

2013-14 Influenza Season Summary



NORTH DAKOTA
DEPARTMENT of HEALTH

Total Number of Reported Influenza Cases: 2,922

Cases by Influenza Subtype

2009 A H1N1	H3N2	Influenza A	Influenza B	Influenza Unspecified
452	4	2310	156	0

Cases by Age

Age Range of Reported Influenza Cases: 2 weeks – 109 years

Median Age of Reported Influenza Cases: 30.44 years

Cases by Age Group

<1	1-5	6-10	11-19	20-24	25-34	35-44	45-54	55-64	65+
135	429	207	239	178	530	401	368	264	171

Cases by Gender

Male	Female
1,464 (50.1%)	1,458 (49.9%)

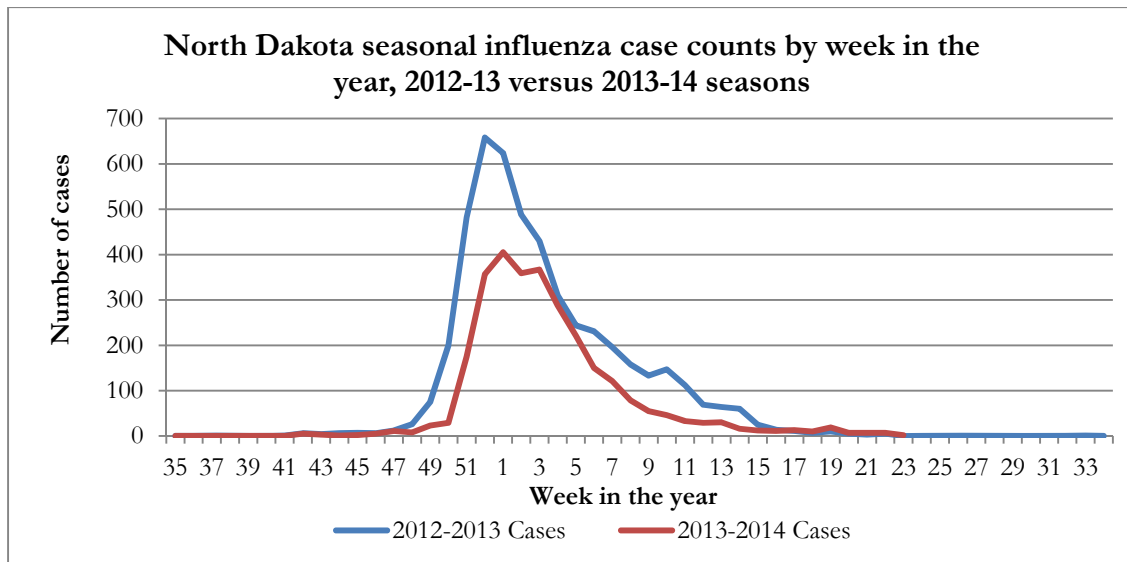
Cases by County

Adams	21
Barnes	23
Benson	18
Billings	2
Bottineau	18
Bowman	22
Burke	5
Burleigh	550
Cass	469
Cavalier	22
Dickey	26
Divide	20
Dunn	19
Eddy	4
Emmons	10
Foster	5
Golden Valley	3

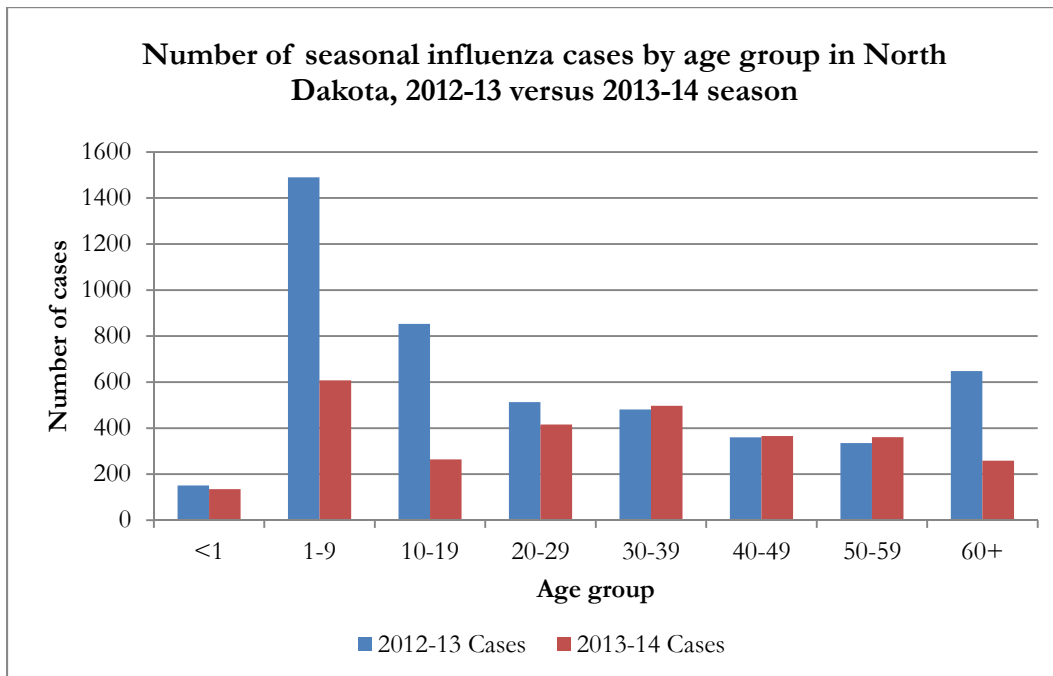
Grand Forks	179
Grant	24
Griggs	2
Hettinger	9
Kidder	4
Lamoure	1
Logan	36
McIntosh	16
McHenry	29
McKenzie	58
McLean	50
Mercer	74
Morton	159
Mountrail	44
Nelson	5
Oliver	11
Pembina	37
Pierce	15

Ramsey	37
Ransom	9
Renville	6
Richland	29
Rolette	14
Sargent	9
Sheridan	4
Sioux	7
Slope	0
Stark	170
Steele	2
Stutsman	27
Towner	11
Trail	3
Walsh	49
Ward	407
Wells	17
Williams	131

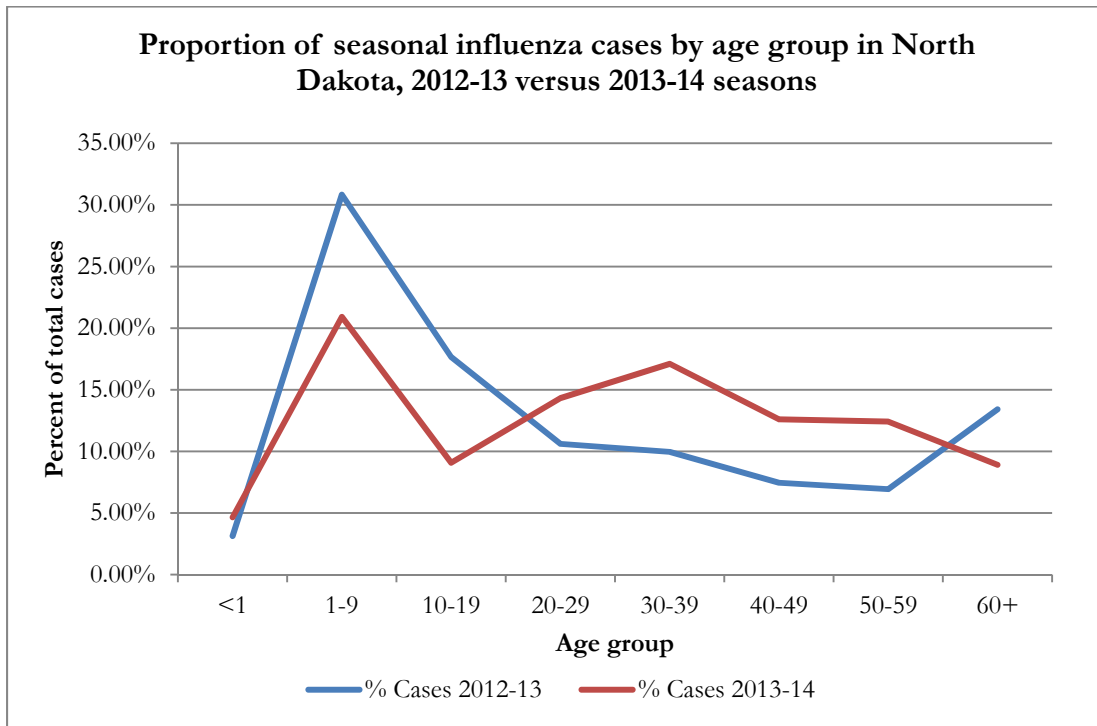
2012-13 v. 2013-14 Seasonal Comparison



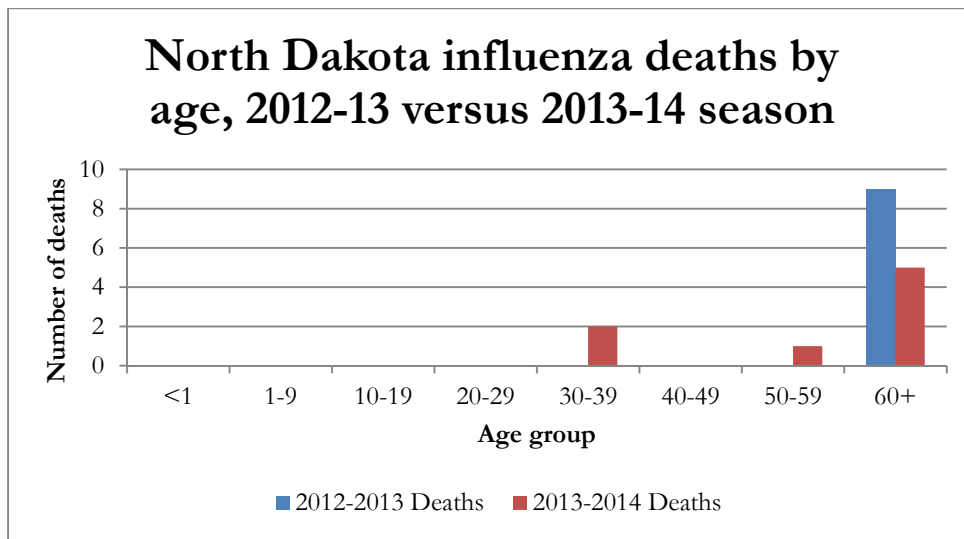
Both the 2012-13 and 2013-14 seasons had similar early timing, peaking the last week in December (2012-13) and the first week in January (2013-14). Historically, influenza in North Dakota has peaked in late January to March. The total number of cases reported for 2012-13 was almost double the number of cases for 2013-14. With 2,922 cases, the 2013-14 season was more on par with North Dakota’s seasonal average, of about 2,800 cases. During the 2013-14 influenza season, influenza cases were identified by influenza laboratory testing methods, including viral culture, DFA, IFA, PCR and rapid testing. A majority of cases typed through PCR came back positive as the 2009 influenza A H1N1 pandemic strain (2009 A H1N1). This is the first season since the 2009-10 pandemic year that this strain has predominated. Less than 1 percent of PCR cases tested positive for influenza A H3, the predominant strain for 2012-13. North Dakota also saw 156 cases of influenza B reported this past season, a significant decrease from the previous season when 1,584 cases of influenza B were reported.



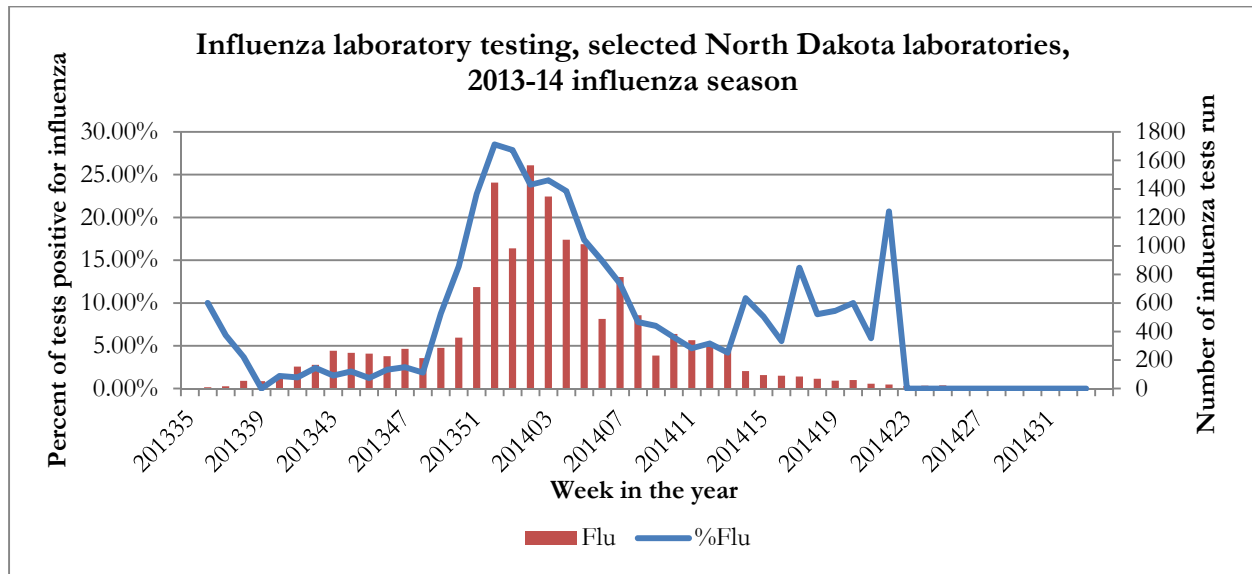
During the 2013-14 influenza season, the largest number of positive cases was reported in the 1-9 year age group (608 for 2013-14). Around 25 percent of the positive cases were in children younger than 10.



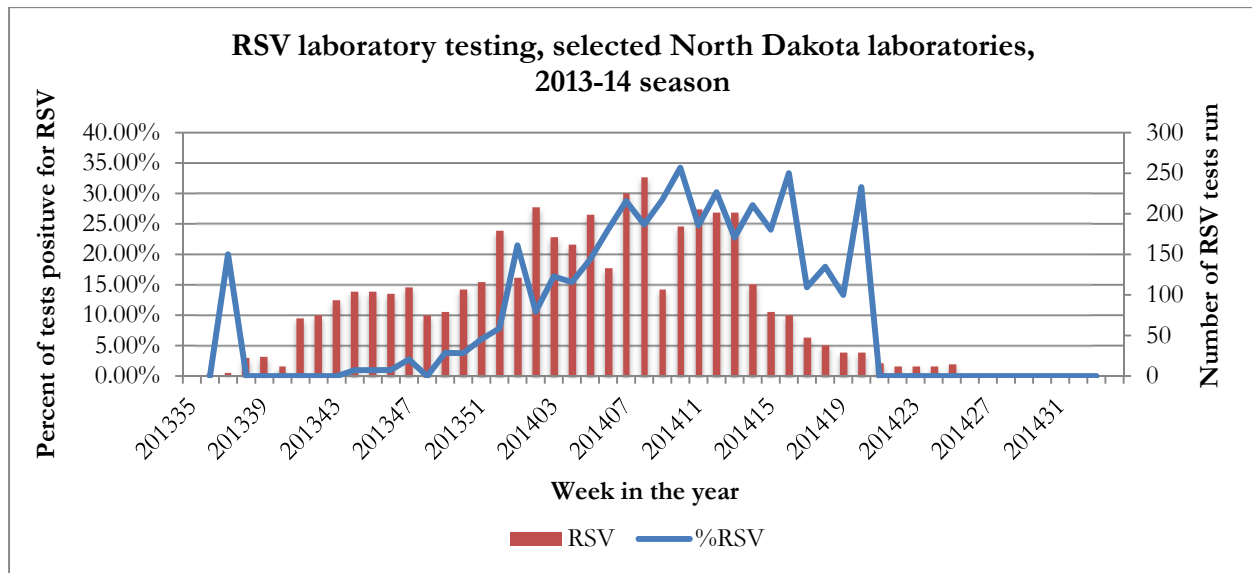
The age distribution of cases for 2013-14 is different than 2012-13 in that a larger proportion of cases were seen in working-age adults (20-59). This is likely due to the difference in predominant strains for the two seasons; the 2009 A H1N1 strain appears to disproportionately affect working-age adults. Alternately, seasons when A H3 is the predominant strain (such as 2012-13) a higher proportion of severe cases are reported in the elderly population. This is illustrated in the distribution of deaths for the last two seasons, with 2013-14 data including three deaths in adults under 60. However, it is important to note that both influenza A strains do cause significant illness in every age category.



Laboratory Influenza & RSV Testing

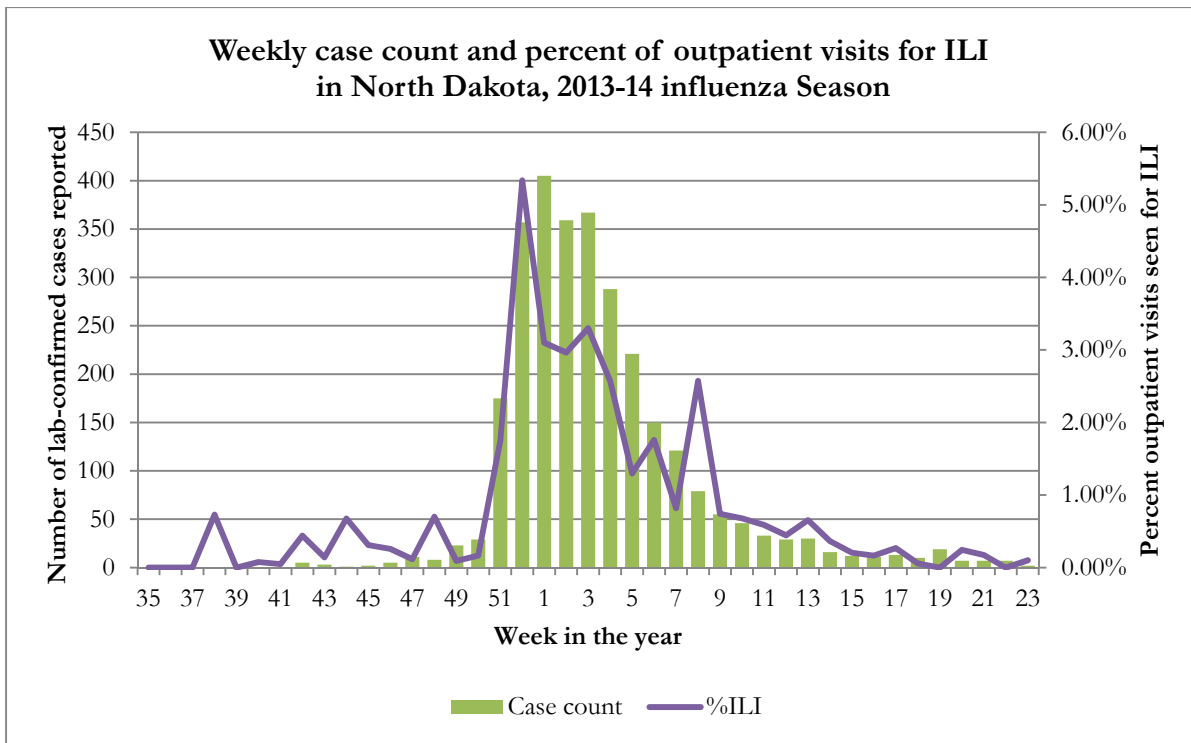


Twenty-seven selected sentinel laboratories throughout the state submit influenza testing data to the North Dakota Department of Health (NDDoH). Positive laboratory tests reported from these 27 laboratories peaked during the week of December 22, 2013, with 28 percent of all tests run testing positive for influenza. When percent positivity is higher, rapid results for influenza can be considered more reliable.

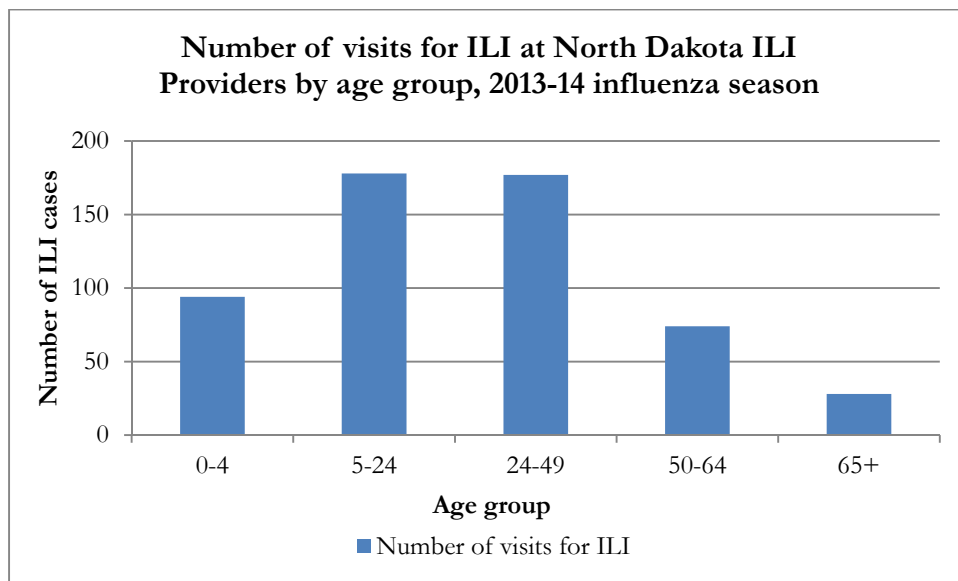


Seventeen selected sentinel laboratories throughout the state submit respiratory syncytial virus (RSV) testing data to the NDDoH. Positive laboratory tests for RSV from these 17 laboratories peaked during the week of March 16, 2014, with 30 percent of all tests run testing positive. RSV is not a reportable disease in North Dakota, although this surveillance allows us to generally track each RSV season.

Outpatient Influenza-like Illness Surveillance Network (ILINet)



Seventeen private health-care providers, clinics and emergency departments located throughout the state submit influenza-like illness (ILI) data to the NDDoH as part of the national ILINet sentinel provider program. ILI is defined as having fever with cough and/or sore throat. The number of reports of ILI peaked during the week of December 22, 2013, with 5.3 percent of visits due to ILI.



Data provided by the 17 ILINet providers indicated that most of the patients presenting in their clinic with influenza-like illness were between the ages of 5 and 49. This age distribution is also indicative of a predominantly 2009 A H1N1 influenza year.