



Weekly Local Influenza Surveillance Bulletin

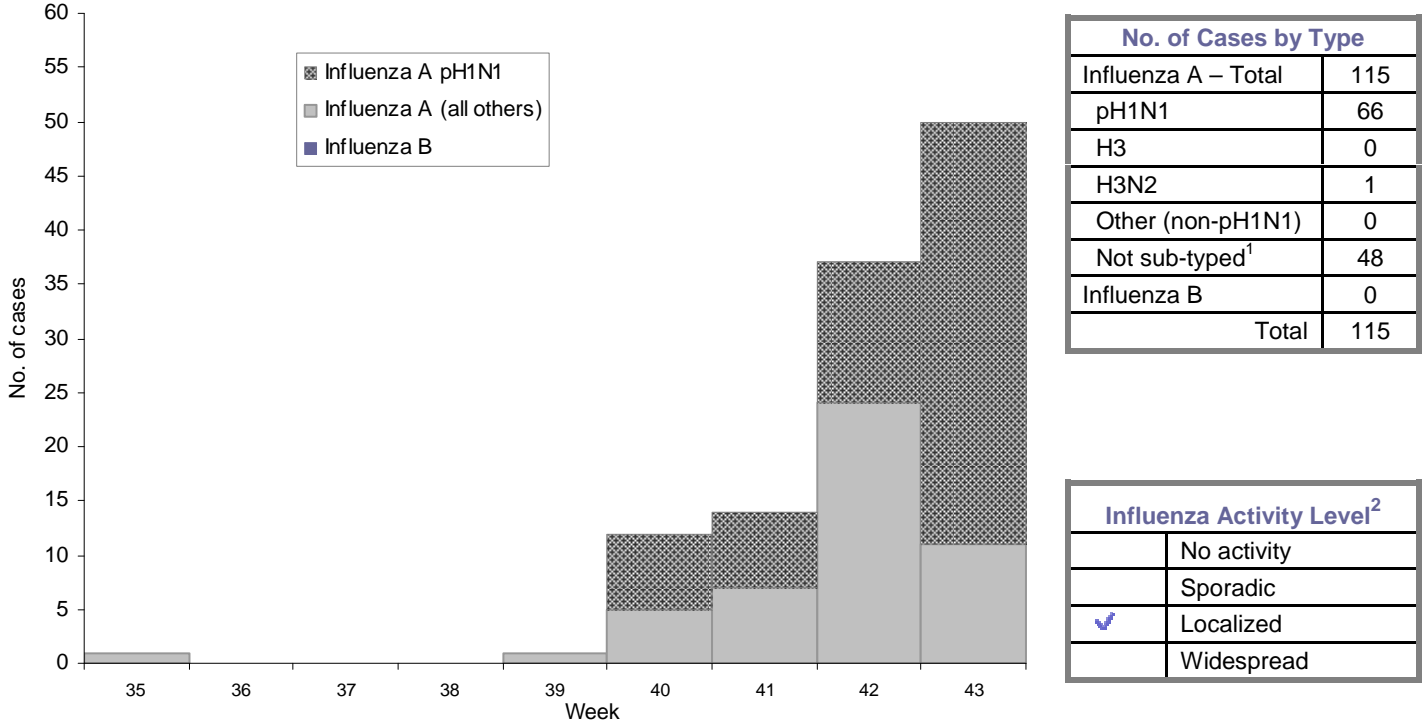
Released November 5, 2009

Region of Waterloo

PUBLIC HEALTH

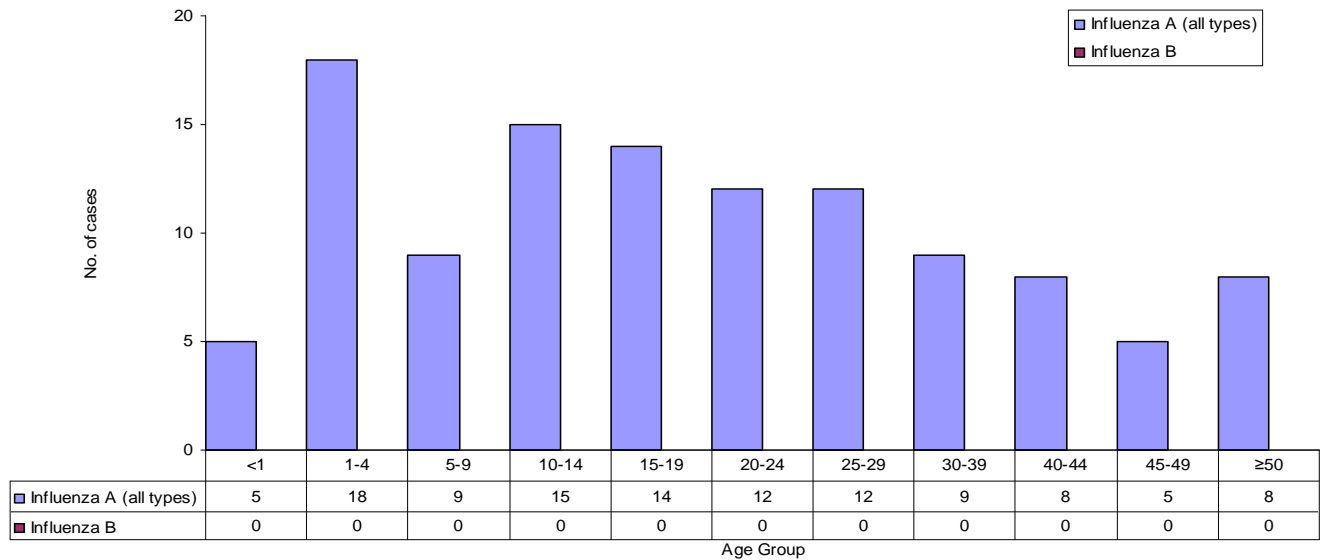
Influenza and Outbreak Activity: September 1, 2009 to October 31, 2009 (Week 35-43)

Figure 1: Number of laboratory confirmed cases of influenza by week and type, Waterloo Region, September 1, 2009 to October 31, 2009³



Updated: 4-Nov-09

Figure 2: Number of laboratory confirmed cases of influenza by age and type, Waterloo Region, September 1, 2009 to October 31, 2009

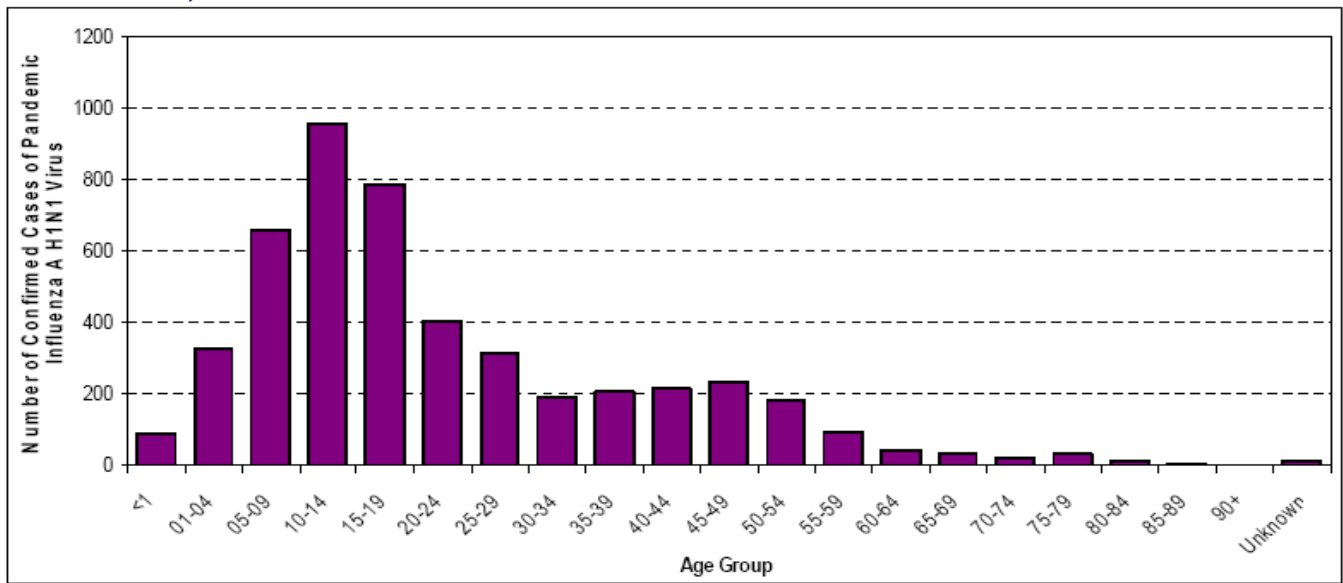


¹ Not sub-typed includes all Influenza A cases that had a sub-type of “blank”, “untypeable” or “not-subtyped”.

² For definitions of influenza activity levels: <http://www.phac-aspc.gc.ca/fluwatch/09-10/def09-10-eng.php>

³ Note: In Ontario, the onset date of symptoms for the first confirmed case of Influenza A pH1N1 virus was April 11, 2009. The weeks refer to FluWatch weeks, which are established by the Public Health Agency of Canada.

Figure 3: Laboratory confirmed cases of pandemic H1N1 in Ontario by age group, April 13, 2009 to October 24, 2009



SOURCE: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted [28/10/2009].

Figure 4: Number of laboratory confirmed cases of influenza A by week, Waterloo Region, 2005-2009

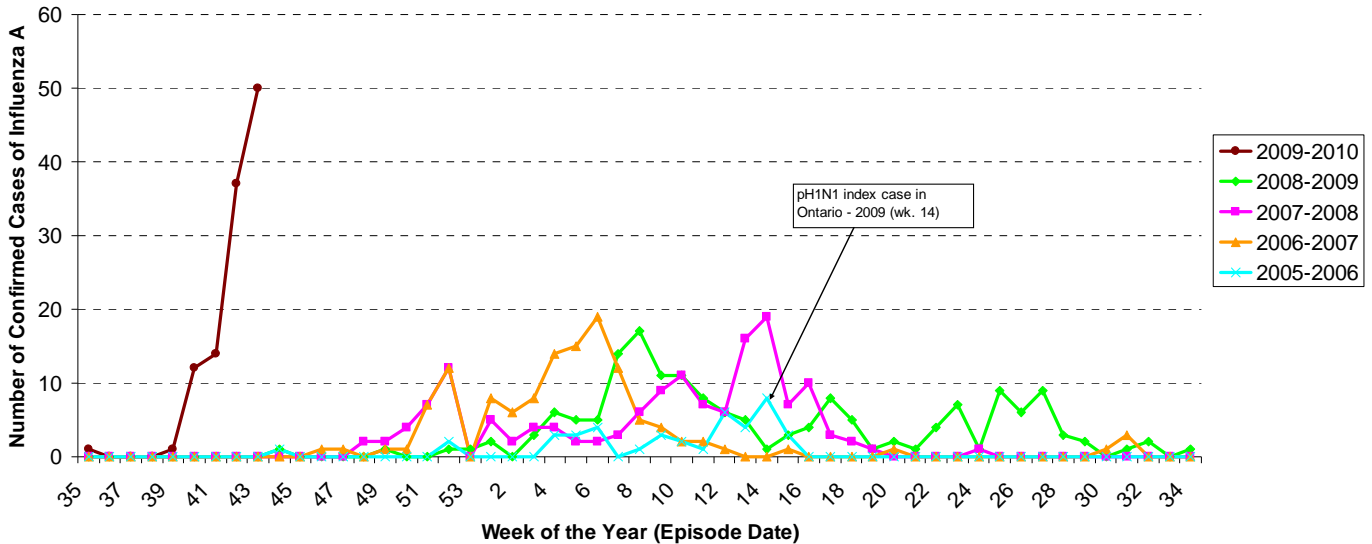


Table 1: Pandemic H1N1 indicators, Waterloo Region and Ontario, September 1, 2009 to October 31, 2009

Indicator	Waterloo Region*	Ontario*
Laboratory confirmed H1N1 cases	66	713
Number of H1N1 hospitalizations	12	150
Population-based hospitalization rate	0.80 per 100,000 residents	1.20 per 100,000 Ontarians
Number of deaths among H1N1 confirmed cases	0	7
Population-based mortality rate	0	0.05 per 100,000 Ontarians
Age range of laboratory confirmed H1N1 cases^	<1 – 70 years	<1 – 89 years
Age of hospitalized cases	Range: 2 – 70 years Median age: 10 years Average age: 20 years	Range: <1 – 87 years Median age: 21 years Average age: 28 years
Statistics on fatal cases^	N/A	73 per cent were over age 40 87 per cent had underlying medical conditions

* Waterloo Region data is current as of October 31, 2009, while Ontario data is current as of October 24, 2009.

^ Ontario data reflects all cases from Week 14-42 (April 5, 2009 to October 24, 2009).

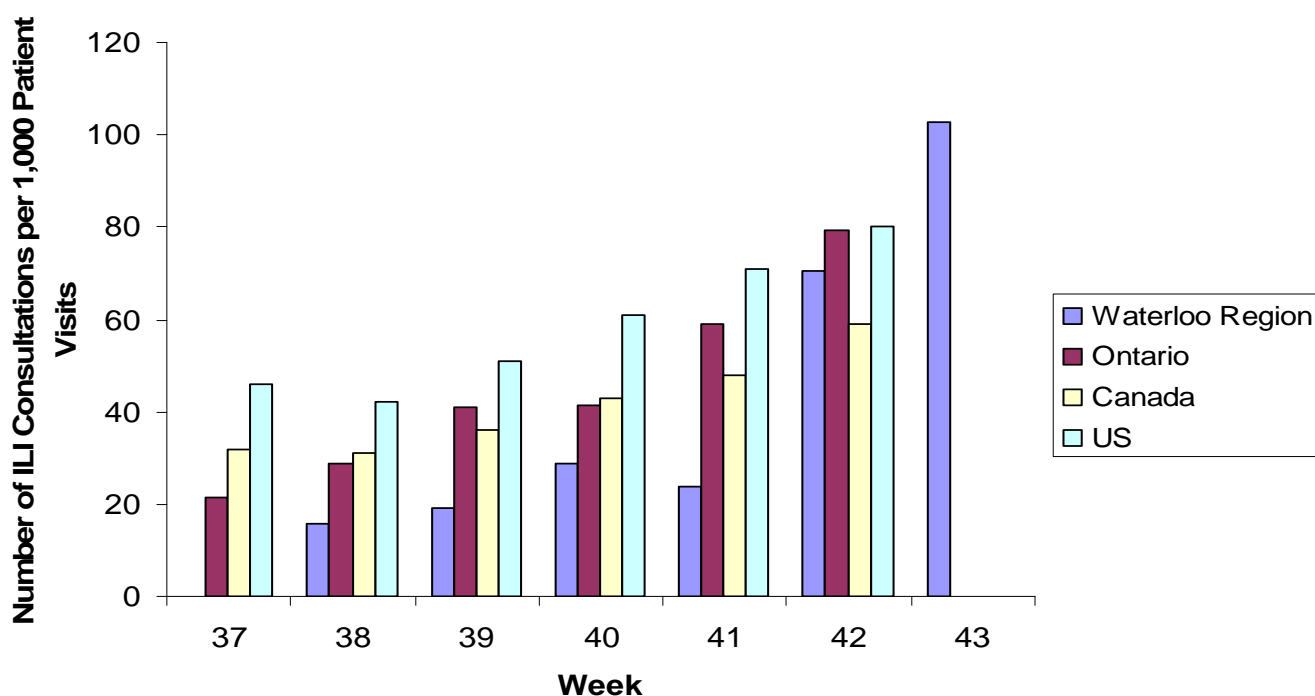
Proxy Indicators for Influenza Surveillance

Influenza-Like-Illness

The number of Influenza-Like Illness (ILI)⁵ visits is a useful indicator of the level of community transmission of pH1N1 and the resulting burden on primary care practices. Transmission patterns suggest that pH1N1 is more prevalent in the younger age groups (5 – 19 years). As such, we are tracking the ILI consultation rate at post-secondary institutions⁶ health services in Waterloo Region as well as in select primary care practices⁷, as an indicator of potential pH1N1 activity. ILI information may change on a weekly basis as data is collected from additional primary care practices. Therefore, rates reported in the current bulletin may not equal rates reported in previous weeks.

ILI consultation rates for Waterloo Region are available for weeks 38-43 (September 20 – October 31, 2009), while rates reported by sentinel physicians in Ontario, Canada, and the U.S. are available for weeks 37-42 (September 13 – October 24, 2009).

Figure 5: Rates of Influenza-Like-Illness (ILI) consultations by geography, September 13 – October 31, 2009



Hospital-Based Data

Monitoring the number of Emergency Room visits and the number of hospital-based deaths are indicators which the Ministry of Health and Long Term Care (MOHLTC) is interested in tracking as useful indicators of the level of community transmission of pH1N1 and the resulting burden on hospitals. The figures below include aggregated data from all three acute care hospitals within the Region of Waterloo: Cambridge Memorial Hospital, Grand River Hospital, and St. Mary's General Hospital.

⁵ Case definition for ILI is: acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, arthralgia, myalgia, or prostration which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

⁶ Post-secondary institutions include Conestoga College, Wilfred Laurier University, and University of Waterloo

⁷ Data from an additional primary care practice was included during week 43.

Figure 6: Total all-cause Emergency Room (ER) visits by week, Waterloo Region, September 6 – October 31, 2009

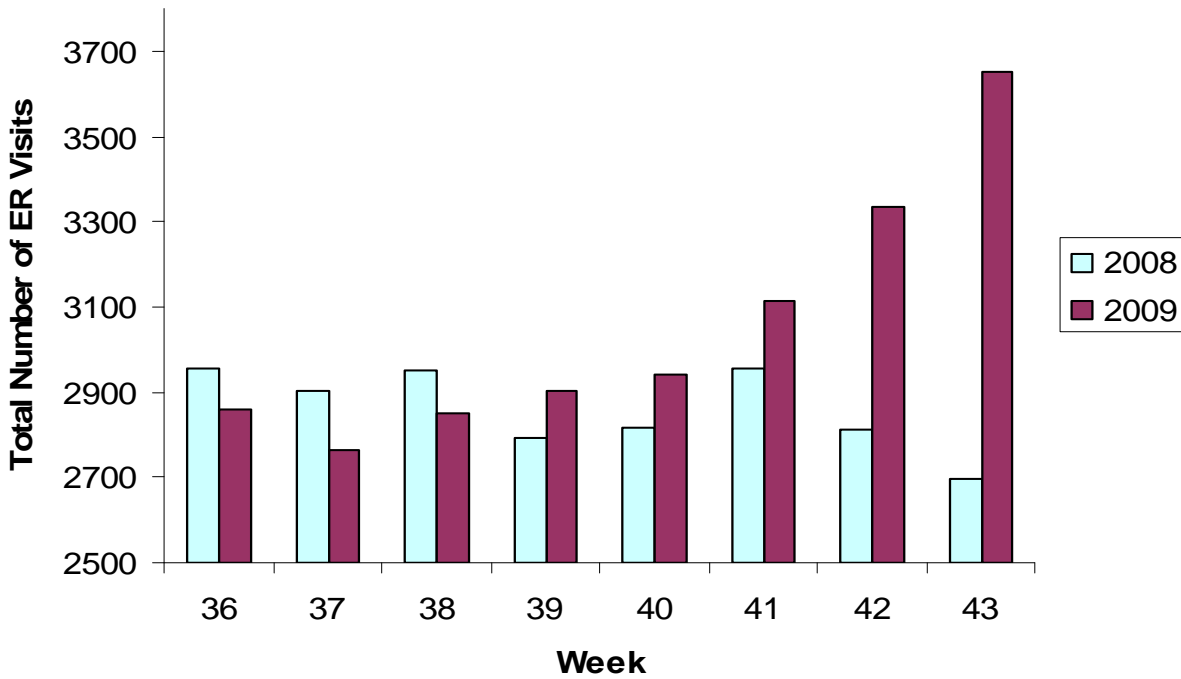
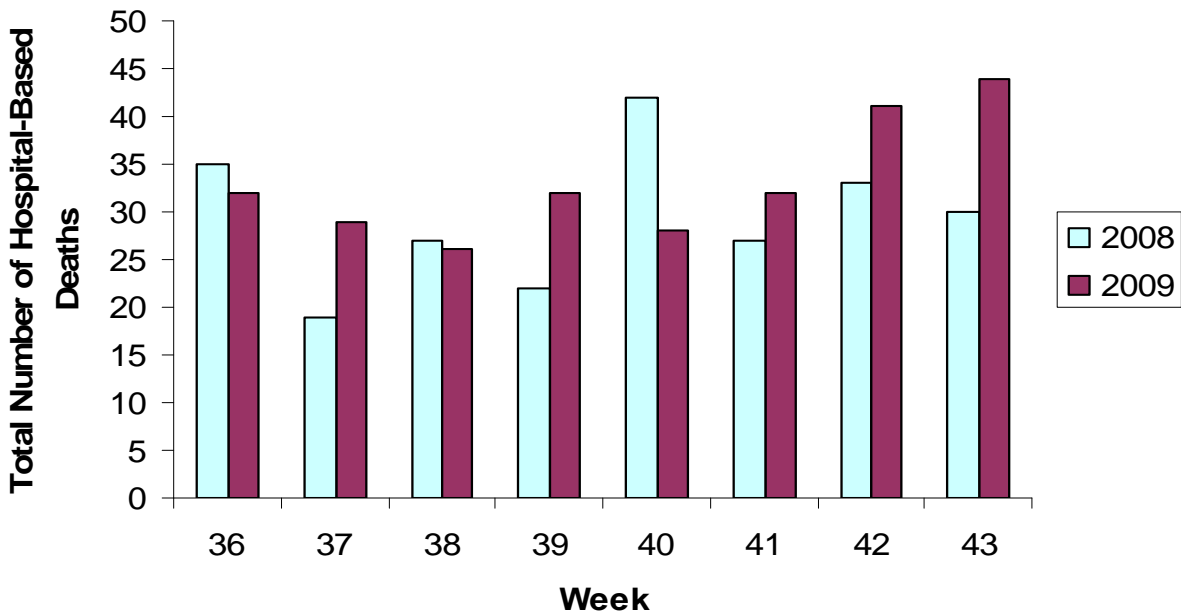


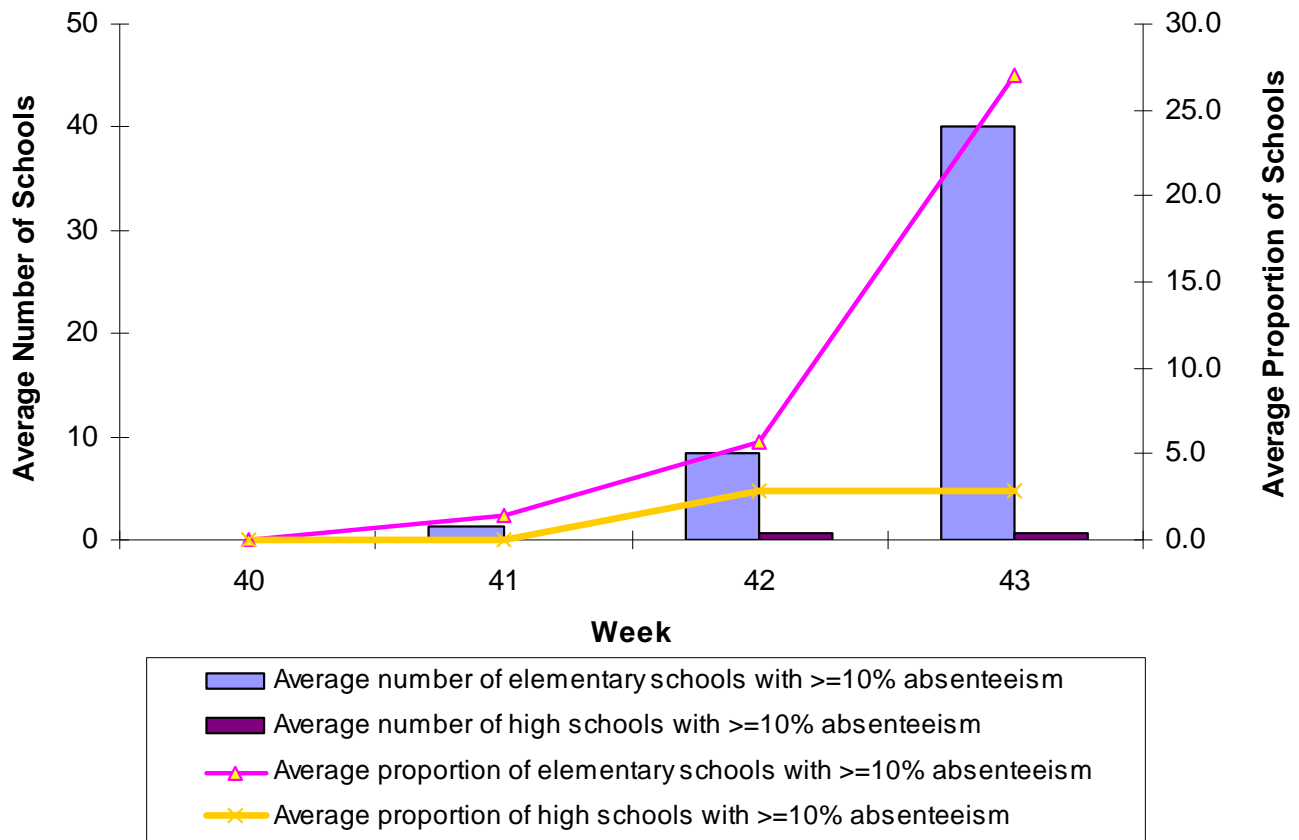
Figure 7: Total all-cause hospital-based mortality by week, Waterloo Region, September 6 – October 31, 2009



School Absenteeism

Since pH1N1 is more prevalent in the younger age groups, monitoring school absenteeism rates is a useful indicator of the level of community transmission of the virus. An absenteeism rate of 10% or greater has been identified as a threshold by the MOHLTC to signify higher than expected levels of school absenteeism. The figure below shows the number and proportion of schools in the Region of Waterloo that meet this threshold, by week and type of school (elementary or secondary).

Figure 8: Number and proportion of schools reporting $\geq 10\%$ absenteeism (all-cause) by week and type of school, Waterloo Region, October 6 – 31, 2009



For provincial and national influenza information, please visit the following websites:

MINISTRY OF HEALTH AND LONG-TERM CARE (MOHLTC)

The latest Ontario Influenza Bulletin can be viewed at the following site:

http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_08/flubul_mn.html

The latest information on Influenza A pH1N1 virus in Ontario can be viewed at the following site:

http://www.health.gov.on.ca/english/public/updates/archives/hu_09/provider/default.html

HEALTH CANADA

The latest Health Canada FluWatch can be viewed at the following site:

<http://www.phac-aspc.gc.ca/fluwatch/08-09/index-eng.php>