

Pandemic H1N1 Influenza Final Summary



February 18, 2010

For information, please contact:

Bryna Warshawsky, MDCM,CCFP, FRCPC
Associate Medical Officer of Health
Director of Communicable Diseases and Sexual Health
Middlesex-London Health Unit
50 King St.
London, Ontario
N6A 5L7
phone: 519-663-5317, ext. 2427
fax: 519-663-8241
e-mail: bryna.warshawsky@mlhu.on.ca

© Copyright 2010
Middlesex-London Health Unit
50 King Street
London, Ontario
N6A 5L7

Cite reference as: Middlesex-London Health Unit (2010).
Pandemic H1N1 Final Summary.
London, Ontario: Author.

All rights reserved.

Table of Contents

Acknowledgements 4

Background 5

Pandemic (H1N1) influenza in Middlesex-London 5

Influenza vaccination Campaign 6

Unique Challenges 7

 Staffing 7

 Vaccination of Vulnerable populations 7

 Eligibility criteria 7

 Vaccine supply 7

 Five vaccines products 7

 Electronic data entry 8

 Predicting volumes 8

 Finding Clinic Sites 8

 Reaching multicultural communities 8

 Transit strike 8

Distribution of vaccine to health care providers 8

Surveillance 9

Communications 9

 Community updates and surveillance reports 9

 Information on Health Unit’s web site 9

 Media releases and media interviews 10

 Twitter 10

 Telephone information line 10

 Email questions from the public 10

 School letters 10

 Health care provider updates 10

 Internal staff communications 11

Financial implications 11

Evaluation 11

Conclusion 11

Acknowledgements

We would like to acknowledge all the Health Unit staff members for their exceptional dedication to client service and their tireless efforts and commitment during the Pandemic H1N1 response. As well, we extend our sincere appreciation to the many community partners and volunteers for their tremendous co-operation and support in staffing the clinics, providing locations for the clinics, disseminating information about the pandemic and the clinics, and providing the information used to compile the weekly surveillance report. A campaign of this magnitude could not have been so successfully implemented without the involvement of many dedicated individuals and organizations.

Background

On May 21, 2009, the Board of Health received report No. 067-09 “New H1N1 Influenza Virus – Outbreak Response in Middlesex-London” which described the Pandemic H1N1 influenza situation and response in the spring of 2009. On September 17, 2009, the Board received report No. 118-09 “Pandemic (H1N1) Influenza – Board of Health Update #2” which provided information on the preparation and planning that the Health Unit undertook over the summer in anticipation of increased Pandemic H1N1 influenza activity in the fall of 2009 and the need to deliver a large immunization campaign. The current Board of Health Report No. 018-10 “Pandemic H1N1 Influenza – Final Summary” provides an overview of the impact of Pandemic H1N1 in Middlesex-London and the Health Unit’s response during the second wave of Pandemic H1N1 influenza, including a summary of the mass immunization campaign.

Pandemic (H1N1) influenza in Middlesex-London

The first Middlesex-London resident with laboratory-confirmed Pandemic H1N1 was reported on May 6, 2009. His infection was acquired during travel to Mexico. By the end of the summer, 23 laboratory-confirmed Pandemic H1N1 influenza cases, and 29 influenza A cases that were quite likely to be the Pandemic H1N1 strain were reported to the Middlesex-London Health Unit. This represented mild influenza activity in comparison to other areas of the province such as the Greater Toronto Area and Ottawa, where the first wave of influenza was more widespread.

The second wave of influenza activity in Middlesex-London began in early October, 2009. Influenza activity peaked in the last two weeks of October and decreased steadily until the beginning of December 2009, since which time very little influenza activity has been noted. Between September 2009 and January 29, 2010, 201 laboratory-confirmed cases of Pandemic H1N1, and 138 influenza A cases that were quite likely to be Pandemic H1N1 were reported. It should be noted that laboratory-confirmed cases represent only a fraction of the total number of people affected by Pandemic H1N1 influenza since, as recommended, most people with influenza-like symptoms did not seek medical care and only selected people were tested if they did seek care.

In total since the arrival of Pandemic H1N1 influenza, 224 laboratory-confirmed cases of Pandemic H1N1 influenza, and 167 influenza A cases that were quite likely to be Pandemic H1N1 were reported among Middlesex-London residents. Figure 1 found in Appendix A contains a graph indicating the date of onset or date of laboratory confirmation of the laboratory-confirmed cases. Of the laboratory-confirmed cases of Pandemic H1N1 influenza, or influenza A quite likely to be Pandemic H1N1 influenza, 92 people were hospitalized, and eight people died. The deaths occurred in an infant, four adults and three seniors, most of whom had underlying medical conditions.

Based on reports to January 23, 2010, there have been a total of 1,826 hospitalizations among people with laboratory-confirmed Pandemic H1N1 influenza in Ontario. Of these people, 19% have ended up in the intensive care unit and/or on a ventilator. Of the hospitalized cases, 78% have occurred since September 1, 2009. A total of 127 people in Ontario with laboratory-confirmed Pandemic H1N1 influenza have died; of these deaths, 80% have occurred since September 1, 2009.

Influenza vaccination campaign

The seasonal influenza vaccine was offered to those 65 years of age and over at nine clinics held in October 2009. The Pandemic H1N1 influenza vaccine became available on October 26, 2009. From that date until December 17, 2009, the Health Unit ran 111 large community clinics and several smaller clinics for select populations including harder to serve groups such as those in homeless shelters, detention centres and subsidized housing complexes. Home visits to provide the Pandemic H1N1 vaccine were made to those who could not leave their homes. Since December 7, 2009, the walk-in Immunization Clinic at 50 King Street has also been offering influenza vaccinations at its Monday, Wednesday and Friday walk-in clinics. Five smaller catch-up community clinics were offered in January 2010 providing additional opportunities for those who had not been vaccinated in 2009 and for those children who required a second dose of the H1N1 vaccine (a second dose was recommended for all children 6 months to less than 3 years of age and for children 3 years to less than 10 years of age with underlying medical conditions). By the end of the campaign, a total of 116 community clinics had been held.

Of the 111 larger community clinics where Pandemic H1N1 influenza vaccine was offered in 2009, 18 took place in Middlesex County and 93 took place in the City of London. Of the catch-up clinics in January 2010, one was held in Middlesex County and four were held in London. The 30 clinics from October 27 to November 11 were for high risk groups only (children from 6 months to less than 5 years of age, people less than 65 years of age with underlying medical conditions, health care providers, pregnant women, and household contacts of those less than 6 months of age or those with problems with their immune systems). Eligibility for the subsequent 20 clinics from November 12 to 17 expanded progressively to include people 65 years of age and older with underlying medical conditions, and elementary and secondary school students. From November 18 to December 17, 2009, the 61 clinics provided Pandemic H1N1 influenza for the general public and at the 37 clinics from November 25 to December 17, 2009 both Pandemic H1N1 and seasonal influenza vaccinations were offered. Both vaccines were also offered at the five catch-up clinics held in January 2010.

Table 1 found in Appendix B summarizes the immunization clinics and numbers of people vaccinated by the Middlesex-London Health Unit to January 29, 2010. In total, 105,287 pandemic H1N1 influenza vaccinations and 21,274 seasonal influenza vaccinations were provided. It should be noted that for each vaccine, some children required two doses, so the total number of people vaccinated is somewhat lower. Both the seasonal and Pandemic H1N1 influenza vaccines will continue to be available at the 50 King Street, London and Kenwick Mall, Strathroy walk-in Immunization Clinics and at some community health care providers' offices. Some workplaces are also providing one or both influenza vaccines to their workers.

Planning an immunization campaign of this magnitude required an integrated effort from the entire Health Unit. Staff members from across the Health Unit assisted either at the clinic locations, provided support for the campaign, were involved in other aspects of the Pandemic H1N1 response, or maintained essential Health Unit services. The management of the entire campaign was coordinated by the Incident Management Team which met on a daily basis over the course of the campaign.

Scheduling of Health Unit staff, contract nursing agency staff, independent contract nurses and volunteers was a large, complex task that required careful attention and coordination. Procurement, storage, packing and transporting of all the supplies for the clinics was also a major initiative. A special depot was established in a separate location near the 50 King Street building in order to store supplies and organize them for packing into the four rented vans.

Another major undertaking during the campaign was determining the locations for the clinics and informing the public of the clinic dates, times, locations and eligibility criteria. Each location also needed to be assessed to ensure there were no occupational health risks associated with the chosen facility and all the necessary tables and chairs were on site.

Unique Challenges

Staff has considerable experience running immunization clinics based on past immunization campaigns including meningococcal in 2001, hepatitis A in 2002 and annual seasonal influenza vaccination campaigns. There were, however, unique aspects of the Pandemic H1N1 influenza mass vaccination campaign that resulted in a number of challenges. These included:

- (a) Staffing:** Providing staff and volunteers for 116 community clinics required a very large amount of work in collaboration with community partners. In total, over 825 staff and volunteers worked almost 5,300 shifts. Appendix C outlines the various staffing components needed to successfully mount this campaign. All staff were oriented to their roles, but in particular registered nurses were required to complete one of six three-hour refresher sessions on vaccine administration.
- (b) Vaccination of vulnerable populations:** Some populations were better served by smaller clinics in specific locations. In addition, some people could not attend a clinic for medical reasons. A travelling team of nurses administered 898 Pandemic H1N1 and/or seasonal influenza vaccines at 19 separate sites such as shelters, detention centres and subsidized housing complexes. In addition, five nurses provided 19 home visits to clients unable to leave their homes.
- (c) Eligibility criteria:** The Health Unit is accustomed to providing influenza vaccine to whomever wants to be vaccinated. The need to ensure that the evolving eligibility criteria were met among those seeking vaccination was a new challenge. Health Unit staff members assisted volunteers in this task under the direction of a Health Unit Manager at each clinic. At the clinics that were restricted to certain groups, eligibility forms were signed by people requesting to be vaccinated in order to ensure that they met the current eligibility criteria.
- (d) Vaccine supply:** Finite production capacity and the switch to production of unadjuvanted Pandemic H1N1 influenza vaccine resulted in limited supplies of vaccine for several weeks at the beginning of the campaign. Limited vaccine supply made planning the number of vaccination clinics a challenge and precluded expansion of vaccination to the general public until later in the campaign, which required that eligibility criteria remain in place for longer than anticipated.
- (e) Five vaccines products:** Five different influenza vaccine products were available during the course of the campaign, each requiring multiple documents and staff education to support their use. These included the adjuvanted Pandemic H1N1 influenza, two unadjuvanted Pandemic H1N1 influenza (one from Australia and one from Canada) and two seasonal influenza vaccines. Communicating changes in how these vaccines were to be used (e.g. vaccine products and number of doses for children) also resulted in challenges during the campaign.

- (f) **Electronic data entry:** A new computer program was created to record demographic and vaccine information on people attending the clinics. Modifications in managing clinic flow were required to adapt to the new system.
- (g) **Predicting volumes:** Difficulty in predicting the number of attendees at the clinics and therefore the number of staff required at each clinic was an ongoing challenge. Clinics at the beginning of the campaign were very busy, however, the volume decreased when eligibility criteria were not expanded for several weeks. Demand increased again when the clinics were opened to the general public and when both Pandemic H1N1 and seasonal influenza vaccines were made available at the same clinics. Demand for vaccine was significantly lower at the catch-up clinics held in January 2010.
- (h) **Finding clinic sites:** There are very specific requirements for locations that are chosen as clinic sites, including having adequate parking. Aside from the use of schools and community centres which are usual sites for annual influenza vaccination clinics, some large vacant commercial properties with ample parking were required for this campaign.
- (i) **Reaching multicultural communities:** Challenges were noted in reaching the multi-cultural community and in communicating complex messages where language and / or literacy barriers exist. This remains an area for additional attention for future campaigns
- (j) **Transit strike:** The London Transit strike occurred at the same time as the immunization campaign in 2009, and potentially limited access to influenza vaccination for those who relied on public transportation. The catch-up clinics were held in January 2010, in part, to provide opportunities to receive the influenza vaccines for those who rely on public transit.

Distribution of vaccine to health care providers

The adjuvanted Pandemic H1N1 influenza vaccine came in shoe box size containers containing 50 vials of the antigen and 50 vials of the adjuvant, totaling 500 doses of vaccine. Community health care providers, including doctors, nurse practitioners, hospitals and long term care facilities, who wanted to offer vaccine to those who were eligible, submitted orders to the Health Unit. Calculations were done to determine how much vaccine could be distributed to community providers and how much should be kept for Health Unit run community clinics. The quantity allocated to each community health care provider was then repacked, appropriate labels were attached to the packaging and the appropriate product and mixing information were inserted into the package. The health care provider was then called to pick-up their vaccine from the Health Unit.

Later in the campaign, workplaces were also given the opportunity to provide the Pandemic H1N1 influenza vaccine for their employees. This required the workplace or the nursing agency with whom they contracted, to meet the Ministry of Health and Long-Term Care pre-qualification requirements. Orders were then placed with the Health Unit and vaccine was packaged by staff for the workplaces.

Based on a full adult dose, 42,895 doses of Pandemic H1N1 influenza vaccine was distributed to community health care providers and workplaces, 15,980 doses were sent to hospitals for staff members and patients, and 6,994 doses were distributed to long term care facilities for staff members and residents. In total, 65,869 full adult doses of H1N1 influenza vaccine were distributed to health care providers and health care facilities in Middlesex-London. It is not currently possible to know how many people were vaccinated with these doses since some doses were provided to children (some of whom only require a half dose) and some vaccine may not yet have been administered.

Surveillance

To assess the extent of Pandemic H1N1 influenza in the community, a weekly surveillance report was published from September 11, 2009 to December 20, 2009 inclusive and then again from January 11, 2010 until the present time. The surveillance reports synthesize the extent of community influenza activity based on the summary of up to 12 indicators. A graph providing the date of illness onset or date of sample collection of laboratory-confirmed cases was often included. The weekly surveillance reports were posted on the website and sent to numerous email distribution lists and the local media. An example of the weekly surveillance report from the peak of the outbreak is enclosed as Appendix D.

Communications

Communications was of major importance in the Pandemic H1N1 response. Elements of the communication strategy included: regular community updates and surveillance reports to the general community and media, the creation of an H1N1-specific area on the Health Unit's web site, media releases and media interviews, use of Twitter to inform the public and media of evolving issues including wait times at the clinics, the telephone information line, a special email address where the public could send questions, letters to schools, health care provider communications, and internal health unit staff communications. Each will be reviewed below.

- a) *Community updates and surveillance reports:*** From the onset of the campaign to January 26, 2010, 25 community updates and/or surveillance reports were issued, 18 of which were issued since September 2009. These provided information about the current epidemiology in Middlesex-London and other jurisdictions and evolving issues related to the Pandemic H1N1 response and/or immunization campaign. These reports were emailed to a large email distribution list that included the media and health care providers and were also posted on the Health Unit's web site.

- b) *Information on the Health Unit's web site:*** A H1N1 specific section of the Health Unit's web site with a distinct and simple web address (www.healthunit.com/H1N1) was created. This area of the web site includes up-to-date information and provides downloadable resources related to the H1N1 Pandemic. In addition to its own url, a yellow button was created on the Health Unit's homepage to lead users directly to the H1N1 information. These web pages were updated on almost a daily basis. In total, 248,004 hits to the Pandemic H1N1 web site were recorded since it went live in late-September 2009.

- c) Media releases and media interviews:** There was considerable interest in Pandemic H1N1 influenza on the part of the media and the public. Between May 6 and December 14, the Health Unit issues 24 media releases on various H1N1-related announcements. These releases and enquiries from the media about H1N1 led to 356 media reports across Middlesex-London that involved the participation of Health Unit staff. Media coverage of the H1N1 Pandemic was far greater than any other story last year, accounting for roughly 46% of Health Unit-related stories in 2009.
- d) Twitter:** As a first for the Health Unit, the social media website Twitter was used to keep the public informed about developments in the Health Unit's H1N1 response, including news releases, community updates and most successfully, rapidly changing information, such as immunization clinic wait times. The Tweets were posted on a Twitter page (www.twitter.com/MLHealthUnit) and the Health Unit's web site and sent to followers (currently 545). Among the Twitter followers were members of the London and Middlesex County media, who monitored the Tweets, often re-Tweeting (or sending the Health Unit's messages) to their followers and/or broadcasting the information on radio to encourage or discourage the public from attending particular clinics based on wait-times. Staff issued 393 Tweets since beginning to use Twitter on October 19th, 2009.
- e) Telephone information line:** From October 26 to December 14, additional staff members were assigned to manage anticipated increases in call volume related to Pandemic H1N1 influenza and vaccination clinics. Staff members were on-site at 50 King Street to answer calls from the public from 8:30 am to 7:30 pm on weekdays and from 9:00 am to 3:00 pm on Saturdays; with calls outside of these times handled through the usual on-call system. According to database reports, the highest call volume occurred on October 27 when 489 calls were answered by staff. In total, at least 6,500 calls were answered by staff from October 26 to December 14, 2009.
- f) Email questions from the public:** A special *h1n1info@mlhu.on.ca* email address was created, which was publicized widely. Through this email address, the usual incoming Health Unit email address health@mlhu.on.ca and other incoming emails to staff, hundreds of email questions were responded to.
- g) School letters:** Three letters were sent home to the approximately 80,000 school students who attend schools in Middlesex-London. The first letter was sent in the middle of June 2009 to provide information on the H1N1 Pandemic and infection control precautions. The second letter was sent during the first two weeks of school in September 2009 to reinforce infection control precautions. A third letter was sent between November 12 and 16 to inform students of the upcoming clinics where they could receive their vaccinations.
- h) Health care provider updates:** In addition to the Community Updates and surveillance reports, community health care providers received frequent emails providing them with clinical information to assist in managing their patients. In total, approximately 55 email updates were sent to community health care providers, 35 of which were from September 1, 2009 to January 26, 2010. These communications were also posted in a specific area of the Health Unit web site. As well, numerous email and telephone questions from health care providers were responded to.

- i) **Internal staff communications:** In addition to the materials sent to community health care providers and the public, specific communications were sent to staff members to provide the information they required as part of the Pandemic H1N1 response. In total, five internal staff newsletters were written. As well, an all-staff meeting was held on October 20, 2009, and emails and voicemails were sent to advise staff of time sensitive issues.

Financial implications

The cost of the campaign was closely tracked and staff members were requested to record all H1N1-related work and expenses. This includes Health Unit staff hours as well as costs related to external personnel who provided clinic services. Appendix E details the cost of the Health Unit's response to the H1N1 campaign. As can be seen, the total cost to December 31, 2009 was calculated at \$1,925,147. All of these expenses will be reimbursed 100% by the Ministry of Health and Long-Term Care.

Evaluation

An evaluation plan was developed early in the campaign to address important information needs. The overarching evaluation questions are: 1) What worked well? 2) What didn't work well? and 3) What should we do differently? Real time data collection and routine debriefing were incorporated throughout the campaign. A formal evaluation including a debrief with the Incident Management Team, an on-line survey of staff members and a similar survey of Health Unit volunteers which is currently underway.

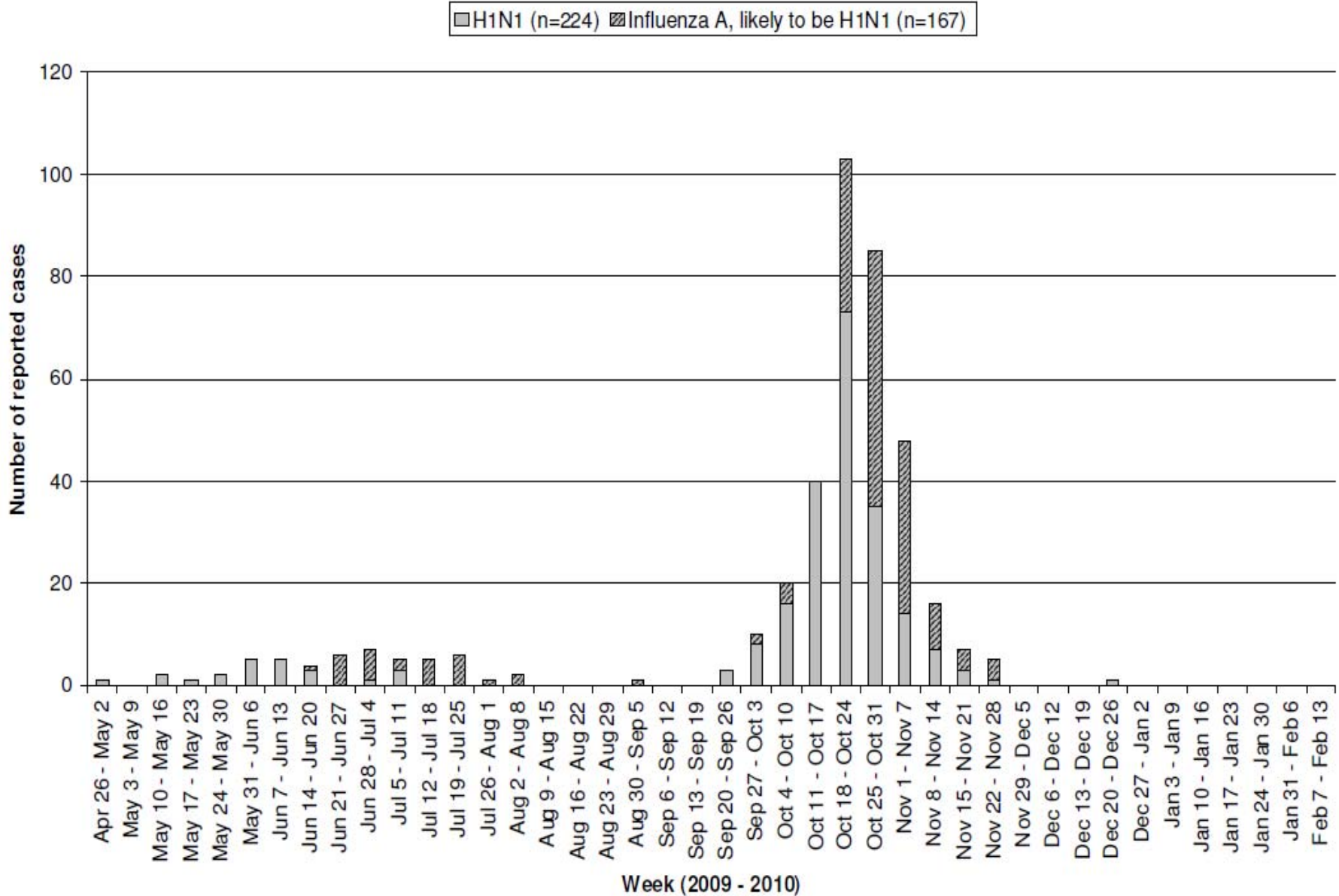
Conclusion

Responding to the H1N1 Influenza Pandemic of 2009 was a major undertaking involving the entire Health Unit staff and many community partners. Although the 2009 H1N1 Pandemic was relatively mild and placed only limited demand on the health care system, it serves to illustrate what the potential impact of a more serious pandemic could be.

Based on formal evaluations of past outbreak responses and mass immunization campaigns, the Health Unit has enhanced its ability to respond to outbreaks such as the 2009 Influenza Pandemic. Learnings from the response to the 2009 Influenza Pandemic will be captured in order to refine the response to future outbreaks.

Appendix A

Figure 1 Laboratory-confirmed influenza cases by week of illness onset / sample collection



Appendix B

Table 1: Summary of immunization clinics and numbers of people vaccinated

Dates	Targeted Groups	Number of clinics	Number of doses of pandemic H1N1 vaccine provided	Number of doses of seasonal influenza vaccine provided
October 13 - 27, 2009	Seasonal influenza vaccine for people 65 years of age and older	9	Vaccine not available	1569
October 27 – November 11, 2009	Pandemic H1N1 influenza vaccine for high risk groups, excluding those 65 years of age and older	30	31,754	Vaccine not provided
November 12 – 17, 2009	Pandemic H1N1 influenza vaccine for high risk groups, including those 65 years of age and over; Elementary and secondary school students	20	12,971	Vaccine not provided
November 18 – 24, 2009	Pandemic H1N1 influenza vaccine for general public	22	32,069	Vaccine not provided
November 25 – December 17, 2009	Pandemic H1N1 and seasonal influenza vaccines for the general public	37	25,928	18,166
October 26– December 2, 2009	Pandemic H1N1 and /or seasonal influenza vaccination clinics for specific populations and staff immunization clinics	22	1102	306
January 5 – 22, 2010	Pandemic H1N1 influenza and seasonal influenza vaccines for the general public – Community catch-up clinics	5	664	530
December 7, 2009 - January 29, 2010	Pandemic H1N1 and seasonal influenza vaccines at 50 King Street walk-in clinics	20	799	703
TOTALS		165	105,287	21,274

Appendix C

H1N1 Campaign – Staffing Components 116 Clinics Offered Within 47 Days October 26, 2009 – January 22, 2010		
Role	# of Staff	Total # of shifts worked
Contract Nurses	127	1206
Contract Registered Practical Nurses (RPNs)	31	236
MLHU Casual Public Health Nurses	15	242
MLHU Public Health Nurses	96	877
MLHU Team Leaders (Public Health Nurses)	17	311
Agency Nurses - Aim/WeCare/VON	38	216
Total – Nurses	324	3088
MLHU Site Managers -Total	15	110
MLHU Drivers	29	337
MLHU Immunization Administrative Assistants	7	169
MLHU Packers	16	48
MLHU Swipers	84	740
Total - Other	136	1294
Volunteers - Total	350	800
Grand Total	825	5292

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

November 1, 2009

Pandemic (H1N1) influenza activity in Middlesex-London:

Influenza activity in Middlesex-London continues to increase and is widespread in the community. Between October 26 and 30, the Health Unit received reports of 73 new laboratory-confirmed cases of influenza, both Pandemic (H1N1) influenza and influenza A, which is quite likely to be the Pandemic (H1N1) strain. The number of people in the community who have influenza is likely considerably higher than indicated by laboratory-confirmed cases, since most people with influenza do not need to see their health care provider, and for most people testing is not recommended.

Since the last Community Update, 25 people with laboratory-confirmed H1N1 infection were admitted to hospital.

Across the province, 31.7% of all nose samples taken in people with respiratory illness came back positive for the Pandemic (H1N1) strain, although testing was pending on several samples. In Middlesex-London, the percentage was considerably higher at 57.9%. Both of these values are higher than in the previous week. The higher rates in Middlesex-London compared to Ontario as a whole are likely due to fact that influenza activity in our area appears to have started earlier than in most other areas of the province.

The proportion of patients visiting emergency rooms due to symptoms of fever and respiratory illness also continues to rise. On average, 36.8% of patients visiting London emergency departments during the week of October 25 and 31 had fever and respiratory symptoms. The increase is particularly evident at the paediatric emergency room, where the weekly average of patients with fever and respiratory symptoms was 63.7%.

This week, the Health Unit began monitoring two additional indicators of influenza-like illness in the community. A large community employer has begun participating as a sentinel site for staff absenteeism. As of October 22, the proportion of staff absent due to illness was relatively low and comparable to the preceding three weeks. An X-ray provider is also participating as a sentinel site for new diagnoses of bronchopneumonia, which is a complication of influenza infection. Although only three days of results were initially available, diagnoses of bronchopneumonia were made in 12.9% to 15.5% of all chest X-rays performed. Usually only 1 to 2% of chest X-rays reveal bronchopneumonia.

Appendix A of this update shows all the indicators that the Health Unit is using to monitor influenza activity in Middlesex County and the City of London.

Influenza vaccination clinics and vaccine distribution:

From October 27 to 31, inclusive, the Health Unit ran a total of 10 immunization clinics and vaccinated approximately 14,000 people who are either health care providers or in high risk groups. **Although lines were very long at the first several clinics, they have decreased considerably since then. There are six remaining clinics targeted for high risk groups.** The dates, times and locations can be found on our website at healthunit.com/h1n1info.

It is very important to note that the remaining six clinics are only for the following high risk groups:

- Individuals under the age of 65 who:
 - have underlying medical conditions (such as heart disease, lung disease, cancer, kidney disease, problems with their immune system, blood problems, nervous system problems, very overweight);
 - are household members of children under the age of six (6) months;
 - are household members of people who have problems with their immune system (such as cancer treatment, HIV/AIDS, transplant patients, kidney dialysis, taking long term steroids or some other drugs);
- Children between six (6) months and less than five (5) years of age;
- Health care workers;
- Pregnant women (see below)*.

***Pregnancy:** We are expecting to receive a supply of the unadjuvanted vaccine this week, so pregnant women at any stage of pregnancy can be vaccinated with this product. Please check our website or contact the Health Unit at 519-663-5317 ext. 2330 to determine which clinics will have the unadjuvanted vaccine available.

Some things to consider for those attending our clinics are as follows:

- Bring your health card or drivers license;
- Wear a short-sleeved shirt;
- Don't skip a meal before attending;
- Consider coming later in the clinic as the clinics tend to be very busy at the beginning;
- Come dressed for the weather in case the line extends outside;
- Bring something for the kids to play with and eat in case there is a line;
- If the line is long, consider having one adult wait in the line; that person can call the kids or more vulnerable person to come when they are approaching the vaccination area.

In addition to our vaccination clinics, the Pandemic (H1N1) influenza vaccine has been distributed to some doctor's offices for their patients who meet the high risk criteria outlined above, hospitals for their staff members and some of their patients, and to long term care facilities for some of their staff members.

We hope to expand our clinics in consultation with the Ministry of Health and Long Term Care. Additional information on clinic expansion will be made available shortly.

Keep checking our website:

Information on our website is regularly updated. News on the Pandemic (H1N1) influenza vaccine and clinic schedules will be posted there when they are available. Visit www.healthunit.com/h1n1info regularly.

Appendix A Summary of Influenza Indicators

October 31, 2009

All indicators show that influenza-like illness activity continues to increase and is widespread throughout the community.

Indicator	Recent data / trends	Comments
Hospital emergency room reports regarding the percentage of patients with fever and respiratory illness	Increasing and high	<ul style="list-style-type: none"> • From October 25 to 31, 36.8% of patients presented with a fever and respiratory illness across all emergency rooms and the urgent care centre. Values ranged from 17.1% to 75.0%, depending on the site and day. • The weekly average was highest at the paediatric emergency room, where 63.7% of patients presenting with a fever and respiratory symptoms. • By comparison, over the summer less than 3% of patients presenting to London emergency rooms have had a fever and respiratory symptoms.
Sentinel physicians reports regarding the percentage of patients with fever and respiratory illness	Comparable to previous week	<ul style="list-style-type: none"> • For the week of October 18 to 24, the overall percentage of patients reporting fever and respiratory illness on the surveillance day(s) was 8.5%. Values ranged from 4.8% to 25.8% depending on the practice and the day. • This information is based on reports from 25 physicians screening at 4 medical practices.
Absence reports from child care centres (i.e. absenteeism > 10%)	Increasing	<ul style="list-style-type: none"> • Between October 26 and 30, 11.4% (13/114) of child care centres in Middlesex-London reported absenteeism > 10%.
Absence reports from schools (i.e. absenteeism > 10%)	Increasing and high	<ul style="list-style-type: none"> • Between October 26 and 29, 68.8% (88/128) of elementary schools in the two English school boards in Middlesex-London had a 4-day absenteeism rate exceeding 10%. • The 4-day average percentage of students absent ranged from 1.1% to 26.1%, depending on the school. • Increased absenteeism has also been reported in secondary schools and private schools.
Staff absenteeism reports from sentinel worksite	Low	<ul style="list-style-type: none"> • From October 16 to 22, an average of 2.9% of employees were absent from work due to illness. This is comparable to the previous three weeks.

Appendix A
(Continued)

Indicator	Recent data / trends	Comments
Laboratory-confirmed cases	Increasing and high	<ul style="list-style-type: none"> From October 26 to 30, 73 laboratory-confirmed cases of influenza A were reported. This includes cases of Pandemic (H1N1) and influenza A positive cases that are likely to be Pandemic (H1N1). As of October 30, in total, there have been 120 laboratory-confirmed cases of Pandemic (H1N1) and 104 influenza A positive cases that are quite likely to be the Pandemic (H1N1) strain reported among Middlesex-London residents, the majority of whom have acquired their infection this fall. <p>Note: numbers may change slightly as additional information becomes available.</p>
Newly identified bronchopneumonia cases at sentinel X-ray provider	High	<ul style="list-style-type: none"> Between October 27 and 29, the proportion of chest X-rays diagnosed as bronchopneumonia ranged from 12.9% to 15.5%. The daily average for this diagnosis is typically much lower at between 1% and 2%.
Percentage of all laboratory samples that are positive	Increasing and high	<ul style="list-style-type: none"> In Middlesex-London from October 18 to 24, 57.9% of all samples taken to test for influenza were positive for the Pandemic (H1N1) strain. In Ontario from October 18 to 24, 31.7% of all samples taken to test for influenza were positive for the Pandemic (H1N1) strain. This compares to approximately 1% at the beginning of September.
Antiviral prescriptions filled by major pharmacies	Increasing	<ul style="list-style-type: none"> From October 18 to 24 in Middlesex-London, increased antiviral prescriptions were filled by major pharmacies relative to other prescriptions, compared to the previous week.
Calls to Telehealth Ontario related to respiratory and influenza-like illness	Increasing	<ul style="list-style-type: none"> Between October 26 and 30, the Health Unit was notified of an increased number of calls related to respiratory illness.
Long-term care facility outbreaks	None reported	<ul style="list-style-type: none"> No long-term care facility outbreaks due to the Pandemic (H1N1) 2009 strain have been reported.
Hospitalizations	Increasing	<ul style="list-style-type: none"> Since last report, 25 hospitalizations have been reported among laboratory-confirmed cases. To date, 37 people have been hospitalized who had laboratory confirmation of the Pandemic (H1N1) strain or who had influenza A, which is quite likely to be the Pandemic (H1N1) strain.
Deaths	None reported	<ul style="list-style-type: none"> No deaths have been reported.

H1N1 Costs (for the period of April 21, 2009 to December 31, 2009)**MIDDLESEX-LONDON HEALTH UNIT**

Expense Categories	2009 Expenses (at 100%)
Employee Salaries and Wages	\$ 1,348,587
Employee Benefits	127,432
Rental	10,675
Travel & Accommodation	19,259
Purchased Services:	
a) Legal Fees	2,145
b) Cleaning Services	4,051
c) Security	28,229
d) Agency Nurses (VON, AIM, WC)	81,445
e) Fit Testing for N-95 masks.	3,877
f) General Consulting	800
Supplies and Equipment:	
a) Small equipment and consumable supplies (eg needles, syringes, alcohol swabs, cotton balls, sharps containers)	110,335
b) IT upgrades related to tracking H1N1 immunization not already approved by the ministry	38,935
Communication Costs (eg newspaper advertisement, radio ads)	111,601
Other Operating:	
a) Meeting Expenses (eg H1N1 education and N-95 mask fit testing sessions for family physicians)	13,412
b) Honorariums (eg speakers at physician sessions)	1,110
c) Equipment Rental (eg tables, chairs, van rentals)	23,254
Total H1N1 Expenses	\$ 1,925,147