



WEEKLY INFLUENZA SURVEILLANCE ACTIVITY
DOUGLAS COUNTY, NEBRASKA
 INFLUENZA SEASON 2016-2017
 May 15, 2017

Thank You: The Douglas County Health Department (DCHD) would like to take this opportunity and thank all of our partners who provided us influenza surveillance information throughout the entire influenza season. Local laboratories, hospitals, schools, and health care providers have reported influenza activity weekly to DCHD. Although our influenza seasonal surveillance has ended, DCHD continually monitors influenza activity year-round in our community.

Douglas County: Influenza A (H3) viruses dominated this season, unlike last season where influenza A (H1N1) dominated. Influenza B dominated in the later part of the season. Influenza activity peaked early February through early March. A total of 3,658 cases of influenza were reported October 2, 2016 through May 15, 2017. Of the 3,658 reports, 2,624 were influenza A, 1001 were influenza B and 33 were not typed. Of the 279 influenza A reports that were sub-typed, 253 were seasonal H3, 22 were H1N1, and 4 were seasonal H1.

Douglas County had one pediatric death due to influenza reported this season. A total of 15 adult deaths due to influenza were also reported. However, influenza-associated adult deaths are not reportable by law and may be underreported.

A total of 17 influenza outbreaks were reported this season in long-term care facilities. The majority of these outbreaks were identified as being caused by Influenza A H3. It is very important to protect vulnerable populations such as these by ensuring all patients, caregivers, and close contacts are vaccinated every year.

Resources for Long-Term Care Facilities:

- Nebraska DHHS Flow Chart for Prevention and Control of Influenza in LTC Facilities:
<http://www.douglascountyhealth.com/images/stories/disease/flu/LTC%20Flu%20Recommendations.pdf>
- CDC Influenza Outbreak Management in LTC Facilities
<https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

2017-18 Influenza Vaccine Composition: WHO recommends that the 2017-18 A(H1N1)pdm09 virus component should be updated to A/Michigan/45/2015 (H1N1)pdm09-like virus. The other A and B components will remain the same (http://www.who.int/influenza/vaccines/virus/recommendations/2017_18_north/en/).

TABLE 1. LABORATORY-CONFIRMED INFLUENZA CASES ¹ Douglas County, Nebraska			
INFLUENZA TYPE	TIME PERIOD		
	CURRENT WEEK ¹	PREVIOUS WEEK ²	FLU SEASON ³
Rapid - A (Not sub-typed)	1	0	1561
PCR - A (Unknown Subtype)	0	1	784
PCR - A (H1 Seasonal)	0	0	4
PCR - A (H1N1) 2009 - Seasonal	0	0	22
PCR - A (H3) - Seasonal	0	2	253
Rapid - B	0	6	554
PCR - B	3	3	447
Rapid A/B (Not typed)	1	0	33
TOTAL	5	12	3658

¹Table reflects all reported positive influenza tests. When influenza activity is low in the community, positive rapid influenza test results have a greater likelihood of being "false positive".

Figure 1: Number of Positive Influenza Laboratory Reports in Douglas County Residents by Flu Type, 2016-17 Season

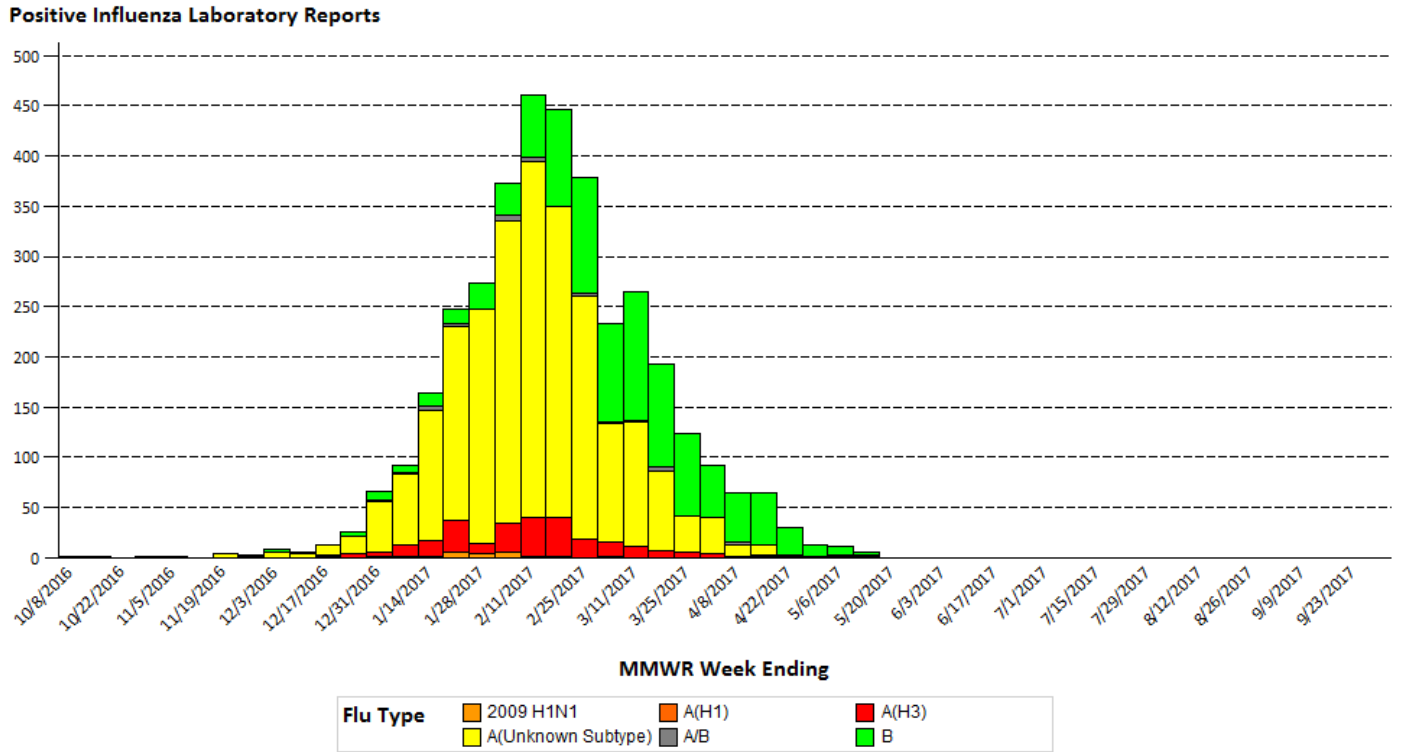


Figure 2: Number and Percentage of Positive Influenza Laboratory Reports in Douglas County Residents by Age Group and Flu Type, Cumulative Total, 2016-17 Season

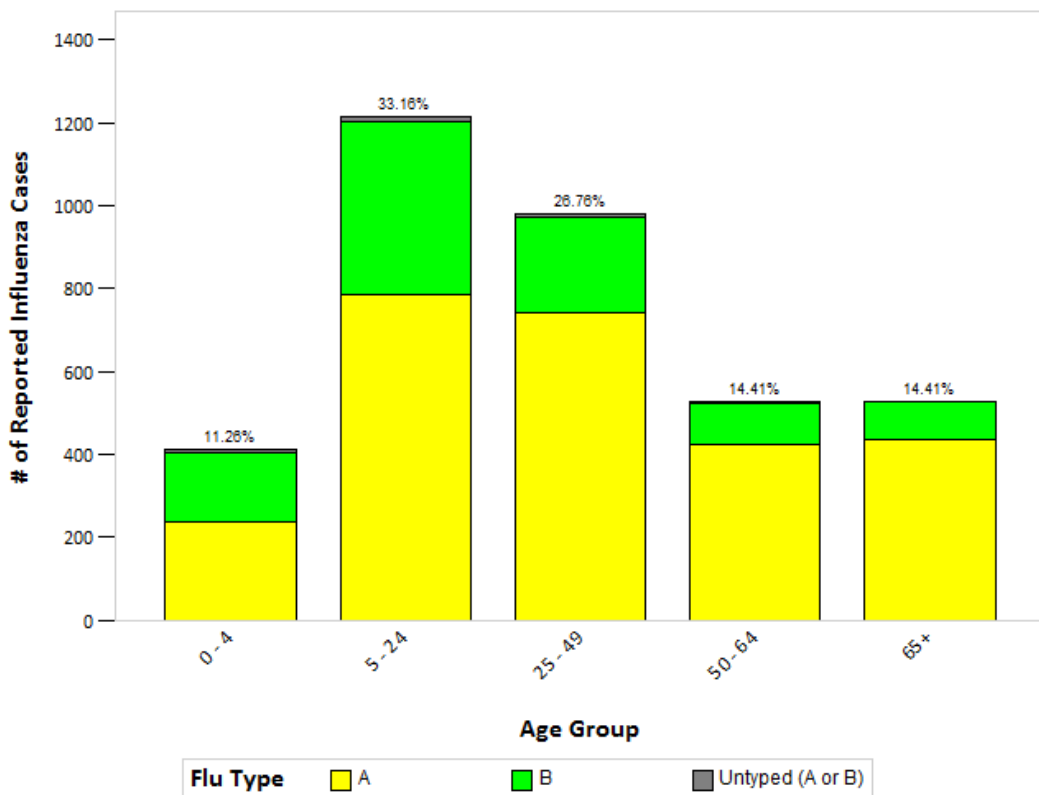


Figure 3: Number and Percentage of Hospital Admissions with Influenza Like Illness in Douglas County Residents by Age Group, Cumulative Total, 2016-17 Season

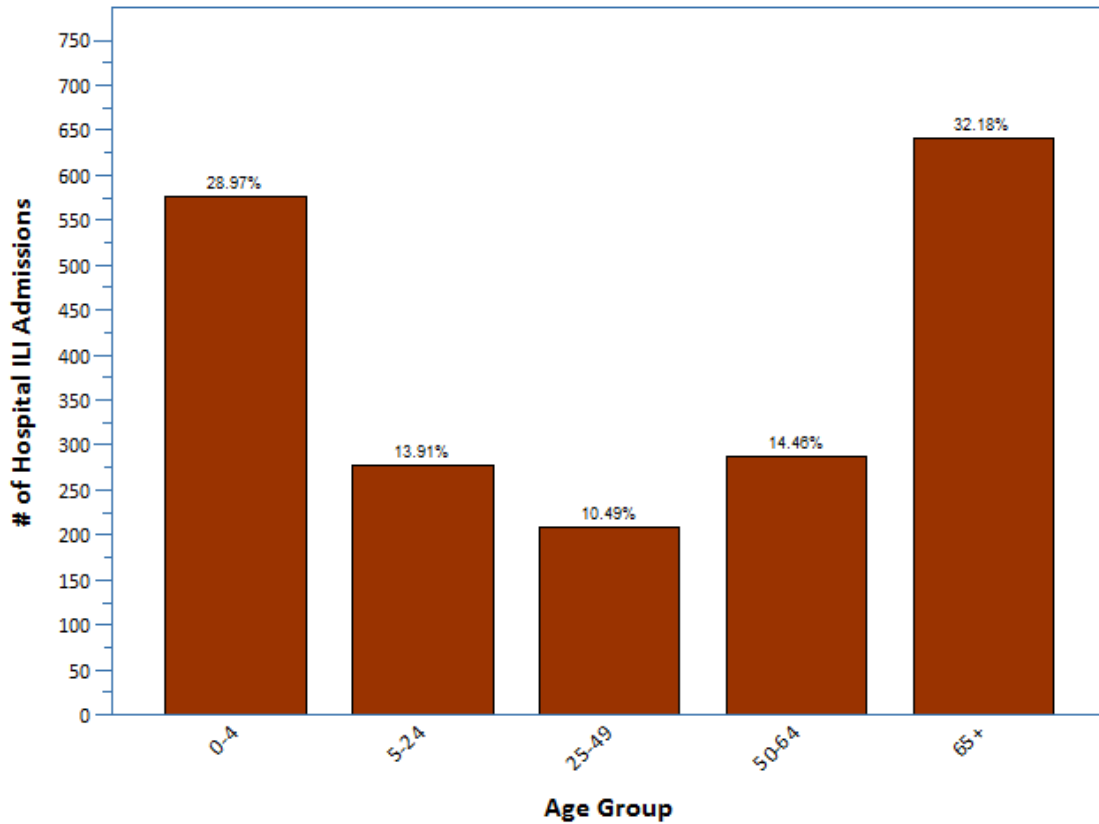


TABLE 2. INFLUENZA SURVEILLANCE STATS

SURVEILLANCE DESCRIPTION	MOST RECENT WEEK	PREVIOUS WEEK
% Percent of outpatient visits with influenza-like illness (ILI) ^{1,2}	0.4%	0.2%
% Percent of emergency department visits with ILI ^{1,2,6}	2.4%	1.9%
% Percent of hospitalizations with ILI ²	1.5%	2.1%
# Number of hospitalizations on ventilators with ILI ²	4	12
% Percent Pneumonia & Influenza Deaths (EDRS) ^{3,4}	3.4%	4.6%
# Number of Laboratory-confirmed influenza pediatric deaths ^{2,5}	0	0
% Percent of school absenteeism due to illness ²	*	1.5%
% Percent of RSV tests positive ² (positives/total tests)	0.0% (0/59)	1.2% (1/84)

¹ILI: Influenza-like Illness is defined as a fever of $\geq 100^{\circ}$ F as well as cough and/or sore throat.

²As of 05/06/2017

³As of 04/29/2017

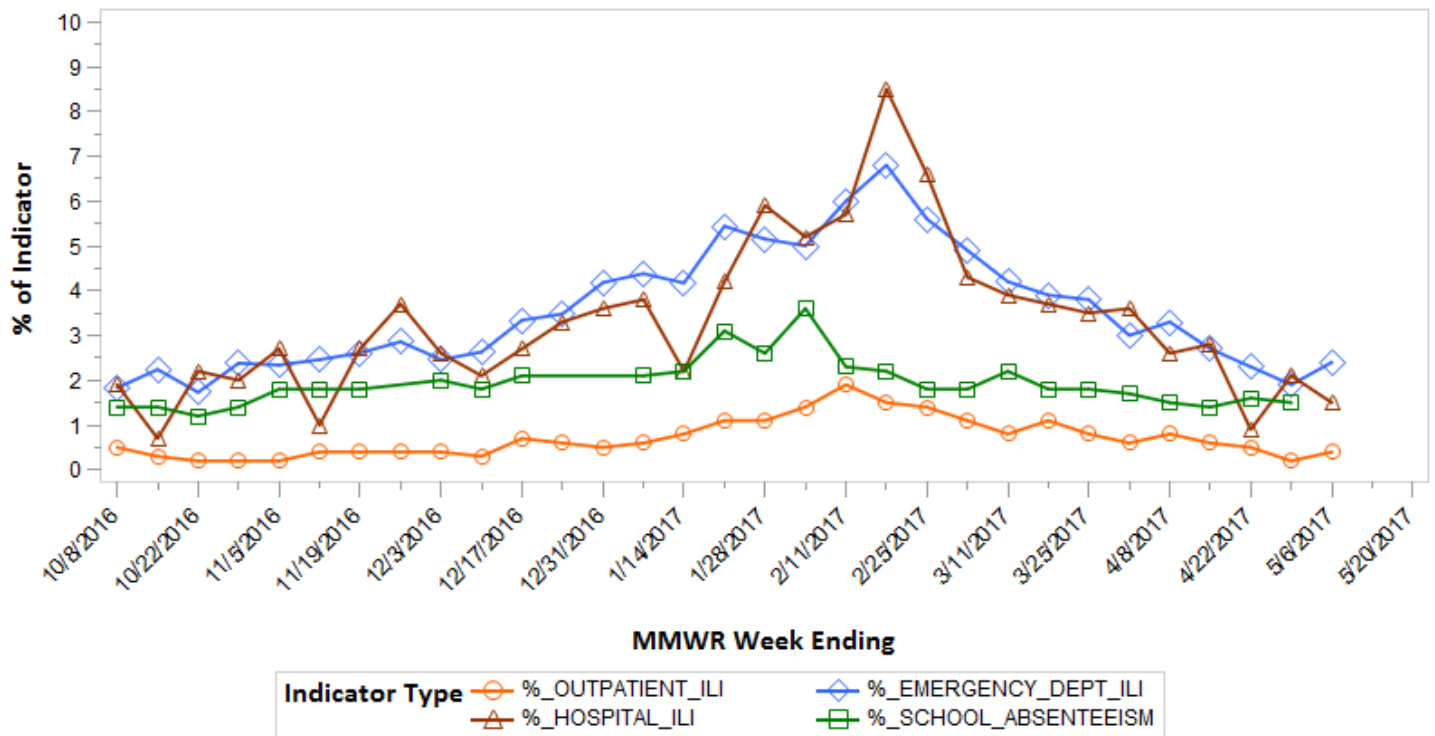
⁴Nebraska Electronic Death Records

⁵Laboratory-confirmed or cause of death related to influenza

⁶Douglas County Hospital ED ILI data source: Nebraska Syndromic Surveillance

*School Surveillance last report of the season on 05/03/2017

Figure 4: Percent of Influenza Surveillance Indicator by MMWR Week Ending and Indicator Type, 2016-17 Season



*Influenza-Like-Illness (ILI) is defined as a fever of ≥ 100 degrees Fahrenheit as well as cough and/or sore throat.

TABLE 3. REPORTED INFLUENZA CASES BY FLU SEASON AND MONTH
Douglas County, Nebraska

MONTH	FLU SEASON											Total (ALL) N
	2016-2017 N	2015-2016 N	2014-2015 N	2013-2014 N	2012-2013 N	2011-2012 N	2010-2011 N	2009-2010 N	2008-2009 N	2007-2008 N	2006-2007 N	
October	3	33	23	3	9	0	1	570	1	2	2	647
November	14	14	44	44	19	2	5	171	3	0	1	317
December	113	63	847	291	385	32	7	19	4	2	3	1766
January	955	126	1035	423	1167	64	111	2	15	104	33	4035
February	1593	335	603	238	449	99	269	5	59	945	359	4954
March	780	750	742	152	74	117	185	6	261	288	117	3472
April	183	505	228	147	12	19	20	4	100	45	12	1275
May	17	94	33	35	1	2	1	1	73	1	6	264
June	-	18	6	4	0	1	0	1	56	8	2	96
July	-	4	1	1	0	0	0	0	87	0	1	94
August	-	4	1	1	0	1	0	1	125	0	1	134
September	-	4	5	1	0	0	0	0	312	0	0	322
Total	3658	1950	3568	1340	2116	337	599	780	1096	1395	537	17376

Links to local graphs, and state and national reports:

Graphs of Current Flu Activity Surveillance (Douglas County, NE)
http://www.douglascountyhealth.com/images/stories/disease/flu/Web_Flu.pdf

Nebraska Weekly Surveillance Activity
<http://dhhs.ne.gov/publichealth/Documents/Report.pdf>

U.S. Weekly Surveillance Activity
<http://www.cdc.gov/flu/weekly/>