



Idaho Influenza Surveillance

2017-2018 Season Summary

Idaho Summary Quick Stats¹

Percent of Outpatient Visits for Influenza-like Illness (ILI)	Peaked at 3.68% in MMWR week 2
Percent Emergency Department Visits for ILI Syndrome	Peaked at 9.6% in MMWR week 5
Virologic Surveillance	Influenza A (H3) predominated
Influenza-related deaths	Season total 101 deaths

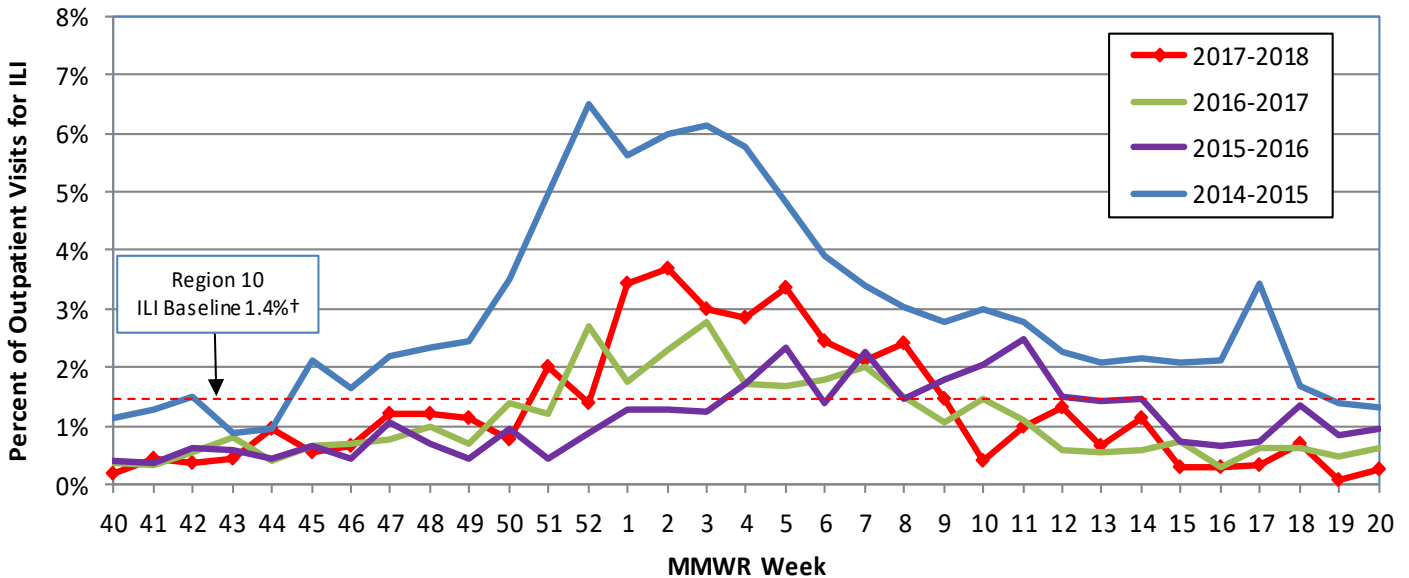
¹ Data are provisional and may change as additional reports are received.

Influenza Activity Estimates

Idaho reported widespread geographic flu activity for 12 weeks this season during MMWR week 2017-50 through 2018-09. [Click here](#) to learn more about the estimation process.

Outpatient Influenza-like Illness Surveillance

Figure 1. Percent of visits for influenza-like illness (ILI) reported by participants of the U.S. outpatient ILI surveillance network—Idaho, influenza seasons 2014–2015 through 2017–2018



ILI "Influenza like illness" is defined as fever $\geq 100^{\circ}\text{F}$ (37.8°C) AND cough and/or sore throat without a known cause other than influenza.

Percent of outpatient visits for was above the Region 10 baseline of 1.4% for 10 weeks and peaked at 3.68% in MMWR week 2 (Figure 1). Region 10 includes AK, ID, OR, and WA. [Click here](#) to learn more about data sources.

Emergency Department ILI Syndromic Surveillance

The Idaho Syndromic Surveillance program analyzes Idaho emergency department visit data received daily from participating hospitals for ILI through ESSENCE. Emergency department visits related to ILI peaked at 9.6% in MMWR week 5 (Figure 2). Emergency department visits related to ILI that are hospitalized are shown in Figure 3. [Click here](#) to learn more about data sources and limitations.

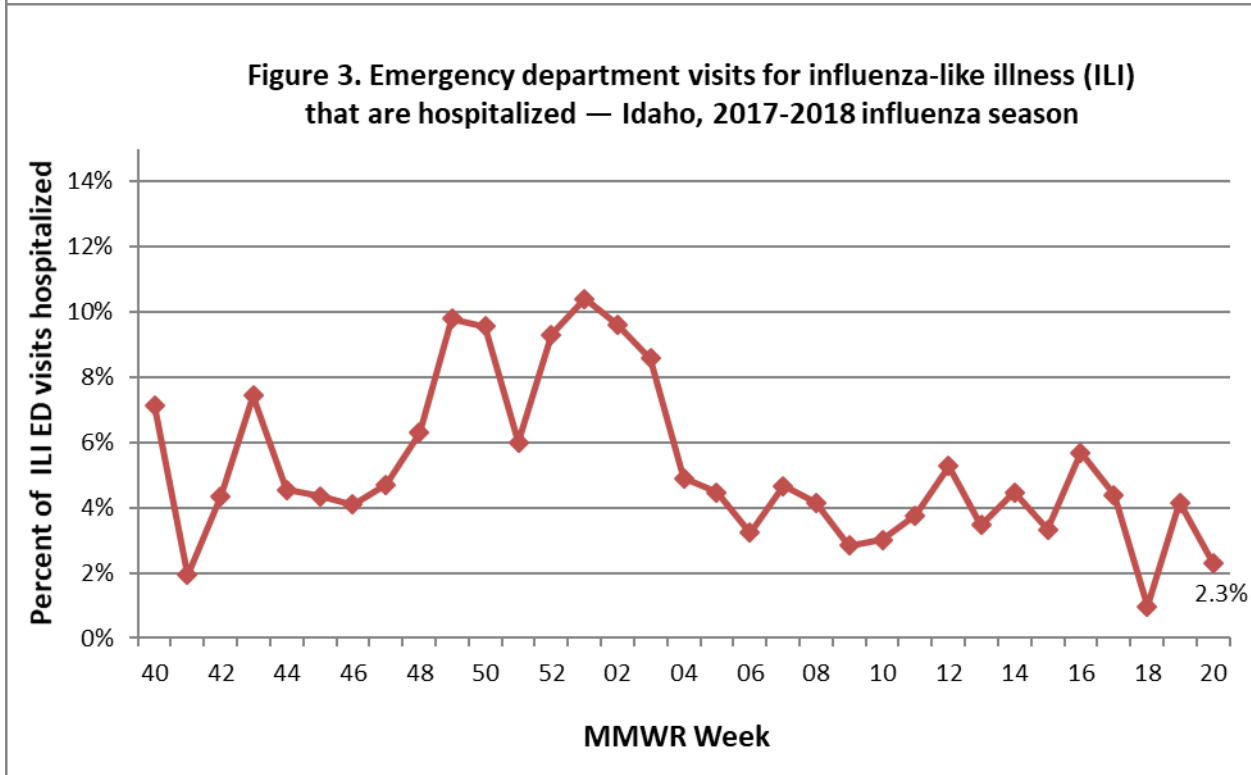
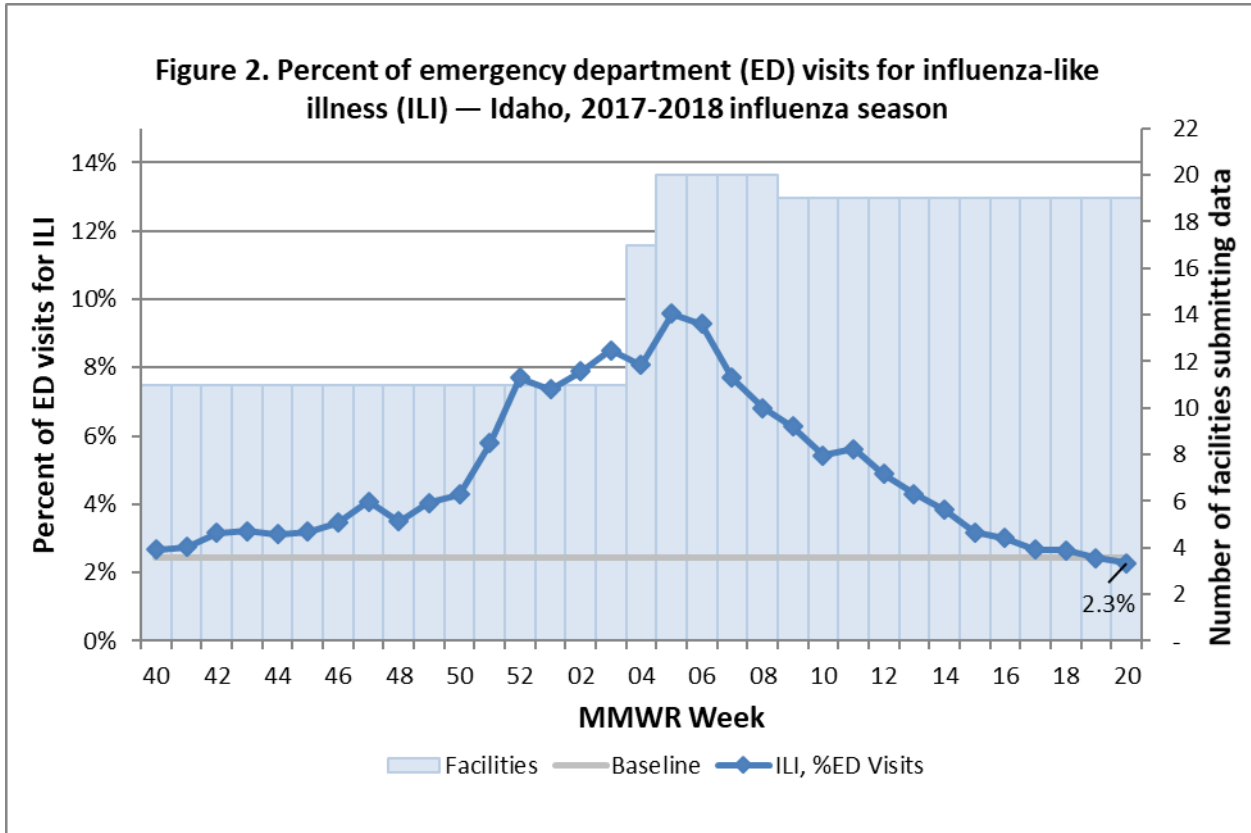
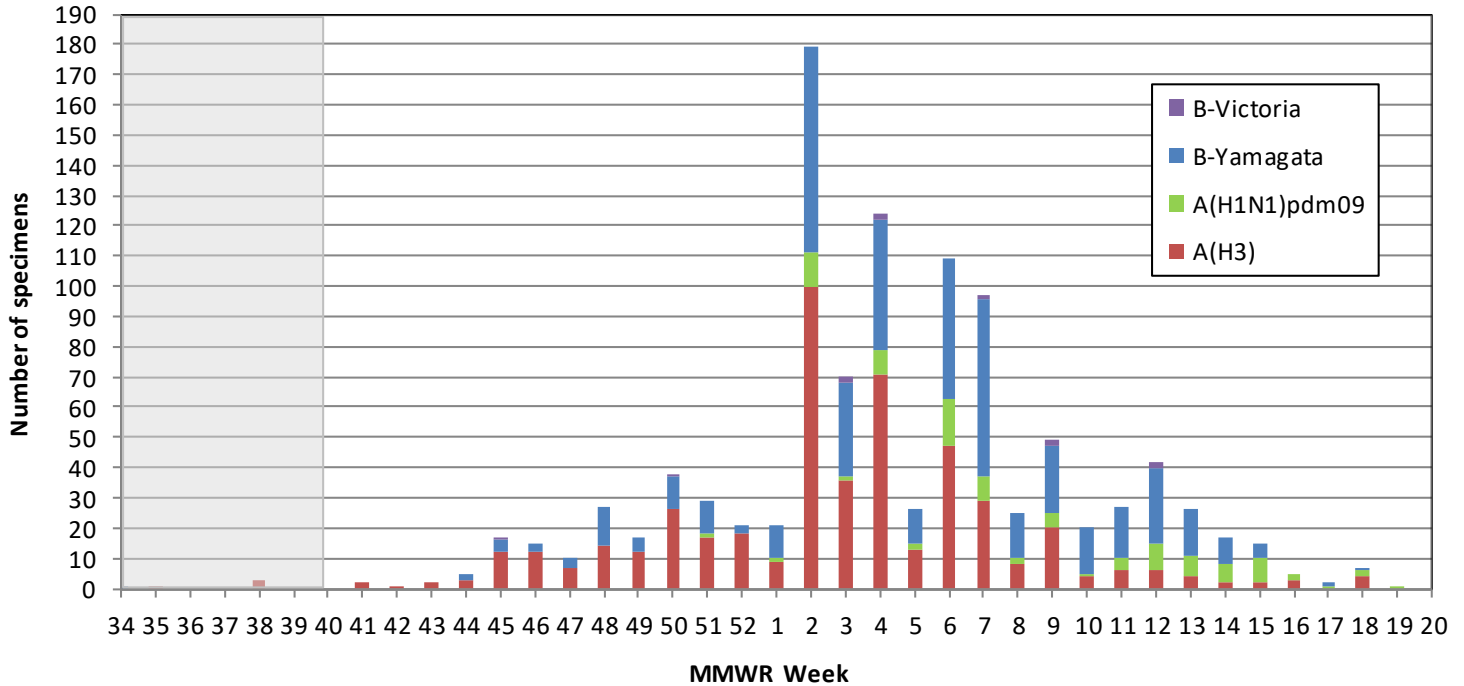


Figure 4. Laboratory surveillance findings, by influenza virus type and subtype—Idaho, 2017–2018 influenza season*



* Note, influenza season is between MMWR week 2017-40 through MMWR week 2018-20. Virologic surveillance findings presented outside of the influenza season, in gray, represent early virus detections.

Time Frame	Total Sample Results Reported	Total Samples Influenza Positive (% positive)	Influenza A(H3) (% of total positive samples)	Influenza A(H1N1) pdm09 (% of total positive samples)	Influenza B (Victoria) (% of total positive samples)	Influenza B (Yamagata) (% of total positive samples)
Early, pre-season findings: beginning MMWR week 2017-35 through MMWR week 2017-39	8	5 (63%)	4 (80%)	0	0	1 (20%)
Season Total (MMWR 2017-40 through 2018-20)	1261	1048 (83.1%)	490 (46.8%)	96 (9.2%)	11 (1.0%)	451 (43.0%)

Influenza A(H3) viruses were the predominate influenza subtype detected by the Idaho Bureau of Laboratories (IBL) this season, but influenza B Yamagata lineage was also common (Figure 4 & Table 1). [Click here](#) more about data sources.

Influenza-related Mortality

Table 2. Total influenza-related deaths occurring in Idaho during the 2017-2018 influenza season (MMWR week 2017-40 through 2018-20), by age group, and public health district of residence*				
Residence	Total	Age		
		<18 yrs	18-49 yrs	≥50 yrs
Panhandle Health District (PHD-1)	37	-	1	36
North Central Health District (PHD-2)	4	-	-	4
Southwest District Health (PHD-3)	11	-	-	11
Central District Health Department (PHD-4)	26	-	3	23
South Central Public Health (PHD-5)	10	-	-	10
Southeastern Idaho Public Health (PHD-6)	7	-	-	7
Eastern Idaho Public Health District (PHD-7)	4	-	-	4
Non-resident	2	-	-	2
Total	101	0	4	97

*as of 5/21/18
Public health district of residence is not always the same as county of death.
Source: Bureau of Vital Records and Health Statistics, Idaho Department of Health and Welfare.

Link to Idaho Public Health Districts: <http://www.healthandwelfare.idaho.gov/?TabId=97>

NOTE: In September 2017, one influenza-related death was reported in Idaho prior to the start of the official influenza season and has been included in Table 2.

Influenza-related deaths occurring in Idaho this season were the highest reported in several decades at 101 deaths (Table 2). On average we expect 22 influenza-related deaths per year. [Click here](#) to learn more about Idaho mortality data.

This document, generated by the Idaho Department of Health and Welfare, Division of Public Health, Bureau of Communicable Disease Prevention, is updated regularly during the traditional influenza season. Additional information is made available during an early, late, or prolonged season.

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IDAHO DEPARTMENT OF HEALTH & WELFARE
DIVISION OF PUBLIC HEALTH

Idaho Influenza Surveillance

Data Sources and Data Limitations

The following sections describe data sources and limitations associated with surveillance findings presented in the 2017-2018 Idaho influenza surveillance report.

Influenza Activity Estimates

State health departments, including Idaho, report estimated levels of [influenza activity](#) weekly to CDC, based on a review of surveillance findings (*i.e.*, outpatient visits, syndromic data, mortality data, and virologic data). [Activity levels](#) are described as either no activity, sporadic, local, regional, or widespread. Activity levels rely on the extent of geographic regions affected by the flu; Idaho regions are defined as the borders of the [Idaho Public Health Districts](#).

ILINet Data

Data on outpatient visits to healthcare providers for Influenza-like Illness (ILI) are collected through the U.S. Outpatient ILI Surveillance Network (ILINet) website. In Idaho 10 ILINet sites from across the state contribute data weekly throughout the influenza season providing situational awareness on the geographic spread and ILI activity in their practice. The weekly % ILI is calculated from ILINet reports by dividing the total number of patients seen for any reason by the number of those patients specifically seen for ILI. A baseline for expected ILI visits outside the normal influenza season is shown in Figure 1 of the weekly report; Idaho is part of Region 10 (AK, ID, OR, and WA). Visit <http://www.cdc.gov/flu/weekly/overview.htm> to learn more about the ILINet reporting system.

Idaho Syndromic Surveillance Program and Limitations

The Idaho Syndromic Surveillance program (ISSP) works with Idaho hospitals to contribute emergency department (ED) visit data to the national BioSense platform. ESSENCE is the main syndromic surveillance tool in the platform, which provides analytic tools for tracking clinical syndromes through chief complaint and discharge diagnosis data. Syndromes are defined by chief complaint text and diagnosis codes related to individual visits. A syndrome-matched visit is defined as a visit that is associated with a syndrome through system query based on the syndrome definition. The following definition is the chief complaint and discharge diagnoses (CCANDDD) syndrome definition used by the ISSP to identify visits related to influenza-like-illness for this report. Diagnosis codes follow ICD-10-CM convention and include variations in the form of notation (e.g., inclusion of decimal in diagnostic codes). Therefore, the definition includes diagnosis codes that follow notation conventions of facilities submitting data. This definition identifies visits in addition to those identified by the [National Syndromic Surveillance Program \(NSSP\)](#) influenza-like-illness chief complaint text syndrome definition (SYNDROME="ILI").

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((([CCANDDD="*r50.9*"] AND ([CCANDDD="*r05*"] OR [CCANDDD="*r02.9*"] OR [CCANDDD="*j06.9*"] OR [CCANDDD="*b34.9*"] OR [CCANDDD="*r18.9*"] OR [CCANDDD="*j20.9*"] ) OR ( [CCANDDD="*r509*"] AND ([CCANDDD="*r05*"] OR [CCANDDD="*r029*"] OR [CCANDDD="*j069*"] OR [CCANDDD="*b349*"] OR [CCANDDD="*r189*"] OR [CCANDDD="*j209*"] ) ) OR ([CCANDDD="*r05*"] AND ([CCANDDD="*B349*"] OR [CCANDDD="*j029*"] ) ) OR ([CCANDDD="*r05*"] AND ([CCANDDD="*B34.9*"] OR [CCANDDD="*j02.9*"] ) ) OR ([CCANDDD="*j06.9*"] AND ([CCANDDD="*B34.9*"] OR [CCANDDD="*j02.9*"] OR [CCANDDD="*j20.9*"] ) ) OR
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(([CCANDDD="*j069*"] AND ([CCANDDD="*B349*"] OR [CCANDDD="*j029*"] OR [CCANDDD="*j209*"])) OR [CCANDDD="*j101*"] OR [CCANDDD="*j10.1*"] OR [CCANDDD="*J05.0*"]OR [CCANDDD="*J050*"] OR [CCANDDD="*J02.0*"] OR [CCANDDD="*J020*"]) OR [SYNDROME="ILI"])

The below limitations apply to the ISSP data accessible through ESSENCE.

- Data are not representative jurisdiction-wide because not all hospital emergency departments in the jurisdiction were submitting data at the time these data were retrieved. Additionally, data on Idaho residents visiting EDs outside of Idaho have not been shared with Idaho public health officials.
- ED visits are categorized into syndromes by using chief complaint and discharge diagnosis codes. Chief complaint is commonly captured as a free text field, which could include misspellings or abbreviations, and could lack context to assist public health with interpretation of the reason for the visit (e.g., “feels unwell” without any symptoms listed). Variability in documentation of chief complaint can make it difficult to categorize all visits into appropriate syndromes and miscategorization can occur.
- Transmission of standardized diagnosis codes generally lag behind transmission of chief complaint data; therefore, the number and percentage of visits for a syndrome which uses both chief complaint and diagnosis codes for syndrome categorization can change by when the data were queried, especially when data are queried for visits within one week.
- Messages are received daily and may update records associated with an earlier visit; therefore, the same query of the same visits may result in different information on different days.

Virologic Surveillance

Healthcare providers from across the state are encouraged to submit clinical respiratory samples year-round to the Idaho Bureau of Laboratories (IBL) for influenza virus testing. Samples are collected from a subset of patients experiencing influenza-like illness (ILI), and are examined by IBL to determine the kind of influenza viruses in circulation. Information is presented in Figure 4 and Table 1, highlighting laboratory findings during and leading up to the current influenza season; the time of year when samples are more likely to be positive for an influenza virus. Positive samples are forwarded to the Centers for Disease Control and Prevention (CDC) for antigenic and genetic characterization; this data helps the CDC determine if the seasonal influenza vaccine is a good match for one or more of the viruses in circulation.

Idaho Mortality Data

Influenza-related deaths reported to the Idaho Bureau of Vital Records and Health Statistics during the influenza season are listed in Table 2. Reviewing the number of deaths, by age group, and geographic region, provides information on populations and areas most severely affected by seasonal influenza.

- Only deaths occurring in Idaho are reported in Table 2; data include deaths in Idaho residents and non-residents, by public health district of residence. Deaths in Idaho residents occurring while out-of-state are not shown here. Data shown in Table 2 may differ from statistics based on Idaho resident records, data based on underlying cause of death only, and data based on calendar year.
- Deaths are considered influenza-related based on ICD coding for Influenza in Part I or Part II on the death certificate. Influenza may have been the underlying cause of death or contributed to death.

Table 3 (below) lists the number of Idaho deaths recorded during recent past influenza seasons. An average of 22 influenza-related deaths were recorded annually between 1994-2018.

Table 3. Influenza-related deaths—Idaho, 2009-2010 through 2017-2018 influenza seasons

Influenza season	Influenza-related deaths
2017-2018	101
2016-2017	72
2015-2016	26
2014-2015	32
2013-2014	19
2012-2013	35
2011-2012	5
2010-2011	21
2009-2010	22