 |

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) appears to be 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



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:

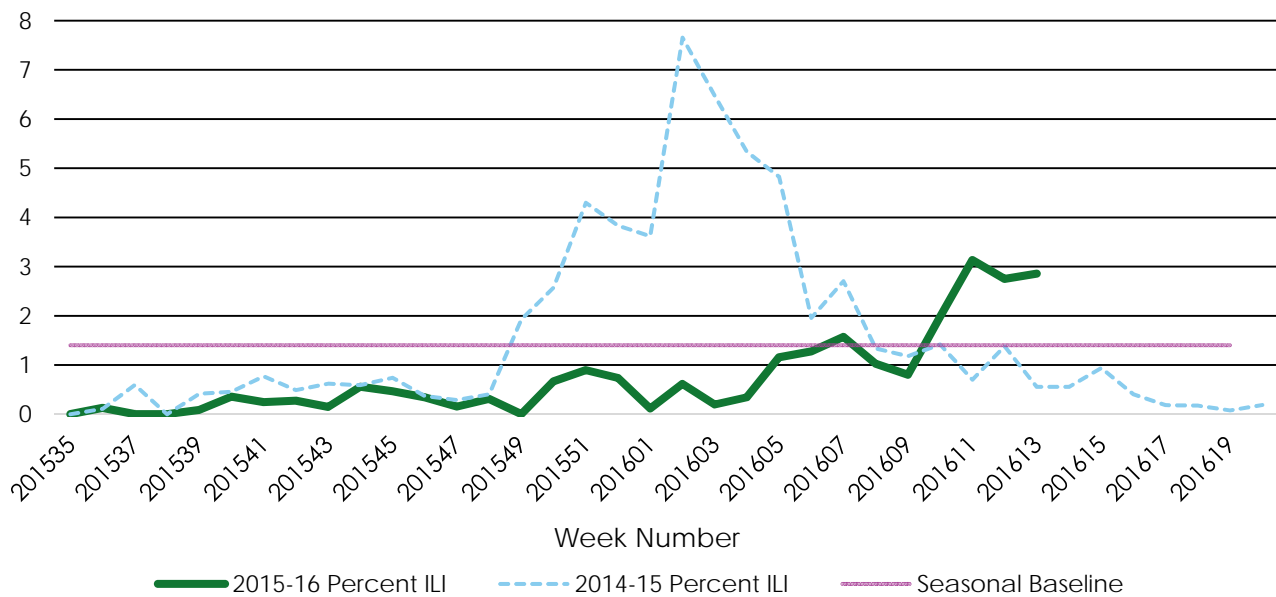
Fever of 100°F or greater
with
A cough AND/OR sore throat

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 **2.86%**, well above the seasonal baseline.

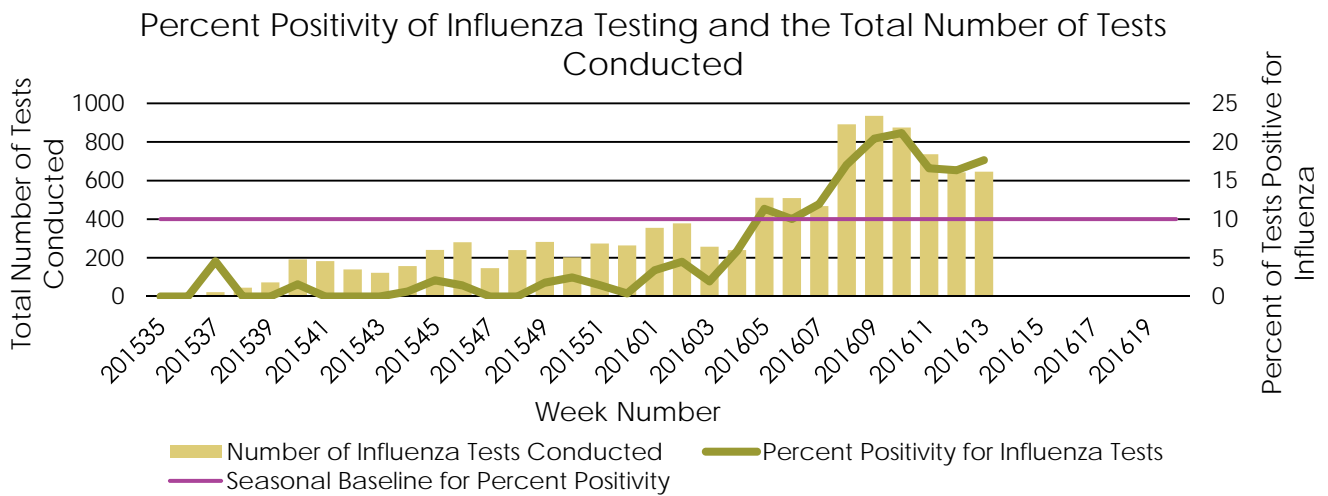
| Week Number | 2015-16 Percent ILI | # ILI 0-4 age group | # ILI 5-24 age group | # ILI 25-49 age group | # ILI 50-64 age group | # ILI 65+ age group |
|-------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|---------------------|
| 201611 | 3.13% | 3 | 8 | 5 | 3 | 1 |
| 201612 | 2.75% | 6 | 10 | 2 | 0 | 0 |
| 201613 | 2.86% | 8 | 2 | 3 | 1 | 0 |

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

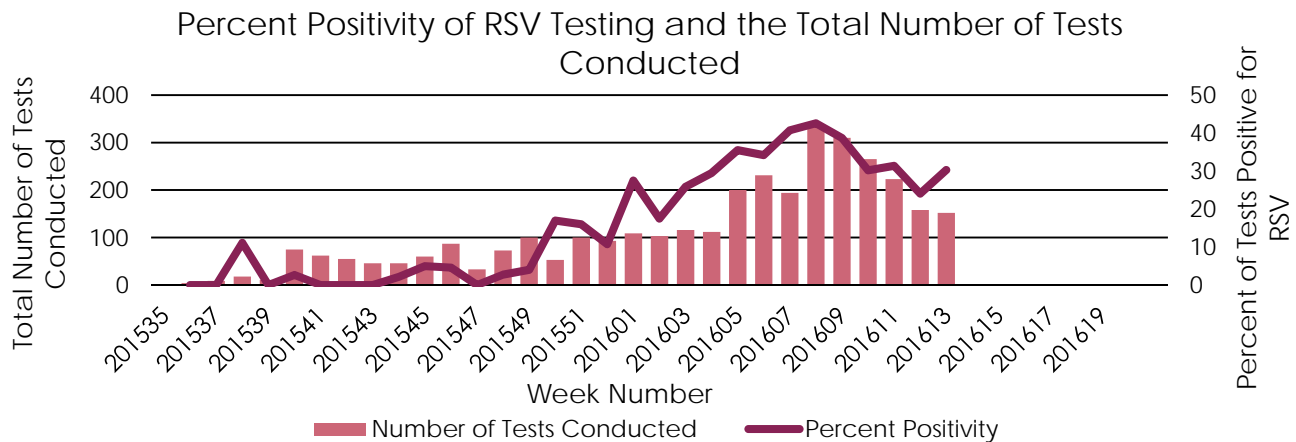


Sentinel Surveillance: Laboratory Data

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 17.65%.**



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 30.26%.**

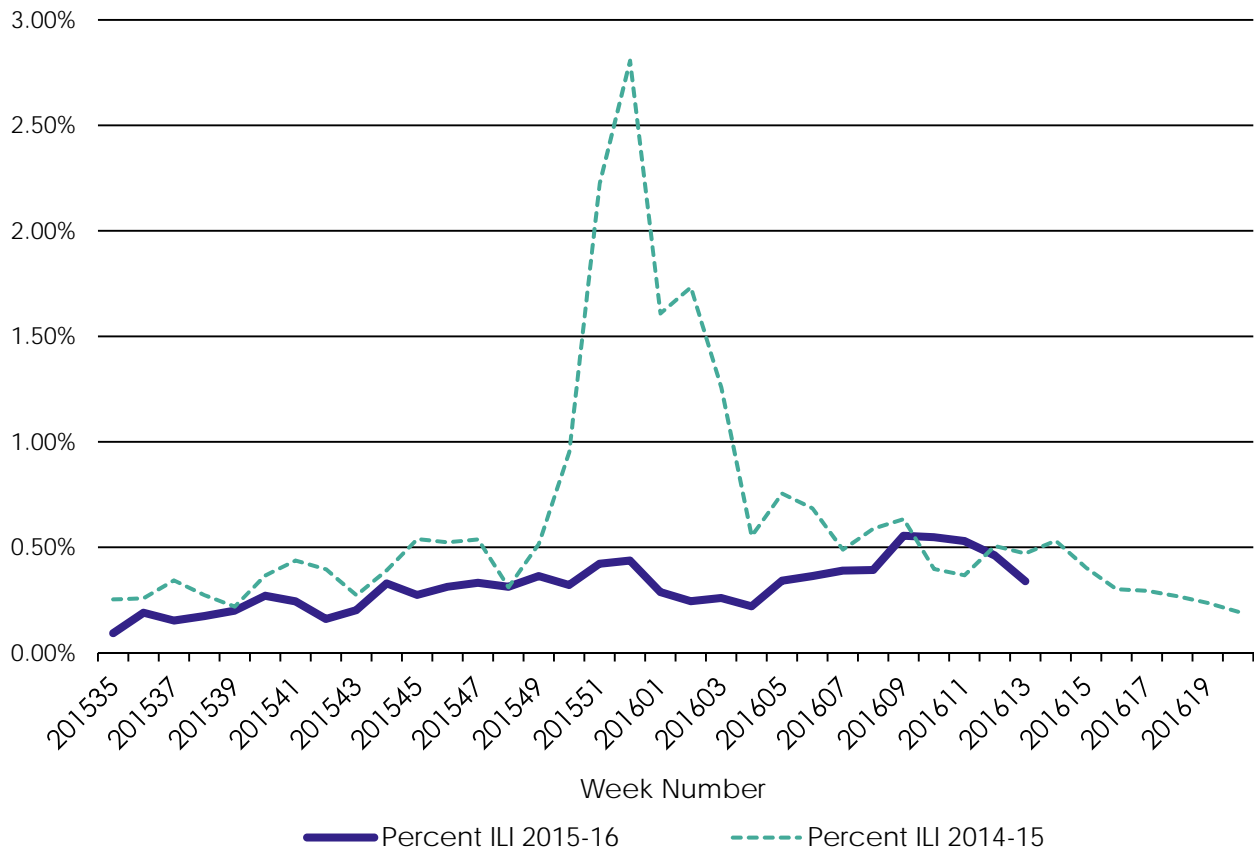


Other Surveillance Methods

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 **0.34%**. So far this season, the ILI trend has not followed other influenza indicators as closely as last season. Evolving syndromic surveillance data sources, or how different influenza strains affect differently populations, are possible reasons for this difference.

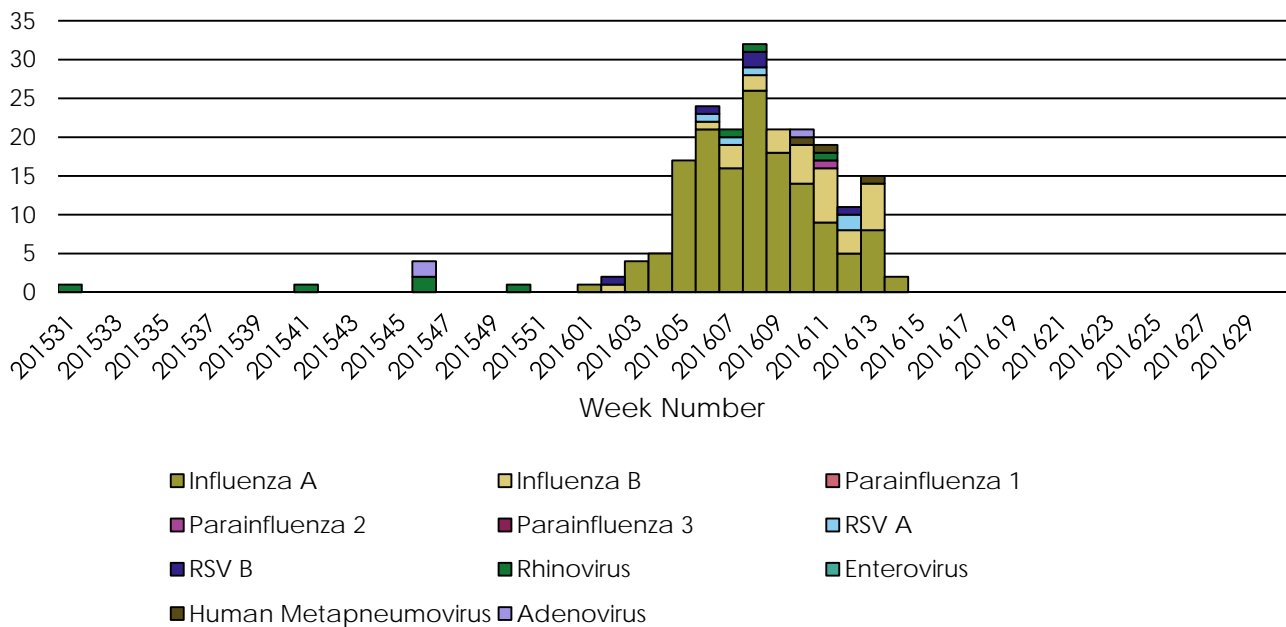
Percent of Outpatient, Emergency Department, and Hospital Visits Due to Influenza-like Illness by Week, Current and Previous Season



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 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.

