

Planning for Influenza Pandemic: A Focus on Occupational Health and Safety

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My Contract with You

- Pandemic 101: definition; spread
- Strategies to Manage in a Pandemic
- Communication

Characteristics of an Influenza Pandemic

Requirements:

- Introduction of a novel (new) influenza virus
- Highly contagious: human to human transmission happens easily
- New virus causes serious illness and/or death
- Population has little/no immunity
- Occurs roughly three times a century and international impact
- Usually starts in southeast Asia

Current Status

- ✓ New virus
- ✗ **Limited spread to humans**
- ✗ **Limited transmission to date**
- ✓ Avian flu with 50% mortality
- ✓ In place
- ✓ Overdue
- ✓ Began in southeast Asia (recently to Africa, Asia, Europe)

World Health Organization – Pandemic Phases

Period	Phase	Description
Interpandemic Period*	Phase 1	No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk* of human infection is considered to be low.
	Phase 2	No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.
Pandemic Alert Period**	Phase 3	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.
	Phase 4	Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.
	Phase 5	Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).
Pandemic Period	Phase 6	Increased and sustained transmission in general population.
Postpandemic Period		Return to interpandemic period

Important Reminders

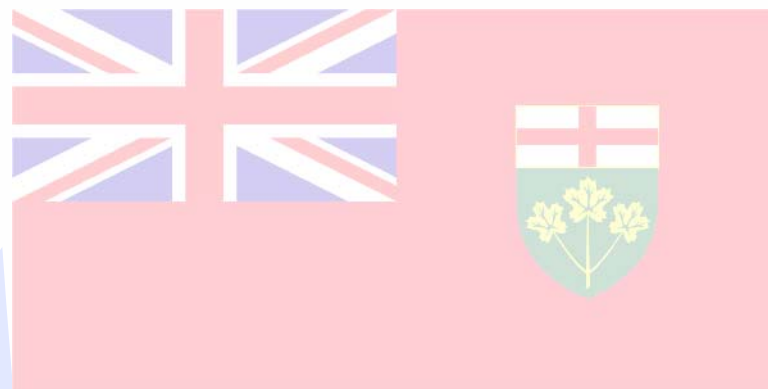
Influenza Pandemic \neq Seasonal Influenza

Influenza Pandemic \neq SARS

Influenza Pandemic \neq Avian Influenza

BUT

Important Lessons to be Learned from Each



Ontario Perspective

Ontario Health Plan for an Influenza Pandemic (OHPIP): Overview

Goals:

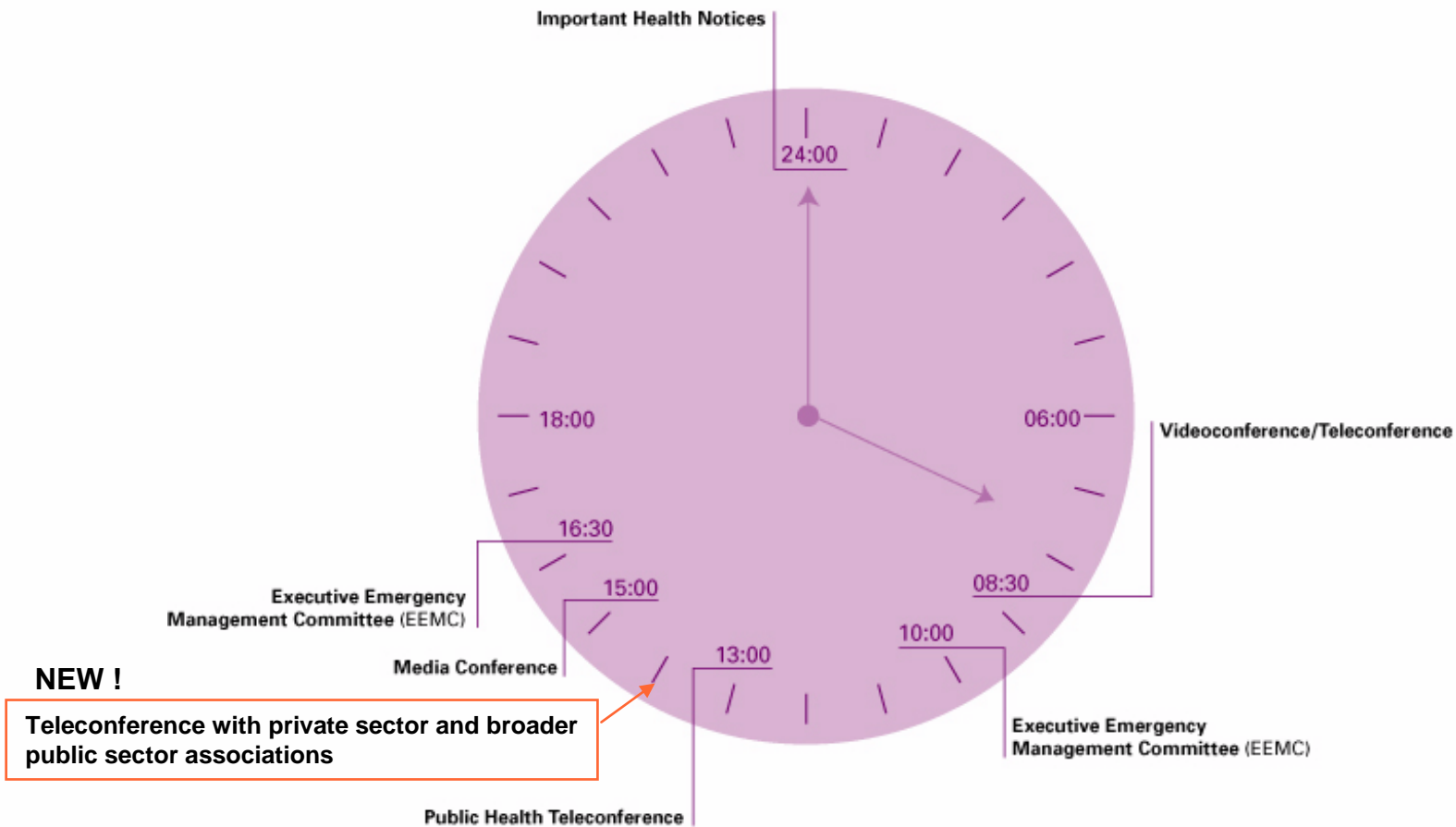
- Minimize serious illness and overall deaths through appropriate management of Ontario's health care system
- Minimize societal disruption in Ontario as a result of influenza pandemic

Strategic Approach:

- Be ready – establish comprehensive contingency plans at provincial and local level
- Be watchful – practice active screening and monitor emerging epidemiological and clinical information
- Be decisive – act quickly and effectively to manage the epidemic
- Be transparent – communicate with health care providers and Ontarians

Information Cycle

Information Cycle



Important Health Notice

Information for Healthcare Professionals

February, 2005
Volume 1, Issue 1
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Outbreak in Toronto

Dear Colleagues:

The following is being provided to update you on the outbreak in Toronto:

- the case definition remains: sudden onset of fever with malaise, with or without runny nose and nasal congestion or cough
- currently 89 patients and 21 health professionals listed as ill, and 42 have been admitted to hospital for treatment. Some patients are improving. (Please note: these numbers will change and are provided only for context)
- laboratory testing for a wide range of illnesses is being carried out with no positive test results as yet. SARS, avian flu and influenza have been ruled out
- updated control measures are as follows:
 - hospitalized patients are in isolation with droplet precaution
 - as hospitalized patients become ready for discharge they will be discharged with no additional measures required
 - patients with symptoms not requiring hospitalization are being sent home with instructions to follow until symptoms pass:
 - hand hygiene
 - cough etiquette
 - spatial separation
 - if they don't feel well, stay home from work/school

Highlights:

- Updated control measures for individuals with a febrile respiratory illness
- Updated personal protective equipment measures for staff
- At the request of the Chief Medical Officer of Health and the Medical Officer of Health for the City of Toronto, the Provincial Infection Disease Advisory Committee (PIDAC) reviewed protection measures and confirmed that the hospitals involved and Emergency Medical Services use gowns, surgical masks eye protection and gloves when in contact with patients affected by the Seven Oaks outbreak. These precautions are set out in PIDAC's publication, *Preventing Febrile Respiratory Illnesses: Protecting Patients and Staff*
- Hospitals in the Greater Toronto Area have been and are expected to continue to be responsive to requests for access to available isolation beds

Please contact your local public health unit should you have any questions.

(original signed by)

Dr. Nicola Lasear, Chief Medical Officer of Health and Assistant Deputy Minister

(original signed by)

Allison J. Smart
Director, Emergency Management Unit



Important Health Notice

← **“Highlights” text box – public health and infection control measures**

← **Details of outbreak – case definition, number of cases, detailed control measures**

← **Signed by CMOH, EMU**



Assumptions for all Sectors

- All Ontarians at risk; communities may be affected at different times
- Little lead time before first wave of 8 weeks hits, followed within 3-9 months by second wave
- Attack rate of 35% means approximately 1/3 of population will get sick (off work/school for 0.5 days) at some point during duration of pandemic
 - 20% absent at the peak of the curve
- Vaccine not available in first wave, then initially in short supply and high demand
- Antivirals in short supply
- Community infrastructure may be affected intermittently: scarcity of food; power outages; fuel shortage; etc

What We *Don't* Know

- Characteristics of the virus
 - How large the virus droplets will be influences PPE
- When the pandemic will occur
- Which public health measures will be used and when
 - Travel restrictions
 - Closure of borders
 - Restrictions on public gatherings
 - School/daycare closures
- Level of support for financial, legal and other impacts for individuals and organizations

What We *Do* Know

- Antivirals (provides protection and mitigates impact as long as taken) *may* work...but in short supply
 - Antivirals available for those who get ill through government stockpile
 - Treatment requires 2 pills x 5 days
 - Prophylaxis requires 1 pill x 56 days
- Quarantine will not be effective in a pandemic

What We Can Do

- Antivirals *may* be used as prophylaxis for critical positions (not people) within critical infrastructure framework
 - Related issues: ethics; availability; cost
 - Discussion re pre-positioning for remote communities for treatment
- Encourage people to stay home if ill
- Use skills-based approach to augmenting staff resources

What We *Do* Know

- Virus spread through contact closer than one metre—including coughing and sneezing

What We Can Do

- Depends on work environment
 - Screening of contacts
 - Cough/sneeze etiquette
- Social distancing:
 - ***In the office:***
 - Spacing of work units
 - Meetings
 - Staggered work hours/work from home
 - ***In the community:***
 - Audit of activities
 - Interview techniques
 - Cough/sneeze etiquette: clients

What We *Do* Know

- Virus spread through contact closer than one metre—including coughing and sneezing (cont'd)

What We Can Do

- Physical barriers where close contact ie < 1 metre, required/inevitable:
 - Audit office procedures to identify where close contact inevitable and then introduce controls
 - Cough etiquette
 - Plexiglas screens
 - Masks for health care workers. Use of masks not demonstrated as effective public health measure for general public. May be individual decision

What We *Do* Know

- Virus may live on hard surfaces for up to 48 hours
- Robust immune systems better able to resist viral attacks)

What We Can Do

- Workplace infection control practices
 - Frequent cleaning of hard surfaces which have multiple users
 - Hand sanitizers outside washroom doors
 - Individual headsets
 - Availability of hand hygiene products, tissues in every workplace
 - Increased frequency of garbage pick-up
- Stay healthy...get healthy!

What We *Do* Know

- Individuals and employers can make personal decisions and take actions to mitigate their risk

What We Can Do

- ***Individuals***
 - Self-screening and staying home when ill
 - Hand hygiene
 - Following cough/sneeze etiquette
 - Annual flu vaccine will contribute to health
 - Learn to avoid touching face/eyes
 - Stay informed!

What We *Do* Know

- Individuals and employers can make personal decisions and take actions to mitigate their risk (cont'd)

- Stress will affect us all

What We Can Do

- ***Employers***
 - Increased profile for Safety Officer and role of Joint Health and Safety Committee
 - Training, signage
 - Flu vaccine clinics
 - Modify absenteeism policies
 - Consider additional measures appropriate to diverse work environments
- Review services provided through employee assistance program
- Take personal control

What We *Do* Know

- Nature abhors a vacuum...rumours will multiply

What We Can Do

- Communicate!
 - Start communication now: basic facts
 - Recognize multiplicity of language needs
 - Do not rely on rumours: identify credible sources for independent verification
 - *What You Should Know About a Flu Pandemic* booklet
 - Acknowledgment of devastation of pandemic in 1918—reminder that those over 40 have lived through 2 pandemics!
 - Education/training of all groups

What We *Do* Know

- Planning will make a difference
- Sporadic/sustained impacts on societal infrastructure

What We Can Do

- Ethical framework for decision-making:
 - Open/transparent process
 - Reasonableness to a 3rd party
 - Inclusive of all those affected
 - Responsive to feedback
 - Accountability for decisions
- Plan for intermittent food shortages, power outages, fuel shortages

Additional Comments re Personal Protection

- Masks
 - WHO, CDC, PHAC recommending surgical masks for those within 1 meter of ill person
 - Many jurisdictions proposing N95s for aerosol-generating procedures
- Occupational Health and Safety Annex in OHPIP 2006
 - Will include all those “working”: staff; volunteers; contract workers; etc
 - Separation of community, long-term care/chronic and acute and three phases: planning; response; recovery
 - Hierarchy of controls



Let's Get Personal...

Personal Preparedness

- Be informed
- Stay healthy:
 - Hand washing
 - Cough/sneeze etiquette: cover mouth and nose; dispose of tissues; wash hands
 - Avoid overcrowding when possible, particularly challenging with multi-generational families and housing shortage
- Identify contingency plans:
 - Daycare unavailable
 - Food shortages
 - Limited fuel
 - Caring for the ill at home
- Reach out:
 - Support of neighbours, friends and family who may have difficulty managing in a pandemic

Resources

Emergency Management Unit:

<http://www.health.gov.on.ca/pandemic>

WSIB:

http://www.wsib.on.ca/wsib/wsibsite.nsf/public/flu_resources

CDC:

<http://pandemicflu.gov/plan/pdf/businesschecklist.pdf>

Contacts:

**For questions, contact
Emergency Management Unit staff at:**

1 866 212-2272

Healthcare Providers Hotline

1 866 331-0339

Employers' Health Hotline

Email: emergencymanagement@moh.gov.on.ca