

Utah Influenza Report

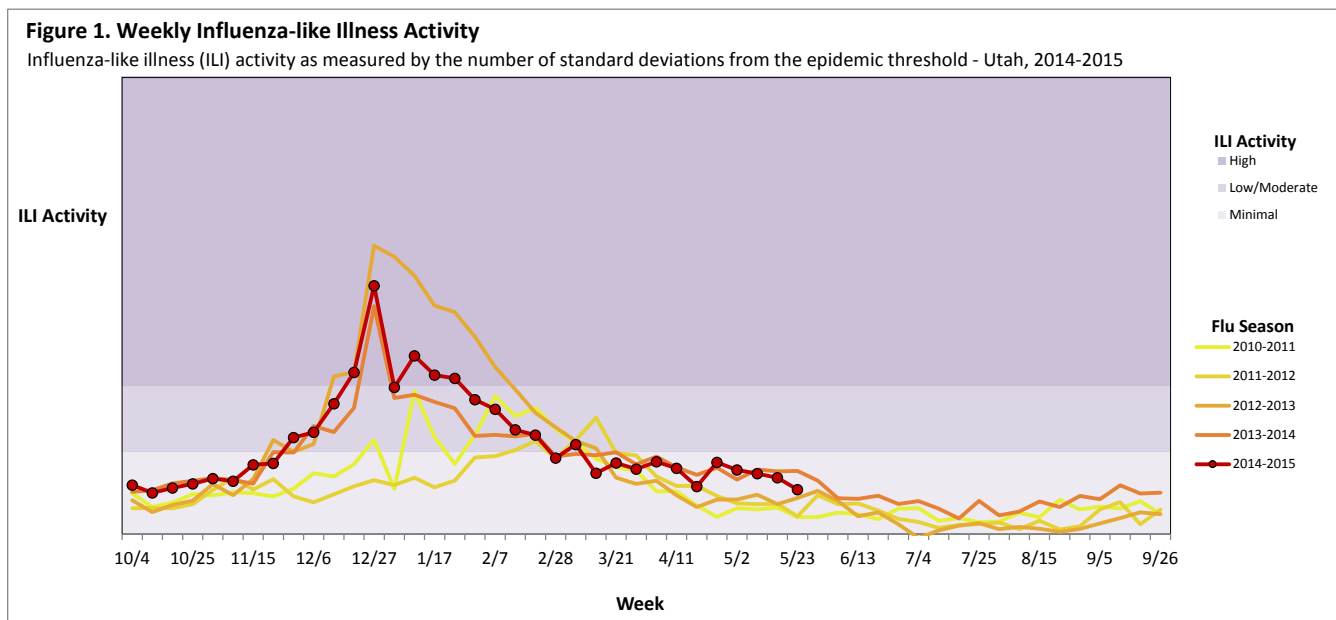
This report contains data from the 2014-2015 influenza season (09/28/2014-05/23/2015)

Overview of Influenza Surveillance for 2014-2015: The influenza season started on September 28, 2014 and ended on May 23, 2015. During this period, the Utah Department of Health published weekly reports that incorporated data from a variety of sources to describe statewide influenza activity. This seasonal influenza report provides trend data on influenza-like illness, influenza-associated hospitalizations, influenza/pneumonia deaths, and laboratory subtyping.

Highlights from the 2014-2015 Influenza Season

During the 2014–2015 influenza season, influenza-like illness activity increased in early November and peaked in late December. This season was determined by the CDC to be "moderately severe", particularly for older adults. The predominant strain was A(H3N2), although it had changed from the A(H3N2) that had been developed and incorporated into the influenza vaccine. This genetic difference resulted in limited vaccine effectiveness for influenza A strains. Similar to previous years with a predominant strain of A(H3N2), older adults had the highest percentage of influenza-associated hospitalizations in the state (56%) and highest rates by population size.

Influenza-like Illness (ILI): The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) is a national system that conducts ILI surveillance in outpatient healthcare facilities. ILINet providers report weekly the total number of patients seen for any reason and the number of patients seen with ILI (defined as a fever $\geq 100^{\circ}$ F and a cough or sore throat). These data are used to determine the amount of ILI circulating in the community, as well as provide insight into regional differences in ILI activity. More than 50 facilities within 10 health jurisdictions throughout Utah participate in ILINet.



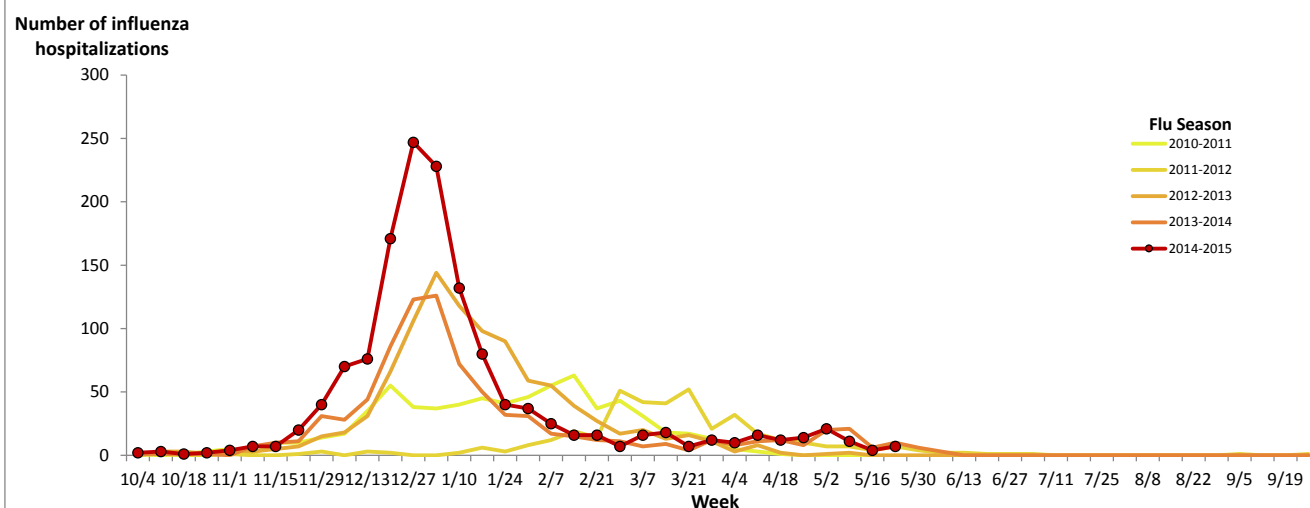
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Influenza-Associated Hospitalizations: Influenza-associated hospitalizations are a reportable condition in Utah. A person meets the case definition for an influenza-associated hospitalization if they are hospitalized for any length of time and have an influenza positive serology, DFA, PCR, culture or rapid influenza diagnostic test. Public health in Utah gathers a variety of data on influenza hospitalizations including clinical features, course of illness, risk and protective factors, and influenza type and subtype. Data from influenza hospitalizations allows public health in Utah to better understand subgroups of the Utah population that are most severely affected by influenza and help to guide prevention messages and interventions.

Figure 2. Influenza-Associated Hospitalizations

Number of influenza-associated hospitalizations by event date* - Utah, 2014-2015



*Event date is calculated based on a hierarchy of dates: 1. onset date 2. specimen collection date 3. date reported to public health.

Table 1. Influenza-Associated Hospitalizations by Health District - Utah

Health District	Season To Date
Bear River	58
Central Utah	26
Davis County	138
Salt Lake County	705
Southeast Utah	3
Southwest Utah	105
Summit County	26
Tooele County	10
TriCounty	21
Utah County	158
Wasatch County	7
Weber-Morgan	122
State Total	1,379

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Table 2. Influenza-Associated Hospitalizations by Age Group - Utah, Season to Date

Age Group	Total Cases	% of Cases	Rate*
0-4	125	9.1	47.0
5-24	118	8.6	12.3
25-49	166	12.0	17.4
50-64	202	14.6	48.8
65+	768	55.7	292.4
Total	1,379	100.0	48.3

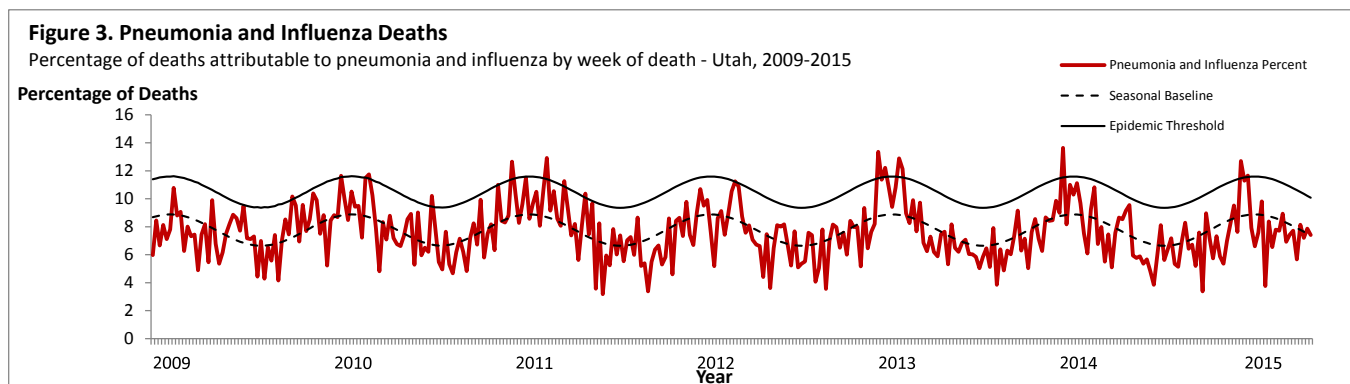
*Rate is calculated as the number of cases per 100,000 population

Table 3. Influenza-Associated Hospitalizations by Sex and Race - Utah, Season to Date

Variable	Num. of Cases	% of Cases	% in Utah Pop	p value*	
Sex	Male	672	48.7	50.2	0.2605
	Female	702	50.9	49.8	0.3941
	Unknown	5	0.4	NA	--
Race	White, Not Hispanic	1,004	72.8	79.9	0.2504
	Hispanic	124	9.0	11.9	<0.0001
	Native Hawaiian/Pacific Islander	33	2.4	1.0	<0.0001
	Black/African American	18	1.3	1.3	<0.0001
	American Indian	12	0.9	1.5	<0.0001
	Asian	19	1.4	2.2	<0.0001
	Unknown	169	12.3	NA	--

*If a p value is ≤ 0.05 , there is a significant difference between the percentage seen in influenza hospitalizations and the general Utah population.

Pneumonia and Influenza Deaths: Each week the total number of death certificates received and the number of those for which pneumonia or influenza was listed as an underlying or contributing cause of death were collected. The percentage of deaths due to pneumonia and influenza were compared with a seasonal baseline and epidemic threshold value calculated for each week. These data were used to monitor the severity of influenza illness in the community.



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Laboratory Surveillance: The Utah Public Health Laboratory received specimens from all over the state for comprehensive influenza testing. All specimens were tested to determine influenza type and subtype. A portion of specimens were also sent to the Centers for Disease Control and Prevention for additional testing, including gene sequencing, antiviral resistance testing and antigenic characterization.

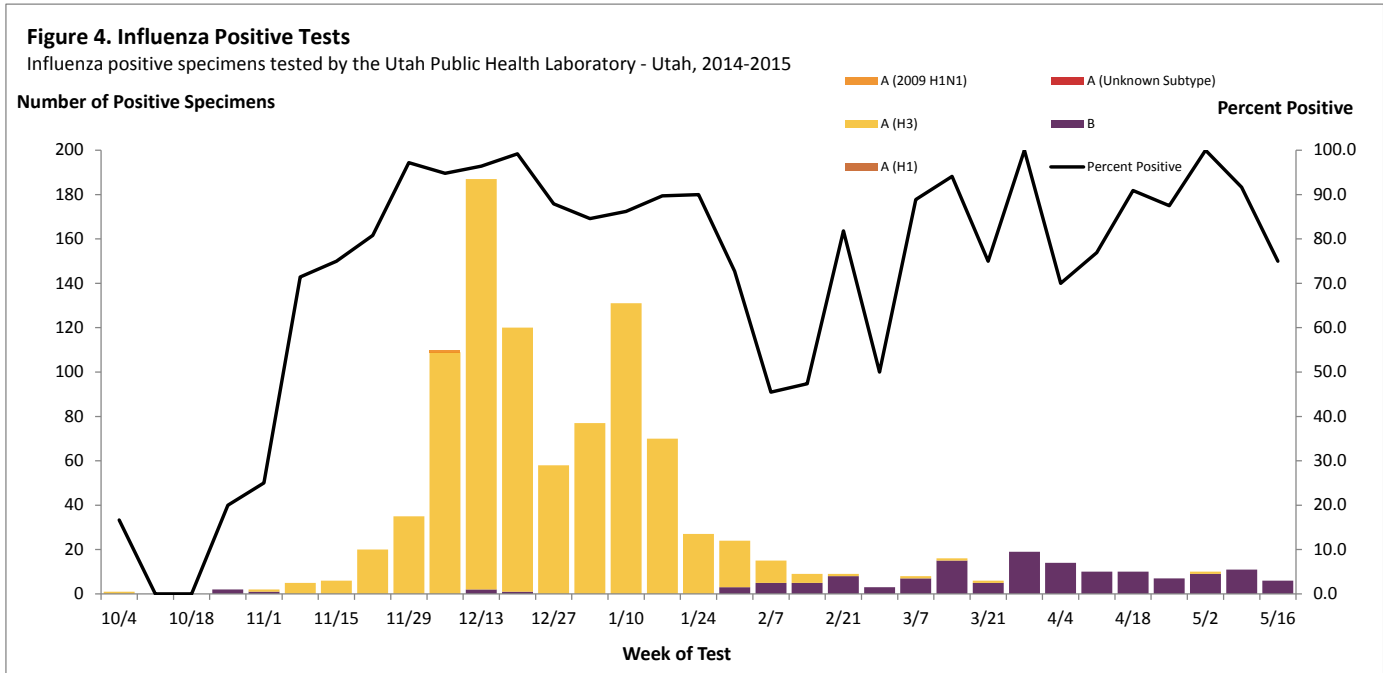


Table 4. Utah Public Health Laboratory Influenza Testing Data

	Season to Date	
	Total	Percent
Specimens tested	1,176	--
Positive specimens	1,030	87.6
Positive Specimens by Type/Subtype		
Influenza A	886	86.0
A (2009 H1N1)	1	0.1
A (H1)	0	0.0
A (H3)	885	99.9
A (unable to subtype)	0	0.0
Influenza B	144	14.0