



# Iowa Influenza Surveillance Network (IISN)

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

### Weekly Activity Report

For the week ending March 24, 2018 - Week 12

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

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	18% (334/1811)
Percent of RSV rapid tests positive	18% (67/364)
Influenza-associated hospitalizations	54/6513 inpatients
Percent of outpatient visits for ILI	1.52% (baseline 1.9%)
Percent school absence due to illness	1.78%
Number of long-term care influenza outbreaks	1
Number of schools with ≥10% absence due to illness	2
Influenza-associated mortality -all ages (Cumulative)	244
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.

#### **Iowa statewide activity summary:**

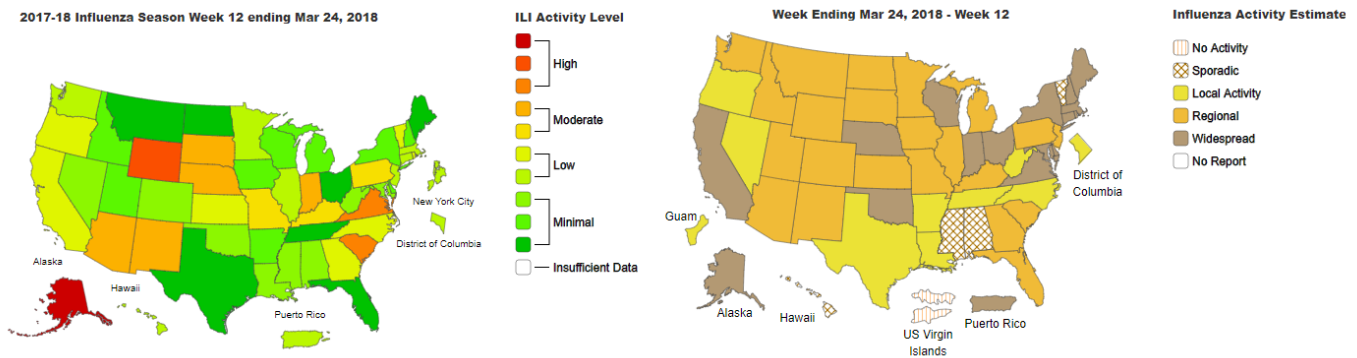
Influenza activity continues to decrease on most measures in Iowa and the geographic spread is regional. For this reporting week, the State Hygienic Laboratory confirmed five influenza A(H3N2), seven influenza B (Yamagata Lineage), and one influenza B (Victoria Lineage) viruses from submitted samples as well as one influenza A and three influenza B positive specimens awaiting subtyping/lineage. There were 54 influenza-related hospitalizations reported from sentinel hospitals during this reporting week. The proportion of outpatient visits due to influenza-like illness (ILI) was 1.52 percent, which is below the regional baseline of 1.9 percent. One long-term care influenza outbreak was reported with first illness onset in this reporting week. Two schools reported 10 percent or more illness at least once this reporting week. There have been a total of 244 influenza-related deaths reported this season. Surveillance sites reported detecting the following non-influenza respiratory illnesses with the most frequency: 122 rhinovirus/enterovirus, 95 RSV, 76 hMPV, 21 adenovirus, and 17 coronavirus.

#### **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 12:



**Synopsis:** During week 12 (March 18-24, 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 12, 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:** Four influenza-associated pediatric deaths were reported.

**Influenza-associated Hospitalizations:** A cumulative rate of 96.1 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 2.5%, which is above the national baseline of 2.2%. Nine of 10 regions reported ILI at or above region-specific baseline levels. Four states experienced high ILI activity; eight states experienced moderate ILI activity; New York City, Puerto Rico, the District of Columbia, and 14 states experienced low ILI activity; and 24 states experienced minimal ILI activity.

**Geographic Spread of Influenza:** The geographic spread of influenza in Puerto Rico and 16 states was reported as widespread; 22 states reported regional activity; the District of Columbia, Guam and eight states reported local activity; four states reported sporadic activity; and the U.S. Virgin Islands reported no influenza 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**

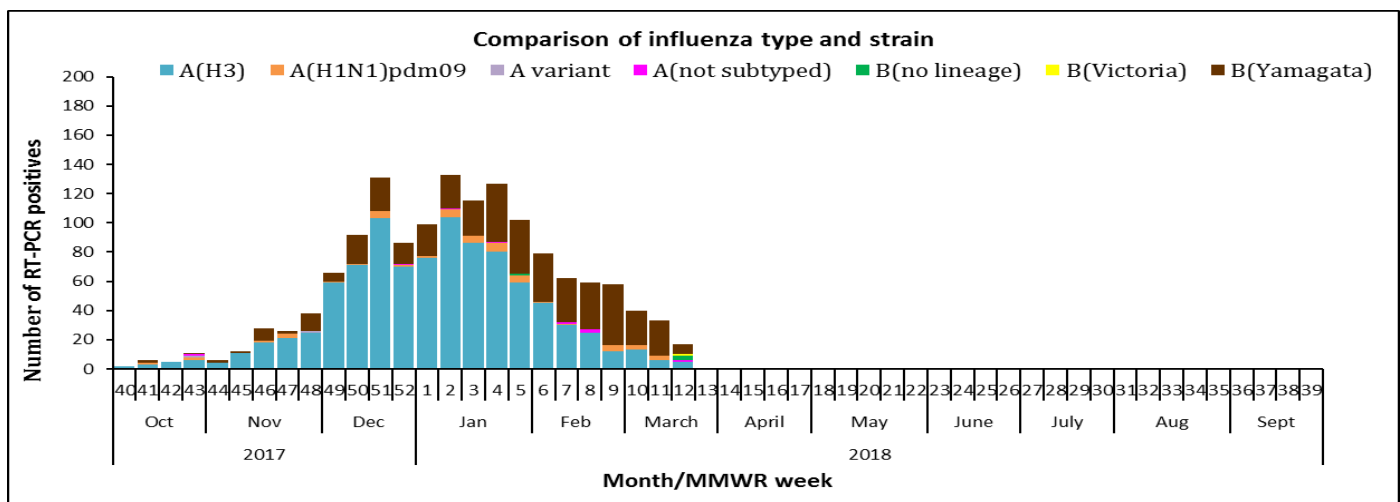
Age Group	CURRENT WEEK				CUMULATIVE (10/1/17– CURRENT WEEK)				
	A(H1N1) pdm09	A (H3)	Pending/ Not subtyped	Total	A(H1N1) pdm09	A variants	A (H3)	Pending/ Not subtyped	Total
0-4	0	0	0	0 (0%)	9	0	73	1	83 (8%)
5-17	0	0	0	0 (0%)	8	0	82	1	91 (9%)
18-24	0	1	1	2 (33%)	9	1	117	1	128 (13%)
25-49	0	0	0	0 (0%)	11	1	77	1	90 (9%)
50-64	0	1	0	1 (17%)	7	0	110	1	118 (12%)
>64	0	3	0	3 (50%)	5	0	480	3	488 (49%)
<b>Total</b>	<b>0 (0%)</b>	<b>5 (83%)</b>	<b>1 (17%)</b>	<b>6</b>	<b>49 (5%)</b>	<b>2 (0%)</b>	<b>939 (94%)</b>	<b>8 (1%)</b>	<b>998</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	0	0	0 (0%)	0	20	0	20 (5%)
5-17	0	1	0	1 (9%)	0	81	1	82 (19%)
18-24	1	1	2	4 (36%)	1	37	2	40 (9%)
25-49	0	0	1	1 (9%)	0	58	1	59 (14%)
50-64	0	1	0	1 (9%)	0	64	0	64 (15%)
>64	0	4	0	4 (36%)	0	170	0	170 (39%)
<b>Total</b>	<b>1 (9%)</b>	<b>7 (64%)</b>	<b>3 (27%)</b>	<b>11</b>	<b>1 (0%)</b>	<b>430 (99%)</b>	<b>4 (1%)</b>	<b>435</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.



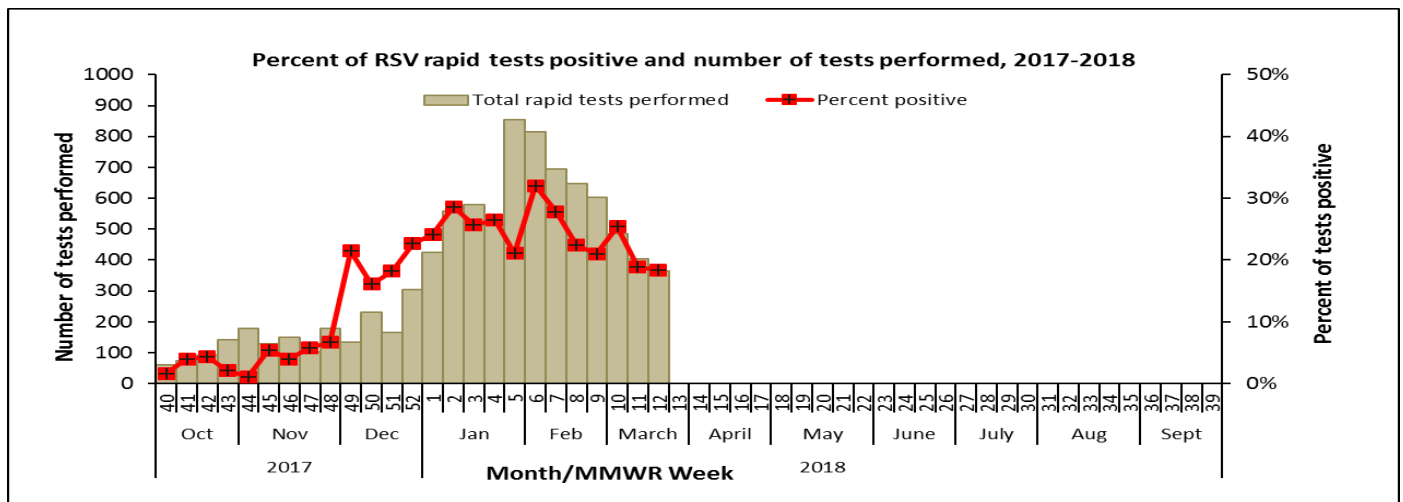
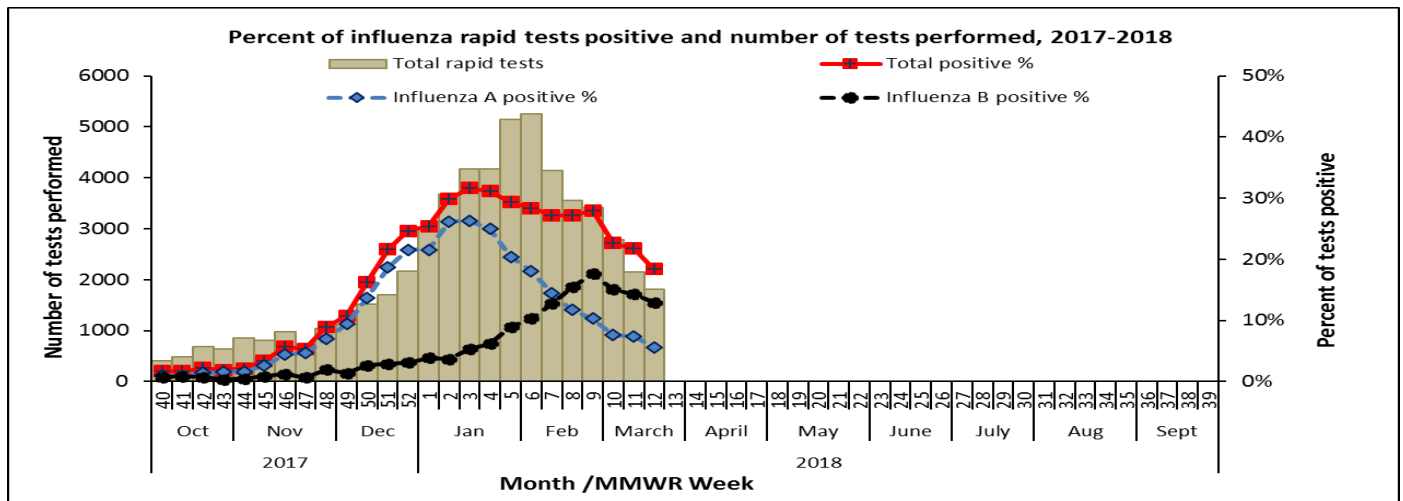
**Rapid influenza and RSV test surveillance:**

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)	619	29	96	20	32	7	22
Region 2 (NE)	73	3	16	26	12	3	25
Region 3 (NW)	192	25	16	21	117	18	15
Region 4 (SW)	90	5	16	23	11	0	0
Region 5 (SE)	183	5	26	17	36	7	19
Region 6 (Eastern)	654	33	64	15	156	32	21
<b>Total</b>	<b>1811</b>	<b>100</b>	<b>234</b>	<b>18</b>	<b>364</b>	<b>67</b>	<b>18</b>

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

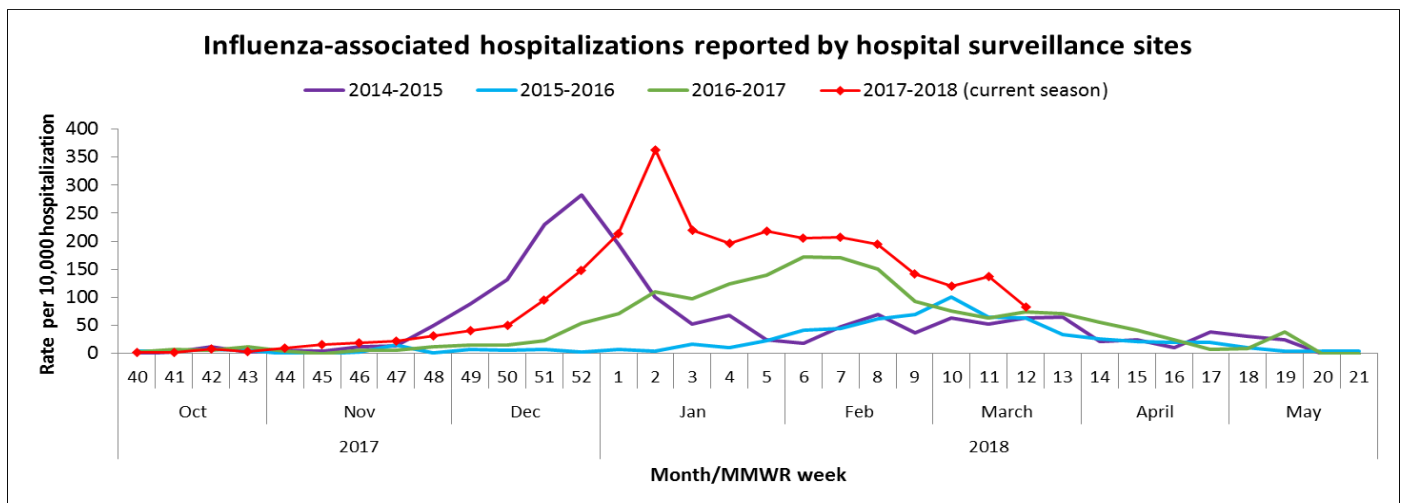
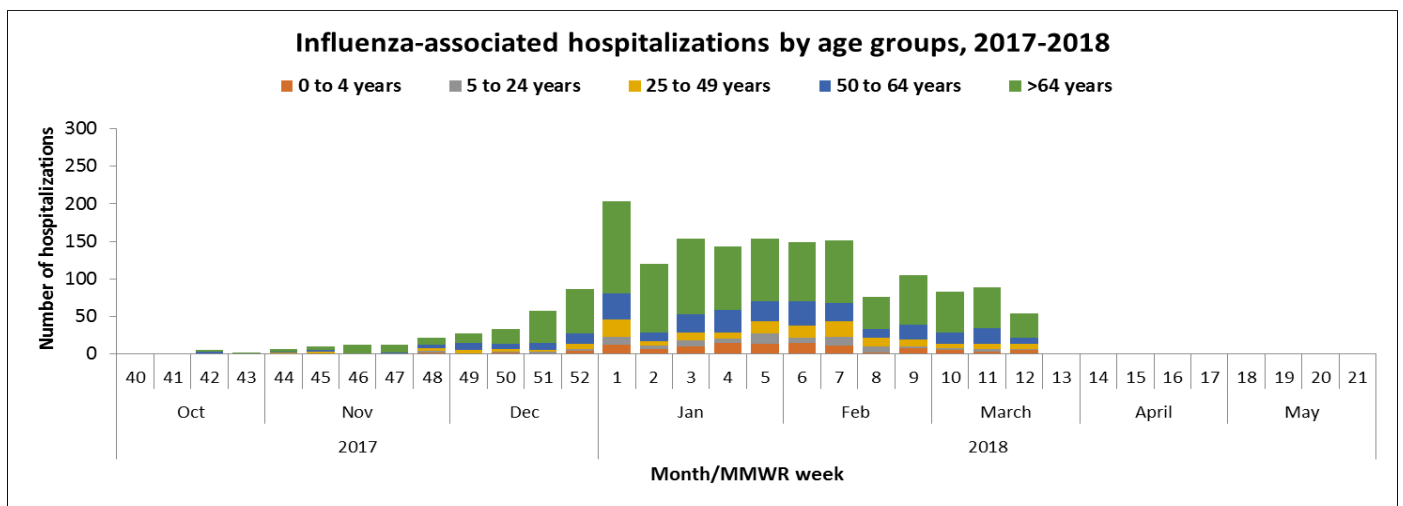


**Influenza-associated hospitalizations:**

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	5	114
Age 5-24	2	93
Age 25-49	6	162
Age 50-64	8	313
Age >64	33	1071
<b>Total</b>	<b>54</b>	<b>1753</b>



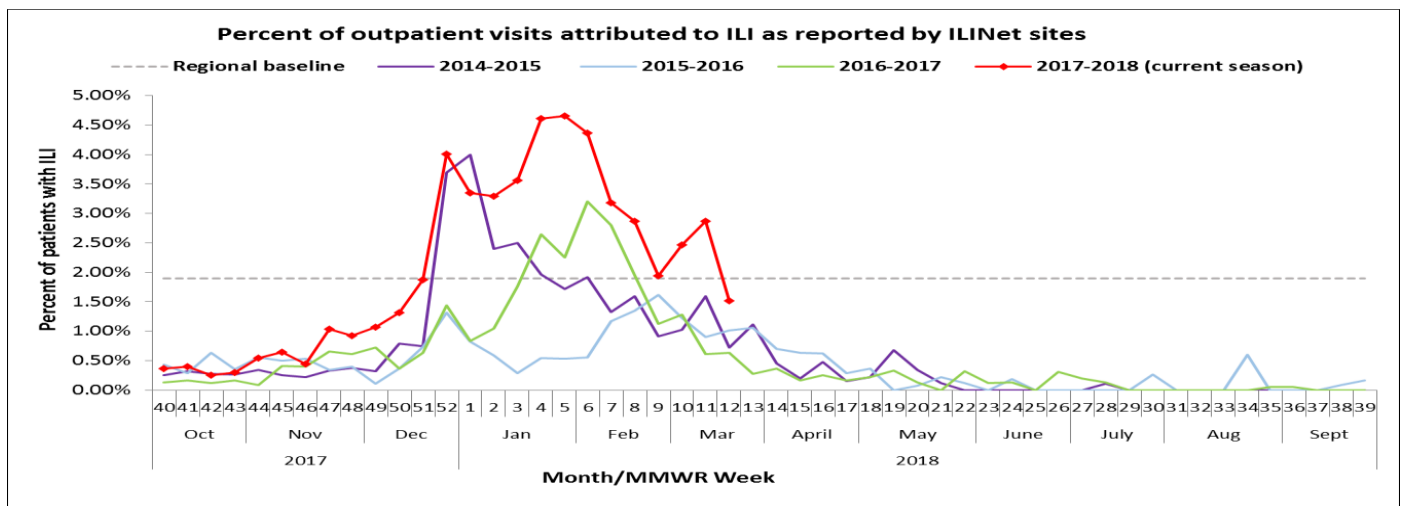
**Outpatient health care provider surveillance program (ILINet):**

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)**

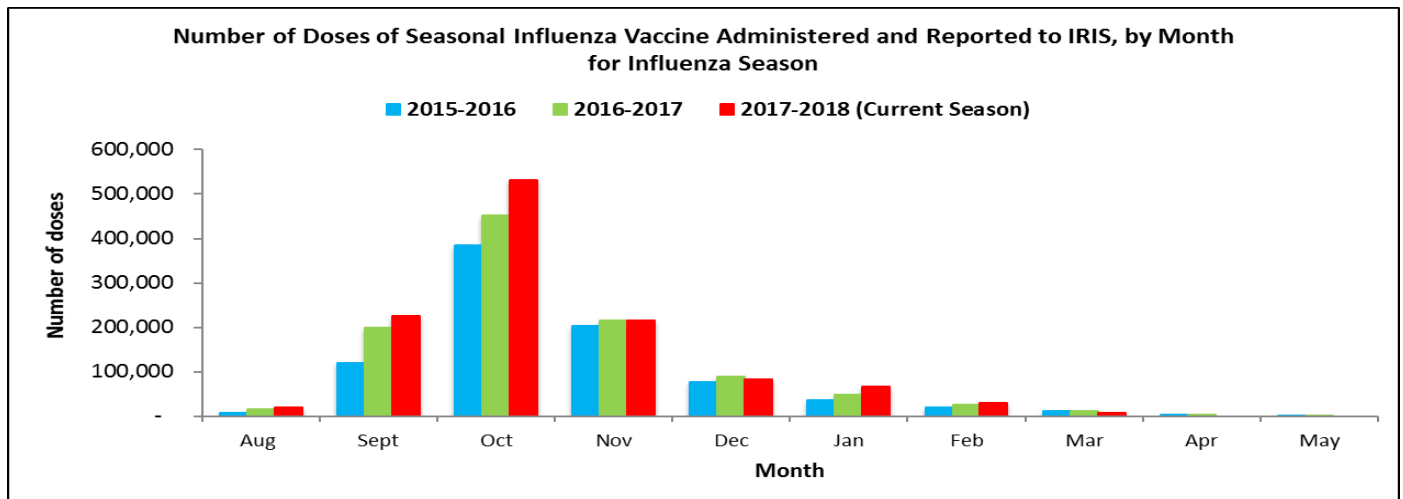
Week	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age > 64	Total ILI	ILI Percent
Week 10, ending March 10	17	41	7	7	8	80	2.47
Week 11, ending March 17	12	28	10	11	12	73	2.86
Week 12, ending March 24	5	20	5	1	6	37	1.52

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).



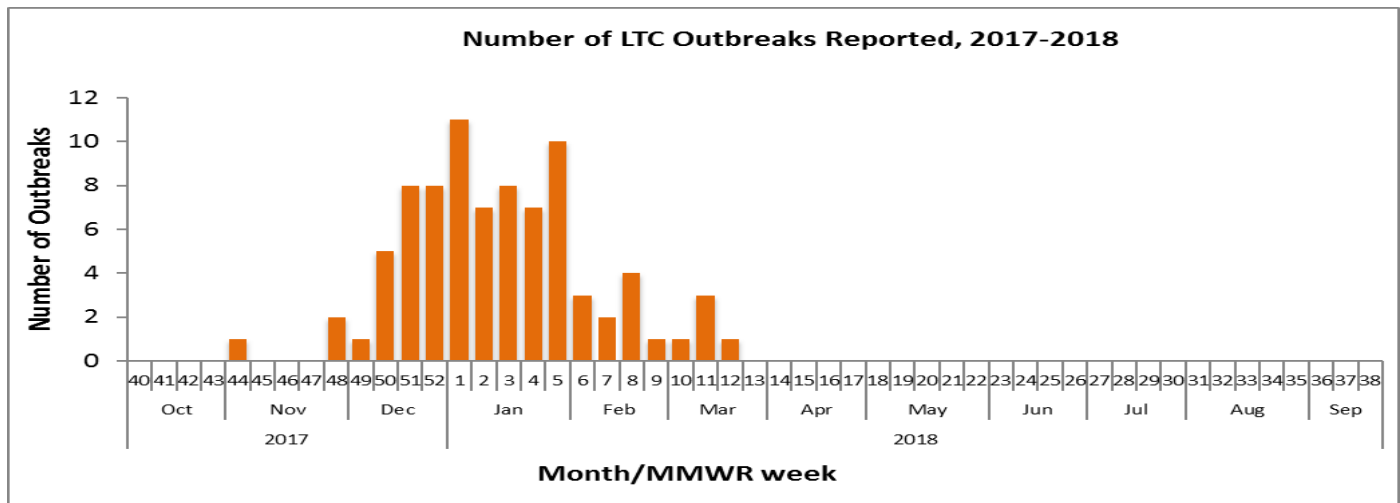
Note: The data for the 2017-2018 season is provisional due to the lag between the vaccine administration date and the date reported to IRIS.

**Long-term care outbreaks:**

**Table 6: Number of long-term care outbreaks investigated**

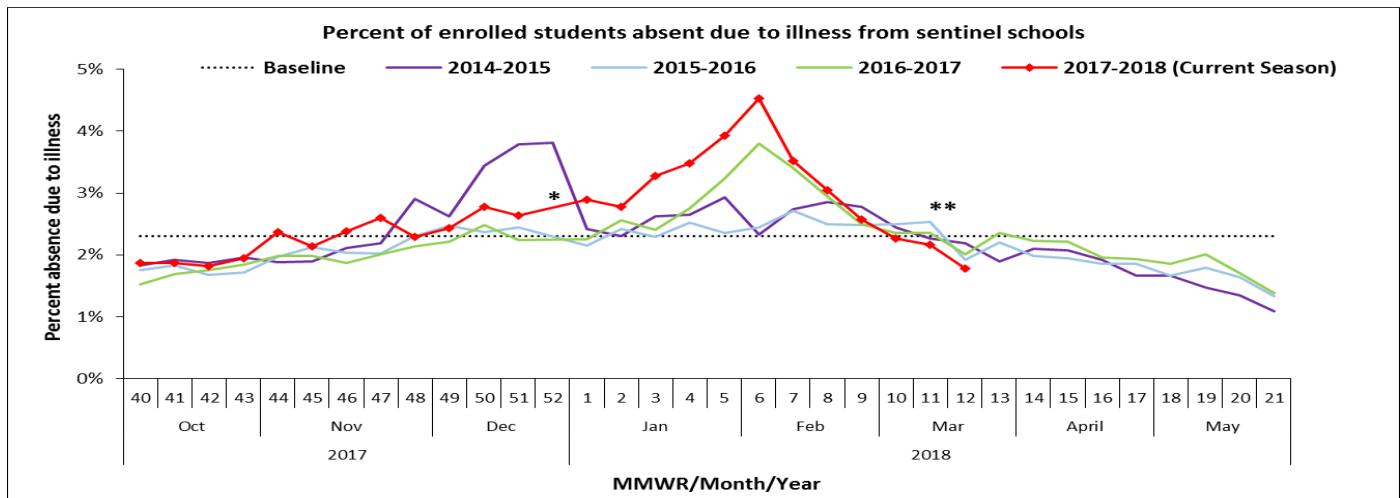
REGION	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Region 1 (Central)	0	21
Region 2 (NE)	0	11
Region 3 (NW)	0	5
Region 4 (SW)	0	12
Region 5 (SE)	1	19
Region 6 (Eastern)	0	15
<b>Total</b>	<b>1</b>	<b>83</b>

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

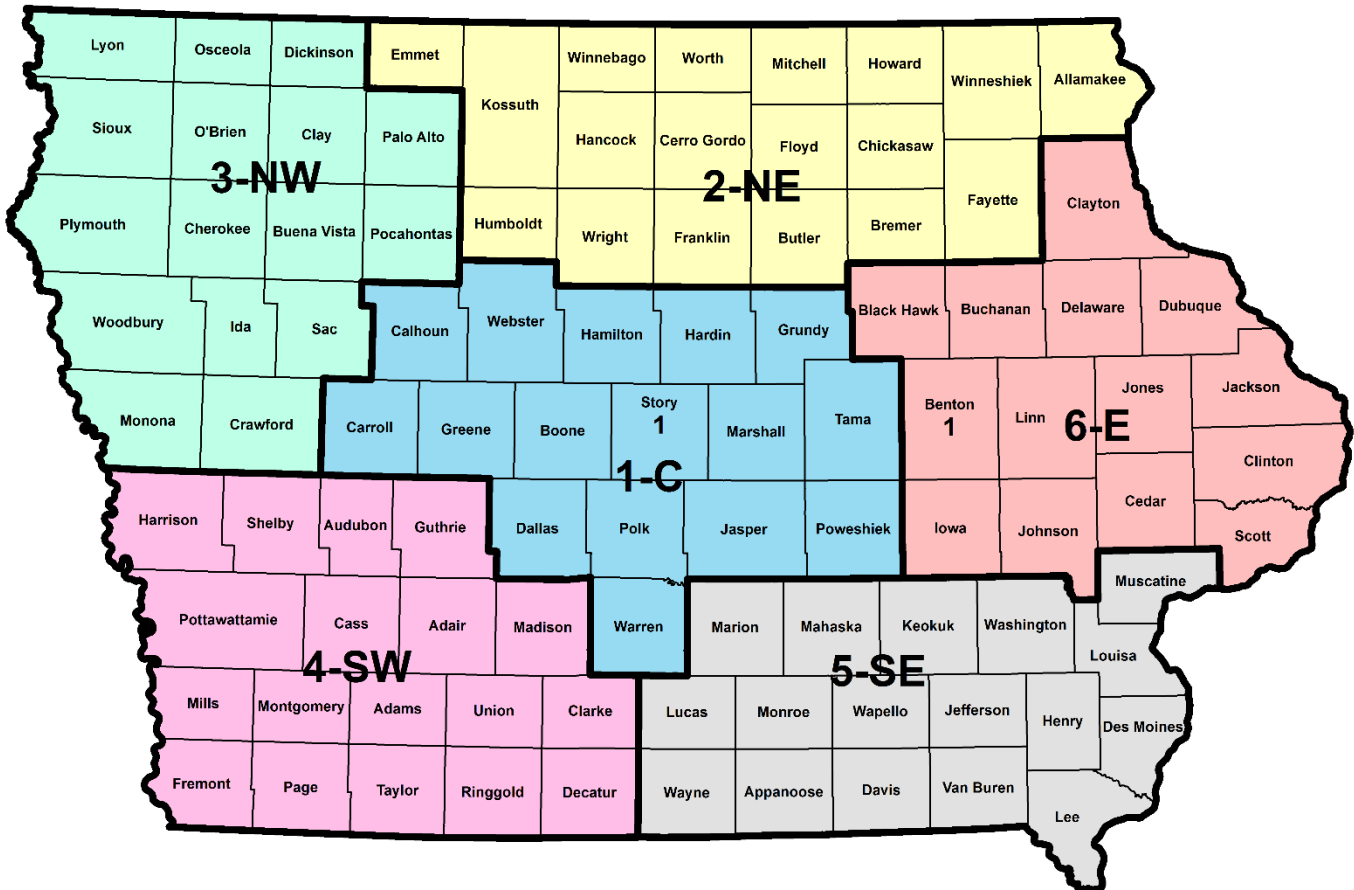
**Table 7: Number of schools reporting >10% absenteeism due to any illness \***

REGION	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Region 1 (Central)	1	78
Region 2 (NE)	0	33
Region 3 (NW)	0	25
Region 4 (SW)	0	24
Region 5 (SE)	0	33
Region 6 (Eastern)	1	105
<b>Total</b>	<b>2</b>	<b>298</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**



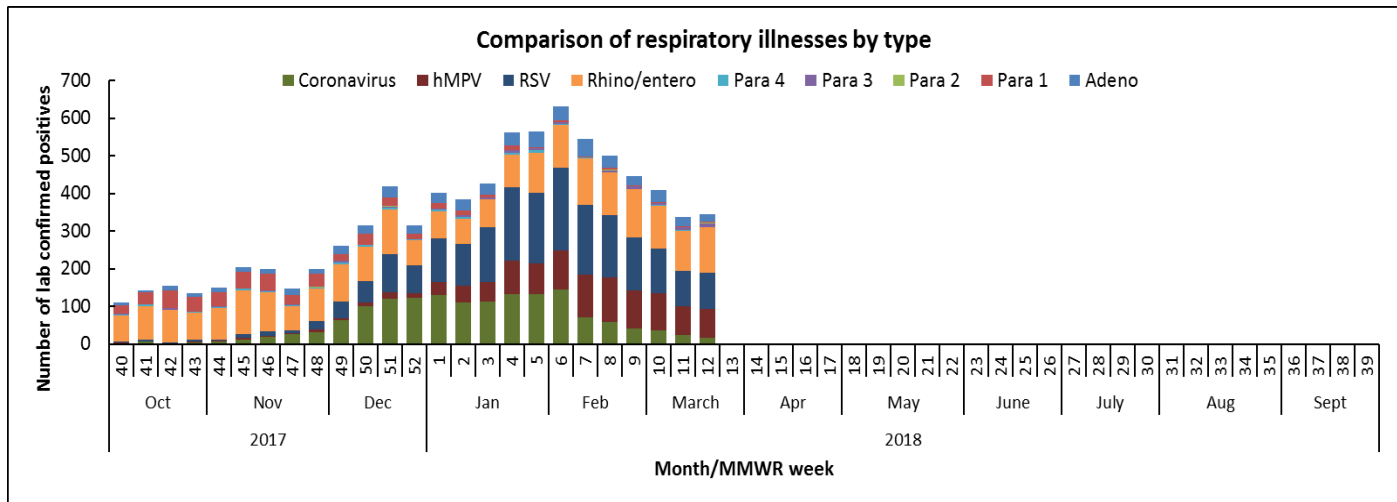


**Non-influenza respiratory viruses:**

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	21	576
Parainfluenza Virus Type 1	2	480
Parainfluenza Virus Type 2	1	8
Parainfluenza Virus Type 3	10	93
Parainfluenza Virus Type 4	1	68
Rhinovirus/Enterovirus	122	2382
Respiratory syncytial virus (RSV)	95	2113
Human metapneumovirus (hMPV)	76	1057
Coronavirus	17	1522
<b>Total</b>	<b>345</b>	<b>8299</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/)