Utah Influenza Report

This report contains data from the 2016-2017 influenza season and summer off-season (10/02/1016 - 09/30/2017).

UTAH DEPARTMENT OF HEALTH
Communicable Disease Analysis & Reporting Program

Overview of Influenza Surveillance: Surveillance for the 2016-2017 influenza season officially began on October 2, 2016 and ended on May 20, 2017. 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.

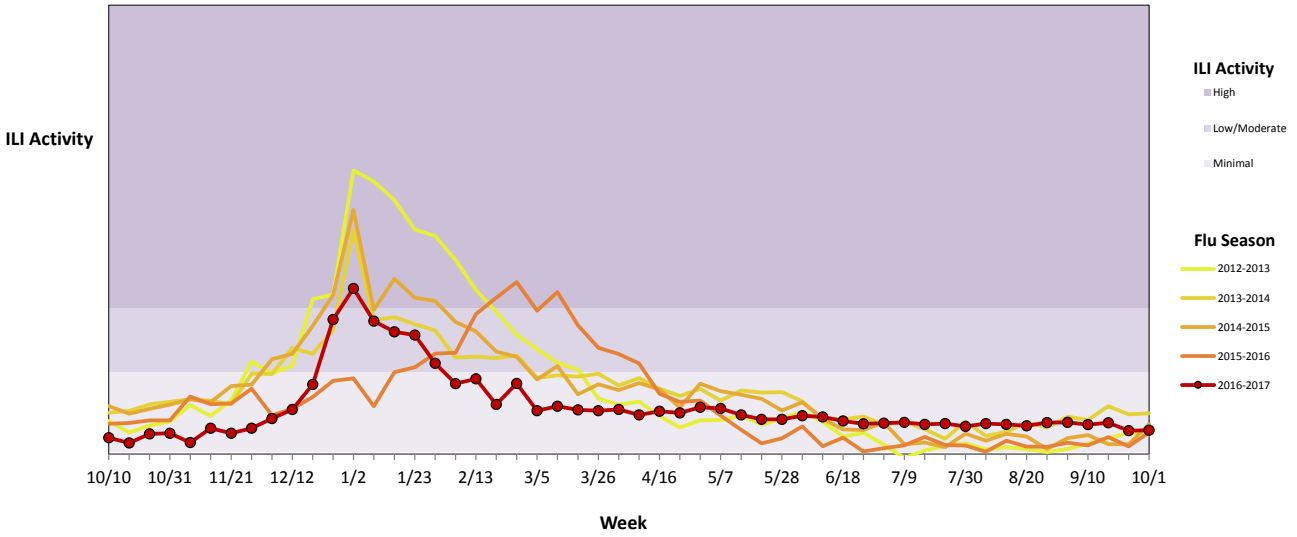
Highlights from the 2016-2017 Influenza Season

During the 2016-2017 influenza season, influenza-like illness (ILI) activity peaked during December, 2016. The total number of influenza-associated hospitalizations was second-highest out of the previous five years, just behind the 2014-2015 season. Older adults had the highest percentage of influenza-associated hospitalizations in the state (57%) and highest rates by population size. This season was less severe in terms of the percentage of pneumonia and influenza deaths crossing over the epidemic threshold. The predominant influenza virus strain for all types of influenza conditions was influenza A (87%), with a majority subtype determined to be A(H3) subtype (44%). Influenza B was also prevalent (13%).

Influenza-like Illness (ILI): The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) is a national system that conducts surveillance for influenza-like illness (ILI) 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 ≥ 100° F and a cough or sore throat). These data were used to determine the amount of ILI circulating in the community, as well as provide insight into regional differences in ILI activity.

Figure 1. Weekly Influenza-like Illness Activity

Influenza-like illness (ILI) activity as measured by the number of standard deviations from the epidemic threshold - Utah, 2016-2017



http://health.utah.gov/epi/data ● 801-538-6191 ● epi@utah.gov

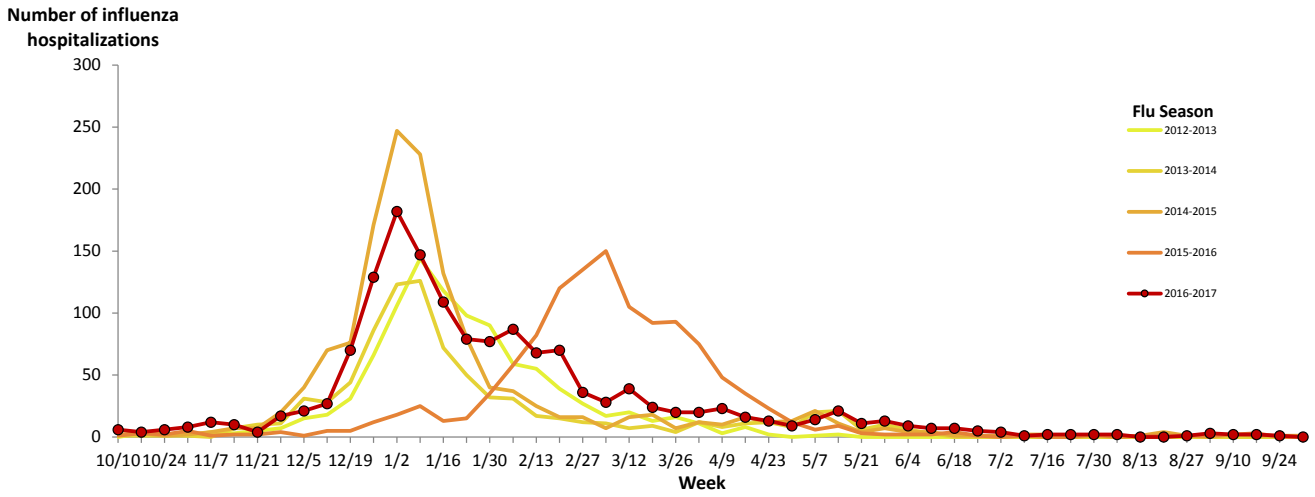
Utah Influenza Report

This report contains data from the 2016-2017 influenza season and summer off-season (10/02/1016 - 09/30/2017).

UTAH DEPARTMENT OF HEALTH
Communicable Disease Analysis & Reporting Program

Influenza Hospitalizations: Influenza hospitalizations are a reportable condition in Utah. A person meets the case definition for an influenza 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 patients who are hospitalized due to influenza including clinical features, course of illness, risk and protective factors, and influenza type and subtype. Data from influenza hospitalizations allowed public health in Utah to better understand subgroups of the Utah population that are most severely affected by influenza and helps guide prevention messages and interventions.

Figure 2. Influenza Hospitalizations
Number of influenza hospitalizations by event date* - Utah, 2016-2017



*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 Hospitalizations by Health District

Health District	2016-2017 Season
Bear River	78
Central Utah	38
Davis County	115
Salt Lake County	671
San Juan County	1
Southeast Utah	15
Southwest Utah	121
Summit County	26
Tooele County	30
TriCounty	36
Utah County	186
Wasatch County	14
Weber-Morgan	139
State Total	**1,470**

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

Age Group	Total Cases	% of Cases	Rate*
0-4	89	6.1	35.5
5-24	105	7.1	10.5
25-49	187	12.7	18.8
50-64	253	17.2	57.7
65+	836	56.9	271.5
Total	**1,470**	**100.0**	**49.1**

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

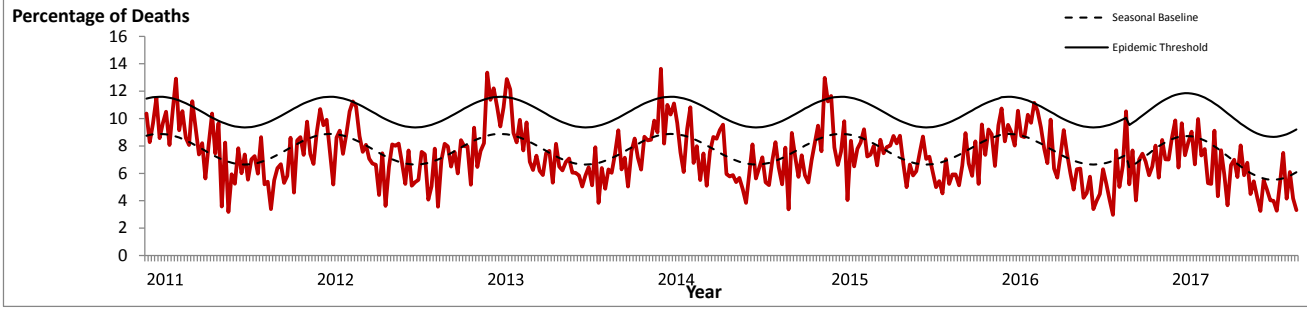
Table 3. Influenza Hospitalizations by Sex and Race - Utah, Season To Date

Variable		Num. of Cases	Rate*
Sex	Male	696	46.2
	Female	768	46.7
Race	White, Not Hispanic	1,101	46.5
	Hispanic	114	31.2
	Native Hawaiian/Pacific Islander	0	-
	Black/African American	0	-
	American Indian	0	-
	Asian	14	18.7
	Unknown	241	-

*Rate is calculated as the number of cases per 100,000 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 is collected. The percentage of deaths due to pneumonia and influenza are 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. Note that the seasonal baseline and epidemic threshold were updated for the 2016-2017 influenza season.

Figure 3. Pneumonia and Influenza Deaths
Percentage of deaths attributable to pneumonia and influenza by week of death - Utah, 2011-2017



Utah Influenza Report

This report contains data from the 2016-2017 influenza season and summer off-season (10/02/1016 - 09/30/2017).

UTAH DEPARTMENT OF HEALTH
Communicable Disease Analysis & Reporting Program

Laboratory Surveillance: The Utah - National Electronic Disease Surveillance System (UT-NEDSS) maintained influenza testing results from hospital laboratories and the Utah Public Health Laboratory (UPHL). At UPHL, specimens were tested to determine influenza type and subtype. A portion of specimens are also sent to the Centers for Disease Control and Prevention for additional testing, including gene sequencing, antiviral resistance testing and antigenic characterization.

Figure 4. Influenza Positive Tests

Influenza positive specimens tested by laboratories throughout the state, 2016-2017

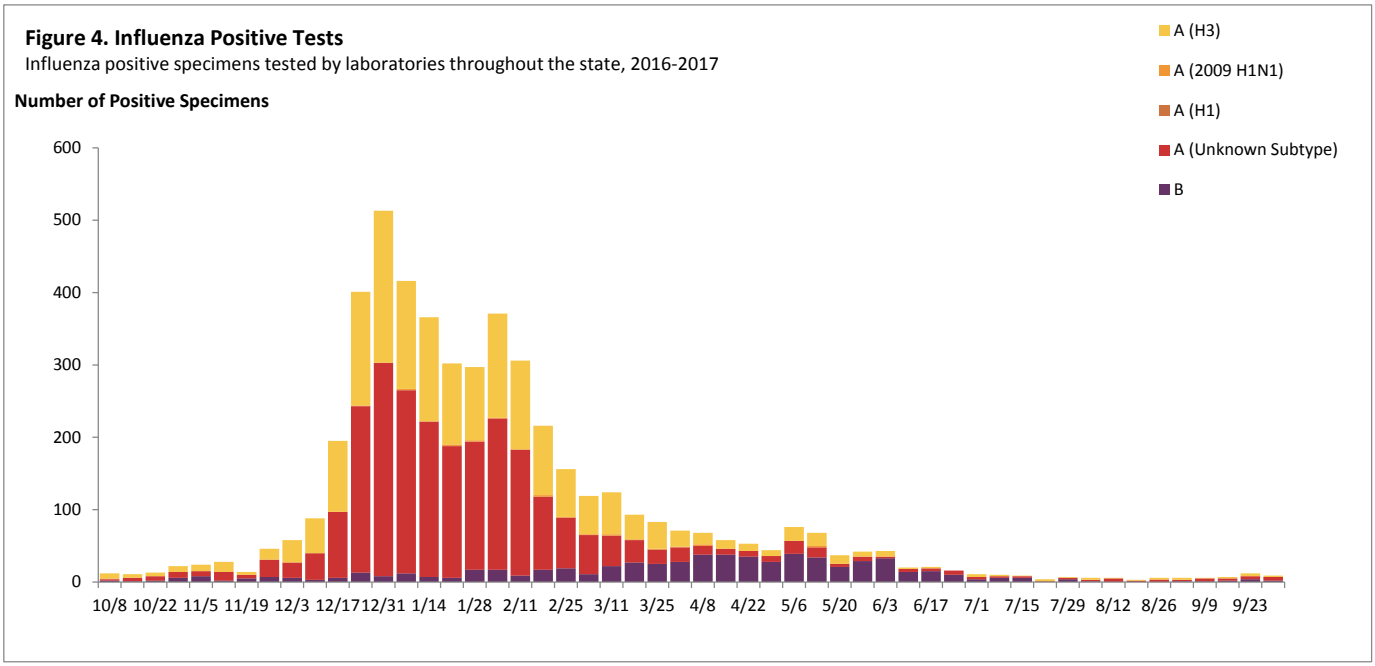


Table 4. UT-NEDSS Laboratory Influenza Testing Data: Positive Specimens by Type/Subtype

	4,987	
Total Number of Positive Specimens	Number	Percentage
Influenza Type A	**4,336**	**87%**
A (2009 H1N1 Subtype)	23	1%
A (H1 Subtype)	0	0%
A (H3 Subtype)	1,888	44%
A (No Subtyping)	2,425	56%
Influenza Type B	**651**	**13%**

http://health.utah.gov/epi/data ● 801-538-6191 ● epi@utah.gov