2018-19 Weekly Influenza Update
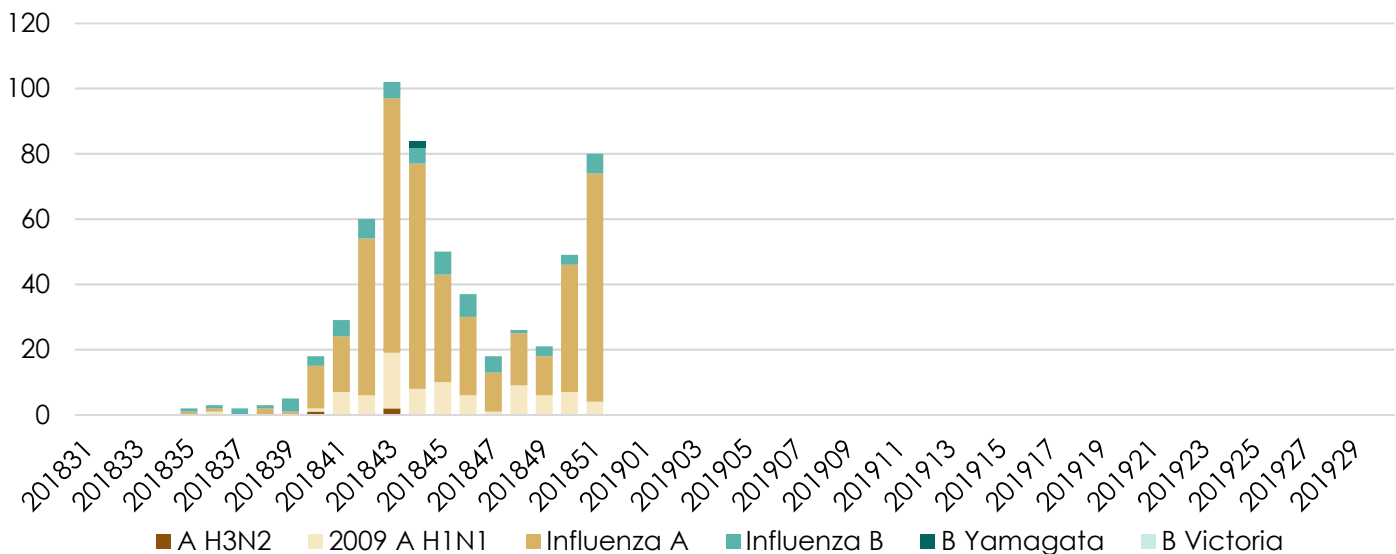
NORTH DAKOTA
DEPARTMENT *of* HEALTH

Preliminary data through week 201851, the week ending 12/22/2018
Edited by: Jill K Baber, MPH, Influenza Surveillance Coordinator

Overview

As of this week:	This season (2018-19)	Last season (2017-18)
Cases reported for the week	80	357
Cumulative cases for season	589	1073
Activity level	Local	Widespread

Influenza activity in North Dakota is increased again this week and is increasing nation-wide. The percent of influenza tests conducted that were positive at North Dakota laboratories is now above 10%, indicating we may start seeing season-level activity soon. Over half of our current case count is children, a pattern typical for seasons in which the 2009 A H1N1 pandemic strain predominates. It is too soon to tell if this strain will predominate for the entire season.

**Number of Reported Laboratory-Identified Influenza Cases by Week Number**

Legend: ■ A H3N2 ■ 2009 A H1N1 ■ Influenza A ■ Influenza B ■ B Yamagata ■ B Victoria

Number of cases:	A H3N2	2009 A H1N1	Influenza A	Influenza B	B Yamagata	B Victoria
This week	0	4	70	6	0	0
This season	3	83	436	65	2	0

Laboratory-confirmed influenza is a reportable disease in North Dakota. Influenza "cases" include people that have tested positive for influenza in a healthcare setting. It does not include people with influenza who did not seek healthcare, or who were diagnosed without a lab test, which is common. The true number of people with influenza in North Dakota is underrepresented, but case data allows us to see where and in what populations influenza is circulating. It also provides context regarding how the current season compares with previous seasons. Find more information about cases on www.ndflu.com.
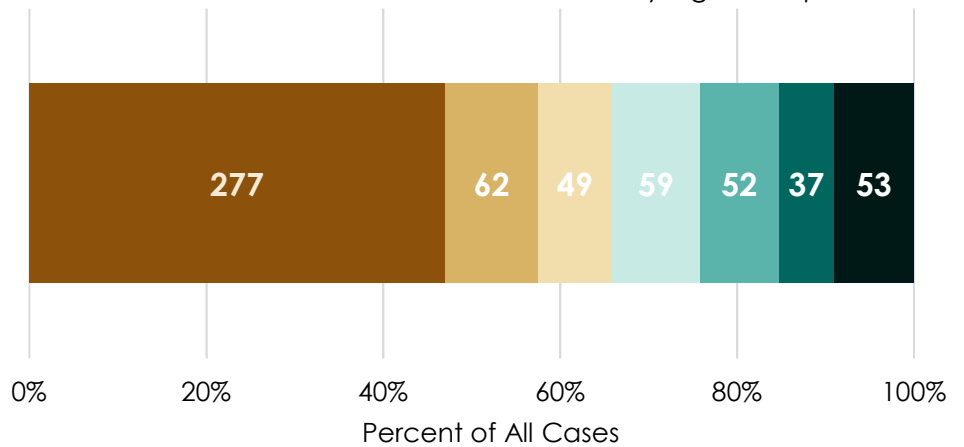
Case Demographics
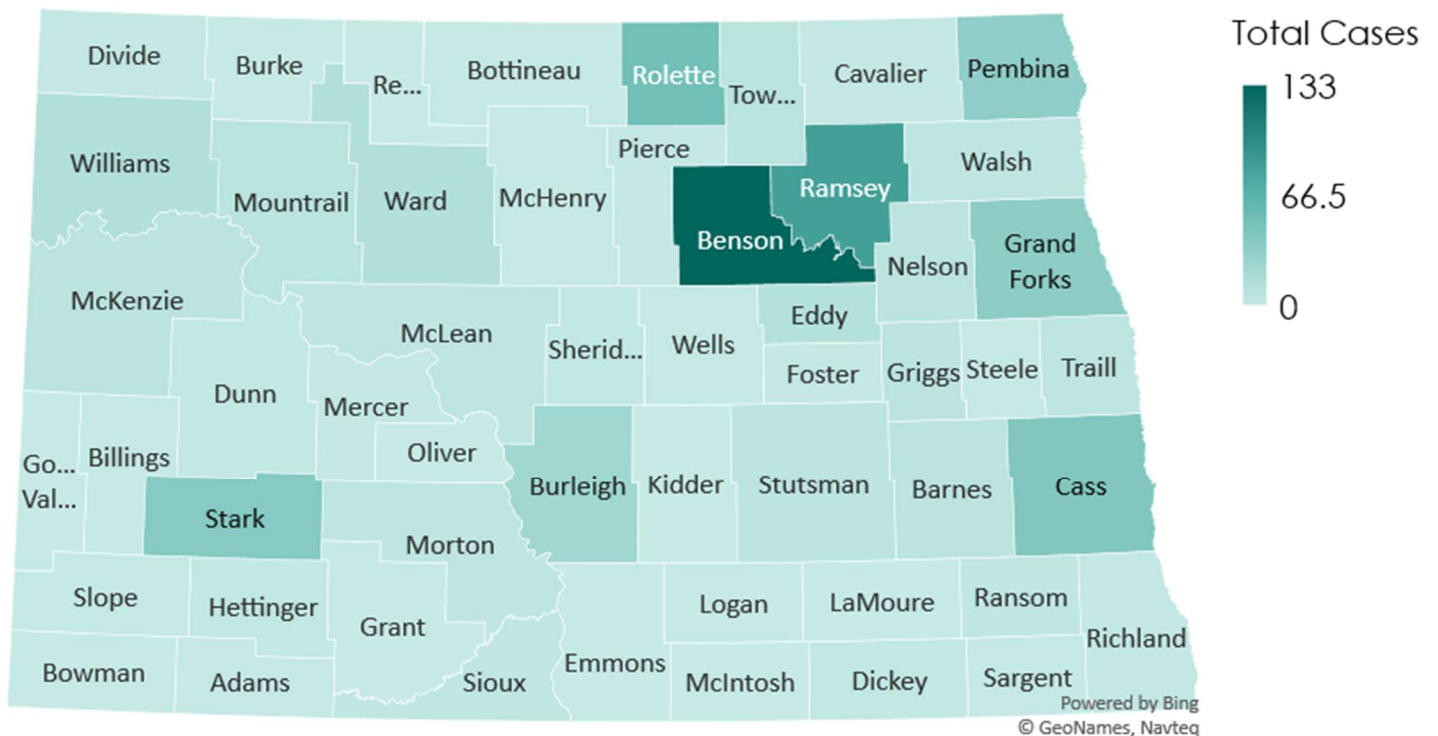
Case Count for Lab-Confirmed Cases by Gender

335 MALE
254 FEMALE
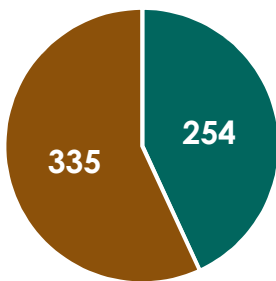
- MALE - FEMALE

Case Count for Lab-Confirmed Cases by Age Group

| 277 | 62 | 49 | 59 | 52 | 37 | 53 |

Percent of All Cases

- <10 - 10-19 - 20-29 - 30-39 - 40-49 - 50-59 - 60+

Cases by County

Total Cases
133
66.5
0

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Outbreaks

During the influenza season, influenza outbreaks are common anywhere people gather, including schools, child care centers, and health care facilities. Outbreaks of influenza or influenza-like illness may be reported to the NDDoH. The following outbreaks have been reported this season:

Setting	Number of outbreaks	Identified pathogens
Long Term Care, Basic Care, Assisted Living	3	1 flu A/flu B; 1 rhinovirus/*Haemophilus influenzae*; 1 unknown
Schools	0	
Child Care Centers	1	1 influenza A

Surveillance Programs

In addition to case reporting, the NDDoH uses a variety information sources to fully describe of what is happening during the influenza season.

Hospitalizations

This season, the NDDoH has introduced a new influenza hospitalization surveillance program. Select North Dakota hospitals report the number influenza-related hospitalizations weekly to the NDDoH. Because this surveillance methodology is new, hospitalization numbers this year may not be comparable to previous years.

Number of Influenza Hospitalizations by Week Number
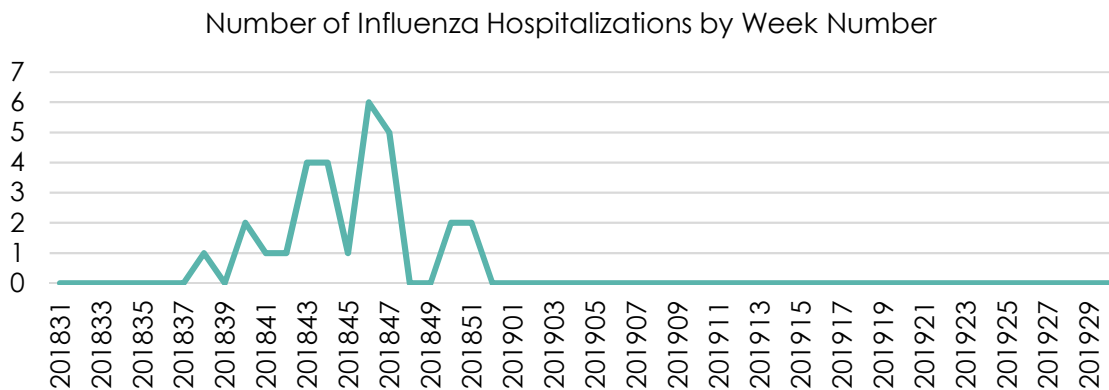
Total number of Hospitalizations:
This week 2
This season 29

Deaths

Data on pneumonia and influenza deaths is obtained from Vital Records and based on the cause of death listed on the death certificate.

Number of **Pneumonia** and **Influenza** Deaths by Week Number
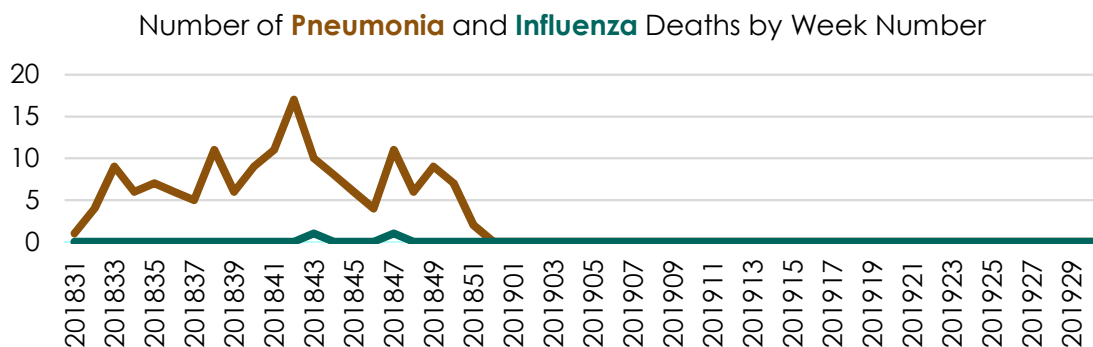
Total number of deaths for the season:
Pneumonia 155
Influenza 2

Outpatient Influenza-like Illness

The NDDoH participates in the national U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet). Data from participating outpatient providers in North Dakota are pooled to create a state-wide estimate for the weekly percent of healthcare visits due to influenza-like illness (ILI). Patients presenting with a fever of 100°F or greater and a cough and/or sore throat are considered to have ILI. For more information on state and national ILINet data, see FluView Interactive.

Percent of Outpatient Visits Due to Influenza-like Illness by Week, Current and Previous Season
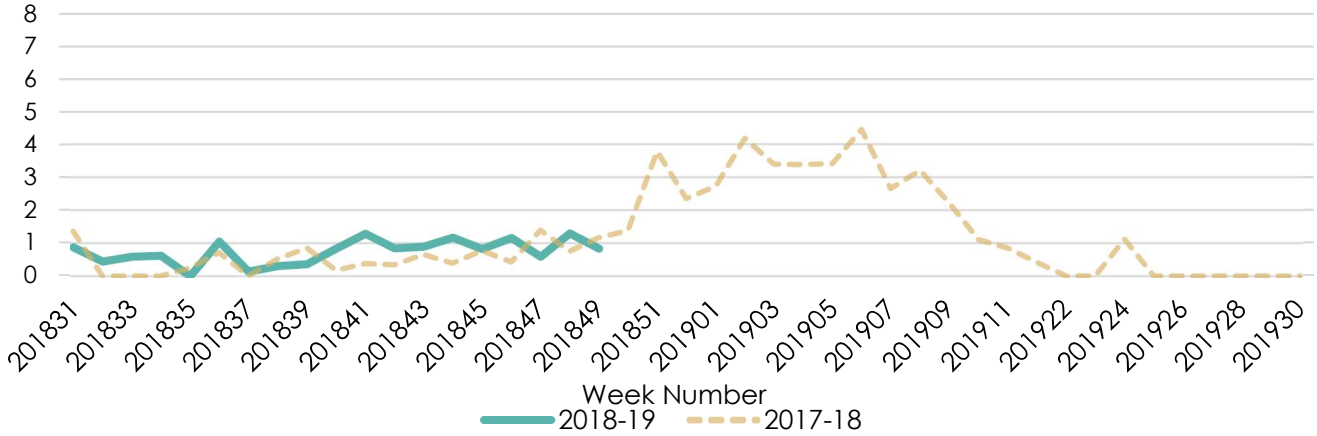
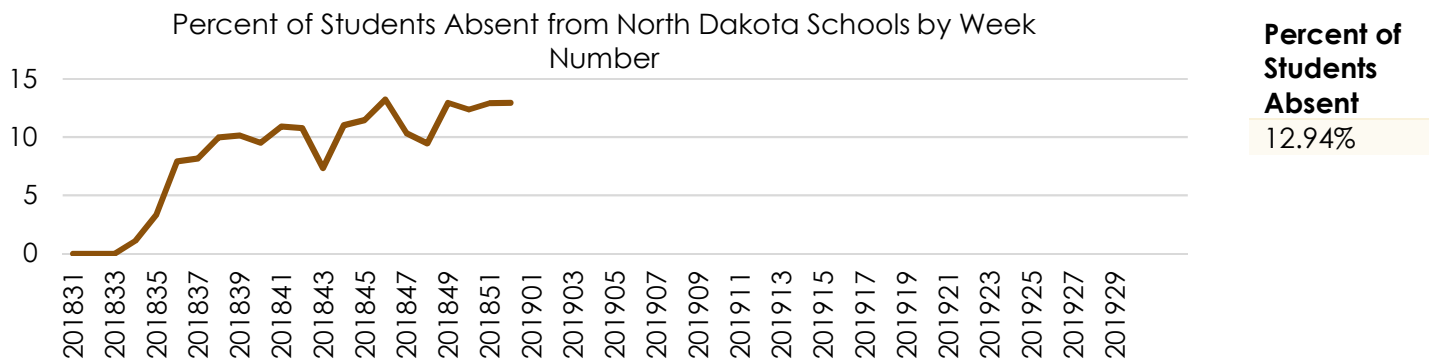| Week Number	Percent ILI	# ILI 0-4 age group	# ILI 5-24 age group	# ILI 25-49 age group	# ILI 50-64 age group	# ILI 65+ age group	Total # visits
201848	1.30%	12	13	15	2	3	3464
201849	0.84%	12	4	7	3	2	3339
201850	1.29%	10	19	10	5	2	3565
201851	0.84%	12	9	7	3	2	3945

Sentinel Laboratory Data

The NDDoH receives influenza and RSV testing data from participating sentinel laboratories across the state. The total number of positive tests and the total number of tests conducted are reported and used to create a state-wide percent positivity statistic. For influenza, percent positivity of 10% or greater indicates "season level" influenza activity.

Percent Positivity of Influenza Testing and the Total Number of Tests Conducted by Week Number

Percent Positivity for Influenza:
10.12%

Percent Positivity of RSV Testing and the Total Number of Tests Conducted by Week Number

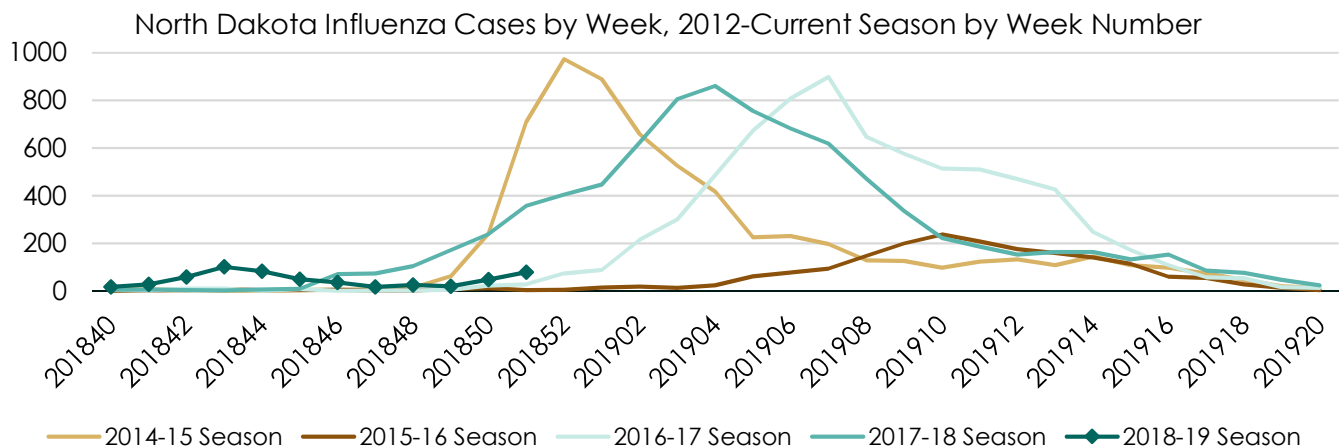Number of Tests Conducted   Percent Positivity
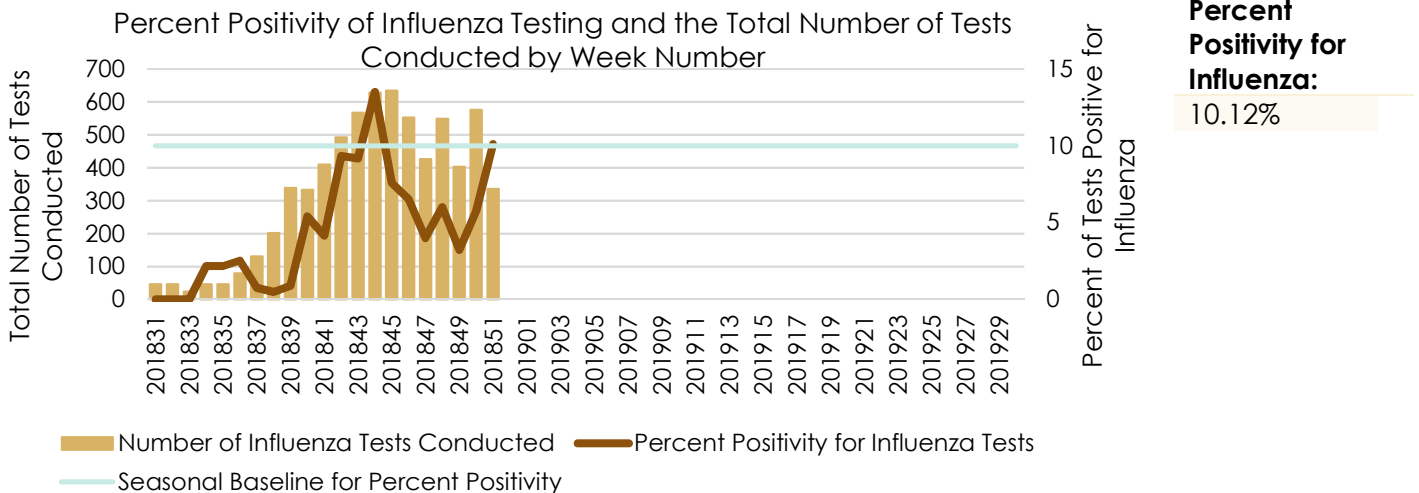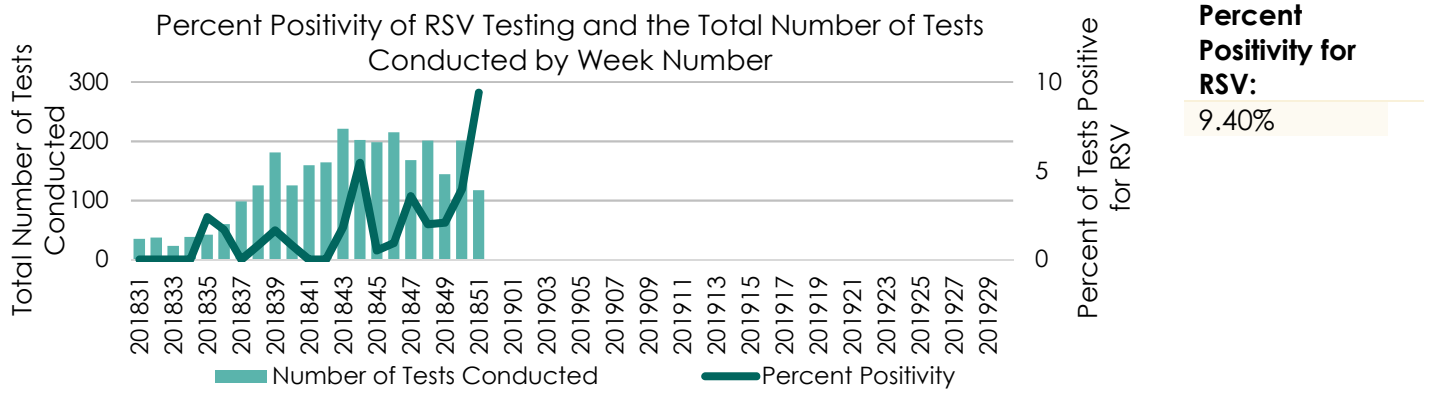
School Absenteeism

During the influenza season, increases in school absenteeism data can be used as an early indicator for influenza circulation. The NDDoH received absenteeism data from a majority of schools in the state. Data here include absences for all reasons.

Percent of Students Absent from North Dakota Schools by Week Number

Percent of Students Absent 12.94%

Multi-season Comparison

North Dakota Influenza Cases by Week, 2012-Current Season by Week Number

2014-15 Season   2015-16 Season   2016-17 Season   2017-18 Season   2018-19 Season

Season	Total Cases	Peak Week (week ending)	Predominant Strain
2014-15	6,443	12/27/2014	A H3N2 (vaccine mismatch)
2015-16	1,942	3/12/2016	2009 A H1N1
2016-17	7,507	2/18/2017	A H3N2
2017-18	8,498	1/27/2018	A H3N3
2018-19	589 (current)	TBD	TBD

2018-19 Vaccination Stats

Vaccine Doses Administered

The North Dakota Immunization Information System (NDIIS) provides information on vaccines given in North Dakota. Vaccines given to children are required to be entered into the NDIIS, while vaccines given to adults are often entered into the NDIIS but are not required to be entered. Many providers in North Dakota have established an electronic connection with the NDIIS, allowing all vaccinations for that provider to be sent to the NDIIS automatically. A total of **239,024** doses of 2018-19 influenza vaccine have been entered into the NDIIS so far this season.

Influenza Doses Administered by Week Number
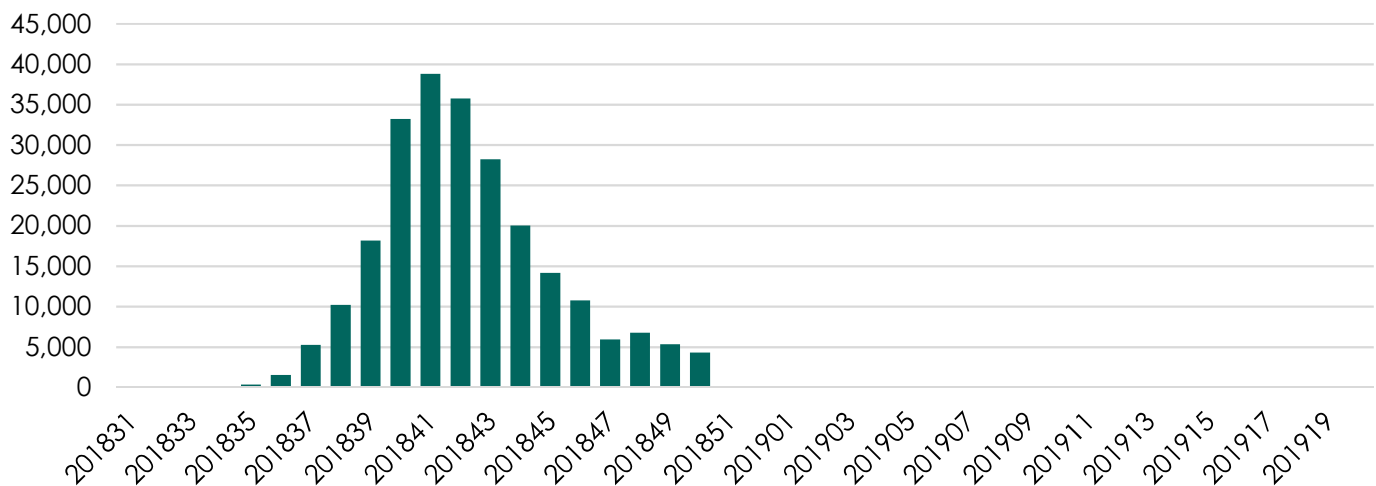
Vaccination Rates by Age

NDIIS data can also be used to estimate the percent of North Dakotans in each age group that have received an influenza vaccination so far this season. This week, the age group with the highest rates is **65+** with **50.1%**, and the age group with the lowest vaccination rate is **19-49 year-olds**, with **17.8%**.

Influenza Vaccination Rates by Age Group, by Week Number, Estimated by the NDIIS