

Seasonal Influenza 2011/2012: Ontario's Blueprint for Action

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Ministry of Health and Long-Term Care
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Seasonal Influenza 2011/2012: Ontario's Blueprint for Action

About the Plan

This document sets out the actions that the Ministry of Health and Long-Term Care (MOHLTC), Public Health Ontario (PHO) and the Ministry of Labour (MOL) are taking to support the health system's response during the 2011/2012 influenza season. It aims to:

- establish common goals and language among the ministries and agencies responsible for preparing for and responding to seasonal influenza;
- clarify roles and responsibilities for the response to seasonal influenza – particularly now that certain functions previously done by the MOHLTC are the responsibility of PHO;
- establish standard, coordinated strategies for the way the province plans for and responds to seasonal influenza.

Since 2004, Ontario has had a plan to respond to an influenza pandemic: the [Ontario Health Plan for an Influenza Pandemic \(OHPIP\)](#). The OHPIP is currently being updated to reflect the lessons learned from the (H1N1) 2009 pandemic and a revised version will be released in the summer of 2012.

Eventually, the province will merge the Seasonal Influenza Blueprint with the OHPIP in order to develop a comprehensive Influenza Response Plan that will allow Ontario to respond to any outbreak of influenza. It is anticipated that Ontario's Influenza Response Plan will be released after the 2012/2013 influenza season.

Influenza in Ontario

In Ontario, influenza activity usually starts in November and lasts until March or April. Seasonal influenza activity increases to a peak, usually in 7 to 8 weeks, and then decreases slowly; influenza activity in the province lasts for about 14 to 16 weeks. The onset date of seasonal activity cannot be predicted ahead of the season.

In Ontario each year, influenza and its complications result in up to 1,000 hospitalizations and lead to 500-1,000 deaths. Data from 2010/2011 season demonstrated that hospitalization rates were highest for children \leq five years and adults \geq 65 years, with the highest mortality rate occurring in adults aged \geq 45 years.*

Although influenza is seasonal, planning and preparedness happen year-round. Both before and during influenza season, the provincial government undertakes activities designed to prepare for and respond to influenza. Some activities – such as surveillance – continue throughout the year, becoming more intense during influenza season; others – such as vaccine distribution – occur at specific points during the year. After each influenza season the province assesses the

* MOHLTC (2011) Influenza 2011-2012: An update for healthcare professionals. Available at www.health.gov.on.ca/en/pro/programs/publichealth/flu/.

effectiveness of its response to identify best practices and lessons learned that can be applied to future influenza seasons.

Goals of Ontario's Seasonal Influenza Program

The goals of Ontario's seasonal influenza program are consistent with those of the OHPIP and similar to the goals of the response to any infectious disease outbreak:

- reduce illness and deaths in Ontario caused by seasonal influenza
- protect health care providers from seasonal influenza
- ensure timely care for Ontarians who develop influenza
- minimize economic and social disruption (i.e., lost work time and productivity) related to seasonal influenza.

Components

The MOHLTC, MOL and PHO's 2011/2012 seasonal influenza response consists of the following key components:

1. **Surveillance:** to identify the onset of seasonal influenza activity; to monitor influenza types, subtypes, and strains; to monitor antigenic mutations in the influenza virus and susceptibility to antiviral medications; to assess the severity of the influenza season; to identify populations or groups that may be particularly vulnerable to infections and/ or complications; and to track/ anticipate the extent and spread of influenza.
2. **Universal Influenza Immunization Program (UIIP):** to protect the public from illness and complications due to seasonal influenza.
3. **Occupational Health and Safety and Infection Prevention and Control Measures:** to reduce the spread of influenza in health care settings and to protect health care providers.
4. **Care and Treatment Services:** to assess, diagnose, and provide appropriate care and treatment for Ontarians with influenza in all health care settings (e.g., community, long-term care homes, and hospitals).
5. **Communication Strategies:** to promote the UIIP and to keep the public and health care providers informed about seasonal influenza.
6. **Hazard Identification and Risk Assessment:** to monitor and assess the provincial response to seasonal influenza (public behaviour and attitudes, health system capacity, and disease surveillance).
7. **Enhanced Response:** to be prepared to respond to severe seasonal influenza activity.
8. **Research:** to assess influenza vaccine effectiveness.

The Blueprint reflects the activities planned for the 2011/2012 influenza season by the MOHLTC, MOL and PHO. It does not speak to activities undertaken by other agencies as part of their seasonal influenza program (e.g., implementation of public health measures by public health units).

1. Surveillance

Monitor influenza activity outside Ontario

Working with the Public Health Agency of Canada (PHAC), PHO monitors influenza activity nationally and internationally to track circulating types, subtypes, and strains, as well as any abnormal events (e.g., increased severity, recombination events).

Ontario also participates in two national surveillance programs:

- **Laboratory Surveillance.** PHAC conducts a national laboratory influenza surveillance program to identify the onset of seasonal influenza activity and identify the circulating types, subtypes, and strains. Sixteen Ontario laboratories participate in the program and provide influenza-related laboratory results to both their own public health units and to PHAC.
- **[FluWatch Program](#).** PHAC collects data on influenza-like illness (ILI) reported by community-based sentinel health care providers across the country and publishes national data in the [FluWatch report](#). In addition to monitoring trends identified in the FluWatch reports, PHO receives the data provided by sentinel health care providers in Ontario directly from PHAC on a weekly basis.

Through PHAC's national Public Health Alerts system (formerly known as the Canadian Integrated Outbreak Surveillance Centre alerts) and the Centers for Disease Control and Prevention's [Epi X](#), public health units, PHO, and the MOHLTC receive alerts about any emerging issues related to seasonal influenza (e.g., outbreaks in a neighbouring jurisdiction, information on severity). These early warning systems provide situational awareness to prepare for an anticipated surge in demand for services and to understand the potential population health impacts.

Monitor and assess influenza activity within Ontario

PHO collects data from a variety of sources to monitor and assess influenza activity in Ontario:

Sentinel health care providers. PHAC shares data with PHO on consultation rates for ILI provided by community-based sentinel health care providers in Ontario through the FluWatch Program.

Laboratory surveillance. Under the [Health Protection and Promotion Act \(HPPA\)](#), Ontario Regulation 559/91, laboratories are required to report laboratory-confirmed cases of influenza (sporadic and outbreak related) to their local Medical Officer of Health (MOH). Public health units then report these cases to PHO through the integrated Public Health Information System (iPHIS), a provincial information system used by public health units to report case information on all reportable communicable diseases to PHO. The PHO Laboratories track the percentage of respiratory samples that test positive for influenza (as well as other respiratory viruses), an important indicator of influenza and ILI activity.

Institutional respiratory infection outbreak reporting. Under the HPPA, institutions such as long-term care homes and hospitals are required to report outbreaks of respiratory infections to their local MOH. Public health units input this information into iPHIS.

Local influenza activity. In August of each year, the MOHLTC and PHO develop the [seasonal respiratory virus surveillance program](#), which includes guidelines for public health units on assessing local influenza activity in their jurisdiction for the upcoming year. Throughout the year, public health units submit weekly reports to PHO on the influenza activity levels in their jurisdiction based on their assessment of a variety of data sources, such as reports on ILI consultations from community-based sentinel health care providers, institutional respiratory infection outbreaks, reports on school/ work absenteeism levels, and the results from syndromic surveillance systems in emergency departments. Public health units may not have access to all these data sources; therefore, they base their assessment on the available sources in their jurisdiction.

Hospitalizations and deaths from influenza. When the laboratory informs the local MOH of a confirmed case of influenza that is hospitalized, the public health unit follows up with the hospital in order to collect additional information on the case's underlying health status, influenza immunization status, as well as to document if the case presented with any unusual symptoms or had any severe complications, including death. These data are entered into iPHIS.

Other data sources. PHO also receives data from a variety of other sources, such as:

- **[Telehealth Ontario](#).** Telehealth Ontario calls that meet specific symptom-based criteria are categorized as either calls for fever/ ILI syndrome or a respiratory syndrome. PHO analyzes call volumes for these syndromes, which are reported as a proportion of all calls to Telehealth Ontario. Significant increases in call volumes or geographic clustering of syndrome-specific calls (by postal code) may indicate possible increases in influenza activity in the community.
- **[Immunization Monitoring Program ACTIVE \(IMPACT\)](#).** IMPACT monitors paediatric hospitalizations as a consequence of influenza infection (by type and subtype) from children's hospitals across Canada. IMPACT is administered by PHAC and the data from the two participating Ontario hospitals (Hospital for Sick Children in Toronto and the Children's Hospital of Eastern Ontario in Ottawa) are shared with PHO on a weekly basis.
- **School absenteeism.** Weekly school absenteeism rates are reported to PHO by public health units that collect this information from schools and/ or boards of education in their jurisdiction. Absenteeism rates are either reported as all-cause or syndrome-related.

- **[Emergency Department Syndromic Surveillance \(EDSS\) system](#)**. The EDSS system (run by the Kingston, Frontenac and Lennox & Addington Public Health Informatics Program and supported by the MOHLTC) monitors visits to emergency departments at 80 hospitals across Ontario. Together, these hospitals span six Local Health Integration Networks (LHINs), which encompass 20 public health units. Anomaly detection takes place every six hours to detect increasing numbers of visits for different syndromes. The EDSS generates alerts to notify public health unit staff of these increases. Real time activity from nine of these hospitals is available at the [Infection Watch Live website](#).
- **Other reports**. Public health units may inform PHO or the MOHLTC when they observe unusual events, such as unusual institutional outbreaks, high rates of influenza in immunized staff, or patients that are not responding to antiviral medication. These anecdotal reports can trigger further investigation by the MOHLTC and PHO.

Report on influenza activity

PHO uses a variety of methods to share information on influenza and ILI activity with the MOHLTC and the health system year-round:

[Ontario Influenza Bulletin](#). The analysis of surveillance data is published in the Ontario Influenza Bulletin, published weekly from October to April and bi-weekly during the rest of the year.

[Laboratory-Based Respiratory Pathogen Surveillance Report](#). PHO summarizes specimens tested for influenza and other viral respiratory pathogens in the Laboratory-Based Respiratory Pathogen Surveillance Report, published weekly from November to April and bi-weekly during the rest of the year. Although PHO laboratories perform the majority of testing for influenza and other respiratory viruses in Ontario, other types of microbiology laboratories also perform these tests. Therefore, the data in this report do not represent the total number of respiratory viruses identified in all Ontario laboratories. To sign up for the laboratory report distribution list, contact Adriana Peci at adriana.peci@oahpp.ca.

Morning Rounds. The MOHLTC and PHO meet daily to discuss any emerging issues in the province, including updates on influenza activity and any issues of concern.

Monthly epidemiology teleconference. PHO chairs a monthly call with public health unit epidemiologists to share surveillance information and to identify surveillance issues of concern.

Monitor antiviral resistance

The [National Microbiology Laboratory](#) in Winnipeg monitors circulating influenza strains for any resistance to antiviral medications. PHO laboratories also monitor resistance, but only to a specific mutation for oseltamivir (commonly known as Tamiflu).

2. Universal Influenza Immunization Program

Ontario's [Universal Influenza Immunization Program \(UIIP\)](#) provides free immunizations for individuals six months of age and older who live, work, or attend school in Ontario. The UIIP has been shown to save 300 deaths, 1,000 hospitalizations, 30,000 visits to hospital emergency departments, and 200,000 visits to doctors' offices in Ontario each year.[†]

Order vaccine

Each year, the World Health Organization (WHO) identifies the seed stock strains for the annual influenza vaccine, based on surveillance of circulating influenza strains. The federal government coordinates vaccine orders for all the provinces and territories.

Confirm vaccine delivery agents

To ensure quality control, MOHLTC manages a [prequalification process](#) for organizations that deliver vaccine (i.e., vaccine delivery agents). To participate in the UIIP, settings such as health care agencies, retirement homes, and workplaces that do not deliver vaccines year-round must apply to qualify as delivery agents and demonstrate that they can meet the vaccine storage and handling requirements. After the MOHLTC processes UIIP requests from these settings, local public health units complete the qualification process by verifying that these settings have the appropriate vaccine storage and handling processes in place.

On a regular basis, local public health units complete a cold chain inspection for health care settings such as primary care settings and hospitals that provide immunizations for a wide variety of conditions/ diseases including influenza.

Support the administration of the UIIP program

The MOHLTC typically begins to distribute influenza vaccine to vaccine delivery agents across Ontario starting in September. As part of the vaccine distribution program, the MOHLTC:

- monitors the ordering and reserves of vaccine in its warehouse in the field
- ships vaccine directly to public health units, who then distribute vaccine to delivery agents in their jurisdictions (note: the MOHLTC ships vaccine directly to public hospitals, long-term care homes, Family Health Teams and Community Health Centres within the "M" Postal Code)

[†] Kwong JC, Stukel TA, Lim J, McGeer AJ, Upshur REG, et al. (2008). The Effect of Universal Influenza Immunization on Mortality and Health Care Use. PLoS Med 5(10): e211.doi:10.1371/journal.pmed.0050211.

- manages the return of any unused vaccine to its warehouse.

The MOHLTC develops and distributes the 2011/2012 [Information Package](#) to organizations that wish to participate in the upcoming immunization program. This package:

- outlines the vaccine products that are part of the 2011/2012 program, including the reporting requirements and associated due dates
- outlines immunization policies, including recommendations on the use of vaccine products
- provides instructions on how to order promotional materials
- describes the vaccine ordering process
- includes key MOHLTC contacts if organizations have any questions or concerns
- includes a link to the [UIIP Program Manual](#) that provides resources and supports for all participants of the UIIP.

The MOHLTC holds regular teleconferences with managers of vaccine preventable disease programs at the public health units to review provincial vaccine programs, including the UIIP. As well, the MOHLTC addresses any issues with vaccine delivery agents as they arise.

Collect data on vaccine utilization

The MOHLTC collects and analyzes data on vaccine utilization to guide vaccine distribution and promotion efforts during the influenza season.

As outlined in the [Influenza Surveillance Protocol for Ontario Hospitals](#), the recommended timeframe for influenza immunization is from October to mid-November, before the peak in influenza activity. Long-term care homes report immunization rates of residents and staff and hospitals report immunization rates of staff to their local MOH no later than December 15, 2011. Public health units analyze this information and share it with the MOHLTC by January 13, 2012.

The MOHLTC receives regular reports from most vaccine delivery agents on the amount of vaccine administered during the influenza season – except for physicians who report vaccine administration as they bill the Ontario Health Insurance Plan (OHIP) for services. As physicians have up to six months to submit OHIP billing data, the MOHLTC cannot determine the total quantity of vaccine administered by all vaccine delivery agents until mid-November of the following influenza season.

Monitor adverse events

As legislated under the HPPA, the MOHLTC instructs health care providers to report any adverse events following influenza immunization to their local public health unit. The public health unit notifies the MOHLTC of the event through iPHIS, which then shares the information with PHAC. PHAC monitors adverse events through the [Canadian Adverse Events Following Immunization Surveillance System \(CAEFISS\)](#), which signals adverse events that may require more in-depth investigation.

3. Occupational Health and Safety and Infection Prevention and Control

Improve knowledge and practices

Ontario uses a variety of methods to support health care providers/ settings to improve the use of occupational health and safety (OHS) and infection prevention and control (IPAC) measures.

Training and support. PHO's [Regional Infection Control Networks \(RICNs\)](#) coordinate IPAC activities and promote standardization in health care settings across Ontario. RICNs provide organizations with continuing education and access to infection prevention and control expertise. RICNs often participate in infection prevention and control workshops in the fall, which are coordinated by local public health units and are designed to improve the infection prevention and control skills of local providers. In August 2011, RICNs issued a new tool – [Infection Prevention and Control Reference Tool for Health Care Providers in the Community](#) – which includes information on preventing the spread of influenza in community-based settings.

At the end of September 2011, PHO held its annual workshop on outbreak management for public health units, which included presentations on a variety of topics such as recent developments in respiratory infection outbreak management (i.e., antiviral prophylaxis and treatment guidelines).

[Just Clean Your Hands](#), a program of PHO, is designed to help hospitals, long-term care homes, and retirement homes to overcome the barriers to proper hand hygiene and to improve compliance with hand hygiene best practices.

Best practices. PHO's [Provincial Infectious Diseases Advisory Committee](#) sets out the recommendations on IPAC best practices for the health care system. In particular, their guidance document entitled [Routine Practices and Additional Precautions Annex B: Best Practices for Prevention of Transmission of Acute Respiratory Infection in All Health Care Settings](#) provides guidance on appropriate IPAC measures to support the control of influenza in all health care settings.

The MOHLTC has produced [A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes](#) to assist long-term care homes in preventing, detecting, and managing outbreaks of respiratory infections that arise from the transmission of common respiratory pathogens.

The Ontario Hospital Association and Ontario Medical Association's [Joint Committee on Communicable Disease Surveillance Protocols](#) collaborated with the MOHLTC to develop the [Influenza Surveillance Protocol for Ontario Hospitals](#), which provides direction to hospitals on preventing and managing influenza infections among health care workers and patients.

Standards. The MOHLTC sets out IPAC standards for Boards of Health via the [Infectious Diseases Protocol](#).

Health care providers/ settings may follow IPAC standards, such as [Accreditation Canada's Standards for Infection Prevention and Control](#).

Reinforce occupational health and safety requirements

MOL inspectors inspect for overall compliance with the [Occupational Health and Safety Act \(OHSA\)](#) and its regulations, such as the Health Care and Residential Facilities Regulation, O. Reg. 67/93 (the regulation) and the Needle Safety Regulation, O. Reg. 474/07. As part of the [Safe At Work Ontario strategy](#), the MOL develops annual sector-specific plans that provide the flexibility to focus on sector-specific hazards and characteristics.

In its [2011/2012 Health Care Sector Plan](#), the MOL has made infections and infectious diseases a special focus of its inspections to ensure that measures and procedures for the prevention and control of infections and infectious diseases comply with the OHSA and sections 8, 9, and 10 of the Health Care and Residential Facilities Regulation for workplaces covered by the regulation.

Workplaces covered by the Health Care and Residential Facilities Regulation are required to develop, establish, and put into place written measures and procedures to protect the health and safety of workers, in consultation with the Joint Health and Safety Committee (JHSC) or Health and Safety Representative (HSR), if any. Employers are required to review and revise these measures and procedures at least once a year in light of current knowledge and practice. The employer is also required, in consultation with the JHSC or HRS (if any), to develop, establish, and provide worker training and educational programs on relevant health and safety measures and procedures.

In settings where workers are required either by the Health Care and Residential Facilities Regulation or by their employer to use personal protective equipment (PPE):

- employers must ensure workers are instructed and trained in the care, use, and limitations of PPE before wearing or using it the first time and at regular intervals thereafter
- workers are required to participate in instruction and training
- the PPE provided, worn, or used must be properly fitted
- respiratory protection programs should include, among other things, appropriate PPE requirements.

Employers in workplaces not covered by the regulation are required under the OHSA to provide information, supervision, and instruction to workers to protect their health or safety and to take every precaution reasonable in the circumstances for the protection of a worker. These duties apply with respect to protecting workers from the hazard of infectious agents.

Whether or not the Health Care and Residential Facilities Regulation applies, all workplaces should use a thorough risk assessment process to develop infection prevention and control measures, procedures, and training.

As part of the Safe At Work Ontario strategy, the MOL focused on preventing the spread of infection in health care settings during a [province-wide enforcement blitz in November 2011](#).

The MOL maintains a webpage on [Flu and Your Workplace](#) to provide information for workers and employers on seasonal influenza. Employers and workers can find additional health and

safety information, resources, and tools on MOL's [Health and Community Care webpage](#). For general inquiries, call the MOL Health and Safety Contact Centre at 1-877-202-0008.

Ontario's Prevention System is made up of the MOL, the [Workplace Safety & Insurance Board](#), the [Workers Health & Safety Centre](#), [Occupational Health Clinics for Ontario Workers](#), and [Ontario's Health and Safety Associations \(HSAs\)](#). Health care providers/ settings may want to contact the [Public Services Health & Safety Association](#) – the provincial HSA that serves hospitals, nursing and retirement homes, residential and community care settings, and others – for support or advice on implementing OHS measures this influenza season.

4. Care and Treatment Services

Assessment services

The health system provides influenza assessments in three primary ways: self assessment, telephone assessments, and face-to-face assessments.

- Ontario promotes self-assessment, and provides information that Ontarians can use to identify and assess their own or their family member's influenza symptoms and determine whether they need to seek care. A [Flu Assessment Tool](#) is posted on the [MOHLTC's influenza website](#).
- [Telehealth Ontario](#) (1-866-797-0000 or TTY: 1-866-797-0007) is a free, confidential telephone service Ontarians can call to get health advice or general health information from a registered nurse any time of day or night.
- Ambulatory patients access assessment/ treatment through primary care providers, walk-in clinics (for those without a regular primary care provider), and emergency departments as needed. As well, influenza assessment and treatment occurs in hospital wards and outpatient clinics, long-term care homes, and homecare settings. Note that individuals living in remote, isolated First Nations communities typically access primary care through Health Canada programs.

Health care providers use clinical judgment to determine how to prevent or treat ILI and confirmed influenza in patients. Providers may turn to best practice documents for guidance, such as the [Association of Medical Microbiology and Infectious Disease Canada's](#) best practice document on [The Use of Antivirals for Influenza: Guidance for Practitioners, 2011-2012](#) and accompanying [algorithm](#).

Laboratory services

To support influenza testing, the PHO Laboratory issues [Lababstracts](#) to provide guidance for health care providers on testing algorithms and other testing issues. To subscribe to Lababstracts, email lababstracts@oahpp.ca or phone the PHO Laboratory helpline at 1-800-640-7221.

The [October 2011 Labstract](#) provides guidance on the respiratory viral testing algorithm for the 2011/2012 influenza season. The Labstract includes guidance for hospitals (critical care wards and other inpatient wards) and ambulatory care settings (primary care settings and emergency departments). It also includes instructions for laboratory tests during outbreaks, biopsy specimens and oseltamivir resistance testing for the 2011/2012 season.

Surge capacity strategies

In many parts of the health care system, there may be a marked increase in the demand for assessment and treatment services during influenza season, including primary care, acute care, long-term care, and other sectors.

To support surge capacity in the critical care sector, the MOHLTC has developed the [Critical Care Surge Capacity Management Program](#) to manage critical care surge within hospitals at all times of the year, including during the influenza season.

Other parts of the health care system use general business continuity principles to support surge capacity during the influenza season, including some of the strategies outlined in the [OHPIP](#).

5. Communications

During the 2011/2012 influenza season, Ontario is promoting influenza vaccine by targeting three key audiences: the public, health care providers, and workplaces.

The MOHLTC reminds Ontarians that receiving the influenza vaccine annually is part of a proactive approach to overall health management. The MOHLTC's key message for the 2011/2012 influenza season is as follows:

The influenza vaccine strengthens the body's natural immune response. It is the single most effective way to protect you and your family from influenza.

Communications to health care providers and workplaces began before the influenza season, while communication to the public began once the influenza vaccine was available.

To health care providers

The MOHLTC targets communications at health care providers to encourage them to recommend the influenza vaccine to all their patients, as well as to encourage all health care providers to get the influenza vaccine themselves to prevent the spread of illness to their vulnerable patients. Communication strategies to reach health care providers include:

- media stories directed at providers that include statistics on influenza and its link to other health complications (e.g., hip fractures, asthma complications, heart attacks)
- fact-based information and resources geared towards health care providers on the safety, necessity, and effectiveness of the influenza vaccine, available on the [MOHLTC's seasonal influenza website](#)

- an accredited, online [Continuing Medical Education program](#) to support physicians, nurses, and pharmacists in responding effectively to patients' questions about the UIIP
- direct mail to health care providers/ organizations with information about this year's UIIP, including materials that they can post in their offices or give to patients to inform them of the benefits of the influenza vaccine
- outreach to health care providers through the Rogers Healthcare Group's gated [inter-professional portal](#) (banner ads, e-newsletters, and custom e-mails)
- outreach to pharmacists to encourage them to establish pharmacy-based UIIP clinics.

In workplaces

To engage workplaces in preventing influenza, the MOHLTC:

- sends direct mail to employers with 50+ staff to encourage them to set up a workplace UIIP clinic
- provides information for workplaces on how to set up an influenza vaccine clinic – including a call to action to drive mass uptake
- provides collateral materials (posters, tear sheets) to promote workplace clinics.

To the public

Once influenza season begins, the MOHLTC shifts its communication strategy to focus on the public. The primary targets are:

- women between the ages of 18 and 54 who have lapsed from getting the vaccine for themselves and their family
- men and women 55 years of age and older – who, because of their age, are at higher risk of complications from influenza.

The MOHLTC uses a variety of strategies to communicate with the public, including:

- television and online advertising campaigns, as well as earned media/ public relations campaigns to address the concerns/ vaccine scepticism of the main target groups
- social media activities on [Twitter](#), [Facebook](#), and [Youtube](#) to promote influenza immunization messaging
- materials and resources on the [MOHLTC's seasonal influenza website](#), including videos, fact sheets, and a resource to help individuals find the location of the nearest vaccine clinic in their community.

6. Hazard Identification and Risk Assessment

During influenza season, the MOHLTC monitors the circulating viruses as well as the response capacity of the health care system in order to identify any emerging issues, promote appropriate mitigation measures, and provide guidance to the health care providers/ settings as required.

Daily HIRA process

The MOHLTC continuously monitors, collects, and analyzes key sources of information – such as disease surveillance reports (e.g., Ontario Influenza Bulletin), critical care bed capacity, media clippings, and information flagged through the MOHLTC/ PHO Morning Rounds process – to identify and assess any emerging health issues early and take steps to reduce and/ or respond to the risk.

For the 2011/2012 influenza season, the MOHLTC has identified a number of possible risk scenarios and potential actions that could be taken to respond (see Appendix 1).

Joint Incident Assessment

In the event of an identified infectious disease or environmental health risk in some part of the province, the MOHLTC and PHO hold a Joint Incident Assessment meeting to determine whether the emerging local incident has the potential to become an emergency and/ or provincial issue and to discuss appropriate response strategies with the public health unit in the affected area.

7. Enhanced Response

Ontario can modify the implementation of components of its influenza program to meet the needs of the 2011/2012 influenza season. Depending on the risk/ incidence or severity of the seasonal influenza, Ontario may initiate an enhanced response, including enhancing surveillance to track the spread of the virus, issuing [Important Health Notices](#) to provide guidance and advance notice to health care providers/ settings, activating the Ministry Emergency Operation Centre (MEOC) to coordinate support for the health care system, and/ or implementing response strategies to help the local health care system respond to the demands of seasonal influenza. See Appendix 1 for potential strategies that could be used to respond to a variety of scenarios.

Initiate enhanced surveillance

Based on its monitoring of Ontario's surveillance data sources (e.g., iPHIS, laboratory test results), PHO identifies situations of concern that may require more timely and complete

reporting. If warranted, PHO issues an Enhanced Surveillance Directive that outlines surveillance and reporting requirements for public health units.

The MOHLTC may also request that the critical care sector report cases of confirmed influenza or ILI – rather than just cases with respiratory syndromes – to allow for greater understanding of the types of patients in critical care units.

Issue Important Health Notices

The MOHLTC may issue [Important Health Notices](#) to health professionals across the province to notify them of the details of a specific situation or of changes in practice needed to respond to the demands of the influenza season. The Important Health Notices may provide best practice guidelines for the assessment and treatment of the seasonal strain, guidance on other strategies to deal with surge capacity issues, information about the promotion of public health measures, or changes to the UIIP.

Activate the MEOC

MOHLTC could activate its MEOC to support the activities of the health system. The MEOC would act as the central hub from which the MOHLTC would coordinate the provincial response. As part of the MEOC activation process, the MOHLTC would activate its information cycle to provide information and guidance to the health care system, such as the 0830hours Health Care Stakeholder Council Teleconference. As well, the MOHLTC would activate its incident action planning cycle to develop objectives for the response and support the implementation of response measures at the local level.

Issue orders

Under the HPPA, both the CMOH and local MOHs have the authority to issue orders designed to slow the spread of influenza or manage outbreaks and protect the health of the public. For example, in the event of a severe seasonal influenza strain, the CMOH or local MOHs could order people to stay home or restrict public gatherings.

8. Research

During the 2011/2012 influenza season, PHO's influenza research efforts are focused vaccine effectiveness. Ontario is a participant in the national [Sentinel Vaccine Effectiveness study](#), which is designed to measure circulating influenza strains accurately and to assess how well the seasonal vaccine is working.

Next Steps

After the 2011/2012 influenza season, the MOHLTC will lead a provincial evaluation process to assess the health care system's response to the influenza season in order to:

- continue developing provincial strategies in the Seasonal Influenza Blueprint, including confirming common principles guiding all agencies and clarifying roles and responsibilities
- identify data that will be useful in refining plans for the 2012/2013 influenza season and improve reporting
- assess the effectiveness of the UIIP and identify opportunities for improvement
- assess the effectiveness of control measures in reducing influenza-related illnesses and deaths, and the social and economic impact of seasonal influenza
- identify any differences in local/ regional responses and assess their impact and effectiveness
- identify any health care system capacity issues that need to be addressed
- develop a comprehensive influenza research and evaluation strategy that builds on the evidence gained from past influenza seasons, as well as the (H1N1) 2009 pandemic
- identify best practices and lessons learned.

The 2012/2013 iteration of the Blueprint will include more guidance and information to assist local health care providers/ settings develop their seasonal influenza response plans.

The MOHLTC will also lead a process to develop Ontario's Influenza Response Plan over the next few years, a comprehensive document that will outline roles and responsibilities of all levels of the health system in responding to influenza – including both seasonal and pandemic strains. This comprehensive plan will be released after the 2012/2013 influenza season and will integrate strategies from the Seasonal Influenza Blueprint and the OHPIP. For more information, contact the MOHLTC's Emergency Management Branch at emergencymanagement.moh@ontario.ca or 1-866-212-2272.

Appendix 1. Potential Hazards/ Risks during the 2011/2012 Influenza Season.

Potential Scenario	How will the MOHLTC know that this scenario is happening?	What potential response actions can the MOHLTC take?
<p>A. <i>This year's influenza vaccine is not a good match with the circulating influenza strains.</i></p> <p>Implication - The influenza vaccine may not offer full protection against one or more of the circulating strains, which could increase the risk of transmission of the virus and increase the number of individuals that experience complications as a result of influenza infection.</p>	<ul style="list-style-type: none"> • The MOHLTC and PHO receive updates from the National Microbiology Laboratory in Winnipeg on the match between the vaccine and the circulating strains. • The PHO Laboratories performs limited molecular sequencing of influenza strains throughout the season. This can indicate changes in the circulating virus, but cannot confirm strain drift. • PHO evaluates the level of vaccine effectiveness through the Vaccine Effectiveness study. • PHO monitors surveillance data from other jurisdictions for evidence of possible mismatch. • PHO monitors Ontario surveillance information for evidence of a mismatch (i.e., high incidence among immunized individuals). • The MOHLTC and PHO may be informed of vaccine match results from laboratories in other jurisdictions, 	<ul style="list-style-type: none"> • Consider promoting more frequent/ aggressive use of antiviral medications to treat ILI in at-risk patients. • Consider expanding access to antiviral medication across the province (i.e., addressing barriers to access). • Consider promoting the increased use of public health measures in the general public, such as hand hygiene and cough etiquette practices. • Prepare strategies to support health care settings to deal with a surge in outpatient visits, such as implementing business continuity strategies (i.e., decrease non-critical services) and activating Flu Assessment Centres. • Consider strategies to support health care settings to deal with a surge in severely ill patients, such as implementing strategies in the Critical Care Surge Capacity Management Program and implementing

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	including through communiqués from PHAC and the WHO.	<p>business continuity strategies in acute care settings.</p> <ul style="list-style-type: none"> Consider revising outbreak management guidelines in A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes.
<p><i>B. The circulating strains are resistant to one or more types of antiviral medication.</i></p> <p>Implication – Antiviral medication use would be restricted/ decreased for treatment and outbreak management purposes.</p>	<ul style="list-style-type: none"> The PHO laboratories conduct gene sequencing to identify if the circulating viruses are resistant to oseltamivir. The PHO laboratories can only detect mutations that have been previously confirmed as causing resistance. The PHO laboratories conduct limited culture-based (phenotypic) resistance testing. This will detect any type of resistance, including mutations that have not been described previously. The MOHLTC and PHO will be informed of antiviral resistance results from the National Microbiology Laboratory, as well as from laboratory testing in other jurisdictions. 	<ul style="list-style-type: none"> Consider revising outbreak management guidelines in A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes based on the effectiveness of antiviral medications. Consider addressing any supply chain issues and other barriers to accessing the preferred antiviral medication.
<p><i>C. The demand for laboratory testing</i></p>	<ul style="list-style-type: none"> The PHO laboratories and/or hospital 	<ul style="list-style-type: none"> The PHO laboratories would implement

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<p><i>exceeds existing capacity in the PHO laboratories and/ or hospital laboratories.</i></p> <p>Implication – The MOHLTC and PHO may not have sufficient information to meet surveillance objectives. Hospitals may not have access to influenza testing results to inform treatment planning.</p>	<p>laboratories inform the MOHLTC if they are experiencing challenges in keeping up with the demand for testing respiratory specimens.</p>	<p>changes in laboratory testing algorithms to cope with the demand for testing. These changes would be communicated to health providers/ organizations through a Labstract and/ or an Important Health Notice.</p> <ul style="list-style-type: none"> • Consider encouraging PHO laboratories and/ or hospitals to use business continuity strategies to support their capacity to respond to the surge for influenza testing.
<p><i>D. There is low uptake of vaccine among health care providers early in the influenza season.</i></p> <p>Implication – This may result in greater numbers of patients and health care providers becoming ill with influenza, including high absenteeism rates among health care providers due to illness.</p>	<ul style="list-style-type: none"> • Local MOHs inform the MOHLTC about vaccine uptake rates for health care providers in long-term care homes and hospitals by January 13, 2012. 	<ul style="list-style-type: none"> • Prepare strategies to support health care settings deal with a surge in severely ill patients, such as implementing strategies in the Critical Care Surge Capacity Management Program and implementing business continuity strategies in acute care settings. • Consider strategies to increase the uptake of vaccine among health care providers, such as expanding and promoting workplace clinics in health care settings.
<p><i>E. There is low uptake of</i></p>	<ul style="list-style-type: none"> • Local MOHs inform the 	<ul style="list-style-type: none"> • Prepare strategies to

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<p><i>vaccine among vulnerable populations early in the influenza season.</i></p> <p>Implication – This may result in greater numbers of patients becoming ill/ seriously ill (i.e., requiring hospitalization), more outbreaks in long-term care homes and other residential settings, and increased transmission in the public.</p>	<p>MOHLTC about vaccine uptake rates for residents of long-term care homes by January 13, 2012.</p>	<p>support health care settings to deal with a surge in severely ill patients, such as implementing strategies in the Critical Care Surge Capacity Management Program and implementing business continuity strategies in acute care settings.</p> <ul style="list-style-type: none"> • Consider strategies to increase the uptake of vaccine among vulnerable populations, such as recommending that health care providers encourage their vulnerable patients to get immunized, as well as expanding access to the UIIP.
<p><i>F. There is low uptake of vaccine in the general population early in season.</i></p> <p>Implication – This may result in greater numbers of patients becoming ill with influenza, including severe illness (i.e., requiring hospitalization), more outbreaks in long-term care homes and other residential settings, and increased transmission in the public.</p>	<ul style="list-style-type: none"> • Observations at public health-led immunization clinics. • Low reordering rates by health units and/ or providers in the “M” Postal Code. 	<ul style="list-style-type: none"> • Prepare strategies to support health care settings to deal with a surge in outpatient visits, such as implementing business continuity strategies (i.e., decrease non-critical services) and activating Flu Assessment Centres. • Prepare strategies to support health care settings deal with a surge in severely ill patients, such as implementing strategies in the Critical Care

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		<p>Surge Capacity Management Program and implementing business continuity strategies in acute care settings.</p> <ul style="list-style-type: none"> Consider strategies to increase the uptake of vaccine among healthy members of the general population, such as expanding access to the UIIP and promoting the UIIP through targeted communication strategies.
<p><i>G. There is a higher rate of transmission of the influenza virus as compared to a normal influenza season.</i></p> <p>Implication – More people would contract influenza, which could have cascading impacts on the health care system (e.g., increased demand for outpatient and inpatient services).</p>	<ul style="list-style-type: none"> PHO monitors Ontario surveillance information for evidence of high transmission rates. The MOHLTC monitors media reports to track stories about seasonal influenza. 	<ul style="list-style-type: none"> Consider strategies to increase the uptake of vaccine among health care providers, vulnerable populations, and high-transmission populations (e.g., children), such as expanding access to the UIIP and promoting the UIIP through targeted communication strategies. Consider promoting the increased use of public health measures in the general public, such as hand hygiene and cough etiquette practices. Prepare strategies to support health care settings to deal with a surge in outpatient visits, such as

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		<p>implementing business continuity strategies (i.e., decrease non-critical services) and activating Flu Assessment Centres.</p> <ul style="list-style-type: none"> • Consider promoting more frequent/ aggressive use of antiviral medications to treat ILI in at-risk patients. • Consider expanding access to antiviral medication across the province (i.e., ensuring supply chain is in place and addressing barriers to access). • Consider how to increase adoption of appropriate OHS/ IPAC measures in health care settings. • Consider strategies to expand the capacity of Telehealth Ontario.
<p><i>H. The circulating viruses result in high clinical severity compared to a normal influenza season.</i></p> <p>Implication – More people would develop severe illness, which would have cascading impacts on the health care system (e.g., increased demand for outpatient and inpatient</p>	<ul style="list-style-type: none"> • Critical care units provide real-time data to the MOHLTC on bed availability through the Critical Care Information System (CCIS). The CCIS allows critical care units to indicate if patients have a respiratory illness; however, it doesn't allow them to report on cases that have 	<ul style="list-style-type: none"> • Implement similar strategies as the high-transmission scenario (Scenario G), but with a focus on strategies that would expand the capacity of the health care system to prevent and treat severe illness, such as encouraging hospitals to expand their inpatient capacity, implementing strategies

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services).	<p>ILI or confirmed influenza.</p> <ul style="list-style-type: none"> • PHO receives case-level data for hospitalized patients with confirmed influenza through iPHIS. • The MOHLTC monitors media reports to identify emerging issues. 	<p>in the Critical Care Surge Capacity Management Program, and promoting the use of antiviral medications for treatment.</p>
<p><i>I. A specific area of the province is disproportionately affected by influenza. This may be due to health system capacity issues (e.g., limited access to primary care); population behaviours (e.g., low vaccine uptake); social determinants of health; or a coincident emergency that strains the local health care system (e.g., severe winter storm).</i></p> <p>Implication – There may be a higher risk of morbidity and mortality in this area. There may also be challenges for individuals to access timely care.</p>	<ul style="list-style-type: none"> • The MOHLTC monitors media reports to identify emerging issues. • The MOHLTC is informed about non-health local emergencies through a range of sources including Emergency Management Ontario. 	<ul style="list-style-type: none"> • Implement similar strategies as the high-transmission scenario (Scenario G), but more targeted at providing support to a specific geographic area, such as deploying Ontario’s Emergency Medical Assistance Team[‡].
<p><i>J. There is reassortment</i></p>	<ul style="list-style-type: none"> • The MOHLTC and 	<ul style="list-style-type: none"> • Consider preparing to

[‡]EMAT is a mobile medical field unit that can be deployed anywhere in Ontario with road access and within 24 hours. EMAT can set-up a 56 bed unit that provides a staging and triage base, and has the capability to treat 20 acute care patients and 36 intermediate care patients.

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<p><i>between circulating strains or a shift across species (e.g., swine to human).</i></p> <p>Implication – If the population does not have immunity to the new strain, the reassortment or shift could result in an influenza pandemic.</p>	<p>PHO may be informed of strain typing results from the National Microbiology Laboratory, as well as laboratory testing in other jurisdictions through PHAC and the WHO.</p> <ul style="list-style-type: none"> • The MOHLTC monitors media reports to track stories about influenza. 	<p>implement strategies from the OHPIP.</p>

