

Synopsis for Week Ending May 27, 2017—MMWR Week 21

(All data are preliminary and may change as more reports are received.)

The Nebraska influenza surveillance system is a collaborative effort between DHHS and its many partners in the state including, local health departments, public health and clinical laboratories, vital statistics offices, healthcare providers, clinics and emergency departments. Indicators from Nebraska’s influenza surveillance systems (laboratory testing, sentinel provider visits, influenza hospitalizations, emergency department visits, and school absences due to illness) showed that flu is circulating at very low levels. Currently, NE is now at “SPORADIC” influenza activity level. Washing your hands will help protect you from germs, including the flu virus. If soap and water are not available, use an alcohol-based hand rub.

SUMMARY STATS	
Percent of influenza rapid test positive	2.65% (4/151)
Percent of RSV rapid tests positive	0.8% (1/125)
Percent of outpatient visits for ILI ¹	0.00% (regional baseline 1.8%)
Influenza-associated hospitalizations ²	5 inpatients (0.95%)
Percent of emergency department visits due to ILI ³	1.19%
Percent school absence due to illness ⁴	NA
Number of schools with ≥11% absence due to illness	NA
Number of school closures due to ILI	0
Influenza-associated mortality-all ages (Cumulative) ⁵	58 (median age 84.5)
Influenza-associated pediatric mortality (Cumulative)	2
Influenza-associated outbreaks (Cumulative)	43
¹ ILI: Influenza-like Illness is defined as a fever of ≥100° F as well as cough and/or sore throat. ² Hospitalizations due to ILI are voluntarily reported through a weekly survey of Nebraska hospitals ³ Visits due to ILI are collected by syndromic surveillance received from Nebraska hospitals ⁴ Percent school absence due to illness are reported through a weekly survey of Nebraska schools ⁵ Deaths in which influenza has been lab confirmed. This is an underestimate of influenza-related deaths. Cumulative is 10/2/2016-current week.	

National Summary: Please see <http://www.cdc.gov/flu/weekly/>

International Summary: Please see http://www.who.int/influenza/surveillance_monitoring/updates/en/index.html

Please visit <http://www.dhhs.ne.gov/influenza> for more influenza information.

Laboratory Surveillance

- Voluntary submission of isolates by clinical virology laboratories to the Nebraska Public Health Laboratory (NPHL) for influenza surveillance.
- Reporting by Nebraska laboratories of positive test results and total number of respiratory virus specimens tested.

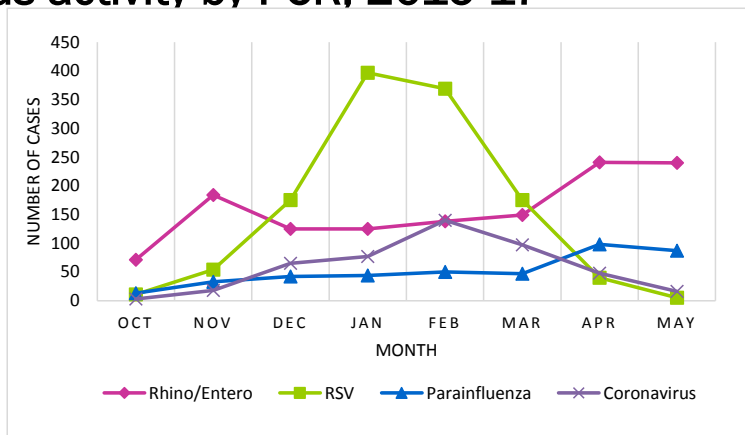
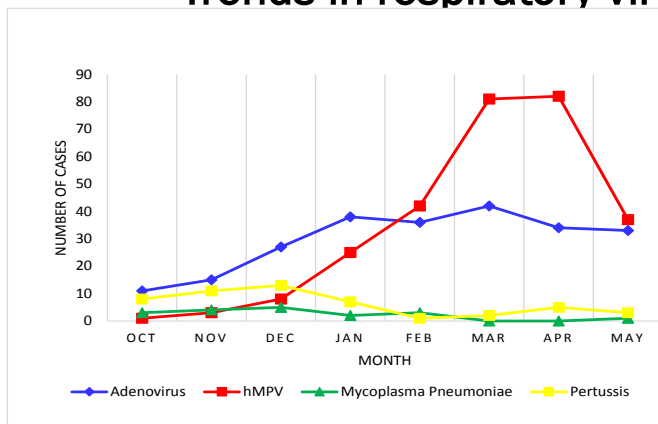
Influenza Rapid Antigen Diagnostic Testing

This surveillance system counts rapid influenza diagnostic tests performed and if they are positive or negative. When there is little influenza circulating in the community, specimens that test positive have a greater likelihood of being “false positive” and require careful clinical correlation. As influenza circulates more widely in the population, specimens that test positive are more likely to be “true positive” and reflect actual influenza infection.

Of the 151 influenza diagnostic tests reported, 4 (2.65%) were positive, with 0% (n=0) positive for influenza A and 2.65% (n=4) positive for influenza B. The total number of tests performed decreased by 25% and the total number of positive flu A tests decreased by 100% (4 to 0) and the total number of positive flu B tests decreased by 50%. There has been 477 flu A H3, 1,366 flu A not-subtyped, 30 flu A 2009 H1N1 and 745 flu B PCR confirmed cases.

Rapid Diagnostic Test Surveillance 2016-2017			
Season-to-Date (October 2, 2016-May 27, 2017) Totals			
	All Influenza	Influenza A	Influenza B
Total Positive	9901	7280	2621
Total Tests Performed	46486	73.53%	26.47%
% Positive	21.30%		
Surveillance Week Data (May-21-27)			
	All Influenza	Influenza A	Influenza B
Total Positive	4	0	4
Total Tests Performed	151	0.00%	100.00%
% Positive	2.65%		
RSV	Season-to-Date	Surveillance Week	
Total Positive	2458	1	
Total Tests Performed	11768	125	
% Positive	20.89%	0.80%	

Trends in respiratory virus activity by PCR, 2016-17

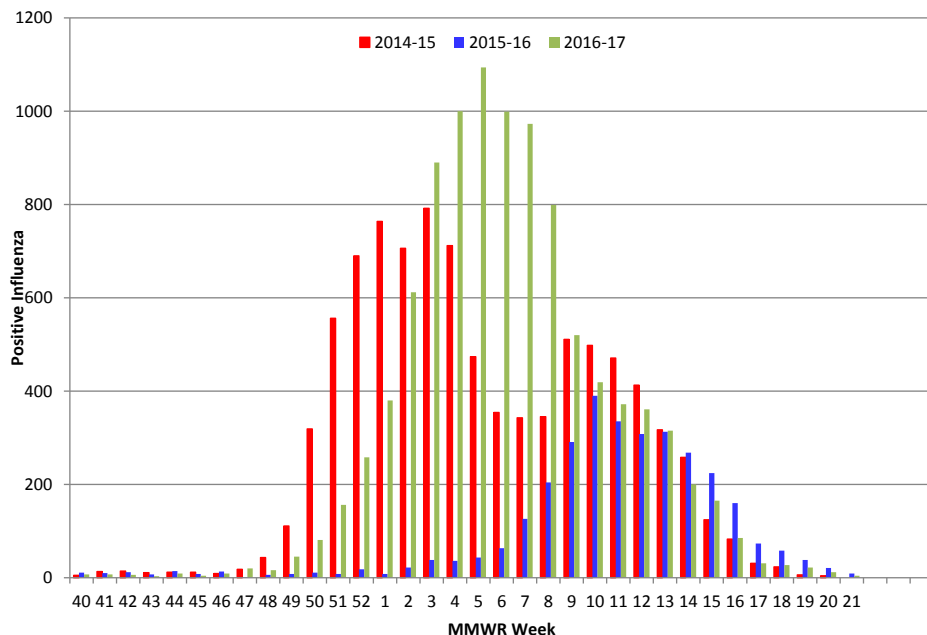


Laboratory Surveillance

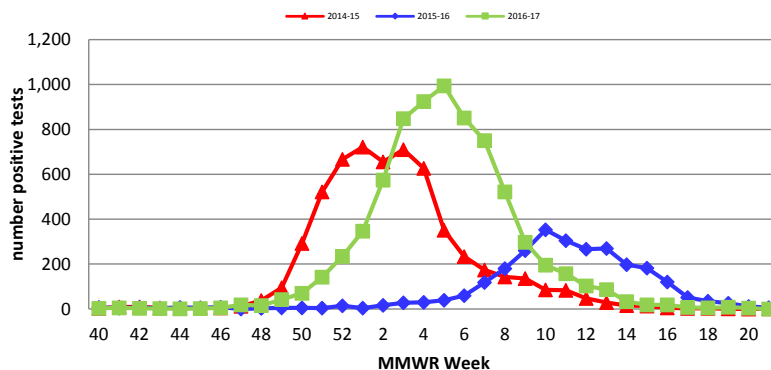
Year-to-Year Comparison



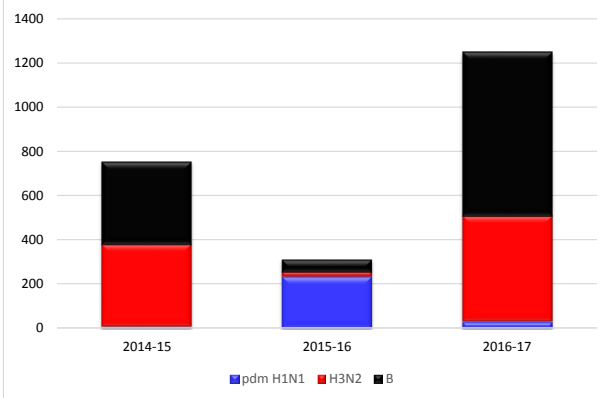
Positive Influenza Laboratory Tests by Nebraska Laboratories



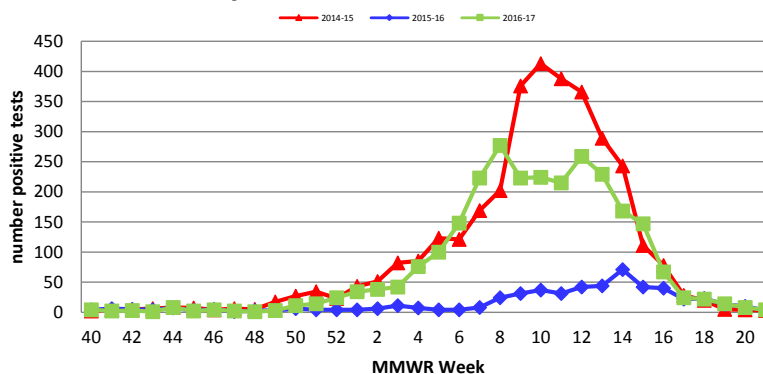
Total Positive Influenza A Laboratory Tests by Nebraska Laboratories



Influenza by Type, 2014-17



Total Positive Influenza B Laboratory Tests by Nebraska Laboratories



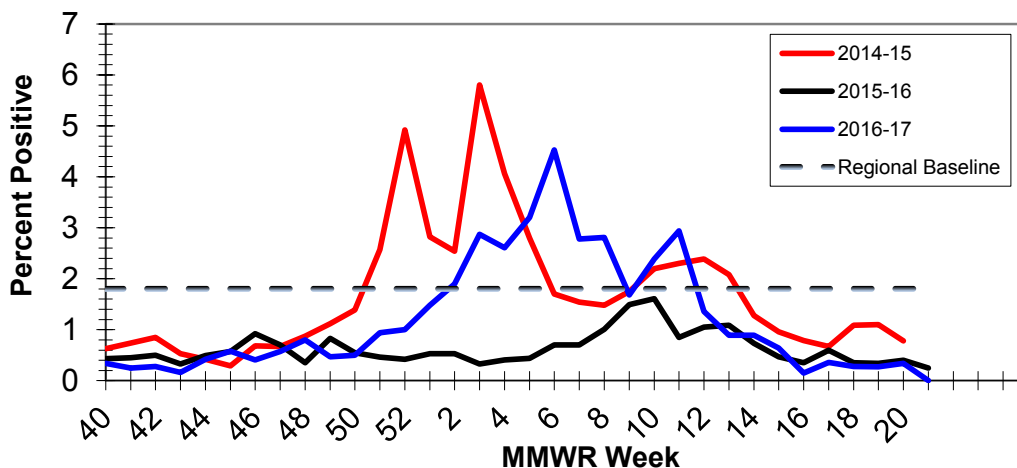
Outpatient Surveillance—ILINet

- Voluntary reporting by a statewide network of sentinel clinicians of the number of patients presenting with influenza-like illness (ILI) and the total number of patient visits by age group each week.

Sentinel Provider Surveillance: 6 of the 17 sentinel-site physician offices in Nebraska which are designated to track ILI reported data for the surveillance week. Of 1,024 total patient visits reported, 0 (0.00%*) met ILI criteria.

*Note: the reduced number of providers reporting impacts the percentage

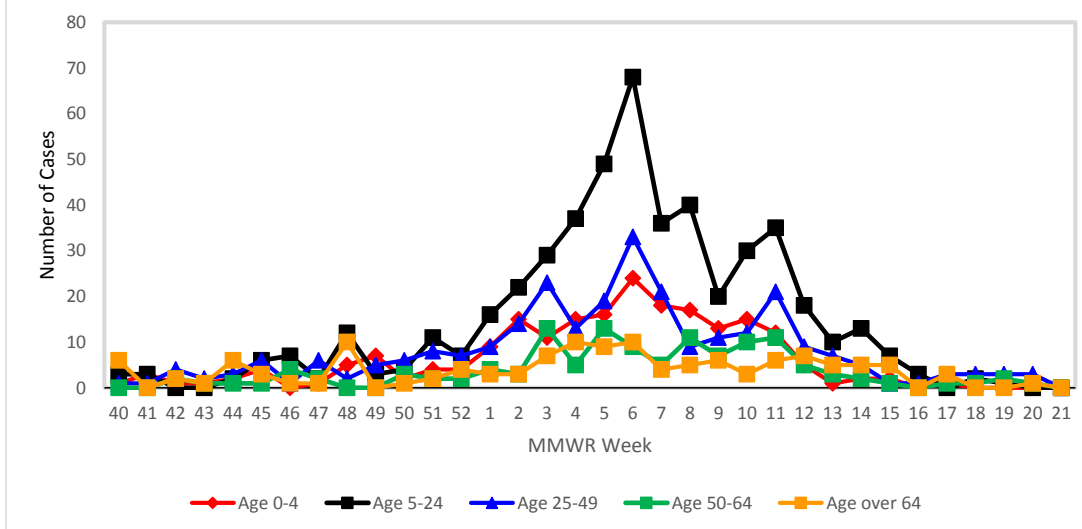
Percentage of Visits for Influenza-like Illness (ILI) Reported by the Nebraska Outpatient Influenza-like Illness Surveillance Network (ILINet) 2014-2017



ILINet for week ending May 27, 2017

Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age over 64	Total ILI	Total patients	% ILI
0	0	0	0	0	0	1024	0.00%

Influenza-like Illness (ILI) Reported by the Nebraska Outpatient Influenza-like Illness Surveillance Network (ILINet), by age group, 2016-2017

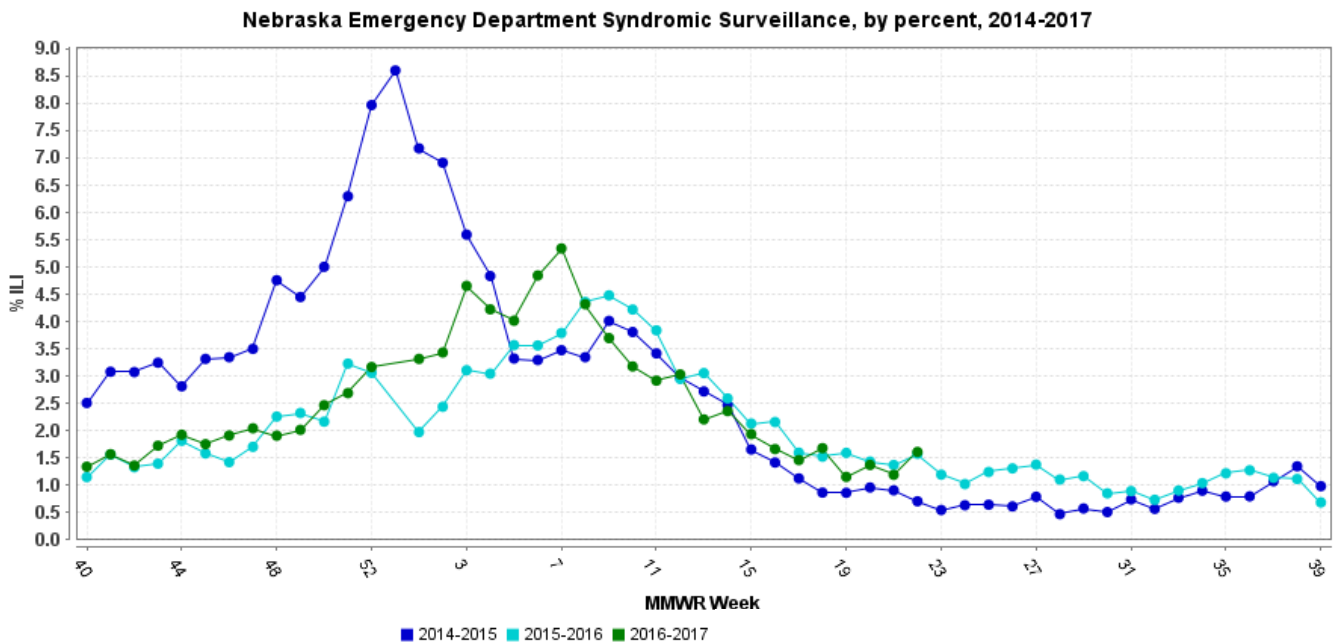


Emergency Department Syndromic Surveillance

- Monitoring ILI syndromic surveillance data received by emergency departments.

Emergency Department (ED) Syndromic Surveillance: 44* emergency departments report ED visits due to ILI to DHHS. The percent of ILI visits was 1.19% for the surveillance week similar to 1.15% the previous week.

*Participation in syndromic surveillance by facilities has increased which may lead to increased occurrence of ILI cases during the current influenza season.



Results by Age groups (Previous 12 days*)						
	00-04	05-24	25-49	50-64	65+	All Ages
<u>ILI visits (n)</u>	97	65	22	12	6	202
<u>Total visits (N)</u>	1830	3392	4697	2277	2674	14901
<u>ILI %</u>	5.30%	1.92%	0.47%	0.53%	0.22%	1.36%

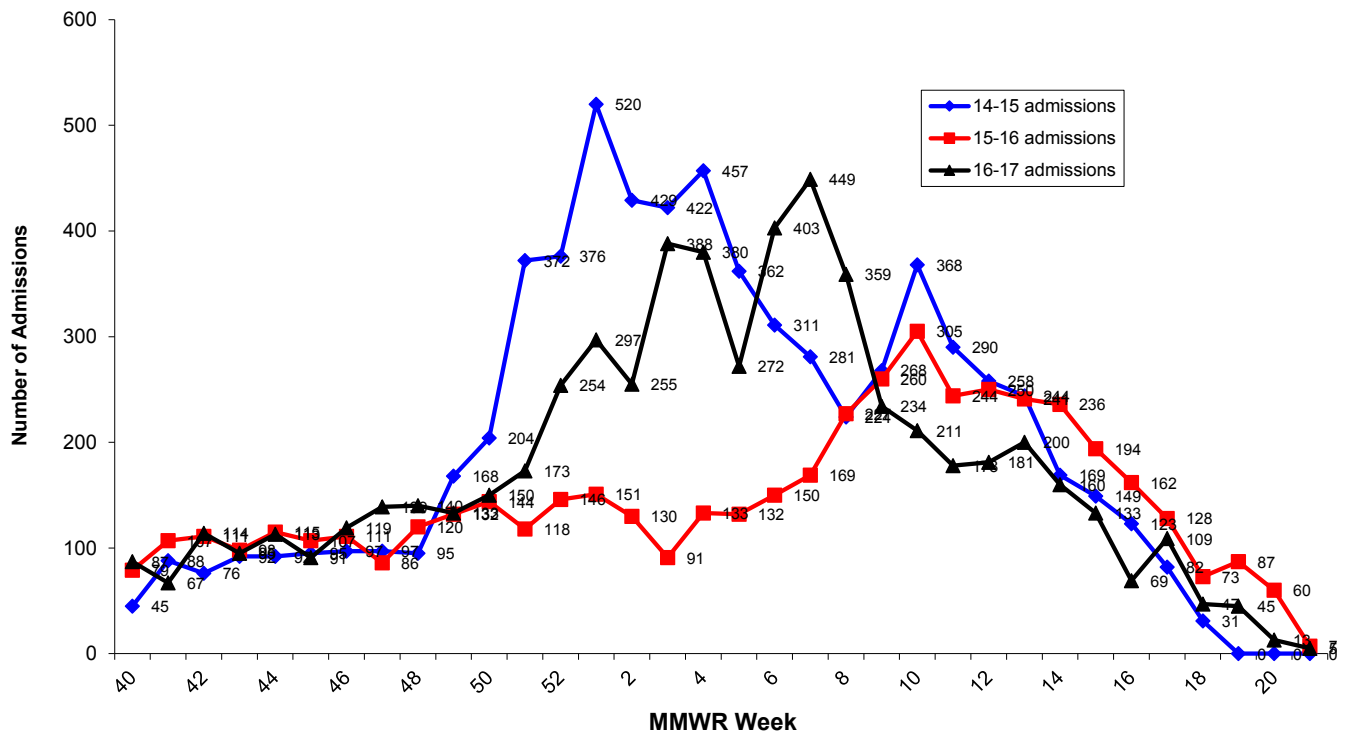
*This data includes numbers for the current week (22) and percentages may differ from the graph above where the influenza surveillance systems represent data one week in the past (through week 21).

Inpatient Surveillance

- Voluntary reporting by hospital infection preventionists of the number of hospitalizations with a diagnosis of ILI and the total number of admissions by age group each week.

Hospital Inpatient Surveillance: Of the 527 total admissions reported for this week, 5 (0.95%) were for ILI similar to the previous week. Hospitalizations due to influenza are low.

Number of ILI Admissions by MMWR Week, Nebraska, 2014-2017



Week ending	MMWR Week	Admitted this week					Total ILI Admissions	% of ILI admissions among total admissions
		0-4	5-24	25-49	50-64	65+		
May 6, 2017	18	17	9	3	5	13	47	1.56%
May 13, 2017	19	22	7	2	9	5	45	1.68%
May 20, 2017	20	5	0	1	2	5	13	0.94%
May 27, 2017	21	1	0	1	2	1	5	0.95%

School Absenteeism Surveillance

- Voluntary reporting by school health officials of the number of students absent due to illness.

School surveillance ended with surveillance week 18 (week ending May 6th) as schools end at different times during the month.



For more information on preventing outbreaks in schools, visit: [Guidance for School Administrators to Help Reduce the Spread of Seasonal Influenza in K-12 Schools](#)

[How To Clean and Disinfect Schools To Help Slow the Spread of Flu](#)

Mortality Surveillance

- Mortality Surveillance: Fifty-eight influenza-associated deaths have been reported for the season, 56 adults and 2 pediatric (average age: 80)

Outbreak Surveillance

- Required reporting of influenza outbreaks in long-term care facilities, schools and other congregate settings.

Outbreak Surveillance: There were zero reports of influenza outbreaks in long-term care facilities across the state during the last surveillance week.

Definition of an influenza outbreak: One laboratory-confirmed influenza positive case along with other cases of respiratory infection in a unit of a long-term care facility.

Outbreaks are required to be reported by rules and regulations.

173 NAC 11-004.01B Clusters, Outbreaks, or Unusual Events, Including Possible Bioterroristic Attacks*: Clusters, outbreaks, or epidemics of any health problem, infectious or other, including food poisoning, healthcare-associated outbreaks or clusters, influenza, or possible bioterroristic attack; increased disease incidence beyond expectations; unexplained deaths possibly due to unidentified infectious causes; and any unusual disease or manifestations of illness must be reported immediately.

For more information on preventing outbreaks in long-term care facilities, visit: [Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities](#)

Influenza Surveillance Background

The Nebraska influenza surveillance system is a collaborative effort between DHHS and its many partners in the state including, local health departments, public health and clinical laboratories, vital statistics offices, healthcare providers, clinics and emergency departments. Nebraska monitors influenza activity in several ways:

- Voluntary submission of isolates by clinical virology laboratories to the Nebraska Public Health Laboratory (NPHL).
- Voluntary reporting by virology laboratories that participate in the Nebraska Laboratory Information Network (LIN) of positive test results and total number of respiratory virus specimens tested.
- Voluntary reporting by a statewide network of sentinel clinicians of the number of patients presenting with influenza-like illness (ILI) and the total number of patient visits by age group each week.
- Voluntary reporting by hospital infection preventionists of the number of hospitalizations with a diagnosis of ILI and the total number of admissions by age group each week.
- Voluntary reporting by school health officials of the number of students absent due to illness.
- Monitoring ILI syndromic surveillance data received by emergency departments.
- Required reporting of influenza outbreaks in long-term care facilities, schools and other congregate settings.
- Required reporting of pediatric deaths associated with influenza.

Many cases are never reported because influenza is not a reportable disease in Nebraska unless the laboratory performing the test participates in electronic laboratory reporting. We do not attempt to track – or get reports on – all cases. Most cases are never reported to anyone, since most people with influenza never see a doctor about their illness – and many of those who do are never tested.

Even if it were possible to track all cases of influenza in the state, it wouldn't be useful to do so. Influenza is so common during the winter months that we could never actively investigate all of the cases reported to us. We would simply be "counting cases" – and that wouldn't help us protect the health of the public. Because some providers actively test for influenza and others do not, counting the number of cases would not be a reliable way to track influenza.

Although confirmed cases may provide a rough indication of activity, that's not the primary reason we keep track of them. Confirmed cases allow us to:

- determine when we first started to see influenza activity each year (the "first influenza case of the season") AND
- determine what strains of influenza are circulating in any given year.

The main reason we confirm cases in the lab is to determine what kind of influenza is around, and whether the current vaccine protects against it. Only a tiny fraction of all cases are ever confirmed in our lab.

Preventing the Flu

The **single best way to prevent seasonal flu is to get** vaccinated each year, but good health habits like covering your cough and washing your hands often can help stop the spread of germs and prevent respiratory illnesses like the flu. There also are flu antiviral drugs that can be used to treat and prevent the flu.

1. Avoid close contact.

Avoid close contact with people who are sick. When you are sick, keep your distance from others to protect them from getting sick too.

2. Stay home when you are sick.

If possible, stay home from work, school, and errands when you are sick. You will help prevent others from catching your illness.

3. Cover your mouth and nose.

Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick.

4. Clean your hands.

Washing your hands often will help protect you from germs. If soap and water are not available, use an alcohol-based hand rub.

5. Avoid touching your eyes, nose or mouth.

Germs are often spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose, or mouth.

6. Practice other good health habits.

Clean and disinfect frequently touched surfaces at home, work or school, especially when someone is ill. Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food.

<http://www.cdc.gov/flu/protect/habits.htm>