

Nebraska Influenza Surveillance Report 2016-17 Influenza Season

December 15, 2016

Synopsis for Week Ending December 10, 2016—MMWR Week 49

(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 and RSV activity is increasing gradually and will continue to spread over the next few months. Currently NE is at the “LOCAL” level.

SUMMARY STATS	
Percent of influenza rapid test positive	6.74% (45/668)
Percent of RSV rapid tests positive	22.98% (71/309)
Percent of outpatient visits for ILI ¹	0.7% (regional baseline 1.8%)
Influenza-associated hospitalizations ²	124 inpatients (2.52%)
Percent of emergency department visits due to ILI ³	1.95%
Percent school absence due to illness ⁴	2.18%
Number of schools with ≥11% absence due to illness	3
Influenza-associated mortality-all ages	1
Influenza-associated pediatric mortality (Cumulative)	0
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 is listed on the death certificate. 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

Laboratory Surveillance

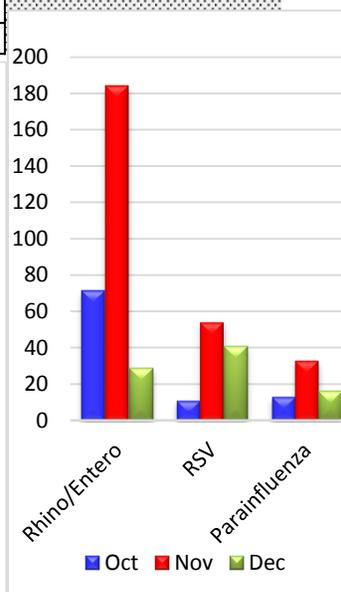
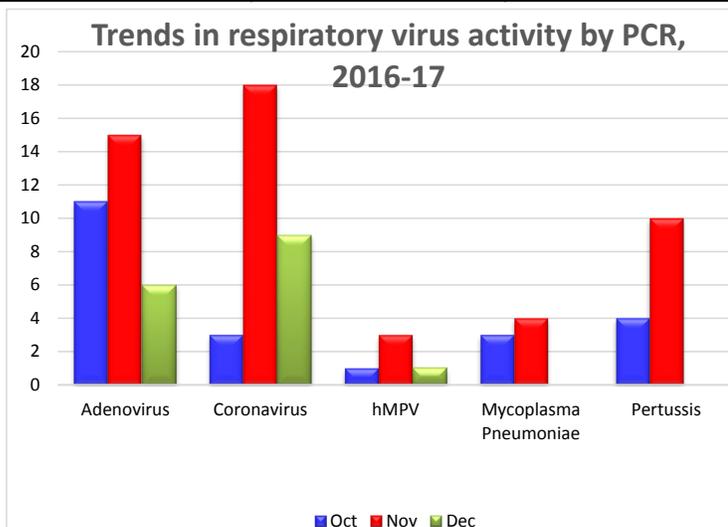
- Voluntary submission of isolates by clinical virology laboratories to the Nebraska Public Health Laboratory (NPHL) for influenza surveillance.
- Reporting by Nebraska laboratories of positive test results and total number of respiratory virus specimens tested.

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 93 laboratories tracking influenza, 87 reported data for the past week. Of the 668 influenza diagnostic tests reported, 45 (6.74%) were positive, with 6.29% (n=42) positive for influenza A and 0.45% (n=3) positive for influenza B. The total number of tests performed decreased by 9% and the total number of positive tests increased by 181%. There has been 4 flu A H3, 5 flu A not-subtyped, and 2 flu B PCR confirmed cases.

Rapid Diagnostic Test Surveillance 2016-2017			
Season-to-Date (October 2, 2016-December 10, 2016) Totals			
	All Influenza	Influenza A	Influenza B
Total Positive	126	96	30
Total Tests Performed	5059	76.19%	23.81%
% Positive	2.49%		
Surveillance Week Data (Dec 4-10, 2016)			
	All Influenza	Influenza A	Influenza B
Total Positive	45	42	3
Total Tests Performed	668	93.33%	6.67%
% Positive	6.74%		
RSV	Season-to-Date	Surveillance Week	
Total Positive	268	71	
Total Tests Performed	1907	309	
% Positive	14.05%	22.98%	

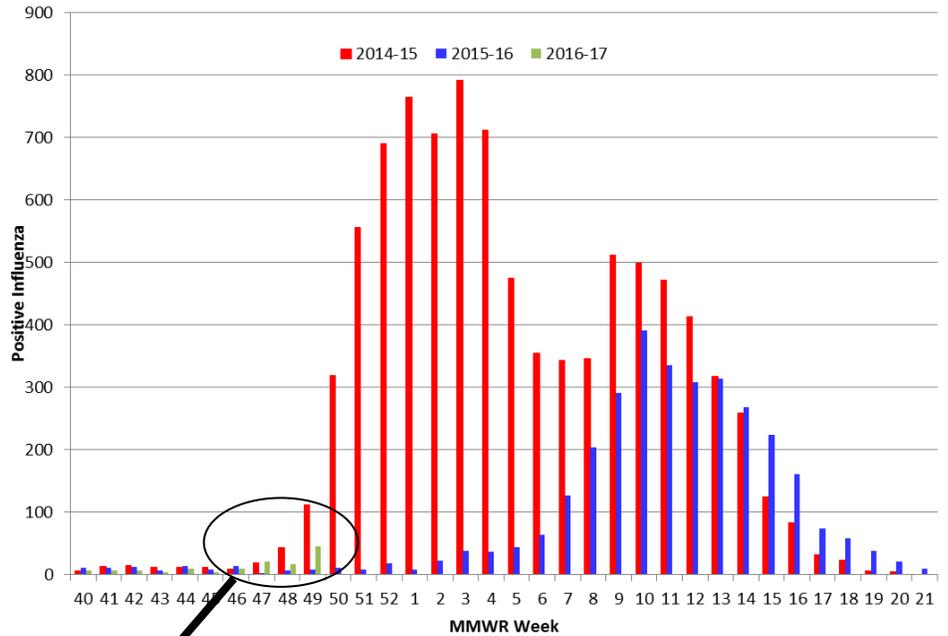


Laboratory Surveillance

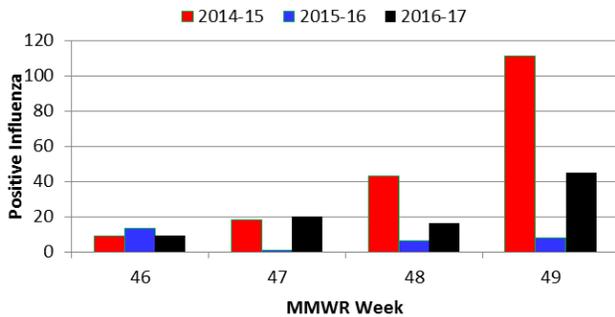
Year-to-Year Comparison



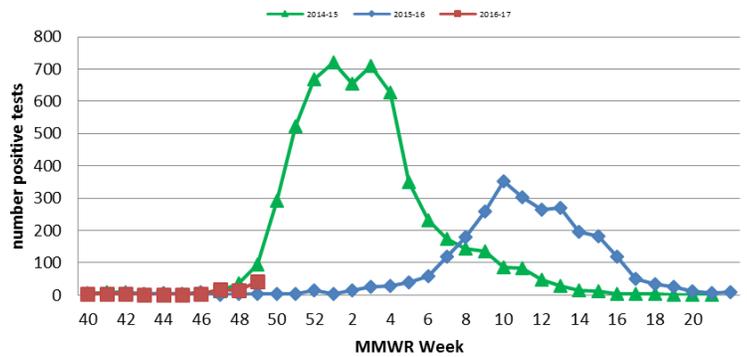
Positive Influenza Laboratory Tests by Nebraska Laboratories



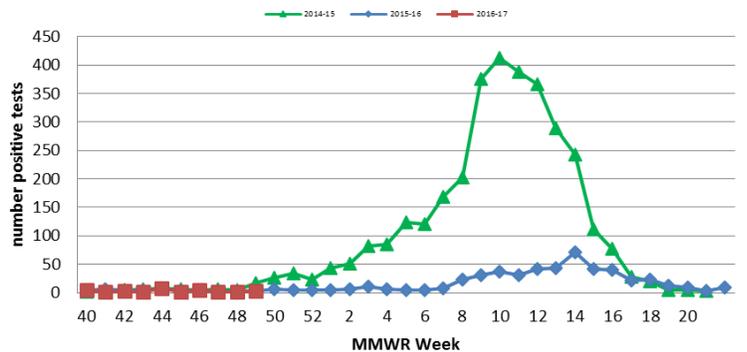
Positive Influenza Laboratory Tests by Nebraska Laboratories



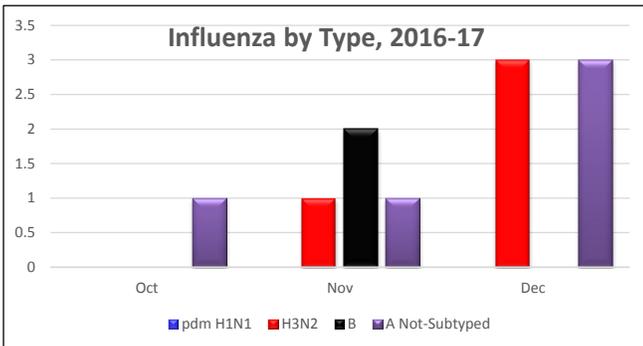
Total Positive Influenza A Laboratory Tests by Nebraska Laboratories



Total Positive Influenza B Laboratory Tests by Nebraska Laboratories



Influenza by Type, 2016-17

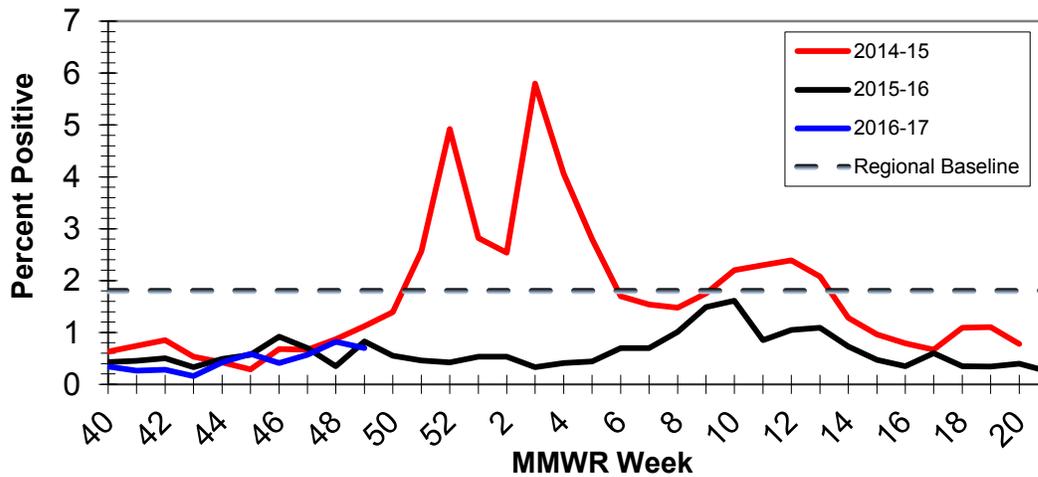


Outpatient Surveillance—ILINet

- 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: 10 of the 17 sentinel-site physician offices in Nebraska which are designated to track ILI reported data for the surveillance week. Of 1,864 total patient visits reported, 13 (0.7%) met ILI criteria a decrease from 0.82% the previous week.

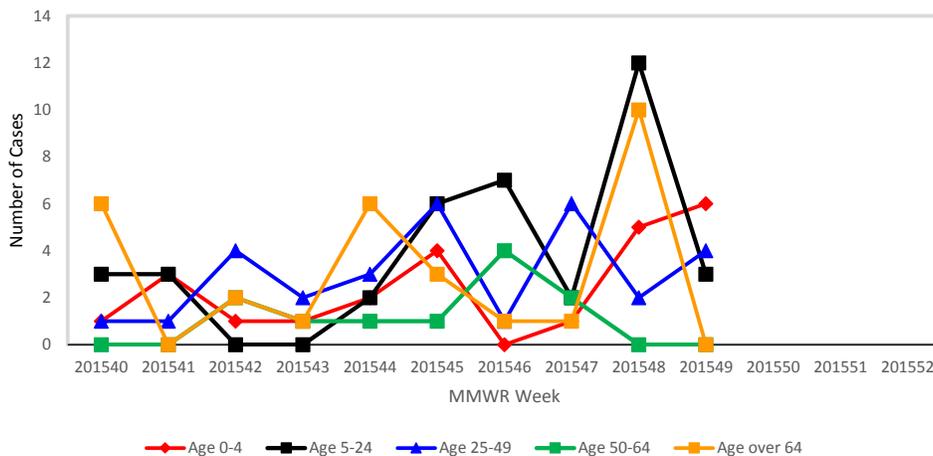
Percentage of Visits for Influenza-like Illness (ILI) Reported by the Nebraska Outpatient Influenza-like Illness Surveillance Network (ILINet) 2014-2017



ILINet for week ending December 10, 2016

Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age over 64	Total ILI	Total patients	% ILI
6	3	4	0	0	13	1864	0.70%
46%	23%	31%	0%	0%			

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



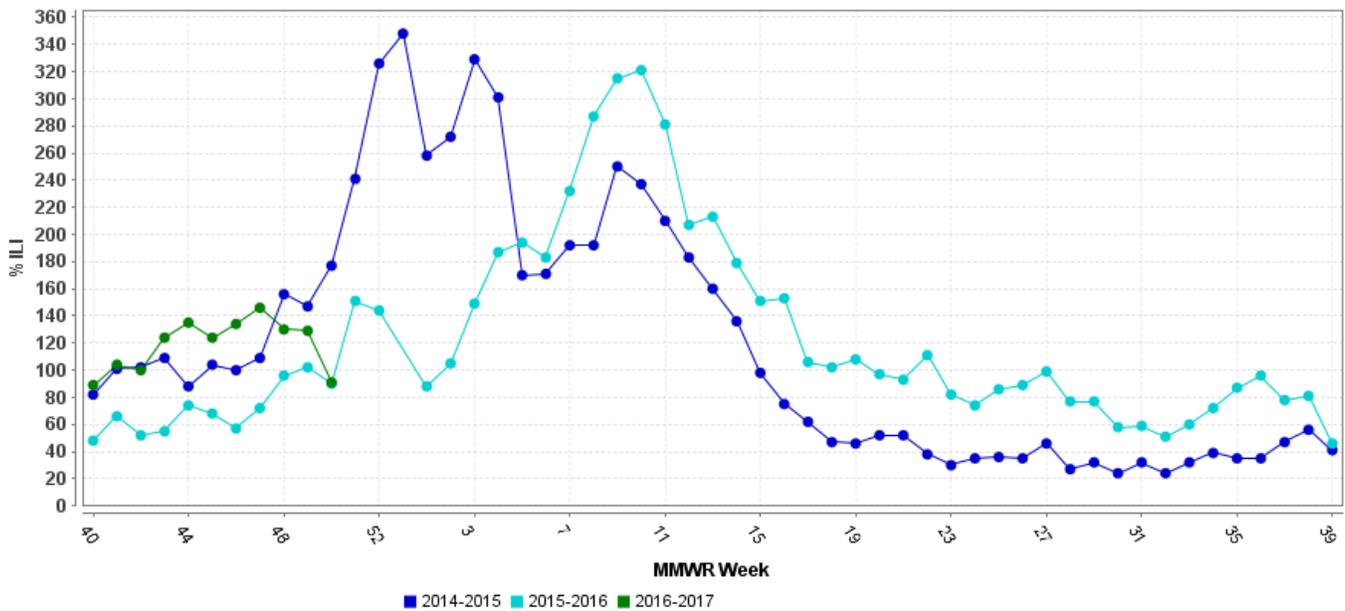
Emergency Department Syndromic Surveillance

- Monitoring ILI syndromic surveillance data received by emergency departments.

Emergency Department (ED) Syndromic Surveillance: 38* emergency departments report ED visits due to ILI to DHHS. The percent of ILI visits was 1.95% for the surveillance week an increase from 1.88% 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.

Nebraska Emergency Department Syndromic Surveillance, by percent, 2014-2016



Results by Age groups (Previous 12 days*)						
	00-04	05-24	25-49	50-64	65+	All Ages
ILI visits (n)	123	62	21	12	2	220
Total visits (N)	1626	2564	3205	1463	1523	10384
ILI %	7.56%	2.42%	0.66%	0.82%	0.13%	2.12%

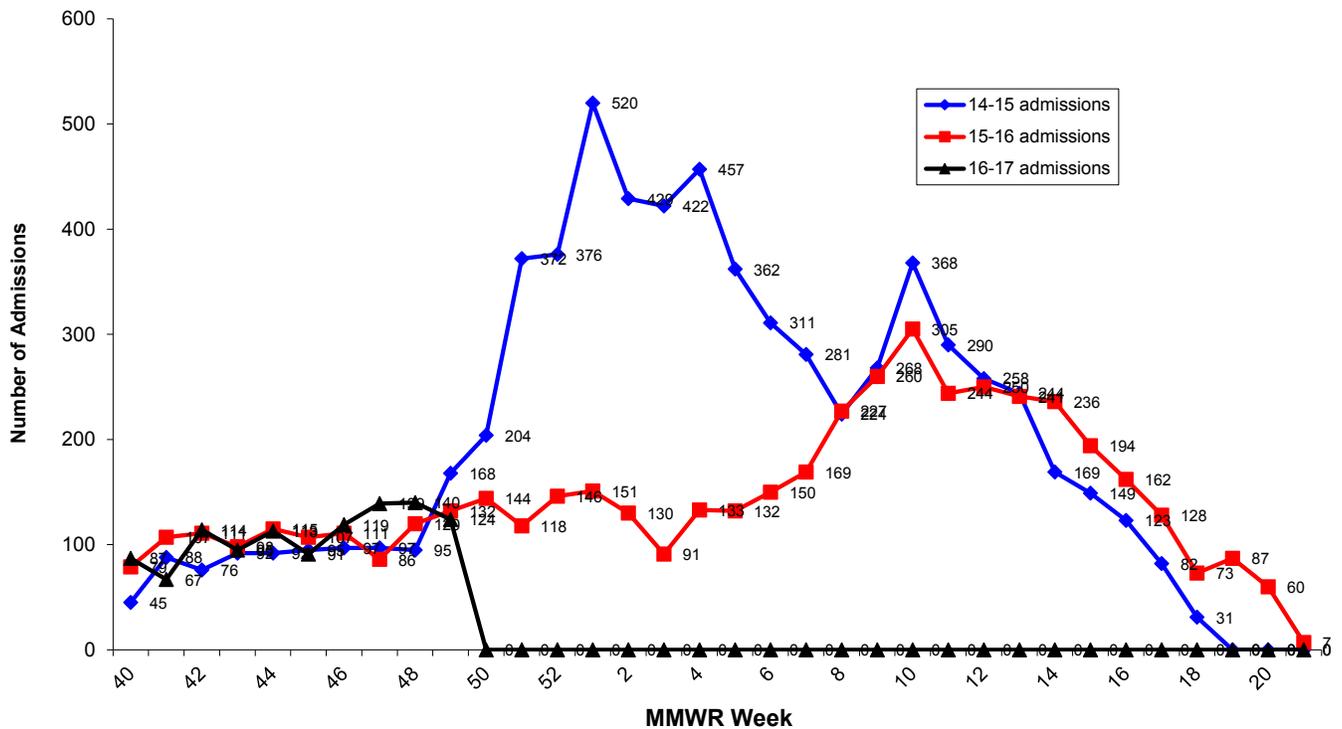
*This data includes numbers for the current week (50) and percentages may differ from the graph above where the influenza surveillance systems represent data one week in the past (through week 49).

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: 71 of 87 hospitals tracking hospitalized influenza patients reported for the surveillance week. Of the 4,930 total admissions reported for this week, 124 (2.52%) were for ILI a decrease from 2.78% the previous week.

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+		
November 19, 2016	46	31	13	8	31	36	119	2.39%
November 26, 2016	47	29	18	19	19	54	139	3.07%
December 3, 2016	48	31	12	13	28	56	140	2.78%
December 10, 2016	49	23	11	11	32	47	124	2.52%

School Absenteeism Surveillance

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

There were no school closures due to influenza-like illness reported for the surveillance week. Absenteeism due to illness was 2.18% with 70.55% of NE schools reporting.



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](#)

Mortality Surveillance

- Mortality Surveillance: One influenza-associated death has been reported for the season.

Outbreak Surveillance

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

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

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>