

CITY OF CORNWALL

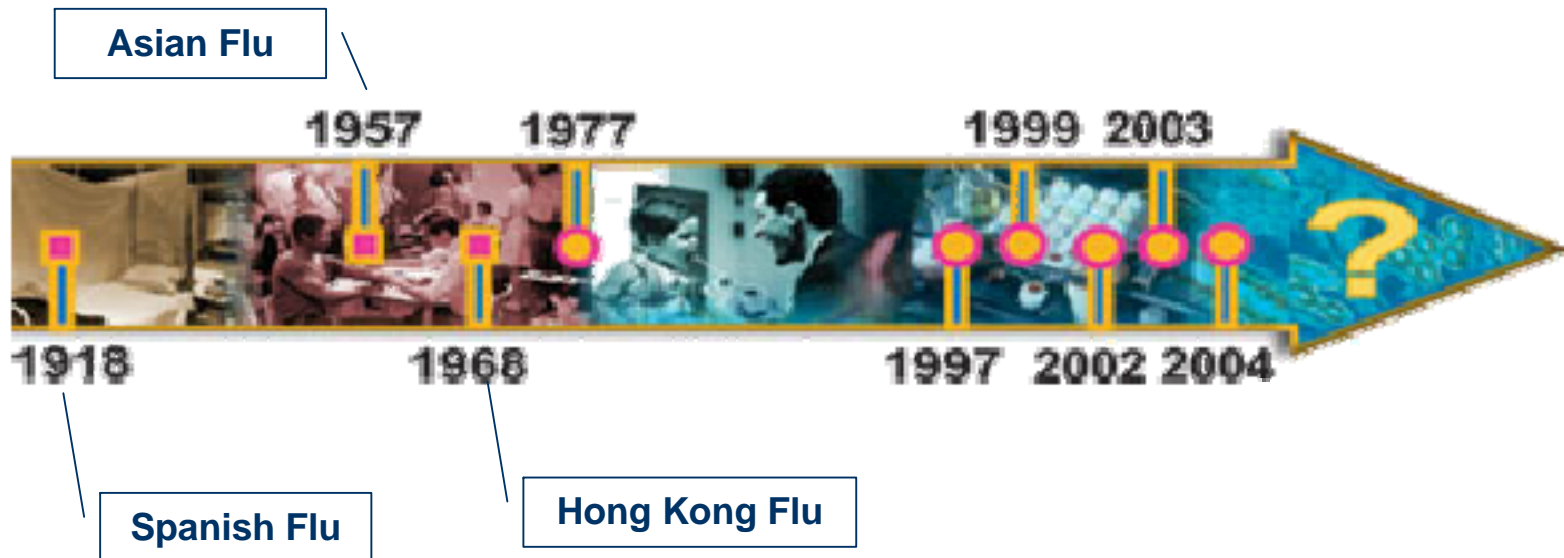
PANDEMIC INFLUENZA PREPAREDNESS



OBJECTIVES

- Provide City of Cornwall personnel with pertinent information on anticipated pandemic
- Educate personnel on safe practices
- Encourage personal preparedness
- Goal: Business continuity

Pandemic history



The world experienced 3 pandemics last century:

- Spanish flu: 50,000,000 deaths
- Asian flu: 2,000,000 deaths
- Hong Kong flu: 1,000,000 deaths
- (SARS: although not a pandemic, resulted in 375 cases/ 44 deaths)

HUMAN INFLUENZA = FLU

- As you know, we experience Human Influenza every year
- A new strain circulates every year
- Symptoms: Headaches, chills, cough, fever, running nose, sneezing, diarrhea, vomiting
- Most will recover within one week or ten days
- Annual Flu shot is recommended

AVIAN INFLUENZA OR BIRD FLU

- Some might not know that Avian Influenza (bird flu) is also experienced every year
- Birds and other animals also contact and transmit influenza on an annual basis
- Historically, the bird flu had no apparent harm – low pathogenic form (not as deadly to animals)
- Today, H5N1 (Avian Influenza) is now circulating in South East Asian and parts of Europe – highly pathogenic bird flu (highly deadly to animals)

WHY IS AVIAN INFLUENZA A CONCERN TO PEOPLE

- What happens if a human who has the annual influenza flu virus also becomes infected with the avian influenza virus?
- Two viruses may re-assort or “mix” creating a novel influenza A virus. This novel virus may result in a Pandemic.

WHEN DOES INFLUENZA BECOME A PANDEMIC

- Influenza pandemics arise when all four of the following occur:
 1. A new influenza A virus emerges
 2. Human to human transmission happens easily
 3. Causes serious clinical illness and death
 4. Little or no immunity to the new virus



Simultaneous
infection of both
viruses

New strain of flu virus.
Few humans would
have natural immunity



Transmission from
person to person
could occur

CURRENT SITUATION

- H5N1 (bird flu) strain first infected humans in Hong Kong in 1997 (18 cases, 6 deaths)
- Since 2003 – largest and most severe H5N1 outbreak in poultry
- December 2003 – infections in people **exposed** to sick birds was first identified

STATISTICS

- January 15, 2007:
267 human cases worldwide – 161 deaths
(note: human cases directly exposed to
H5N1 infected birds)



NOTIFICATION PROCESS

- World will be notified of a Pandemic by: World Health Organization (WHO)
- Canada by: Public Health Agency of Canada
- Province by: Public Health Branch of the Ministry of Health and Long Term Care (MOHLTC)
- Cornwall by: EOHU Medical Officer of Health

What are the estimated impacts?

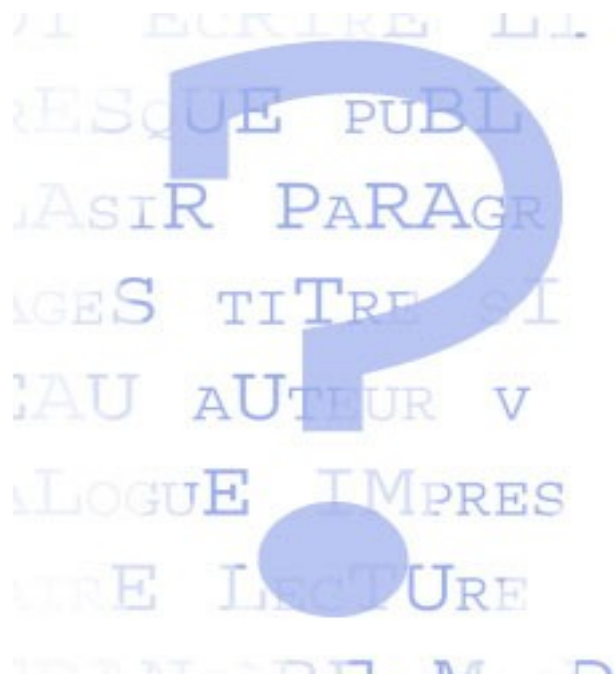
	WORLD	CANADA	ONTARIO	SDG & PR
Population	6,525,486,603	31,629,677	12,238,300	200,000
Infected	978,822,991 to 2,283,920,311	4,500,000 to 10,600,000	Up to 4,260,000	Up to 152,000
Outpatient care	134,000,000 to 233,000,000	2,100,000 to 5,000,000	1,421,245 to 3,316,237	22,900 to 53,000
Hospitalisation	1,500,000 to 5,200,000	34,000 to 138,000	28,070 to 65,498	460 to 1070
Death	2,000,000 to 7,400,000	11,000 to 58,000	8,474 to 19,773	140 to 324

- *Based on non-high risk and high risk population*

ESTIMATED ATTACK RATE

- Estimated attack rate: 35% (means 35% of population will get sick at one point during the duration of pandemic)
- Absenteeism from work will dramatically increase during a pandemic
- Will your department/organization be able to function with 35% less staff? Start planning now

When the pandemic will occur?



- Unpredictable
- An influenza pandemic will happen (where and when?)
- Short lead time: about 3-6 months from time the pandemic is first identified to time it is global

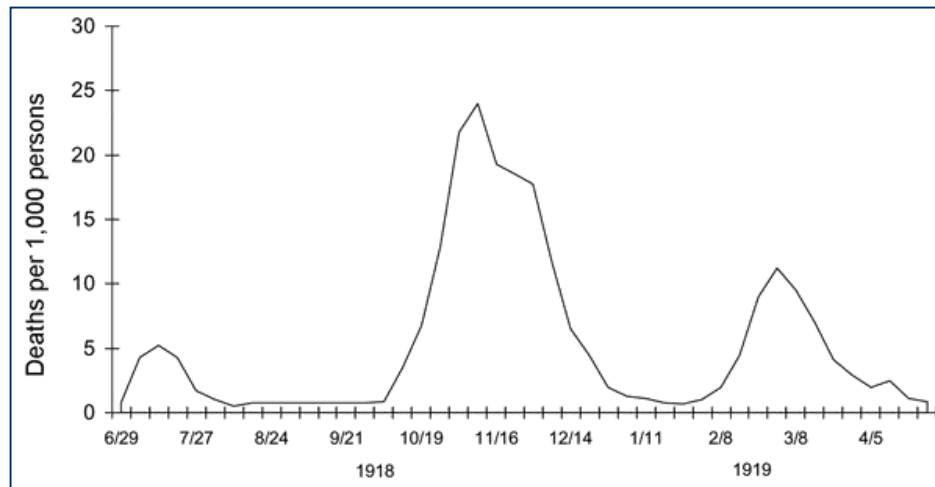
How long will a Pandemic last?

- A pandemic is estimated to last between 18 to 24 months
- Historically, Pandemics occurred in waves



What is a pandemic wave?

- The disease infects one group of people first. The number of infections decrease and then increase in a different part of the population, resulting in a second wave of infections.
- Multiples waves (2 to 3) are anticipated.



Different waves during the 1918-1919 pandemic

What is our current situation?

Inter-pandemic phase New virus in animals, no human cases	Low risk of human cases	1
	Higher risk of human cases	2
Pandemic alert New virus causes human cases	No or very limited human-to-human transmission	3
	Evidence of increased human-to-human transmission	4
	Evidence of significant human-to-human transmission	5
Pandemic	Efficient and sustained human-to-human transmission	6

- World Health Organization current phase March 02, 2006

CITY OF CORNWALL PREPAREDNESS

Pandemic phases:

- **Inter-pandemic period**
 - Mitigation/ Preparedness
- **Pandemic period**
 - Response
- **Post-pandemic period**
 - Recovery

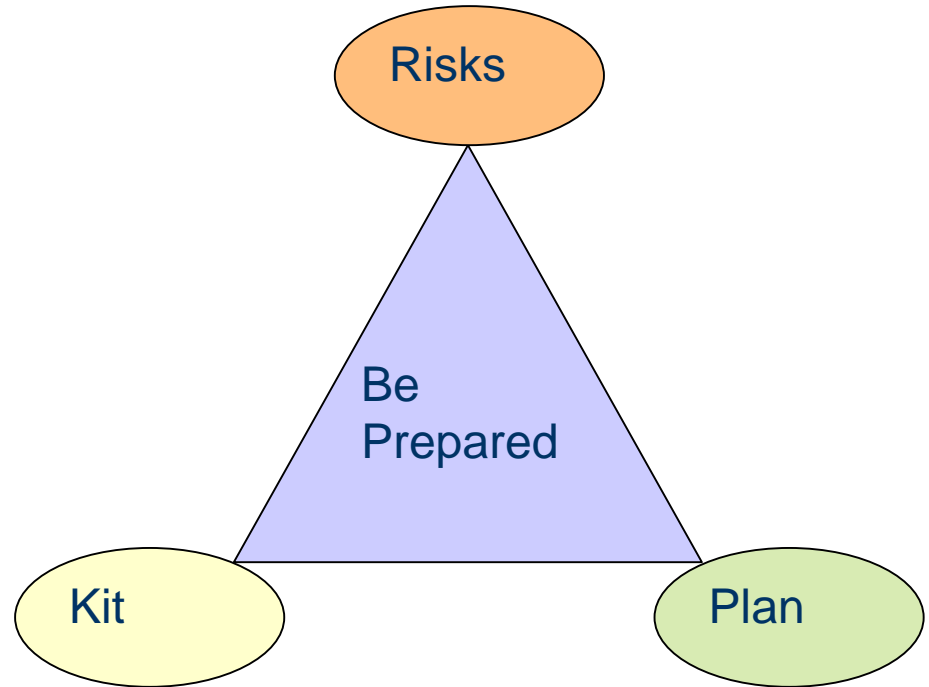
RESPONSIBILITY

- Who is responsible for the safety of you and your family in a disaster?



PERSONAL PREPAREDNESS

- 3 STEPS:
 1. Know your risks
 2. Make a plan
 3. Prepare a kit



STEP 1: KNOW YOUR RISKS

CITY OF CORNWALL TOP HAZARDS

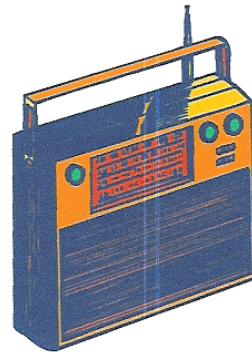
- Hazardous material (fixed site, transportation)
- Human health emergencies (**Pandemic...**)
- Civil Disorder
- Energy emergencies (supply)
- Earthquake
- Ice/Sleet Storms
- Transportation emergencies

STEP 2: MAKE A PLAN

- Have a list of your emergency contacts and family phone numbers
- Choose an out-of-town contact. This person can help family members stay in touch and get together if separated.
- Plan now for temporary accommodations if evacuated (hotel, family, friend...) Don't forget to plan for pets.
- Consider planning for special family needs

STEP 3: PREPARE AN EMERGENCY SURVIVAL KIT

- Flashlight and batteries
- Radio and batteries -crank
- First Aid Kit
- Candles and matches
- Cash, Important papers
- Medication / thermometer



EMERGENCY SURVIVAL KIT

- Food and bottled water
- Clothing and footwear
- Camping stove and fuel / BBQ
- Sleeping bags
- Toilet paper and other personal supplies
- Special Needs
- Playing cards, games
- Duffel bag/backpack



ADDITIONAL INFORMATION

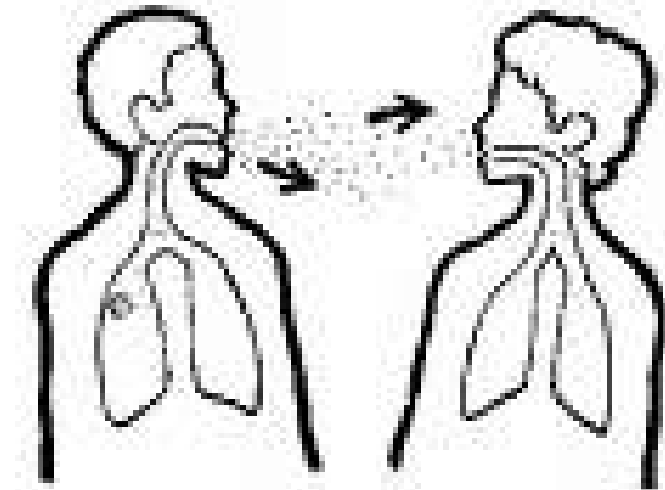
- Plan now for daycare unavailability, school closures ..,
- Plan now for caring for ill at home
- You may wish to enrol in a First Aid course

FIRST AID



What are the different modes of transmission?

- Direct contact
- Indirect contact
- Airborne transmission
- Droplets transmission



Direct contact transmission

- Requires physical contact between an infected person
AND
- Need the physical transfer of microorganisms



Direct contact transmission



- **Includes:**

- Touching an infected individual
- Kissing
- Sexual contact
- Contact with oral secretions
- Contact with body lesions

Indirect contact transmission

- Refers to situations where a susceptible person is infected from contact with a contaminated surface

CONTAMINATED!



What is transmission by droplet contact?

- Droplets are too large to be airborne for long periods of time, and quickly settle out of air. Droplets travel up to 3 feet.
- Transferred by infected droplets contacting surfaces of the eye, nose, or mouth
- Droplets containing microorganisms can be generated when an infected person coughs, sneezes, or talks



WHAT CAN YOU DO TO PROTECT YOURSELF

- Be informed
- Prepare your family (know your risks, make a plan, prepare an emergency kit)
- Stay healthy
- Annual flu shots



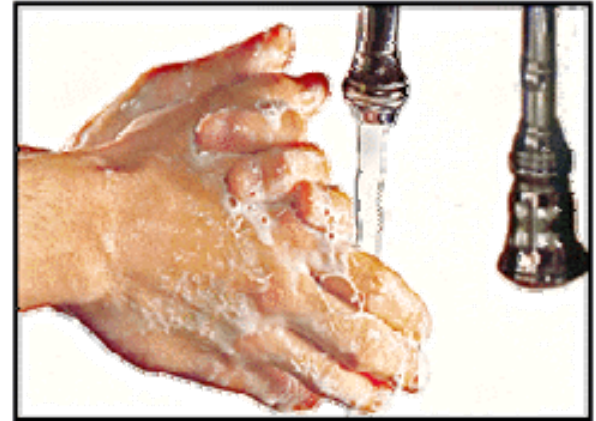
Cough Etiquette

- Cover the nose/mouth when coughing or sneezing
- If you don't have a tissue, cough or sneeze into your upper sleeve, not your hands
- Use tissue to contain respiratory secretions and dispose of them in the nearest waste receptacle after use
- Wash your hand afterwards

Hand washing with soap and water

Procedure

1. Remove jewellery before hand wash procedure.
2. Wet hands first with water under warm water.
3. Apply an amount of soap recommended by the manufacturer.
4. Using friction for at least 20 seconds, covering all surfaces of the hands and fingers.



Hand washing with alcohol based sanitizer

1. Apply product to palm of one hand
 - Following the manufacturer's recommendations on the volume of product to use
 2. Rub hand together covering all surfaces of the hands and fingers **until hands are dry**
- If skin irritation appear, stop usage for 72 hours



POSSIBLE SOCIETAL DISRUPTION

- 35% less truck drivers, tellers, warehouse workers, janitors, electricians...



BUSINESS CONTINUITY

- Develop a robust work-from-home program for all mission-critical staff
- Implement extensive workplace cleaning in pandemic phase
- During pandemic phase commence rotating shifts if plausible
- Begin cross-training now
- Management should obtain all passwords

BUSINESS CONTINUITY ..,

- HR and Managers should research where to access additional personnel (ie: Retired, College, placement agency..,)
- Plan for alternate suppliers

STAY CALM – PLAN AHEAD

- Best way to stay calm is to plan ahead
- Communicate your concerns with your supervisor, offering ideas and suggestions



ALL MUNICIPAL EMPLOYEES HAVE A ROLE TO PLAY

- Societal disruption and fear is possible
- Continuation of municipal services will reduce fear
- If citizens are able to purchase a marriage license, pay taxes..., we will be demonstrating that society will prevail. We must lead by example.
- Cornwall is a Disaster Resilient Community – with your help we can keep it that way
- THANK YOU FOR PREPARING NOW

FOR MORE INFORMATION

- <http://www.who.int/en/> (WHO)
- <http://www.health.gov.on.ca> (Ministry of Health and Long Term Care)
- <http://www.phac-aspc.gc.ca> (Public Health Agency of Canada)
- http://www.influenza.gc.ca/panflu_e.html (Government of Canada)

REFERENCES

- Canadian Pandemic Plan. Health Canada. 2004.
- Ontario Health Pandemic Influenza Plan. MOHLTC. June 2005.
- City of Cornwall Human Health Emergencies / Pandemic Plan. 2006.

(Prepared by Lisa Harvey and Andre Turbide)

Proceed to questionnaire

- Thank you for your participation
- If you have any questions, please contact Community Emergency Management Coordinator, Lisa Harvey, at 613-930-2787 ext 2137.