

Pandemic Planning

Is Your Business Ready?

Joan Burton, IAPA
Toronto West CAER meeting
April 17, 2008



What If...?

- ▶ An epidemic of the flu results in 30% of your employees being off sick
- ▶ A key supplier isn't able to deliver your raw materials because of their absenteeism problems
- ▶ All the employees on a key production line or department are off sick

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Why They Are Workplace Issues

Workplace health includes:

- ▶ Physical hazards
- ▶ Chemical hazards
- ▶ Ergonomic hazards
- ▶ Psychosocial hazards
- ▶ And...**biological** hazards, even if they originate in the community, rather than in the workplace

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Why They Are Workplace Issues (cont'd)




Diseases in the community will penetrate the workplace and may impact your:

- ▶ Sick time
- ▶ Short and long term disability
- ▶ Workers' compensation
- ▶ Ability to deliver your products and services
- ▶ Leadership capabilities

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Influenza Terms

- ▶ Seasonal Influenza 
- ▶ Avian Influenza 
- ▶ Pandemic Influenza 

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Seasonal Influenza




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5 Ways Infections Spread

1. **Contact**
 - Direct
 - Indirect
2. **Droplet**
3. Airborne
4. Vehicle
5. Vector



2 ways the flu spreads

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Symptoms and Complications

Here's a quick guide to help you tell the flu from a bad cold:

Symptom	Cold	Flu
Fever	Rare	Usual, sudden onset, 38-41 C (102-104 F); lasts 3-4 days
Headache	Rare	Usual, often severe
Aches and pains	Rare	Usual, often severe
Fatigue and weakness	Mild	Usual, can last 2-3 weeks or more
Extreme exhaustion	Rare	Usual at start, can be severe
Stuffy, runny nose	Usual	Rare
Sneezing	Usual	Rare
Sore throat	Usual	Usual
Chest discomfort, cough	Mild to moderate	Usual, can be severe
Nausea, vomiting, diarrhoea	Rare	In children < 5 years old
Fatalities	Not reported	Well recognized

Sources: HealthyOntario.com and Government of New Zealand

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Pandemic Influenza



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Influenza Pandemics

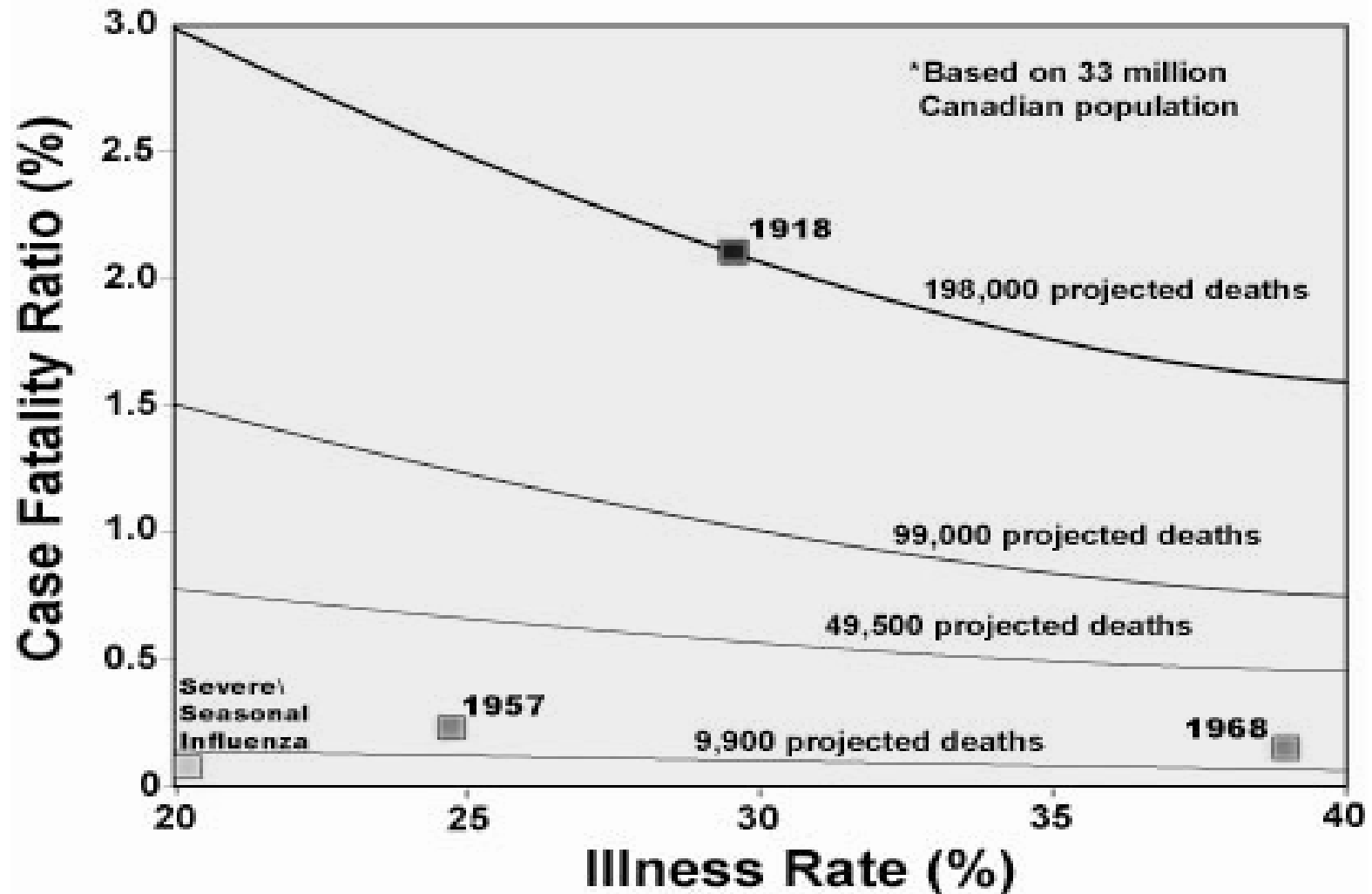
- ▶ 3-4 per century since 1580, 9-42 years apart
- ▶ When?
 - 1918-1919: 40 million died (50,000 Canadians)
 - 1957-1958: 2 million died (7,000 Canadians)
 - 1968-1969: 1 million died (4,000 Canadians)
 - And next...?
- ▶ Will likely kill 11,000-58,000 Canadians
- ▶ Will likely kill 3,000-20,000 Ontarians
(*in perspective, SARS killed 44 Ontarians*)

Sources: Canadian and Ontario Pandemic Plans

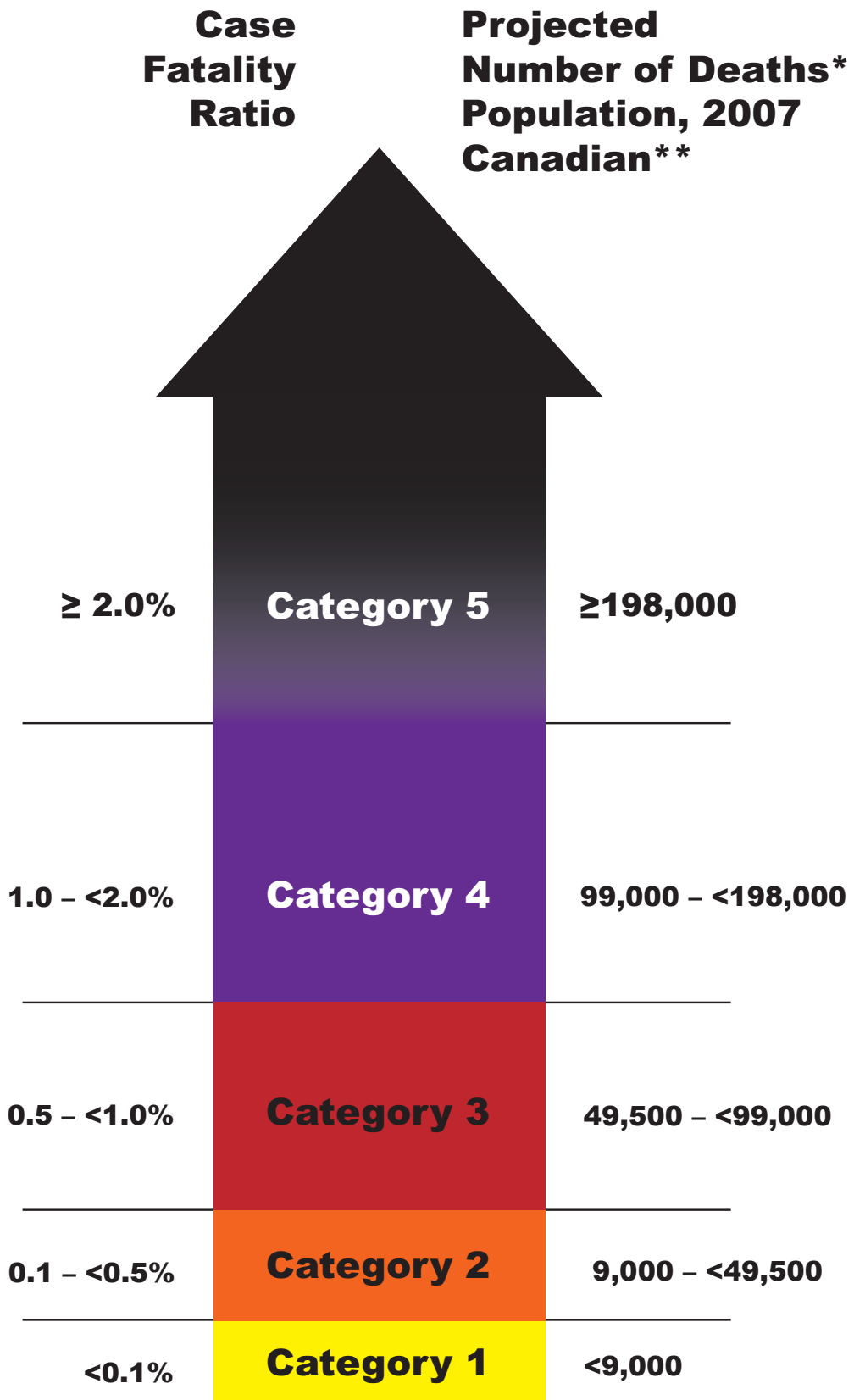
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Projected Mortality of a Modern Influenza Pandemic Compared with that of 20th Century Pandemics



"Source: Adapted from CDC 2007 with substitution of Canadian data"



*Assumes 30% Illness Rate and Unmitigated Pandemic Without Interventions

** Based on 33,000,000 Canadian Population

“Source: Adapted from CDC 2007 with substitution of Canadian data”

The Only Three Things We Don't Know...

- ▶ **When** will the next pandemic hit?
- ▶ **Which virus** will cause the next pandemic?
H5N1? Or another one?
- ▶ **How bad** will it be?

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Why There's LESS Risk in 2006

- ▶ Antibiotics available for bacterial pneumonia complications
- ▶ Some antiviral medicines available
- ▶ IV fluids, oxygen, ventilators
- ▶ Greater ability to do surveillance, confirm diagnosis of flu
- ▶ Rapid means of communications – internet, TV, radio, email
- ▶ More effective personal protective equipment
- ▶ Fewer people living in each household and more rooms

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Why There's MORE Risk in 2006

- ▶ A lot more international travel
- ▶ 4 times more people in Canada – contact with far more people daily
- ▶ Very little surge capacity in health care today
- ▶ Greater reliance on health professionals
- ▶ More elderly and immune-compromised people in the population
- ▶ Much less self-sufficiency than in 1918 (households and businesses)
- ▶ Today's society not used to rationing, sacrifice, compared to war-time 1918

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What Causes a Pandemic?

Three Requirements:

1. A new Influenza A virus emerges, to which the population has little immunity
2. The new virus is "virulent" – causes serious illness and death
3. The new virus can spread efficiently from human to human

Source: Ontario Health Pandemic Influenza Plan, June 2005

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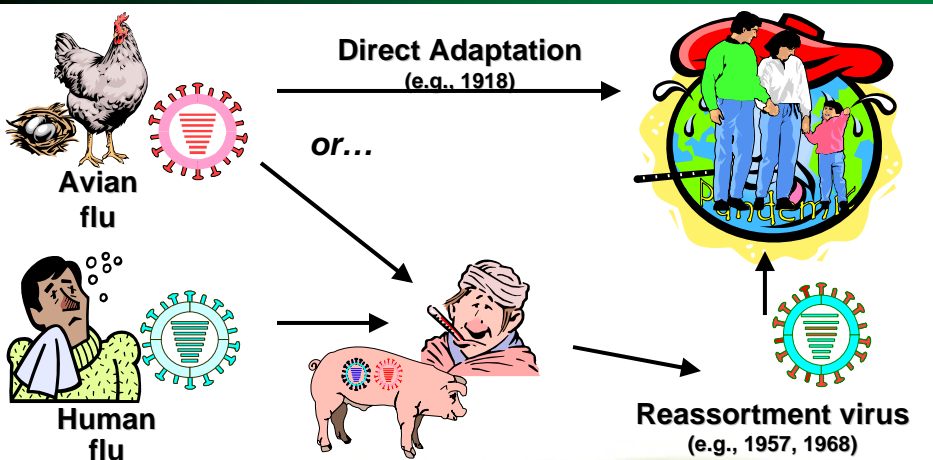


Human Cases of Avian Flu (as of April 8, 2008)

Country	Cases	Deaths
Azerbaijan	8	5
Cambodia	7	7
China	30	20
Djibouti	1	0
Egypt	48	21
Indonesia	132	107
Iraq	3	2
Lao PDR	2	2
Myanmar	1	0
Nigeria	1	1
Pakistan	3	1
Thailand	25	17
Turkey	12	4
Viet Nam	106	52
Total	379	239

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Two Possible Mechanisms for Pandemic Strain to Arise:



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Expected Course of the Pandemic

- ▶ A new pandemic strain will arise in Southeast Asia
- ▶ Ontario will have little lead time between the declaration of a pandemic by WHO and when it spreads to the province
- ▶ There will be 2 or more waves of 8 weeks each, 3-9 months apart

Source: Ontario Health Pandemic Influenza Plan, June 2005

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Expected Severity of the Pandemic

- ▶ The attack rate will be about 35% overall (compared to 10% with seasonal flu)
- ▶ 55% of infected people will require medical care; 2% of those infected will need hospitalization
- ▶ 1/3 of *deaths* will be in people under age 65, compared to 1/20 in normal flu seasons

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Vaccine and Antiviral Assumptions

- ▶ A vaccine will not be available for at least 4-5 months after the pandemic is declared
- ▶ A vaccine will not be available for the first wave, may be available for the second wave
- ▶ Once available, the vaccine and AV will be in short supply and high demand
- ▶ Nations will embargo their own vaccine and AV supplies
- ▶ The new vaccine will provide 70-90% protection
- ▶ The Province will set priorities for who gets the new vaccine and AV first

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Usual Government Vaccine and Antiviral Priorities*

1. HCW providing direct care to influenza patients
2. Other HCW
3. Emergency/essential service providers
4. Those at highest risk of fatal outcomes
5. Healthy adults
6. Children 2-18 years of age

**Tentative – priorities will be based on epidemiology of the pandemic strain when it emerges*



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What Employers Should Consider

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What's Different About a Pandemic Emergency?

- ▶ Widespread, not localized
- ▶ Duration – prolonged, not a short event
- ▶ Notice – some advance warning
- ▶ Primary effect is on people, not equipment or hardware
- ▶ Big psychosocial impact – fear, grief, disbelief, anger

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Potential Impact of a Pandemic on Your Business

- ▶ Reduction of your workforce: 15%-35% of employees may be off sick at one time
- ▶ Healthy employees may be away from work for other reasons (fear of exposure at work, fear of public transit, caring for ill family members, caring for children at home if schools are closed)
- ▶ Suppliers may not be able to deliver your required supplies/products/raw materials/services
- ▶ Decrease **or** increase in demand for your products and services

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Potential Impact of a Pandemic on Your Business (cont'd)

- ▶ Possible interventions by Public Health:
 - Control of antivirals and vaccine distribution
 - Travel restrictions
 - Cancellation of large gatherings/events
 - School closures
 - Measures to increase social distance
- ▶ Use of your facility or personnel?

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WHO Pandemic Periods and 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.
	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.
Pandemic Alert Period	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.

Source: World Health Organization, 2005.


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Table 3: WHO Pandemic Periods and Phases

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Postpandemic Period		Return to interpandemic period.

Source: World Health Organization, 2005.


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Before the Pandemic – NOW

- ▶ Clear sick time policies and practices that do not penalize employees for appropriate usage
- ▶ Hand sanitizers as appropriate
- ▶ General personal hygiene standards and practices
- ▶ Training for employees on infectious diseases, personal hygiene, sneeze etiquette, sick time policy use
- ▶ Immunization programs for employees are cost-effective

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Before the Pandemic – NOW (cont'd)

- ▶ General housekeeping and sanitation standards, inside your facility and outside on your grounds
- ▶ Good training and understanding of infectious diseases by first aiders, OHNs, JHSC, all staff
- ▶ Good communication systems for timely and honest news
- ▶ Good succession planning and cross-training so no one is indispensable (BCP)

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Pandemic Planning: The Critical Steps

1. Assemble a team
2. Identify hazards and assess the risks
3. Set priorities
4. Protect people and processes
5. Build the foundation

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1. Assemble a Team

- ▶ Identify and consult with key stakeholders:
 - Senior leadership
 - Union leadership
 - Human Resources department
 - JHSC
 - Key suppliers
 - Key customers
 - Health professional (internal or external)

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2. Assess the Risks

- ▶ What are the hazards? (Impacts on people and processes)
- ▶ Who and what are at greatest risk? E.g.:
 - People in contact with the public
 - People who travel a lot (planes, trains)
 - People with school aged children
 - Older people, smokers, or those with chronic health problems
 - Processes that involve public gatherings (at risk of being closed by Public Health)
 - Processes that are dependent on one or two key people
 - Processes dependent on external supplies

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3. Set Priorities

- ▶ Degree of risk = probability x consequences
- ▶ Which production lines, processes or services are *essential* to your business' survival, and must continue?
- ▶ Which are your *least* essential processes and jobs, which could be temporarily suspended?
- ▶ Which support jobs are most critical, and must continue?

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4. Protect People and Processes

- ▶ Assess inter-pandemic controls: hygiene, training, housekeeping, sick time use, immunization, etc.
- ▶ Consider adding specific pandemic policies
- ▶ Knowledge management
- ▶ Move staff to essential processes
- ▶ Alternate work arrangements
- ▶ Contingencies for suppliers
- ▶ Contingencies for school closures
- ▶ Trigger points for contingency plans

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Policy Considerations

- ▶ Sick time policy
- ▶ Training
- ▶ Immunization programs
- ▶ Housekeeping standards
- ▶ Visitor limitations
- ▶ Travel policies
- ▶ Decisions on PPE
- ▶ Emotional support
- ▶ Contact management
- ▶ Communication strategies
- ▶ Process for getting input from all employees, unions
- ▶ Right to refuse work
- ▶ Cross-training
- ▶ Work at home policy
- ▶ Trigger points for policy changes

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5. Build the Foundation

- ▶ What must happen behind the scenes to make these plans happen:
 - Basic Business Continuity Plans (BCP)
 - Good succession planning and cross training
 - Chain of command defined
 - Communications plan developed
 - Relationship building with Public Health officials

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“Old” Concepts That Pandemic Planning Makes Us Reconsider

- ▶ Right to refuse unsafe work
- ▶ Emergency leave
- ▶ Compassionate care leave
- ▶ Employment insurance
- ▶ WSIB claims

All will be defined by government and agencies at the time of the pandemic – watch news and websites

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The only thing tougher than planning for a disaster is explaining why you didn't!



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Infectious Diseases & Pandemic Planning

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Other Websites for Good Pandemic Information:

World Health Organization -- http://www.who.int/csr/disease/avian_influenza/en/
Government of Canada, Pandemic Website - http://www.influenza.gc.ca/index_e.html
Government of the USA, Pandemic Website - <http://www.pandemicflu.gov/>
Canadian Food Inspection Agency -
<http://www.inspection.gc.ca/english/anima/heasan/disemala/avflu/avflue.shtml>
Ontario's Workplace Safety & Insurance Board --
http://www.wsib.on.ca/wsib/wsibsite.nsf/public/flu_resources

For additional information or training from IAPA:

Call 1-800-406-IAPA (4272).

Ask about IAPA's in-house training on pandemic planning, or other health & safety issues.

www.iapa.ca