

Individual and Community Based Measures to Help Prevent Transmission of Influenza-Like-Illness (ILI) in the Community, Including the Pandemic Influenza (H1N1) 2009 Virus

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This guidance document is provided by the Public Health Agency of Canada in response to the pandemic influenza (H1N1) 2009 virus. Please note that this document replaces previous guidance "Interim Guidance for Public Health Response to H1N1 Flu Virus (Human Swine Flu) in Canada" dated June 5, 2009. This guidance is based on current available scientific information, combined with expert opinion from public health experts in the fields of community based disease control strategies, infectious diseases, emergency management, communications and ethics, and is subject to review and change as new information becomes available.

This guidance should be read in conjunction with relevant provincial and territorial guidance documents. The Public Health Agency of Canada will be posting regular updates and related documents at www.phac-aspc.gc.ca.

Purpose

The goals of Canadian pandemic preparedness and response are to minimize serious illness and deaths, and to minimize societal disruption among Canadians as a result of an influenza pandemic. This document has been developed to provide guidance to public health authorities regarding non-pharmaceutical measures that may contribute to the reduction of transmission of the pandemic influenza (H1N1) 2009 virus in the community. Public health and other health professionals may adapt this guidance as necessary to address their local circumstances.

This document is based on the general recommendations from the Public Health Measures Annex of the Canadian Pandemic Influenza Plan for the Health Sector (<http://www.phac-aspc.gc.ca/cpip-pclcpi/ann-m-eng.php>). These recommendations have been interpreted in the context of community-based transmission of the pandemic influenza (H1N1) 2009 virus in Canada.

The guidance in this document should be used in combination with individual infection control measures such as proper hand hygiene and respiratory etiquette.

Canadian Situation Analysis/Introduction

The pandemic influenza (H1N1) 2009 virus has rapidly spread across the world. While influenza activity would normally be expected to wane almost entirely during the summer months, the pandemic influenza (H1N1) 2009 virus has continued to circulate at low levels in Canada and the potential for resurgence in the fall remains.

To date, infection with the pandemic influenza (H1N1) 2009 virus has resulted in influenza like illness (ILI) similar to seasonal influenza.

- The surveillance case definition for ILI is defined as the *acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, muscle aches, joint pain or weakness which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.*
- **The clinical case definition for ILI for treatment or isolation purposes in a given setting should be adapted to ensure appropriate sensitivity and specificity for this setting.**

This pandemic influenza (H1N1) 2009 virus is thought to be spread from person to person in the same way as seasonal influenza where transmission occurs predominantly through droplets produced from coughing or sneezing. Indirect transmission also likely occurs through self-inoculation after contact with surfaces or objects contaminated with the virus from infected persons.

The incubation period for pandemic influenza (H1N1) 2009 virus is understood to be up to 4 days

and the period of communicability up to seven days from onset of symptoms in uncomplicated cases. This may be longer (up to 10 days) in individuals with severe illness and children in whom symptoms and virus shedding may persist. Consistent with seasonal influenza, transmission of the pandemic influenza (H1N1) 2009 virus is most likely during the initial days of infection when the individual is symptomatic and has a high viral load.

Like seasonal influenza, the pandemic influenza (H1N1) 2009 virus infection in humans can vary in severity from mild to severe, with the most severe disease occurring mainly in individuals with known risk factors for complications from influenza such as chronic illness, immuno-compromised individuals and pregnant women in their second or third trimesters. This virus also appears to result in more severe disease in the 5-55 year old age group than does seasonal influenza; however most individuals with pandemic influenza H1N1 infection have not required hospitalization and have recovered in the community.

This guidance has been developed based upon the Canadian situation and thus may differ somewhat from recommendations made in other countries. The unique characteristics of certain settings (e.g., homeless shelters) and communities (e.g. remote or isolated or communities with a large proportion of high risk individuals) may require that these recommendations be adapted to individual circumstances. For example, communal settings such as shelters may wish to develop processes for identifying ill individuals, for isolating ill individuals that do not require hospitalization, for education on respiratory and hand hygiene, and for connecting to medical care if needed.

Recommendations

The following are non-pharmaceutical measures to help mitigate spread of the pandemic influenza (H1N1) 2009 virus within communities.

Infection Prevention and Control Measures

Self-Isolation of Ill Individuals

To help reduce transmission between ill persons and those who are healthy, prompt recognition of symptoms and early self-isolation (stay home) of symptomatic individuals is key. Individuals with ILI should self-isolate until symptoms are resolved and they are able to participate fully in day to day activities.

Persons who are ill with ILI and who must go out into the community (for example, to seek medical care) should take measures such as coughing or sneezing into a tissue or their sleeve and avoiding crowds (like mass transit) to avoid exposing others to the virus. If this is not possible or preferred, a surgical mask could be worn to reduce the risk of spreading the virus within the community.

Family and other household members in homes with ill persons can continue their normal daily activities but should self-isolate, (e.g., stay home/go home) if they develop symptoms of ILI.

Although there is only limited evidence to support the use of masks in households as a means to reduce influenza transmission within the household, there may be some benefit in having the ill individual wear a mask when in a room with well individuals in an effort to help reduce the risk of spreading the virus to others.

There is currently insufficient evidence to suggest that the wearing of masks by asymptomatic individuals (e.g. caregivers) will help to reduce the transmission of influenza in the household setting.

While asymptomatic caregivers may choose to use a facial or surgical mask when caring for someone with ILI who is not wearing a face mask, this may not provide any benefit unless strict adherence to proper mask use and good personal hygiene practices are followed, including regular hand washing.

Hand Hygiene and Respiratory Etiquette

Proper hand hygiene and respiratory etiquette (covering coughs and sneezes) are important means

of preventing the transmission of pandemic influenza (H1N1) 2009 virus.

Respiratory etiquette involves coughing and sneezing into a disposable tissue, discarding immediately and cleaning one's hands afterwards or coughing/sneezing into one's elbow or sleeve rather than one's bare hands, if tissues are unavailable.

Hand washing with plain soap and water is the preferred method of hand hygiene in the community as the mechanical action is effective at removing visible soil as well as microbes. Where hand washing is not possible, use of alcohol-based hand rubs (with 60-90% alcohol) is recommended; however, alcohol-based hand rubs alone may not be effective at eliminating the influenza virus on hands that are visibly soiled.

It is recommended that businesses and other community settings where people congregate provide adequate hand washing supplies in the washrooms, kitchens and other sink areas in their facilities. They may also consider providing additional hand hygiene stations in highly visible locations, particularly where people congregate (e.g. entrances, food courts, etc.). Hand hygiene stations in non-supervised public settings (e.g. transit stations, parks etc.) are not recommended as evidence shows they are logistically difficult to maintain in such settings.

Environmental Cleaning

Influenza viruses can survive on some surfaces from a period of several hours to days, but are rapidly destroyed by cleaning. Cleaning of high-touch objects and surfaces (e.g. doorknobs, faucet handles, work surfaces, computer keyboards, telephones, hand rails, etc.) will help to prevent the transmission of the influenza virus from person-to-person through contaminated hands.

To help mitigate the risk of individuals becoming infected through self-inoculation after touching contaminated surfaces, it is recommended that businesses and community organizations increase the frequency of cleaning of high touch surfaces (at least twice daily) and ensure that adequate hand hygiene supplies are available at all times.

No special disinfectants or waste handling practices are required for influenza; regular household or commercially available cleaning products are sufficient for this purpose and waste handling according to usual standards will suffice. Dishes, clothing, and sheets used by an individual with ILI can be washed using ordinary detergent and water.

Public Education

The return of the fall season signals an increase in the use of indoor venues for social gatherings as well as the return to school and work following summer vacations, and thus, may increase the risk of exposure to influenza viruses as people are likely to spend more time indoors and in close contact with other individuals. This is an opportune time to remind the public of important key messages regarding ILI prevention.

Public health messages that target all sectors of the public, including at-risk and marginalized populations, will help to inform the general public in regards to illness prevention and management.

Key messages regarding prevention of transmission of the pandemic influenza (H1N1) 2009 virus should include information regarding:

- Early identification and isolation of ill persons exhibiting ILI symptoms:
 - Be aware of signs and symptoms of ILI;
 - Stay home when sick with ILI until symptom free and feeling well and able to fully participate in all normal day to day activities;
 - When ill, stay away from others as much as possible to help prevent infecting others; and
 - Plan ahead on how to return home as soon as possible by a means that will minimize exposure to others, should symptoms of ILI develop while at work or school.
- Appropriate hand hygiene and respiratory etiquette;
- Avoiding touching one's eyes, nose and mouth; not sharing drinks, eating utensils, cigarettes,



etc., to help prevent the virus from entering the body; and

- Avoiding contact with people who are sick with ILI and, if unable to do so, maintaining a 2-metre separation from others as much as possible.

Other important public messaging might include:

- Information on where to call for medical advice (e.g., health information hot lines) and when seek medical care:
- Consideration of the implementation of a “flu buddy” system whereby neighbours would check on other neighbours, particularly the elderly, singles, and single parent families to help ensure assistance is available, if required;
- For individuals at high risk for serious illness or complications from influenza, the importance of:
 - consulting with their physicians prior to influenza season to plan what to do if they do become ill and how to access anti-viral medication rapidly, should it be needed; and
 - avoiding large gatherings when ILI is circulating in their community in order to minimize potential exposure to the virus.
- All individuals should plan for the possibility of getting sick and ensure an adequate in-house supply of groceries and other necessities should they be isolated at home for several days.

Some useful web-based information to support public education includes:

- How to recognize symptoms of ILI: Symptoms and Information
<http://www.fightflu.ca/sym-eng.html> 
- Practise cough and sneeze etiquette: Protect Yourself and Others
<http://www.fightflu.ca/prot-eng.html> 
- Use the correct hand washing technique: Get the *dirt* on clean hands! Your top questions answered.
<http://www.phac-aspc.gc.ca/im/iif-vcg/wh-lm-eng.php#a>
- Practise frequent hand cleaning (i.e. after sneezing or coughing, before and after eating, going to the washroom, etc.) Get the *dirt* on clean hands! Your top questions answered.
<http://www.phac-aspc.gc.ca/im/iif-vcg/wh-lm-eng.php#b>
- How to look after someone at home with H1N1 flu virus.
<http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/guidance-orientation-05-03-eng.php>
- Public Health Agency of Canada Travel Health Notices
<http://www.phac-aspc.gc.ca/tmp-pmv/index-eng.php>

Faith-Based Organizations/Settings

It is recommended that faith-based organizations consider how the guidance provided within this document may apply to their settings and to determine if there may be a need to temporarily modify some faith based practices in an effort to prevent ILI transmission within their settings, especially when influenza is circulating in their community.

Additionally, faith-based organizations can contribute to public health efforts to prevent the transmission of influenza. Through their extensive networks, they can provide a venue to communicate key influenza prevention messages and, through their outreach programs, may also provide additional assistance such as flu buddies who can check on vulnerable individuals within their communities.

Potential Community Based Interventions NOT Recommended at this Time

Use of Masks in the General Population

The Public Health Agency of Canada does not recommend that healthy people wear masks as they go about their daily lives in the community. There is no evidence to suggest that wearing masks will prevent the spread of infection in the general population and improper use of masks may in fact increase the risk of infection as removing the mask incorrectly can spread the virus to one's hands and face.

Additional information regarding mask use in the community and home settings can be found at:

- Public Health Agency of Canada Recommendations on Use of Masks in Public Settings to Prevent Transmission of the H1N1 Flu Virus (Human Swine Flu)
<http://www.phac-aspc.gc.ca/alert-alerte/h1n1/info-mask-masque-eng.php>
- How to look after someone at home with H1N1 flu virus.
<http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/guidance-orientation-05-03-eng.php>

Widespread School and Daycare Closures

Neither proactive (in anticipation of illness/outbreak) nor reactive (in response to illness/outbreak) school closures are recommended at this time. More detailed information regarding schools and daycares can be found at:

Public Health Guidance for Child Care Programs and Schools (K to Grade 12)
<http://www.phac-aspc.gc.ca/alert-alerte/h1n1/interim-provisaires0819-eng.php>

Public Health Guidance for Post Secondary and Boarding Schools
<http://www.phac-aspc.gc.ca/alert-alerte/h1n1/hp-ps/psili-eng.php>

Workplace and Community Setting Closures

Widespread closures of businesses and community settings (e.g. libraries, recreational centres, government offices, etc.) are not recommended at this time. There is limited evidence regarding the effectiveness of these measures and most evidence comes from modeling studies where such measures are implemented as part of broad community closures. The societal disruption and economic consequences of these measures are felt to far outweigh any potential reduction in transmission of influenza at this point in the pandemic in Canada.

In addition to the mitigation measures outlined in this document, some businesses may consider measures such as separating workstations by at least 2 metres and reducing face-to-face meetings or staggering arrival times as part of their internal pandemic planning. These measures are not yet supported by evidence.

Travel Restrictions

Due to the widespread transmission of the H1N1 virus, travel restrictions are not advisable as an effective measure to stop the spread of the virus; however, advice regarding individuals who are ill with symptoms of ILI remains the same – stay home (or in your accommodations, if not at home) if ill.

For specific travel health advice regarding H1N1 and international travel, please visit the PHAC travel health websites at http://www.phac-aspc.gc.ca/tmp-pmv/2009/h1n1_global-090722-eng.php#rec.

Broad Restrictions on Other Public Gatherings

Currently, the pandemic influenza (H1N1) 2009 virus is known to be easily spread from human to human and community outbreaks have been detected throughout Canada with the virus primarily causing mild illness. Therefore, at this point in time it is not felt that widespread closures/cancellations or other broad restrictions would be of sufficient benefit to warrant the many costs these measures would entail. Encouraging ill people not to attend gatherings and ensuring


processes are in place to safely isolate and transport people who become ill on site remain the most important measures to prevent transmission.

If the epidemiology of the disease changes and the virus becomes more virulent, particularly in certain age groups, these recommendations will be reconsidered along with other social distancing strategies.

The evidence supporting measures such as widespread closures and broad restrictions on public gatherings (e.g. theatres, parades, sporting events, etc.) is limited and therefore potential benefits remain theoretical. Some modelling studies have shown that widespread and prolonged closures of settings such as schools, businesses, etc., when implemented early in the pandemic, have the potential to reduce transmission resulting in "flattening" of the peak of an epidemic wave, especially if implemented in series with other interventions. In addition, historical data from the 1918 pandemic suggests that cities that cancelled public gatherings early in the pandemic had reduced epidemic peaks; however, it is impossible to discern if this measure alone had a significant impact.

The potential benefit of cancellation must be weighed against the known high economic and social costs of these measures. Additionally, ethical issues including undue burden on specific populations and the possible disruption of key services such as healthcare and public transit must also be considered.

Reference List and Additional Resources

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9. Public Health Agency of Canada. Business Continuity Planning Resources and Checklists. <http://www.phac-aspc.gc.ca/influenza/bcp-eng.php>

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