



Trends in: Flu Immunization

October 2015

Influenza is transmitted from person to person through droplets released from an infected person when they sneeze, cough or talk.[1] Although most people recover from influenza in about a week, vulnerable populations such as seniors and people with chronic health conditions can suffer serious complications such as pneumonia and even death.[1] The most effective way to prevent influenza is to be vaccinated each year.[1] Immunity from the flu is achieved about 2 weeks after vaccination, and lasts less than a year, stressing on the importance of getting the flu vaccine every year. Questions related to flu vaccination coverage were added to RRFSS in 2000/01.

Flu Vaccination Coverage by Age Group

- During the 2014/15 flu season, 30% ($\pm 4\%$) of adults age 18-64 years and 67% ($\pm 7\%$) of seniors age 65 and older in Durham Region had their flu shot.
- The proportion of adults age 18-64 years who had their flu shot remained relatively stable over the years.
- Flu vaccine coverage among seniors age 65 and older has varied slightly over time, however these differences are not statistically significant.
- Flu vaccine coverage among seniors age 65 and over has remained significantly higher compared to adults aged 18 – 64 years.

Flu Vaccination Coverage by Chronic Condition

- During the 2014/15 flu season, the proportion of adults in Durham Region with a chronic condition who had their flu shot was 55% ($\pm 7\%$), and has remained relatively stable over time.
- Flu vaccine coverage among adults without a chronic condition was 33% ($\pm 5\%$) during 2014/15, and has also been relatively stable over time.
- Flu vaccine coverage was significantly higher among adults with a chronic condition, compared to adults without a chronic condition.

Figure 1. Flu Vaccination Coverage, Adults 18-64 and Seniors 65+, Durham Region, 2000/01 – 2014/15

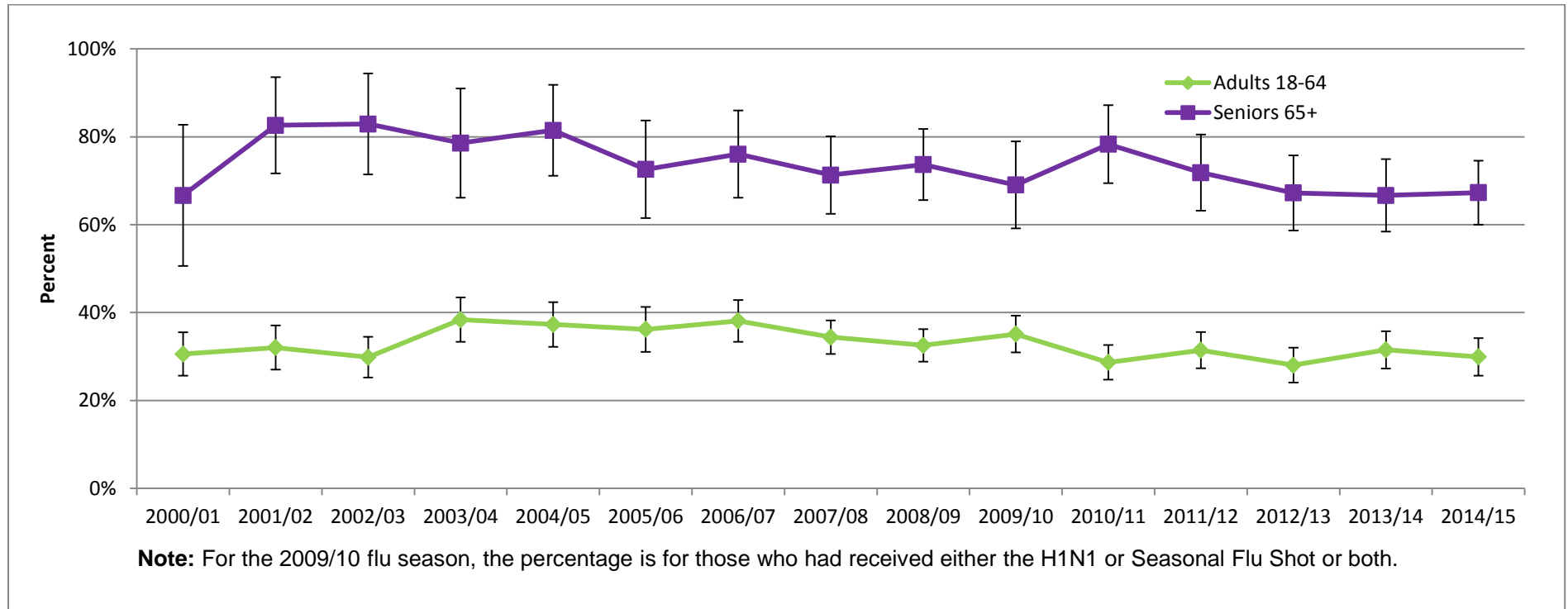


Table 1. Flu Vaccination Coverage, Adults 18-64 and Seniors 65+, Durham Region, 2000/01 – 2014/15

	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2000 /07	2007 /08	2008 /09	2009 /10	2010/ 11	2011 /12	2012 /13	2013 /14	2014 /15
Adults 18-64 (95% CI)	31% (26-35)	32% (27-37)	30% (25-34)	38% (33-43)	37% (32-42)	36% (31-41)	38% (33-43)	34% (31-38)	33% (29-36)	35% (31-39)	29% (25-33)	31% (27-36)	28% (24-32)	32% (27-36)	30% (26-34)
Seniors 65+ (95% CI)	67% (51-83)	83% (72-94)	83% (71-94)	79% (66-91)	81% (71-92)	73% (61-84)	76% (66-86)	71% (62-80)	74% (66-82)	69% (59-79)	78% (69-87)	72% (63-81)	67% (59-76)	67% (58-75)	67% (60-75)

Figure 2. Flu Vaccination Coverage by Chronic Condition Status, Durham Region, 2000/01 – 2014/15

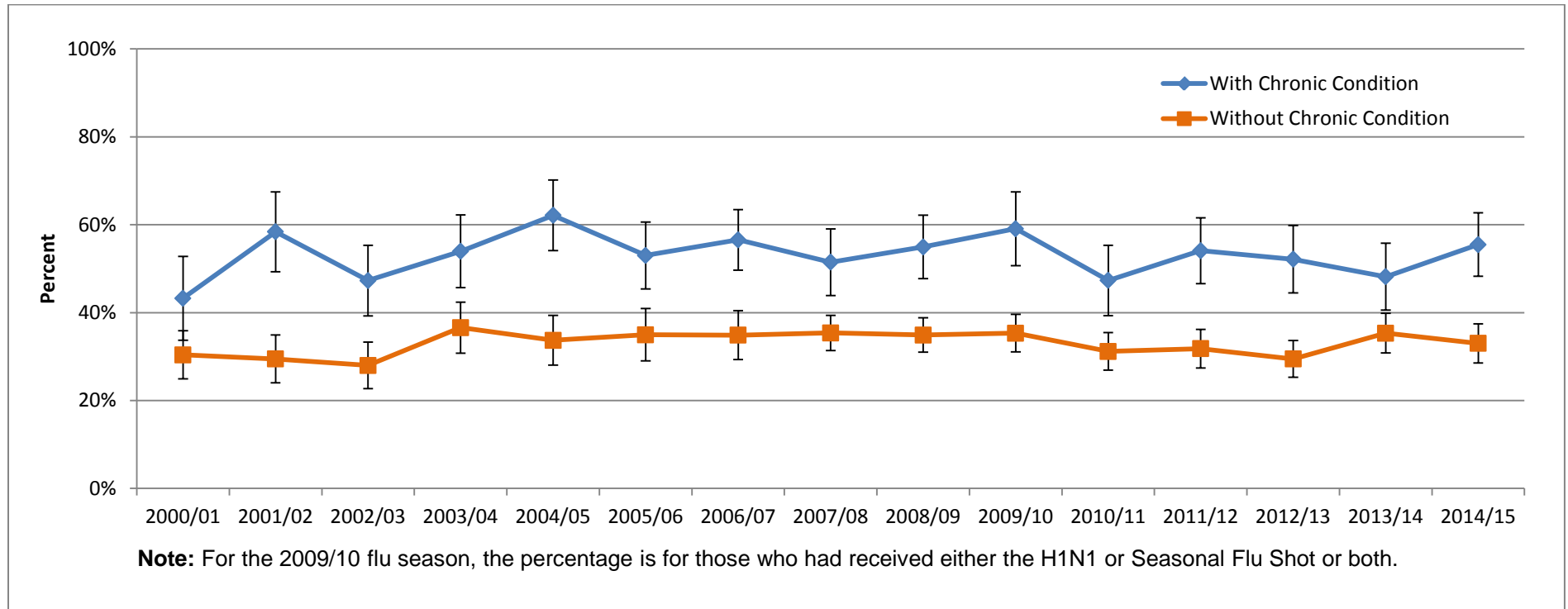


Table 2. Flu Vaccination Coverage by Chronic Condition Status, Durham Region, 2000/01 – 2014/15

	2000 /01	2001 /02	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13	2013 /14	2014 /15
With Chronic Condition (95% CI)	43% (34-53)	58% (49-67)	47% (39-55)	54% (46-62)	62% (54-70)	53% (45-61)	57% (50-63)	51% (44-59)	55% (48-62)	59% (51-67)	47% (39-55)	54% (47-62)	52% (44-60)	48% (41-56)	55% (48-63)
Without Chronic Condition (95% CI)	30% (25-36)	29% (24-35)	28% (23-33)	37% (31-42)	34% (28-39)	35% (29-41)	35% (29-40)	35% (31-39)	35% (31-39)	35% (31-40)	31% (27-35)	32% (27-36)	29% (25-34)	35% (31-40)	33% (29-37)

Indicator Definitions

Durham Region residents were asked the influenza vaccine module from January to April of each year in the data collection period. Respondents were asked, “Since September [of the previous year], have you had a flu shot?”.

A chronic condition is defined as follows: if survey respondents have ever been diagnosed with and still have asthma, or if they have ever been diagnosed with diabetes, cancer, liver disease/problem, kidney disease/problem, heart disease/problem, lung disease/problem, spleen problem, thyroid problem, blood disorder, or immune disorder.

Data Collection Period

The influenza vaccine module was added to RRFSS in 2000/01. This report uses data collection from 2000/01 to 2014/15.

Rapid Risk Factor Surveillance System (RRFSS)

RRFSS was piloted in Durham Region in 1999 and has been used to collect information about the health knowledge, attitudes and behaviours of Durham Region residents routinely since 2001. The information collected is used to support the planning and evaluation of effective public health programs and services.

RRFSS is conducted by the Institute for Social Research at York University on behalf of participating Ontario health units. RRFSS is an ongoing telephone survey of adults aged 18 and over who live in private households. The annual response rate for Durham Region has ranged from 46% to 61% and was 46% in 2014.

95% Confidence Interval (CI)

Percentages are expressed as a point estimate with 95% confidence intervals around the estimate. The true or actual percentage falls within the range of values, 95 out of 100 times. A wide confidence interval reflects a large amount of variability or imprecision. Usually the larger the sample size the narrower the CI. In charts, the 95% CI is represented by an error bar (I).

Significant Difference

This refers to a difference between two estimated percentages that is not likely due to chance. If the 95% confidence intervals of two estimates do not overlap there is considered to be a significant difference between the estimates. If the intervals overlap slightly a test of significance ($p < .05$) is conducted.

Methods & Limitations

RRFSS is conducted using computer-assisted telephone interviewing. Within households, the adult with the most recent birthday is selected to participate in the survey. Results are self-reported and may not be recalled accurately. Individuals not living in households (such as those in prison, hospitals, or the homeless) were excluded. Individuals who live in a household without a landline will

also not be reached through RRFSS. As a result, the percentages may not represent the true estimates for the general population.

Household weights were used for the analysis of questions related to individuals. The weights adjust for the fact that an adult in a larger household is less likely to be selected than an adult in a smaller household.

Data Collection Period

Data were collected between January 2001 to April 2015. Survey questions on flu vaccination were asked every year between the months of January to April.

References

1. Ontario Ministry of Health and Long-Term Care. [Infectious Diseases Protocol, 2013](#). Appendix A: Disease-Specific Chapters. Toronto, ON: Queen's Printer for Ontario, 2013. Retrieved July 17, 2013.

More Information

For more information, or if you require this information in an accessible format, please contact the Durham Health Connection Line at 905-666-6241 or 1-800-841-2729. You can also visit our [Health Department website](#) at durham.ca/health

For RRFSS information, visit the [RRFSS website](#) at rrfss.ca