

# **Perth County Influenza Pandemic Plan**

## **Chapter 5: Public Health Measures**

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### 5.0 INTRODUCTION

Public health measures are non-medical interventions meant to control or reduce the spread of infectious diseases including pandemic influenza. Actions such as

hand washing, not going to work or school when ill, and covering a cough or sneeze are all examples of personal public health measures one can take.

The following is a non-comprehensive list of some public health measures:

- Immunization
- Closure of schools
- Quarantine
- Travel restrictions
- Screening of visitors or travelers
- Wearing masks
- Disinfection

For more information on immunization and the use of anti-virals, please refer to those chapters in this plan. The Perth District Health Unit is responsible for those measures and a more in depth technical internal document exists at the Health Unit.

The types and timing of public health measures will be determined by the nature of the pandemic itself. The Perth District Health Unit, and the Medical Officer of Health, will provide education and direction to health care providers, school boards, businesses, community groups and the public at large on which public health measures are necessary.

The local Medical Officer of Health has the authority to recommend and enforce public health measures if there is enough evidence that these actions are necessary to protect the public. Nevertheless, the Medical Officer of Health does have an ethical duty to use the least coercive means possible and to provide any appropriate information or assistance required to facilitate compliance with the order. Many, if not most of the public health measures will be directed by the Chief Medical Officer of Health and all of Ontario's local health units will be expected to enact them. Others will be implemented nationally, by Canada's Chief Medical Officer of Health. This will be the least confusing for citizens since measures will be applied consistently. For a complete description of national and provincial public health measures, please refer to the Canada and the Ontario pandemic plans.

Although this plan is meant to address the possibility of a human influenza pandemic, many public health measures are also relevant to the control of foreign animal diseases such as avian influenza (H5N1) that pose a risk to humans. In the case of foreign animal diseases, other agencies, such as the Canadian Food Inspection Agency and the Ontario Ministry of Agriculture Food and Rural Affairs, will be involved and may take actions such as the quarantine of farms and the closure of roads. In these situations, the Perth District Health Unit will address the public health concerns and will work with farm families, at-risk agricultural workers, infected cases and the community at large. The Ministry of Labour has jurisdiction over the health and safety of affected workplaces.

Routine practices refer to general principles used in the prevention and control of infectious diseases. These routine practices will provide the backbone of the public health measures upon which control of pandemic will rely. The Perth District Health Unit provides education and support for these practices in community and institutional settings. In addition, the province may use its resources to educate the broader public on the practice and value of routine infection prevention and control measures.

It is anticipated that there will be a high demand for information on routine infection prevention and control measures during pandemic influenza. In addition, there will be a demand for information on routine practices that pertain to various settings and circumstances. The provision of fact sheets will address many of the information needs in the community, and these will be distributed and disseminated in a number of ways (see chapter 3.0 on Communication). Public Health Nurses, Public Health Inspectors, Health Promoters, and the Medical Officer of Health will respond to requests as required, either through telephone information service, or by fax and email.

#### **THE ABC'S OF INFECTION CONTROL:**

Although we are always surrounded by germs, only a few can make us sick. Because there are a limited number of ways that those germs can enter the body, making certain personal hygiene measures part of everyday routine can prevent the spread of many diseases including influenza, the common cold and germs that cause vomiting and diarrhea.

#### **5.1.1 AVOID TOUCHING YOUR FACE**

Hands touch and handle many things over the course of a day. When we then touch our hands to our eyes, nose and mouth, they become transfer stations for germs. Helping individuals to become aware of those times when they need to touch their face, such as inserting contact lenses, and reminding them to clean their hands first can be helpful. Habits such as nail-biting should be discouraged.

#### **5.1.2 KEEPING HANDS CLEAN**

The Centers for Disease Control has stated "When done correctly, hand washing is the single most effective way to prevent the spread of disease". There are a number of options for cleaning hands that were not available years ago and sometimes there is confusion surrounding the choices. More and more, the use of alcohol hand gels has replaced washir 5-5 ds with soap and water. However, there are circumstances when hand rubs are not appropriate. These are discussed under "alcohol hand gels" below.

Hands must be cleaned:

- After coughing, sneezing or using a tissue
- After using the washroom
- After assisting someone else in the washroom, or changing a diaper
- Before preparing food and after handling raw meat, poultry or fish
- Before eating
- After touching animals
- Before putting contact lenses in, or touching the eyes, nose or mouth
- Whenever hands are dirty or soiled

It is very important that schools and childcare centres offer children proper facilities to wash their hands. The sinks should be of an appropriate height and equipped with warm running water. Liquid soap and paper towels should be readily available. The school or childcare centre should provide training on hand washing and the staff should be aware that they are role models in this regard. The Health Unit can provide age-appropriate teaching kits for hand hygiene.

#### **5.1.2.1. Hand washing with soap and water**

The goal of hand washing is to loosen the oil and soil that hide germs and then rinse them off. Bar soap is not a good choice, as germs will stay on the surface of the soap and will be transferred to the next person who uses it. The use of antibacterial soap is also not recommended.

How to wash hands:

- Wet your hands with warm water. This helps to spread the soap over the hands more easily
- Add soap
- Rub your hands together for 15 – 20 seconds, making sure that you get in between the fingers and up on the wrist
- Rinse your hands under warm running water
- Dry your hands thoroughly

In public washrooms, allow the water to continue running while you dry your hands with a paper towel, and then use the towel to turn off the taps.

#### **5.1.2.2. Alcohol hand gels**

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Hand sanitizers are a very convenient way to clean hands in circumstances where there are no hand sinks. The brand chosen should have at least 70% alcohol; some hand rubs on the market have less and cannot be relied upon. A “DIN” (drug

identification number) on the label is a guarantee that the product is effective. Do not use a hand rub that is non-alcohol based.

It has become commonplace to carry a small container of hand rub and this is a good habit to follow. But alcohol hand rubs do not work when hands have visible soil on them. In situations where it is impossible to use soap and water, hand wipes can be used first to remove the soil, before using the hand rub. Hand rubs should not be used in the kitchen or the washroom. When the pocket-sized container is empty, it should be replaced with a new one. Containers should not be refilled unless they are cleaned and dried in between uses.

Labeling on the sanitizer should indicate the amount to use. In the absence of specific instructions, an amount equal to a quarter should be sufficient. Sanitizer should be rubbed over the hands, being careful to cover the entire skin surface. Since they are flammable, these products must not be used close to a flame or fire. Hands should be allowed to dry.

### **5.1.3 COUGH ETIQUETTE**

Germs use coughing and sneezing as an effective way to move to one person from another. Covering the mouth and nose when coughing or sneezing will help stop germs from spreading. Carrying a pack of disposable tissues close at hand for runny noses, coughs and sneezes will help reduce potential exposures. Individuals should be reminded to wash or sanitize hands immediately afterwards. Discard the tissue once it has been used.

For those caught without a tissue handy, coughing or sneezing into the elbow or arm will prevent hands from becoming contaminated with germs that can then be spread to other people or surfaces.

### **5.1.4 STAY AT HOME WHEN ILL**

Diseases are often most easily spread during the first few days of infection. Encouraging sick individuals to stay at home from both work and social situations when they are actively ill is becoming a common practice and is seen as a sign of respect for co-workers and friends.

Administrators, employers and colleagues should persuade anyone feeling unwell to go home. Workplaces should have policies and incentives in place that encourage staff to stay home while ill and should not penalize them by withholding pay when they are absent due to illness. Many employers are instituting remote work policies, allowing infectious staff to continue to do their jobs away from the workplace.

In certain circumstances, provincial health<sup>5-7</sup> ministry guidelines require those with specific symptoms to not attend work or go to childcare. For example:

- Health care workers should remain off work while ill with any infectious disease, especially if the symptoms are indicative of influenza

Ideally, people should stay at home for the length of time they are infectious to others (the “period of communicability”). For seasonal influenza, this would mean staying at home for five days for adults and seven days for children. However, this may not be practical. Since influenza is most infectious during the first few days of illness, and this is when people feel the most ill, staying at home until well enough to resume activities should be sufficient. Upon returning to childcare, work or school, they should wash their hands or use hand rub often. If possible, the recovering individual should also stay at least two meters (six feet) away from others during the period of communicability. Since a pandemic involves a new pathogen, recommendations may vary slightly. The public health division will share information.

### **5.1.5 TAKING ADVANTAGE OF INFLUENZA VACCINE AND ALL OTHER VACCINATIONS**

Vaccinations are safe and effective for preventing many illnesses. In Ontario, publicly funded annual influenza vaccine is provided for everyone six months of age and older. All Ontarians should be strongly encouraged to take advantage of the annual influenza vaccine and all other vaccinations for which they are eligible. Other immunizations, such as the pneumococcal vaccine, are available to children and to high risk groups to protect against bacterial infections that sometimes take advantage of a viral illness to invade. Keeping up to date with all the publicly funded vaccines is an important practice to promote health.

### **5.1.6 KEEPING THE ENVIRONMENT CLEAN**

The influenza virus can survive on hard, non-porous surfaces for 24 to 48 hours. Keeping frequently touched surfaces clean can prevent infections that can occur if hands touch the contaminated surface and then introduce the virus to the nose or eyes. Special attention should be paid to surfaces in public areas that are touched often, such as:

- Door handles
- Light switches
- Hand rails in buildings and in public transportation
- Elevator buttons
- Buttons on automated banking machines
- Public computer keyboards and the mouse
- Table tops in restaurants
- Telephone receivers, etc.

Cleaning and disinfecting must be done as two separate operations. Cleaning with detergent or soap removes the soil and will also remove the vast majority of the germs. This is often all that is required. Surfaces that are not touched often, such as floors and walls, do not need to be disinfected. Chemicals should not be mixed

together (such as bleach with detergent or chemicals). At best, the resulting mixture will not work and at worst, it will cause a dangerous chemical reaction.

Commercial products or a mild bleach solution can be used for disinfection. A commercial disinfectant should have a DIN (drug identification number) on the label. This is an indication that the product has been tested and will perform as promised. If preferred, a mild solution of household bleach and water can be used as a disinfectant but bleach may not be stable in water and should be mixed just prior to use. Bleach should be stored in its original container in a cool, dark place.

These practices are already integrated into many facilities, institutions, workplaces and homes. They will need to be continued during the pandemic. In addition, health care providers and settings need to institute additional measures to minimize risk of transmission to other patients and to health care workers. Hospitals and Long Term Care Homes will have these measures outlined in their formal policies, procedures, and in their pandemic plans. Community based providers will be supported by their Associations, Colleges and locally through the Health Unit. Issues such as the development of guidelines, training and education, and the provision of supplies and equipment will need to be resolved.

## **5.2 POSSIBLE INFECTION PREVENTION AND CONTROL STRATEGIES DURING PANDEMIC**

As already explained, routine practices such as hand washing and staying at home when ill will be even more significant during a pandemic. Some of the measures that may NOT be recommended during pandemic, because of the evidence that they are not effective, will be the recommendation that masks be worn or that travelers arriving at airports have their temperatures monitored. Instead, the use of travel advisories (advising that Canadians planning elective visits to areas experiencing the pandemic, or that traveling Canadians practice certain precautions) and the pre-screening of travelers departing from areas where the pandemic is occurring will be most likely. The closure of roads and the restriction of travel is not a likely scenario. Remote communities may experience a delay in the onset of pandemic influenza, but given the asymptomatic carriage and short incubation period, it is unlikely that any mandatory travel restrictions would be effective.

The closure of schools is a public health measure which may occur early in the course of the pandemic in order to control the spread. Both School Boards in Perth and Huron Counties have pandemic plans which will contain contingency plans to provide remote access opportunities for students to continue with studies whenever possible. Parents can contact their local school to determine what actions will be necessary in the scenario that schools are mandated to close, or in the more likely event, that voluntary closures occur for other reasons. The duration of school closures is still to be determined and may not be known ahead of time.

Daycares may also be closed during pandemic if it is determined that young children are shedding and transmitting the virus in quantities that are increasing the spread within the community. Parents may decide on their own to keep children at home. The epidemiology of the virus will influence these decisions and therefore, it is still not determined whether these measures will be necessary. Parents should be encouraged to make alternate arrangements for childcare in the event that formal daycare is disrupted. Essential service providers, such as municipalities, hospitals, long term care homes, ambulance services and the Health Unit should plan for the provision of workplace child care in their emergency pandemic plans.

Social distancing involves maintaining at least two metres away from the closest individual. The rationale is that droplets carrying the influenza virus do not travel greater than two metres, and so the distance itself becomes protective. The adoption of social distancing as a public health measure may result in the cancellation of large gatherings, may impact on religious and cultural practices such as the visitations and funerals; may result in the cancellation of sporting and leisure activities; and may disrupt many of the normal routines in a community's life. Restricting indoor gatherings will be one method of increasing social distance and may be recommended, or "ordered" by the Medical Officer of Health under the powers granted by Ontario's Health Protection and Promotion Act. Social customs such as handshaking, embracing and the sharing food or drink may be curtailed in order to adhere to social distancing as a method of limiting transmission.

The establishment of triage and assessment centres for persons with influenza-like illness maybe used to keep potential infectious persons away from clinical offices and emergency departments. Provincial and local telephone triage will be used to direct persons away from these critical parts of the health care sector and into more appropriate settings. In Perth County, the hospitals will have the responsibility to plan for, and manage, local Influenza Triage and Assessment Centres.

### 5.3 USE OF ISOLATION AND QUARANTINE

Sometimes these two words are used interchangeably, but they mean different things. Isolation is used when people are infected with an organism and capable of transmitting it to others. Depending on the route of transmission, it may mean isolating in a hospital room or at home, and may include the use of protective clothing or equipment and the special handling of body fluids. Isolation can last longer than the illness since, often, people can still be infectious after they have recovered. Typical influenza can be spread for 3-5 days after onset of symptoms in adults and for up to seven days in children. During isolation, persons would maintain at least two metres distance from others and practice good hand and respiratory hygiene.

Quarantine is the restriction of healthy persons who have been exposed to an infection but who may or may not be infected themselves. Quarantine usually is applied for the duration of the incubation period, if known, and can be directed to

individuals, households, workplaces, classrooms, ships or airplanes. Because influenza has a very short incubation period, lasting 1-3 days, quarantine would be for a maximum of 72 hours. During quarantine, individuals would be required to stay separated from others (greater than two metres distance) and practice good hand and respiratory hygiene.

One of the reasons isolation and quarantine will only have a limited impact on stopping the spread of influenza is that up to 50% of people infected with the virus do not become ill and do not know that they are infectious. That is the reason that currently, all health care workers are urged to be immunized against influenza annually in an effort to prevent the spread of the virus inadvertently to vulnerable high-risk persons. In addition, infected individuals can spread the virus up to 24 hours before they become ill. With such a short incubation period, it will be difficult to identify cases in time to implement isolation.

For pandemic influenza, most likely only the first few cases of persons affected in Perth County will be isolated and their contacts may be quarantined. This will almost certainly happen with any human cases of Avian Influenza. Early in the pandemic the majority of ill or exposed people will be asked to please **self-isolate** or **self-quarantine** as a public health measure. Public education messages will advise individuals who are feeling ill to self-isolate at home and to limit contact with others. Ill individuals will be able to access telephone-based medical advice for self care in an effort to limit exposing other patients in doctors' offices or hospital emergency departments

## 5.4 SPECIAL CIRCUMSTANCES

Some larger employers and institutions in the County have started assessing the potential impact of pandemic on their businesses, and are preparing response plans of their own. Long-term Care Homes are able to draw upon strategies learned during seasonal outbreaks. The Stratford Shakespeare Festival is using their experience with audience reaction to the SARS outbreak in Toronto to develop their response plan, which will be guided by the Health Unit recommendations.