

## Pandemic (H1N1) 2009 Influenza Virus Update of Current Status and Issues

August 17, 2009

### Pandemic (H1N1) 2009 virus in Middlesex-London:

The Middlesex-London Health Unit has been gathering information from a number of sources to track the local progress of the Pandemic (H1N1) 2009 influenza virus. According to these sources, influenza activity appears to be generally low in Middlesex-London; however, there is still evidence of virus circulation which is unusual for the summer. Appendix A, found at the end of this update, shows the indicators that are being used to monitor influenza activity in the community.

As of August 14, 2009, the Middlesex-London Health Unit has been notified of 23 cases of Pandemic (H1N1) influenza. In addition, the Health Unit has been notified of an additional 29 cases of influenza A infection where further testing was not done to determine the strain of influenza A involved. It is quite likely that these 29 cases were, in fact, the Pandemic (H1N1) strain because it is the only strain that is commonly circulating in Ontario communities at this time. Therefore, the total number of laboratory-confirmed cases of the new Pandemic (H1N1) influenza A strain in Middlesex-London is likely 52. It should be noted that this represents only a small fraction of the number of people who have been ill with the new H1N1 strain, as most people are not being tested when they develop symptoms.

The last four influenza A cases were reported to the Middlesex-London Health Unit between August 11<sup>th</sup> and 13<sup>th</sup>, 2009. The most recent of these cases began to experience influenza symptoms on August 8<sup>th</sup>, 2009.

Of the 52 laboratory-confirmed cases, half are under 25 years of age. Five of the cases were hospitalized; four of whom had underlying medical conditions. The length of hospital stay of these cases was short and ranged from one to three days. Although one patient required a short stay in the intensive care unit, they did not require the use of a ventilator.

### Current status worldwide:

As of August 14, 2009, the pandemic (H1N1) 2009 influenza virus has been identified in approximately 175 countries. The following table summarizes the available data. Please note that the numbers change depending on the source.

Country	Number of laboratory confirmed cases of Pandemic (H1N1) 2009 influenza virus	Number of reported hospitalization	Number of reported deaths
Worldwide	177,457	Not readily found	1,462
United States		7,511	477
Canada		At least 1,315	66
Ontario	4,035	338	21

It should be noted that the number of laboratory-confirmed cases of the Pandemic (H1N1) 2009 influenza virus significantly underestimates the total number of cases, as countries are now being discouraged from testing most patients for the virus and the reporting of case numbers is no longer required. The numbers of hospitalizations and deaths are more carefully monitored and so are more likely to be fairly accurate.

## **The Ontario Situation:**

A general decrease in Pandemic (H1N1) 2009 influenza virus activity has been noted in Ontario over the course of the summer. As of August 5, 2009, 338 people in Ontario with confirmed Pandemic (H1N1) 2009 influenza infection had been hospitalized. Of these, 66 people (19.5%) had been admitted to the intensive care unit and/or placed on a ventilator. Half of hospitalized patients were under 21 years of age and 57% had an underlying medical condition. As of August 12, 2009, a total of 21 deaths had been reported among confirmed cases in Ontario. Half of those who died were under 58 years of age and 86% had underlying medical conditions.

*Source: Ontario Influenza Bulletin – August 8, 2009, Week 31*  
[http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu\\_08/flubul\\_mn.html](http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_08/flubul_mn.html)

## **Influenza activity in the Southern Hemisphere:**

The Southern Hemisphere is currently in the midst of its influenza season. The influenza activity noted there may help us predict what to expect in the Northern Hemisphere in the upcoming fall and winter. The predominant circulating strain in most parts of the Southern Hemisphere has been the Pandemic (H1N1) 2009 strain. After a rapid increase in cases of pandemic influenza early in their winter season, Australia and countries in the southern part of South America noted a decline in influenza activity as measured by the numbers of people seeking health care and being admitted to hospital. This pattern of rapid rise in case numbers followed by a decline has been reported to be similar to what would be seen in a normal influenza season. These areas of the world are still assessing the impact of the influenza season on their health care system but, the current impression is that the season has “generally appeared slightly worse than a normal influenza season in most places with increased hospitalization requiring respiratory critical care”.

A recent World Health Organization (WHO) report concludes that “As the pandemic H1N1 influenza virus is now the dominant strain in most areas of the world, it can be expected to persist into the coming influenza season in the Northern Hemisphere. Additionally, there is a risk of further spread of virus in highly populated areas as community spread starts occurring in Asia and Africa.”

*Source: World Health Organization, Pandemic (H1N1) 2009 – update 61*  
[http://www.who.int/csr/don/2009\\_08\\_12/en/index.html](http://www.who.int/csr/don/2009_08_12/en/index.html)

## **Influenza vaccinations in the fall:**

The federal government has announced that it will soon be placing an order for 50.4 million doses of the Pandemic (H1N1) 2009 influenza vaccine. Of these, 19.5 million doses will be ordered for Ontario, which is enough to vaccinate 75% of the population with two doses of vaccine. This vaccine will only provide protection against the Pandemic (H1N1) influenza strain and is expected to be available in mid-November, 2009.

As well, the regular seasonal influenza vaccine will continue to be available as usual beginning in early to mid-October. The regular seasonal influenza vaccine provides protection against the three influenza strains that were predicted to cause illness during the regular influenza season. This vaccine is changed every year in anticipation of the strains that are expected to cause illness, however, this vaccine does not provide protection against the new Pandemic (H1N1) influenza strain. The seasonal influenza vaccine will be available as usual through health care providers' offices, public clinics including those run by the Health Unit and some workplaces. Hospitals and long-term care facilities will also administer the seasonal influenza vaccine to their patients, residents and staff as usual.

The following provides a brief overview of what is currently known about the new Pandemic (H1N1) influenza vaccine.

- The vaccine is being produced by GlaxoSmithKline which manufactures vaccine in Canada.
- The vaccine will be produced using a similar process as seasonal influenza vaccine which involves growing the virus in hens' eggs and then inactivating the virus. The vaccine will be different than seasonal influenza vaccine in that it will contain a substance called an "adjuvant". Adjuvants are used to increase the body's response to the vaccine (also called the "immune" response to the vaccine).
- As with all vaccines, the Pandemic (H1N1) influenza vaccine must undergo a thorough review by scientists at Health Canada before it can be used in Canada. This includes testing in animals and people, inspection of the manufacturing plant and testing of each batch or "lot" of vaccine. This process ensures that the body will make a proper immune response to the vaccine that would indicate that the vaccine provides protection against the Pandemic (H1N1) 2009 influenza strain. The review also checks for side effects of the vaccine. As with all vaccines, uncommon side effects may not be detected during the review process so close monitoring for side effects will continue after the vaccine is in use. Scientists and health care providers in many countries will be monitoring the effectiveness and safety of the vaccine and sharing information as it becomes available.
- It is quite likely that two doses of the Pandemic (H1N1) 2009 vaccine will be needed for a good immune response, although studies are being undertaken to determine if one dose may be sufficient in certain age groups. The minimum time between the two doses is expected to be three weeks.
- It is possible that the Pandemic (H1N1) influenza vaccine will be available in health care providers' offices. However, since health care providers may be busy seeing ill patients, the Middlesex-London Health Unit is planning to have the capacity to give large quantities of the Pandemic (H1N1) influenza vaccine, should that be necessary.

More details about the dates and locations of community influenza vaccination clinics for seasonal influenza vaccine will be provided in September. Additional information about the Pandemic (H1N1) influenza vaccine and how the public can receive this vaccine is expected to be available in the upcoming months.

## **Pandemic preparedness for the fall:**

It is very difficult to predict what will happen with the Pandemic (H1N1) 2009 influenza virus as we head into the fall and children return to school. It may turn out that there is very limited influenza activity in the fall or we may see an increase in illness that results in absences from schools and workplaces. In either case, it is best to be prepared. The following are some suggestions to consider so that you may be better prepared for the fall:

- Reinforce the importance of handwashing or the use of alcohol-based hand sanitizers. Ensure bathrooms are well stocked with pump soap and paper towels. Ensure that alcohol-based hand sanitizers are readily available in common areas and carry them in purses, lunch bags, briefcases and knapsacks. Washing your hands or using alcohol-based hand sanitizers is especially important before eating and after shaking hands for preventing the transfer of influenza and other respiratory viruses. The same measures will help to prevent the transfer of viruses that cause diarrhea and vomiting and so they should also be used after going to the bathroom or changing diapers.
- Ensure you have plans to provide care for ill children. Schools and child care centres are being asked to be on the alert for children who show signs of being sick and to send them home as soon as their illness is recognized. Children should stay home from school and child care centres until their fever is gone and they are feeling well and able to participate in regular activities.
- Clean commonly touched surfaces such as hand rails, door handles, key boards, telephones and table tops frequently.
- Ensure employees know that they are expected to stay home if they are ill and that they should not return to work until their fever is gone and they feel well. Health care providers with influenza symptoms should stay home for at least seven days from the onset of their symptoms and longer if they remain unwell.
- Businesses should ensure that they have plans to continue their operations in the event of staff illness. They should also ensure that they have plans to communicate with their staff members and clients about changes in business operations.

For additional information, please contact the Middlesex-London Health Unit at 519-663-5317 ext 2330 or visit our web site at [www.healthunit.com](http://www.healthunit.com)

## Appendix A

**Summary of Influenza Indicators**

August 14, 2009

<b>Indicator</b>	<b>Recent data / trends</b>	<b>Comments</b>
<b>Hospital emergency room reports regarding the percentage of patients with fever and respiratory symptoms</b>	Decreasing	<ul style="list-style-type: none"> <li>The percentage of patients presenting to London emergency rooms who have fever and respiratory symptoms has been generally decreasing since it peaked in early May, 2009.</li> </ul>
<b>Physician reports regarding the percentage of patients with fever and respiratory symptoms</b>		<ul style="list-style-type: none"> <li>Five medical offices will be submitting information on the percentage of patients with fever and respiratory symptoms. This surveillance system will commence shortly.</li> </ul>
<b>Absence reports from camps (i.e. absenteeism &gt; 10% indicates possible influenza)</b>	One reported on August 13	<ul style="list-style-type: none"> <li>From the beginning of the summer, a total of 2 day camps have reported increased absenteeism.</li> </ul>
<b>Absence reports from child care centres (i.e. absenteeism &gt; 10% indicates possible influenza)</b>	None reported recently	<ul style="list-style-type: none"> <li>From the beginning of the summer, 3 child care centres have reported increased absenteeism.</li> </ul>
<b>Laboratory-confirmed cases</b>	Low	<ul style="list-style-type: none"> <li>From August 11 - 13, 2009, there have been 4 laboratory confirmed cases of influenza A that are quite likely to be the Pandemic (H1N1) 2009 strain; the latest onset date was August 8, 2009</li> <li>To date, there have been 23 laboratory-confirmed cases of Pandemic (H1N1) 2009 strain and 29 influenza A positive cases that are quite likely to be the Pandemic (H1N1) 2009 strain</li> </ul>
<b>Long-term care facility outbreaks</b>	None reported	<ul style="list-style-type: none"> <li>No long-term care facility outbreaks due to the Pandemic (H1N1) 2009 strain have been reported.</li> </ul>
<b>Health unit call volumes</b>	Low	<ul style="list-style-type: none"> <li>Call volumes have been low in recent weeks.</li> </ul>
<b>Hospitalizations</b>	Low	<ul style="list-style-type: none"> <li>No hospitalizations have been reported in recent weeks.</li> <li>To date, 5 people have been hospitalized who had laboratory confirmation of the Pandemic (H1N1) 2009 strain or who had influenza A which is quite likely to be the Pandemic (H1N1) 2009 strain.</li> </ul>
<b>Deaths</b>	None reported	<ul style="list-style-type: none"> <li>No deaths have been reported.</li> </ul>