

**Notes and Summary**

**Context:** Data contained in this report is a compilation of both external and internal sources and includes the most updated versions available at the time of writing. There can be up to a 12-day reporting lag depending upon the data source. Please contact the epidemiologist [epi@healthunit.org](mailto:epi@healthunit.org) if you find any errors in this report or would like to see changes or additions to the report content or reporting theme.

**Summary:** The overall influenza activity for week 42 (October 18 – October 24, 2009) increased nationally and internationally when compared to the previous reporting week (week 41). The number of regions reporting both localized and widespread H1N1 activity has increased as well. Those admitted to hospital with H1N1 tend to be younger (median age = 24 years) with close to equal amount of males and females reporting.

Locally, we have seen a moderating or decrease trend in the numbers of Respiratory/Fever/ILI cases presenting to local hospitals. As well, the number of syndromic surveillance alerts have decreased..

School absenteeism has decreased to an average of 46.0 absenteeisms per 1000 students in both primary and secondary schools reporting in LGLDHU.

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**Websites of Interest:**

(Hover pointer over link press CNTRL + Click to hyperlink)

**Local:**

[LGLDHU](#)

**Ontario:**

[OAHPP](#)

[MOHLTC](#)

**Flu Bulletins**

**Canada:**

[PHAC](#)

[FluWatch](#)

[CCIAP](#)

**International:**

[WHO](#)

[CDC](#)

[HealthMap](#)

## National/International Influenza Summary

### **National Summary – Week 42 (Oct 18 – Oct 24, 2009):**

Striking increases in overall influenza activity were reported this week. All indicators (proportion of positive influenza tests, national ILI consultation rate, number of regions reporting widespread activity and number of influenza outbreaks) were considerably higher this week compared to the previous weeks.

Ten regions reported widespread activity in BC, SK, NL & NT and fourteen regions in BC, AB, SK, ON, QC, NB & NS reported localized activity, while twenty-three regions reported sporadic activity in MB, ON, QC, NB, PEI, NS, NL, YK & NU and seven regions in NB, NS & NL reported no activity. The 226 influenza outbreaks reported this week were all in schools except 6 in hospitals (ON, NL), 3 in long-term care facility (BC, QC) and 3 in an unspecified location (AB, ON). The school outbreaks were in BC (100), AB (87), NT (16), SK (4), NS (4), NL (2) and NB (1). Note that this is the first year that all the provinces and territories are reporting influenza outbreaks in schools (greater than 10% absenteeism on any day most likely due to ILI) which is increasing considerably the total number of outbreaks reported compared to the previous years.

The national crude hospitalization rate was 5.3 per 100,000 population with the highest rates in children under 15 years of age (12.1 per 100,000). The national crude mortality rate was 0.28 per 100,000 population; those 45 years and older had the highest mortality rate (0.40 per 100,000). The ICU admission rate and ventilation rate were also elevated in children under one year of age (3.6 and 3.0 per 100,000, respectively).

There were 93 (26.6%) hospitalized pregnant women out of 350 hospitalized women between 15 and 44 years of age for whom the information on pregnancy was available. The median age among all pregnant cases was 28 years (range 16 to 42 years). Information on pregnancy trimester was available for 44 hospitalized women: 33 (75%) of these 44 pregnant women were in their third trimester and one woman was in postpartum. Pregnant women, who represent 1% of the population in a given year, are presenting with a higher burden of morbidity and mortality: 5% of hospitalized cases and 4% of deaths occurred among pregnant women. However, hospitalized pregnant women were admitted to ICU less frequently (18.3% vs. 29.2%), required ventilation less frequently (5.4% vs. 15.2%) and had less underlying medical conditions (33.3% vs. 57.2%) compared to hospitalized non-pregnant women between 15 and 44 years of age. The main underlying medical conditions reported by hospitalized pregnant women were pulmonary disease (including asthma) (11) and diabetes (5). Four pregnant cases resulted in death and three of these women were in their third trimester (the trimester was unknown for one case).

This week, 99.7% of the positive influenza A sub-typed specimens were Pandemic (H1N1) 2009

*(Source: Flu Watch: Public Health Agency of Canada. Issued Oct 30, 2009)*

**International Summary – Week 42 (Oct 18 – Oct 24, 2009):**

Pandemic (H1N1) 2009 influenza virus is the predominant circulating influenza virus in most regions of the Northern Hemisphere where spread of influenza continues to be widespread and trends of acute respiratory disease continue to increase. In the Southern Hemisphere, influenza activity has returned to below baseline levels.

Influenza activity in the northern hemisphere is much the same as in the last week, though respiratory disease activity continues to spread and increase in intensity. In North America, the U.S.A. is still reporting nationwide rates of Influenza-Like Illness (ILI) well above baseline rates, with high rates of pandemic H1N1 2009 virus detections in clinical laboratory specimens (29% of all specimens tested are positive for influenza A and all of those sub-typed are pandemic H1N1 2009 virus). Canada reported increases in ILI rates for the fourth straight week but the highest level of activity is in the western province of British Columbia. Mexico reports increases in laboratory-confirmed cases in some areas of the country. Although influenza activity is low in most countries in Europe, in Belgium, Israel, the Netherlands, Norway, and parts of the United Kingdom, consultation ILI and acute respiratory illness (ARI) rates are above baseline levels. Similarly, the number of influenza virus detections is relatively high, which may indicate the early start of an influenza season. Rates of respiratory illness in Eastern Europe and Northern Asia are increasing but are not yet at levels normally seen in an influenza season (baseline levels are not defined in many countries of the area). Of note, the proportion of cases in Asia that are related to seasonal influenza A (H3N2) continue to decline globally as the proportion related to pandemic H1N1 2009 virus increases. Currently, only East Asia is reporting any significant numbers of influenza A (H3N2) isolates.

*(Source: International Influenza Report 2009: Public Health Surveillance Unit, Public Health Division. MOHLTC. Issued Oct 28, 2009)*

Please see tables and figures on next 3-pages for weekly cumulative counts of hospitalizations, ICU admissions and deaths attributable to pandemic H1N1 in Canada, as well as regional influenza reporting and sentinel physician reporting up to the end of Week 41 (Oct 11 – Oct 17, 2009).

**Table 1:** Weekly and cumulative counts of hospitalized cases, ICU admissions and deaths among Pandemic (H1N1) 2009 confirmed cases, Canada, for Week 42 (Oct 18 to 24, 2009).

| Province/Territory | Week 42 (Oct 18 – Oct 24) |                |        | From August 30 to Oct 24, 2009* |                    |        |
|--------------------|---------------------------|----------------|--------|---------------------------------|--------------------|--------|
|                    | Hospitalized cases        | ICU admissions | Deaths | Hospitalized cases              | ICU-admitted cases | Deaths |
| <b>BC</b>          | 88                        | 21             | 3      | 145                             | 30                 | 7      |
| <b>AB</b>          | 44                        | 7              | 4      | 53                              | 9                  | 4      |
| <b>SK</b>          | 0                         | 0              | 0      | 1                               | 0                  | 1      |
| <b>MB</b>          | 0                         | 0              | 0      | 0                               | 0                  | 0      |
| <b>ON</b>          | 32                        | 8              | 2      | 65                              | 13                 | 4      |
| <b>QC</b>          | 2                         | 1              | 0      | 13                              | 2                  | 1      |
| <b>NB</b>          | 1                         | 1              | 0      | 1                               | 1                  | 0      |
| <b>NS</b>          | 0                         | 0              | 0      | 0                               | 0                  | 0      |
| <b>PE</b>          | 0                         | 0              | 0      | 0                               | 0                  | 0      |
| <b>NL</b>          | 0                         | 0              | 0      | 0                               | 0                  | 0      |
| <b>YT</b>          | 0                         | 0              | 0      | 0                               | 0                  | 0      |
| <b>NT</b>          | 8                         | 1              | 0      | 21                              | 3                  | 0      |
| <b>NU</b>          | 0                         | 0              | 0      | 0                               | 0                  | 0      |
| <b>Canada</b>      | 175                       | 39             | 9      | 299                             | 58                 | 17     |

**Notes:** Based on second wave start date.

*(Source: Flu Watch: Public Health Agency of Canada. Issued Oct 30, 2009)*

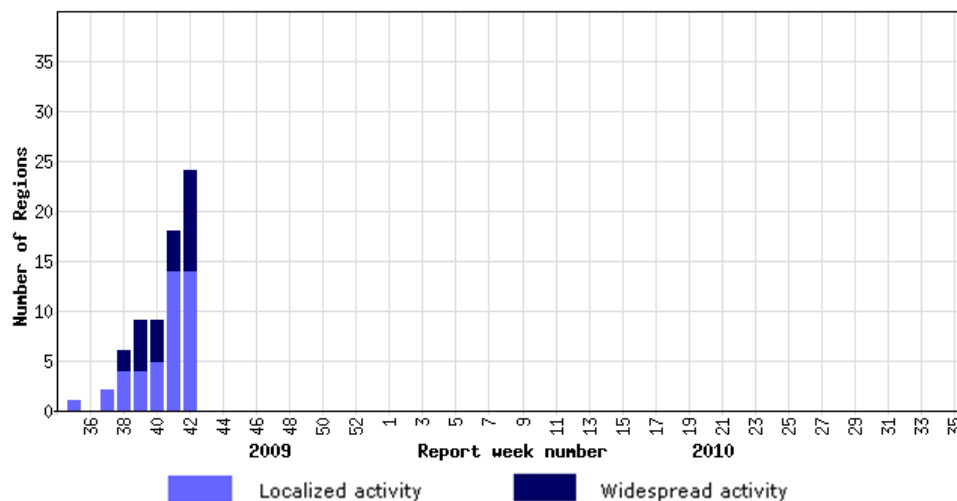
**Table 2:** Descriptive characteristics of laboratory-confirmed Canadian Pandemic (H1N1) 2009 hospitalized cases, cases admitted to ICU and deaths with core information available.

| Description   | As of week 42 (Oct 18 - Oct 24, 2009) |                               |               |
|---|---------------------------------------|-------------------------------|---------------|
|   | Hospitalized cases (n=1,779)          | Cases admitted to ICU (n=351) | Deaths (n=92) |
| <b>Females, %</b>                                   | 51.8                                  | 56.4                          | 60.9          |
| <b>Median age</b>                                   | 24.0                                  | 37.5                          | 50.0          |
| <b>Aboriginal status, %</b>                         | 16.5                                  | 13.4                          | 10.9          |
| <b>Underlying medical conditions<sup>1</sup>, %</b> | 61.9 (735/1,187)                      | 72.7 (181/249)                | 79.7(55/69)   |
| <b>Pregnancy<sup>2</sup>, %</b>                     | 26.6 (93/350)                         | 19.3 (16/83)                  | 23.5 (4/17)   |

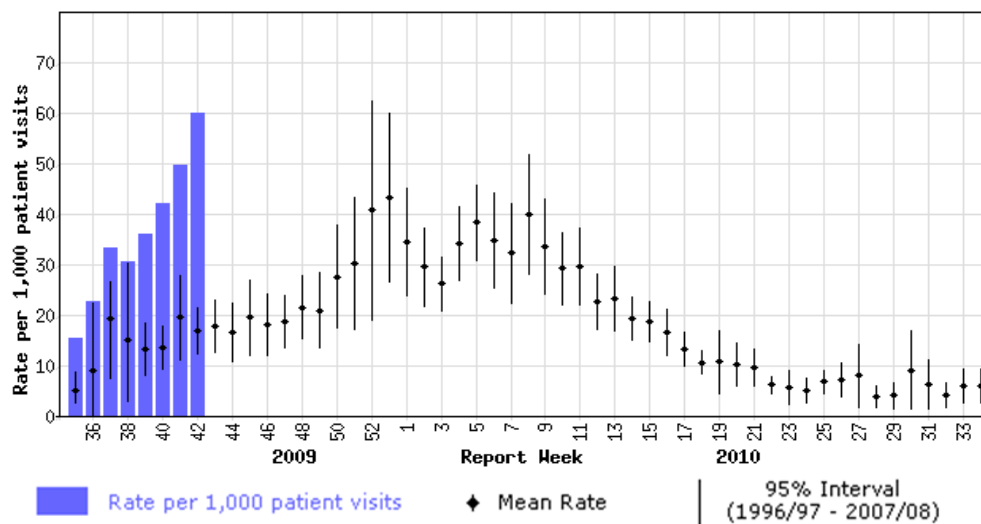
**Notes:** 1 Proportion of cases with at least one underlying medical condition (excluding pregnancy) among those for whom the information was available. Note that P/T are now reporting on three additional underlying medical conditions : chronic liver disease, chronic neurological disease and anemia or hemoglobinopathy. 2 Percent of pregnant women among women 15 to 44 years of age.

*(Source: Flu Watch: Public Health Agency of Canada. Issued Oct 30, 2009)*

**Figure 1:** The number of influenza surveillance regions reporting widespread or localized influenza activity in Canada increased in week 42.



**Figure 2:** This week, the national ILI consultation rate was 59 consultations per 1,000 patient visits (see ILI graph) which is higher compared to the previous weeks and still above the expected range for this time of the year. Four provinces (ON, NL, YK & NT) had higher ILI consultation rates than the national level this week. People under 20 years of age had the highest consultations rates with 131 and 150 per 1,000 patient visits among children under 5 years of age and among those 5 and 19 years of age, respectively.



(Source for figures 1 & 2: Flu Watch: Public Health Agency of Canada. Issued Oct 30, 2009)

**Summary of Influenza Indicators for Ontario**

**Table 3:** Assessment of influenza activity for Ontario. Coverage for period October 18 – October 24, 2009 (Week 42).

| Measure   | Assessment of Trends | Comments  |
|---|----------------------|---|
| <i>Compared to previous week</i>  |                      |   |
| Laboratory confirmed cases  | Higher               | 553 total influenza cases (423 pH1N1) in week 42 compared to 198 reported in week 41 (144 pH1N1). The percent positivity for pH1N1 was 31.7% which is still lower than the peak in June 2009 (> 40%)      |
| Influenza A outbreaks   | Higher               | Three new institutional influenza outbreaks were reported for the current reporting week. There were no new pH1N1 outbreaks declared for schools for week 42  |
| Influenza activity reported by Health Units                                   | Higher               | Five health units reported widespread influenza activity for the current reporting week. Ten health units reported localized influenza activity and 16 health units reported sporadic influenza activity. |
| ILI consultation rates reported by sentinel physicians                        | Higher               | The overall ILI consultation rate increased from 58.9/1000 patient visits to 72.2/1000 patient visits   |
| <i>Overall Assessment for this week</i>                                       |                      |   |
| Influenza activity in Ontario is <i>higher</i> compared to the previous week. |                      |   |

(Source: Ontario Influenza Bulletin: MOHLTC. Issued Oct 28, 2009)

**Summary of Influenza Indicators for Leeds, Grenville & Lanark**

**Table 4:** Assessment of influenza activity for LGLDHU. Coverage for period varies by date due to different reporting sources.

| Measure  | Assessment of Trends | Comments  |
|--|----------------------|---|
| <i>Compared to previous week</i>   |                      |   |
| Laboratory confirmed cases   | Lower                | LGLDHU has 14 lab-confirmed H1N1 cases and 5 Influenza A cases during week of Oct31—Nov 04 so far. This compares with 31 H1N1 and 5 Influenza A cases Oct 24-30 |
| Influenza A outbreaks  | Higher               | One institutional influenza A outbreak has been reported for the current reporting week so far.   |
| Influenza activity overall in LGLDHU   | Higher               | There was localized influenza activity within LGLDHU for week of Oct 31—Nov 06.   |
| School absenteeism reporting by sentinel schools   | Lower                | The overall absenteeism rate per 1,000 students has decreased from 66.9/1000 from Oct 26-30 to 46.0/1000 from Nov 02—04.  |
| ILI consultation rates reported by sentinel physicians   | Higher               | ILI consultation for Oct 25-31 was higher than the previous reporting period (Oct 18—24).   |
| <i>Overall Assessment for this week</i>  |                      |   |
| Influenza activity in LGLDHU was slightly higher for the past weeks compared to the previous report. |                      |   |

**Sources:** 1) Ontario Influenza Bulletin: MOHLTC. (Issued Oct 28, 2009). 2) Weekly Provincial Influenza Activity Report Database (Appendix C), MOHLTC. 3) LGLDHU School Absenteeism Data. (Extracted Oct 30, 2009), Weekly ILI Consultation Database, MOHLTC

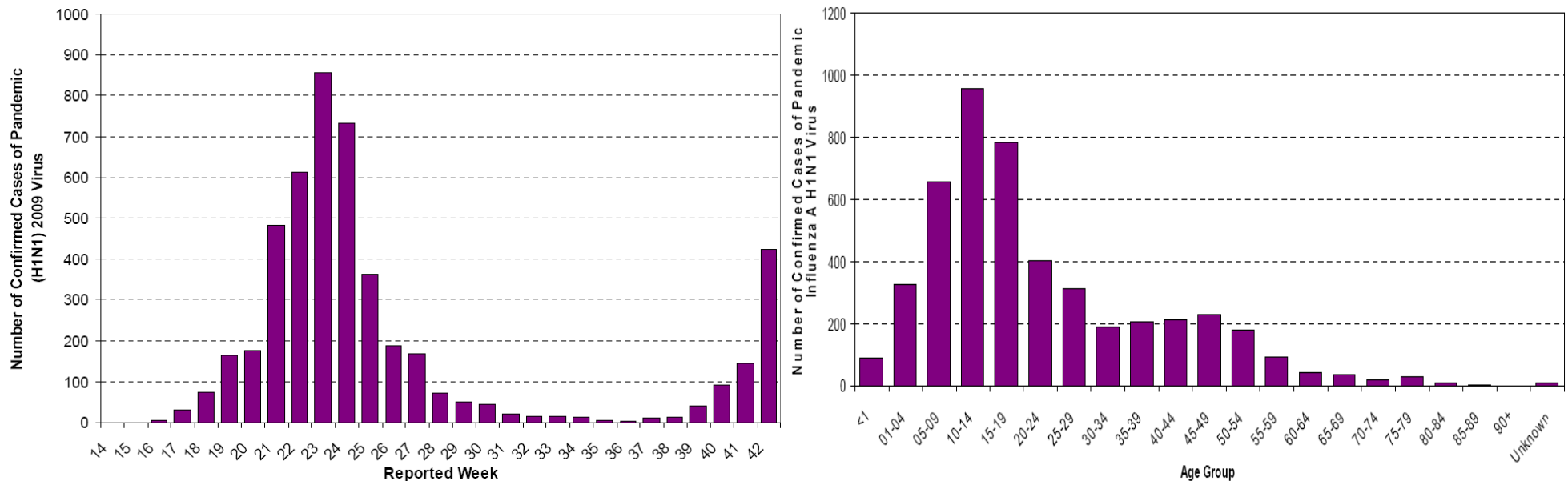
**Virus Activity Summary (Ontario)**

**Table 5:** Laboratory confirmed cases of pandemic (H1N1) 2009 virus by health unit & health region, reported during Week 42, and cumulative confirmed cases between April 1, 2009 – October 24, 2009.

| Region                    | Health Unit                             | Confirmed Influenza            |                              |
|---------------------------|---|--------------------------------|------------------------------|
|                           |   | Pandemic (H1N1) 2009 for WK 42 | Pandemic (H1N1) 2009 (Total) |
| North West                | Northwestern                            | 4                              | 78                           |
|                           | Thunder Bay District                    | 5                              | 20                           |
|                           | <b>TOTAL NORTH WEST</b>                 | <b>9</b>                       | <b>98</b>                    |
| North East                | Algoma                                  | n/a                            | 10                           |
|                           | North Bay Parry Sound District          | 3                              | 11                           |
|                           | Porcupine                               | 27                             | 38                           |
|                           | Sudbury & District                      | 6                              | 31                           |
|                           | Timiskaming                             | 1                              | 2                            |
|                           | <b>TOTAL NORTH EAST</b>                 | <b>37</b>                      | <b>92</b>                    |
| Eastern                   | City of Ottawa                          | 40                             | 434                          |
|                           | Eastern Ontario                         | 11                             | 52                           |
|                           | Hastings & Prince Edward Counties       | 1                              | 5                            |
|                           | Kingston, Frontenac, Lennox & Addington | 24                             | 54                           |
|                           | Leeds, Grenville And Lanark District    | 14                             | 24                           |
|                           | Renfrew County And District             | n/a                            | 13                           |
|                           | <b>TOTAL EASTERN</b>                    | <b>90</b>                      | <b>582</b>                   |
| Central East              | Durham Region                           | 11                             | 146                          |
|                           | Haliburton, Kawartha, Pine Ridge        | 0                              | 16                           |
|                           | Peel Region                             | n/a                            | 707                          |
|                           | Peterborough County-City                | 3                              | 10                           |
|                           | Simcoe Muskoka District                 | 9                              | 76                           |
|                           | York Region                             | 11                             | 515                          |
| <b>TOTAL CENTRAL EAST</b> | <b>34</b>                               | <b>1,470</b>                   |                              |
| Toronto                   | Toronto                                 |                                |                              |
|                           |   | 68                             | 1,696                        |
|                           | <b>TOTAL TORONTO</b>                    | <b>68</b>                      | <b>1,696</b>                 |
| South West                | Chatham-Kent                            | 7                              | 16                           |
|                           | Elgin-St. Thomas                        | 4                              | 5                            |
|                           | Grey Bruce                              | 5                              | 19                           |
|                           | Huron County                            | 0                              | 2                            |
|                           | Lambton County                          | 8                              | 16                           |
|                           | Middlesex-London                        | 27                             | 67                           |
|                           | Oxford County                           | 18                             | 24                           |
|                           | Perth District                          | 8                              | 17                           |
|                           | Windsor-Essex County                    | 8                              | 60                           |
| <b>TOTAL SOUTHWEST</b>    | <b>85</b>                               | <b>226</b>                     |                              |
| Central West              | Brant County                            | 0                              | 9                            |
|                           | City Of Hamilton                        | 28                             | 186                          |
|                           | Haldimand-Norfolk                       | 0                              | 6                            |
|                           | Halton Region                           | 19                             | 253                          |
|                           | Niagara Region                          | 30                             | 78                           |
|                           | Waterloo Region                         | 13                             | 65                           |
|                           | Wellington-Dufferin-Guelph              | 10                             | 47                           |
| <b>TOTAL CENTRAL WEST</b> | <b>100</b>                              | <b>644</b>                     |                              |
|                           | <i>Out of Province</i>                  | 0                              | 6                            |
|                           | <b>TOTAL ONTARIO</b>                    | <b>423</b>                     | <b>4,814</b>                 |

(Source: Ontario Influenza Bulletin: MOHLTC. Issued Oct 28, 2009)

**Figure 3 & 4:** Laboratory confirmed cases of Pandemic (H1N1) 2009 in Ontario by week and age group between April 13 and October 24, 2009. There has been an increasing trend in the number of confirmed H1N1 cases since week 38 (Sept 13-Sept 19, 2009). As well, there is a right-hand positive skew to the age distribution in confirmed cases. This suggests that the majority of confirmed cases of H1N1 have been in younger age cohorts .

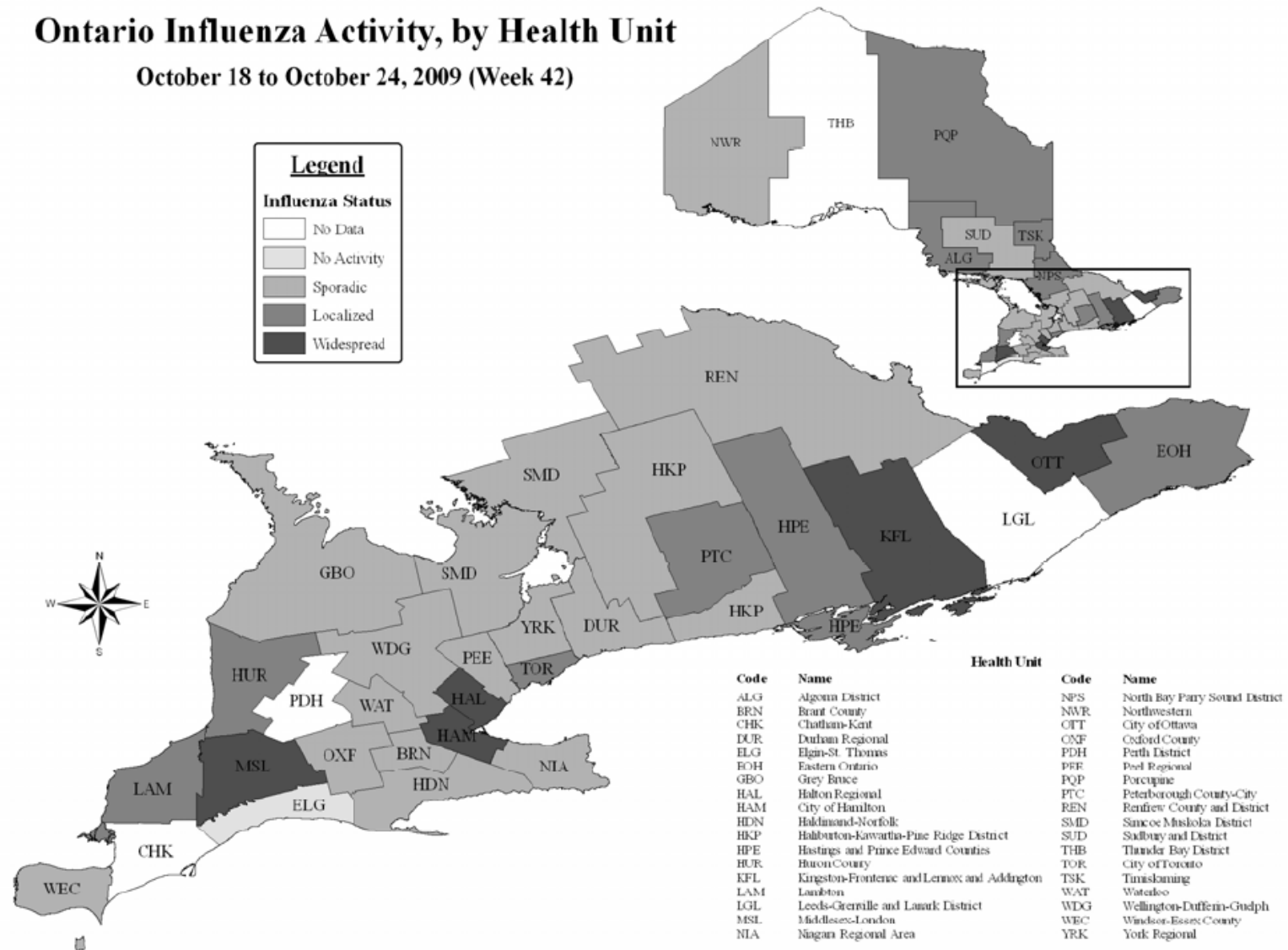


(Source: Ontario Influenza Bulletin: MOHLTC. Issued Oct 28, 2009)

Figure 5: Geographic distribution of Influenza activity within Ontario for week 42 (Oct 18 – Oct 24, 2009).

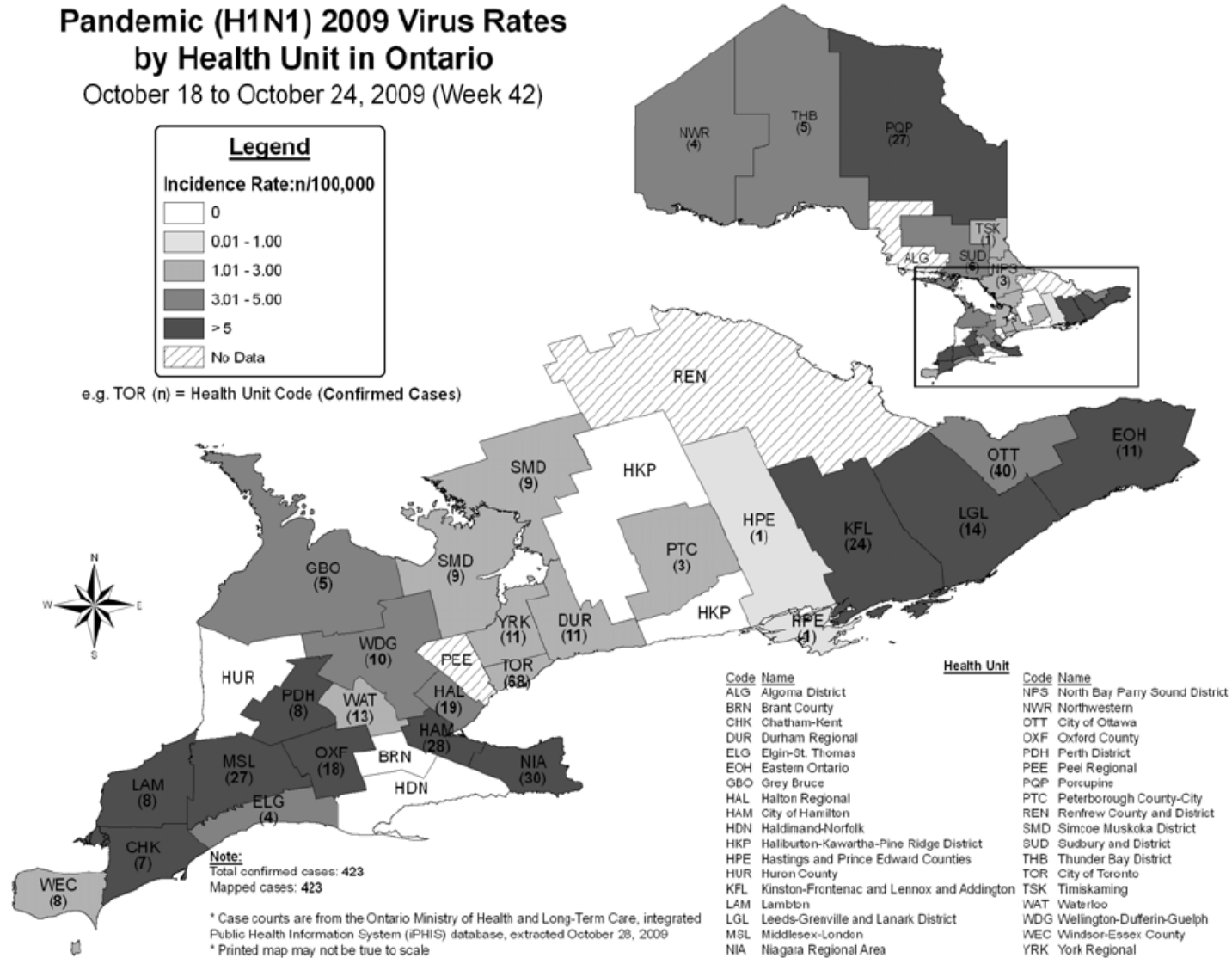
### Ontario Influenza Activity, by Health Unit

October 18 to October 24, 2009 (Week 42)



(Source: Weekly Provincial Influenza Activity Report Database (Appendix C): MOHLTC.)

Figure 6: Pandemic H1N1 2009 Virus incidence rates in Ontario by health unit for Week 42, 2009 (Oct 18 – Oct 24, 2009).

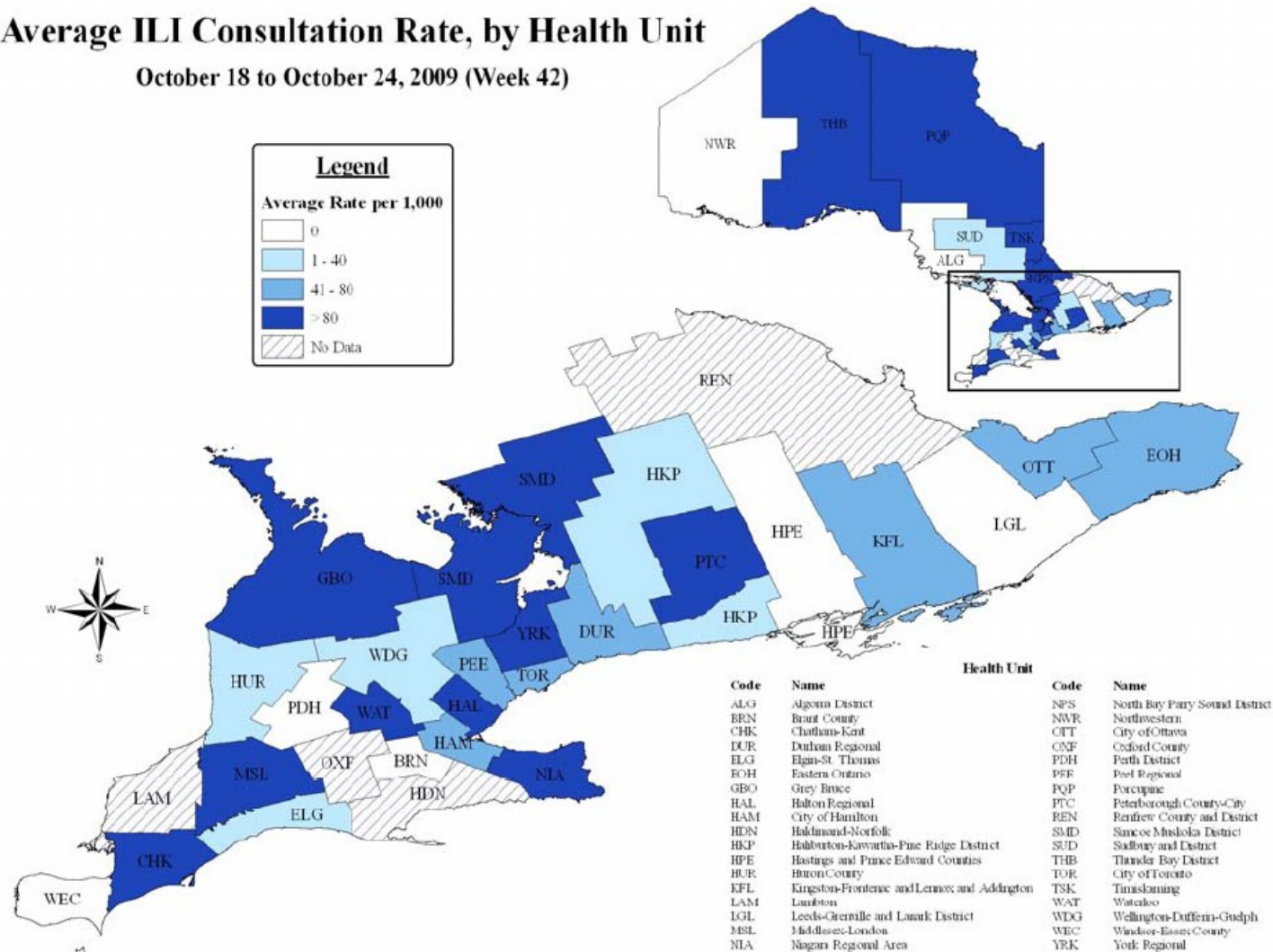


Source: Integrated Public Health Information System (iPHIS): MOHLTC. Extracted Oct 28, 2009

**Figure 7:** Sentinel physicians report ILI and patient data to the Public Health Agency of Canada each week. For week 42, sentinels reported from all Public Health Units in Ontario reported an average consultation rate of 72.2 consultations per 1000 patient visits. Note that the small numbers of sentinel physicians reporting at the local level can make the ILI rates unstable. Please interpret this data with caution.

### Average ILI Consultation Rate, by Health Unit

October 18 to October 24, 2009 (Week 42)



(Source: Sentinel Physician Report Data: Public Health Agency of Canada.)

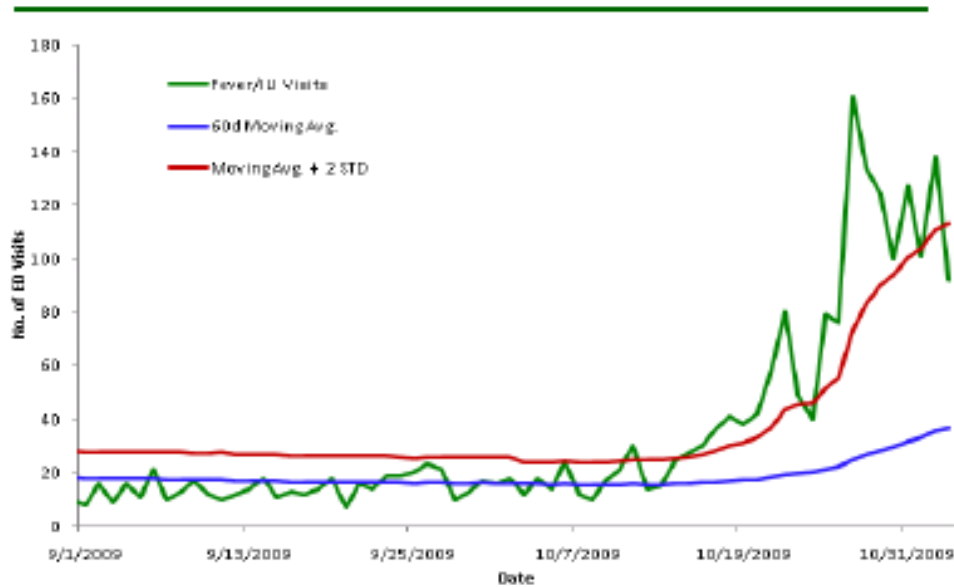
**Syndromic Surveillance Activity Summary (LGLDHU and other EDSS reporting Health Units)**

LGLDHU has been monitoring our Emergency Department Syndromic Surveillance System (EDSS) for Respiratory and ILI alerts for the past 5-months. Daily monitoring and weekly summary reports are issued to the Health Unit Incident Management Group and Communicable Disease Team. Currently LGLDHU, Kingston, Frontenac, Lennox and Addington, Hastings Prince Edward, and Peterborough County-City Health Units are participating members in the EDSS system.

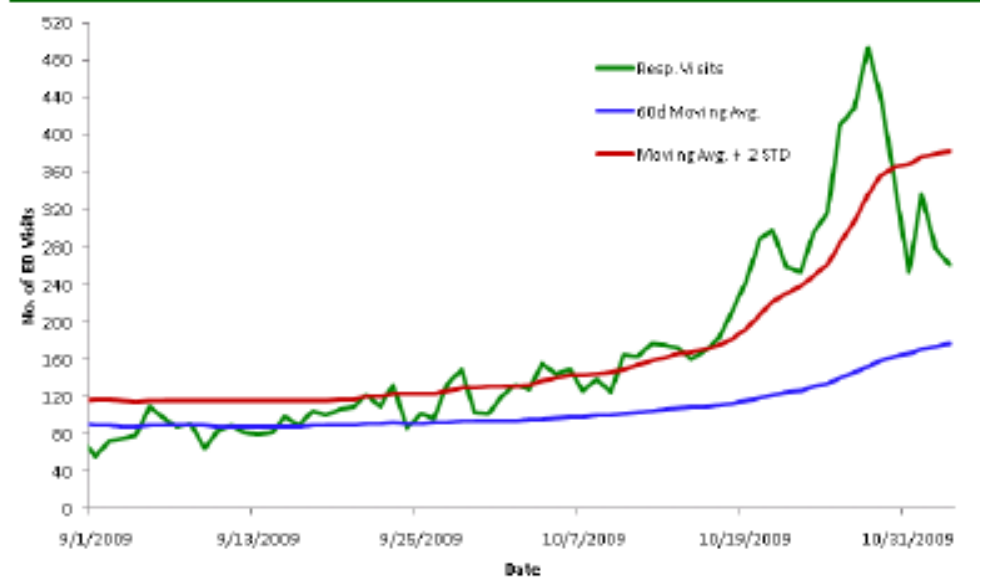
**Summary:** LGLDHU has been monitoring and investigating ongoing respiratory EDSS alerts for the past 5-weeks. Observed case counts reporting to hospital Emergency Departments have been significantly exceeding what is expected on a daily basis for this time of year. However, alerts issued over the past week for Respiratory and Fever/ILI have become sporadic.

**Trend Analysis (overall):** In terms of all regional hospitals reporting into the EDSS system from Oct 28—Nov 03, the trend for both Fever/ILI and Respiratory complaints is beginning to show a leveling trend. However, the number of daily ED visits is still above the 60-day moving average.

Fever/ILI ED Visits to All Regional Hospitals

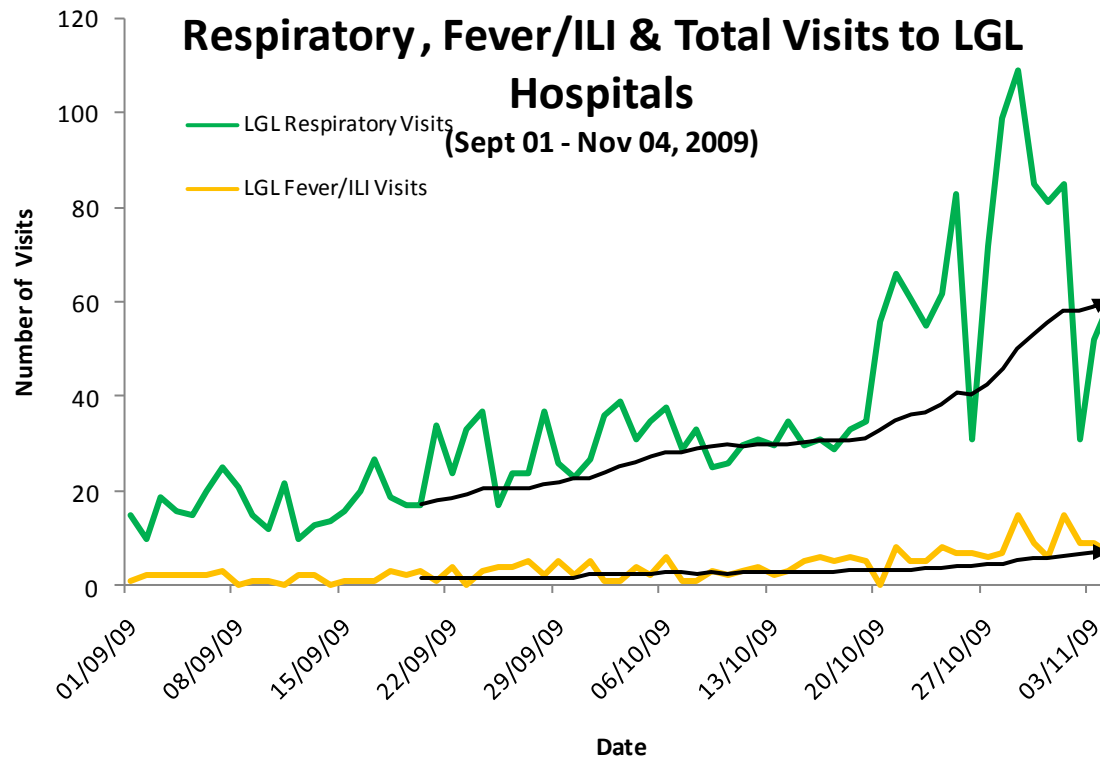


Respiratory ED Visits to All Regional Hospitals



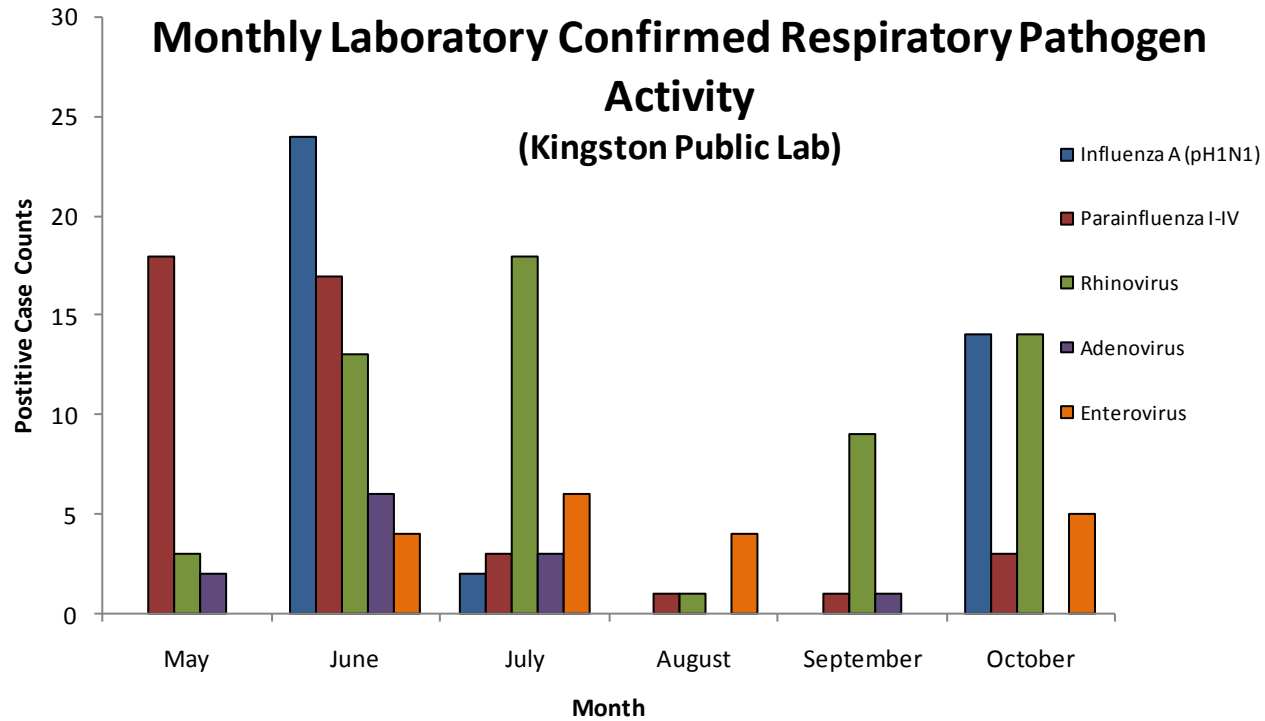
(Source: Emergency Department Syndromic Surveillance System Data. (Extracted Nov 04, 2009)

**Trend Analysis (LGLDHU):** In terms of all reporting hospitals in LGLDHU (Brockville General, Smith’s Falls, Great War Memorial hospitals), the overall trend for respiratory complaints has been upward since the beginning of September 2009. However, there has been a leveling trend since November 3rd. Fever/ILI complaints represent approximately 4% of complaints. The ongoing daily Emergency Department visit alerts for the respiratory prodrome have become sporadic, representing approximately 37% of all cases presenting to the ED’s. These alerts are well distributed geographically in terms of complainant place of residence.



(Source: Emergency Department Syndromic Surveillance System Data. (Extracted Nov 04, 2009))

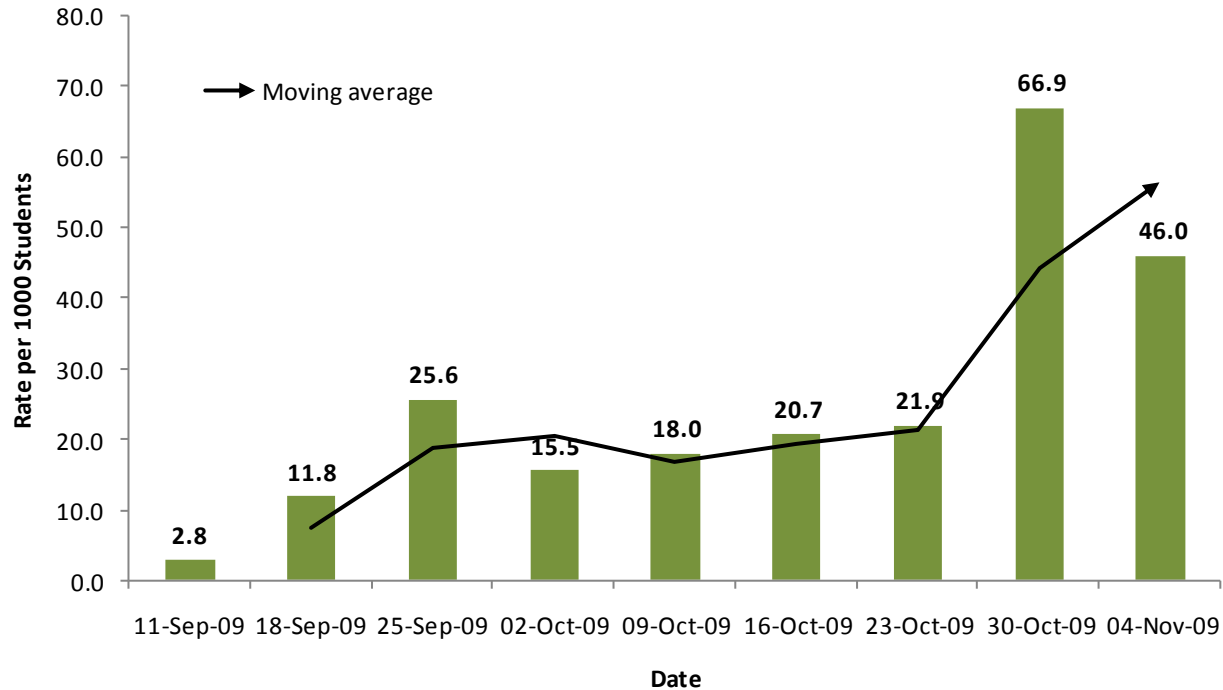
**Monthly Laboratory Analysis:** The Kingston Public Health Laboratory does respiratory pathogen analysis for a catchment area that spans from Peterborough in the west to Cornwall in the east. The month of September saw an increase in positive laboratory confirmed case counts for both Rhinovirus and Adenovirus. So far October has seen a dramatic increase in the number of positive laboratory confirmed pH1N1 cases (see figure below).



(Source: Emergency Department Syndromic Surveillance System Data. (Extracted Oct 27, 2009))

**School/Staff Absenteeism/Telehealth & Health Unit Call Volumes**

LGLDHU is reporting school absenteeism weekly as per Appendix C issued by the MOHLTC. Rates of absenteeism have fallen for the first time since early October. For the week of Nov 02—Nov 05 the absenteeism rate per 1000 students was below the moving average with schools reporting an average absenteeism rate of 46.0/1000 students in both primary and secondary schools.



*(Source: LGLDHU School Absenteeism Data. (Extracted Nov 05 2009)*

## **Influenza Subtypes and Viral Characteristics**

### **Influenza Subtype(s):**

During week 42, a total of 13683 isolates were received by the Public Health Agency of Canada, with 3962 testing positive for influenza A and none positive for influenza B. 1212 of the reported influenza A isolates were from Alberta (30.6%), 1176 were from British Columbia (29.7%), 818 were from Ontario (20.7%), and 457 were from Quebec (11.5%).\*

### **Antigenic Characterization (National):**

Since September 1, 2009, National Microbiology Laboratory (NML) has antigenically characterized 52 pandemic H1N1 viruses and two seasonal influenza viruses (one influenza A/H1N1 and one B virus) that were received from Canadian laboratories.

#### **Pandemic Influenza A (H1N1):**

All 52 pandemic influenza A (H1N1) viruses characterized were antigenically related to A/California/7/2009, which is the pandemic reference virus selected by WHO for the 2009 influenza A (H1N1) vaccine.

#### **Seasonal Influenza A (H1N1):**

The one seasonal influenza A/H1N1 virus characterized was related to A/Brisbane/59/07, which is the influenza A/H1N1 component for the 2009-10 influenza vaccine.

#### **Influenza B:**

The one influenza B virus characterized was antigenically related to B/Brisbane/60/08, which is the influenza B component for the 2009-10 influenza vaccine.

### **Antigenic Characterization (Provincial):**

The National Microbiology Laboratory (NML) has antigenically characterized the following strains from Ontario: 27 influenza A/California/07/2009-like and 1 influenza B/Brisbane/60/2008-like.

### **Antiviral Resistance (National):**

Four seasonal influenza A viruses (one H1N1 and three H3N2) and 39 pandemic H1N1 viruses were tested for resistance to amantadine and found that all were resistant. Two seasonal influenza viruses (one H1N1 and one B) and 36 pandemic H1N1 viruses were tested for resistance to oseltamivir and found that one seasonal H1N1 isolate was resistant to oseltamivir. One pH1N1 isolate was resistant to oseltamivir with the H275Y mutation. The resistance was associated with oseltamivir treatment. 35 pH1N1 isolates were sensitive to oseltamivir. The B virus was sensitive to oseltamivir.

### **Antiviral Resistance (Provincial):**

13/14 influenza pH1N1 isolates were sensitive to oseltamivir, 17 of 17 tested were sensitive to zanamivir, and 17 of 17 tested were resistant to amantadine. The influenza B isolate was sensitive to oseltamivir and zanamivir. The one H3N2 isolate was also resistant to amantadine.†

\* These data have been obtained from the Respiratory Virus Detection tables of Public Health Agency of Canada and do not include data from late reports to PHAC: Week 42, 2009. Please note that the last version received from PHAC as of 4:00PM on October 29, 2009 was used. † These data have been obtained from the National Microbiology Laboratory of the Public Health Agency of Canada for Week 42, 2009.

*(Source: Ontario Influenza Bulletin: MOHLTC. Issued Oct 28, 2009)*

**Definitions/Appendices (as required)****Definitions for influenza activity levels:**

**No Data:** No activity report corresponding to the surveillance week was received at the Ministry of Health and Long-Term Care Call Centre by the Tuesday (at 4 p.m.) following the end of the surveillance period.

**No Activity: No laboratory-confirmed\* influenza and NO outbreaks detected** within the health unit/ influenza surveillance area, within the prior week, although sporadically occurring ILI may or may not be present.†

**Sporadic:** Sporadically (infrequently) occurring **ILI and at least one lab-confirmed influenza\* case with NO outbreaks** detected within the health unit area.†

**Localized:** sporadically occurring **ILI and lab-confirmed influenza\* together with outbreaks of ILI** in schools§ and work sites or laboratory-confirmed influenza in residential institutions occurring in < 50% of the health unit. Outbreaks affect a single and/or adjacent geographic area within the health unit jurisdiction, e.g. outbreaks in a nursing home and a school in close proximity to each other.†

**Widespread:** sporadically occurring **ILI and lab-confirmed influenza\* together with outbreaks of ILI** in schools and work sites, or laboratory-confirmed influenza in residential institutions occurring in > 50% of the health unit. Outbreaks affect multiple and non-adjacent geographic areas within the health unit jurisdiction, such as two or more regions of the health unit, two or more municipalities, two or more electoral wards, etc.†

\* Confirmation of influenza within the surveillance region at any time within the prior week

† Sub-regions within the province or territory as defined by the provincial/territorial epidemiologist

§Health units have been requested to consider laboratory confirmed pH1N1 outbreaks in camps in their region when evaluating ILI activity levels

**Influenza-Like Illness (ILI) Definitions:****A) ILI in the general population:**

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.

**B) ILI/Influenza outbreaks:**

**Schools and work sites:** greater than 10% absenteeism on any day, most likely due to ILI.

**Residential institutions:** two or more cases of ILI within a seven-day period, **including at least one laboratory confirmed case.**

**Current Provincial Surveillance Case Definition for pH1N1 (as of May 5, 2009):****Confirmed**

Person with or without Influenza-like illness<sup>1</sup> and Laboratory confirmation of swine influenza A (H1N1) virus infection by one or more of the following tests:

- RT-PCR with genotyping of H1 and/or N1 swine influenza virus
- Viral culture with strain typing
- Four-fold rise in swine influenza A(H1N1) virus specific antibodies by serology testing

<sup>1</sup>Influenza-like illness: Acute onset of respiratory illness with fever AND one or more of the following - cough, sore throat, arthralgia, myalgia, prostration, or malaise. In cases under 5 or 65 and older fever may not be prominent.

*(Source: Ontario Influenza Bulletin: MOHLTC. Issued Oct 28, 2009)*