PANDEMIC INFLUENZA RESPONSE PLAN

calgary health region

TABLE OF CONTENTS

APPENDICES

Acknowledgements

The Calgary Health Region Pandemic Influenza Response Plan is the product of a comprehensive and integrated approach involving individuals with expertise and stakeholders both internally and externally. Special acknowledgement is made for those individuals who developed our first plan in 2002 and provided clear direction regarding the required elements of this plan. In addition, the Pandemic Influenza Advisory Committee members, the Pandemic Influenza Working Group chairs and their members representing the broad scope of services and supports within the Calgary Health Region, played a significant role in the development of this plan (see Appendix 7.14). Their participation and commitment of time, energy and expertise added greatly to the value of this plan.

Endorsements

The Calgary Health Region Pandemic Influenza Response Plan is authorized and endorsed for use by the Calgary Health Region by the Chief Clinical Officer and Medical Officer of Health. Portfolio and departmental disaster and contingency plans and manuals supplement and support the strategies and actions of the Pandemic Influenza Response Plan. This plan takes effect as dated and upon approval.

PREFACE

The World Health Organization (WHO) and the Public Health Agency of Canada have warned that an influenza (flu) pandemic is both inevitable and imminent. Such warnings have been fueled largely by the persistence of a highly infectious strain of avian influenza (bird flu) in Asia that experts fear could trigger the next influenza pandemic. While these warnings aim to ensure countries are prepared for such an event, they have also caused public concern over the nature of the threat and the health care system's ability to respond to it.

An influenza pandemic would have serious consequences as a result of the numbers of people becoming ill or dying being far greater than with an "ordinary" winter influenza outbreak. There is a significant effort underway at global, national, provincial and regional levels to anticipate and respond effectively to an influenza pandemic.

The Calgary Health Region's Pandemic Influenza Response Plan is a technical document aimed at health care workers and emergency planners who will be involved in responding to an influenza pandemic. It is based on the Canadian and Alberta Pandemic Influenza Plans and incorporates the assumptions that underlie those plans.

It is expected there will be one or more waves of illness with each wave lasting approximately 6-8 weeks. The interval between waves may range between three to nine months.

To predict the impact of pandemic influenza on people within the region as a result of these waves, the Region's Plan uses assumptions provided by Alberta Health and Wellness; and estimating tools from the U.S. Centers for Disease Control, called Flu Aid and Flu Surge. There is a wide range of uncertainty in the projections due to a number of possibilities as a result of the disease evolution that will not be possible to resolve until the actual time of the pandemic (Appendix 7.2).

The Region's Plan has been founded on a worst case scenario in which 35% of the population is attacked in both wave one and two and in which employees illness and capacity to provide service time is reduced. In our region, serving a population of approximately 1.2 million people, this means there could be up to:

- 1,600 deaths (1,000 in the first wave, 600 in the second wave).
- 8,700 people (5,300 in the first wave, 3,400 in the second wave) requiring hospitalization. At the peak of each pandemic wave, up to 1000 patients/week could require hospitalization as a result of influenza infection.

In addition, there will be a major impact on outpatient services (physician, medical and other) as it is expected that up to:

- 280,000 individuals during the first wave and 185,000 during the second wave would need access to these types of services (this is four to seven times higher than what is normally experienced during a regular influenza pandemic).

Standard federal and provincial protocols have been developed for physicians and health care providers to guide the care that is provided to ill persons. The protocols are intended to minimize the use of laboratory and diagnostic services as well as referrals to emergency departments.

A key premise underlying the Plan is that the majority of persons with influenza will care for themselves without requiring access to the health system. Alberta Health and Wellness' Self Care information will be widely distributed in the Region. Health Link is expected to experience increased demands as it helps support persons to care for themselves at home.

All Calgary Health Region hospitals (four urban and eight rural hospitals) will be kept open during a pandemic in order to respond to the increased demands. All hospitals will provide treatment for patients requiring critical services and for those critically ill with influenza. In order to make beds and employees available to respond to patients critically ill with influenza, only essential services will be provided.

Although appropriate infection control measures will be in place to minimize the spread of influenza within our facilities and to protect employees and patients, it will not be possible to prevent the entry of influenza virus into our facilities as people are infectious prior to the onset of illness. The Flu Surge model predicts the number of patients requiring intensive care is over three times the current number of ICU beds, so other areas such as surgical recovery units would be utilized.

While the Calgary Health Region will continue to provide specialized services to other regions, the level will change to reflect what services are provided under essential services. Patients from other regions or from rural areas within the Region will be discharged to the hospital closest to their home. As outlined in the Canadian Pandemic Influenza Plan and the Alberta Pandemic Influenza Plan, all continuing care facilities in the Region are expected to be self sufficient in managing their clients with influenza. This means that residents will be managed in the continuing care facility with the required treatment being provided by that facility's employees and with their own resources. No transfers will occur from continuing care facilities to hospitals for clients with influenza.

Home Care Services will suspend the intake of new clients and where possible will be working with clients and family members to have them assume increased responsibilities for care. Similar to acute hospital care, Home Care will be providing only essential services and visits. In some cases, clients may need to come to centralized alternate care sites to receive care in order to make the most efficient use of the available health care workers.

This Pandemic Influenza Response Plan also includes the establishment of Triage Centres in both the urban and rural areas where patients with severe influenza can be assessed to determine whether they can continue to be cared for at home or require alternate supportive care or hospitalization. Limited interventions such as short term rehydration through intravenous therapy will be available at these centres to assist those patients who are able to return home. These Triage Centres will be activated based on the demands that emergency departments and physician offices experience.

The Calgary Health Region will maximize the use of our existing acute care hospitals by putting in extra beds where feasible to increase the number of patients that can be accommodated. The Region has also identified contingencies for access to further beds. Options that have been explored include use of rehabilitation and recovery beds that will become vacant due to temporary suspension of those services, use of existing vacant Region facilities, use of private facilities such as hotels, and use of public facilities such as arenas or schools. The specific options implemented will depend on actual need.

Health care workers will also be affected by influenza. This will limit our ability to meet the health needs in our region. The reduction of services will allow employees to be reassigned to other areas or services as needed and feasible.

As well, the Region will maximize the use of volunteers, health care students and recently retired employees to support the provision of health care. Using the Ontario SARS experience, the Region has worked with other health authorities to develop human resource guidelines for consistently dealing with anticipated human resource issues (e.g. scheduling supports, etc).

During the initial phases of the pandemic, and potentially the entire first wave, very little effective intervention can be offered except for supportive care, as there will be no vaccine and limited antiviral medication available. Vaccine is not likely to be available in the early stages because it takes time, after the pandemic virus has been identified, to manufacture a vaccine.

Once vaccine becomes available, the Plan identifies vaccine delivery as an essential service that will require a significant commitment of resources. We may need to vaccinate our entire regional population of 1.2 million not only once but possibly twice, to protect them against the expected subsequent waves of influenza. The priority groups for receiving doses of the initial vaccine shipments will be specified by the federal and provincial governments.

Until vaccine arrives, antivirals may be effective in preventing infection in people who take them before they become ill. Antivirals also have some impact in reducing the severity of illness. There are two different types of antivirals. One antiviral, amantadine, is widely available as a generic drug at low cost. This is the drug that is commonly used in outbreaks of influenza A in care centers for treatment and prophylaxis. Unfortunately, the current strain of avian influenza H5N1 is resistant to this drug.

The other antiviral drug, oseltamivir, is only manufactured by one drug company because it is under patent protection. There is a provincial stockpile of oseltamivir; however, the amounts are limited. It will only be provided to federally defined priority groups. There appears to be sufficient oseltamivir available to treat seriously ill patients and ill health care workers and to provide preventive doses to limited health care workers (the federally defined group).

Other interventions that may be used during the pandemic include restrictions on mass gatherings, promotion of social distancing and good respiratory hygiene that includes hand hygiene. While these measures will not prevent or stop pandemic influenza, they appear to slow the spread of the disease and may provide additional time until a vaccine is available.

It is likely during an influenza pandemic that either a provincial or local state of public health emergency will be declared. This allows the Region to mobilize the resources (human and physical) required to respond. The Region will coordinate its activities with its municipalities, with the provincial government, and other health authorities.

The Region will use a centralized administrative control centre to direct and coordinate our activities. This Regional Administrative Control Centre (RACC) will operate for weeks rather than the few hours or days that most people may be familiar with when we respond to a mass casualty incident. Therefore, the Plan includes alternates for relief and in the event of illness of key people, as well as crisis and stress intervention.

It is not possible to develop a plan that will fully protect the residents of the Calgary Health Region against pandemic influenza. People will become ill during an influenza pandemic and some will die. The Pandemic Influenza Response Plan is intended to minimize the impact and social disruption that an influenza pandemic will cause. The Plan will need to be reviewed and revised from time to time in view of the changing environment and emergence of new information.

1. INTRODUCTION

The Pandemic Influenza Response Plan is intended for use by physicians and employees working in and with the Calgary Health Region to manage operational services during the phases of an influenza pandemic. This Plan is based on the Region's Plan developed in 2002. The concepts and directions laid out in that plan established the foundation for decisions regarding priorities and implementation strategies to most effectively meet the challenges posed during such an event and during the phases before and after.

This Plan is part of an overall disaster management process regarding other infectious disease events such as Severe Acute Respiratory Syndrome (SARS) and smallpox. These communicable disease disaster management plans use an "all hazards" approach with common elements. An all hazards approach builds on the core actions and strategies for managing numerous other communicable infectious agents of significant magnitude.

Other more specific actions and strategies to address the pandemic influenza virus are included in this Plan. The Pandemic Influenza Response Plan is meant to be flexible, iterative and dynamic. There will be updates and revisions. Region employees are invited to contribute to these revisions and the development of the manual by submitting in writing their recommendations, proposed amendments and corrections to the Medical Officer of Health.

2. GOAL

The goal of influenza preparedness and response is to reduce influenza-related morbidity, mortality and social disruption through management of health care services, and the use of antiviral medications, and vaccinations. The objective of this Plan is to provide a tool for Regional employees and physicians to achieve this goal.

3. PURPOSE OF PLAN

The purpose of the Pandemic Influenza Response Plan is to assist the Calgary Health Region and partner agencies to prepare for and act before, during and after an influenza pandemic. The impact of the pandemic will depend upon the virulence of the virus, how rapidly it spreads, and the effectiveness of the response efforts. Good surveillance, the ability to administer vaccine to large numbers of people in a short period of time and the ability to provide health care services despite a depleted workforce will be very important. In addition, communication and emergency response procedures will be in place and aligned with other health authorities to assist in responding to a pandemic influenza.

The objectives of the Calgary Health Region's Pandemic Influenza Response Plan are to assist in:

- early detection and possible intervention;
- reducing the morbidity and mortality rates from a pandemic;
- managing large numbers of ill people at home and in alternate care sites;
- ensuring that essential services are maintained; and
- providing accurate and timely information to our employees, physicians, the public, businesses and the media.

The plan will be reviewed on a regular basis due to:

- advancements in antibiotics and antiviral drugs;
- changes in health care resources and/or municipal, provincial or federal resources; and
- changes in demographics (i.e., population growth).

The Calgary Health Region's Pandemic Influenza Response Plan is available on the Office of the Medical Officer of Health website (www.calgaryhealthregion.ca/moh), Disaster Services website (https://xwebsu.crha-health.ab.ca/derps), on compact discs and may be reproduced in hard copy for strategically placed venues as required. Managers who reproduce hard copies in these venues have the responsibility to ensure the copies are updated on a regular basis. Employees who have a key role in the plan have been assigned the responsibility to review and keep themselves current regarding the content of the plan and their responsibilities.

As pandemic influenza planning is inextricably a component of other plans from regional to national, web linking is used to strategically reference other documents and plans that guide and direct the actions and strategies included in this plan. In this way, current information should always be available to the end users for any part of the plan they are involved with.

4. PLAN BACKGROUND

Historical Overview

The Calgary Health Region has been involved in developing a pandemic plan since 1999. The first pandemic influenza plan was developed collaboratively with Alberta Health and Wellness to enable alignment with provincial and federal responsibilities. The Working Group's Pandemic Influenza Plan, also known as the "Phase One Plan," was completed in June of 2002. Since that time the Region's boundaries and organizational structure have changed.

The provincial government has assigned local health authorities the responsibility for providing:

- services to meet priority health needs;
- information on the number of cases, hospitalizations and deaths from influenza;
- antiviral drugs and vaccines; and
- communication in their regions.

This plan operationalizes the goals and requirements described in these responsibility areas to meet service expectations established in the federal, provincial and regional Phase One Plan.

Ethical Considerations

An ethical framework helped to guide the development of this plan and to support decision making with respect to allocation of scarce resources during an event of this nature. Normally, an egalitarian approach to the individual patient is taken. The person is treated with fairness, relying on ethical imperatives such as equality and autonomy. Even during a pandemic, individual choice and personal autonomy remain the underpinnings of health care decision making but, as a pandemic shifts into a phase with potential for extensive spread of communicable disease and resultant mortality, the good of the general population (the principle of utility) gains in ethical importance (See Appendix 7.13).

Risk Framework

The impact of a pandemic cannot be known in advance. While our planning is based on past experience and the predictions of experts, there are inherent risks. The effect of a pandemic will be different than a natural disaster. Many people will be sick, affecting the availability of organizations to provide health and other services. There will likely be significant numbers of hospitalizations and deaths. In our health region, up to 8,700 people may require hospitalization due to the disease.

We believe a proactive and enterprise-wide focus on risk management will help minimize risks and uncertainties. The Region's risk management framework sets out our approach. The primary risks associated with this plan, and our strategies to manage these risks, are provided in the following chart. As this plan undergoes annual review and updates, risk will be reviewed and revised to ensure appropriate mitigation strategies are in place.

	RISK	MITIGATION STRATEGY
1	Lack of awareness and personal preparedness	• Employees education and training programs. • Public communication campaigns. • Linkages with municipalities, educational institutions and other community organizations to promote awareness.
2	Lack of physical capacity	• Develop additional isolation capacity • Prioritize services to help create additional capacity. • Identify alternate triage sites. • Identify alternate care sites.
3	Lack of human resources capacity	• Cross-train employees as appropriate. • Develop central skill sets inventory of employees to identify levels of professional expertise that would be available during a pandemic. • Collaborate with educational institutions that graduate health care professionals to identify opportunities for student placements. • Increase use of volunteers. • Collaborate with current partners and other service providers to provide additional support during a pandemic.
4	Insufficient medical-surgical supplies	• Increase Region's stockpile of high use items.
5	Insufficient antiviral supply	• Continue to support provincial/federal initiatives for ensuring an adequate supply.

5. CONTEXT FOR PLANNING

The Calgary Health Region has used local, provincial and national directives and documented assumptions in support of the planning process. These are based on numerous experiences with pandemics and "pandemic scares" in the last century and are outlined in more detail in the Canadian Pandemic Influenza Plan and in the Alberta Pandemic Influenza Contingency Plan. Key assumptions are provided below and a more detailed listing is provided in Appendix 7.2.

Additional detailed assumptions are included in sections of the Calgary Health Region Pandemic Influenza Operational Guide, as they relate to public health measures (surveillance, vaccine and antiviral delivery), operational plans for health services (acute care, triage, alternate care, staffing, etc), emergency preparedness and communications.

In general the impact of the pandemic is unpredictable and a graded response must be anticipated (Alberta Plan, Clinical Subcommittee Report, 2003, p.3). Therefore, this version of the Calgary Health Region Pandemic Influenza Plan is based on the best information available as of September 2005.

Key Directives and Assumptions

- A declaration of a state of a public health emergency will be made at the most appropriate level at the time of the influenza pandemic, i.e. federal, provincial or regional, with input from the appropriate health agencies.
- The Region is expected to continue to provide and accept out of region (OOR) patients for Province Wide Services (PWS) and for specialized services within our catchment areas. However, all elective non-essential services will be suspended until the pandemic has been declared finished by the regional and/or provincial authorities, in order to release employees for the response to pandemic influenza plans and initiatives.
- An influenza pandemic will be widespread, with many geographic areas affected simultaneously. Therefore, assistance and support from surrounding geographical areas is unlikely. This means Regional Health Authorities (RHAs) will need to plan to care for their populations during the influenza pandemic, apart from the usual patterns of referral to other regions when expertise and/or technology is not available within the region.
- Critical care facilities already operate very near to capacity and have limited ability to increase services (due to limitations in location, employees, and equipment).
- A large portion of the Region's workforce will be affected either directly (i.e. too ill to work) or indirectly (i.e. providing care for others in the home).
- Contingency plans will not include the use of other essential personnel such as RCMP or local police for transportation or security.
- The Region is expected to continue to experience other emergencies (i.e., traumas, heart attacks, fractures).
- Due to volume and range of illness in the affected population, different levels of care will be required, i.e. self-care (home), group care in community (alternate care centers) and intense health care (those requiring inpatient acute care).

- There will be a need to collect, analyze and disseminate information in a timely fashion related to health services during the pandemic. Surveillance systems must be established in advance of a pandemic as there will be little time to augment capacity at the time. Protocol development (including admission and discharge criteria), care documentation, and data collection will be based on existing guidelines and will be both standardized and coordinated.
- Stockpiling of antivirals, other drugs and specific medical and surgical supplies will be required if they are to be available in the quantities needed during a pandemic.

6. ROLES AND RESPONSIBILITIES

An influenza pandemic is a global health event. International, federal, provincial and local organizations will work together to respond. Each level has a role to play in the response that is intended to save lives, care for the ill and to minimize the social disruption in the community.

International:

- The World Health Organization (WHO) watches for the emergence of new strains of influenza throughout the world. If a pandemic influenza strain emerges, it will notify federal health authorities and provide information to governments, the media and the public on immunization and antiviral medication use.
- Specific responsibilities can be found at the following link: www.who.int/csr/disease/influenzapandemic/en/

Federal:

- Health Canada will provide nationwide coordination for the influenza response. It will monitor the spread of the disease in Canada, provide links with the WHO and other nations, and obtain and distribute vaccines and antiviral medications.
- A National Pandemic Influenza Committee with representation from provincial, territorial and federal governments will coordinate a national influenza response.
- Specific responsibilities can be found at the following link: www.phac-aspc.gc.ca/cpip-pclpi/index.html

Provincial:

- Alberta Health and Wellness will lead the health sector response. During an influenza pandemic, the department will establish a Pandemic Response Centre. It will support coordination among regional health authorities, coordinate vaccine and antiviral delivery across the province, provide information, collect data on the spread of the disease in Alberta, and help resolve any health care issues that arise.
- Alberta Municipal Affairs will lead the response regarding the non-health consequences of a pandemic, primarily through Emergency Management Alberta (EMA). EMA will communicate with municipalities, monitor the effect of the pandemic on essential services, coordinate volunteer activities and federal assistance programs, and monitor the need for support among families of victims.
- Each provincial government department will have contingency plans for the delivery of provincial services and will assist Alberta Health and Wellness, Emergency Management Alberta, regional health authorities, and municipalities in responding to a pandemic.
- Specific responsibilities can be found at the following web link: www.health-gov.ab.ca/public/pandemic/pandemic.html

Local:

- Municipal governments will set priorities for:
  - maintaining public safety and other essential public services (fire, police, waste management, water and utilities);
  - supporting regional health authorities in providing information to the public and, where necessary, close public buildings and assist with the establishment of triage and alternative care sites to enable the delivery of health care and public health services, including vaccination to the public.

- Regional health authorities will provide services to:
  - meet priority health needs;
  - provide information on the number of cases, hospitalizations and deaths from influenza;
  - deliver vaccines and antiviral drugs; and
  - establish and maintain communications in their regions.

The Region's responsibilities for operationalization of strategies and actions will be carried out using the current disaster services management structure. This structure is linked closely with provincial disaster services management and subsequently to the federal and global structures. Liaison relationships established with the Alberta Health and Wellness Incident Command Centre and other Emergency Operations centres will be activated to ensure alignment regarding actions and strategies that are implemented.

Concept of Operations/Incident Command System

In the pre-pandemic phase, the Incident Command System structure ensures a coordinated and collaborative planning process is aligned with the response and recovery phases.

A strategic command network, involving the Incident Coordinators/Commanders from control centres throughout the region and province, facilitates the setting of objectives and decision making during response and recovery.

The management of operations will be coordinated using the operations network. Control Centres in the Calgary Health Region will be activated and maintained, in whole or in part, throughout the response and recovery phase.

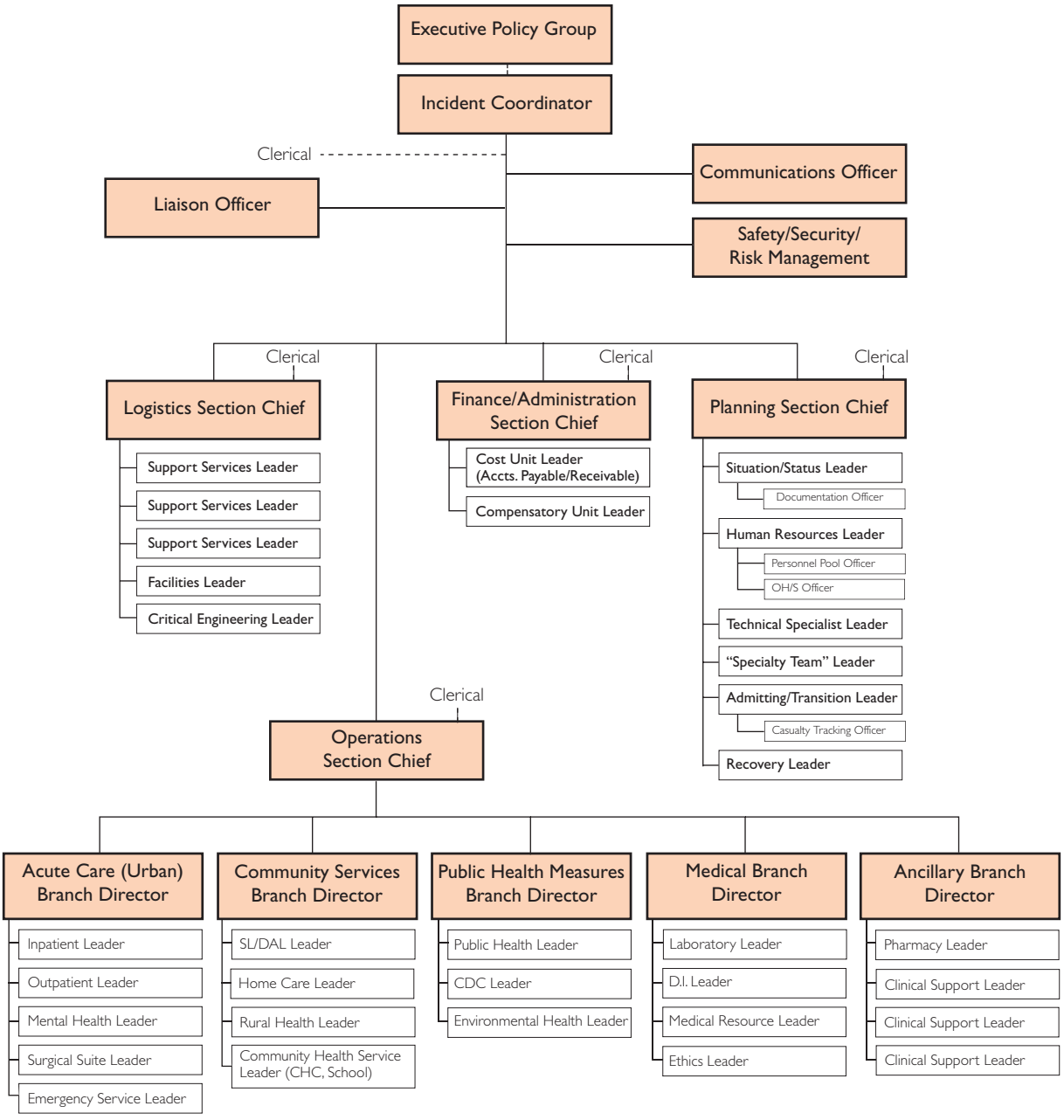
The RACC is responsible for:

- overall coordination of a regional response to a disaster/emergency situation;
- functioning as an incident contact team for operational Site/Service Control centres, Municipal Emergency Operations centres (EOCs), other health regions, Provincial Operations centre(s) and representatives from other agencies.

The RACC is comprised of five primary management functions:

- Command
- Operations
- Logistics
- Planning
- Financial/Administration

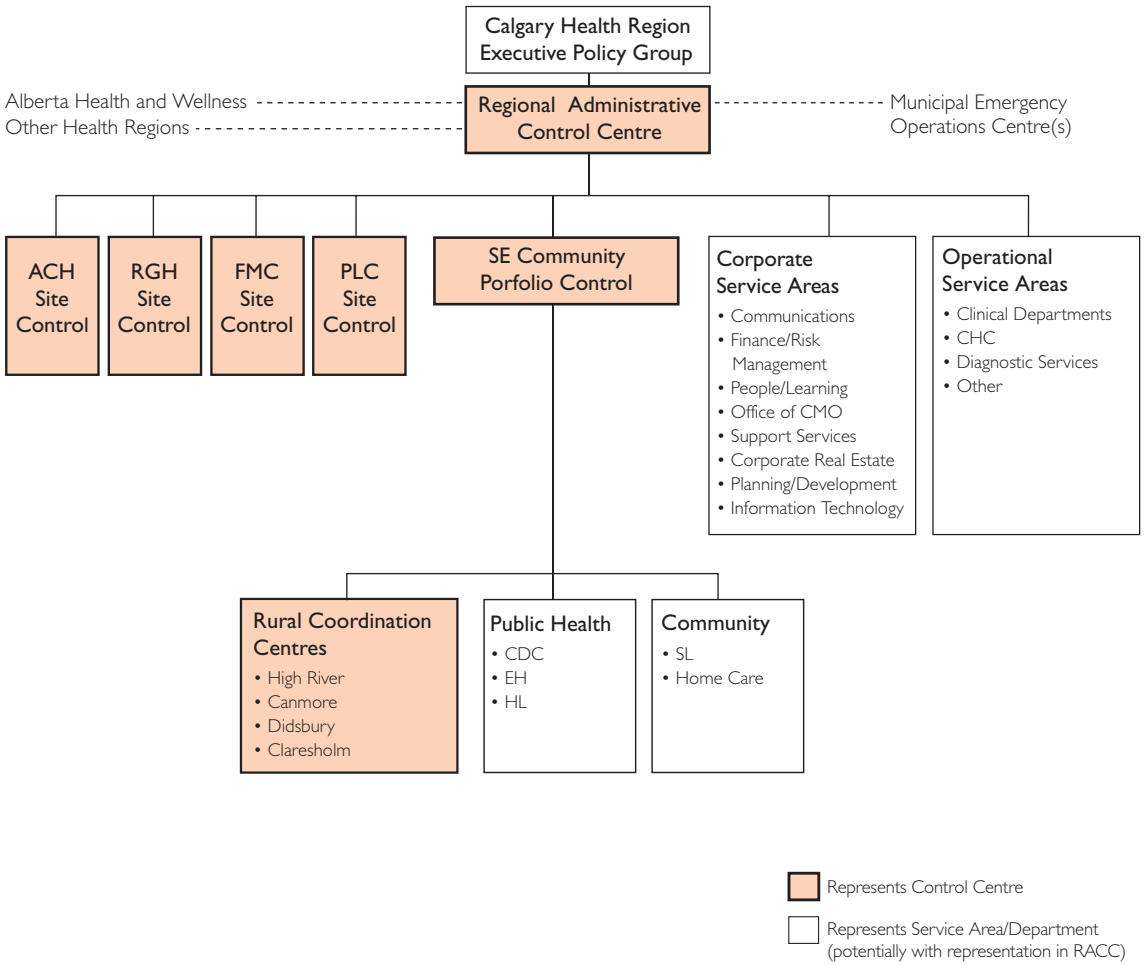
Regional Administrative Control Centre: Organizational Structure



The Regional Administrative Control Centre (RACC) will serve as "area command" in the region, with links to the South East Community Portfolio Control Centre (includes rural areas), the four urban Acute Care Control Centres, and Provincial and Municipal Emergency Operations Centres.

The following diagram represents the organizational structures for the RACC and Site Control Centres including the relationships with each other.

Calgary Health Region – Command and Control Structure



At the request of the Medical Officer of Health/designate, the Infectious Diseases Advisory Group will be assembled to provide guidance and direction relative to the management of the outbreak and help delineate communication processes (Operational Guide).

Regional Operational Portfolio Responsibilities

Portfolio responsibilities will remain the same as in the current organizational structure for service and program areas. Responsibility for the annual review of any associated plans is assigned to portfolios that are most familiar with the operational requirements for the type of service to be provided. This approach is intended to maximize expertise, ensure accountability and mitigate any risks due to new and unknown responsibilities.

Specific responsibilities are assigned as follows:

Triage Centres – Northwest Community Portfolio
The Director, Emergency Medicine, Urgent Care Services and Health Link, leads a team to initiate operational requirements for triage centres and additional telephone services for information and assessment. Supported by Rural Health and Corporate Real Estate.

Alternate Care Facilities – Northeast Community Portfolio
The Director, Medical Outpatient Clinics and Services, leads a team to initiate the operational requirements for alternate care facilities. Supported by Rural Health and Corporate Real Estate.

Essential Non-Pandemic Acute Care Services – Southwest Community Portfolio
The Director, Surgical Inpatients, leads a team to initiate operational requirements for essential non-pandemic services. Supported by Rural Health.

Antiviral Administration Sites – Southeast Community Portfolio
The Director, Health Protection, leads a team to initiate operational requirements for the control, tracking, and administration of prophylactic antivirals to priority groups (Region employees and non Region employees). Supported by Rural Health and Corporate Real Estate.

Contracted Clinical Service Providers – Southeast Community Portfolio
The Administrative Director ensures communication with providers; ensures continuity plans are developed and implemented for contracted clinical service providers of the Region. Supported by Disaster and Emergency Response Planning Services.

The Director, Supported Living Services, mobilizes existing capacity in continuing care to meet the Region's needs as required.

Mass Vaccination Centres – Child & Women's Health Porfolio
The Director, Child and Youth Community Health Services leads the team to initiate operational requirements for delivery of mass vaccination centres for non Region employees and the public. Supported by Rural Health and Corporate Real Estate.

Employee Education – People & Learning
The Executive Director, Client Services and Organizational Effectiveness, leads a team for operationalizing "just in time skills education" for employees and volunteers to meet the objectives of the service area.

Centralized Employees Assignment – People & Learning

The Director, HR Operations, leads the team to coordinate and centralize employees scheduling and assignment for service delivery in all venues, with support from Rural Health.

The Director, HR Operations, facilitates operational staffing support for the administration of antivirals and vaccines to Region employees in collaboration with Telus Sourcing Solutions Incorporated.

Contracted Non Clinical Service Providers – Regional Support Services

The Director, Distribution Services, ensures communication with non-clinical service providers and ensures continuity plans are developed and implemented for all contracted non-clinical services providers of the Region. Supported by disaster services.

7. KEY RESPONSES BY PANDEMIC PERIOD

The World Health Organization (WHO) declares the phase in effect. The phase in effect will direct the key responses required by the Region. These key responses are identified in this section.

WHO Pandemic Phases		
INTER PANDEMIC	DEFINITION	OVERARCHING PUBLIC HEALTH GOALS
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 or disease is considered to be low.	Strengthen influenza pandemic preparedness.
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.	Minimize the risk of transmission to humans: detect and report such transmission rapidly if it occurs.
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 in close contact.	Ensure rapid characterization of the new virus subtype and early detection, notification and response to additional cases.
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.	Contain the new virus within limited foci or delay spread to gain time to implement preparedness measures, including vaccine development.
Phase 5	Large 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).	Maximize efforts to contain or delay spread, to possibly avert a pandemic and to gain time to implement pandemic response measures.
PANDEMIC PERIOD		
Phase 6	Pandemic: increased and sustained transmission in general population.	Minimize the impact of the pandemic.

WHO Pandemic Phases		
POST PANDEMIC		
Return to interpandemic period	Return of the seasonal "epidemic" cycle with major disease impact on the elderly and very young.	Recovery and evaluation.

The following tables describe the key Region responses and indicate the assigned lead responsibility by position. At a minimum there is an expectation that the responsible lead will initiate and ensure an annual review and update for each of the assigned actions.

INTERPANDEMIC PERIOD

Phase 1: No new influenza virus subtypes. Risk of infection is low for transfer from animals to humans.

Regional Goal Overall: Strengthen influenza pandemic preparedness.

Actions	Frequency	Responsibility[2]
Local influenza activity and outbreaks are monitored, reviewed and reported with weekly summaries as per regular program.	Ongoing	**DMOH-CDC**/Infectious Disease Outbreak Specialist/Influenza Program Coordinator
Influenza activity and epidemiology is shared with regional internal and external partners, provincial partners and federal partners through AHW only as per regular program.	Ongoing	**DMOH-CDC**/Influenza Program Coordinator/Infectious Disease Outbreak Specialist
Promote and ensure annual target influenza vaccination rates are met for regional employees; medical employees including residents and medical students, long term care residents, health care providers, household contacts of those at risk and at risk individuals.	Annual	**DMOH-CDC**/CMO Office, RCDH
Implement Region's outbreak control guidelines for all sites experiencing an outbreak.	Ongoing	**DMOH-CDC**/Infectious Disease Outbreak Specialist/Director IP&C/Director of Supported Living/Administrative Directors
Promote and ensure Infection Prevention and Control skills are current for all staff including medical staff.	Ongoing Annual update of current status by risk area	**Director IP&C/Director, HR Operations/DMOH-CDC**/ Clinical and Non Clinical directors/RCDH managers/ Contract Providers/CMO Office
Review and revise the number of eligible individuals in priority groups (as assigned by federal directives) for antivirals and vaccines.	Annual	**DMOH-CDC**/Director Disaster and Emergency Response Planning Services

[2] Bold indicates primary lead with responsibility to initiate process for action.

Phase 1: No new influenza virus subtypes. Risk of infection is low for transfer from animals to humans.

Regional Goal Overall: Strengthen influenza pandemic preparedness.

Actions	Frequency	Responsibility[2]
Review and revise plans for staff risk issues related to antiviral and vaccine administration.	Annual	**DMOH-CDC**
Orient and educate staff, including medical staff, on personal preparedness and influenza self care on a regular basis as per regular orientation and education program.	Ongoing	**Director Disaster and Emergency Response Planning Services**/CMO/Regional Managers
Develop evaluation framework, and data collection process for evaluating impact of pandemic influenza and response.	Annual	**DMOH-Surveillance**/ Operations Directors/MOH/ Risk Management Office
Develop staffing models and contingency plans for essential services.	Annual	**Director HR Operations**/ Operational Directors
Verify lists of physicians working in the region including both privileged and non priveleged.	Annual	**CMO Office**
Verify contract for possibility of hiring back recently retired physicians for work assignments.	Annual	**CMO Office**/Legal Services
Meet with appropriate post secondary institution representatives to ensure appropriate role for medical, nursing, and allied health students in pandemic influenza situation.	Annual	**CMO Office/CNO Office**
Ensure review of economic wholeness for physicians during the pandemic period (i.e. documentation and guidelines).	Annual	**CMO Office**
Review antiviral and vaccine storage locations and capacity (Operational Guide)	Annual	**DMOH-CDC**/Director Support Services
Inform public regarding self-care practices for influenza and influenza-like illnesses, as per provincial program.	Annual	**Director Communications**/ DMOH-CDC
Review and update First Nations municipal and organizational contact lists.	Annual	**Director Disaster and Emergency Response Planning Services**/Director Rural Health
Conduct exercises with Regional, Municipal and Provincial partners that would support a pandemic scenario.	Annual	**Director Disaster and Emergency Response Planning Services**/Director Rural Health

[2] Bold indicates primary lead with responsibility to initiate process for action.

INTERPANDEMIC PERIOD

Phase 1: No new influenza virus subtypes. Risk of infection is low for transfer from animals to humans.

Regional Goal Overall: Strengthen influenza pandemic preparedness.

Actions	Frequency	Responsibility[2]
Review and update procedures for tracking expenditures related to pandemic influenza.	Annual	**Director Disaster and Emergency Response Planning Services**/Director Finance/ Director HR Operations
Review and update Regional and Departmental Emergency Response Plans that support an all hazards response.	Annual	**Director Disaster and Emergency Response Planning Services** ED/VP/EMD
Review and update communication processes between the Province (AHW, EMA), the Health Regions, and Municipalities.	Annual	**Director Disaster and Emergency Response Planning Services**/Communications
Advise and support business, industry and municipalities in developing pandemic influenza response plans.	Ongoing	**MOH/Director Disaster and Emergency Response Planning Services**
Ensure plan for "Management of Dead Bodies" addresses pandemic influenza mortality rates.	Ongoing	**Director Disaster and Emergency Response Planning Services/MOH**
Advise and support Municipalities in role of community Disaster Social Services in supporting quarantine or isolated members in the community.	Ongoing	**Director Disaster and Emergency Response Planning Services/MOH**

[2] Bold indicates primary lead with responsibility to initiate process for action.

INTERPANDEMIC PERIOD

Phase 2: No new influenza virus subtypes. Substantial risk of transfer from animals to humans.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Surveillance and assessment for potential transmission of virus to humans. Strengthen influenza pandemic preparedness.

Actions	Frequency	Responsibility
Implement all actions from Phase 1 plus the following:	As per Phase 1	**As per Phase 1**
Monitor and review local influenza activity and outbreaks as per regular program of reporting.	Weekly	**DMOH-CDC**/Infectious Disease Outbreak Specialist/Influenza Program Coordinator
Share Influenza activity and epidemiology with regional internal and external partners, provincial partners and federal partners as per reporting structures.	Ongoing	**DMOH-CDC**/Influenza Program Coordinator/Infectious Disease Outbreak Specialist

Phase 2: No new influenza virus subtypes. Substantial risk of transfer from animals to humans.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Surveillance and assessment for potential transmission of virus to humans. Strengthen influenza pandemic preparedness.

Actions	Frequency	Responsibility
Review regular antiviral administration program as per annual influenza management program.	Annual	DMOH-CDC
Orient and educate staff, including medical staff, on personal preparedness and influenza self care on a regular basis as per regular orientation and education program.	Ongoing	**Director Disaster and Emergency Response Planning Services**/CMO/Regional Managers
Review ethical and physician service considerations.	Annual	**CMO(Regional Ethics)VP/EMD Operations**
Review program and update department essential, necessary, valued and desirable services (Operational Guide).	Annual	**Administrative Directors/ Clinical Directors/RCDHs**/ CMO Office
Review and update operational structure and staffing models for pandemic and non-pandemic essential service provision by site and regionally (Operational Guide).	Annual	**Director Surgical Inpatients/ Clinical Directors/RCDHs**/ CMO office
Review and update process/criteria for admitting/discharging patients, cancelling elective procedures/diagnostics and setting priorities for service delivery (Operational Guide).	Annual	**Administrative Directors/ Clinical Directors/RCDHs**/ CMO Office/Transition Coordinators
Review and update regional plan and mechanisms for coordinating patient transport, including at times of significant decanting of acute care hospitals (Operational Guide).	Annual	**Director Distribution Services**/ Chair Capacity Strategy Planning Committee/Administrative Directors
Review and update plans to maximize internal bed capacity (ward use, cohorting, day procedure areas, etc.) (Operational Guide).	Annual	**Administrative Directors**/ Director Distribution Services
Review and update clinical management and patient assignment algorithms (Operational Guide).	Annual	**Administrative Directors/ Clinical Directors/RCDHs**/ CMO Office
Review current information technology and information management support for tracking patients, equipment, medical supplies and human resources.	Annual	**VP Advanced Technologies/ Director Distribution Services/ Director Admitting and Transition Services/Director HR Operations**

INTERPANDEMIC PERIOD

Phase 2: No new influenza virus subtypes. Substantial risk of transfer from animals to humans.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Surveillance and assessment for potential transmission of virus to humans. Strengthen influenza pandemic preparedness.

Actions	Frequency	Responsibility
Review and update HR plan re: insurance and licensing issues for potential expedited hiring.	Annual	**Director HR Operations**
Review and update EFAP plan for supports for health care workers, volunteers, students.	Annual	**Director HR Operations**/ Director Disaster and Emergency Response Planning Services
Review labour relations issues and legislation and requirements to develop or update policies.	Annual	**Director HR Operations**
Review contracts for inclusion of MOU regarding medical service requirements, liability, insurance and relationships during a pandemic.	Annual	**CMO Office/Legal Services**
Review contracts for inclusion of MOU regarding service requirements and relationships during a pandemic with health service provider partners.	Annual	**CNO/Director Distribution Services/Administrative Director SECP/VP Advanced Technologies/Legal Services**

PANDEMIC ALERT PERIOD

Phase 3: Human infection(s) with new subtype but no human to human spread or at most rare instances of spread in close contact.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Increase readiness of employees and public.

Actions	Frequency	Responsibility
Implement all actions from Phase 1and 2 plus the following:	As per Phase 1 and 2	**As per Phase 1 and 2**
Inform employees, public and partners that WHO has declared Phase 3.	When declared	**MOH**/Director of Communications
Increase information and communication to public regarding self-care practices and respiratory etiquette for influenza and influenza like illnesses as per provincial and regional communication program (Appendix 7.11).	Annual	**Director Communications**

PANDEMIC ALERT PERIOD

Phase 3: Human infection(s) with new subtype but no human to human spread or at most rare instances of spread in close contact.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Increase readiness of employees and public.

Actions	Frequency	Responsibility
Communicate annual influenza vaccination plan if appropriate.	Annual	**DMOH-CDC/Director HR Operations/**Influenza Program Coordinator
Increase communication with Hutterite Colonies, First Nations, community agencies and Community Health Councils.	Ongoing	**Director Rural Health/Director Disaster and Emergency Response Planning Services**
Review and disseminate enhanced surveillance processes with Emergency Departments, physicians, schools, etc. (Operational Guide).	Ongoing	**DMOH-Surveillance**/Influenza Program Coordinator/ Infectious Disease Outbreak Specialist
Initiate enhanced local influenza activity monitoring and ensure outbreak reports are initiated (Operational Guide).		**DMOH-CDC/**Influenza Program Coordinator/Infectious Disease Outbreak Specialist
Review and update evaluation framework and data collection process and methodology for evaluating impact of pandemic influenza and response (Appendix 7.15).	Annual	**DMOH-Surveillance/** Operations Directors/MOH/ Risk Management Office
Share influenza activity and epidemiology with regional internal and external partners, provincial partners and federal partners as per reporting structures.	Ongoing	**DMOH-CDC/**Influenza Program Coordinator/Infectious Disease Outbreak Specialist
Orient and educate staff, including medical staff, on personal preparedness and influenza self care on a regular basis as per regular orientation and education program.	Ongoing	**Director Disaster and Emergency Response Planning Services**/CMO/Regional Managers
Schedule and implement reviews with medical staff about the need for personal preparedness.	Annual	**RCDHs/Clinical Directors/** Director Disaster and Response Planning Services/CMO Office
Review privileging, licensure and employment issues of possible 'volunteer' physicians.	Annual	**CMO Office/Legal Services**
Review and update human resources staffing contingency plan for essential services (Operational Guide).	Annual	**Director HR Operations/** Operations Directors
Review and update volunteer plans for human resources (Operational Guide).	Annual	**Director Disaster and Response Planning Services/** Director HR Operations/ Operation Directors

PANDEMIC ALERT PERIOD

Phase 3: Human infection(s) with new subtype but no human to human spread or at most rare instances of spread in close contact.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Increase readiness of employees and public.

Actions	Frequency	Responsibility
Review and update staffing model for provision of reduced health care services by type of service and/or site.	Annual	**Clinical Directors/RCDHs** /CMO
Review and update staffing requirements, levels and schedules.		**Clinical Directors/RCDHs**/ Director Human Resources
Review and update plan for provision of just in time training/orientation for staff overall including physicians (Operational Guide).	Annual	**Executive Director Client Services and Organizational Effectiveness/CMO Office**
Review and update staffing plans for physician resources in acute care, urgent care, continuing care, and alternative treatment care sites (Operational Guide).	Annual	**CMO Office**/RCDHs/Director of HR Operations
Review and update staffing plans for human and other resources for triage centres (Operational Guide).	Annual	**Director, Emergency Medicine, Urgent Care Services and Health Link**/Director HR Operations/ CMO Office
Review and update plan for provision of just in time training/orientation for triage staff including physicians (Operational Guide).	Annual	**Director, Emergency Medicine, Urgent Care Services and Health Link**/Director HR Operations/CMO Office
Review and update plans for human and other resources for alternate care sites (Operational Guide).	Annual	**Director Medical Outpatient Clinics and Services**/Director HR Operations/CMO Office
Establish plan for provision of just in time training/orientation for alternate care staff including physicians (Operational Guide).	Annual	**Director Medical Outpatient Clinics and Services**/Director Human Resources/ CMO Office
Review and update preferred triage and alternate care site locations for continued appropriateness and availability (Operational Guide).	Annual	**Director, Distribution Services**/ Corporate Real Estate/Director Medical Outpatient Clinics and Services/Director Emergency Medicine, Urgent Care Services and Health Link
Review and update MOU for regionally used facilities for inclusion of services during pandemic if required.	Annual	**Legal Services/Corporate Real Estate**
Review and mitigate insurance liabilities for off site service delivery.	Annual	**Director Corporate Real Estate/**Legal Services

PANDEMIC ALERT PERIOD

Phase 3: Human infection(s) with new subtype but no human to human spread or at most rare instances of spread in close contact.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Increase readiness of employees and public.

Actions	Frequency	Responsibility
Update and review available ventilators, beds/cots, and bed spaces (Operational Guide).	Annual	**Director Distribution Services**/Director Disaster and Emergency Response Planning Services/Clinical Support Services
Review capacity and arrange or lease space to warehouse required supplies.	Annual	**Director Distribution Services**/ Director Corporate Real Estate
Review/replenish stored medical equipment and other required supplies.	Annual	**Director Purchasing and Supply Management**/CMO Office
Purchase and stockpile required extra medical and equipment supplies (Appendix 7.9).	Onetime with annual review	**Director Purchasing and Supply Management**
Review potential to expand space and services to accommodate additional capacity within continuing care sector.	Annual	**Director Supported Living**/ Continuing Care Providers
Review site control centre for Continuing Care Centres (Operational Guide).	Annual	**Director Supported Living**/ Continuing Care Providers/ Director Disaster and Response Planning Services
Prioritize HCWs, contracted employees, volunteers for receipt of antivirals and/or vaccinations as per federal guidelines.	Annual	**Director HR Operations**/ DMOH-CDC
Enhance local supply of oseltamivir.	Annual	**Director Pharmacy Operations**/ DMOH-CDC
Review antiviral program policies and administration plan including readiness to rapidly implement antiviral prophylaxis in an influenza outbreak (Operational Guide).	Annual	**DMOH-CDC**/Director Health Protection/TSSI/Director Pharmacy
Review and update plan for provision of just in time training/orientation for antiviral administration clinic staff including physicians (Operational Guide).	Annual	**Director Health Protection**/ Director Pharmacy/DMOH-CDC/TSSI
Review and update mass vaccination plan (Operational Guide).	Annual	**Director Child and Youth Community Health Services**/ DMOH-CDC
Review and update plan for provision of just in time training/orientation for mass vaccination clinic staff including physicians (Operational Guide).	Annual	**Director Child and Youth Community Health Services**/ DMOH-CDC

PANDEMIC ALERT PERIOD

Phase 3: Human infection(s) with new subtype but no human to human spread or at most rare instances of spread in close contact.

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goal: Increase readiness of employees and public.

Actions	Frequency	Responsibility
Conduct table top exercise of pandemic plan.	Annual	**Director Disaster and Emergency Response Planning Services/MOH**
Review and update Mortuary and Burial Services Plan (Appendix 7.12).	Annual	**Director Disaster and Emergency Response Planning Services/MOH**

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

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goals: Activation of pandemic contingency planning arrangements.

Actions	Frequency	Responsibility
Communicate phase to public and staff.	On notification by AHW	**MOH/Communication**
Activate the Infectious Diseases Advisory Committee (Operational Guide).	As necessary	**MOH**
Provide daily reports of unusual clusters of Influenza-like illnesses (ILI) to MOH (Operational Guide).	Daily	**Director Emergency Medicine, Urgent Care Services and Health Link/RCDH Emergency Medicine/physicians, Continuing Care Centres** /DMOH-CDC/ DMOH-Surveillance
Provide information to travelers regarding signs and symptoms and seeking medical assessment if traveling to and returning from affected areas (Operational Guide).	Ongoing	**MOH/DMOH-CDC**
Activate "border" surveillance by liaising with federal quarantine officers and airport emergency responders re: surveillance .	At initiation of phase and ongoing	**MOH**
Orient new staff, including medical staff on a regular basis on personal preparedness and influenza self care.	Ongoing	**Director Disaster and Emergency Response Planning Services** /CMO/Regional Managers

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

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goals: Activation of pandemic contingency planning arrangements.

Actions	Frequency	Responsibility
Increase frequency of scheduled personal preparedness reviews with medical staff.	Annual	**CMO Office/Director Disaster and Emergency Response Planning Services**
Increase frequency of scheduled personal preparedness reviews with Regional staff .	Annual	**Operational Directors**/Director Disaster and Emergency Response Planning Services
Validate and educate members including medical members of the regional and site admission screening teams with just in time training (Operational Guide).	Every three months	**Director Admitting and Transition Services**/CMO Office/Director Rural Health
Assess and identify needs for home care services for patients likely to be discharged.	Monthly	**Director Admitting and Transition Services/Director Home Care**
Assess and identify patients likely to be discharged that are suitable to receive care in alternate care facilities.	Monthly	**Director Admitting and Transition Services/Clinical Directors/RCDHs**/CMO Office/Director Medical Outpatient Clinics and Services
Review and revise plan for provision of just in time training/orientation for alternate care staff including physicians (Operational Guide).	At time of declaration	**Director Medical Outpatient Clinics and Services**/Director Human Resources/ CMO Office
Review and revise just in time training components of individual department and service plans including medical.	At notification of phase	**Administrative Directors/ Clinical Directors/RCDHs**/ Managers/CMO

PANDEMIC ALERT PERIOD

Phase 5: Large cluster(s) but human to human spread is still localized, suggesting the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk)

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goals: Ensure Region is ready to scale up response and implement changes in triage and treatment priorities. Prevent nosocomial transmission and maintain biosafety.

Actions	Frequency	Responsibility	
		General	RACC Section
Inform public and staff regarding phase and promote influenza self care/respiratory hygiene (Appendix 7.11).	On notification by AHW	**MOH/ Communications**	**Command/ Communications**
Establish RACC (limited) (Operational Guide).	At phase initiation and ongoing	**MOH/Director Disaster and Emergency Response Planning Services**	**Command**
Advise Senior Executive and Board (Executive Policy Group) of regional risks and potential impact.	At phase initiation and ongoing	**MOH**	**Command**
Infectious Diseases Advisory Committee provides guidance and direction (Operational Guide).	Per MOH	**MOH**	**Command/ Communications**
Activate essential services plan to release staff for training.	On notification from RACC	**All Management/ CCO/MOH/VP/ EMD**	**Command/ Communications**
Communicate with and alert health care practitioners in community settings, emergency departments, walk in clinics, etc regarding assessment criteria and notification processes (Appendix 7.10).	At phase initiation and ongoing	**Director Communications/ MOH/CMO Office**	**Command/ Communications**
Communicate triage and alternate care use principles/ guidelines to physicians (Appendix 7.10).	At phase initiation and ongoing	**Director Communications/ MOH/CMO Office**	**Command/ Communications**
Stock non-traditional bed spaces (i.e day medicine, day surgery, PARR, etc).	At phase initiation	**Director Distribution Services**	**Logistics**

PANDEMIC ALERT PERIOD

Phase 5: Large cluster(s) but human to human spread is still localized, suggesting the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk)

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goals: Ensure Region is ready to scale up response and implement changes in triage and treatment priorities. Prevent nosocomial transmission and maintain biosafety.

Actions	Frequency	Responsibility	
		General	RACC Section
Activate preliminary steps for identified triage and alternate care sites using phased approach as per checklist (Operational Guide).	At phase initiation	**Director Emergency Medicine, Urgent Care Services and Health Link/ Director Medical Outpatient Clinics and Services**/Director Distribution Services/Director Corporate Real Estate	Operations/ **Logistics**
Activate recruitment plan (Operational Guide).	At phase initiation	**Director HR Operations**	**Planning**
Notify Municipalities, FNIHB, and first responders of proposed locations of triage and alternate care sites.	At phase initiation and as new sites are established	**Director Disaster and Emergency Response Planning Services**	**Liaison**
Identify and notify admin nurses, other exempt employees of potential redeployment to assigned areas (Operational Guide).	At phase initiation and monthly	**Director HR Operations**/All Directors	**Planning**
Activate enhanced surveillance tracking program (Operational Guide).	At phase initiation and ongoing	**DMOH-Surveillance**/All Directors	**Planning**
Activate enhanced occupational health surveillance (Operational Guide).	At phase initiation and ongoing	**DMOH-CDC**/All Directors	**Planning**
Schedule and implement just in time training/review for infection prevention and control skills and respiratory etiquette/isolation for staff and others as needed (Operational Guide).	At phase initiation and ongoing	**Director HR Operations**/TSSI	**Planning**/ Operations

PANDEMIC ALERT PERIOD

Phase 5: Large cluster(s) but human to human spread is still localized, suggesting the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk)

TRIGGER: Medical Officer of Health communicates phase

Regional Overall Goals: Ensure Region is ready to scale up response and implement changes in triage and treatment priorities. Prevent nosocomial transmission and maintain biosafety.

Actions	Frequency	Responsibility	
		General	RACC Section
Schedule just in time training/review for infection prevention and control skills and respiratory etiquette/ isolation for physicians (Operational Guide).	At phase initiation and ongoing	**CMO Office**/TSSI	**Planning**/ Operations
Activate disaster financial processes (Operational Guide).	At phase initiation	**Director Business Advisory Services**/Director Communications	**Finance/** Administration
Identify and notify ethics consultation team and critical incident stress management (CISM) teams.	At phase initiation	**CMO/Director HR Operations**	**Planning**/ Operations
Communicate with Chief Provincial Health Officer on regional issues and actions.	At phase initiation	**MOH**/Director Director and Emergency Response Planning Services	Executive Policy Group/Liaison

PANDEMIC PERIOD

Phase 6: Pandemic: increased and sustained transmission in general population

TRIGGER: Medical Officer of Health communicates phase because of increasing demand on emergency services or physician offices from individuals with respiratory symptoms or identification of pandemic strain through lab diagnosis.

Regional Overall Goal: Minimize the impact of the pandemic

Actions	Frequency		Responsibility
		General	RACC Section
Provide public declaration of phase to employees, public and partners.	On notification by AHW	**MOH**/Director Communication	**Command/ Communications**
Establish full RACC.	On request	**MOH**	**Command**
Provide daily updates to staff and public (Operational Guide).	Daily	**Director Communication**	**Communications**

Phase 6: Pandemic: increased and sustained transmission in general population

TRIGGER: Medical Officer of Health communicates phase because of increasing demand on emergency services or physician offices from individuals with respiratory symptoms or identification of pandemic strain through lab diagnosis.

Regional Overall Goal: Minimize the impact of the pandemic

Actions	Frequency		Responsibility
		General	RACC Section
Establish and maintain portfolio site control centres (Operational Guide).	Daily	Administrative Directors	Operations
Implement individual department plans for Pandemic.	On initiation of phase	Adminstrative Directors/All Directors/RCDHs	Operations
Implement decanting Plan when suspect case identified in Region (Operational Guide).	On initiation of phase	Operations Directors/RCDHs, Partners	Operations-Medical Branch
Implement reduced staffing model (Operational Guide).	On initiation of phase	Director HR Operations/CMO Office	Planning
Ensure licensure and privileging of volunteer medical employees and contracts for pandemic service.	On initiation of phase	CMO Office/Legal Services	Operations/ Planning
Liaise between RACC medical group and RCDH/physicians working in the region (both privileged and non privileged).	On initiation of phase and ongoing	CMO Office	Operations
Document decisions affecting operations and copy to RACC.	On initiation of phase and ongoing	CMO Office/VP/ EMD	Operations
Limit access and visitors to sites.	Daily during waves	Administrative Directors/ Managers/ Protection Services	Logistics/ Operations
Activate the regional and site admission screening teams, discharge teams and decision support teams, ethics and CISM teams.	Beginning of wave	Director Admitting and Transition Services/All Directors/ Director HR Operations/CMO Office	Operations/ Planning

Phase 6: Pandemic: increased and sustained transmission in general population

TRIGGER: Medical Officer of Health communicates phase because of increasing demand on emergency services or physician offices from individuals with respiratory symptoms or identification of pandemic strain through lab diagnosis.

Regional Overall Goal: Minimize the impact of the pandemic

Actions	Frequency		Responsibility
		General	RACC Section
Activate identified alternate care sites (Operational Guide).	On initiation of phase	**Director Medical Outpatient Clinics and Services**/ Partners	**Operations Logistics**
Activate triage centres (Operational Guide).	On initiation of phase	**Director Emergency Medicine, Urgent Care Services and Health Link**	**Operations Logistics**
Provide just in time training on disease algorithm assessment and treatment in Regional sites for reassigned staff and physicians.	Daily	**Clinical Directors/ Site Managers/ Director HR Operations/CMO Office**	**Operations**/ Medical/Planning
Provide just in time training of basic skills labs for admin nurses, retired nurse, nurses from closed units etc.	Daily	**Director Professional Practice and Development**	**Planning**
Declare commencement of antiviral administration program.	As directed by federal and provincial authority	**MOH**/Director Communications/ Director Health Protection	**Operations**/ Communications
Declare commencement of mass vaccination program (Operational Guide).	When vaccine available and as directed by federal and provincial authority	**MOH**/Director Communications/ Director Child and Youth Community Health Services	**Operations**/ Communications
Review/evaluate and revise Human Resources pandemic response plans as necessary	Between waves	**Director HR Operations**/ Clinical Directors/ RCDHs	**Planning**/ Operations

PANDEMIC PERIOD

Phase 6: Pandemic: increased and sustained transmission in general population

TRIGGER: Medical Officer of Health communicates phase because of increasing demand on emergency services or physician offices from individuals with respiratory symptoms or identification of pandemic strain through lab diagnosis.

Regional Overall Goal: Minimize the impact of the pandemic

Actions	Frequency		Responsibility
		General	RACC Section
Review and revise triage/ alternate care/essential service delivery and revise as necessary.	Weekly during waves	**Director Emergency Medicine, Urgent Care Services and Health Link / Director Medical Outpatient Clinics and Services/ Clinical Directors/ RCDHs**/CMO	**Planning**/ Operations
Identify strategies for resumption of full scope of service delivery.	During wave	**All Directors**	**Planning (Recovery)**
Surveillance – report cases, hospitalizations, deaths to AHW and Region.	Daily during waves	**DMOH-Surveillance**	**Operations**
Ensure availability of traumatic stress, support for staff, volunteers and physicians.	Daily	**All Directors/ Director HR Operations**	**Planning**

POST PANDEMIC PERIOD

Return to interpandemic period. Return of the seasonal "epidemic" cycle with major disease impact on the elderly and very young.

TRIGGER: MOH communicates phase based on lack of ongoing disease activity meeting the criteria for Phase 6. The risk assessment considers the factors that led to designation of Phase 6 as well as other potential factors..

Regional Overall Goal: Phased recovery and evaluation

Actions	Frequency	Responsibility
Implement phased approach to resumption of pre- pandemic service delivery based on assessment of current scenario.	On initiation of period and within six months	**All Directors/RCDHs**
Review and adjust services based on health care resources available as a result of loss.	Ongoing	**All Directors/RCDHs/** Director HR Operations/ CMO Office

POST PANDEMIC PERIOD

Return to interpandemic period. Return of the seasonal "epidemic" cycle with major disease impact on the elderly and very young.

TRIGGER: MOH communicates phase based on lack of ongoing disease activity meeting the criteria for Phase 6. The risk assessment considers the factors that led to designation of Phase 6 as well as other potential factors..

Regional Overall Goal: Phased recovery and evaluation

Actions	Frequency	Responsibility
Implement traumatic stress management sessions (Operational Guide).	On initiation of period and ongoing	**Director HR Operations**
Implement formal staff recognition program to recognize contributions made during pandemic (Operational Guide).	Within six months of declaration of period	**Director HR Operations**/All Directors/RCDHs
Assess pandemic surveillance activities.	On initiation of period and within six months	**MOH/ DMOH- Surveillance**
Participate in debriefings and be prepared to report on medical response.	On initiation of period and within six months	**CMO Office**
Conduct post incident analysis of all components of the pandemic plan.	Within six months	**MOH/Director Disaster and Emergency Response Planning Services**
Written report and recommendations developed and disseminated to Alberta Health and Wellness, internally and others as required.	Within six months of declaration of period	**MOH/ DMOH- Surveillance/ Director Disaster and Emergency Response Planning Services**
Liaise with Alberta Health re economic wholeness issues for physicians.	Ongoing	**CMO Office**
Review medical response plan and make necessary changes to medical planning section of plan (Operational Guide).	On initiation of period and within six months	**CMO Office**/RCDHs
Review/evaluate and revise Human Resources pandemic response plans as necessary during post or interpandemic phase (Operational Guide).	On initiation of period and within six months	**Director HR Operations**/All Directors/RCDHs

8. RESOURCES

The Calgary Health Region has access to a number of different sites providing various levels of health care from acute to long term. In addition to the current regularly used facilities, additional sites will be established for triage, alternate care, antiviral and mass vaccination services.

Municipal Contacts

Municipal contact lists have been compiled to provide ease of access to the following groups:

- administrative offices
- elected officials
- municipal directors of disaster services
- municipal directors of disaster social services
- municipal communications/public Information officers
- emergency operation centres

These lists will be updated annually by the Region's office of Disaster and Emergency Response Planning Services.

Municipal Profiles

Other municipal resources may be used to meet health service needs. Municipal profiles provide information to help make decision for accessing the best available resources to meet the goal of the health service.

These resources may include:

- recreation centres
- schools
- daycares
- churches
- funeral homes
- media outlets
- physician offices
- pharmacies
- dentist offices
- veterinarian offices
- police stations
- fire stations
- EMS providers

First Nation Contacts and Profiles

The First Nations data base includes contact information and First Nation community profiles. It has been compiled to provide ready access to the following information:

- band administration
- band directors of disaster services
- band chiefs
- health centres
- schools
- EMS providers
- police
- recreational centres
- churches

GOVERNMENT AND AGENCY REPORTS

Alberta Health and Wellness, Final Draft Clinical Subcommittee Report, Alberta Pandemic Influenza Contingency Plan, (September 24, 2003).

Alberta Health and Wellness, Final Draft Antiviral Subcommittee Report, Alberta Pandemic Influenza Contingency Plan, (September 24, 2003).

Alberta Health and Wellness, Final Draft Infection Control Subcommittee Report Alberta Pandemic Influenza Contingency Plan, (September 24, 2003).

Influenza Pandemic Planning Committee of the Communicable Diseases Network Australia New Zealand, A Framework for an Australian Influenza Pandemic Plan, Technical Report Series No 4, (June 1999 Version 1).

Calgary Health Region, Infectious Diseases Disaster Plan, (November 2004).

Calgary Health Region, Pandemic Influenza Plan Phase 1, (June 2002).

Calgary Health Region, Severe Acute Respiratory Syndrome (SARS) Management Guide, (November 2003).

Department of Communicable Disease Surveillance and Response, World Health Organization, Guidelines on the Use of Vaccines and Antivirals during Influenza Pandemics, (2004).

Department of Communicable Disease Surveillance and Response Global Influenza Programme, WHO global influenza preparedness plan (May 2005).

Department of Communicable Disease Surveillance and Response Global Influenza Programme, WHO checklist for influenza pandemic preparedness planning, (May 2005).

DH/HPIH&SD/Immunisation Policy, Monitoring & Surveillance, UK Health Departments' Influenza pandemic contingency plan, (March 2005).

Health Canada, Centre for Infectious Disease Prevention and Control, Canadian Pandemic Influenza Plan, (February 2004).

Public Health Agency of Canada, Canadian Pandemic Influenza Plan, (September 2004), http://www.phac-aspc.gc.ca/cpip-pclcpi/

Saskatoon Health Region, Saskatoon Health Region Pandemic Influenza Plan, Draft #1, (November 2004).

University Health Network, Princess Margaret Hospital, Proactive Operational Planning for Infectious Outbreak, (2004).

Vancouver Coastal Health, Vancouver Coastal Health Pandemic Influenza Plan,, (May 2005).

Winnipeg Regional Health Authority Disaster Management Program, WRHA PIP, The Winnipeg Regional Health Authority Pandemic Influenza Plan (January 2005).

Web Sites

Alberta Health and Wellness:
http://www.health.gov.ab.ca/public/pandemic/Pandemic.html

British Columbia Centre for Disease Control:
http://www.bccdc.org/content.php?item=150

Calgary Health Region:
http://www.calgaryhealthregion.ca

Calgary Health Region (demographic information):
http://www.crha-health.ab.ca/qihi/hsau/Demographic_Data/DemographicData.html

Calgary Health Region (office of the Medical Officer of Health):
http://www.calgaryhealthregion.ca/moh

Calgary Health Region (Disaster Services):
http://xwebsu.crha-health.ab.ca/derps

Fluaid:
http://www2.cdc.gov/od/fluaid/default.htm

Flusurge:
http://www.cdc.gov/flu/flusurge.htm

FluWatch (Health Canada):
http://www.hc-sc.gc.ca/pphb-dgspsp/fluwatch/index.html

Influenza (general and pandemic influenza information):
http://www.hc-sc.gc.ca/pphb-dgspsp/publicat/infor/influe_e.html

United Kingdom Department of Health:
http://www.dh.gov.uk

United States Department of Health and Human Services:
http://www.dhhs.gov/nvpo/pandemics/

World Health Organization:
http://www.who.int/csr/disease/influenza/pandemic/en/

GLOSSARY OF TERMS

A

Acute Care – services provided by physicians, health professionals and employees in hospitals and urgent care centres including emergency, general medial and surgical, psychiatric, obstetric and diagnostic services.

All Hazards Approach – an emergency system or plan that can be used during any emergency or disaster.

Alternate Care Site – a site (for influenza pandemic planning) that is not a currently established health care site or that is a site that usually offers a different type or level of care. During influenza pandemic, it is expected that alternate care sites will be needed to provide care for influenza patients and will focus on monitoring, care and support of these patients. Also known as a non-traditional care site.

Autonomy – respect for the choices of the individual.

Avian Influenza – an infection of poultry caused either by any influenza A virus which has an intravenous pathogenicity index (IVPI) in 6-week old chickens greater than 1.2 or by an influenza A virus of H5 or H7 subtype.

B

Bed (Institutional Bed) – in any institution a "bed" includes infrastructure support, including staffing, which is required to care for the patient in that "bed". Therefore the requirements for a "bed" in an intensive care unit, for example, include all the support required for a patient to be cared for at that level.

C

Communications Section – an organizational unit in an Emergency Operations Centre (see EOC) responsible for providing communications services.

Contingency Planning – the process of identifying mission-critical functions and developing advance arrangements to provide a means for insuring the continuity of those functions in the event of the loss of essential resources.

Contingency Plan – the documentation of the above process.

Critical Incident Stress Management (CISM) – a comprehensive, organized approach to the reduction and control of harmful aspects of stress.

Critical Resources – material, personnel and finances in short supply and needed by more than one incident management team or for high priority assignments .

D

Disaster – an event that results in serious harm to the safety, health or welfare of people or results in widespread damage to property.

E

Emergency Management Alberta (EMA) – a department within the provincial government that assists with emergency preparedness planning at the municipal level for northeastern Alberta.

Emergency Operations Centre (EOC) – a centralized municipal facility from which emergency operations including communication, public information, personnel and resources can be directed and/or coordinated.

Emergency Social Services – provides short-term services (generally 72 hours) to preserve the emotional and physical well being of evacuees and response workers in emergency situations.

Epidemic – an outbreak of infection that spreads rapidly and affects many individuals in a given area or population at the same time.

Epidemiology – a branch of medical science dealing with the transmission and control of disease, including the study of epidemics and epidemic diseases.

Equality – balancing service provision in a fair manner so as to best serve the health needs of individuals and of communities.

Executive Policy Group, Health Region – provides overall strategic decisions related to the health region during a major emergency or disaster. Decisions are translated into coordinated operational plans and implemented by personnel in the RACC.

F

Flu – a common, slang term for influenza infection, although it is often mistakenly used in reference to gastrointestinal and other types of clinical illness.

G/H

Health Care Workers (HCW) – professionals, including trainees and retirees, non professionals and volunteers involved in direct patient care and/or those working/ volunteering in designated health care facilities or services. During an influenza pandemic, HCWs are those whose functions are essential to the provision of patient care, and who may have the potential for acquiring or transmitting infectious agents during the course of their work. This group would also include public health professionals during a pandemic.

High Risk Groups – those groups in which epidemiologic evidence indicates there is an increased risk of contracting a disease.

I

Incident Command System (ICS) – a standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

Individual Choice – refers to the personal rights and freedoms of an individual.

Infection – condition in which organisms multiply within the body and cause a response from the host's immune defenses. Infection may or may not lead to clinical disease.

Influenza – a highly contagious infection of the respiratory tract (nose, throat, bronchial tubes, lungs) caused by the influenza virus. The illness is characterized by sudden onset, fever, cough, sore throat, malaise and general aches, and also by nausea/vomiting and diarrhea in children. In the very young, fever may not be prominent. In geriatric age groups, persons often experience fever or feverishness with chills, but these symptoms may not be prominent. Influenza viruses cause annual influenza epidemics and occasional worldwide influenza pandemics.

Influenza Virus – there are three types of influenza viruses: A, B and C. Subcategories of influenza (subtypes) are based on the configuration of two proteins on the virus surface –hemagglutinin (H) and neuraminidase (N). Subtypes of influenza A virus known to readily infect humans include H1N1, H2N2, H3N2. Avian influenza A viruses (H5N1, H7N7, H7N3, H9N2) have also recently been shown to infect humans, although they do not do so readily. The threat of pandemic influenza is related to the introduction of a new subtype of influenza A into the human population.

Influenza Like Illness (ILI) – acute onset of respiratory illness with fever and cough and one or more of sore throat, arthralgia, myalgia or prostration, which could be due to influenza.

Inpatient – an individual who receives health care services while admitted in a health care facility overnight or longer.

Isolation – the separation, for the period of communicability of the disease, of an infected person or animal from others in a place and under conditions to prevent the conveyance of the infectious agent to those others.

L

Long Term Care (LTC) – the medical and social care given to patients that have severe chronic impairment for an extended period of time.

M

Memorandum of Understanding (MOU) – same definition as letter of intent which is a written statement detailing the preliminary understanding of parties who plan to enter into a contract or some other agreement; a non committal writing preliminary to a contract.

Morbidity – illness; departure from a state of well being, either physiologic or psychological.

Morbidity Rate – the number of cases of an illness (morbidity) in a population divided by the total population at risk for that illness.

Mortality –death.

Mortality Rate – the number of people who die during a specific time period divided by the total population.

Mutation – a permanent, transmissible change in the genetic material of a cell.

N

Non-Traditional Care Site – See Alternate Care Site

Novel Virus – a new, unusually virulent strain of virus arising from a mutation, which endows the virus with the capacity to be easily transmitted from one person to another.

O

Occupational Health and Safety (OH&S) – promotes occupational health and safety and protection of workers and other persons present at workplaces from work-related risks to their health, safety, and well being.

Oseltamivir – antiviral drug effective against influenza A and B viruses that inhibits the neuraminidase protein, effectively trapping the influenza virus within the host cell and preventing it from infecting new cells. This can help in preventing infection (prophylaxis) or in reducing the duration and severity of illness once infected. It is effective if treatment is started within 48 hours of symptom onset. In Canada and the USA, oseltamivir is sold under the brand name Tamiflu®.

Outbreak – an increase in disease activity above expected levels. Also known as an epidemic. The latter term has more serious connotations.

Outpatient (OP) – an individual who receives health care services without being admitted to a health care facility.

P

Palliative – treatment, which provides symptomatic relief, but is not a cure.

Pandemic – epidemic disease of widespread prevalence around the globe.

Pediatric – relating to the medical specialty concerned with the development, care and treatment of children from birth through adolescence.

Personal Protective Equipment (PPE) – attire used by health care workers to protect against airborne or droplet exposure and against exposure to blood and body fluids. PPE generally includes masks, eye goggles, face shields, gloves, gowns and foot-covers.

Preventive Care – comprehensive type of care emphasizing priorities for prevention, early detection and early treatment of conditions, generally including routine physical examinations, immunization, and well-person care.

Prophylaxis – prevention of or protective treatment for disease.

Public Health – discipline of protecting and improving community health by means of preventive medicine, health education, communicable disease control, and the application of social and sanitary measures.

Public Health Act – an Alberta provincial statute that mandates MOHs and regulates matters of communicable disease control and sanitation for the purpose of protection of the public from health hazards.

Q

Quarantine – the limitation of freedom of movement of a susceptible person or domestic animal, suspected of being or known to have been exposed to a communicable disease, for a period of time equal to the longest usual incubation period of that disease from the last date of exposure.

R

Record – paper or electronic document that contains or is designed to contain a set of facts related to some occurrence, transaction, or the like.

Regional Administrative Control Centre (RACC) – coordinates the Region's activities and communicates directly with the EOC, Executive Policy Group, the Casualty Information Centre, and Site/Service Control Centres.

Rimantadine – antiviral agent indicated in adults for the treatment of illness due to influenza and for prophylaxis following exposure to influenza type A viruses. It has no effect against influenza type B viruses.

Risk Management – process of making and carrying out decisions that will minimize the adverse effects of injuries, accidental losses and/or liability upon the organization.

S

Site/Service Control Centre (SCC) – established for acute care sites or community portfolios to coordinate activities and respond to local issues. The Site/Service Control Centre will communicate directly with the RACC (if activated) or with appropriate administrator on call.

Strain – variation of the influenza virus within a given subtype (i.e., influenza A/Panama/H3N2, influenza A/Fujian/H3N2). New strains appear every few years and are responsible for yearly influenza outbreaks of influenza.

Subacute Care – comprehensive, cost-effective inpatient level of care for patients who: a) have had an acute event resulting from injury, illness or exacerbation of a disease process, b) have a determined course of treatment and, c) though stable, require diagnostics or invasive procedures but not intensive procedures requiring an acute level of care. Typically short term, subacute care is designed to return patients to the community or transition them to a lower level of care. Subacute care is offered in a variety of physical settings. The philosophy of subacute care is to ensure that patients are receiving the most appropriate services at the most appropriate phase of their illness while ensuring quality, cost-effective outcomes.

Surge Capacity – a health care system's ability to rapidly expand beyond normal services to meet the increased demand for qualified personnel, medical care, and public health in the event of large-scale public health emergencies or disasters.

Subtype – classification of the influenza type A viruses based on the surface proteins hemagglutinin (H) and neuraminidase (N) (see Influenza Virus).

Surveillance – the monitoring of behavior.

Symptoms – any perceptible, subjective change in the body or its functions that indicates disease or phases of disease, as reported by the patient.

T

Tamiflu® – name under which oseltamivir is marketed in Canada and the USA (see Oseltamivir).

Triage – the sorting of victims according to severity of illness or injury, and priority for transport to definitive care.

During a Mass Casualty Incident (MCI) , four (color-coded) triage categories are used in the field by EMS and in health care centres:

Immediate Care (Red) – Critical illness or injury requiring immediate care and first priority for transportation to a definitive care facility.

Delayed Care (Yellow) – Significant illness or injury which is not immediately life-threatening but will require further field stabilization and definitive care to prevent an adverse outcome.

Ambulatory (Green) – Minor (walking wounded), may need treatment at hospital, but transport may be delayed 1 to 2 hours with no detriment to patient outcome.

Dead or Unsalvageable (Black) – Dead. Not moved from scene unless rescuer is required to rescue others. May arrive as DOA at health facility.

In addition, health care centres use the following triage category:

Emotional Support (White) – Used to identify casualties who require emotional or mental health support.

Red casualties, whose injuries will result in imminent death may be designated as "Grey" patients and be admitted to the designated "Grey Area" for palliative, supportive care.

Palliative Support (Grey) – Used in hospitals only to identify casualties who are non-salvageable but not deceased.

U/V

Utility – a program or system that provides a service that is useful to the public.

Vaccination – act of administering a vaccine.

Vaccine – substance that contains antigenic components from an infectious organism. By stimulating an immune response (but not causing disease), it protects against subsequent infection by that organism.

Virus – group of infectious agents characterized by their inability to reproduce outside of a living host cell. Viruses may subvert the host cells' normal functions, causing the cell to behave in a manner determined by the virus.

Volunteers (Pandemic) – volunteer is a person registered with the Region, who carries out unpaid activities, occasionally or regularly, to help prepare for and respond to a pandemic influenza outbreak. A volunteer is one who offers their service of their own free will, without promise of financial gain, and without economic or political pressure or coercion.

W

World Health Organization (WHO) – specialized agency of the United Nations generally concerned with health and health care.

CALGARY HEALTH REGION ACRONYMS

AHW	Alberta Health and Wellness
C&WH	Child & Women's Health Porfolio
CD/CDC	Communicable Disease/Communicable Disease Control
CISM	Critical Incident Stress Management
CLS	Calgary Laboratory Services
CMO	Chief Medical Officer
CMT	Crisis Management Team
DMOH	Deputy Medical Officer of Health
ED	Executive Director
ER/ED	Emergency Room/ Emergency Department
EFAP	Employee and Family Assistance Program
EMA	Emergency Management Alberta
EMD	Executive Medical Director
EMS	Emergency Medical Services
EOC	Emergency Operations Centre
HCW	Health Care Worker
HR	Human Resources
IP&C	Infection Prevention & Control
ICS	Incident Command System
ICU	Intensive Care Unit
ILI	Influenza Like Illness
IP	In Patient
LTC	Long Term Care
MOH	Medical Officer of Health
MOU	Memorandum of Understanding
NECP	Northeast Community Porfolio
NES	Natural Emergency Stockpile (Federal)
NWCP	Northwest Community Porfolio
OH&S	Occupational Health and Safety
OP	Outpatient
PPE	Personal Protection Equipment
ProvLab	Provincial Laboratory
RACC	Regional Administrative Control Centre
RCDH	Regional Clinical Department Head
SCC	Site Control Centre
SECP	Southeast Community Portfolio
SWCP	Southwest Community porfolio
TSSI	Telus Source Solutions Incorporated
VP	Vice President
WHO	World Health Organization

7.1 POPULATION AND SERVICE IMPACT PROJECTIONS

Population Impact Scenarios

Assumptions

- Demographic data is based on 2004 statistics
- Alberta demographic adjustments[3] have been incorporated into scenario
- Ventilators have universal designation therefore can be used with any age group
- Bed capacity is based on the system capacity figures from Strategic Service Planning
  - Urban Acute Care 1,960
  - Rural Acute Care 145
  - Total 2,105
- Bed capacity does not include urban special care, nursery, rehabilitation and recovery or palliative hospice beds/spaces.

Urban System Capacity Growth (updated as of August 24, 2005)

URBAN CAPACITY

Number of Beds/Spaces	2000	2001	2002	2003	2004	2005	2006 Projected Growth
Acute Care	1,816	1,878	1,893	1,922	1,960	2,012	2,017
Special Care Nursery (NICU/SCN)	68	68	78	78	78	78	78
Long Term Care (Beds/Spaces)	4,094	4,106	4,436	4,594	4,656	4.750	4,887
Rehab & Recovery	52	150	150	170	223	245	280
Palliative & Hospice	30	30	30	30	46	60	60
Total	**6,060**	**6,232**	**6,587**	**6,794**	**6,963**	**7,145**	**7,322**

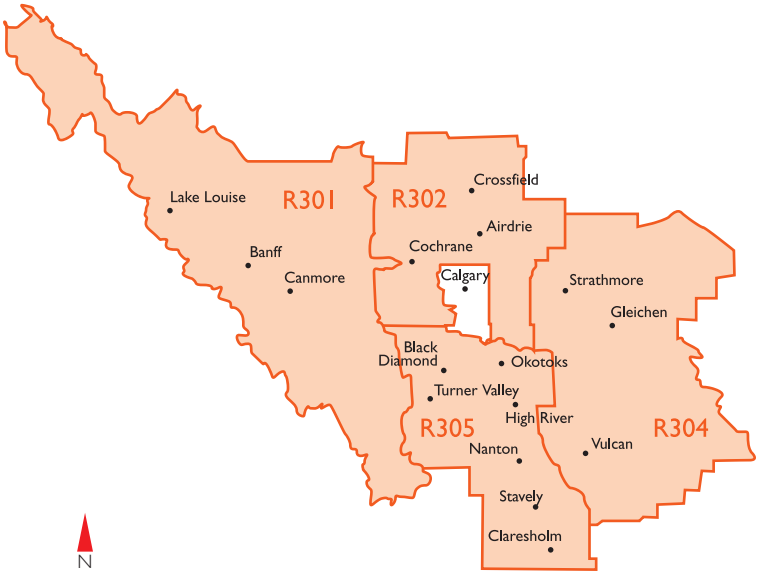
RURAL CAPACITY

Acute Care	145	145
Mental Health Rehab	100	100
Long Term Care	446	446
Total	**691**	**691**

[3] Schopflocher DP, Russell ML, Svenson LW, Thu-Ha N, Mazurenko I. 2004. Pandemic influenza planning: Using the U.S. Centers for Disease Control and Prevention FluAid software for small area estimation in the Canadian context. Annals of Epidemiology 14:73-76

• Region demographics are based on the following geographic areas:

Calgary Health Region Areas Used in Population Projections



CDC Definitions for FluAid

National Estimates of Economy Impact

To help overcome this uncertainty, a national plan is being prepared by the U.S. Department of Health and Human Services. As part of the plan, a paper is being published which provides a range of national estimates of the numbers of deaths, hospitalizations, outpatient visits, and those who will become ill but do not seek medical care (Meltzer, Cox, and Fukuda, 1999a). The authors will then use the estimates to evaluate the potential economic impact of the next pandemic, and discuss the implications of various options for intervention.

Interpretation

The categories of death, hospitalization, outpatient and stay at home are mutually exclusive. Our interpretation is that alternate care centres are non-traditional hospitals and are not represented by hospital usage values.

calgary health region IM/IT **0600 BED SUMMARY REPORT** Report Date: **2005-09-02** Report Period: **0600**

Service	ACH			FMC			PLC			RGH			Total		
	Available	Blocked	Beds	Available	Blocked	Beds	Available	Blocked	Beds	Available	Blocked	Beds	Available	Blocked	Beds
MEDICINE	0	0	0	1	16	277	0	0	140	16	4	210	17	20	627
SURGERY	0	0	0	19	8	140	0	17	125	1	14	104	20	39	369
BONE/ JOINT	0	0	0	0	2	38	0	8	40	0	5	32	0	15	110
PEDIATRICS	17	13	85	0	0	0	4	0	15	0	0	0	21	13	100
OBSTETRICS	0	0	0	0	0	36	1	0	41	0	0	38	1	0	115
SPEC CARE NURSERY	0	0	0	2	0	14	0	0	16	0	0	26	2	0	56
INT CARE NURSERY	0	0	0	8	0	22	0	0	0	0	0	0	8	0	22
PSYCHIATRY	1	3	9	3	2	77	2	0	82	10	0	70	16	5	238
SSU PSYCH – PLC	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15
NEUROSCIENCE	0	0	0	9	2	136	0	0	0	0	0	31	9	2	167
CARDIOLOGY	0	0	0	10	0	76	0	0	20	0	0	31	10	0	127
CCU	0	0	0	5	0	38	2	0	6	6	0	10	13	0	54
ICU	5	0	13	8	0	22	2	0	12	4	0	10	19	0	57
POLYTRAUMA	0	0	0	8	0	18	0	0	0	0	0	0	8	0	18
Totals	**23**	**16**	**107**	**73**	**30**	**894**	**11**	**25**	**512**	**37**	**23**	**562**	**144**	**94**	**2075**

Emergency and Direct Admissions

Date	ACH			FMC			PLC			RGH		
	Emerg	Direct	Total	Emerg	Direct	Total	Emerg	Direct	Total	Emerg	Direct	Total
2005/09/01	10	2	12	44	19	63	30	11	41	35	17	52

Total ED Visits *(number derived from ADT system)*

Date	ACH	FMC	PLC	RGH
	Total Ed Visits	Total Ed Visits	Total Ed Visits	Total Ed Visits
2005/09/01	100	168	210	174

Total Admissions

Date	ACH	FMC	PLC	RGH
	Total Admissions	Total Admissions	Total Admissions	Total Admissions
2005/09/01	14	113	98	97

Total Discharges

Date	ACH	FMC	PLC	RGH
	Total Discharges	Total Discharges	Total Discharges	Total Discharges
2005/09/01	25	116	95	100

Transfers Off Site From

Date		ACH	FMC	PLC	RGH
2005/09/01	To ACH		0	0	0
	To FMC	0		1	0
	To PLC	1	0		0
	To RGH	0	1	3	

REPORT NOTES: 1. Total Beds: Beds able to be admitted into. 2. Other ED: Patients awaiting transfer to another site.
3. Blocked Beds: Beds not available for patient use due to infection control, staffing, maintenance, etc.

Scheduled Admissions for Today

Date	ACH	FMC	PLC	RGH
2005/09/02	2	18	15	16

Day Surg Patients Scheduled for Today

Date	ACH	FMC	PLC	RGH
2005/09/02	19	12	33	11

Pending Directs for Today

Date	ACH	FMC	PLC	RGH
2005/09/02	0	5	1	1

Patients Holding as of 0600 Today

Date	SITE	ED	Other ED	PAR	ICU PAR
2005/09/02	**ACH**	0	0	0	0
	FMC	1	1	0	0
	PLC	0	0	0	0
	RGH	0	0	0	0

Ambulance Avoidances

Date	ACH	FMC	PLC	RGH
2005/09/01	0	0	0	0

Over Capacity Beds Used

Date	ACH	FMC	PLC	RGH
2005/09/01	0	0	0	0

Surgeries Cancelled

Date	ACH	FMC	PLC	RGH
2005/09/01	0	0	0	0

Pandemic Influenza Scenario Estimate

Assumptions

High Risk Prevalence Estimates (%):

Age Groups	
0-18 Years	9.4
19-64 Years	2.6
65+ Years	35.6

Source: Schopflocher DP, Russell ML, Svenson LW, Thu-Ha N, Mazurenko I. 2004. Pandemic influenza planning: Using the U.S. Centers for Disease Control and Prevention FluAid software for small area estimation in the Canadian context. Annals of Epidemiology

Death Rates (per 1,000):

	High Risk	Low Risk
Age Groups		
0-18 Years	.22	.024
19-64 Years	2.91	.037
65+ Years	4.195	.042

Source: FluAid, http://www.2a.cdc.gov/od/fluaid/default.htm

No. 1 Average length of hospital stay for influenza-related illness is 7 days.

No. 2 Average length of ICU stay for influenza-related illness is 10 days.

No. 3 Average length of ventilator usage for influenza-related illness is 10 days.

No. 4 An average of 15% of admitted influenza patients will need ICU care.

No. 5 An average of 7.5% of admitted influenza patients will need ventilators.

Source: FluAid, http://www.cdc.gov/flu/flusurge.htm

Hospitalization Rates (per 1,000):

	High Risk	Low Risk
Age Groups		
0-18 Years	2.9	0.5
19-64 Years	2.99	1.465
65+ Years	8.5	2.25

Outpatient Visitation Rates (per 1,000):

	High Risk	Low Risk
Age Groups		
0-18 Years	346	197.5
19-64 Years	109.5	62.5
65+ Years	104.5	59.5

Note: High Risk prevalence estimates are used to estimate mortality and admission rates in FluAid. FluSurge does not include High Risk prevalence as a parameter to estimate mortality and admission rates. The mortality and admission rate estimates included in the following spreadsheets were generated using FluSurge and therefore the High Risk prevalence estimates were not used.

Population at Risk For Pandemic Influenza During the First and Second Waves

POPULATION AT RISK (Based on 2004 population adjusted for software age groupings)

TABLE 1

Total Population

Age Group	301 Rural West	302 Rural North	304 Rural East	305 Rural South	Rural Total	Urban Total	CHR Full Region
0-17 Years	5,099	25,424	7,765	13,788	52,076	215,187	267,263
18-64 Years	7,198	61,405	16,387	34,820	12,910	639,230	769,040
65+ Years	1,414	7,341	2,933	6,567	18,255	886,35	106,890
Total	**23,711**	**94,170**	**27,085**	**55,175**	**200,141**	**943,052**	**1,143,193**

TABLE 2

Total population remaining at risk for influenza in the next wave after 35% Attack Rate in wave 1.

Age Group	301 Rural West	302 Rural North	304 Rural East	305 Rural South	Rural Total	Urban Total	CHR Full Region
0-17 Years	3,314	16,526	5,047	8,962	33,849	139,872	173,721
18-64 Years	11,179	39,913	10,652	22,633	84,377	415,500	499,876
65+ Years	919	4,772	1,906	4,269	11,866	57,613	69,479
Total	**15,713**	**61,513**	**17,909**	**36,169**	**130,092**	**612,984**	**743,075**

TABLE 3

Total population remaining at risk for influenza in the next wave after 15% Attack Rate in wave 1.

Age Group	301 Rural West	302 Rural North	304 Rural East	305 Rural South	Rural Total	Urban Total	CHR (Full Region)
0-17 Years	4,334	21,610	6,600	11,720	44,265	182,909	227,174
18-64 Years	14,618	52,194	13,929	29,597	110,339	543,346	653,684
65+ Years	1,202	6,240	2,493	5,582	15,517	75,340	90,857
Total	**20,455**	**80,347**	**23,326**	**47,204**	**170,120**	**801,594**	**971,714**

Table 1 reflects the population at risk for becoming ill during a pandemic based on the CHR's 2004 population. Tables 2 and 3 reflect the population that remains at risk for infection following the first pandemic wave. Table 2 is based on 35% of population becoming ill during wave 1 (a 35% attack rate). Table 3 assumes only 15% of population becomes ill during wave 1 leaving 85% of population at risk of infection in wave 2.

Pandemic Influenza Scenario Estimates – Rural/Urban All Ages

Assumptions:

	Attack Rate	Clinically ill	Outpatients	Duration	Staff Beds	ICU Beds	Ventilators
Wave 1	35%	400,118	284,012	8 weeks	2,105	57	186
Wave 2	35%	260,076	184,606	8 weeks	2,105	57	186

Estimates:

	Wave 1	Wave 2	Totals
Deaths	980	638	1,618
Admissions	5,268	3,424	8,692

WAVE1		Week									
		1	2	3	4	5	6	7	8	9	10
Hospital Admission	weekly admissions	316	527	790	1,001	1,001	790	527	316		
	peak admission/day				156	156					
Hospital Capacity	# of flu patients in hospital	316	527	790	1,001	1,052	968	749	494		
	% hospital capacity used	17	28	42	53	56	51	40	26		
ICU Capacity	# flu patients in ICU	47	101	154	204	221	215	171	118		
	% flu patients in ICU	82	177	270	358	388	377	300	207		
Ventilator Capacity	# flu patients on ventilator	24	50	77	102	110	107	85	59		
	% flu patients on ventilator	13	27	41	55	59	58	46	32		
Deaths	# deaths from flu			59	98	147	186	186	147	98	59
	# flu deaths in hospital			41	69	103	130	130	103	69	41

WAVE 2		Week									
		1	2	3	4	5	6	7	8	9	10
Hospital Admission	Weekly Admissions	205	342	514	651	651	514	342	205		
	Peak Admission/day				101	101					
Hospital Capacity	# of flu patients in hospital	205	342	514	651	684	629	487	321		
	% hospital capacity used	11	18	27	34	36	33	26	17		
ICU Capacity	# flu patients in ICU	31	65	100	133	143	140	111	77		
	% flu patients in ICU	54	114	175	233	251	246	195	135		
Ventilator Capacity	# flu patients on ventilator	15	33	50	66	72	70	55	38		
	% flu patients on ventilator	8	18	27	35	39	38	30	20		
Deaths	# deaths from flu			38	64	96	121	121	96	64	38
	# flu Deaths in hospital			27	45	67	85	85	67	45	27

7.2 DIRECTIVES AND CONTEXT FOR PLANNING

Context For Planning

The Calgary Health Region has used local, provincial and national directives and documented assumptions in support of the planning process. These are based on numerous experiences with pandemics and "pandemic scares" in the last century and are outlined in more detail in the Canadian Pandemic Influenza Plan and in the Alberta Pandemic Influenza Contingency Plan.

In general the impact of the pandemic is unpredictable and a graded response must be anticipated (AB Plan, Clinical Subcommittee Report, 2003, p.3). Therefore, this version of the Calgary Health Region Pandemic Influenza Response Plan is based on the best information available as of September 2005.

Pandemic Influenza Disease Assumptions

- It is expected that the treatment received in Canada for a person similarly ill with flu may be quite different based on differences in the health care systems, practice and health care seeking behavior (CPIP, 2004, p.38-39).
- The pandemic influenza will be spread via droplet and/or contact route (AB, Infection Control Subcommittee Report, 2003, p.9).
- A pandemic can occur in any season and is experienced in two to three sequential waves that last six to eight weeks with a three to nine month period between waves (CPIP, p.17).
- Due to increased travel and improved transportation methods, there will likely only be one to three months warning from the first global alert to local outbreak (CPIP, p.17).
- Between 15 and 35 per cent of the population are expected to be clinically affected (i.e. too ill to work and either requiring care and support at home, in hospital, or in a non traditional care site) (CPIP, p.18).
  - Based on population estimates and a worst case scenario of 35% ill in the first and second waves the Calgary Health Region can expect:
  - 660,000 people who are clinically ill;
  - 469,000 requiring outpatient care;
  - 8,700 requiring hospitalization: and
  - 1,600 deaths
- The most common complication will be pneumonia (primary viral and secondary bacterial pneumonia) (CPIP, p.224; AB Plan, Clinical Subcommittee Report, 2003, p.3).
- Non respiratory complications will also be seen (i.e., cardiovascular, neurological) but their magnitude cannot be predicted (CPIP, p.224, Clinical Subcommittee Report, 2003, p.3).
- The general "clinical case definition" for an influenza-like-illness (ILI) that applies mainly to the clinical presentation of inter-pandemic influenza, may need modification once the pandemic occurs (CPIP p.215, Clinical Subcommittee Report, 2003, p.3).
- There may be more severe influenza disease during the pandemic due to the antigenic shift of the virus (CPIP p.215, Clinical Subcommittee Report, 2003, p.3).

Responsibility Assumptions by Level of Government

- The provincial and federal governments will fulfill their responsibilities as outlined in the national and provincial pandemic influenza plans (CPIP/AB Plan).
- The principles used for the provision of health services during the pandemic will be standard throughout the province (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- A declaration of a state of a public health emergency will be made at the most appropriate level at the time of the pandemic Influenza, i.e. federal, provincial or regional with input from the appropriate health agencies. (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- Legal and liability issues will be resolved based on guidelines established by Alberta Health and Wellness (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- The Region will incur incremental costs during the pandemic and the recovery period, with compensation issues to be addressed by the provincial and federal governments (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- The operational communication channels and designated authorities for all phases of the pandemic, including those within health services, will be declared by the Calgary Health Region in consultation and agreement with the provincial and federal authorities (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- The Region, using Provincial guidelines and local assessments will determine the extent of any restrictions of community activities, including closure of schools. These decisions may impact the Plan (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).

Service Expectations and Assumptions

Between Regions and Other Organizations

- During a pandemic, it is advisable to expect a major disruption in critical community services. Regional, local and institutional planners will need to assess their health resource utilization and their health system capacity to cope during severe influenza epidemics and compare this to the estimated capacity required to respond to a pandemic for their catchment areas (CPIP, 2004, p.38).
- An influenza pandemic will be widespread, with many geographic areas affected simultaneously, therefore assistance and support from surrounding geographical areas is unlikely. This means that RHAs will need to plan to care for their population during the influenza pandemic apart from the usual patterns of referral to other regions when expertise and/or technology is not available within the region (AB Plan, Clinical Subcommittee Report, 2003, p.3).
- Remote rural and First Nation communities will have to elaborate guidelines in advance of a pandemic influenza to direct the appropriate management of patients, medical personnel, and volunteers, so that most patients can be managed in their communities, without transferring them to larger cities (AB Plan, Clinical Subcommittee Report, 2003, p.3).

- Critical care facilities already operate very near to capacity and have limited ability to increase size (due to limitations in location, employees, and equipment) (CPIP, p.15, AB Plan, Clinical Subcommittee Report 2003, p.3).
- Regional plans will be integrated to include information on resources and concerns of adjacent health regions (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).
- Contingency plans will not include the use of other essential personnel such as RCMP or local police for transportation or security (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- Transportation, utilities and communication support services will consider health services as an essential service (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- Support services and communication systems (i.e., laundry, computers and telecommunications) will be operational, however, may be difficult to access or limited in effectiveness due to employees shortages (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- The Region is expected to continue to provide and accept out of region (OOR) patients for Province Wide Services (PWS), and for specialized services within our catchment areas (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).
- Health authorities will lead the pandemic response in terms of surveillance, vaccine usage, use of antivirals and public health measures (CPIP, 2004, p.40).
- Oximeters, ventilators and other respiratory support equipment must be rationed because of the number of patients with advanced respiratory distress (CPIP, 2004, p.39).
- Implication of potential measure for an influenza pandemic, ranging from local school closure to quarantine recommendations, must be recognized by all potential stakeholders and discussed during the inter-pandemic period (CPIP, 2004, p.41).

Communication

- During a pandemic two main messages will need to be expressed: what the Region is doing and what the public can do (CPIP, 2004. p.42).
- Due to the broad scope of media that would become involved in an influenza pandemic, the Region will need to focus on information management and consider meeting the public demand for information, acknowledging the limits of government capacity to solve every problem and using consistent and complimentary messages (CPIP, 2004, p.42).
- All governments should prepare to conduct their communications and public relations activities in a manner designed to retain public confidence, minimize disruption and anxiety (CPIP, 2004, p.44).
- All levels of government should agree to key messages and the role of spokespersons at all levels (CPIP, 2004, p.44).

Staffing

- During the pre-pandemic period RHAs will need to develop educational strategies to prepare health care workers so that they can deliver antiviral medications during an influenza pandemic (AB, Antiviral Subcommittee Report, 2003, p.6).
- In influenza epidemics and pandemics it is important to consider that while the waves of the pandemic tend to last for six to eight weeks in any locality, the demand on the health care system will not be at a constant rate (CPIP, 2004, p.39).
- It will be a challenge for acute care facilities to manage high ward census, high intensive care unit census, and high emergency department volumes in the face of reduced availability of health care workers and limited respiratory support equipment (CPIP, 2004, p.39).
- Healthcare workers and volunteers will be providing direct patient care and require ongoing education to reinforce infection prevention and control skills (AB, Infection Control Subcommittee Report, 2003, p.9).
- A large portion of the Region's workforce will be affected either directly (i.e. too ill to work) or indirectly (i.e. providing care for others in home) (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- Health care workers will require critical incident stress management during and after the pandemic (CPIP, 2004, 364, Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2, 6-30).
- All bargaining units, professional associations and health care workers will work cooperatively during the state of emergency (CPIP, 2004).
- Alberta Health and Wellness will investigate legal issues during the pre-pandemic period. These will include:
  - enactment of legislation such as declaring a State of Emergency
  - use of health care workers and volunteers in doing alternative work
  - conscription of workers
  - liability/insurance/temporary licensing issues for health care workers/volunteers working in alternate positions or a non-traditional setting are considered (CPIP, 2004, p.363-364, AB Plan)
- Alternate health care workers will be categorized and inventoried in advance (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).
- Call-in and training guidelines by care levels and sites will be available (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).
- Employee and volunteer resources will support the health services plan in a cooperative manner (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).

Surveillance

- Since surveillance data will drive the pandemic response it is important that physicians and other health care workers are educated and updated on an ongoing basis about the importance of influenza-like-illness (ILI) surveillance (Canadian Pandemic Influenza Plan, 2004, p.30).
- Surveillance systems must be established in advance of a pandemic as there will be little time to augment capacity at the time (CPIP, 2004, p.30).

- The intensity and method of virologic surveillance will differ depending on the phase of the pandemic (CPIP, 2004, p.30).
- After the virus has spread throughout the country, virologic surveillance must continue in order to track the intensity of virus activity and detect any changes in the virus, including the development of resistance to antiviral drugs in different populations (CPIP, 2004, p.30).

Standards

- There will be a need to collect, analyze and disseminate information in a timely fashion related to health services during the pandemic (Pandemic Influenza Stakeholder Forum, September 14, 2002; p.18).
- Protocol development (including admission and discharge criteria), care documentation, and data collection will be based on existing guidelines and will be both standardized and coordinated (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-20).
- The triage system developed in the Calgary Health Region is based on available guidelines, the community structures and the need to minimize congregation at public events (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p. 6-1).
- There are protocols available to assist in the appropriate management of patients with pneumonia and for expediting extubation of patients on ventilators (AB Plan, Clinical Subcommittee Report, 2003, p.4).

Treatment and Care

- Self care is an element of triage and used as the foundation for maximizing health service provision (AB Plan, Clinical Subcommittee Report, p.17).
- Hospital facilities should be maximally utilized before alternate care facilities (AB Plan, Clinical Subcommittee Report, 2003, p.3).
- Hospitalization will be used only for patients whose care requirements warrant inpatient care (AB Plan, Clinical Subcommittee Report, p.6-20).
- The Region's plan examined the potential for an increase of 25% over current bed capacity through the use of alternate care sites and/or space at acute care sites (Pandemic Influenza Advisory Committee, June 2005).
- Elective medical and surgical admissions will need to be prioritized and possibly cancelled to meet some of the increased demands (CPIP, 2004, p.39).
- Difficult decisions about who to provide care to, in the face of extreme resource limitations, will need to be made (AB Plan, Clinical Subcommittee Report, 2003, p.3).
- The Region is expected to continue to experience other emergencies (i.e., traumas, heart attacks, fractures) (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).
- Appropriate infection control guidelines will be used to reduce the spread of infection to patients, employees and the community (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).
- An ambulatory ill person in the community will look to the media for information, will seek self-help and/or telephone advice, will be likely to see the usual caregiver and may need to go to an influenza triage centre (AB Plan, Clinical Subcommittee Report, 2003, p.3).

- The best possible care will be provided to citizens of the Region with influenza, based on the resources available at the time (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- It may be necessary to establish triage centres to avoid congestion at hospital emergency departments (AB Plan, Clinical Subcommittee Report, p.3).
- During a pandemic, LTC facilities should plan to enhance care within sites as much as possible rather than send ill residents to hospitals (AB Plan Clinical Subcommittee Report, p.3).
- Non-essential health services will be suspended to release personnel for the response to pandemic influenza plans and initiatives (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.1-2).
- All Albertans will have equitable access to ICU/ventilators/antibiotics, etc. within the guidelines and resources available. These resources will be in extremely short supply (AB Plan, Clinical Subcommittee Report, p.17).
- Due to volume and range of illness in population affected, different levels of care will be required, i.e. self-care (home), group care in community (alternate care centers) and intense health care (those requiring inpatient acute care) (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).
- All elective non-essential services will be suspended until the pandemic has been declared finished by the regional and/or provincial authorities (Calgary Health Region Working Groups Pandemic Influenza Plan, 2002, p.6-1).

Logistics

- Pandemic influenza has been associated with excess mortality and it is essential for jurisdictions to include a corpse management plan as part of the pandemic plan (CPIP, 2004, p.39).

Antiviral and Vaccine

- When a vaccine becomes available, initial supplies will not be sufficient to immunize the whole population and prioritization for vaccine administration will be necessary (CPIP, 2004, p.33).
- There is a need for public education in regards to the use of antivirals and the rationale for the target group receiving antivirals (AB, Antiviral Subcommittee Report, 2003, p.6).
- For vaccine program planning purposes it is important to be prepared to immunize 100% of the population; however the actual proportion of the population that will voluntarily seek out vaccination will depend on the public perception of risk and severity of the disease (CPIP, 2004, p.33).
- Antivirals will be needed for the first wave as no vaccine will likely be available. Antivirals may be in short supply for assigned employees or may not be effective against the virus (CPIP, 2004 p.351).
- Antivirals (anti-influenza drugs) may be effective for both treatment and prophylaxis and may have a role as an adjunctive strategy to vaccination for the management of pandemic influenza (CPIP, 2004, p.34).

- Antiviral interventions will need to target specific populations, given that anticipated supply will be lower than anticipated demand (CPIP, 2004, p.35).
- During a pandemic, antiviral strategies should utilize all anti-influenza drugs available to Canadians and be adaptable to changing disease epidemiology and vaccine availability (CPIP, 2004, p.35).
- Vaccination of susceptible individuals is the primary means to prevent disease and death from influenza during an epidemic and pandemic (CPIP, 2004, p.30).
- At the time of a pandemic, it is assumed that monovalent vaccines containing only the pandemic strain will be used (CPIP, 2004, p.32).
- During an influenza pandemic antiviral medication will be used to treat seriously ill influenza patients and as a prophylactic to protect at risk individuals, health care workers, and essential service providers until vaccine is available (AB, Antiviral Subcommittee Report, 2003, p.6).
- Stockpiling of antivirals and other drugs will be required if they are to be available in the quantities needed during a pandemic (AB Plan, Clinical Subcommittee Report, 2003, p.4).
- A quantity of antiviral medication beyond that which is normally available will have to be called upon to supply priority groups (AB, Antiviral Subcommittee Report, 2003, p.6).
- Antiviral medications will be distributed through the public health system in a similar manner to that currently used for the delivery of influenza vaccines (AB, Antiviral Subcommittee Report, 2003, p.6). (Note this will be in accordance with the priority groups for antivirals)
- Recognizing that the current public health distribution system is not developed for "treatment" activities, attention will need to be given to developing ways of providing antiviral medications (AB, Antiviral Subcommittee Report, 2003, p.6).
- It may be feasible for public health to deliver antiviral medications in conjunction with pharmacies, in smaller areas (AB, Antiviral Subcommittee Report, 2003, p.6).
- Delays in production of pandemic vaccine seed strains may occur, as highlighted by the difficulties encountered in trying to produce a vaccine against the H5N1 virus involved in the 1997 Hong Kong outbreak. As a consequence, vaccine may not be available when the first wave of pandemic strikes Canada (CPIP, 2004, p.32).

7.3 DECLARATION OF A PUBLIC HEALTH EMERGENCY

Declaration of "Local Public Health Emergency"

A state of local public health emergency can be initiated by the Lieutenant Governor in council on the advice of the Provincial Chief Medical Officer if he/she believes a public health emergency exists. Notwithstanding, on the advice of the Regional Medical Officer of Health and in consultation with the Provincial Chief Medical Officer, a Regional Health Authority may declare a State of Local Public Health Emergency to access powers under Section 52.6(1) of the Public Health Act.

The process for declaration and management of a declared local public health emergency and the extraordinary powers associated with it are as follows:

Step 1 The Medical Officer of Health (MOH) will consult the Provincial Chief Medical Officer regarding the need to access powers under the Public Health Act.

Step 2 After consultation with the Provincial Chief Medical Officer, the MOH will prepare the "Declaration of a State of Local Health Emergency" and request the Regional Health Board be called to order.

Step 3 The Board on being satisfied, will issue the Declaration pursuant to Sections 52.2(1) and 52.3 of the Public Health Act.

Step 4 The Chair of the Board, immediately after making the declaration of a state of public health emergency must forward a copy of the declaration to the Minister of Health. (52.5)

Step 5 The details of the order are to be published by any means of communication the Calgary Health Region considers will make the details known to the majority of the population. (52.4)

Step 6 The Chair of the Board must ensure the authority to exercise the extraordinary powers granted under Section 52.6(1) of the Public Health Act, has been delegated in writing to the appropriate person(s) or agencies.

Step 7 If necessary, the Chair of the Board on the written advice of the Medical Officer of Health, at 30 days or less, may issue an extension of the order under Section 52.81(3)b of the Public Health Act for an additional 30 days.

Step 8 When on the advice of the Medical Officer of Health and in consultation with the Provincial Chief Medical Officer, a Regional Health Authority considers that a public health emergency no longer exists in an area in relation to which an order under Section 52.2 was made, the Chair of the Board shall make an order terminating the declaration in respect of that area.

Step 9 The Chair of the Board will notify the Minister of the cancellation and will publish the cancellation order.

Notes:

- On the making of an order under Section 52.2 of the Public Health Act, the Regional Health Authority may do any or all of the following for the purpose of preventing, combating, or alleviating the effects of the public health emergency and protecting public health:
  a) acquire or use any real or personal property;
  b) authorize or require any qualified person to render aid of a type the person is qualified to provide;
  c) authorize the conscription of persons needed to meet an emergency;
  d) authorize the entry into any building or on any land, without warrant, by any person;
  e) provide for the distribution of essential health and medical supplies and provide, maintain, and coordinate the delivery of health services.
- Where the Minister or a Regional Health Authority acquires or uses real or personal property under Section 52.6 or where real or personal property is damaged or destroyed due to the exercise of any powers under that section, the Minister or Regional Health Authority shall pay reasonable compensation in respect of the acquisition, use, damage or destruction. 52.7(1)
- If any dispute arises concerning the amount of compensation payable under subsection (1) the matter is to be determined by arbitration, and the Arbitration Act applies in such a case. 52.7(2)

An order under Section 52.2 ceases to be of any force or effect on the making of an order under Section 52.1 relating to the same area of the health region.

Pro Forma

Declaration of a State of Local Public Health Emergency

ORDER

WHEREAS [description of health emergency] _____

_____

_____in _____ in the Province of Alberta.

(Locale /Region)

AND WHEREAS [explanation of ongoing or imminent threat to life or health];

AND WHEREAS the health emergency requires prompt coordination of action or special regulation of persons or property to protect the health, safety, or welfare of people;

IT IS HEREBY ORDERED pursuant to Section 52 of the Public Health Act Chapter P-37 that a state of local health emergency exists due to (short health description) _____ and (short consequence statement)

_____

in (area description) _____.

IT IS FURTHER ORDERED THAT the Calgary Health Region, its employees, servants and agents are empowered pursuant to Section 52.6(1) of the Public Health Act Chapter P-37 to do all acts and implement all procedures that are considered necessary to prevent or to alleviate the local health emergency.

ORDERED by _____on this _____ day of _____, 200___.

Extension of Order

"State of Local Public Health Emergency"

WHEREAS life and public health remain at risk due to (description of health emergency) _____ in (description area) _____ _____ ;

AND WHEREAS the Medical Officer of Health for the Calgary Health Region has requested authority to further extend the duration of the declaration of a State of Local Health Emergency due to expire on _____day of _____, 200___.

IT IS HEREBY APPROVED pursuant to Section - 52.81(3) of the Public Health Act that (description of area) _____ may extend the duration of the State of Local Health Emergency for (up to 30 days) _____ day from the _____day of _____, 200___ to the _____day of _____, 200___.

APPROVED BY _____, Chair of Board, Calgary Health Region on this _____ day of _____, 200___.

Termination

of

"State of Local Public Health Emergency"

WHEREAS life and public health no longer remain at risk due to (description of health emergency) _____

in _____ ;
(Locale / Region)

AND WHEREAS the Medical Officer of Health for the Calgary Health Region has requested termination of the declaration of the state of local emergency due to expire on the _____day of _____, 200___.

IT IS HEREBY APPROVED pursuant to Section 52.81(5) of the Public Health Act that _____state of local public health emergency be terminated this
(Locale / Region)

day of _____, 200___.

APPROVED BY _____Chair of Board, Calgary Health Region on this _____, day of _____, 200___.

7.4 REGIONAL ADMINISTRATION CONTROL CENTRE ROLES AND RESPONSIBILITIES

Regional Administrative Control Centre (RACC) Roles and Responsibilities

A number of different roles have been identified for individuals working in the RACC. Details on these roles can be found at the Disaster Services website: https://xwebsu.crha-health.ab.ca/derps/controlctr/racc.htm

Role Checklists:

Incident Command Employees

- Regional Incident Coordinator
- Regional Communication Advisor
- Regional Liaison Officer
- Regional Safety Security/Risk Management Officer

Finance/Administration

- Finance and Admin Chief
- Cost Unit Leader
- Compensatory Unit Leader

Logistics Section

- Logistics Chief
- Facilities Leader
- Support Services Leader
- Critical Engineering Leader

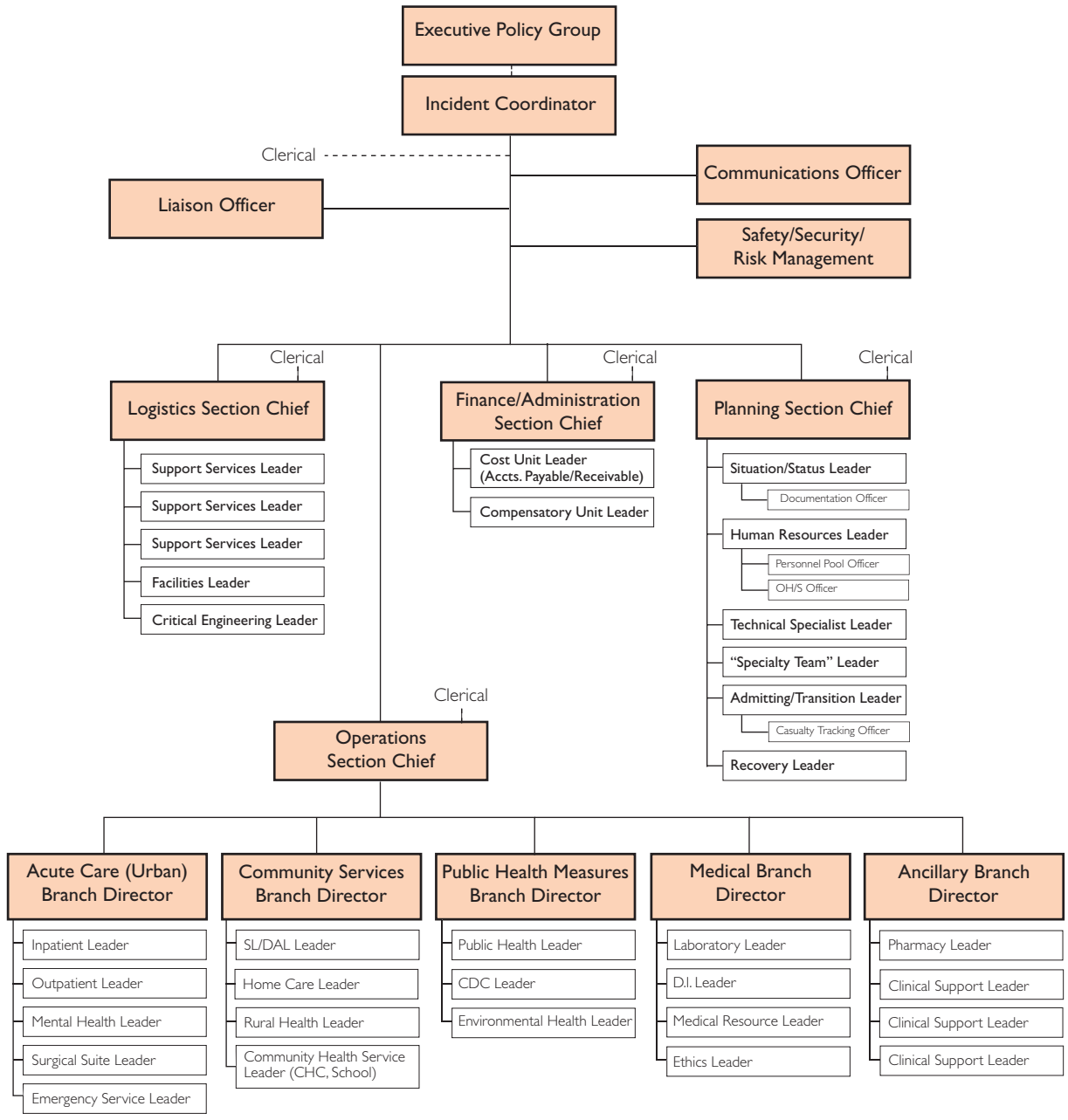
Operations Section

- Operations Chief
- Acute Care (Urban) Branch Director
- Community Services Branch Director
- Public Health Measures Branch director
- Medical Branch Director
- Ancillary Branch Director

Planning Section

- Planning Chief
- Human Resources Leader
- Recovery Leader
- Situation Status Leader
- Technical Specialist Leader
- Admitting/Transition Leader
- "Speciality Team " Leader

Regional Administrative Control Centre: Organizational Structure



7.5 PORTFOLIO RESPONSIBILITIES BY PHASE

Key Response by Phase and Portfolio

NORTHWEST COMMUNITY PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3,4,5)
Annual Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review/validate that the service allocations for essential, necessary, valued and desired services are accurate.
- ❑ Develop and review department plan for management during an influenza pandemic including operational structure and staffing models for pandemic and non pandemic essential service provisions by site and regionally.
- ❑ Review and update process/criteria for:
  – admitting/discharging patients,
  – canceling elective procedures/diagnostics, and
  – setting priorities for service.
- ❑ Review and update plans to maximize internal bed capacity (ward use, cohorting, day procedure areas).
- ❑ Review and update clinical management and patient assignment algorithms
- ❑ Ensure that new employees are informed of the plan and if necessary have received specific education (i.e., personal preparedness including influenza self care, respiratory etiquette, infection prevention and control skills).
- ❑ Maximize employees and physician participation in annual influenza vaccination plan.

(Pandemic Alert Period – Phase 3)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review and update employee model for provision of reduced health care services by type of service and/or site.
- ❑ Review and update employee requirements, levels and schedules.

Director Emergency Medicine, Urgent Care Services and Health Link
– Ensures completion of the following:

- ❑ Review/revise staffing plans for human and other resources for Health Link and phone triage use.
- ❑ Review/revise plan for provision of real time training/orientation for employees.
- ❑ Review/revise staffing pans for human and other resources for triage centres.
- ❑ Review/revise plan for provision of real time training/orientation for employees assigned to triage centres.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review personal preparedness with employees more frequently.
- ❑ Review and revise just in time training component of individual department and service plans including medical.
- ❑ Provide daily reports of unusual clusters of influenza-like illnesses (ILI) to MOH from Emergency Departments, Urgent Care Centres, Diagnostic Imaging, CLS, Renal, Neurosciences.
- ❑ Coordinate and schedule just in time training/review for infection prevention and control, and respiratory etiquette/isolation for employees and physicians.

Director Emergency Medicine, Urgent Care Services and Health Link
– Ensures completion of the following:

- ❑ Review/revise the establishment of Triage centres pandemic plan confirming all assumptions, sites, validating resource requirements including both staffing and supplies (done in conjunction with Human Resources and Supply Management).

Director Admitting and Transition Services
– Ensures completion of the following:

- ❑ Validate and educate members including medical members of the regional and site admission screening teams with just in time training.
- ❑ Assess and identify needs for home care services for patients likely to be discharged.
- ❑ Assess and identify patients likely to be discharged that are suitable to receive care in alternate care facilities.

Clinical Directors/RCDHs
– Ensures completion of the following:

- ❑ Validate and educate employees including medical members of the regional and site admission screening teams with just in time training.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Activate essential services plan to release employees for training.
- ❑ Participate in RACC as requested.

Director Emergency Medicine, Urgent Care Services and Health Link
– Ensures completion of the following:

- ❑ Activate preliminary steps for identified triage sites.
- ❑ Review/update the validity of the self care algorithm on Health Link.

Director Critical Care

– Ensures completion of the following:

- ❑ Update and review the availability of ventilators.
- ❑ Update and review the appropriateness of alternate areas of care (i.e., PARR. Day Surgery) to potentially expand service space.

(Pandemic Period – Phase 6)
Additional Tasks:

VP/EMD

– Ensures completion of the following:

- ❑ Document decisions affecting operations and send a copy to RACC.
- ❑ Provide support to RACC as requested.
- ❑ Provide support to Site Control centres as requested
- ❑ Provide support to the regional and site admission screening and discharge teams.
- ❑ Provide support to the triage centres and alternate care centres as directed.
- ❑ Implement reduction of services and move to only essential services when directed to do so.

Administrative Director in Conjunction with Clinical Directors

– Ensures completion of the following:

- ❑ Establish and maintain portfolio site control centres.
- ❑ Limit access and visitors to sites.
- ❑ Identify strategies for resumption of full scope of service delivery.
- ❑ Ensure availability of traumatic stress support for employees, volunteers and physicians.
- ❑ Review and revise essential service delivery and revise as necessary.

Director Emergency Medicine, Urgent Care Services and Health Link

– Ensures completion of the following:

- ❑ Activate triage centres.
- ❑ Review and revise triage service delivery and revise as necessary.

Director Admitting and Transition Services

– Ensures completion of the following:

- ❑ Activate regional and site admission screening and discharge teams.

Clinical Directors/RCDHs

– Ensures completion of the following:

- ❑ Implement individual department plans for pandemic.
- ❑ Implement decanting plan.
- ❑ Activate the regional and site admission screening teams, discharge teams and decision support teams i.e. ethics and CISM teams.
- ❑ Provide just in time training on disease algorithm, assessment and treatment in regional sites for reassigned employees and physicians.

(Post Pandemic Period)
Additional Tasks:

VP/EMD – Ensures completion of the following:

- ❑ Implement phased recovery plan.
- ❑ Evaluate and revise pandemic response plans as necessary.
- ❑ Ensure appropriate critical incident stress management sessions available to employees and physicians.
- ❑ Participate in employees recognition programs to acknowledge contributions during pandemic.
- ❑ Participate in debriefing and be prepared to report on department/program response.

SOUTHEAST COMMUNITY PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3, 4, 5)
Annual Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review/validate that the designations of essential, necessary, valued and desired services are accurate.
- ❑ Develop and review department plan for management during an influenza pandemic including operational structure and staffing models for pandemic and non pandemic essential service provisions by site and region.
- ❑ Review and update process/criteria for:
  – admitting/discharging patients,
  – cancelling elective procedures/diagnostics, and
  – setting priorities for service.
- ❑ Review and update plans to maximize internal bed capacity (ward use, cohorting, day procedure areas).
- ❑ Review and update clinical management and patient assignment algorithms
- ❑ Ensure that new employees are informed of the plan and if necessary have received specific education (i.e., personal preparedness including influenza self care, respiratory etiquette, infection prevention and control skills).
- ❑ Maximize employees and physician participation in annual influenza vaccination plan.
- ❑ Review contracts for inclusion of MOU regarding clinical services and relationships during an influenza pandemic.

(Pandemic Alert Period – Phase 3)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review and update employee model for provision of reduced health care services by type of service and/or site.
- ❑ Review and update employee requirements, levels and schedules.

Director Rural Health
– Ensures completion of the following:

- ❑ Increase communication with Hutterite colonies, First Nations, community agencies and Community Health councils.

Director Supported Living Services
– Ensures completion of the following:

- ❑ Review potential to expand space and services to accommodate additional capacity within continuing care sector.
- ❑ Review site control centre(s) for continuing care centres.

Director Health Protection – Ensures completion of the following:

- ❑ Review and update plan for provision of real time training/orientation for antiviral administration clinic employees including physicians.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors – Ensures completion of the following:

- ❑ Review personal preparedness with employees more frequently.
- ❑ Review and revise just in time training component of individual department and service plans including medical.
- ❑ Coordinate and schedule just in time training/review for infection prevention and control, and respiratory etiquette/isolation for employees and physicians.

Director Rural Health – Ensures completion of the following:

- ❑ Validate and educate employees, including medical members of the regional and site admission screening teams, with just in time training.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors – Ensures completion of the following:

- ❑ Activate essential services plan to release employees for training.
- ❑ Participate in RACC as requested.

(Pandemic Period Period - Phase 6)
Additional Tasks:

VP/EMD – Ensures completion of the following:

- ❑ Provide support to the RACC as requested.
- ❑ Provide support to the Site Control centres as requested .
- ❑ Provide support to the regional and site admission screening and discharge teams.
- ❑ Provide support to the triage centres and alternate care sites as directed.
- ❑ Implement reduction of services and move to only essential services when necessary.
- ❑ Document decisions affecting operations and send a copy to RACC.

Administrative Director in Conjunction with Clinical Directors – Ensures completion of the Following:

- ❑ Establish and maintain portfolio Site Control centres.
- ❑ Limit access and visitors to sites.
- ❑ Identify strategies for resumption of full scope of service delivery.
- ❑ Ensure availability of traumatic stress support for employees, volunteers and physicians.

Clinical Directors RCDHs

– Ensures completion of the following:

- ❑ Implement individual department plans for pandemic.
- ❑ Implement decanting plan.
- ❑ Activate the regional and site admission screening teams, discharge teams and decision support teams ie. ethics and CISM teams.
- ❑ Provide just in time training on disease algorithm, assessment and treatment in regional sites for reassigned staff and physicians.

Director Health Protection

– Ensures completion of the following:

- ❑ Activate antiviral administration program as required.

(Post Pandemic Period)
Additional Tasks:

VP/EMD – Ensures completion of the following:

- ❑ Implement phased recovery plan.
- ❑ Evaluate and revise pandemic response plans as necessary.
- ❑ Ensure appropriate critical incident stress management sessions available to employees and physicians.
- ❑ Participate in employees recognition programs to acknowledge contributions during pandemic.
- ❑ Participate in debriefing and be prepared to report on department/program response.

OFFICE OF THE MEDICAL OFFICER OF HEALTH PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
Annual Tasks:

Medical Officer of Health

– Ensures completion of the following:

- ❑ Advise and support business, industry and municipalities in developing pandemic influenza response plan.

Deputy Medical Officer of Health (CDC)

– Ensures completion of the following:

- ❑ Monitor, review and report local influenza activity and outbreaks weekly as per regular program of reporting.
- ❑ Share Influenza activity and epidemiology with regional internal and external partners, provincial partners and federal partners as per reporting structure
- ❑ Promote annual target influenza vaccination rates and plans for regional employees; medical employees including residents and medical students, long term care residents, health care providers, at risk individuals and their household contacts.
- ❑ Review and revise the number of eligible individuals in priority groups (as assigned by federal directives) for antivirals and vaccines.
- ❑ Review and revise plans for employees risk issues related to antiviral and vaccine administration.
- ❑ Review antiviral and vaccine storage locations and capacity.
- ❑ Implement Region's outbreak control guidelines for all sites experiencing an outbreak.
- ❑ Review regular antiviral administration program as per annual influenza management program.

Deputy Medical Officer of Health (Surveillance)

– Ensures completion of the following:

- ❑ Develop evaluation framework and data collection process for evaluating impact of pandemic influenza and response.

(Pandemic Alert Period – Phase 3)
Annual Tasks:

Deputy Medical Officer of Health (CDC)

– Ensures completion of the following:

- ❑ See Inter pandemic period

Additional Tasks:

Medical Officer of Health

– Ensures completion of the following:

- ❑ Inform employees, public and partners that WHO has declared Phase 3 and provides periodic updates.

Deputy Medical Officer of Health (CDC)
– Ensures completion of the following:

- ❑ Initiate enhanced surveillance of local influenza activity and timely reporting of outbreaks.
- ❑ Review antiviral program policies and administration plan including readiness to rapidly implement antiviral prophylaxis in an influenza outbreak.

Deputy Medical Officer of Health (Surveillance)
– Ensures completion of the following:

- ❑ Review and disseminate enhanced surveillance processes with Emergency departments, Urgent Care centres, physician, schools, etc.
- ❑ Review and update evaluation framework and data collection processes and methodology for evaluating impact of influenza and response.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

Medical Officer of Health
– Ensures completion of the following:

- ❑ Collaborate with Communications to communicate phase to public and employees.
- ❑ Activate the Infectious Diseases Advisory Committee as necessary.
- ❑ Provide information to travelers regarding signs and symptoms and seeking medical assessment if traveling to and returning from affected areas.
- ❑ Activate "border" surveillance by liaising with federal quarantine officers and airport emergency responders re: surveillance.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Medical Officer of Health
– Ensures completion of the following:

- ❑ Inform public and employees regarding phase and promote influenza self care and respiratory hygiene as assisted by Communications.
- ❑ Advise senior executive and board (Executive Policy Group) of regional risks and potential impact.
- ❑ Establish limited RACC.
- ❑ Use Infectious Diseases Advisory Committee to provide guidance and direction as required.
- ❑ Communicate with Chief Provincial Health Officer on regional issues and actions.

Deputy Medical Officer of Health (CDC) – Ensures completion of the following:

- ❑ Activate enhanced surveillance program.
- ❑ Activate enhanced occupational health surveillance.

(Pandemic Alert Period – Phase 6)
Additional Tasks:

Medical Officer of Health

– Ensures completion of the following:

- ❑ Provide public declaration of phase six to employees, public and partners on notification by Alberta Health and Wellness.
- ❑ Establish full RACC.
- ❑ Lead public health measures implementation through RACC.
- ❑ Declare commencement of antiviral administration program.
- ❑ Declare commencement of mass vaccination program.

Deputy Medical Officer of Health (CDC)

– Ensures completion of the following:

- ❑ Support and provide consultation regarding public health measures implementation through RACC .

Deputy Medical Officer of Health (Surveillance)

– Ensures completion of the following:

- ❑ Provides surveillance reports on cases, hospitalizations, deaths or indicators as directed to Alberta Health and Wellness and the Region.

(Post Pandemic Period)
Additional Tasks:

Medical Officer of Health

– Ensures completion of the following:

- ❑ Assess pandemic surveillance activities.
- ❑ Develop written report and recommendations and disseminate to Alberta Health and Wellness, internally and to others as required.
- ❑ Conduct post incident analysis of all components of the Pandemic Plan.

NORTHEAST COMMUNITY PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3)
Annual Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review/validate that the service allocations for essential, necessary, valued and desired services are accurate.
- ❑ Develop and review department plan for management during an influenza pandemic including operational structure and staffing models for pandemic and non pandemic essential service provisions by site and regional.
- ❑ Review and update process/criteria for:
  – admitting/discharging patients,
  – canceling elective procedures/diagnostics, and
  – setting priorities for service.
- ❑ Review and update plans to maximize internal bed capacity (ward use, cohorting, day procedure areas).
- ❑ Review and update clinical management and patient assignment algorithms.
- ❑ Ensure that new employees are informed of the plan and if necessary have received specific education (i.e., personal preparedness including influenza self care, respiratory etiquette, infection prevention and control skills).
- ❑ Maximize employees and physician participation in annual influenza vaccination plan.

Director, Infection Prevention and Control
– Ensures completion of the following:

- ❑ Consistently implement outbreak control measures as per Region's outbreak guidelines for regional facilities.
- ❑ Review/revise plan for provision of just in time training/orientation for infection prevention and control for employees.
- ❑ Promote and ensure infection prevention and control skills are current for all employees including medical employees.

Director, Medical Outpatient Clinics and Services
– Ensures completion of the following:

- ❑ Review alternate care site locations for continued appropriateness and availability
- ❑ Review alternate care staffing models and plans for appropriateness.

(Pandemic Alert Period – Phase 3)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review and update staffing model for provision of reduced health care services by type of service and/or site.
- ❑ Review and update staffing requirements, levels and schedules.

Director, Medical Outpatient Clinics and Services
– Ensures completion of the following:

- ❑ Review/revise plans for human and other resources in alternate care sites.
- ❑ Establish plan for provision of just in time training/orientation for alternate care site employees including physicians.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

Administrative Directors in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review personal preparedness with employees more frequently.
- ❑ Review and revise just in time training component of individual department and service plans including medical.
- ❑ Provide daily reports of unusual clusters of influenza-like illnesses (ILI) to MOH.
- ❑ Coordinate and schedule just in time training/review for infection prevention and control, and respiratory etiquette/isolation for employees and physicians.

Director, Medical Outpatient Clinics and Services
– Ensures completion of the following:

- ❑ Review/revise plan for provision of just in time training/orientation for alternate care site employees including physicians.

Clinical Directors/RCDHs
– Ensures completion of the following:

- ❑ Validate and educate employees including medical members of the regional and site admission screening teams with just in time training.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Activate essential services plan to release employees for training.
- ❑ Participate in RACC as requested.

Director, Medical Outpatient Clinics and Services
– Ensures completion of the following:

- ❑ Activate preliminary steps for identified alternate care sites.

(Pandemic Period – Phase 6)
Additional Tasks:

VP/EMD – Ensures completion of the following:

- ❑ Document decisions affecting operations and send copy to RACC.
- ❑ Provide support to the RACC as requested.
- ❑ Provide support to the Site Control centres as requested.
- ❑ Provide support to the regional and site admission screening and discharge teams.
- ❑ Provide support to the triage centres and alternate care sites as directed.

- ❑ Implement reduction of services and move to only essential services when directed to do so.
- ❑ Implement decanting plan when directed to do so.

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Establish and maintain portfolio site control centres.
- ❑ Limit access and visitors to sites.
- ❑ Identify strategies for resumption of full scope of service delivery.
- ❑ Ensure availability of traumatic stress support for employees, volunteers and physicians.
- ❑ Review and revise essential service delivery and revise as necessary.

Director, Medical Outpatient Clinics and Services
– Ensures completion of the following:

- ❑ Activate alternate care sites.
- ❑ Review and revise alternate care site service delivery and revise as necessary.

Clinical Directors/RCDHs
– Ensures completion of the following:

- ❑ Implement individual department plans for pandemic.
- ❑ Implement decanting plan.
- ❑ Activate the regional and site admission screening teams, discharge teams and decision support teams i.e. ethics and CISM teams.
- ❑ Provide just in time training on disease algorithm, assessment and treatment in regional sites for reassigned employees and physicians.

(Post Pandemic Period)
Additional Tasks:

VP/EMD – Ensures completion of the following:

- ❑ Implement phased recovery plan.
- ❑ Evaluate and revise pandemic response plans as necessary.
- ❑ Ensure appropriate critical incident stress debriefing sessions available to employees and physicians.
- ❑ Participate in employee recognition programs to acknowledge contributions during pandemic.
- ❑ Participate in debriefing and be prepared to report on department/program response.

SOUTHWEST COMMUNITY PORTFOLIO

(Inter Pandemic Period – Phase 1, 2;)
(Pandemic Alert Period – Phase 3, 4, 5)
Annual Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review/validate that the service allocations for essential, necessary, valued and desired services are accurate.
- ❑ Develop and review department plan for management during an influenza pandemic including operational structure and staffing models for pandemic and non pandemic essential service provisions by site and region.
- ❑ Review and update process/criteria for:
  – admitting/discharging patients,
  – canceling elective procedures/diagnostics, and
  – setting priorities for service.
- ❑ Review and update plans to maximize internal bed capacity (ward use, cohorting, day procedure areas).
- ❑ Review and update clinical management and patient assignment algorithms
- ❑ Ensure that new employees are informed of the plan and if necessary have received specific education (i.e., personal preparedness including influenza self care, respiratory etiquette, infection prevention and control skills).
- ❑ Maximize employee and physician participation in annual influenza vaccination plan.

(Pandemic Alert Period – Phase 3)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review and update employee model for provision of reduced health care services by type of service and/or site.
- ❑ Review and update employee requirements, levels and schedules.

Director Surgical Inpatients
– Ensures completion of the following:

- ❑ Leads review/revision of decanting and essential services plan for non pandemic services including assumptions and locations, validating resource requirements including employees and supplies.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review personal preparedness with employees more frequently.
- ❑ Review and revise just in time training component of individual department and service plans including medical.

- ❑ Provide daily reports of unusual clusters of influenza-like illnesses (ILI) to MOH.
- ❑ Coordinate and schedule just in time training/review for infection prevention and control, and respiratory etiquette/isolation for employees and physicians.

Clinical Directors/RCDHs

– Ensures completion of the following:

- ❑ Validate and educate employees including medical members of the regional and site admission screening teams with just in time training.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors

– Ensures completion of the following:

- ❑ Activate essential services plan to release employees for training.
- ❑ Participate in RACC as requested.

Director Surgical Inpatients

– Ensures completion of the following:

- ❑ Activation of the preliminary steps for decanting using phased approach.

(Pandemic Period – Phase 6)
Additional Tasks:

Director Surgical Inpatients

– Ensures completion of the following:

- ❑ Implement decanting plan.
- ❑ Implement regional plan for reduction of services and move to only essential services.

VP/EMD

– Ensures completion of the following:

- ❑ Document decisions affecting operations and send copy to RACC.
- ❑ Implement regional plan for reduction of services and move to only essential services.
- ❑ Provide support to the RACC as requested.
- ❑ Provide support to the Site Control centres as requested.
- ❑ Provide support to the regional and site admission screening and discharge teams.
- ❑ Provide support to the triage centres and alternate care sites as directed.
- ❑ Support implementation plans for reduction of services.

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Establish and maintain portfolio site control centres.
- ❑ Limit access and visitors to sites.
- ❑ Identify strategies for resumption of full scope of service delivery.
- ❑ Ensure availability of traumatic stress support for employees, volunteers and physicians.
- ❑ Review and revise essential service delivery and revise as necessary.

Clinical Directors/RCDHs
– Ensures completion of the following:

- ❑ Implement individual department plans for pandemic.
- ❑ Implement decanting plan.
- ❑ Activate the regional and site admission screening teams, discharge teams and decision support teams i.e. ethics and CISM teams.
- ❑ Provide just in time training on disease algorithm, assessment and treatment in regional sites for reassigned employees and physicians.

(Post Pandemic Period)
Additional Tasks:

VP/EMD – Ensures completion of the following:

- ❑ Implement phased recovery plan.
- ❑ Evaluate and revise pandemic response plans as necessary.
- ❑ Ensure appropriate critical incident stress debriefing sessions available to employees and physicians.
- ❑ Participate in employees recognition programs to acknowledge contributions during pandemic.
- ❑ Participate in debriefing and be prepared to report on department/program response.

CHILD AND WOMEN'S HEALTH COMMUNITY PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3, 4, 5)
Annual Tasks:

Administrative Director in Conjunction with the Clinical Directors
– Ensures completion of the following:

- ❑ Review/validate that the service allocations for essential, necessary, valued and desired services are accurate.
- ❑ Develop and review department plan for management during an influenza pandemic including operational structure and staffing models for pandemic and non pandemic essential service provisions by site and region.
- ❑ Review and update process/criteria for:
  - admitting/discharging patients,
  - cancelling elective procedures/diagnostics, and
  - setting priorities for service.
- ❑ Review and update plans to maximize internal bed capacity (ward use, cohorting, day procedure areas).
- ❑ Review and update clinical management and patient assignment algorithms.
- ❑ Ensure that new employees are informed of the plan and if necessary have received specific education (i.e., personal preparedness including influenza self care, respiratory etiquette, infection prevention and control skills).
- ❑ Maximize employees and physician participation in annual influenza vaccination plan.

(Pandemic Alert Period – Phase 3)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review and update employee model for provision of reduced health care services by type of service and/or site.
- ❑ Review and update employee requirements, levels and schedules.

Director Child and Youth Community Health Services
– Ensures completion of the following:

- ❑ Review/update of mass vaccination plan and sites.
- ❑ Review and update plan for provision of just in time training/orientation for mass vaccination of clinic employees including physicians.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors
– Ensures completion of the following:

- ❑ Review personal preparedness with employees more frequently.
- ❑ Review and revise just in time training component of individual department and service plans including medical.
- ❑ Provide daily reports of unusual clusters of influenza-like illnesses (ILI) to MOH.

- ❑ Coordinate and schedule just in time training/review for infection prevention and control, and respiratory etiquette/isolation for employees and physicians.

Clinical Directors/RCDHs

– Ensures completion of the following:

- ❑ Validate and educate employees including medical members of the regional and site admission screening teams with just in time training.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Administrative Director in Conjunction with Clinical Directors

– Ensures completion of the following:

- ❑ Activate essential services plan to release employees for training.
- ❑ Participate in RACC as requested.

Director Child and Youth Community Health Services

– Ensures completion of the following:

- ❑ Review/update mass vaccination plan for human and other resources.

(Pandemic Alert Period – Phase 6)
Additional Tasks:

VP/EMD

– Ensures completion of the following:

- ❑ Document decisions affecting operations and send a copy to RACC.
- ❑ Provide support to the RACC as requested.
- ❑ Provide support to the Site Control centres as requested.
- ❑ Provide support to the regional and site admission screening and discharge teams.
- ❑ Provide support to the triage centres and alternate care sites as directed.
- ❑ Implement reduction of services and move to only essential services when necessary.
- ❑ Implement decanting plan when directed to do so.

Administrative Director in Conjunction with Clinical Directors

– Ensures completion of the following:

- ❑ Establish and maintain portfolio site control centres.
- ❑ Limit access and visitors to sites.
- ❑ Identify strategies for resumption of full scope of service delivery.
- ❑ Ensure availability of traumatic stress support for employees, volunteers and physicians.
- ❑ Review and revise essential service delivery and revise as necessary.

Clinical Directors/RCDHs

– Ensures completion of the following:

- ❑ Implement individual department plans for pandemic.
- ❑ Implement decanting plan.
- ❑ Activate the regional and site admission screening teams, discharge teams and decision support teams i.e. ethics and CISM teams.

❑ Provide just in time training on disease algorithm, assessment and treatment in regional sites for reassigned employees and physicians.

Director Child and Youth Community Health Services

– Ensures completion of the following:

❑ Activate mass vaccination sites when declared.

❑ Participate in antiviral administration plan as appropriate.

(Post Pandemic Period)
Additional Tasks:

VP/EMD

– Ensures completion of the following:

❑ Implement phased recovery plan.

❑ Evaluate and revise pandemic response plans as necessary.

❑ Ensure appropriate critical incident stress debriefing sessions available to employees and physicians.

❑ Participate in employee recognition programs to acknowledge contributions during pandemic.

❑ Participate in debriefing and be prepared to report on department/program response.

CHIEF MEDICAL OFFICE (CMO) PORTFOLIO

(Inter Pandemic Period. – Phase 1, 2)
Annual tasks:

The Chief Medical Office – Ensures completion of the following:

- ❑ Verify lists of physicians working in the region with and without regional priviledges.
- ❑ Verify contract for possibility of hiring back recently retired physicians for work assignments.
- ❑ Meet with appropriate postgraduate and undergraduate deans to ensure appropriate role for medical students in pandemic influenza situation.
- ❑ Ensure review of economic wholeness for physicians during the pandemic period (i.e. documentation and guidelines).
- ❑ Review ethical and physician service considerations.
- ❑ Review contracts for inclusion of MOU regarding medical service requirements, liability, insurance and relationships during a pandemic.

(Pandemic Alert Period – Phase 3)
Additional Tasks:

The Chief Medical Office
– Ensures completion of the following:

- ❑ Review privileging, licensure, and employment issues of possible "volunteer" physicians.
- ❑ Review and update employee plans for physician resources in triage centres, acute care, urgent care, continuing care and alternate care sites.

RCDHs
– Ensures completion of the following:

- ❑ Schedule and implement review with medical employees about the need for personal preparedness.
- ❑ Review and update employee requirements, levels and schedules.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

The Chief Medical Office
– Ensures completion of the following:

- ❑ Schedule more frequent personal preparedness reviews with medical employees.
- ❑ Review and revise just in time training components of individual medical department and service plans, at notification of phase.

RCDHs
– Ensures completion of the following:

- ❑ Validate and educate medical employees of the regional and site admission screening teams with just in time training.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

The Chief Medical Office

– Ensures completion of the following:

- ❑ Participate in communication strategy for alerting health care practitioners in community settings regarding assessment criteria and notification processes.
- ❑ Participate in communication of triage and alternate care site use principles/guidelines to physicians.
- ❑ Schedule and implement just in time training/review for physicians for infection prevention and control skills and respiratory etiquette/isolation.
- ❑ Identify and notify Ethics consultation team and critical incident stress management (CISM) teams.

(Pandemic Period – Phase 6)
Additional Tasks:

The Chief Medical Office

– Ensures completion of the following:

- ❑ Ensure licensure and privileging of volunteer medical employees and contracts for pandemic service.
- ❑ Liaise between RACC medical group and RCDHs/physicians working in the Region (both privileged and non privileged).
- ❑ Document decisions affecting operations and copy to RACC.
- ❑ Implement reduction of services and move to only essential services when necessary.

(Post Pandemic)
Additional Tasks:

The Chief Medical Office

– Ensures completion of the following:

- ❑ Review and adjust services based on physician resources available as a result of loss.
- ❑ Review medical response in regional pandemic plan and make necessary changes to medical planning section of plan.
- ❑ Participate in debriefings and be prepared to report on medical response.
- ❑ Liaise with AHW re: economic wholes issues for physicians.
- ❑ Participate in employee recognition programs to acknowledge contributions during pandemic.
- ❑ Participate in debriefing and be prepared to report on department/program response.

COMMUNICATIONS PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
Annual Tasks:

Director, Communications – Ensures completion of the following:

- ❑ Educate and inform public regarding self-care practices for influenza and influenza-like illnesses, as per provincial program.

(Pandemic Alert Period – Phase 3)
Additional Tasks:

Director, Communications – Ensures completion of the following:

- ❑ Increase information and communication to public regarding self-care practices and respiratory etiquette for influenza and influenza like illnesses as per provincial and regional communication program.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Director, Communications – Ensures Completion of the Following:

- ❑ Communicate with and alert health care practitioners in community settings, emergency departments, walk-in clinics, etc regarding assessment criteria and notification processes.
- ❑ Communicate triage and alternate care use principles/guidelines to physicians.

(Pandemic Period – Phase 6)
Additional Tasks:

Director, Communications – Ensures Completion of the Following:

- ❑ Provide daily updates to employees and public.
- ❑ Identify strategies for resumption of full scope of service delivery.

(Post Pandemic)
Additional Tasks:

Director, Communications – Ensures Completion of the Following:

- ❑ Implement phased approach to resumption of pre-pandemic service delivery based on assessment of current scenario.

DISASTER AND EMERGENCY RESPONSE PLANNING SERVICES PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
Annual Tasks:

Director, Disaster and Emergency Response Planning Services
– Ensures completion of the following:

- ❑ Orient and educate employees, including medical staff, on personal preparedness and influenza self care as per regular orientation and education program.
- ❑ Review and update municipal and organizational contact lists.
- ❑ Conduct exercises with regional, municipal and provincial partners that would support a pandemic scenario.
- ❑ Review and update procedures for tracking expenditures related to pandemic influenza.
- ❑ Review and update regional and departmental Emergency Response plans that support an all hazards response.
- ❑ Review and update communication processes between the Province (AHW, EMA) the Health regions and municipalities.
- ❑ Advise and support business, industry and municipalities in developing pandemic influenza response plan.
- ❑ Ensure plan for management of dead bodies addresses pandemic influenza mortality rates.
- ❑ Advise and support municipalities in role of Community Disaster Social Services in supporting quarantine or isolated members of the community.

(Pandemic Alert Period – Phase 3)
Annual Tasks:

Director, Disaster and Emergency Response Planning Services
– Ensures completion of the following:

- ❑ See Inter Pandemic Period
- ❑ Review and update volunteer plans for human resources.
- ❑ Conduct table top exercise of pandemic plan.
- ❑ Review and update Mortuary and Burial Services Plan.

(Pandemic Alert Period – Phase 4)
Additional Tasks:

Director, Disaster and Emergency Response Planning Services
– Ensures completion of the following:

- ❑ Orient and educate staff, including medical staff, on personal preparedness and influenza self care as per regular orientation and education program.
- ❑ Represent Calgary Health Region and participate in linking municipal and regional plans for pandemic influenza.

(Pandemic Alert Period - Phase 5)
Additional Tasks:

Director, Disaster and Emergency Response Planning Services
– Ensures completion of the following:

- ❑ Notify municipalities, FNIHB and first responders of proposed locations for triage and alternate care sites.
- ❑ Represent Calgary Health Region and participate in linking municipal and regional plans for pandemic influenza..

(Pandemic Alert Period - Phase 6)
Additional Tasks:

Director, Disaster and Emergency Response Planning Services
– Ensures completion of the following:

- ❑ Represent Calgary Health Region and participate in linking municipal and regional plans and actions for pandemic influenza.

(Post Pandemic Period)
Additional Tasks:

Director, Disaster and Emergency Response Planning Services
– Ensures completion of the following:

- ❑ Ensure that debriefing of staff is facilitated and report generated.

ADVANCED TECHNOLOGY PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3)
Annual Tasks:

VP Advanced Technologies
– Ensures completion of the following:

- ❑ Review current information technology and information management support for tracking patients, equipment, medical supplies and human resources.
- ❑ Review contracts for inclusion of MOU regarding service requirements and relationships during a pandemic with service provider partners.

(Pandemic Alert Period - Phase 5)
Annual Tasks:

VP Advanced Technologies
– Ensures completion of the following:

- ❑ Activate essential services plan to release employees for training.

(Pandemic Period - Phase 6)
Annual Tasks:

VP Advanced Technologies
– Ensures completion of the following:

- ❑ Identify strategies for resumption of full scope of service delivery.

(Post Pandemic)
Annual Tasks:

VP Advanced Technologies
– Ensures completion of the following:

- ❑ Implement phased approach to resumption of service delivery based on assessment of current scenario.

PEOPLE AND LEARNING PORTFOLIO

(Inter pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3)
Annual Tasks:

Director, HR Operations
– Ensures completion of the following:

- ❑ Review and update Human Resources pandemic response plans re: insurance and licensing issues for potential expedited hiring.
- ❑ Review and update EFAP plan for supports for health care workers, volunteers, students.
- ❑ Review labour relations issues, legislation and requirements and develop or update policies.
- ❑ Communicate annual influenza vaccination plan if appropriate.
- ❑ Review and update Human Resources staffing contingency plan for essential services.
- ❑ Prioritize HCWs, contracted employees, volunteers for receipt of antivirals and/or vaccinations per federal guidelines.

Executive Director, Client Services and Organizational Effectiveness
– Ensures completion of the following:

- ❑ Review and update plan for provision of just in time training/orientation for employees overall including physicians.

(Pandemic Alert Period – Phase 4 and 5)
Additional Tasks:

Director, HR Operations
– Ensures completion of the following:

- ❑ Activate recruitment plan.
- ❑ Identify and notify admin nurses, other exempt employees of potential redeployment to assigned areas.
- ❑ Schedule and implement just in time training/review for infection prevention and control skills and respiratory etiquette/isolation for employees and others as needed.

(Pandemic Alert Period – Phase 6)
Additional Tasks:

Director, HR Operations
– Ensures completion of the following:

- ❑ Implement reduced staffing model on initiation of phase.
- ❑ Review/evaluate and revise Human Resources pandemic response plans as necessary, between waves.
- ❑ Identify strategies for resumption of full scope of service delivery.

Executive Director, Client Services and Organizational Effectiveness
– Ensures completion of the following:

- ❑ Provide just in time training of basic skills labs for admin nurses, retired nurse, nurses from closed units etc., on a daily basis.

(Post Pandemic Period)
Additional Tasks:

Director, HR Operations

– Ensures completion of the following:

- ❑ Implement traumatic stress management sessions.
- ❑ Employees recognition program formally implemented to recognize contributions during pandemic within six months of declaration of period.
- ❑ Review/evaluate and revise Human Resources pandemic response plans as necessary during post or inter pandemic phase.

REGIONAL SUPPORT SERVICES PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3)

Annual Tasks:

Director Distribution Services

– Ensures the completion of the following:

- ❑ Review and update regional plan and mechanisms for coordinating patient transport, including significant decanting of acute care hospitals.
- ❑ Review and update preferred triage and alternate care site locations for continued appropriateness and availability.
- ❑ Update and review list of available ventilators, beds/cots, and bed spaces.
- ❑ Review warehouse capacity and arrange or lease space required to warehouse supplies.

Director, Purchasing and Supply Management

– Ensures the completion of the following:

- ❑ Review/replenish stored medical equipment and other required supplies.
- ❑ Purchase and stockpile extra medical and equipment supplies required.

(Pandemic Alert Period – Phase 5)
Additional Tasks:

Director Distribution Services

– Ensures the completion of the following:

- ❑ Stock alternate bed spaces (i.e. day medicine, day surgery).
- ❑ Activate essential services plan to release employees for training.

(Pandemic Period – Phase 6)
Additional Tasks:

Director Distribution Services

– Ensures the completion of the following:

- ❑ Identify strategies for resumption of full scope of service delivery.

(Post Pandemic Period)
Additional Tasks:

Director Distribution Services

– Ensures the completion of the following:

- ❑ Implement phased approach to resumption of pre-pandemic service delivery based on assessment of current scenario.

PLANNING AND CAPITAL DEVELOPMENT PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3)
Annual Tasks:

Director, Corporate Real Estate
– Ensures completion of the following:

- ❑ Review and mitigate insurance liabilities for off site service delivery by regional and non regional employees.
- ❑ Review and update with Director, Distribution Services, preferred triage and alternate care site locations for continued appropriateness and availability.
- ❑ Review and update MOU for regionally used facilities for inclusion of services during if required.

(Pandemic Alert Period – Phase 4, 5)
(Pandemic Period – Phase 6)
Additional Tasks:

Director, Corporate Real Estate
– Ensures completion of the following:

- ❑ Participate with directors activating preferred triage and alternate care sites.

RISK MANAGEMENT AND CHIEF FINANCIAL OFFICER PORTFOLIO

(Inter Pandemic Period – Phase 1, 2)
(Pandemic Alert Period – Phase 3)
Annual Tasks:

Legal Services
– Ensures completion of the following:

- ❑ Review contracts for physicians for inclusion of MOU regarding medical service requirements, liability, insurance and relationships during a pandemic.
- ❑ Review contracts for educational institutions for inclusion of MOU regarding service requirements and relationships during a pandemic.
- ❑ Review contracts for health service providers for inclusion of MOU regarding service requirements and relationships during a pandemic.
- ❑ Review and update with Director of Corporate Real Estate MOU for regionally used facilities for inclusion of services during pandemic if required.

(Pandemic Alert Period – Phase 4 and 5)
Additional Tasks:

Director Business Advisory Services
– Ensures completion of the following:

- ❑ Activate disaster financial processes.

PROFESSIONAL PRACTICE AND CHIEF NURSING OFFICER PORTFOLIO

(Inter pandemic Period – Phase 1, 2)
Annual Tasks:

Director, Professional Practice and Development
– Ensures completion of the following:

- ❑ Meet with appropriate post secondary institution representatives to ensure appropriate role for nursing and allied health students in a pandemic influenza situation.
- ❑ Review contracts for inclusion of MOU regarding service requirements and relationships during a pandemic with health service provider partners.

(Pandemic Alert Period – Phase 6)
Additional Tasks:

Director, Professional Practice and Development
– Ensures completion of the following:

- ❑ Provide just in time training of basic skills labs for admin nurses, retired nurses, nurses from closed units, etc.
- ❑ Identify strategies for resumption of full scope of service delivery.

7.6 SITE ASSESSMENT MATRIX

Calgary Health Region Alternative Medical Care Site Selection Matrix														
Infrastructure														
Door sizes adequate for gurneys														
Floors														
Loading Dock														
Parking for employees and visitors														
Roof														
Toilet facilities/showers (#)														
Ventilation														
Walls														
Total Space and Layout														
Auxiliary spaces (Rx, counselors, chapel)														
Equipment/supply storage area														
Family Area														
Food supply and prep area														
Lab specimen handling area														
Mortuary holding area														
Patient decontamination areas														
Pharmacy area														
Employees areas														
Utilities														
Air Conditioning														
Electrical power (backup)														
Heating														
Lighting														
Refrigeration														
Water (hot)														
Communication														
Communication (# phones, local/long distance, intercom)														

Calgary Health Region Alternative Medical Care Site Selection Matrix														
Two-way radio capability to main facility														
Wired for IT and Internet Access														
Other Services														
Ability to lock down facility														
Accessibility/proximity to public transportation														
Biohazard & other waste disposal														
Laundry														
Ownership/other uses during disaster														
Oxygen delivery capability														
Proximity to a hospital														
Total Rating/Ranking (Largest # indicates best site)														

Rating System

5 = Equal to or same as hospital.

4 = Similar to that of a hospital, but has SOME limitations (I.e. quantity/condition).

3 = Similar to that of a hospital, but has some MAJOR limitations (I.e. quantity/condition).

2 = Not similar to that of a hospital, would take modifications to provide.

1 = Not similar to that of a hospital, would take MAJOR modifications to provide.

0 = Does not exist in this facility or is not applicable to this event.

7.7 TEMPLATES

- FAN OUT RECORD
- LOG OF EVENTS
- RECORD OF SUPPLIES AND EQUIPMENT

calgary health region

FAN-OUT RECORD

SERVICE AREA: _____ **Page #:** _____

LOCATION: _____ **Date:** _____

NAME	POSITION	PHONE	NOTIFICATION STATUS [✍]				CONTACT TIME	COMMENTS
			On Site	En-Route (ETA)	Not Coming	Unable to Contact		

Information Recorded By: _____

On Site: Employee is presently at work
En-Route: Employee has been notified and is presently travelling to required site
Not Coming: Employee is not available, or able, to come to work.
Unable to Contact: Not able to reach employee on first telephone call; try to contact 3 more times after contacting other staff.
Time of Contact: Time when employee is notified; does not include leaving messages for the employee

calgary health region

Name of Incident: _____

LOG OF EVENTS

SERVICE AREA: _____ **Page #:** _____

LOCATION: _____ **Date:** _____

NAME OF RECORDER: _____

NO.	DATE	TIME	MESSAGE	ACTION

This form is intended for use by all individuals as an accounting of their personal action.

calgary health region

Name of Incident: ______________________

RECORD OF SUPPLIES AND EQUIPMENT

SERVICE AREA: ______________________ Page # ____________

LOCATION: ______________________ Date: ____________

EQUIPMENT/ SUPPLY	# ON HAND	# NEEDED	# ORDERED	PRICE OR BORROWED	SOURCE OF REQUEST	DATE BOUGHT/ BORROWED	DATE RETURNED

7.8 ESSENTIAL SERVICES CRITERIA

Purpose

Building on an all hazards approach (any kind of disaster, whether short term or long term including communicable diseases) the objective is to clearly identify what are essential services and what resources are required to meet service priorities in the event of a pandemic influenza.

The purpose of developing the disaster contingency plan for pandemic influenza is to identify and categorize by portfolio, program, service and operational departments the services currently provided.

Process

Using portfolio communication lines, portfolios are to identify programs and services by category along with human resources required to provide the service under the portfolio responsibilities. This information will be reviewed annually by directors and RCDH's and consolidated into a report in the Disaster Services and Emergency Response Planning Services portfolio.

E-Essential

Those services which are critical to the life and well being of an individual or a population. Services in this category are to be maintained with full service levels and no disruptions.

N-Necessary

Those services which are needed to support essential services and the well being of an individual or a population whose life is being threatened. Services in this category are to be maintained with full service levels and no disruptions or disruptions of less than 48 hours.

V-Valued

Those services which sustain the health of the individual or a population but are not critical if discontinued for a short period of time. Services in this category can have a partial or reduced service level for a period of greater than 48 hours but less than 4 weeks.

D-Desirable

Those services which provide quality of life and instill a sense of consistency and control for the health of the individual or population. Services in this category may be fully suspended for a period of 4 weeks with reassessment of capacity to reinstate at that time. This cycle would repeat itself until services can be reestablished.

Adapted from City of Medicine Hat Region Disaster Services with permission.

7.9 PANDEMIC INFLUENZA MEDICAL AND SURGICAL SUPPLY REQUIREMENTS

Equipment

The equipment that is currently available on the Clinical Engineering Equipment spread-sheet is located across all Acute Care and Rural facilities. Inventories are completed on a yearly basis to update numbers.

Risks associated with the equipment are the inability to meet the demand and the lack of consumables. There has been no decision provincially to purchase and stockpile equipment.

During the Pandemic, equipment will be shared as determined by medical and nursing employees.

Equipment will be cleaned on the patient care areas and repairs also completed on site.

Medical surgical supplies

The Region has a supply of N95 masks.

The current status of supplies is 48 hours per patient care areas and 14 day supply in the Regional Warehouse.

A recommendation to provincially stockpile supplies is under consideration by the Treasury Board. As of September 15, 2005 no decision has been made. (AHW Communication)

Calgary Health Region is currently negotiating warehouse space in Calgary to house supplies if the budget is approved.

There is a risk that Medical Surgical supplies may not be available when needed.

The budget required for Calgary Health Region's portion of supplies is estimated at 10 million dollars.

CALGARY HEALTH REGION PROPOSED QUANTITIES REQUIRED AND SUBMITTED TO AHW

	EXPLANATION OF QUANTITIES	TOTAL QUANTITIES TO BE STORED FOR PANDEMIC
PRODUCT		
Injection Supplies		
Syringes (combination of 3, 5 and 10 cc with needle)	individual syringe	689,572
Syringes - Retractable	individual syringe	616,621
Alcohol Swabs	1 box = 4000 swabs	804
Sharps Containers 5qt	individual container	17,416
Bandaids	1 box = 100 bandaids	26,124
Total Injection supplies		
Respiratory Therapy Supplies		
Cannula with Tubing	each	165,761
Oxygen Nubulizer - Adult	each	82,881
Oxygen Nebulizer T piece	each	82,881
Total Respiratory Therapy Supplies		
Medications - antipyretics		
Tylenol 325 / 500 mgm tabs	100 tablets per unit	28,942
Ventolin Nebulizer	2.5 ml container	7,162
Atrovent Nebulizer	2.0 ml container	4,477
Ventolin Inhaler	200 dose package	7,412
Atrovent Inhaler	140 dose package	7,419
Guacfinesin 5ml./ dose	100 ml bottle	321,574
Total Medication - antipyretics		
Laboratory Supplies		
Tubes	each	964,723
Needles	each	321,574
Vacuutainer holder	each	321,574
Tourniquet	each	321,574
Total Laboratory Supplies		
I.V. Supplies		
I.V. Fluids	1000 ml	803,936
IV Tubing & Buritrol	each	119,761
I.V. Cannula	each	119,761
I.V. Set continue flo JC6519	each	119,761
Injection cap with Hep Lock	each	160,787
Blunt cannula	each	1,929,447
Total I.V. Supplies		

CALGARY HEALTH REGION PROPOSED QUANTITIES REQUIRED AND SUBMITTED TO AHW

	EXPLANATION OF QUANTITIES	TOTAL QUANTITIES TO BE STORED FOR PANDEMIC
PRODUCT		
Patient Care Products		
Gloves	Case/10 boxes of 50 pr	2,331
Masks - includes pts./ employees/ visitors	Case/ 6 boxes of 50	24,284
Microsan (waterless sanitizer) 500ml Pump bottle	each	160,787
Thermometers - disposable paper	each	1,299,562
Total Patient Care Products		
Immunization Supplies (for entire population)		
Syringes - Retractable	individual syringe	1,126,567
Brown Paper Bags	each	22,531
Ploy Clear Bag (zip loc)	each	22,531
Obstetrical Towels	each	28,164
Newsprint Tray Cover	each	37,552
Professional Towel	each	28,164
Bottles of Isogel	each	15,021
Total Immunization Supplies		
Total		

Note: The quantity figure can include a broader range of similar products in cases where the exact product does not make up the bulk of items used in the region. For example regions may use the 5 most commonly used syringe sizes to come up with quantities used.

Description

Regular cold/dry storage

Fluid storage (temperature-specific to prevent freezing) i.e. IV fluids

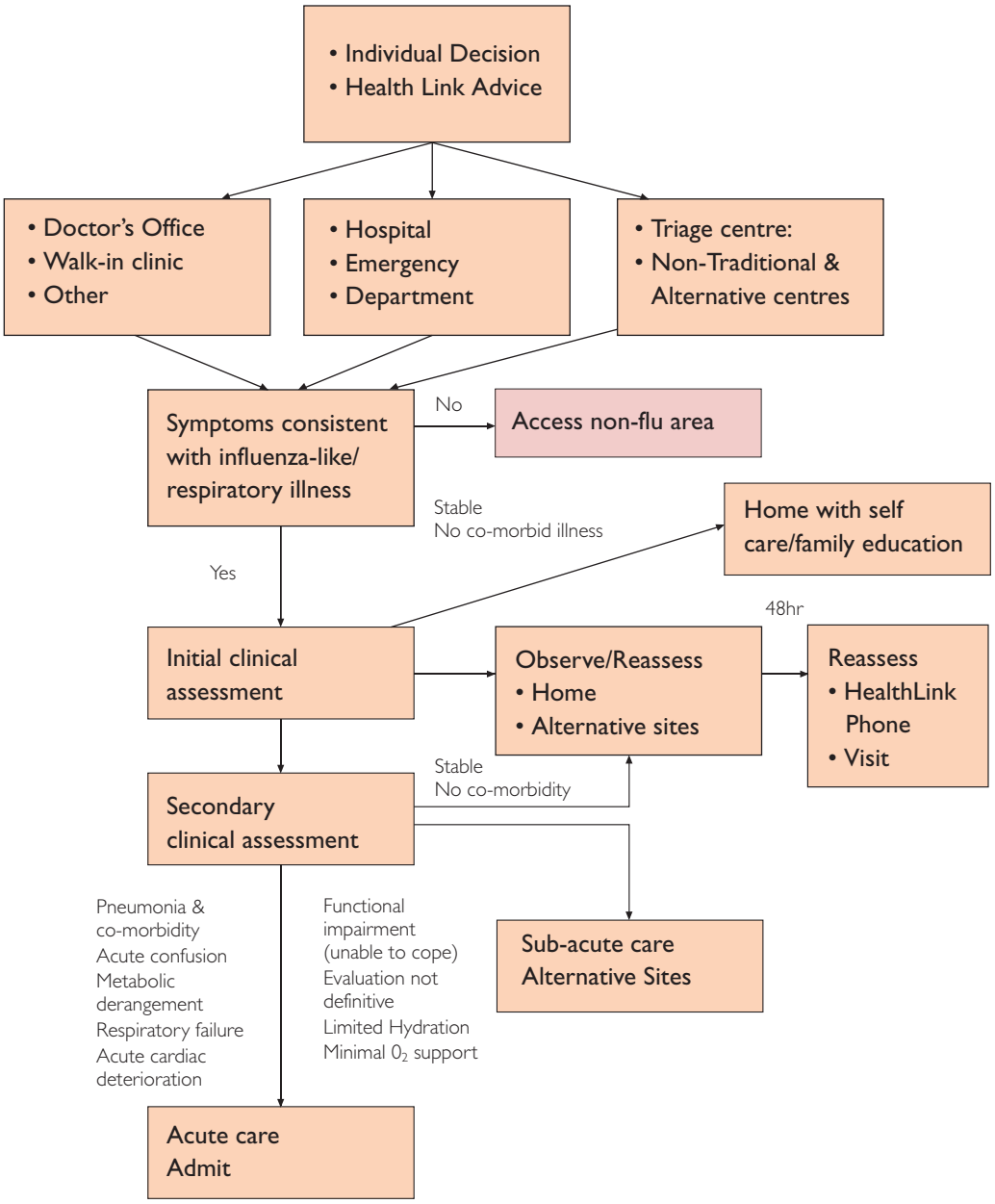
Fire suppression storage i.e. microsan

Controlled temperature/humidity storage i.e. medications

7.10 CLINICAL PRESENTATION AND MANAGEMENT OF INFLUENZA

Initial Influenza Illness Assessment

Algorithm for the assessment of patients



[1]Adapted from Canadian Pandemic Influenza Plan by Dr. Cheri Nijssen-Jordan

Clinical Case Definition:

When influenza is circulating in the community, the presence of fever and cough of acute onset are good predictors of influenza. The positive predictive value increases when fever is higher than 38 °C and when the onset of the clinical illness is acute (less than 48 hours after the prodromes). Other symptoms, such as sore throat, rhinorrhea, malaise, rigors or chills, myalgia and headache, although non-specific, may also be present.

1. SYMPTOMS CONSISTENT WITH FLU LIKE ILLNESS:

Adults (>=18 years) Systemic: Fever, chills, headache, aching muscles and joints, stiffness, weakness	**Children (<18 years)** Systemic: Fever, (38°C core temperature) Apnea
Respiratory: Cough, sore throat, hoarseness, stuffy or runny nose, shortness of breath (patients with influenza and shortness of breath should undergo chest radiography) Chest symptoms: thoracic pain when taking a deep breath, retrosternal tracheal pain, pleuritic pain Red and/or watery eyes, Earache	**Respiratory Symptoms:** Cough, Nasal congestion and/or rhinorrhea (second most common presentation), Difficulty breathing (including chest retractions, stridor, etc.) Tachypnea <2 months =>60 breaths per minute 2-12 months =>50 breaths per minute > 12 months to 5 years = >40 breaths per minute > 5 years = > 30 breaths per minute Hoarse voice Earache
Digestive (seen mainly in children and elderly): Vomiting, Diarrhea, Abdominal pain	**Associated non-respiratory symptoms:** Not feeling well, malaise Low energy, lethargic Not playing, Needing extra care Poor feeding Vomiting, diarrhea Irritability, excessive crying, fussy
Neurological: Confusion, drowsiness, Convulsions, Symptoms suggestive of meningitis, decreased functional status (decreased ability to walk independently)	**Neurological:** Symptoms suggestive of meningitis

1. SYMPTOMS CONSISTENT WITH FLU LIKE ILLNESS:

Adults (>=18 years)	Children (<18 years)
Systemic: Fever, chills, headache, aching muscles and joints, stiffness, weakness	Systemic: Fever, (38°C core temperature) Apnea
Comorbidities to consider: >65 yr, pregnancy, chronic lung disease, congestive heart failure, renal failure, immunocompromised, haematological abnormalities, diabetes, neoplastic disease, hepatic diseases, socially unable to cope (i.e., non supportive household).	**Comorbidities to consider:** Chronic cardiac or pulmonary disorder (bronchopulmonary dysplasia, cystic fibrosis, asthma) Chronic conditions such as diabetes and other metabolic diseases, cancer, immunosuppression (due to underlying disease and/or therapy), renal disease, anaemia, hemoglobinopathy, resident of chronic care facilities, patients on long-term acetylsalicylic acid therapy (increase risk of Reye's syndrome) premature babies and low-weight infants. All children younger than 2 years of age may be considered as high-risk patients. Socio-economic issues – age and education of the parents, single parents, multiple young siblings, support at home by other family members, other individuals at home have high risk of influenza associated complications (siblings with chronic diseases, elderly relatives)
	Other: Young infants (less than 2 months old) can become ill and progress to severe illness rapidly. They are much less likely to cough with pneumonia and frequently have only non-specific signs such as poor feeding (less than half of the usual amount of fluids), apnea, and fever or low body temperature. Additional danger signs in children under 2 months include: wheezing, grunting or stridor when calm, severe chest indrawing, abnormally sleepy or difficult to wake, poor circulation: sudden pallor, cold legs up to the knees, less than four wet diapers in 24 hrs.

2. INITIAL INFLUENZA ILLNESS ASSESSMENT REQUIRING SECONDARY ASSESSMENT:

	Adults >=18 years	Children <18 years
Temperature	<35°C or >39°C	<35°C or >39°C
Pulse	New arrhythmia (irregular pulse) >100 beats/minute (if > 16 years)	Heart rate outside of normal ranges (PALS ref) Newborn/3mth 85 to 205 3mth to 2y 60 to 140 2y to 10y 60 to 100
Blood Pressure	< 100 systolic Dizziness on standing	Systolic bp < 70 + 2x age in years
Respiratory Rate	> 24/minutes (tachypnea	< 2 months = ≥ 60 breaths per minute 2 – 12 months = ≥ 50 breaths per minute > 12 months to 5 years = ≥ 40 breaths per minute > 5 years = ≥ 30 breaths per minute
Skin Colour (lips, hands)	Cyanosis	Cyanosis, sudden pallor, cold legs up to the knee
Chest signs or symptoms	Any abnormality on auscultation or chest pain	Chest indrawing, wheezing, grunting, inquire for chest pain (hard to detect in young children)
Mental status	New confusion	Lethargic or unconscious, confused
Function	New inability to function independently, persistent vomiting (2-3 times/24hr.)	Unable to breastfeed or drink, persistent vomiting (>2-3 times/24hr.)
Neurologic Symptoms and signs		Convulsion, Full fontanelle, Stiff neck, Photophobia
Oxygen Saturation	<90% room air	<90% room air

Note increased burden of disease in remote communities and those living in crowded conditions – especially in children.

3. SECONDARY INFLUENZA ILLNESS ASSESSMENT:

Laboratory and Diagnostic Investigations will be limited during a pandemic both from the perspective of volume of requests and number of patients but also due to limited resources of testing personnel. At the onset and end of the pandemic, it is understood that some of the investigations are required for surveillance. However, once the pandemic has been declared, investigations should be limited to complications and/or patients with comorbidities requiring management changes dependent on investigation results. Specifically, blood cultures and sputum cultures are to be reserved for patients who are very ill, with toxic signs and low blood pressure; for patients who fail to recover after 48 hours of treatment with antibiotics; or for patients admitted to intensive care units. Rapid tests (nasopharyngeal aspirate) are useful for diagnostic and treatment decisions only for atypical cases or for surveillance. Diagnostic imaging tests as well should be done only to provide guidance related to complications, failed therapy in severely ill patients.

Many routine and specialized tests may not be available in usual time frames. Review the most recent information on availability of lab and DI services prior to ordering.

The following table is meant to help guide health care providers in their use of ancillary investigations:

Influenza Condition	Chest examination	Oxygen saturation	Investigations in time of Scarce Resources (Phase 6)
Symptoms/signs with no comorbidities	Normal	Normal	None required
Symptoms/signs with comorbidities	Normal	Normal	None required unless needed for change in management of comorbidities
Symptoms/signs with no comorbidities/	Abnormal	Normal	Treat without investigation (see #4)
Symptoms/signs with comorbidities	Abnormal	Abnormal	Treat without investigation unless required for change in management of comorbidities
Symptoms/signs with no comorbidities	Abnormal	Abnormal	Treat without investigation unless suspicion of complication (failure of therapy, resistant secondary organisms etc)
Symptoms/signs with comorbidities	Abnormal	Abnormal	Treat without investigation unless suspicion of complication (failure of therapy, resistant secondary organisms etc)
Other Conditions	Investigation should be minimized or eliminated unless significant life/limb threatening. Treatment to be based on clinical presentation. Additional help of point of care testing (urine dips, bedside tests) may assist.		

Investigation logistics

Acute Care sites: No change in logistics. Ensure that physician name, phone number and department are clearly designated on the form to ensure follow-up of results.

Triage centres: Point of care testing for electrolytes, Hgb and blood gases will be available. However, it will be extremely important to minimize use to protect supplies. Additional laboratory investigations (only if critically required) would be collected on site and sent by regular courier to main lab. Diagnostic imaging would also not be available on site and would require patient transport to acute care site or nearest DI centre (list will be posted in triage centre).

Alternative Care centres: Laboratory investigations would be collected on site and sent by regular courier to main lab. Diagnostic imaging would also not be generally available on site and would require patient transport to acute care site or nearest DI centre (list will be posted in alternative care centre).

Rural sites: No change in logistics. Ensure that physician name and phone number is clearly designated on the form to ensure follow-up of results.

Investigation follow up:

Acute Care sites No change in logistics. Ensure that physician name, phone number and department are clearly designated: on the form to ensure follow-up of results.

Triage centres: Results to be returned to triage centre and physician on duty will review abnormal results. Unit clerk will remove all normal results prior to MD review. Physician to call patient only if significant management change is required.

Alternative care centres: Results to be returned to triage centre and physician on duty will review abnormal results. Unit clerk will remove all normal results prior to MD review. Physician to call patient only if significant management change is required.

Rural sites: No change in logistics. Ensure that physician name and phone number is clearly designated on the form to ensure follow-up of results.

<table>
<tr><th>Laboratory studies</th><th>Adult (>=18 years) results requiring supervision or admission</th><th>Children (<18 years) Results requiring supervision or admission
*see normal values by age below</th></tr>
<tr><td>CBC (core battery, if appropriate)</td><td>Hgb <80 g/l
WBC <2.5 x 10E9/L or >12 x 10E9/L
Bands > 15%
Platelets <50 x 10E9/L</td><td>Hgb< 80g/l
Age Reference values
1-3 days 145 - 225 g/l
2 month 90 – 140 g/l
6 – 12 years 115 – 155 g/l
12 – 18 years (M)
130 – 160 g/l
12 – 18 years (F)
120 – 160 g/l

WCB < 2,500 or > 12, 000 cells/l
Age Reference values
Birth 9 – 30 x 10E9/L
24 h 9.4 – 34 x 10E9/L
1 month 5 – 19.5 x 10E9/L
1-3 years 6 – 17.5 x 10E9/L
4-7 years 5. 5 – 15.5 x 10E9/L
8-13 years 4.5 – 13.5 x 10E9/L
> 13 years 4.5 – 11 x 10E9/L

Bands >15%
Platelets <50 x 10E9/L</td></tr>
<tr><td>Electrolytes</td><td>Na < 125 mmol/l or < 148 mmol/l
K < 3 mmol/l or > 5.5 mmol/l</td><td>Na < 125 mmol/l or > 148 mmol/l
K<3 mmol/l or > 5.5 mmol/l
Sodium N Ranges:
Infants 139 – 146 mmol/L
Children 138 – 145 mmol/L
Thereafter 136 – 146 mmol/L
Potassium < 2 months 3.0- 7.0 mmol/L
2-12 months 3.5 – 6.0 mmol/L
> 12 months 3.5 – 5.0 mmol/L</td></tr>
<tr><td>BUN, creatinine</td><td>Urea > 10.7 mmol/L
Creatinine > 150µmol/L</td><td>Urea >10.7 mmol/L
Age Male Female Units
<1 yr 1.5-7.0 1.5-7.0 mmol/L
1-14 yrs 2.0-7.0 2.0-7.0 mmol/L
15-54 yrs 3.0-7.5 2.0-7.0 mmol/L
>55 yrs 3.0-9.0 2.5-8.5 mmol/L

Creatinine > 150 µmol/L
Age Male Female Units
1 d-5 yrs 20-60 20-60 µmol/L
6-12 yrs 30-70 30-70 µmol/L
13-14 yrs 40-85 40-85 µmol/L
>15 yrs 50-120 35-100 µmol/L</td></tr>
</table>

Laboratory studies	Adult (>=18 years) results requiring supervision or admission	Children (<18 years) Results requiring supervision or admission *see normal values by age below
Glucose	< 3 mmol/L or >13.9 mmol	< 3 mmol/L or > 13.9 mmol/L Normal Glucose Child 3.3 – 5.5 mmol/L
CPK (only in patients with severe muscle pain)	CKMB 50% Total CK 1,000 units/L	CKMB 50% Total CK > 1,000 units/L
Blood gases, O2 Saturation	Blood gases p02 < 60 room air 02 saturation < 90% room air	Blood gases p02 < 60 room air 02 saturation < 90% room air
Chest x-ray (CXR	Abnormal, consistent with pneumonia or with congestive heart failure	Abnormal, consistent with pneumonia
EKG (clinical criteria)	Evidence of ischemia, new arrhythmia	Evidence of ischemia, new arrhythmia

4. TREATMENT

A. Instructions for self-care of subjects sent home

Adults (>=18 years)	Children (<18 years)

No co-morbidity:
• Acetaminophen (adults or children), ibuprofen or acetylsalicylic acid (adults only) to treat myalgia and arthralgia*.
• Fluids
• Bed rest
• Drink hot liquids
• Decongestants
• Do not smoke or expose to second hand smoke
• Seek help if:
  • Increasing shortness of breath
  • New pleuritic, chest pain
  • New purulent sputum
  • Persistent vomiting
	No co-morbidity:
	• Maintaining hydration
	• Fever management (avoid salicylates)
	• Watching for signs of deterioration, failure to improve
	• When to return
	• Follow up plan if necessary
	• Mothers of young infants should be told to return to the Health Centre immediately if the child does not feed well or if it has breathing difficulty
	• Immunization/prophylactic treatment of high-risk contacts in the household (abide by existing pandemic guidelines)
	• Infection control practices such as avoiding close contact with others and paying attention to hand hygiene, proper disposal of tissues, etc.

4. TREATMENT

A. Instructions for self-care of subjects sent home

Adults (>=18 years)	Children (<18 years)
Co-morbidity: in addition to above • Supervision (family, friends, allied health, nurse) • Antiviral therapy (if seen before 48 hours of onset, contingent on pandemic priorities) • Follow-up after 48 hours by phone call/ health care worker visit.	**Children at risk for influenza-associated complications** (no signs of LRTI). Consider physician assessment to determine eligibility (in agreement with the pandemic guideline) for: • Antiviral therapy (within the framework of antiviral prioritization for pandemic influenza • Stopping ASA (Avoid Reye's syndrome*) • Immunization of patient and family if not already done • Plan follow up • Setting for care (admission, home, institution, etc.) When possible, members of the same household should be kept together. * A syndrome characterized by acute encephalopathy with fatty micro-infiltration and liver failure, Reye's syndrome, has been described in children and adolescents younger than 18 years of age (most commonly in the 4-12 year range) with influenza and receiving salicylates. The classic presentation is a change in mental status, ranging from lethargy to delirium, seizures and respiratory arrest.

B. Antivirals

- For detailed information, please see Canadian Pandemic Influenza Plan – Public Health Agency of Canada

The following groups in descending order of priority are offered as planning guidance but will need to be re-examined at the time of a pandemic alert when epidemiologic data about the pandemic virus is available.

1. **Treatment of persons hospitalized for influenza**
2. **Treatment of ill health care and emergency services workers**
3. **Treatment of ill high-risk persons in the community**
4. **Prophylaxis of health care workers**
5. **Control outbreaks in high risk residents of institutions (nursing homes and other chronic care facilities)**
6. **Prophylaxis of essential service workers**
7. **Prophylaxis of high risk persons hospitalized for illnesses other than influenza**
8. **Prophylaxis of high-risk persons in the community**

Indications:

- **Amantadine** (Symmetrel®) - Prophylaxis (up to 6 weeks) and treatment of respiratory infections caused by influenza A virus strains.
  - Elimination depends on renal function
  - Side effects: Vomiting, nausea, anorexia, nervousness, anxiety, insomnia, seizures, delirium, hallucinations, arrhythmias
  - Consider high risk of emergency of drug-resistant virus
- **Zanamivir** (Relenza®) – Treatment of uncomplicated acute illness due to influenza virus in patients 12 years and older who have been symptomatic for no more than 2 days.
  - Side effects – bronchospasm, exacerbation of underlying chronic respiratory disease
- **Oseltamivir** (Tamiflu®) – Prophylaxis in adults and adolescents 13 yr and older. Treatment of uncomplicated acute illness due to influenza infection in adults who have been symptomatic for no more than 2 days.
  - Side effects: Nausea, vomiting (less severe if taken with food)

Drug (Trade Name)	Prophylaxis Dose	Treatment Dose
Amantadine (Symmetrel®)	Children: 1-9 yr 5 mg/kg/day up to max of 150mg/day in two divided doses. Children>10 years weighing >40 kg – use max 200 mg/day in two divided doses Duration max 6 weeks Adults: 100 mg twice daily Duration max 6 weeks	Children: 1-9 yr 5 mg/kg/day up to max of 150mg/day in two divided doses. Treat to defervescence (max 3-5 days) Children>10 years weighing >40 kg – use 100 mg twice daily Adults: 100 mg twice daily for 5 days Elderly >65 – 100 mg once daily
	• Renal impairment dose adjustments – please see Appendix G Canadian Pandemic Influenza Plan - Public Health Agency of Canada	
Zanamivir (Relenza®) - use DiskhalerTM from manufacturer	Not yet approved	Children: >7 yr and Adults: – 10mg inhaled (2 puffs) twice daily for 5 days Children as young as 5 and elderly need help with use of the DiskhalerTM
Oseltamivir (Tamiflu®)	Adults and adolescents >13 yrs: 75 mg once daily orally within 2 days of exposure and continue for max of 7 days If index case is child or elderly person, continue prophylaxis for up to 14 days (higher viral shedding)	Children: >1y based on weight < 15 kg: 30 mg twice daily orally 15 to 23kg: 45 mg twice daily 23 to 40kg: 60 mg twice daily > 40kg: 75 mg twice daily Duration 5 days Adults: 75 mg/twice daily for 5 days

C. Antibiotics:

- **For detailed information, please see page 314 to 318 Canadian Pandemic Influenza Plan - Public Health Agency of Canada**
- Antimicrobial therapy will be indicated for treatment of patients with secondary bacterial pneumonia (consider with clinical deterioration after a period of clinical improvement following the initial onset of influenza and/or radiographic consolidation). Influenza without secondary bacterial complications should not be treated with antimicrobials.
- The availability of antimicrobials during a pandemic will be limited because of increased demand.
- Reassess empiric therapy when culture and susceptibility testing available (hospitalized patients only) – note local resistance patterns.

- **See Community Acquired Pneumonia guidelines for detailed choice of antibiotics**

  http://www.albertadoctors.org/bcm/ama/ama-website.nsf/AllDoc/0D9291196CA3ECFA87256DE3005D6D3E?OpenDocument

- **Adults: Empiric guidelines**

  Oral: First line
  – Second generation cephalosporin (i.e. cefuroxime, cefaclor)
  – Clarithromycin, Azithromycin, Erythromycin
  – Doxcycline
  – Trimethoprim/sulfamethoxazole (TMP/SMX)

  Increased likelihood of high level resistance
  – Amoxicillin/clavulanic acid
  – Levofloxacin, moxifloxacin, gatifloxacin

  Parenteral
  – Second generation cephalosporin (i.e. cefuroxime)
  – Third generation cephalosporin if septic (i.e. ceftriaxone, cefotaxime)
  – Piperacillin/tazobactam
  – Levofloxacin, gatifloxacin
  – Imipenem, meropenem (if septic)

  If organism and susceptibilities are known, reassess antibiotic choices

- **Children: Empiric guidelines**

Age	Outpatient(oral)	Inpatient	Inpatient with signs of sepsis/alveolar infiltrate/ pleural effusion
3w-3m	Afebrile: Erythomycin or Azithromycin Admit if fever or hypoxia	Afebrile: Erythomycin IV Febrile: Add Cefotaxime	Cefotaxime IV
4m-4y	Amoxicillin	Ampicillin IV	Cefotaxime IV Cefuroxime IV Ampicillin IV
5-15y	Erythomycin, Clarithromycin or Azithromycin Doxycycline if >8 yrs	Erythomycin IV Azithromycin IV Doxycycline IV (>8 yrs)	Cefotaxime IV Cefuroxime IV Consider adding Azithromycin IV

Macrolides should only be used if bacteremia is absent.

If organism and susceptibilities are known, reassess antibiotic choices.

D. General Management

- Oxygenation
  - Patients with oxygen saturation of <90% on room air should have oxygen supplementation. This may be given by portable oxygen with nasal prongs. Additional respiratory support may be required and will be dependent on available resources.
- Maintenance of hydration
  - Oral rehydration (by mouth or nasogastric tube) or parenteral fluids (IV, subcutaneous, intraosseous) may be considered.
- Antipyretics and analgesics
  - Acetaminophen may be sufficient for myalgias and arthralgias.
- Other therapies such as antitussives may occasionally be indicated depending on the clinical features of the given patient.
- Ensure management of comorbid conditions and pre-existing disease as resources allow.

5. MANAGEMENT OF PATIENTS IN LONG TERM CARE (LTC) FACILITIES

Most individuals living in LTC facilities are at increased risk for developing complications after influenza infections. Health care personnel and visitors may introduce the virus, and the closed environment will favour transmission (up to 70% infected). In order to manage this situation, the following steps should be taken:

a. Prevent influenza illness and complications in residents and employees:
   - Develop and implement an institutional policy for outbreak management
   - Ensure yearly influenza vaccine (interpandemic) for residents and employees
   - Ensure pneumococcal vaccination for all residents (using the National Advisory Committee on Immigration guidelines)
   - Ensure comprehensive and timely surveillance for influenza-like illness in residents and employees

b. Timely diagnosis and appropriate management of influenza infection and outbreaks in patients (see symptom chart for Adults and Children) without transferring to an acute care facility.

The clinical presentation of any infectious illness in an elderly impaired LTC resident may be non-specific, and non-classical. Alternate diagnoses must be considered when the patient is initially assessed, including non-infectious causes such as deterioration of co-morbid illness or medication adverse effects. A diagnosis of influenza should be excluded with any non-specific presentation

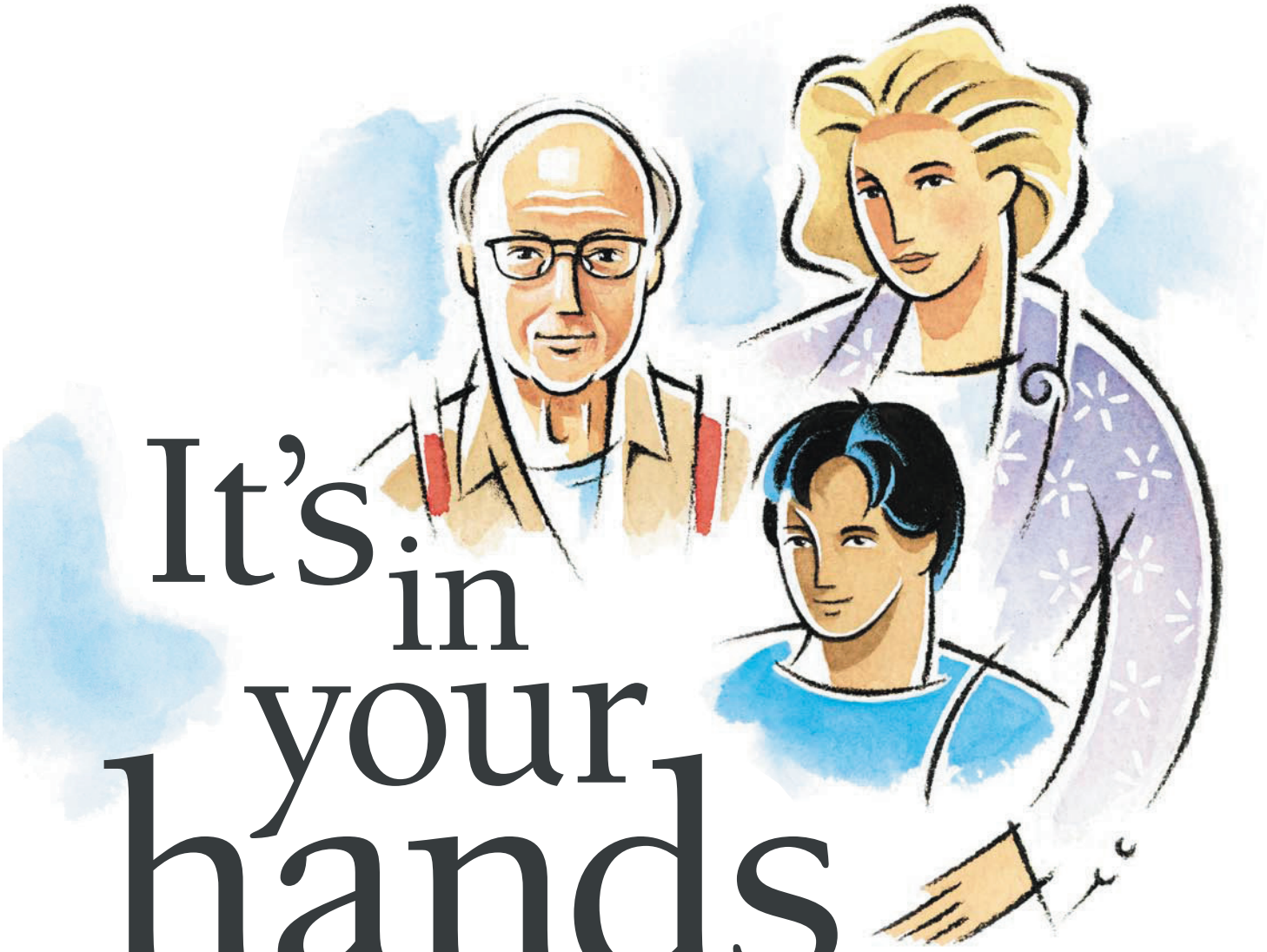
- Rapid diagnostic tests and other diagnostic tests are used to confirm/discard influenza diagnosis only in the initial phases of the pandemic or for diagnosis of atypical cases and complications.
- Provide care for affected patients in a designated area where closer monitoring, parenteral therapy, oxygen therapy and more intensive nursing care are available.
- Use antiviral and antibacterial medications as per management guidelines above.

6. REFERENCES

- Full references are available in the Canadian Pandemic Influenza Plan - Public Health Agency of Canada February 2004 edition

INFLUENZA SELF-CARE

SECTION 7.11



It's in your hands

Helping people to help themselves and others during influenza season and pandemic

What is influenza self-care?

Each year, influenza-associated illnesses have a substantial impact on an already strained health-care system. The system will be strained considerably more in the case of pandemic influenza.

The Influenza Self-Care Strategy is designed to increase the public's confidence and ability to prevent and treat influenza and to educate them about how best to use the health-care system during regular influenza season and pandemic.

Your role as a health-care provider

As a health-care provider, you have an important role to play in making the Influenza Self-Care Strategy work. Research shows that the greatest successes in changing long-term behaviour occur when a health education program is offered and supported by health-care providers while in direct contact with their clients/patients i.e. integrated into the health-care system.

This booklet contains critical information your clients/patients need in order to care for themselves and others during influenza season and pandemic. You can help them to help themselves by providing this information during consultations.

The Influenza Self-Care Strategy addresses four areas of concern:

Informing the public

INFLUENZA

Influenza is an infection of the respiratory tract caused by one of three virus types:

- Influenza A, which causes the most severe and widespread disease, infects mammals (including pigs and horses) and birds;
- Influenza B, which infects only humans (commonly children);
- Influenza C, which is mild and rare.

In North America, influenza usually affects people between November and April. The virus is defined by two surface proteins (antigens): Haemagglutinin (H) and Neuraminidase (N), which undergo frequent minor changes (antigenic drift), causing local outbreaks every two to three years. Most previously-infected individuals will continue to have some protection against the slightly changed virus.

Pandemic influenza

Three to four times each century, a radical change occurs in the genetic material of the influenza A virus, and a new subtype will suddenly appear with a completely new H or N antigen (antigenic shift). Protection people have developed to the influenza that occurs every year will not apply. The virus will spread rapidly around the world, causing a global epidemic (pandemic) with the potential to cause serious illness, death, and social and economic disruption. The World Health Organization (WHO) monitors influenza virus strains circulating in humans. Nations world-wide, Canada included, are preparing contingency plans.

Influenza transmission

The influenza virus is passed from person to person by droplets and small particles of respiratory fluid when an infected person coughs, sneezes or talks. Airborne droplets can enter the body through mucus membranes of the eyes, nose or mouth. The virus, contained in droplets, can travel one to two metres in the air. It can live for one to two days on hard surfaces; eight to 12 hours on cloth, tissue or paper; and five minutes on hands.

People develop symptoms of influenza from one to three days after becoming infected. They can spread the virus from one day before and up to five days after the onset of symptoms.

SYMPTOMS OF INFLUENZA

Primarily these include:

- sudden fever ≥38˚C (100.4˚F)*.
- dry cough.
- aching body, especially head, lower back and legs.
- extreme weakness/ tiredness, not wanting to get out of bed.

Other symptoms can include

- chills.
- aching behind the eyes.
- loss of appetite.
- sore throat.
- runny/stuffy nose.

** For people older than 75 years, the temperature may be lower, e.g. 37.2˚C (99˚F). They may also experience vomiting, diarrhea or abdominal pain.*

Usually fever resolves in three to five days and the person experiences a general sense of improvement. Tiredness and cough can persist for several weeks.

Influenza symptoms are distinct from those of a cold or gastroenteritis.

How serious is influenza?

Certain groups are at risk to develop serious complications, such as pneumonia, which may even result in death. They include:

- children < two years and seniors, because they have weaker immune systems.
- those whose immune systems are compromised by disease or medication/treatment.
- those with certain chronic illnesses, such as heart or lung disease.

Effect of influenza

Each year, influenza-associated illnesses have a major effect on school/work absenteeism and productivity, and on an already strained health-care system.

IS IT INFLUENZA, A COLD OR STOMACH FLU?

Symptoms/Description	Influenza	Common Cold	Stomach Flu
Fever	Usually high	Sometimes	Rare
Chills, aches, pains	Frequent	Slight	Common
Loss of appetite	Sometimes	Sometimes	Common
Cough	Usual	Sometimes	Rare
Sore throat	Sometimes	Sometimes	Rare
Sniffles or sneezes	Sometimes	Common	Rare
Involves whole body	Often	Never	Stomach/bowel only
Symptoms appear quickly	Always	More gradual	Fairly quickly
Extreme tiredness	Common	Rare	Sometimes
Complications	Pneumonia; can be life threatening	Sinus infection Ear infection	Dehydration

Prevention and self-care

ANNUAL IMMUNIZATION

Because the influenza virus is always changing, a new vaccine is needed yearly. WHO recommends a vaccine that targets the three most likely strains to circulate in the next influenza season. The best time to be immunized is during October and the first half of November, just before the influenza season, as it takes two weeks for the vaccine to become fully effective. However, it is not too late to get immunized once influenza has arrived in the community. The vaccine cannot cause influenza because the virus in the vaccine is killed. The vacine is 70-90 per cent effective in young, healthy people and protection lasts about six months. For those with weakened immune systems, the vaccine is less effective, but immunization can reduce morbidity.

Since vaccine strains are selected six to nine months before the start of influenza season, there is a slight chance the strain may change before the season actually starts. The vaccine will **NOT** protect against other respiratory illnesses.

Who should be immunized?

- those at greatest risk of serious complications.
- caregivers, volunteers, health-care workers and others capable of transmitting the disease to people who are at risk.

Alberta Health and Wellness covers the cost for at risk individuals. Some employers offer vaccine to their staff. People who are not at risk may be immunized for a fee. Everyone should be encouraged to take advantage of these opportunities.

Who should not be immunized?

- those severely allergic to eggs, because viruses used to make vaccine are grown in eggs.
- people who have severe allergies to any component of the vaccine.
- those with severe reactions to a previous vaccine.
- children under six months of age.
- those with acute febrile illness (they can be immunized once symptoms have abated).

Vaccine reactions

The most common reaction is some redness and soreness at the injection site, which usually resolves in two days. Some may develop a fever, tiredness and aching after six to 12 hours that may last for one to two days. Rarely a person has an allergic reaction to some other component of the vaccine within 12 hours.

What about antiviral medications?

Antivirals (oseltamivir or amantadine) may be prescribed, unless contraindicated, for:

- those at risk who cannot be immunized.
- those at risk who are immunized after influenza enters the community and who require protection for the two-week vaccine response period.
- non-immunized contacts of people who are at risk.
- those at risk in an outbreak when the circulating strain is different from the vaccine strains.

Pneumococcal polysaccharide vaccine

This vaccine protects against the 23 strains of bacteria that most often cause pneumonia following influenza. Alberta Health and Wellness covers the cost of this vaccine for those who are at risk, including:

- people ≥ 65 years.
- residents of long-term care facilities.
- individuals ≥ two years with certain chronic conditions.

Most need the vaccine only once in their lifetime. It can be given at the same time as the influenza vaccine, or anytime of the year.

Pneumococcal conjugate vaccine is given to infants, starting at age two months, as part of Alberta's routine immunization program.

Where to get immunized

- local public health centres by appointment, or at an off-site influenza immunization drop-in clinic.
- many physicians' offices.
- some pharmacies and work sites.

HAND WASHING

Next to immunization, the single most important way to prevent influenza is frequent hand washing.

Wash hands

BEFORE:

- preparing, serving or eating food or feeding others.
- brushing or flossing teeth.
- inserting or removing contact lenses.
- treating wounds/cuts (and after).

Good hand hygiene is especially important for children in day care.

AFTER:

- any contact with a person with influenza or their immediate environment.
- toileting self or others or changing a diaper.
- blowing nose or wiping a child's nose.
- coughing or sneezing.
- handling garbage.

Children should wash their hands after playing with toys shared with other children.

Respiratory etiquette

- Use disposable tissues for wiping nose and discard immediately into waste container.
- Cover nose and mouth when sneezing or coughing.
- Wash hands after coughing, sneezing or using tissues.
- Keep fingers away from the eyes, nose and mouth.

Other ways to minimize transmission

- Avoid crowds during influenza season.
- Visit those who have influenza only if necessary, and stand more than one metre away from them.
- If a household member has influenza, keep their personal items separate. Clean surfaces around them frequently with detergent cleanser. Do not shake their linens.
- Do not share personal items or drinks.

Caring for oneself

A strengthened immune system can be achieved through physical and emotional well-being:

- drinking plenty of water.
- not smoking.
- having regular exercise.
- taking a multivitamin daily, if an older adult.
- decreasing stress, staying optimistic and socially active.

Planning ahead

Everyone - especially those living alone, single parents of young children, or caregivers of frail or disabled people - should be encouraged to prepare for when they may contract influenza. They should:

- have enough fluids and household items (e.g. tissues) at home to last one to two weeks.
- have antipyretics and a thermometer (knowing correct use).
- identify a backup caregiver for loved ones/children.

Employers should be encouraged to develop contingency plans to address high rates of illness and support employees while still maintaining services.

Managing the illness: Adults

GENERAL SELF-CARE MEASURES

Adults who have contracted influenza should:

- rest.
- avoid contact with others while contagious (five days), if possible
- drink extra fluids.
- gargle with warm salt water; use throat lozenges, saline nose drops, a humidifier.
- avoid smoking and second hand smoke.
- talk to others about concerns and ask for help if needed. Keeping in touch by phone or email can help alleviate feelings of aloneness when sick.
- treat symptoms with over-the-counter (non-prescription) medication with careful attention to the following guidelines.

Over-the-counter medications (OTCs)

Most people treat influenza with OTC medications that contain several active ingredients.

People should be encouraged to consult with a pharmacist or their health-care provider regarding dosing, contraindications, side effects, etc.

General OTC guidelines

- To prevent adverse reactions or taking in substances that have little/no effect, take an OTC remedy that treats only one symptom and/or has only one active ingredient.
- If taking more than one medication at a time, check the labels to avoid taking the same ingredient twice.
- Try "regular strength" before "extra strength."
- Follow instructions on the label and note any possible side effects or drug/health condition interactions.
- Check the expiry date and take outdated medications to a pharmacy for disposal.
- Keep all medications out of the reach of children.

USE ALL MEDICATIONS AS DIRECTED ON THE LABEL.

Treating specific symptoms with OTCs

Muscle pain and fever

Acetaminophen (preferred for older adults) or ibuprofen

Cough

Dextromethorphan (DM) for dry cough, only if it interrupts sleep or causes chest discomfort. Delsym® and Benylin-Dry Cough® contain DM without other ingredients.

Nasal congestion

Decongestant nose drops/sprays provide rapid short term relief. Watch for rebound congestion after two or three days, then switch to oral decongestants (e.g. pseudoephedrine).

Sore throat

Lozenges, throat sprays. Dyclonine (e.g. Sucrets®) will numb the throat; products with honey, herbs or pectin will soothe.

Complementary medicines

There is some research that shows the following may help shorten influenza illness or lessen its severity: Vitamins E and C, COLD-FX® (ginseng), Echinacea Plus® (herbal tea), elderberry (Sambucol®), quercetin, Bifidobacterium breve, homeopathic Oscillococcinum, gingyo-san (traditional Chinese herbal medicine), Kan Jang (Andrographis paniculata).

Health-care providers should be informed about complementary medicines taken by clients and advise them on potential disease/drug interactions.

When to seek medical care

Primary concerns for adults are compromised respiratory function, dehydration and sepsis.

Adults with influenza should seek medical care if they have heart or lung disease or any other chronic condition that requires regular medical attention; an illness or treatment that suppresses the immune system; or frailty.

Individuals should seek medical care promptly if they have:

- shortness of breath while resting or doing very little.
- difficult or painful breathing.
- wheezing.
- coughing up of bloody sputum.
- chest pain.
- fever for three to four days without improvement or worsening.
- improvement, then sudden high fever or recurrence of symptoms.
- extreme drowsiness and difficulty awakening.
- disorientation or confusion.
- severe earache.
- new inability to function, if an independent elder.
- persistent vomiting, if elderly.

Prescribed medications - adults

- Antibiotics are not prescribed for uncomplicated influenza but may be for complications such as pneumonia.
- Antivirals must be started within 48 hours of the first symptoms of influenza to decrease length and severity of the illness.

Managing the illness: Children

SYMPTOMS

Influenza illness is more severe in children under five years old. Age-related differences are evident in infants and toddlers. Infants usually develop higher temperatures, and unexplained fever may be the only sign. Central nervous system symptoms may appear in up to 20 per cent of infants/children and may be suggestive of meningitis. Nausea, vomiting, diarrhea and abdominal pain occur in 40-50 per cent, mainly those three years of age and under.

Influenza is an important precursor of croup, pneumonia and bronchitis. Otitis media and non-purulent conjunctivitis are more frequent. Myositis is a frequent complication, especially after infection with Influenza B.

Very young children and infants probably have symptoms similar to older children and adults but do not know how to tell caregivers. They may be irritable, eat poorly, and develop a hoarse cry and barking cough (croup).

Children over five years of age and adolescents have symptoms similar to adults.

Caring for children

Treat symptoms if necessary using:

- Acetaminophen as the preferred medication to treat fever and muscle pain. Take the child's temperature before giving an antipyretic. Do not wake a child to administer an antipyretic. Ibuprofen is an alternate medication but should **not be** used for children less than four months old.

Children under 18 years should NOT take acetylsalicylic acid (ASA) or any products containing ASA, because of the potential for Reye's Syndrome.

- Cough suppressant (DM) for a dry cough in children older than two years only if cough is interrupting sleep (not for asthmatics or moist cough).
- Saline nose drops or spray - decongestant sprays in children over six months, oral decongestants with older children, if needed.
- Throat lozenges or warm salt water for gargling. This may help children over six years of age.

Other measures:

- Dress a child in lightweight clothing and keep room temperature at 20˚C.
- Offer fluids/breast feed frequently while child is awake.
- Settle the child or involve them in quiet activities while at home (~five days).
- Use a humidifier (except with asthmatic children).
- Elevate head of the bed; infants may be more comfortable in a car seat or baby swing.
- Cool baths/alcohol rubs are NOT recommended.

Humidifiers should be cleaned every day to prevent mold blowing in the air.

- ***Use hot water with one part bleach to 10 parts water.***
- ***Scrub the inside with a cloth or bottle brush to get into tight corners.***
- ***Rinse well with hot water.***

When to seek medical care

Primary concerns for children with influenza are respiratory compromise, dehydration, secondary bacterial infection and neurological complications (more common in very young infants and children with chronic disease).

Almost all children with influenza have fever – the presence or absence of fever as a sign of severity of influenza is not helpful.

Parents/caregivers are advised to seek medical care for a child with influenza if the child:

- is < three months old.
- has heart or lung disease or any chronic illness requiring regular medical care.
- has disease or is on treatments causing immunosuppression.
- takes ASA regularly for a medical condition.
- has a change in respiratory pattern with an increased respiratory rate and signs of labored breathing.
- is very listless with a loss of interest in most things, e.g. playing, watching TV, eating/drinking.
- is excessively irritable and inconsolable.
- has significantly reduced urine output, for example urinates less often than every six hours while awake; or has a dry diaper for more than three hours if younger than six months, or longer than six hours if six to 23 months old.
- looks very ill and the caregiver is worried.

When to take a child to hospital emergency

If the child:

- has severe trouble breathing (not caused by nasal congestion).
- has blue lips or hands or sudden pallor, or has cold legs up to their knees.
- has a full or sunken fontanel.
- is limp or unable to move.
- is excessively sleepy to the point of being difficult to arouse or unresponsive.
- shows signs of pain: headache and/or stiff neck, especially if combined with fever and listlessness and their eyes are sensitive to light.
- seems confused.
- has a seizure.

For more information contact:

Health Link Alberta

Edmonton, call 408-LINK (5465)

Calgary, call 943-LINK (5465)

Outside Edmonton and Calgary local calling areas,

call toll-free 1-866-408-LINK (5465)
visit: www.healthlinkalberta.ca

Public Health Centres (Monday - Friday, daytime hours), or physicians or pharmacists

Alberta Health and Wellness

visit: www.health.gov.ab.ca

Fact Sheets Available:

- Pandemic influenza
- Hand washing to prevent influenza
- How to take a temperature – children and adults
- Over-the-counter (non-prescription) medications for influenza
- Influenza antiviral medications
- Dealing with stress or feelings of fear because of influenza

CD0093 June 2005

Alberta

7.12 MORTUARY AND BURIAL SERVICES

There are approximately 17,000 deaths throughout Alberta in any given year. It is estimated that there will be between 800 and 4,000 deaths in Alberta during a pandemic influenza outbreak. Pandemic influenza deaths at the lower end of the predicted range would represent an increase of approximately 5% above the normal annual death rate, and would place only a slight stress on current systems in place to care for the dead. The higher end of the range represents a 24% increase in the annual death rate and would have a significant impact upon resources.

If the death is expected and occurs at home, a funeral home can pick up the body directly from the home; or from the hospital or Medical Examiner's Officer, if the body was moved to one of these facilities for temporary storage. If the death occurs at the hospital, the body is held at the hospital, usually in a refrigerated space until the funeral home picks the body up. If the physician does not know the cause of death, the individual died as a result of trauma or drugs, the death must be reported to the Medical Examiner and an autopsy may be conducted. The funeral home will then pick up the body from the regional Medical Examiner's Office in Calgary or Edmonton, or from a rural hospital. Throughout Alberta, final disposition of the body, whether by burial or cremation, can take place within 2 – 5 days of death in most cases.

During the course of a pandemic influenza outbreak, the same system and resources will be used, however accommodations will have to be made for the increased number of deaths. Body transportation, body storage, delays in final disposition of bodies and actual fear of the body as a source of infection can all be anticipated as major stress points to the current system. The majority of deaths that occur as a direct result of Pandemic Influenza will not require any involvement of the Medical Examiner, however in this special setting the Medical Examiner's Office, which has experience in dealing with multiple fatality incidents, will be available as a resource.

Body Transportation

Body transportation is done by funeral homes, or in the case of the Medical Examiner's Office, by contract body transportation companies. During a pandemic influenza, the Medical Examiner's Office will continue to be responsible for the transportation of all bodies when the death occurs under circumstances reportable to the Medical Examiner. The majority of Pandemic Influenza deaths will not be reportable to the Medical Examiner and it is anticipated that body storage will be a problem during a Pandemic Influenza outbreak. A system will need to be developed for transportation of bodies from the location of death (home, alternate care center, hospital) to the site designated for temporary body storage. Arrangements need to be made with local funeral homes, but short-term contract body transportation services may have to be created if the number of deaths threatens to overwhelm local resources. The Medical Examiner's Office can be contacted for guidance on what requirements need to be considered for the creation of this service.

Body Storage (Temporary Morgue)

It is assumed that temporary storage of a body is normally only necessary for a period of 1 – 5 days. However, during a pandemic influenza, storage for 3 – 6 weeks may be necessary. The temporary facility must be refrigerated to a temperature of 4°C. Decomposition will start after several days, even at this temperature.

The combined total capacity of all hospitals in Alberta for refrigerated storage is estimated to be less than 150 bodies. The Medical Examiner's Office has refrigerated space for a maximum of 25 bodies in each of the Calgary and Edmonton offices. There will be a shortage of space province-wide, which will vary in accordance with evolution of the Pandemic Influenza stages. In the Calgary Health Region, the morgue capacity in the table below.

SITE	CAPACITY	COMMENTS
Foothills Hospital	11 adults	
Peter Lougheed Centre	7 adults	Have accommodated 10
Rockyview General Hospital	10 adults	
Alberta Children's Hospital	3 larger children (< 1 year)	
RURAL		
Banff	2	
Black Diamond	2	
Canmore	2	
Claresholm	2	At Willow Creek Care Center, no morgue at Claresholm General
Didsbury	2	
High River	2	
Strathmore	2	
Vulcan	2	

There are three potential sources of additional refrigeration sites for bodies:

Commercial refrigerated tractor/trailer units can be rented and placed at a hospital where there are already procedures in place for the admission and release of bodies. Each rural hospital will work with their local municipality to ensure adequate space is available for their catchments area. All efforts will be made to minimize post-pandemic loss of business due to the fact that bodies were stored at sites.

The use of local industries with refrigerators (i.e. restaurants) is not generally recommended because of the post-pandemic loss of business due to the fact that bodies were stored at the site.

The use of local ice arenas may be necessary.

FACILITY	ADDRESS
Ernie Starr Arena	4808 – 14 Avenue SE
Father David Bauer – Norma Bush Arena	2424 University Drive NW
Frank McCool Arena	1900 Lake Bonavista Drive SE
Optimist – George Blundun Aren	5020 – 24th Avenue SW
Rose Kohn Arena Centre	502 Heritage Drive SW
Shouldice Arena Centre	1515 Home Road NW
Southland Leisure Centre	2000 Southland Drive SW
Stew Hendry – Henry Viney Arenas	814 – 13 Avenue NE
Stu Peppard Arena	5300 – 19 Street NW

FACILITY	ADDRESS
Murray Copot Arena (formerly the Thornhill Arena)	6715 Centre Street NW
Village Square Leisure Centre	2623 – 56 Street NE
Plainsman Arena	310 Center Avenue, Airdrie
Oilfields Arena	611 – 3 Street SW, Black Diamond
Canmore Recreation Center	1900 – 8 Avenue, Canmore
Claresholm	Claresholm Arena
Didsbury Arena & Memorial Complex	1702 – 21 Avenue, Didsbury
Bob Snodgrass Recreation Complex	228 – 12 Avenue SW, High River
Strathmore Family Center	160 Brent Boulevard, Strathmore
Vulcan Curling Rink	705a Elizabeth Street, Vulcan

Handling of the Bodies

All individuals who handle the bodies of those dying of influenza should use universal precautions. These precautions are known to and currently used by all health care and funeral home professionals and do not require any special adaptation in a Pandemic Influenza setting. The actual risk of influenza infection spreading from the body of a deceased individual is minimal, with the primary precaution against disease spread being the prevention of exposure to splashes or aerosols of body fluids.

Final Disposition of Bodies

In normal circumstances, memorial services and funerals can be held within 2 – 5 days of death. In a Pandemic Influenza setting, the funeral service industry will suffer from the same increased demand for services and the same employees and supply shortages that other industries will be experiencing. As a result, it should be anticipated that from the time of death to final disposition of the deceased could take weeks as opposed to days. This will be disturbing for the next of kin, particularly for those whose religious beliefs place strict timelines on caring for the dead, however these delays will be virtually unavoidable. There is currently no intent to resort to mass burials or mass cremations

7.13 ETHICS OF HEALTH CARE DECISION MAKING DURING A PANDEMIC CRISIS

Introduction

Preparation for pandemic infection includes the development, discussion and dissemination of ethics principles that will guide the conduct and decision making of health systems and health care providers during such a crisis. It is acknowledged that the frameworks normally employed in making clinical and systems decisions might be altered prior to, during, and after a pandemic.

Work is underway at many levels to define plans for operational preparedness. It has been recognized that an understanding of the ethical frameworks that underpin pandemic-related decisions is critical.

Components and Purpose of this Document

This draft document will describe the phases of a pandemic as they relate to core ethical imperatives that shift from phase to phase. The allocation of scarce resources, ethics of quarantine, duty to employees, and the ethics of triage decisions are briefly addressed.

This document will also outline some of the relevant general ethical principles that guide health care decisions in a time of pandemic crisis, so as to place all readers on a common information ground. A glossary of terms is included.

It is anticipated that this document will serve as a discussion paper to engage health care providers and leaders. As such, it should not to be viewed as an officially endorsed policy statement. Rather, it will be initially shared with administrators, physicians, and managers in order to raise awareness and to solicit feedback. Wider dissemination of revised iterations will occur later in the Pandemic Project strategy.

Ethical Shift during Phases of a Pandemic

In planning for a pandemic, there are several distinct situational phases:

Phase 1: Pre-knowledge

Phase 2: Early indications of the potential for a pandemic

Phase 3: Identification that an index case may exist in Canada

Phase 4: First Calgary area case(s)

Phase 5: Limited cases, with potential for extensive spread

Phase 6: Extensive disease burden established

Phase 7: Widespread disaster

Phase 8: Return to normal operations

It is useful to identify the shift in priorities and "normal practice" as a pandemic moves through these phases and to describe how the primary ethical imperatives may change. Under normal circumstances, an egalitarian approach to resource allocation and clinical decision making exists. Despite constraints in the system, eventually health care resources can be applied to almost all who are in need of them. Triage rules assist in assigning the resources where they are most needed to help those who are at greatest risk. Concepts like fairness, equality, equity, autonomy and optically transparent decisions apply well in the egalitarian framework.

In **phase 1** of a pandemic **(pre-knowledge time)**, individual health care and group resource allocations decisions carry on in the manner with which we are currently accustomed.

When there are **early indications of the potential for a pandemic (phase 2)**, there will be knowledge of cases outside the country and the public health system will begin to operationalize prior decisions regarding stockpiling of medicines and vaccinations, and ensuring health care system preparedness. Policies regarding immigration, quarantine at borders, and import restrictions on potential vectors might be enacted. If so, this will reflect a shift in ethical principles as highly valued personal autonomy and freedom of movement starts to become restricted so as to benefit the entire population.

At the point at which there is **identification of a possible index case in Canada (phase 3)**, all public health systems and authorities will begin to move towards utilitarian principles in ethical decision-making. Under this ethical framework, what is best for the most people, or for society as a whole, will be considered. At this stage, there will be a ramping up of planning efforts within health care, but with a continuation of normal operational capacity, normal triage decision making at the bedside, and normal human resource functions. There may be some changes in civil liberties, such as the freedom for unrestricted movement out of the geographical area of the index case.

When the **first case in the Calgary area (phase 4)** is identified or suspected, there will be immediate alteration of normal functions within the system, and a further shift towards utilitarian principles to guide ethical decision-making. Quarantine efforts directed at the index case and contacts, including health care personnel, will be implemented. If feasible, a decision might be made to shift normal health care functions away from the identified site of care of the first case. This could have an impact on the care of other patients but minimizing the impact will be important. Imperatives directed at protecting employees and preventing spread, such as compelling immunizations and providing protective gear, might be instituted. Due to the anticipated costs of a potential outbreak, early decisions to divert funding away from specific health care initiatives deemed to be non-essential, or less important, might be taken..

During the next phase, when there are **limited cases, but the potential for extensive spread** of illness (phase 5), many decisions that reflect the utilitarian ethical framework will be taken and there will be shifts in health care management. Sites of care will be altered so as to minimize spread throughout the system. Patients who have been waiting for elective treatments and investigations, and some who are currently under treatment, will have interventions delayed or cancelled. Normal triage principles will likely be altered. Diversion of physical, capital and human resources will begin to occur and appropriate care in other settings will need to be established. For individual patients with other conditions, there will be risk determination between having treatment foregone and remaining in hospital with risk of exposure to pandemic influenza.

This will likely be the most difficult time for ethical decision making. While normal care delivery is suspended for many people, there will still be hope that a widespread outbreak can be prevented. On an organizational level, it will be necessary to determine whether the diversion of resources to prevent wide scale death and morbidity justifies the potential harm to a smaller number of individuals by not treating them for other, pre-existing disease states. However, it may be possible to continue treatment of all individuals in as normal a manner as possible until it becomes obvious the next phase has been entered. It is likely, though, that individual decisions for patients will need to be directed to best alternatives in order to allow good treatment that is sustainable during a wide scale outbreak. For example, a decision to perform an operation that requires lengthy, team-based hospital treatment may be ethically unsound during this stage, provided an alternative strategy exists to keep the person's health status stable.

Previously made treatment decisions will be enacted. Individual provider-recipient autonomy and privacy will be devalued against the need for protection of the public and providers from harm. Health care workers might be compelled into work environments and tasks other than those

that they normally undertake. Despite this, continuation of other essential health services will be necessary. It will be exceedingly difficult to make decisions regarding maintenance and suspension of programs at the time of such a crisis. Therefore, advance deliberation based on sound ethical and management principles is necessary, and priority grids will need to be established during planning activities.

When **extensive disease burden has been established (phase 6)**, maximal efforts at protecting the public from widespread harm and death will be paramount and the shift to utilitarian ethics will be complete. Decisions about who to treat with scarce resources will need to be made. It will be acceptable to divert many resources to the task of protecting society. Normal professional boundaries will be crossed. While there will be efforts to carry on with societal authority structures, it needs to be recognized that the familiar 'command-control' functions of public services will likely be disrupted. People will increasingly employ individually held beliefs to guide them in daily choices between professional duties, humanitarian imperatives and personal/family survival. As widespread disaster (phase 7) occurs, it will not be possible to assume utilitarian ethics will guide individuals in the choices that are made.

The **return to normal operations (phase 8)** will be accompanied by a shift back towards egalitarian principles in decision-making. However, the return will likely be quite slow, and incremental, depending on the aspect of the system being addressed. Much will depend on the severity of the pandemic and the human, organizational and financial devastation that transpires. Considerations of burden of suffering, operational efficiencies in times of dramatic resource constraint (human resource, supplies and financial means), and rethinking of ongoing priorities in the re-establishment of social order and institutions will impact ethical decision-making in this phase.

In conclusion, several key points need to be emphasized:

1. The shift during phases may be obvious organizationally but may be more incremental to individuals.
2. The transitional time between phases may be exceedingly short.
3. Organizational readiness entails prior deliberation, widespread agreement, and broadcommunication of the principles utilized in establishing the decisions that will be taken in the event of a potential or full scale outbreak.
4. Organizational decisions that reflect the balance between prevention, cure (including cure of other conditions) and care, will be challenging.

Relevant Ethical Principles

Autonomy normally is the first guideline in decision-making. However, in cases of pandemic infection, issues of **utility**, or greatest good for the greatest number, normally trump personal autonomy. Utility is often directed at preventing the spread of infectious diseases that are not readily treatable.

Priority of Essential Workers – During time of disasters, essential workers should often be treated before others because, without their services, the health of the general population is at imminent risk.

Social Worth Criteria – Social worth criteria should not be a factor in deciding priorities for treatment. When difficult choices are made between the competing needs of patients, the ability to survive treatment becomes important. Matters such as social standing, contribution to society, or age should not be considered.

Utilitarianism – Decisions maximize the overall good of society; i.e. the most good for the most people, where every individual is understood as being equal to everyone else. However, it can be morally unacceptable to have large groups of individuals suffer even if it result in great gains or happiness for the remainder of the population.

Egalitarianism – In this framework, decisions are made to treat the people who are in the greates need of care. This is how decisions are normally made to triage in ICU or the Emergency Department.

Beneficence - the duty to assist persons in need, to provide a benefit.

Nonmaleficence - the duty to refrain from causing harm.

The principles of beneficence and nonmaleficence require persons to evaluate the potential benefits of an action in relation to its risks. Caring for patients in such a way as to maximize benefit and to avoid harm rests on these two ethical principles. These concepts can apply at the individual care provider-recipient interface, as well as at a systems level.

Selected Issues

a) The Ethics of Triage Decisions

The order of priorities for treatment is as follows:

1. Those at highest risk of imminent death. This would apply to phases 1-5. When phases 6 and 7 have been entered, there is a need for a greater emphasis on first triaging those who have the greatest probability of survival.
2. Those whose life can be saved by intervention; i.e. those for whom intervention has the greatest chance of effectiveness.
3. Those whose treatment will save others; i.e. this means save the health of others, not affect the health of others.
   a) Intervention will interrupt the chain of infection.
   b) Intervention will maintain the health and usefulness of an essential health professional[1].
4. Those whose symptoms and suffering are most intense.
5. Those who have been waiting the longest for treatment.

b) Minimizing "Collateral Damage"

Collateral damage refers to the potential harm created by allocation decisions on patients who are receiving care prior to a pandemic, or those who develop needs unrelated to influenza.

It is acceptable that patients are disadvantaged to some extent by the need to prevent the spread of disease to the public (principle of utility) but the principle of duty of care requires current patients with serious needs receive continuity of care, including discharge planning. The shift from an egalitarian approach to a utilitarian approach as we move through the phases described above requires us to keep in mind the concept of proportionality.

[1] Essential health professional means someone whose efforts directly aid the battle with the pandemic; this essential person must not be easily replaceable during the immediate pandemic situation.

c) Developing a clear understanding with employees concerning working conditions in the event of a public health emergency

There must be a clear and agreed upon definition of what will trigger a public health emergency.

- Duty to accommodate: Employeeswho are pregnant or immunocompromised will not be assigned to high-risk areas.
- All union contracts will be followed concerning remuneration.
- All employees brought on as temporary help will be assured that they will receive full benefits and pay appropriate to the union contract.
- Staff will agree that it is their ethical and professional responsibility to treat infectious patients (duty of care). Human Resource guidance will be required in this area.
- If employees are asked to work extra hours and require paid child or elder care, the employee will be reimbursed (principle of reciprocity).
- Employees will agree to change work sites if required, but the employer will minimize disruption.

A similar set of guidelines should be developed for Medical Staff and contractors.

d) Ethics of Quarantine

It is essential to quarantine those at imminent risk in order to avoid the spread of disease (principle of utility trumps personal liberty in this case). However, the principle of reciprocity requires help for those in quarantine to ensure that they are not isolated, that they are able to cope, and that they have access to needed medicine, care, and the basic necessities of living. The principle of proportionality requires that the degree of personal liberty constraint is in proportion to the risk to individuals and the population from not constraining personal liberty.

e) Ethical criteria for the allocation of scarce resources

Ethics of resource allocation is considered in relation to the concept of justice and the physician's obligatory duty to the patient. In normal circumstances, acceptable criteria for resource allocation among patients (based on the principle of justice) are:

a. urgency of patient's condition

b. likelihood of benefit to the patient

c. improvement in patient's quality of life

d. duration of benefit

e. amount of resources needed for successful treatment

In the pandemic situation, there is a shift towards utilitarianism and to prioritizing the needs of society above those of the individual. In this setting, the ethical principles used for scarce resource allocation, namely

a. distributive justice

b. proper triage principles

c. beneficence

d. nonmaleficence

e. duty of care

may shift in order of importance. Duty of care becomes an imperative not reserved for a distinct physician-patient interaction, but focused also on duty of care to the entire population.

When dealing with persons at high risk, commonly accepted triage principles will prevail. Patients with the highest probability of survival would be treated first. The principle of justice holds that patients with like conditions will be treated in a like way. Neither age nor station figures in decisions.

Glossary of Terms

Autonomy – respect for the choices of the individual patient.

Collateral damage – the effect of system change during a crisis on patients who were already receiving care or were waiting for care.

Duty to accommodate – the imperative to balance employees assignments during a crisis with their individual health/life circumstances, in proportion to the severity of the crisis.

Duty of care – the ethical imperative for employees and physicians to treat patients needing care and to accept deployment with the system were needed.

Equity – balancing of service provision in a fair manner so as to best serve the health needs of individuals and of communities.

Individual liberty – refers to the personal rights and freedoms of an individual.

Privacy – ensuring that principles of privacy of personal and health information are maintained, in proportion to the need form public safety.

Proportionality – loss of civil liberties such as freedom of movement are enacted in proportion to the threat to the public. The relationship between the two must be temporal and relevant. Importantly, the limitations must be enacted in the least intrusive manner possible, and again, in proportion to the threat.

Protection of communities from undue stigmatization – ensuring that policy and communication do not marginalize certain groups unfairly, nor target certain groups for judgement and avoidance by the public. This includes protection of health care workers from such judgement while they might work in a transmissible infectious environment.

Protection of the public from harm – the duty and authority of health systems to impinge on the rights of individuals so as to protect the public from potential harm.

Reciprocity – the need to ensure that those whom liberties have been restricted, such as being placed in quarantine, are provided essential needs for living: access to health care, economic means, food, shelter, human contact.

Solidarity – the connection and collaboration within health systems, between health systems, and between nations, in the interest of assisting during a crisis, sharing information and expertise, and enabling systems that prevent harm between jurisdictions.

Transparency – the requirement placed on health authorities to inform legitimate stakeholders of the crisis, and of the risks and benefits of the management option that can be used to control the crisis.

Utility – conduct that pursues the greatest good for the greatest number.

References:

1. University of Toronto Joint Centre for Bioethics, SARS and Hospital Priority Setting – Full Study, Bell, A.H., et al, News Flash – Archive, December, 2004
2. Calgary Health Region, Office of Disaster/Emergency Response Planning, Highlights of the Lessons Learned From the SARS Outbreak in Toronto, April, 2004.
3. University of Toronto Joint Centre for Bioethics (2003). Ethics and SARS: Learning lessons form the Toronto Experience (Executive Summary), retrieved n.d., from http://www.utoronto.ca/jcb/SARS working paper.asp
4. Bernstein, Mark, SARS and Ethics, Hospital Quarterly Vol 7. No. 1, 2003, pp 38-40
5. Maddox, P.J., EdD, MSN, RN, Administrative Ethics and the Allocation of Scarce Resources, Online Journal of Issues in Nursing, December, 1998, retrieved from http://www.nursingworld.org/ojin/topic8/topic8_5.htm
6. Jiwani, Bashir, Ethics and Influenza Planning, presentation slides from copyrighted material, Bashir Jiwani, Provincial Health Ethics Network 2001.

Draft Prepared By:

Dr. Eric Wasylenko
Medical Advisor, regional clinical ethics service

Mr. Brian Farewell
Coordinator, regional clinical ethics service

Dr. Tony Taylor
(Former) Medical Director, CMO Office

Dr David Megran
Senior VP and Chief Medical Officer

June 2, 2005

7.14 PANDEMIC INFLUENZA PROJECT COMMITTEES AND MEMBERS

The initial version of this plan released in December 2005, was developed through the efforts and contributions of the following groups and individuals.

Working Committee Membership

Pandemic Advisory Committee

Dr. Brent Friesen, Medical Officer of Health – Chair
Maya Charlebois, Infectious Disease Outbreak Specialist-Project Manager
Dr. Judy MacDonald, Deputy Medical Officer of Health, Communicable Disease
Dr. Cheri Nijssen-Jordan, Director, Quality Improvement Physician, Emergency
Cathy Qually, Director, Distribution Services
Cheryl Bourassa, Director, Disaster and Emergency Response Planning Services
Linda Dearden, Manager, Human Resources
Jacquelynn Twarzynski, Director, Communications
Sandra Parkins, Risk Management
Wendy Dirksen, Administrative Director, Northeast Community Portfolio
Carol Gray, Vice President, Northeast Community Portfolio
Francine Girard, Vice President of Professional Practice and Research, CNO (past participant)
Nancy Alfieri, Director, IP&C
Arlene Weidner, Vice President of Service Integration (past participant)
Lynn Walker, Program Specialist, Rural Rehab
Mary Bearnes, Manager, TSSI
Terry Cleveland, Project Director, People and Learning (past participant)

Medical Working Group

Dr. Cheri Nijssen-Jordan, Quality Improvement Physician, Emergency – Chair
Brian Farewell, Regional Clinical Ethics Service
Dr. Tony Taylor, Medical Director, CNO (past participant)
Dr. Wendy Tink, RCDH, Family Medicine
Dr. Bruce MacLeod, Quality Improvement and Health Information, Emergency Medicine
Dr. Rick Anderson, Medical Employees Office
Dr. John Kortbeek, Site Chief, Department of Surgery, FMC
Dr. John Conly, RCDH Medicine, Internal Medicine
Dr. Paul Boiteau, RCDH, Critical Care/ICU
Dr. Gil Curry, RCDH, Emergency Medicine
Dr. Val Congdon, RCDH, Rural Medicine,
Dr. Rene Lafreniere, RCDH, Surgery
Dr. Eric Wasylenko, Medical Director, Regional Clinical Ethics Service

Operations

Wendy Dirksen, Administrative Director, NECP – Chair
Brenda Hannah, Administrative Director, SECP
Joan deBruyn, Director, Home Care
Wendy Lau, Manager, CDC
Maureen Best, Director, Child and Youth Community Health Services
Cathy Qually, Director, Distribution Services

Linda Dearden, Manager, Human Resources
Dr. Cheri Nijssen-Jordan, Quality Improvement Physician, Emergency
Jennifer McCue, Administrative Director, NWCP
Shawna Syverson, Director, Heart Health (past participant)
Janice Stewart, Director, Cardiac Sciences
Toni MacDonald, Director, Children's Inpatient and Outpatient Programs, C&WH
Lynn Walker, Program Specialist Rural Rehab, Administration
Pam Brown, Director, Seniors Health and Palliative
Sue Conroy, Director, Emergency Medicine, Urgent Care Services and Health Link (past participant)
Caroline Hatcher, Director, Emergency Medicine, Urgent Care Services and Health Link
Kathy Rasmussen, Quality Specialist, Supported Living
Marg Semel, Director, Medical Outpatient and Clinics Services

Public Health Measures

Dr. Judy MacDonald, Deputy Medical Officer of Health, Communicable Desease – Chair
Jean Pagnucco, Director, Communicable Desease (past participant)
Debbie Hyman, District Manager, Child and Youth Community Health Services
Afsheen Remtulla, Influenza Coordinator, Communicable Desease
Dr. Kevin Fonseca, Provincial Virologist, Provlab
Dr. Bruce Dalton, Pharmacist

Human Resources

Linda Dearden, Manager, Human Resources, People and Learning – Chair
Irene Hanrahan, Acting Director, Nursing Professional Resources
Dave Bilan, Director, Professional Practice Allied Health
Sue Prior, Coordinator, Volunteer Resources
Dr. Betty Ann (Elizabeth) Henderson, Epidemiologist, IP&C
Charlotte MacDonald, Clinical Program Coordinator, Occupational Health, TSSI
Marion Kelly, Regional Manager, Career Development, Learning and Development
Jean Dueck, Occupational Health Nurse, High River
Tracey West, sr. HR Consultant, Human Resources

Logistics

Cathy Qually, Director, Distribution Services – Chair
David O'Brien, Director, Supply Purchasing
Allan Roles, Director, Engineering and Maintenance
Chris Kane, Regional Manager, Patient Transportation (CHPTS)
Wayne Pelletier, Regional Manager, Protection Services
Sam Tse, Chief Information Technology Officer, Information Technology
Terry Chelich, Manager, Lab Services

Liaison

Cheryl Bourassa, Director, Disaster and Emergency Response Planning Services – Chair
Robert Cote, Town of Crossfield
Mike Dingle, City of Airdrie
Tracy Gooler, Wheatland Country, Village of Rockyford, Wheatland Country MA Group
Greg Harris, Calgary Police Service
Bob Kuzminski, Town of Canmore, Bow Corridor MA Group
Dr. Mike Depue, M.D. of Rocky View Wildrose MA Group
Elbert Manderville, Emergency Management Alberta

Tony Messer, City of Calgary
Grant Moir, Calgary EMS
Richard Murray, Town of High River
Celia Pace, Liaison Treaty 7
Lou Patterson, Town of Black Diamond, Town of High River, South Calgary MA Group
Steen Pedersen, Regional EMS
Robert Wright, Town of Didsbury
S/Sgt. Keith Redl, RCMP
Harvey Rindfliesch, City of Calgary
Darren Sandbeck, Regional EMS
Randy Tiller, Emergency Management Alberta
Brian Winter, Town of Cochrane

Risk Management

Sandra Parkins, Risk Management Office – Chair
Brian Farewell, Coordinator, Regional Clinical Ethics Service
Dr. Eric Wasylenko, Medical Director, Regional Clinical Ethics Service
Mike Tolfree, Manager, Information and Privacy Office
Salima Walji, Legal Counsel , Legal Services
Val Austen-Wiebe, Director, Quality Improvement and Health Information
Angelique Hamilton, Access and Privacy Coordinator, Information and Privacy Office
Terry Cleveland, Project Director, People and Learning (past participant)

Communications

Jacquelynn Twarzynski, Director, Communications – Chair
Leanne Niblock, Manager, Media Relations, Communications
Joanne Ganton, Communications Advisor, Internal & Visual Communications
Delaine Johnson, Diversity Services Manager, SECP
Jeff Meerman, Advisor, Communications
Jean Pagnucco, Director, Communicable Disease (past participant)
Kathy Taylor, Manager, Calgary Health Link
Lynn Walker, Program Specialist Rural Rehab, SECP
Afsheen Remtulla, Influenza Coordinator, Communicable Disease
Isabel Clarke, Manager, Calgary Health Link
Debby Crane, Education Specialist, Calgary Health Link

7.15 PANDEMIC EVALUATION FRAMEWORK

(UNDER DEVELOPMENT)