



# Iowa Influenza Surveillance Network (IISN)

## Influenza-like Illness (ILI) and Other Respiratory Viruses

### Weekly Activity Report

For the week ending March 17, 2018 - Week 11

All data presented in this report are provisional and may change as additional reports are received



#### Iowa Influenza Geographic Spread

No Activity	Sporadic	Local	Regional	Widespread
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Note: See CDC activity estimates for definition [www.cdc.gov/flu/weekly/overview.htm](http://www.cdc.gov/flu/weekly/overview.htm)

Quick Stats	
Percent of influenza rapid test positive	22% (468/2150)
Percent of RSV rapid tests positive	19% (76/403)
Influenza-associated hospitalizations	86/6337 inpatients
Percent of outpatient visits for ILI	2.50% (baseline 1.9%)
Percent school absence due to illness	2.16% *
Number of long-term care influenza outbreaks	3
Number of schools with ≥10% absence due to illness	5 *
Influenza-associated mortality -all ages (Cumulative)	235
Influenza-associated pediatric mortality (Cumulative)	0

Note: Deaths are considered influenza-associated when influenza is listed on the death certificate. This is an underestimate of influenza-related deaths. Cumulative mortality totals are from 10/1/2017 to the current week.

**\*School data may underestimate influenza illness for week 11 when many schools closed for spring break**

#### Iowa statewide activity summary:

Influenza activity continues to decrease on most measures in Iowa and the geographic spread is now regional. For this reporting week, the State Hygienic Laboratory confirmed 6 influenza A(H3), 3 influenza A(H1N1)pdm09, and 22 influenza B (Yamagata Lineage) viruses from submitted samples. There were 86 influenza-related hospitalizations reported from sentinel hospitals during this reporting week. The proportion of outpatient visits due to influenza-like illness (ILI) was 2.5 percent, which is above the regional baseline of 1.9 percent. Three long-term care influenza outbreaks were reported with first illness onset in this reporting week. Five schools reported 10 percent or more illness at least once this reporting week. There have been a total of 235 influenza-related deaths reported this season. Surveillance sites reported detecting the following non-influenza respiratory illnesses with the most frequency: 107 rhinovirus/enterovirus, 94 RSV, 75 hMPV, 24 coronavirus, and 24 adenovirus.

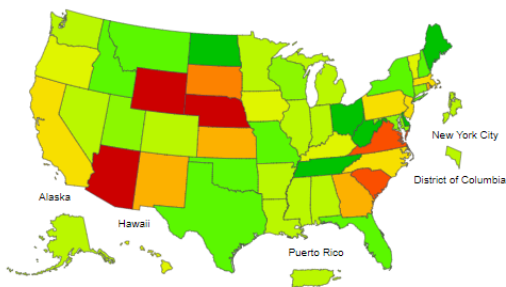
#### International activity summary - (WHO):

Influenza activity remained high but appeared to have peaked in some countries in the temperate zone of the northern hemisphere. In the temperate zone of the southern hemisphere activity remained at inter-seasonal levels. Worldwide, influenza A and influenza B accounted for a similar proportion of influenza detections.

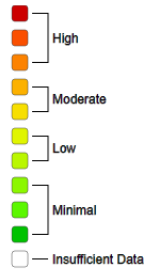
Visit [www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/) for more information. It was last updated 3/19/2018.

## National activity summary - (CDC)-Last Updated in Week 11:

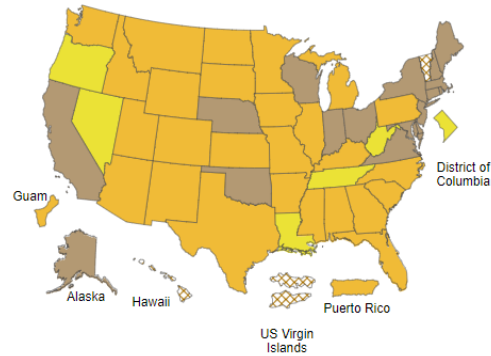
2017-18 Influenza Season Week 11 ending Mar 17, 2018



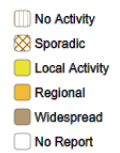
ILI Activity Level



Week Ending Mar 17, 2018 - Week 11



Influenza Activity Estimates



**Synopsis:** During week 11 (March 11-17, 2018), influenza activity decreased in the United States.

**Viral Surveillance:** Overall, influenza A(H3) viruses have predominated this season. However, in recent weeks the proportion of influenza A viruses has declined, and during week 11, influenza B viruses were more frequently reported than influenza A viruses. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased.

**Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was above the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.

**Influenza-associated Pediatric Deaths:** Five influenza-associated pediatric deaths were reported.

**Influenza-associated Hospitalizations:** A cumulative rate of 93.5 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.

**Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.7%, which is above the national baseline of 2.2%. Nine of 10 regions reported ILI at or above region-specific baseline levels. Six states experienced high ILI activity; nine states experienced moderate ILI activity; New York City, Puerto Rico, the District of Columbia, and 17 states experienced low ILI activity; and 18 states experienced minimal ILI activity.

**Geographic Spread of Influenza:** The geographic spread of influenza in 17 states was reported as widespread; Guam, Puerto Rico and 26 states reported regional activity; the District of Columbia and five states reported local activity; and the U.S. Virgin Islands and two states reported sporadic activity.

Detailed information can be found online at [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/).

### Laboratory surveillance program:

The State Hygienic Laboratory (SHL) is the primary lab for influenza testing and reporting in Iowa. SHL reports the number of tests performed and the type and sub-type of positive tests to the influenza surveillance network daily.

**Table 1: Influenza A viruses detected by SHL by age group**

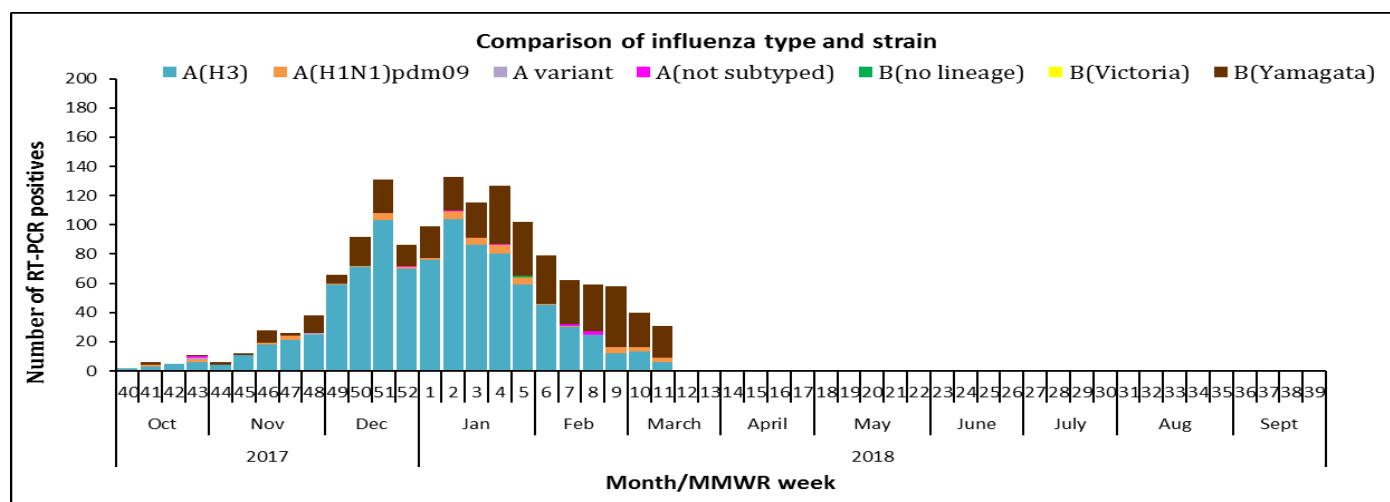
Age Group	CURRENT WEEK				CUMULATIVE (10/1/17– CURRENT WEEK)				
	A(H1N1) pdm09	A (H3)	Pending/ Not subtyped	Total	A(H1N1) pdm09	A variants	A (H3)	Pending/ Not subtyped	Total
0-4	0	0	0	0 (0%)	9	0	73	1	83 (8%)
5-17	1	0	0	1 (11%)	8	0	82	1	91 (9%)
18-24	0	0	0	0 (0%)	9	1	116	0	126 (13%)
25-49	1	0	0	1 (11%)	11	1	77	1	90 (9%)
50-64	0	1	0	1 (11%)	7	0	108	1	117 (12%)
>64	1	5	0	6 (67%)	5	0	477	3	485 (49%)
<b>Total</b>	<b>3 (33%)</b>	<b>6 (67%)</b>	<b>0 (0%)</b>	<b>9</b>	<b>49 (5%)</b>	<b>2 (0%)</b>	<b>934 (94%)</b>	<b>7 (1%)</b>	<b>992</b>

Note: Cell counts of three or less are sometimes suppressed to protect confidentiality. Totals by age may not add up to totals by subtype/lineage due to missing age information. Only cases of Iowa residents are included. Specimens listed as “not subtyped” were not able to be subtyped due to weak positive lab results. This can be due to poor collection, timing of collection or stage of infection. Influenza A variants detected in 2017-18 include A(H1N1)v and A(H3N2)v.

**Table 2: Influenza B viruses detected by SHL by age group**

Age Group	CURRENT WEEK				CUMULATIVE (10/1/17– CURRENT WEEK)			
	Victoria Lineage	Yamagata Lineage	Lineage Pending	Total	Victoria Lineage	Yamagata Lineage	Lineage Pending	Total
0-4	0	1	0	1 (5%)	0	20	0	20 (5%)
5-17	0	2	0	2 (9%)	0	80	1	81 (19%)
18-24	0	0	0	0 (0%)	0	36	0	36 (9%)
25-49	0	1	0	1 (5%)	0	58	0	58 (14%)
50-64	0	2	0	2 (9%)	0	63	0	63 (15%)
>64	0	16	0	16 (73%)	0	164	0	164 (39%)
<b>Total</b>	<b>0 (0%)</b>	<b>22 (100%)</b>	<b>0 (0%)</b>	<b>22</b>	<b>0 (0%)</b>	<b>421 (100%)</b>	<b>1 (0%)</b>	<b>422</b>

Note: Cell counts of three or less are sometimes suppressed to protect confidentiality. Totals by age may not add up to totals by subtype/lineage due to missing age information. Only cases of Iowa residents are included.



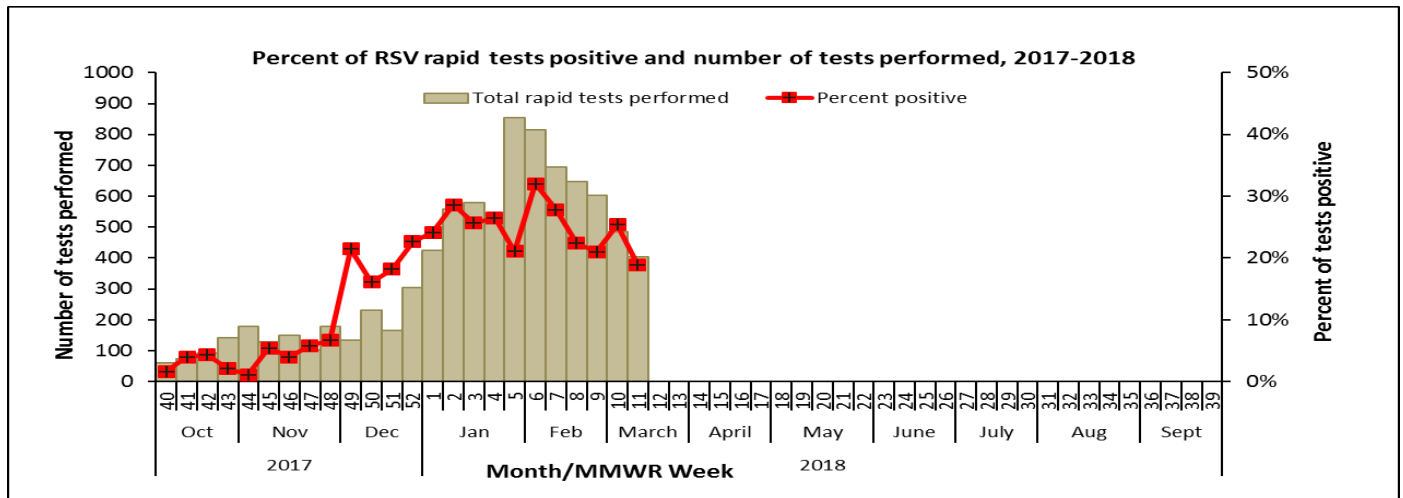
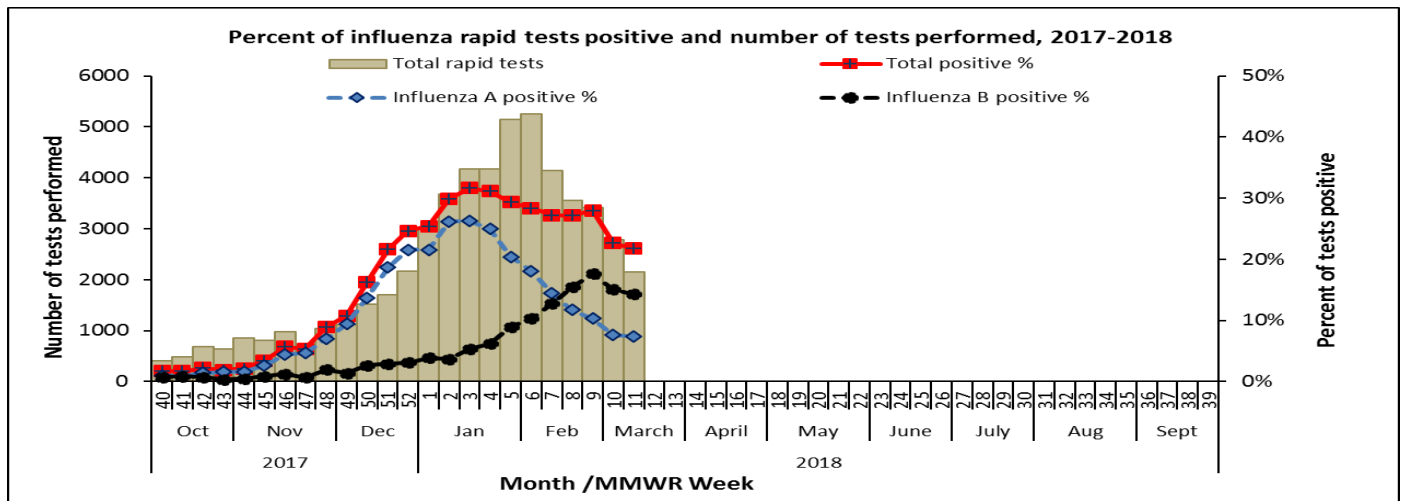
### Rapid influenza and RSV test surveillance:

The State Hygienic Laboratory (SHL) runs a weekly web-based survey program where laboratorians report the number of influenza and respiratory syncytial virus (RSV) rapid tests performed and the number of tests positive. This table includes only the number of patients tested for influenza or RSV at laboratory surveillance sites throughout the state. This table does not provide case counts.

**Table 3: Percent of influenza rapid tests positive and number of tests performed by region for the present week**

REGION*	RAPID INFLUENZA TESTS				RAPID RSV TESTS		
	Tested	Flu A	Flu B	% Positive	Tested	Positive	% Positive
Region 1 (Central)	681	57	122	26	45	9	20
Region 2 (NE)	93	8	12	22	12	0	0
Region 3 (NW)	254	23	24	19	108	13	12
Region 4 (SW)	92	16	11	29	23	1	4
Region 5 (SE)	224	17	27	20	52	9	17
Region 6 (Eastern)	806	39	112	19	163	44	27
<b>Total</b>	<b>2150</b>	<b>160</b>	<b>308</b>	<b>22</b>	<b>403</b>	<b>76</b>	<b>19</b>

Note: See map in the school section for a display of the counties in each region.

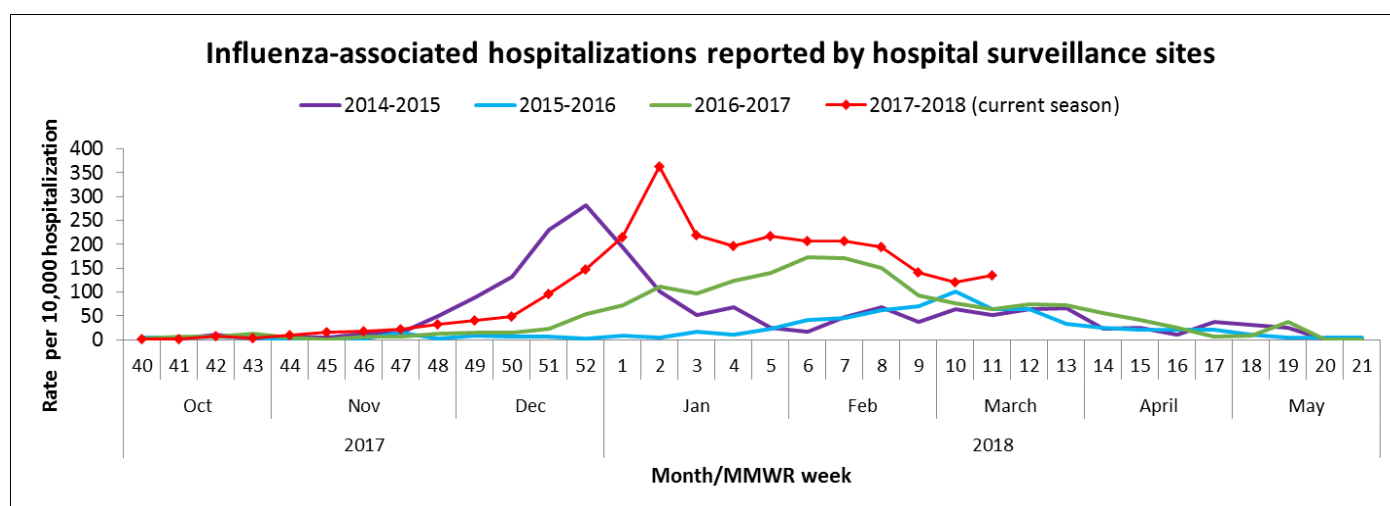
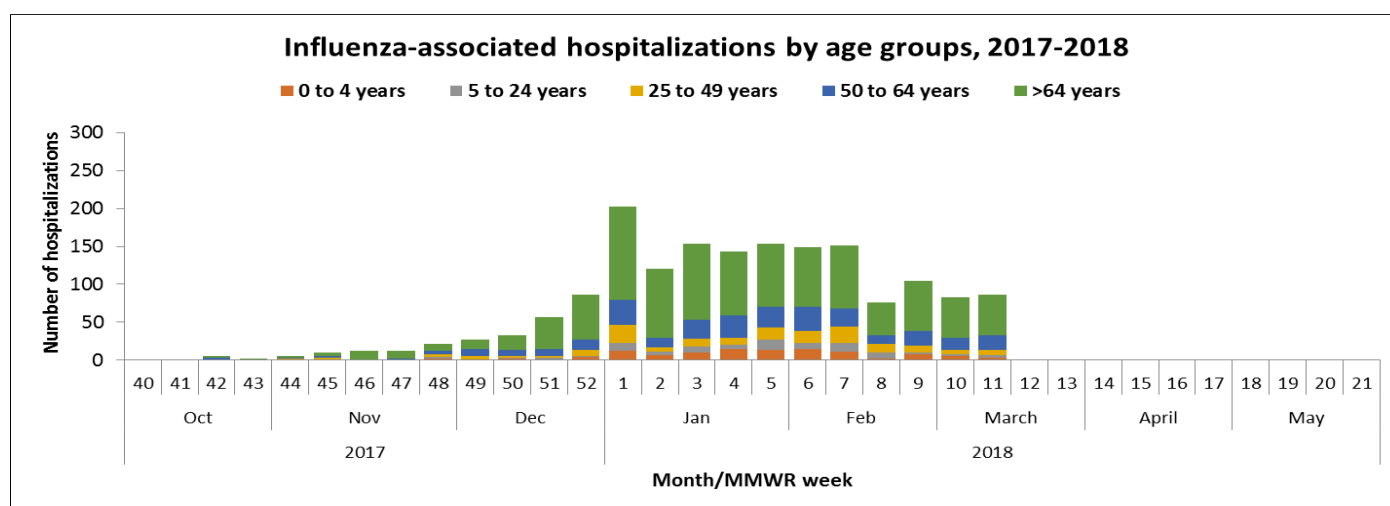


### **Influenza-associated hospitalizations:**

Sentinel hospitals that participate in IISN voluntarily track and report the number of influenza-associated hospitalizations and the total number of inpatients each week. Iowa hospitals interested in joining this surveillance program should contact Andy Weigel at 515-322-1937 or [andy.weigel@idph.iowa.gov](mailto:andy.weigel@idph.iowa.gov) or more information.

**Table 4: Number of influenza-associated hospitalization reported by age group**

AGE	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Age 0-4	3	109
Age 5-24	4	91
Age 25-49	6	156
Age 50-64	20	304
Age >64	53	1036
<b>Total</b>	<b>86</b>	<b>1696</b>



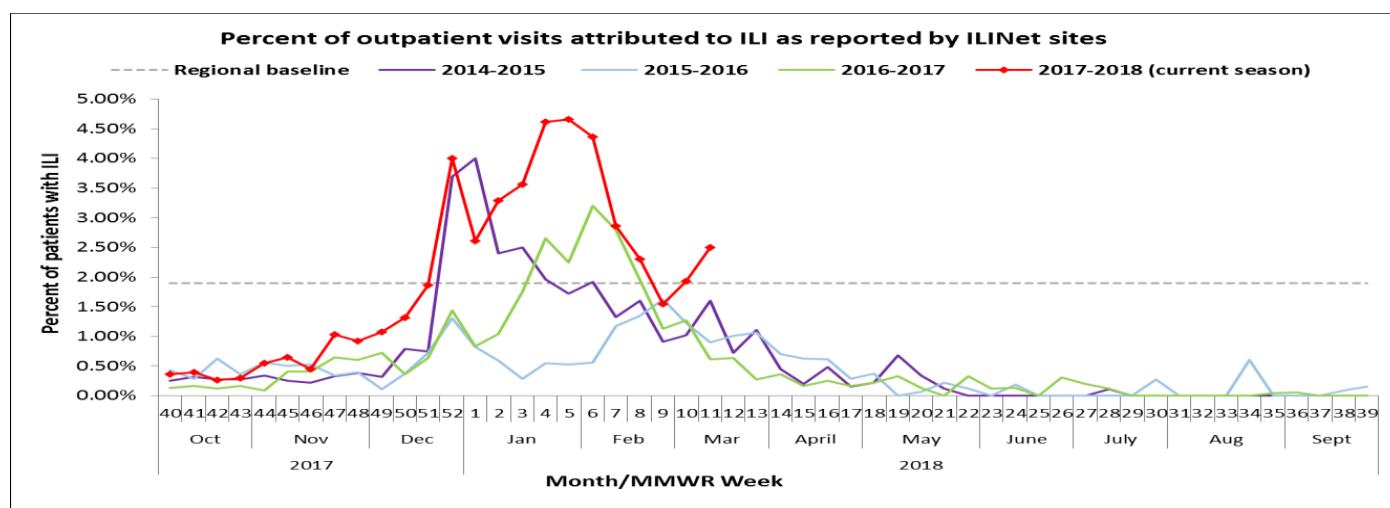
### Outpatient health care provider surveillance program (ILINet):

Outpatient health care providers who participate in the ILINet (a national influenza surveillance program) report the number of patients seen with influenza-like illness and the total number of patient visits each week. This system is a key part of Iowa's influenza surveillance. Iowa health care providers interested in joining this surveillance program should contact Andy Weigel at 515-322-1937 or [andy.weigel@idph.iowa.gov](mailto:andy.weigel@idph.iowa.gov) for more information.

**Table 5: Outpatient visits for influenza-like illness (ILI)**

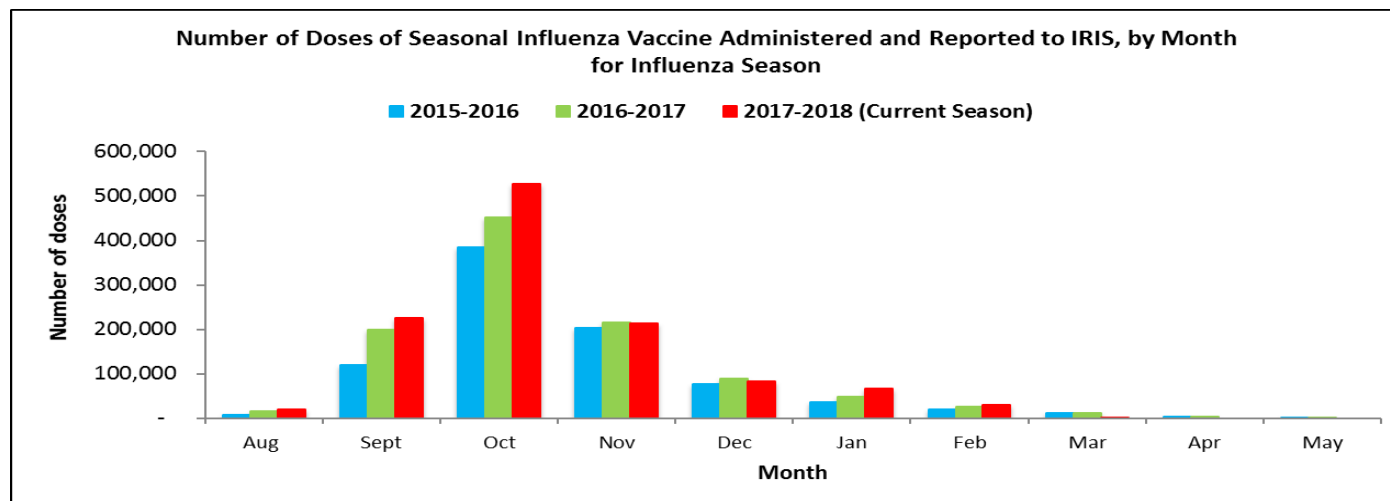
Week	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age > 64	Total ILI	ILI Percent
Week 9, ending March 3	1	22	5	10	11	49	1.55
Week 10, ending March 10	6	33	7	7	8	61	1.93
Week 11, ending March 17	5	22	10	11	12	60	2.50

Note: Influenza-like Illness is defined as a fever of  $\geq 100^{\circ}$  F as well as cough and/or sore throat.



### Seasonal influenza vaccination:

Seasonal influenza vaccination data in Iowa is based on doses reported to the Iowa Immunization Registry Information System (IRIS). IRIS is a confidential, computerized, population-based system that tracks immunization for children, adolescents and adults who are seen in a variety of public and private healthcare provider sites throughout the state of Iowa. For more information on the immunization data, contact Kim Tichy, IRIS coordinator at 515-281-4288 or [kimberly.tichy@idph.iowa.gov](mailto:kimberly.tichy@idph.iowa.gov).



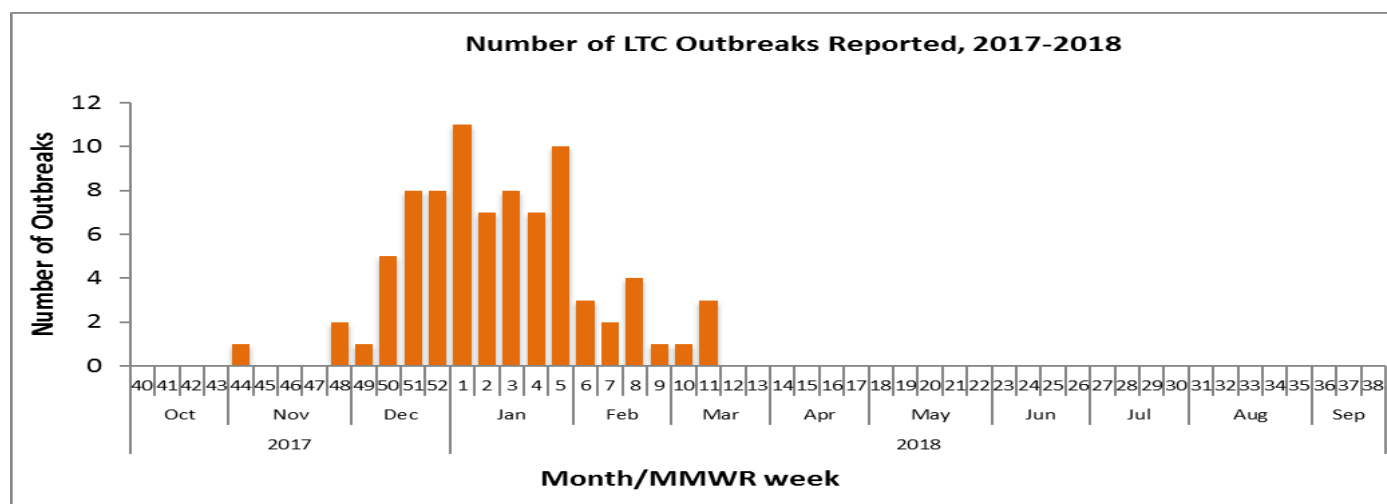
Note: The data for the 2017-2018 season is provisional due to the lag between the vaccine administration date and the date reported to IRIS.

## Long-term care outbreaks:

Table 6: Number of long-term care outbreaks investigated

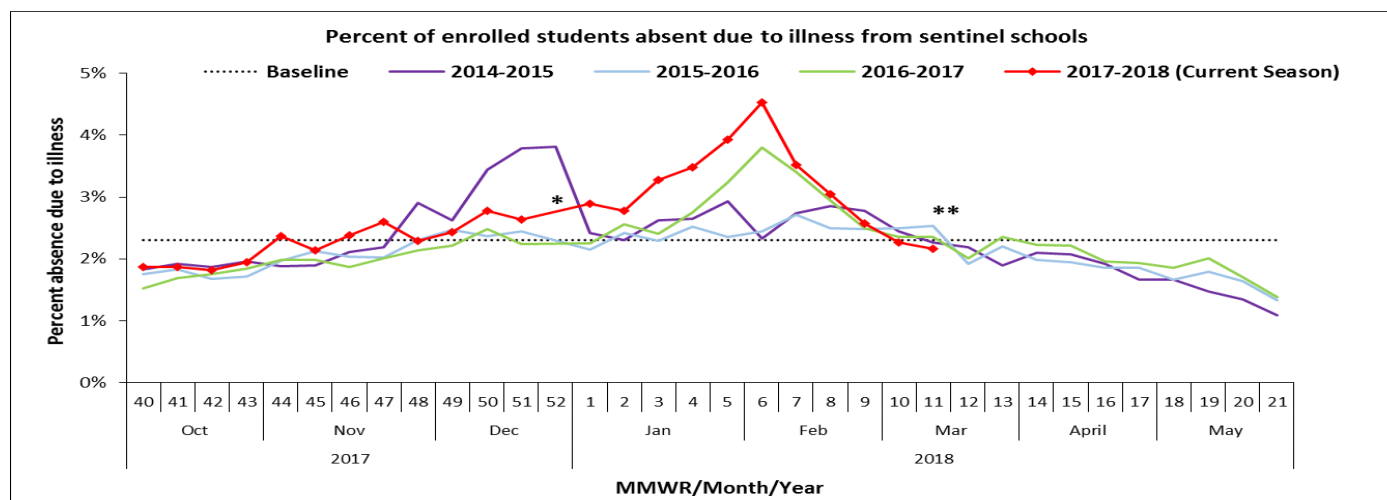
REGION	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Region 1 (Central)	0	21
Region 2 (NE)	0	11
Region 3 (NW)	1	5
Region 4 (SW)	1	12
Region 5 (SE)	0	18
Region 6 (Eastern)	1	15
<b>Total</b>	<b>3</b>	<b>82</b>

Note: See map in the school section for a display of the counties in each region.



## School surveillance program

IDPH monitors illnesses in schools from two different types of reporting: 10 percent school absence reports and weekly sentinel illness reporting. Iowa schools (K-12) track and report (including non-influenza illnesses) when the number of students absent with illness reaches or exceeds 10 percent of total student enrollment. Iowa sentinel schools that participate in IISN voluntarily track and report absence due to all illness and the total enrollment each week. This data provides excellent trends for influenza activity as well as age-specific information used to target vaccination efforts and messages.



\*School data not reported for week 52 due to holiday closings

\*\*School data may underestimate influenza illness for week 11 when many schools closed for spring break

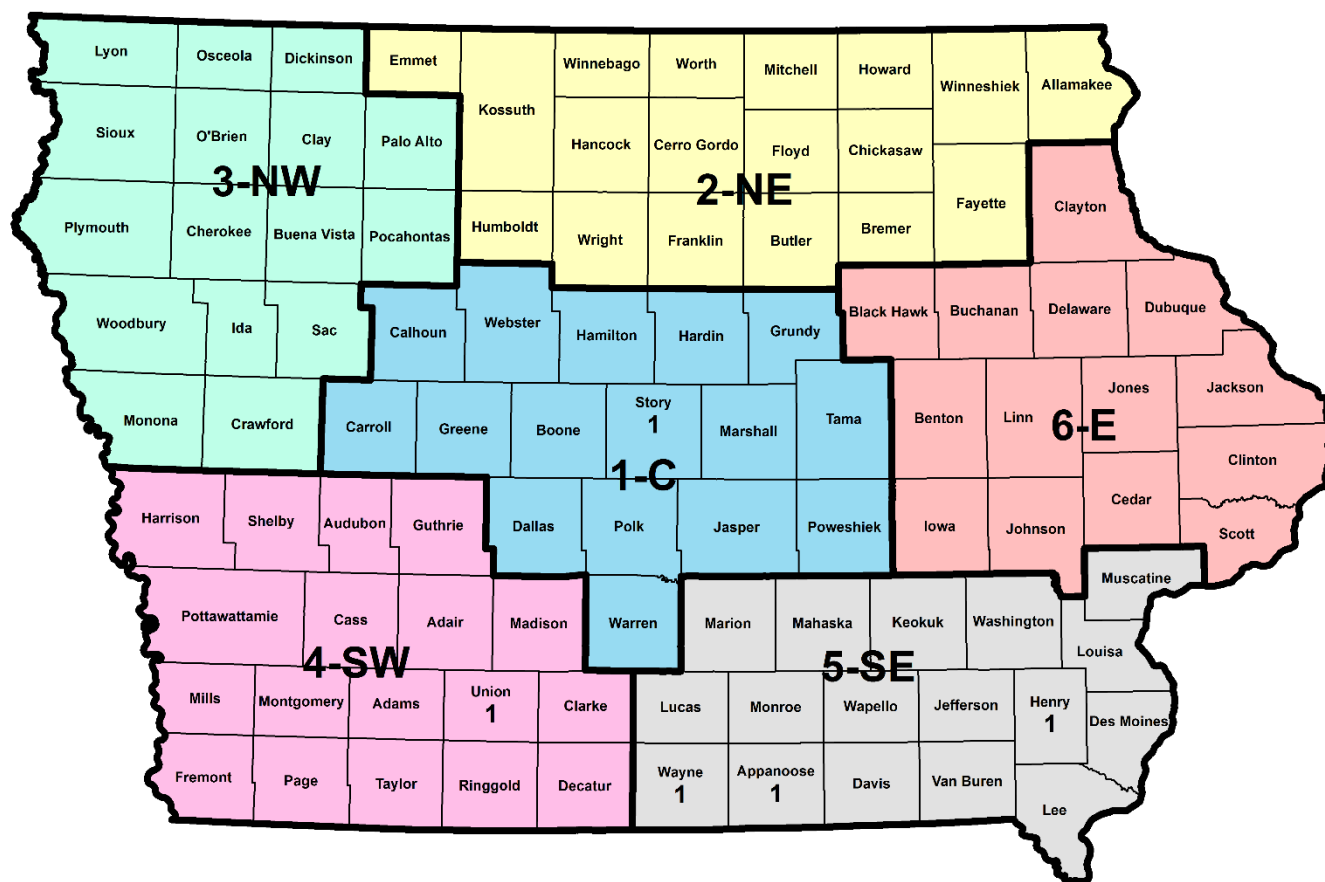
**Table 7: Number of schools reporting >10% absenteeism due to any illness \***

REGION	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Region 1 (Central)	1	77
Region 2 (NE)	0	33
Region 3 (NW)	0	25
Region 4 (SW)	1	24
Region 5 (SE)	3	33
Region 6 (Eastern)	0	104
<b>Total</b>	<b>5</b>	<b>296</b>

**\*School data may underestimate influenza illness for week 11 when many schools closed for spring break**

Note: A regional map with the total of schools by county that report at least 10 percent of students absent due to illness for this current reporting week is displayed below (region numbers and abbreviations are displayed in large black font near the middle of each region). Current week totals only include the first report for a school in the week, but cumulative totals may include multiple reports for the same school from different weeks.

**Number of schools with at least 10 percent of students absent, by county and region**



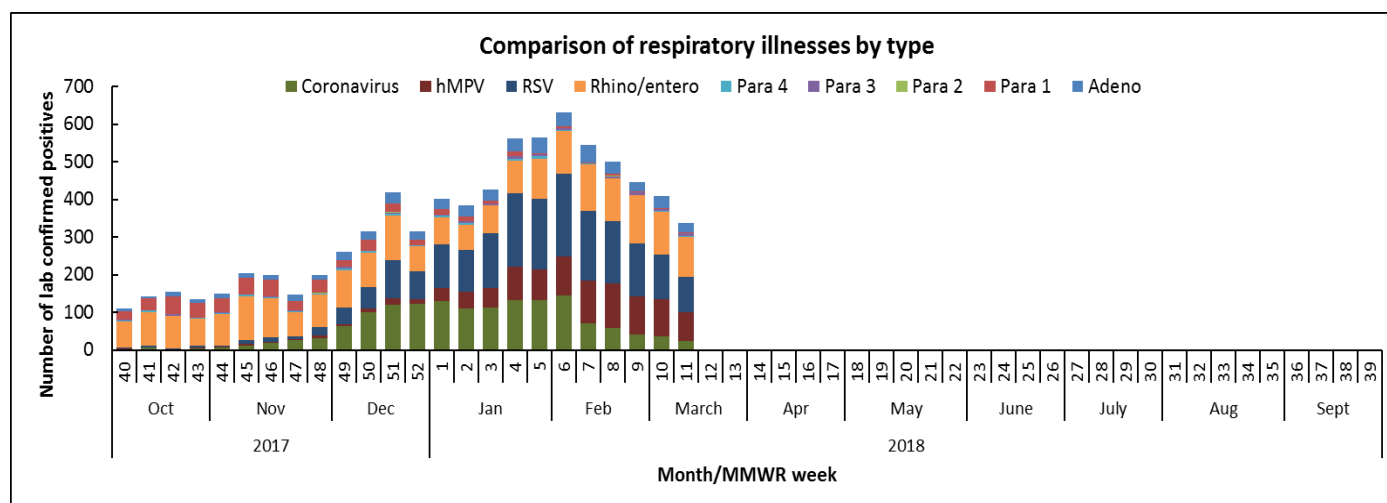


### **Non-influenza respiratory viruses:**

The State Hygienic Laboratory (SHL) runs a weekly web-based survey program where laboratorians report the number of positive tests for non-influenza respiratory viruses. This table also includes the positive non-influenza virus tests reported from the Dunes Medical Laboratories at Mercy Medical Center in Sioux City. The table includes only the number of positive tests at laboratory surveillance sites throughout the state. The table does not provide case counts.

**Table 8: Number of positive results for non-influenza respiratory virus collected by SHL, Mercy Dunes in Sioux City and Iowa Methodist Medical Center**

Viruses	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Adenovirus	24	555
Parainfluenza Virus Type 1	3	478
Parainfluenza Virus Type 2	0	7
Parainfluenza Virus Type 3	8	83
Parainfluenza Virus Type 4	2	67
Rhinovirus/Enterovirus	107	2260
Respiratory syncytial virus (RSV)	94	2018
Human metapneumovirus (hMPV)	75	981
Coronavirus	24	1505
<b>Total</b>	<b>337</b>	<b>7954</b>



### **Other resources:**

#### **Vaccine:**

Influenza vaccine recommendation: [idph.iowa.gov/immtb/immunization/vaccine](http://idph.iowa.gov/immtb/immunization/vaccine)

CDC vaccine information: [www.cdc.gov/flu/fag/flu-vaccine-types.htm](http://www.cdc.gov/flu/fag/flu-vaccine-types.htm)

Vaccine finder: <http://vaccinefinder.org/>

#### **Neighboring states' influenza information:**

Illinois: [www.dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance](http://www.dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance)

Minnesota: [www.health.state.mn.us/divs/idepc/diseases/flu/stats/index.html](http://www.health.state.mn.us/divs/idepc/diseases/flu/stats/index.html)

Missouri: [health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php](http://health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php)

South Dakota: [doh.sd.gov/diseases/infectious/flu/](http://doh.sd.gov/diseases/infectious/flu/)

Wisconsin: [flu.wisconsin.gov/](http://flu.wisconsin.gov/)