

## The Microbix Pandemic Response Plan - Improving Your Protection

### Things To Consider

- ***When the pandemic hits, 25-30% of the population will become infected***
  - ***Up to ½ of those will die***
- ***Transportation of goods will be reduced or cease altogether for months***
  - ***Grocery stores will have reduced stock or none at all***
- ***With widespread illness and death, people will not be able to go to work***
- ***Employees of municipal services such as water, gas, electricity, garbage collection, mail etc, will be affected and may not want to or be able to report for work. Expect service interruptions for extended periods.***
- ***Entertainment will be limited to in-house availability.***
- ***The medical system will not be able to help you with the technology currently available. There are no vaccines or drugs to treat this infection.***
- ***Minimize the risk of exposure to your family. A vaccine will not be available widely for most people up to a year after the pandemic emerges and effective drugs will not be available to everyone against infections.***

This document contains:

- Basic information on influenza
- General behaviors to minimize infection
- Recommendations on how to prepare for a pandemic
- Specific recommendations on what to do during a pandemic outbreak

Microbix has created a plan to help protect its employees and their families against influenza exposure at work, at home and in public places. You can download this plan in its entirety from our website at [www.microbix.com](http://www.microbix.com).

This document is based on common sense. Being prepared for a pandemic will require a change of behavior and you should understand the means and transmission of influenza infections.

People should be prepared for extended periods of interruption of access to goods and services taken for granted day to day. Groceries, electricity, water and gas, will not be as readily available due to illness and layoffs or absenteeism in workforce responsible for these services and supply. No one can predict the response of the public during an outbreak so you should prepare for a worst-case scenario and encourage your friends and neighbours to do the same.

There is still time to prepare for a pandemic but we have to start now. A good first step is for all of us to get our annual flu vaccination as soon as it becomes available. While this vaccine will not be effective against new pandemic influenza virus, it will provide protection against the regular flu infections that circulate in our communities during the winter and spring. This helps reduce the strain on the health care system and will make more resources available to deal with a pandemic.

## **How Influenza Spreads**

The primary route that influenza virus is spread person to person, is through direct contact, or touching commonly used contaminated surfaces such as door handles, and then transferring the virus by touching your eyes, mouth or nose. Droplets from an infected person can also travel through the air from sneezes and coughing and reach the eyes, mouth or nose. With a little thought, it is easy to see how normal behavior makes it easy for the live virus to be transmitted. Some examples of normal and dangerous behavior during a pandemic are listed below.

### **Important Fact:**

Influenza flu virus can remain infectious for:

- 48 hours on a non-porous surface
- 8 hours on a porous surface such as clothing or furniture
- 5 minutes on your hands

Good hand washing and hygiene practices are the most important steps for minimizing exposure to influenza infections. Wearing gloves, the right mask and goggles are effective barriers. Placing these barriers between your nose, mouth and your eyes are important when venturing into areas potentially contaminated with infectious particles secreted through coughing, sneezing and transferred through hand to mouth contact.

## **General Measures to Protect Yourself and Your Family**

Pre-pandemic recommendations:

- Review the Microbix Pandemic Response Plan at [www.microbix.com](http://www.microbix.com).
- Everyone should be immunized with the up-to-date Influenza vaccine
- Stay home when you are sick.
- Follow safe practices at home or in public when you are sick
- Have a contingency plan for essential supplies at home.
- Maintain good hand hygiene
- Clean/disinfect surfaces in your environment
- Educate family members, especially children, in personal hygiene
- Use protective personal equipment when providing direct care to a sick person, or in public.
- Use the materials in the Microbix Pandemic Response ToolKit.

## Preparing For the Pandemic

There is no ability to predict the reaction of the public once the World Health Organization, CDC, Health Canada or the news media announces the sudden emergence of a pandemic. This news may cause widespread panic, hoarding of essential goods and medicines, shortages of essential goods, service interruptions including supply of electricity and water, and a major economic slowdown that will have financial implications for everyone. Being prepared ahead of time is essential to reducing the impact of the pandemic on your family and on the economy.

The global economy has been developed around a just-in-time inventory strategy. For example, most municipal water treatment facilities maintain a 5 day supply of chlorine to treat drinking water. An interruption in any link in the manufacturing or transportation of chlorine could shut down the water supply system. These seemingly impervious systems are delicately linked and will be prone to interruptions.

Once a pandemic has been declared, sourcing essentials will become very difficult. Therefore, now is the time to purchase adequate supplies. Plan to keep a 2-3 month supply of essential items to sustain your family. Rationing will be required.

You should have bottled water stockpiled in case municipal water supply interruptions occur. Plan for 2 liters of water per person per day. To cover a two-month period, you will need 120 liters per person. Buying water in bulk containers is the most cost effective. Stockpiling canned juices should also be considered.

Consider canned foods, dry foods and powdered milk to be used with dry food like cereal. Consider how much each person in your family eats in a day and multiply by 120 to get a minimum supply of these foodstuffs.

Fresh fruits and vegetables will not be available unless you can grow them in your own yard (a good idea). Frozen fruits and vegetables may be practical but there is no guarantee electricity will be maintained so refrigeration may not be a good strategy. Maintain a 2-month supply of multivitamins for each person in your family.

There may be substantial interruptions in the ability to heat your house or apartment due to potential interruptions in natural gas and electricity supply for extended periods of time. Consider keeping propane canisters/cylinders for your BBQ, a good supply of naphtha for camping stoves/heaters and candles for local heating. Batteries and flashlights are also a good idea. Keep fully functioning carbon monoxide detection devices in your home at all times in spaces where portable cooking devices are used.

Maintain a supply of other essentials that may be particular to your families needs. These would include diapers, specific medicines, general medicines such as aspirin, acetaminophen, other over the counter medicines (not necessarily for flu symptoms) etc.

Entertainment will be difficult in prolonged periods of an outbreak. This may seem trivial but with children, it is essential. Collect a large variety of books, games videos etc as travel into the community will be reduced or eliminated.

## During a Pandemic Outbreak

- Eliminate all group activities including
  - Daycare
  - School
  - Church
  - Sporting and entertainment activities
  - Public transit
- Do as much activity from home as possible including:
  - Internet banking
  - Working from home (assuming your employer has work)
  - Communication with friends and family should be by phone/email
- Outside travel into the community should be done by as few people as possible. Travel as a family should be minimized.
- Limit essential activities only to people you are very confident have not been in contact with infected people.
- Minimize or eliminate all outside/in-public activities to those that are absolutely essential such as:
  - Necessary doctors visits (delay these until the pandemic passes if possible)
  - Essential shopping
    - Phone first to confirm availability of required items if possible
- Always wear the N-100 mask, goggles, appropriate gloves and use hand sanitizers or wipes when out in public. The mask can be reused after 72 hours. Do not leave your home without the ToolKit materials.
- Never touch your face without sanitizing your hands first.
- When returning home, “decontaminate” yourself before interacting with other family members.
  - Disinfect reusable gloves with a household bleach solution. A 100ppm solution is an effective sanitizer or mix household bleach 1 tsp. in 1 liter (or 1 quart) of water
  - Shower and wash clothing
  - Do not wear shoes in the house that you have worn outside the home in potentially contaminated areas such as shopping centers.
- After handling money, packaging (such as a grocery box or bag) or any surface such as a grocery cart, public phone, gas pump handle, key pad etc, always wash or sanitize your hands.

Below are examples of day- to-day high-risk behavior and steps you can take to mitigate your risk of infection. In the time of pandemic outbreaks, eliminate or minimize these activities as much as possible. If you must, use gloves and/or sanitizing wipes on all contact surfaces.

### **Going to the Library**

Most libraries have computers available for the public to access the Internet. Library patrons cough and sneeze over the keyboards, books, DVD's etc. all day long. You must assume the contact surfaces are contaminated.

### **Use of Shared Computers, Telephones etc.**

Any computers, telephones and keypads which are shared are a source of germs.

*Wear gloves and decontaminate them with alcohol or chlorine bleach after each use.*

### **Handling Money**

Money changes hands every day in stores and banks. We all know that cashiers and bank tellers are not washing their hands every time they handle money and neither are the individuals using their services.

*When handling money, wash hands before touching your face, etc, and especially before eating. Glove use during pandemic outbreaks is highly recommended when handling money.*

### **Public Equipment Such as Debit/Credit Card Keypads, Phones, Computers, Video Games etc.**

These types of equipment are coughed and sneezed over and handled daily by all sorts of people. They are rarely if ever disinfected. Minimize or eliminate their use. If you must use them, disinfect where possible and use gloves. In restaurants, especially fast food, people often use debit cards and touch the key pad to pay. Minimally, cash is handled before you eat, and you often eat with your hands.

*Wash hands before eating in these environments at all times.*

### **Full Serve Gas Stations**

On cold days we sometimes go to the full serve gas station and pay by credit card. The attendants work outside and sometimes are ill, coughing and wiping their noses with their gloves. They hand you the pen and clip board to sign your credit card slip. Then off we go to dinner.

*In these situations, always have your own pen. If you handle the clipboard, use gloves. Wash hands before touching food or other people.*

### **Grocery Cart Use**

Children are drooling on the handle or wiping their hands on their nose and then holding the handle. The handle may be contaminated and can contaminate you or your child.

*Before you put your child in the cart, sanitize the surfaces with appropriate wipes or spray.*

### **Pets**

Pets walk in the fecal matter of other animals (birds as well). The virus can live in fecal matter. Monitor your pets activities closely.