



FOREWORD

Development of pandemic response plans for each of Vancouver Coastal Health's Health Service Delivery Areas (HSDA's) has involved input from, literally, hundreds of individuals throughout the VCH Region. In a series of facilitated workshops, health care workers were asked to identify issues and to propose solutions, based on their firsthand knowledge.

We have tried to incorporate some of that information in the draft plans. Each of these documents can only be a framework for continuing planning efforts. A workable, local plan must be a local product. Those who will implement the plan need to be familiar with its contents. So, where we had local information we have included it in the current iteration of the plan. Where such information was lacking, we have indicated who should be responsible for making sure that it is included in future iterations.

Emergency Co-ordinators in each HSDA have responsibility to coordinate the development and implementation of pandemic response planning, as part of the "all-hazards" approach to emergency response. Unlike most emergencies, an influenza pandemic will require a sustained and calibrated response. There will be little or no access to outside help. VCH's Emergency Co-ordinators have been important contributors to the development of these draft plans. It will be up to them to ensure that these plans become "working" documents, supportive of that sustained and calibrated response.

The plans will be exercised in a collaborative process; at that time, much of the information in the plans will need to be reviewed and updated to ensure that the plan remains current. Maintenance of the plan is under the coordination of the Emergency Co-ordinators. It is important that they forward updated and new information to VCH Communicable Disease Control, so that such information may be incorporated in the regional plan. Communicable Disease Control staff will communicate national, provincial and regional policies that affect the contents of local plans to the Emergency Co-ordinators to ensure that local plans remain up-to-date and consistent across the region.

INTRODUCTION

Pandemic response planning at the local level takes place within a context of regional, provincial, federal and international planning.

The World Health Organization (WHO) has devised a template for assessing and addressing the risk of an influenza pandemic. This template of **pandemic phases** serves as the basis for pandemic response planning and for activation of response.

World Health Organization Pandemic Phases

INTERPANDEMIC PHASE New virus in animals, No human cases	Low risk of human cases	1
	Higher risk of human cases	2
PANDEMIC ALERT New virus causes human cases	No or very limited human-to-human transmission	3
	Evidence of increased human-to-human transmission	4
	Evidence of significant human-to-human transmission	5
PANDEMIC	Efficient and sustained human-to-human transmission	6

Because Influenza A H5N1, a novel avian influenza virus sub-type, is causing illness in humans but, is not readily transmissible between people, we are, at the time of writing, deemed to be in a **pandemic alert, phase 3**. This level of alert has triggered a massive, international response, including efforts to detect and treat human cases and to eradicate the virus in domestic poultry flocks. As well, programs are in place to educate farmers in developing countries in enhanced animal husbandry practices and domestic hygiene.

If this or another novel influenza sub-type were to demonstrate increased human-to-human transmissibility, WHO would raise the **pandemic alert to level 4**, thus triggering efforts to contain the virus or delay its spread in order to afford us time to implement preparedness measures, including vaccine development.

Once significant human-to-human transmission is established, WHO will raise the **pandemic alert level to phase 5**, triggering a maximal public health effort to contain the spread of the virus, possibly prevent a pandemic and provide time to implement pandemic response measures.

When efficient and sustained transmission of a novel influenza virus, causing serious human illness, is established, WHO and national and provincial authorities will declare a "**pandemic**", **phase 6**. All health system efforts will be directed to minimizing the impact of the pandemic.

The purpose of the **Coastal Health Pandemic Response Plan** is to provide staff with a ready reference for pandemic response. It has been developed with input from staff in the Health Service Delivery Area and is a dynamic document. It is intended that the plan be **exercised and updated annually**.

The **Vancouver Coastal Health Regional Pandemic Influenza Response Plan** is cited as a reference throughout this document. Regional co-ordination of pandemic response will be based on the regional plan and it is within the context of regional planning that this HSDA-level plan has been developed. The VCH Regional Pandemic Influenza Response Plan can be found at www.vch.ca/pandemic. The most recent iteration of the regional plan will be that found on the VCH website. The Regional Pandemic Influenza Response Plan will serve as the ultimate source for pandemic response planning information throughout the region.

ETHICAL FRAMEWORK FOR DECISION MAKING & PLANNING¹

We have to think about difficult issues and make difficult decisions, as we prepare our health system to respond to a pandemic. We will face ethical dilemmas when our ethical values are in tension with one another.

We can help resolve these dilemmas if we have a shared ethical language and ethical decision making processes.

Ethical Processes

- **Open & transparent**; our decisions should be publicly defensible
- **Reasonable**; our decisions should be based on relevant evidence, principles and values
- **Inclusive**; we must engage our communities & our clients in the conversation
- **Responsive**; we must be able to respond to our stakeholders' concerns
- **Accountable**; we must maintain ethical processes throughout a pandemic and be accountable for our decisions

Ten ethical values support ethical decision-making processes and planning. These values provide a shared ethical language.

Ten Ethical Values for Pandemic Response

Individual liberty is enshrined in our laws and our health care practice. We may have to infringe individual liberty, when we take steps to **protect the public from harm**. We must ensure that the measures we take to protect the public from harm are **proportional to the risk** of public harm and do not exceed the minimum required to address the risk.

We all have a **right to privacy** and the privacy of our health information. If, when protecting the public from harm, we have to make use of private health information, we will abide by the laws regulating the collection, use and disclosure of that information.

During a pandemic, we will ask our health care workers to fulfill their ethical **duty to provide care**, when they may be concerned about their own well-being or the health of a sick child or friend. We owe them **reciprocity**. We must try to make sure that they have the tools and supports they need to manage at work and at home.

Trust will be an essential element in our relationships during a pandemic. We must build trust now through ethical decision-making processes. We will need to be able to rely on our **solidarity** with one another as friends and neighbours and as citizens. We must demonstrate excellent **stewardship** of our resources and develop and allocate them as best we can.

All patients have an equal call on health services; we must preserve as much **equity** as possible between meeting the needs of influenza patients and meeting the needs of patients who require urgent treatment for other diseases or conditions.

¹ Based on *Ethical Framework for Decision Making in a Pandemic*, Dr. Jennifer Gibson *et al.* Joint Centre for Bioethics, University of Toronto.

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PANDEMIC PREPAREDNESS AND LOCAL AUTHORITIES: Roles & Responsibilities

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Coastal Health Services: HSDA Pandemic Response Plan

PANDEMIC PREPAREDNESS AND LOCAL AUTHORITIES: Roles & Responsibilities

Vancouver Coastal Health and its Health Service Delivery Areas have a responsibility to plan and to implement a health system response to an influenza pandemic.

An influenza pandemic is a communicable disease outbreak and the health system response will be directed at containing the outbreak, to the extent possible, and at mitigating its health impacts at an individual and societal level.

Even a mild pandemic will tax our capacity to cope and we will need to collaborate with our partners in municipal and regional government, with first nations and with volunteer organizations to sustain a response.

Municipalities and Regional Districts within a Health Authority should develop management guidelines and procedures for health emergencies to enable local governments, working in conjunction with local health authorities, to maintain the continuity of essential services and support to residents. The Health Authority, through the Medical Health Officer (MHO), will take the lead in providing advice and counsel to local government's emergency services.

This section of the plan defines the roles and relationships of the **Health Authority** (Vancouver Coastal Health, its sub-units, known as Health Service Delivery Areas) and the **local authority** (municipalities, regional districts) in responding to an influenza pandemic.

Role of the Health Authority

The Medical Health Officer will take the lead in providing advice and counsel to local government. In addition, the Medical Health Officer shall take whatever steps are reasonably possible to suppress the disease and protect the public as described in the *Health Act*.

Responsibilities During the Pre-Pandemic Period

Process

In the Pre-Pandemic Period, the **Emergency Co-ordinator** should co-ordinate work with local government and VCH representatives to:

- ❑ Evaluate adequacy of existing local infrastructure to respond to influenza pandemic.
- ❑ Work in conjunction with health service providers, employers and municipalities to improve annual influenza vaccination levels.
- ❑ Review current plans for mass vaccination campaigns.
- ❑ Determine availability of alternate sites for triage centres, treatment centres.
- ❑ Identify facilities and resources with sufficient refrigerated storage to serve as temporary morgues.
- ❑ Devise a plan for distribution and administration of vaccine to public.
- ❑ Educate local authority staff about the nature and significance of pandemic influenza and the local response.
- ❑ Work with local private and volunteer organizations, including ESS, to develop and co-ordinate local response to a pandemic influenza.
- ❑ Coordinate pandemic influenza planning with municipal and regional district partners.

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PANDEMIC PREPAREDNESS AND LOCAL AUTHORITIES: Role of the Health Authority

Responsibilities When a Novel Influenza Strain is Identified

Upon identification of a novel influenza strain, the Health Authority will be responsible for monitoring reports from public health agencies, such as the WHO and the CDC.

Process

When a novel influenza strain is identified, the **Medical Health Officer** shall:

- ❑ Notify the appropriate local government agencies of any alerts.

Responsibilities Upon Confirmation of a Pandemic by the World Health Organization

Process

Upon confirmation of a pandemic, the **Medical Health Officer** should:

- ❑ Activate the Health Authority Pandemic Influenza Response Plan.
- ❑ Report to or send designate to the municipal/local EOC to provide a briefing and receive status reports from partner agencies.
- ❑ Be prepared to respond to media inquiries regarding the outbreak.
- ❑ Activate emergency plans, as required.
- ❑ Plan for activation of alternate care sites.
- ❑ Plan for implementation of counseling/psychiatric support services.
- ❑ Implement a health education campaign with emphasis on following:
 - hand washing
 - stay home rather than be exposed to/spread the influenza virus
 - check on family, friends living alone
 - vaccination clinic locations
 - signs and symptoms of influenza
- ❑ Plan for vaccine and antiviral distribution, storage and security
- ❑ Review list of alternate care facilities with municipal planners and Emergency Social Services.
- ❑ Attend EOC briefings and provide regular updates to the local Government.

Responsibilities Upon Confirmation of a Pandemic in Canada

Process

Upon confirmation of a pandemic in Canada, the **Medical Health Officer** should:

- ❑ Report or send designate to the municipal/local EOC to provide a briefing and receive status reports from partner agencies.
- ❑ Increase public information efforts designed to keep ill persons at home.
- ❑ If medical/health mutual aid system among Health Authorities is overwhelmed, request assistance from Province but anticipate that assistance from others may be limited.
- ❑ Implement alternate care sites, as necessary, to respond to overwhelming caseload.
- ❑ Attend EOC briefings and provide regular updates to the municipality.

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PANDEMIC PREPAREDNESS AND LOCAL AUTHORITIES: Role of Local Authority

Local authorities are defined by the BC *Emergency Program Act* to include:

- For a municipality, the municipal council
- For an electoral area in a regional district, the board of the regional district.

Every local authority in BC has a legislated responsibility to develop and maintain an “emergency program.” Preparing for a pandemic is one component of a comprehensive emergency plan.

The role of the local authority in a pandemic is to maintain essential services and to support the Health Authority in its response.

Process

In the face of a pandemic influenza outbreak, the **Local Authority** in consultation with the **Health Authority** should:

- activate the necessary contingency plans and set priorities for continuation of local government. These priorities include:
 - maintenance of public safety services such as Fire and Police
 - operation of essential public works and municipal services such as water treatment and delivery, waste management, garbage disposal, etc.
 - providing information and advice to the public through regular announcements
 - establishing alternative care facilities and triage centres, as requested by the local Health Authority to facilitate the immunization of the public and provision of health care in non-traditional settings
 - activating a committee of local business people to assist one another in maintaining a level of service to the community, particularly those services involving access to pharmaceuticals, retail food purchases, gasoline and other essential commodities.

References & Resources

For further information on the role of Local Authorities in pandemic response, refer to VCH Pandemic Influenza Plan, Chapter 14, Local Government.
http://www.vch.ca/pandemic/docs/ch14_government.pdf

Managing Pandemic Influenza: A Guide for BC Local Governments is available at:
<http://www.healthservices.gov.bc.ca/pandemic/local.html>

For pandemic planning information for businesses refer to the VCH *Pandemic Response Planning Checklist for Businesses & Organizations* at:
http://www.vch.ca/pandemic/docs/business_checklist.pdf

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PANDEMIC PREPAREDNESS AND LOCAL AUTHORITIES: Local Authority Emergency Services Leaders

In a pandemic, local authority Emergency Services Leaders will be tasked with leading the municipal, regional district or First Nations band response. Following is a checklist of responsibilities during the pre-pandemic, pandemic and post-pandemic periods.

Responsibilities During the Pre-Pandemic Period

Process

In the pre-pandemic period, Local Authority Emergency Services Leaders should:

- ❑ Ensure plans and procedures to support Health Authority initiatives to prepare for a pandemic are in place and up-to-date.
- ❑ Develop a program, in conjunction with the Health Authority, to facilitate routine, annual influenza vaccination of staff.
- ❑ Ensure that areas of responsibility essential for maintenance of government have been backed up so that appropriate designated personnel can take over management in case of absence due to illness.
- ❑ Review mutual aid agreements with neighbouring communities to share personnel capable of managing and maintaining essential services.
- ❑ Plan with the Health Authority for the implementation of Victim Assistance Centre(s) to provide social service and mental health assistance.
- ❑ Review and confirm availability of facilities for alternate care and patient triage with the Health Authority.
- ❑ Review and confirm availability of facilities for cremation and refrigeration for dead bodies with the Health Authority and Coroners Services.
- ❑ Arrange and facilitate a meeting with the local Chamber of Commerce and local business leaders regarding the need for mutual aid support between businesses.

Responsibilities During a Pandemic

Process

During a pandemic Local Authority Emergency Services Leaders should:

- ❑ Advise Chief Elected Official and Council on response.
- ❑ Activate the Emergency Operations Centre (EOC), as necessary.
- ❑ Provide a briefing to all EOC members.
- ❑ Consider obtaining a declaration of state of emergency, if necessary.
- ❑ Be prepared to respond to media inquiries regarding the outbreak.
- ❑ Post information on appropriate websites.
- ❑ Assist with establishment of mass vaccination clinics.
- ❑ Arrange security for facilities to be used for mass vaccination clinics.
- ❑ Establish alternate care sites, as necessary, to respond to overwhelming caseload.
- ❑ Ensure transportation available to individuals unable to transport themselves for treatment or immunization
- ❑ Implement plans for procedures to address supply and personnel shortfalls
- ❑ Establish volunteer support services registry.
- ❑ Establish Victim Assistance Centre, as necessary.
- ❑ Working with the Health Authority, ensure that self-help guidelines are distributed to businesses and public.
- ❑ Meet with representatives of local businesses to ensure essential businesses remain open.

Responsibilities During a Pandemic (cont'd.)

Process

During a pandemic Local Authority Emergency Services Leaders should:

- ❑ Confirm arrangements with local funeral directors for burial plots, cremation and refrigeration. Determine availability of burial plots and assign staff or crews to assist local funeral homes with tasks associated with burial or cremation.
- ❑ Alert neighbourhood-watch or other community-based response organizations.
- ❑ Consult with the Medical Health Officer on the need to cancel public events.
- ❑ Consult with the Medical Health Officer on the need for control of movement of people and commodities in and out of the community.
- ❑ Assist with public information effort designed to keep ill persons at home.
- ❑ If police, fire, ambulance mutual aid is overwhelmed, request military assistance from provincial government.

Post Pandemic Responsibilities

Process

In the post-pandemic period, Local Authority Emergency Services Leaders should:

- ❑ Provide coordinated support services for people affected by pandemic influenza through the Victim Assistance Centre.
- ❑ Review, evaluate and assess impact of municipal or regional pandemic response.
- ❑ Monitor and redistribute resources, as appropriate.

References & Resources

For further information on the role of Local Authorities in pandemic response, refer to VCH Pandemic Influenza Plan, Chapter 14, Local Government.

http://www.vch.ca/pandemic/docs/ch14_government.pdf

Managing Pandemic Influenza: A Guide for BC Local Governments is available at:

<http://www.healthservices.gov.bc.ca/pandemic/local.html>

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PANDEMIC PREPAREDNESS AND LOCAL AUTHORITIES: Role of Emergency Social Services in a Pandemic

Emergency Social Services (ESS) will be an important part of a pandemic response. In VCH our health care resources may be stretched thin and we will rely on the support of our own volunteers and on the support of ESS volunteers in the community.

Under BC's *Emergency Program Act*, local authorities are required to establish and maintain an emergency management plan and defining a role for ESS is a component of that planning.

Role of ESS in a Pandemic

The *BC Pandemic Influenza Preparedness Plan: Annex F* details the roles and responsibilities of ESS in a pandemic event. ESS volunteers may be called upon to work with the health authority to establish and maintain alternate care sites, mass vaccination clinics and ESS reception centres to provide social services and trauma and grief counselling support. Helping those who are ill and confined to home will also be a role for ESS volunteers.

Insurance Coverage of ESS Volunteers

The Provincial Emergency Program (PEP) is responsible for supporting volunteers through a PEP Task Number, to ensure that they are eligible for Workers' Compensation and liability insurance, when they are engaged in an ESS response.

Planning for Prolonged Response

A pandemic will necessarily require a prolonged response; the disease is likely to occur in waves, separated by some months and each wave may last several weeks. This kind of sustained response is unlike the disaster response that is typically envisioned when planning for the role of ESS.

Local Authority Emergency Managers, ESS Directors and Health Authority pandemic planners will have to work closely together to ensure that roles and responsibilities are well understood and that messages are consistent and that communication links are well established.

Process

In the pre-pandemic period, the **Local Authority**, in consultation with the **Health Authority** and the local **ESS Director**, should:

- Clarify the expectations, roles and responsibilities of Emergency Social Services in pandemic response.

References & Resources

Information on Emergency Social Services can be found at the ESS website at:

<http://www.ess.bc.ca/index.htm>

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SURVEILLANCE

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SURVEILLANCE

Influenza surveillance activities in Canada are coordinated by the Public Health Agency of Canada, and reported regularly through FluWatch, a compilation of influenza surveillance information from within Canada and from international sources.

FluWatch is found at: <http://www.phac-aspc.gc.ca/fluwatch/index.html>

In the interpandemic period, Vancouver Coastal Health undertakes surveillance for local influenza activity in order to:

- Monitor for the introduction and spread of influenza and other respiratory viruses within the region;
- Allow for rapid identification and control of facility outbreaks, to minimize morbidity and mortality of vulnerable populations;
- Provide information on influenza epidemiology to hospitals, long term care facilities and physicians;
- Provide regional information to provincial and federal authorities that will contribute to national surveillance information.

When a pandemic is declared, surveillance activities will be directed by the Public Health Agency of Canada and directed provincially by the BCCDC. Vancouver Coastal Health will participate in these activities, and will enhance regional surveillance activities to monitor for the local introduction and spread of the pandemic viral strain.

For information on **Laboratory Surveillance**, refer to VCH Pandemic response Plan Chapter 3, section 2.

For information on **Enhanced Sentinel Physician Surveillance**, refer to VCH Pandemic Response Plan Chapter 3, section 3.

For information on **Emergency Room Surveillance**, refer to VCH Pandemic Response Plan, Chapter 3, section 4.

For information on **Enhanced Border Surveillance**, refer to VCH Pandemic Response Plan, Chapter 3, section 5.

References & Resources

http://www.vch.ca/pandemic/docs/ch03_surveillance.pdf

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SURVEILLANCE

Summary Of Regional Surveillance Activities By Pandemic Phase

PANDEMIC PHASE	SURVEILLANCE ACTIVITY	DESCRIPTION
Interpandemic Period (Phases 1 & 2) Novel virus in animals but no human cases	▪ ILI outbreaks in facilities	Reports of 2 or more cases of ILI within a one week period in long-term care or acute care facilities
	▪ Reports of viral isolates from laboratories (VIRAP or BCCDC)	Testing of nasopharyngeal wash from ILI outbreaks and individual patients through VIRAP, BCCDC
	▪ Reports of school absenteeism	Passive reporting from schools with student absenteeism of 10% or more
	▪ Sentinel physician surveillance	Weekly reports of proportion of patient visits for ILI from community physicians
Pandemic Alert (Phases 3, 4, 5) New human viral subtype with localized clusters of human-to-human spread; virus not yet fully transmissible	▪ Border surveillance (Returning travellers)	Passive surveillance of travellers returning from areas of pandemic alert; provide information on signs and symptoms and seeking medical assessment to returning travellers from affected areas
	▪ Emergency Room Surveillance	Provide case definitions for reporting of ILI among returning travellers from ERs
	▪ Community physician surveillance	Provide case definitions for reporting from all community physicians and clinics
	▪ Reports of unusual clusters of respiratory illness or deaths	Reporting from ERs, hospital infection control (inpatients), Employee Health (healthcare worker clusters), and community physicians
	▪ Healthcare Worker Surveillance	Active surveillance of employee absenteeism
Pandemic declared (Phase 6) Sustained transmission in general populations	▪ Enhanced sentinel physician surveillance	Enhancing the existing sentinel physician surveillance of ILI using Vancouver Coastal physicians
	▪ Real time Emergency Room surveillance	Using electronic data available from VCH Emergency Rooms for pneumonia and ILI
	▪ Enhanced border surveillance	Assist Health Canada in surveillance at ports of entry
	▪ Active surveillance for school absenteeism	Active surveillance of school absenteeism by PHNs/CHNs
	▪ Reports of viral isolates from laboratories (VIRAP and BCCDC)	Testing of nasopharyngeal wash from ILI outbreaks and individual patients through VIRAP, BCCDC
	▪ Healthcare Worker Surveillance	Active surveillance of employee absenteeism
Phase 6 - 1 st and 2 nd peaks	▪ Discontinue border surveillance	
	▪ Discontinue testing of viral isolates	Test only for unusual clusters or initial cases in a given community
Post pandemic period	<ul style="list-style-type: none"> ▪ Return to Phase 1 activities ▪ Assess pandemic surveillance activities 	

SURVEILLANCE

Active Surveillance for School Absenteeism

When a pandemic (Phase 6) has been declared, by the World Health Organization, active surveillance for school absenteeism may be initiated to detect introduction or spread of the pandemic strain.

Note

Influenza viruses are known to circulate among school-age children and absenteeism rates above 10% during influenza seasons are known to correlate with spread in the general population.

In the interpandemic period, school surveillance for increased absenteeism is done passively. This relies on schools notifying public health of increased absenteeism, if detected. During active surveillance, the public health nurses will contact the school on a regular basis to ask about levels of absenteeism. Within each Community Health Area, schools are assigned to public health nurses.

Process

The Public Health Nurse should:

- ❑ Identify a primary contact at the school for absenteeism rates, usually the school secretary.
- ❑ Contact each school once per week to obtain the daily absenteeism rate. If absenteeism is below 10%, no further action is required. Advise school contact to call the Public Health Nurse, if rates rise significantly prior to the next scheduled call.
- ❑ Contact the schools more frequently, if there is concern that an outbreak is beginning.
- ❑ Ask for the list of absent students and their contact information, if absenteeism is above 10%.
- ❑ Contact students or their parents to ascertain the reason for their absence.
- ❑ Arrange for VIRAP testing of up to 6 students or staff with most recent onset of symptoms of influenza-like illness (ILI), if a majority of absentees meet the criteria for ILI.
- ❑ Provide VIRAP results to the students or parents, the MHO and the school.
- ❑ Provide MHO letter to parents for information, including instructions for self-care and when to seek medical attention.
- ❑ Provide updated schools contact information annually to Emergency Co-ordinator.

The Emergency Co-ordinator should:

Insert updated schools contact information into the plan annually.

References & Resources

http://www.vch.ca/pandemic/docs/ch03_surveillance.pdf

Tools

Checklist for School Absenteeism & a List of Schools and Contact Numbers, by school district, follow.

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SURVEILLANCE

Active Surveillance for School Absenteeism

Checklist for School Absenteeism

Date: ____/____/____ Completed by: _____
 yyyy mm dd

Name of School: _____

Phone: _____

School contact name: _____

a) Student enrolment: _____	c) Total staff: _____
b) Number absent: _____	d) Number absent: _____
Absenteeism (b/a x 100%): _____	(d/c x 100%): _____

If absenteeism is 10% or more:

- Obtain names and contact phone numbers of those absent
- Determine the reason for absenteeism
- If a majority of those absent meet the case definition for ILI, arrange for testing
 - VIRAP testing of up to 6 cases with recent onset of symptoms
 - Results to MHO
 - Notification of those tested
 - If a cause is identified, letter home to all parents with information and instructions

Name	Address	Phone	VIRAP results

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SURVEILLANCE

Active Surveillance for School Absenteeism

Health Service Delivery Area	School Board	School	Contact Number
Coastal	North Vancouver School District www.nvsd44.bc.ca	Blueridge	604-903-3250
		Boundary	604-903-3260
		Braemar	604-903-3270
		Brooksbank	604-903-3280
		Canyon Heights	604-903-3290
		Capilano	604-903-3370
		Carisbrooke	604-903-3380
		Cleveland	604-903-3390
		Cove Cliff	604-903-3420
		Dorothy Lynas	604-903-3430
		Eastview	604-903-3520
		Fromme	604-903-3520
		Highlands	604-903-3540
		Larson	604-903-3570
		Lynn Valley	604-903-3620
		Lynnmour	604-903-3590
		Montroyal	604-903-3650
		Norgate Community	604-903-3680
		Plymouth	604-903-3690
		Queen Mary	604-903-3720
		Queensbury	604-903-3730
		Ridgeway	604-903-3740
		Ridgeway Annex	604-903-3747
		Ross Road	604-903-3750
		Seymour Heights	604-903-3760
		Sherwood Park	604-903-3810
		Upper Lynn	604-903-3820
		Westview	604-903-3840
		Windsor House	604-903-3366
		<i>Argyle</i>	604-903-3300
<i>Balmoral Jr.</i>	604-903-3400		
<i>Carson Graham</i>	604-903-3555		
<i>Handsworth</i>	604-903-3600		
<i>Keith Lynn</i>	604-903-3800		
<i>Seycove</i>	604-903-3666		
<i>Sutherland</i>	604-903-3500		
<i>Windsor</i>	604-903-3700		

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SURVEILLANCE

Active Surveillance for School Absenteeism

Health Service Delivery Area	School Board	School	Contact Number		
Coastal	West Vancouver School District www.sd45.bc.ca	Bowen Island	604-947-9337		
		Caulfield	604-981-1200		
		Cedardale	604-981-1390		
		Chartwell	604-981-1210		
		Cypress Park	604-981-1330		
		Eagle Harbour	604-981-1380		
		Gleneagles	604-981-1360		
		Hollyburn	604-981-1220		
		Irwin Park	604-981-1240		
		Lions Bay	604-921-8311		
		Pauline Johnson	604-981-1225		
		Ridgeview	604-981-1250		
		West Bay	604-981-1260		
		Westcot	604-981-1270		
		<i>A.C.C.E.S.S.</i>	604-981-1062		
		<i>Rockridge</i>	604-981-1300		
		<i>Sentinel</i>	604-981-1130		
		<i>West Vancouver</i>	604-981-1100		
		Sunshine Coast www.sd46.bc.ca 604-886-8811		Cedar Grove	604-886-7818
				Davis Bay	604-885-9523
Gibsons	604-886-2612				
Halfmoon Bay	604-885-2318				
Kinnikinnick	604-885-6666				
Langdale	604-886-9971				
Madeira Park	604-883-2373				
Roberts Creek	604-885-9229				
Sechelt	604-885-2114				
Sunshine Coast Alt.	604-886-8647				
West Sechelt	604-885-2825				
<i>Chatelech</i>	604-885-3216				
<i>Elphinstone</i>	604-886-7216				
<i>Pender Harbour</i>	604-883-2373				
Powell River www.sd47.bc.ca				Edgehill	604-485-6164
		Grief Point	604-485-5660		
		Henderson	604-483-9162		
		James Thomson	604-483-3191		
		Kelly Creek	604-487-9022		
		Texada	604-486-7616		
		Oceanview Middle	604-485-2756		
		<i>Brooks Senior</i>	604-483-3171		
		<i>Brooks Junior</i>	604-485-6251		
<i>Choices</i>	604-485-5257				

Coastal Health Services: HSDA Pandemic Response Plan

SURVEILLANCE

Active Surveillance for School Absenteeism

Health Service Delivery Area	School Board	School	Contact Number		
Coastal	Howe Sound www.sd48.bc.ca	Blackwater Creek	604-452-3330		
		Brackendale	604-898-3651		
		Garibaldi Highlands	604-898-3688		
		Mamquam	604-898-3601		
		Myrtle Philip Community	604-932-5321		
		Signal Hill	604-894-6378		
		Spring Creek Community	604-935-3822		
		Squamish	604-892-9307		
		Stawamus	604-892-5904		
		Valleycliffe	604-892-9394		
		<i>Howe Sound Secondary</i>	604-892-5261		
		<i>Pemberton Secondary</i>	604-894-6318		
		<i>Don Ross</i>	604-898-3671		
		<i>Whistler</i>	604-905-2581		
		<i>Howe Sound Outreach</i>	604-894-5437		
		West Vancouver Independent Schools		Bowen Is. Montessori	604-947-9039
				Bowen Learning Ctr.	604-947-0796
Collingwood 6-12	604-925-3331				
Collingwood K-5	604-925-3331				
Gatehouse Montessori	604-925-1437				
Horseshoe Bay Christian	604-921-9978				
Island Pacific School	604-947-9311				
Mulgrave School	604-922-3223				
St. Anthony's	604-922-0011				
West Van Montessori	604-922-7454				
Bodwell High School	604-924-5056				
Brockton Prep.	604-929-9201				
Canadian Int'l College	604-929-1544				
North Vancouver Independent Schools		Ecole Francais EFIV	604-924-2457		
		Holy Trinity	604-987-4454		

Coastal Health Services: HSDA Pandemic Response Plan

SURVEILLANCE

Active Surveillance for School Absenteeism

Health Service Delivery Area	School Board	School	Contact Number		
Coastal	North Vancouver Independent Schools	Lion's Gate Christian	604-984-8226		
		Lucas Centre	604-903-3333		
		North Van Christian Academy	604-986-2288		
		North Star Montessori	604-980-1205		
		St. Thomas Aquinas	604-987-4431		
		St. Edmund's	604-988-7364		
		St. Pius X	604-929-0345		
		Waldorf	604-985-7435		
		Alternate Schools	Conseil scolaire francophone North Vancouver	Ecole Andre-Piolat	604-980-6040
				Pemberton	604-932-9602
Sechelt/Gibsons	604-885-4743				
	604-885-3216				
Squamish	604-898-3688				
Whistler	604-932-9602				

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH IMPACT ESTIMATES

Population Estimates & High Risk Groups

It is impossible to predict in advance how virulent the next pandemic influenza strain will be. The last pandemics of 1957 and 1968 were relatively mild, while the “Spanish Flu” of 1918 had devastating effects worldwide. The actual pandemic impact may be milder or more severe than the projections made in this chapter. As more information emerges on the pandemic virus itself and additional modeling studies are completed, the estimates will also be further refined.

Population projections provided by the British Columbia Statistics Agency and the templates found in the BC Pandemic Influenza Plan - which in turn are based on freely available public health software - were used to compute the expected rate of illness and mortality for Coastal Health, by Local Health Area.

These estimates were produced for the general population as well as for groups considered to be at high-risk for contracting influenza and suffering from complications based on known susceptibility to annual influenza infections.

It is important to note that individuals at high-risk for regular influenza strains may not be those that will be most severely affected in a pandemic. Mortality was highest among young adults in the “Spanish Flu” of 1918. The most vulnerable group in the next pandemic will not be known in the interpandemic period. Therefore, the estimates should be considered as the best available, according to current knowledge.

Information on reference resources and how these calculations were made is contained in Chapter 2 - Health Impact Estimates, *VCH Pandemic Influenza Response Plan*:
http://www.vch.ca/pandemic/docs/ch02_health_impact.pdf.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH IMPACT ESTIMATES

Population Estimates & High Risk Groups

Table 1

Estimates of the total population size and the number of high-risk individuals in the **0 to 19 year** age group in Coastal HSDA, by Local Health Area, based on 2004 population statistics (numbers are based on an estimate of **6 to 11 % of high risk individuals** within this age group)

LHA #	Local Health Area	Age Group ≤ 1 to 19 Years				
		Total Population Within Age Group	High Risk		Standard Risk	
			Low Estimate (6%)	High Estimate (11%)	Low Estimate (89%)	High Estimate (94%)
44	North Vancouver	29,645	1,779	3,261	26,384	27,866
45	West Vancouver - Bowen Island	9,674	580	1,064	8,610	9,094
46	Sunshine Coast	6,101	366	671	5,430	5,735
47	Powell River	4,555	273	501	4,054	4,282
48	Sea to Sky	7,698	462	847	6,851	7,236
49	Bella Coola Valley	1,084	65	119	965	1,019
83	Central Coast	504	30	55	449	474
Total Coastal		59,261	3,555	6,518	52,743	55,706

Table 2

Estimates of the total population size and the number of high-risk individuals in the **20 to 64 year** age group in Coastal HSDA, by Local Health Area, based on 2004 population statistics (numbers are based on an estimate of **14 to 25 % of high risk individuals** within this age group)

LHA #	Local Health Area	Age Group ≤ 1 to 19 Years				
		Total Population Within Age Group	High Risk		Standard Risk	
			Low Estimate (6%)	High Estimate (11%)	Low Estimate (89%)	High Estimate (94%)
44	North Vancouver	88,748	12,425	22,187	66,561	76,323
45	West Vancouver - Bowen Island	31,491	4,409	7,873	23,618	27,082
46	Sunshine Coast	16,634	2,329	4,159	12,475	14,305
47	Powell River	12,296	1,721	3,074	9,222	10,575
48	Sea to Sky	22,619	3,167	5,655	16,964	19,452
49	Bella Coola Valley	1,976	277	494	1,482	1,699
83	Central Coast	1,070	150	268	802	920
Total Coastal		174,834	24,478	43,710	131,124	150,356

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH IMPACT ESTIMATES

Population Estimates & High Risk Groups

Table 3

Estimates of the total population size and the number of high-risk individuals in the **65 and older** age group in Coastal HSDA, by Local Health Area, based on 2004 population statistics (numbers are based on an estimate of **40 to 55 % of high risk individuals** within this age group)

LHA #	Local Health Area	Age Group ≤ 1 to 19 Years				
		Total Population Within Age Group	High Risk		Standard Risk	
			Low Estimate (6%)	High Estimate (11%)	Low Estimate (89%)	High Estimate (94%)
44	North Vancouver	17,236	6,894	9,480	7,756	10,432
45	West Vancouver - Bowen Island	10,325	4,130	5,679	4,646	6,195
46	Sunshine Coast	5,306	2,122	2,918	2,388	3,184
47	Powell River	3,590	1,436	1,974	1,616	2,154
48	Sea to Sky	2,088	835	1,148	940	1,253
49	Bella Coola Valley	315	126	173	142	189
83	Central Coast	143	57	79	64	86
Total Coastal		39,003	15,600	21,451	13,170	23,493

Table 4

Estimated numbers of **outpatient visits, hospitalizations and deaths** for all age and risk groups, Coastal HSDA

LHA #	Local Health Area	Outpatient Visits		Hospitalizations		Deaths	
		Estimate		Estimate		Estimate	
		Low	High	Low	High	Low	High
44	North Vancouver	9,293	19,514	71	591	25	221
45	West Vancouver - Bowen Island	3,377	7,192	35	244	14	92
46	Sunshine Coast	1,939	4,040	18	131	7	49
47	Powell River	1,423	2,960	13	94	5	35
48	Sea to Sky	2,272	4,744	13	131	3	49
49	Bella Coola Valley	273	537	2	14	0	5
83	Central Coast	133	266	1	7	0	3
Total Coastal		18,710	39,253	153	1212	54	454

References: http://www.vch.ca/pandemic/docs/ch02_health_impact.pdf

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

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Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-Term Care Facilities: Development of Pandemic Plan

Process

Managers of LTC facilities should:

- ❑ Develop pandemic response plans for their facilities. Use the **VCH Pandemic Response Planning Checklist for Long Term Care Facilities** to assist you.
- ❑ Identify an area where closer monitoring and more intensive nursing care can be provided and where parenteral therapy and oxygen therapy may be given to patients requiring heavier care.
- ❑ Assess capacity to increase bed capacity to create alternate care sites.
- ❑ Provide updated LTC bed capacity information annually to Emergency Co-ordinator.

The Emergency Co-ordinator should:

- ❑ Work with the **Director, Seniors Program** and with LTC facilities to review LTC facility's pandemic plan.
- ❑ Insert updated LTC bed capacity information into the plan annually.

References & Resources

For information on the **management of patients in long-term care facilities** during a pandemic see: VCH Pandemic Influenza Plan, Chapter 7, Clinical Management & Health Care Facilities, section 2. http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

Tools

VCH Pandemic Response Planning Checklist for Long Term Care Facilities:
http://www.vch.ca/pandemic/docs/long_term_checklist.pdf

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-Term Care Facilities: Bed Capacity

Long-Term Care Facility Bed Capacity in Coastal HSDA (Urban)

Facilities	Number of Beds of Type:				Comments (additional staff and bed space)
	Regular	Oxygen	Suction	Extra	
Evergreen	282	38	38		
Cedarview	90	0	0	0	Some casual staff
Kiwanis	192	0	0		5-6 short-term extra care aids
Capilano	215	0	0		Fair to good
West Vancouver	75	0	1 port.		Ability to add staff, increase length of
Lynn Valley	129	0	0		Yes, with adequate notice
Inglewood Lodge	231	42	4 port.	4	Ability to increase staff
85 United Lodge	22	0	0		
TOTAL	1,236	80	43	4	

Long-Term Care Facility Bed Capacity in Coastal HSDA (Rural)

Facilities	Number of Beds of Type:				Comments (additional staff and bed space)
	Regular	Oxygen	Suction	Extra	
Evergreen	75				Casual nurse aides
Olive Devaud	81		1 port.		Yes
Christenson Village	80				50 complex care beds, 30 dementia care beds
Shorncliffe	61				Problematic
Totem Lodge	50	3 port.	2 port.		Casual staff
Hilltop House	61				RN's, LPN's LTCA's (casual staff shared)
TOTAL	408	3	3	0	

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-Term Care Facilities: Infection & Environmental Control - Physical Setting

Note

Influenza is a major cause of illness and death in residents of long term care facilities because the resident's advanced age and underlying illness increase the risk of serious complications and because institutional living increases the risk of influenza outbreaks. It is reasonable to anticipate that pandemic influenza would have the same impact in long term care settings.

Process

When a pandemic has been declared, **Facility Managers** should:

- ❑ Post signs at all entrances informing patients, residents, clients, visitors, volunteers and staff of appropriate actions to be taken before or upon entering the facility
- ❑ Provide education to all staff

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-Term Care Facilities: Infection & Environmental Control

Routine Practices

Process

During a pandemic, Long-Term Care Facilities should:

- ❑ Adhere to the previously established policies and procedures for routine infection control practices or refer to Health Canada Infection Control Guidelines: *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care*.

Additional Precautions

Basic Hygiene Measures

Strategically placed alcohol-based hand sanitizers and boxes of tissues may enhance personal hygiene practices.

Process

Managers of LTC facilities should:

- ❑ Encourage residents, staff and visitors to minimize potential influenza transmission through hygienic measures; e.g., use disposable, single-use tissues for wiping noses; cover nose and mouth when sneezing and coughing; hand washing/hand hygiene after coughing, sneezing or using tissues.
- ❑ Reinforce the importance of keeping hands away from the mucous membranes of the eyes and nose.

Hand Hygiene

Waterless alcohol-based hand sanitizers can be used as a substitute for hand washing. They are especially useful when access to sinks or warm, running water is limited.

Process

Managers of LTC facilities should:

- ❑ Remind staff, residents and visitors that hand washing/hand hygiene is the most important procedure in preventing and controlling the spread of infection. Meticulous hand hygiene will inactivate the virus.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-term Care Facilities: Infection & Environmental Control

Caregivers should:

- ❑ Perform hand hygiene after direct contact with individuals with suspected or confirmed influenza and after contact with their personal articles or their immediate environment.

Tools

Hand Hygiene Poster: Soap and Water

Hand Hygiene Poster: Hand Sanitizer

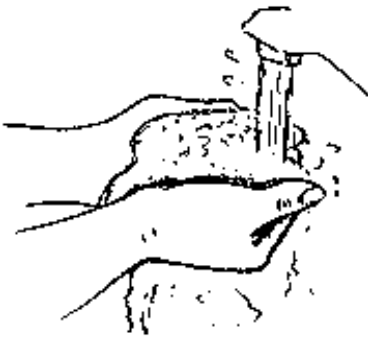








References & Resources

For information on infection and environmental control in long-term care settings, see: VCH Pandemic Influenza Plan, Chapter 4, section 3.

http://www.vch.ca/pandemic/docs/ch04_infection_control.pdf

HEALTH CARE FACILITIES

Long-Term Care Facilities: Infection & Environmental Control

Hand Hygiene with Soap and Water		
1. Remove jewelry. Wet hands with warm water 	2. Add soap to palms 	3. Rub hands together to create a lather 
4. Cover all surfaces of the hands and fingers 	5. Clean knuckles, back of hands and fingers 	6. Clean the space between the thumb and index finger 
7. Work the finger tips into the palms to clean under the nails 	8. Rinse well under warm running water 	9. Dry with a single- use towel and then use towel to turn off the tap 
Minimum wash time 10-20 seconds.		

Hand Hygiene with Alcohol-based Hand Sanitizer

1. Remove jewelry. Apply enough product to open palms.**



2. Rub hands together palms to palms



3. Rub in between and around fingers



4. Cover all surfaces of the hands and fingers



5. Rub backs of hands and fingers. Rub each thumb.



6. Rub fingertips of each hand in opposite palm



7. Keep rubbing until hands are dry.

****The volume required to be effective varies from product to product. Enough product to keep hands moist for 15 seconds should be applied.**

Do not use these products with water. Do not use paper towels to dry hands.

Note: Wash hands with soap and water if hands are visibly dirty or contaminated with blood or other body fluids. Certain manufacturers recommend washing hands with soap and water after 5-10 applications of gel.

HEALTH CARE FACILITIES

Long-Term Care Facilities: Infection & Environmental Control

Personal Protective Equipment

Masks/Eye Protection

Masks (surgical/procedure) to minimize transmission of influenza may be helpful when having face-to-face contact with individuals suspected of having influenza during the early pandemic period, especially when immunization and chemoprophylaxis is not available. The use of masks may not be practical or helpful when transmission is widespread in a facility or a community.

Process

Health Care Workers should:

- ❑ Wear masks, eye protection or face shields to prevent exposure during procedures likely to generate sprays of blood or contact with body secretions or excretions.
- ❑ Avoid touching their eyes with their hands to prevent self-contamination with pathogens.

Gloves

Gloves are not required for the routine care of patients suspected or confirmed to have influenza. Gloves should be used as an additional measure. They are not a substitute for hand washing. Single-use gloves should not be re-used or washed.

Process

Health Care Workers should:

- ❑ Wear clean, non-sterile gloves for:
 - Contact with blood, body fluids, secretions, excretions, mucous membranes and non-intact skin
 - Handling items visibly soiled with blood, body fluids, secretions or excretions.

Gowns

Gowns are not required for the routine care of patients suspected or confirmed to have influenza.

Process

Health Care Workers should:

- ❑ Wear gowns to protect uncovered skin and prevent soiling of clothing, during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions.
- ❑ Ensure any open skin areas or lesions on forearms or exposed skin are covered as appropriate.
- ❑ Wash intact skin that has been contaminated with blood, body fluids, secretions or excretions as soon as possible.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-Term Care Facilities: Infection & Environmental Control

Cleaning, Disinfection and Sterilization of Patient Care Equipment

Process

During a pandemic Long-Term Care Facilities should:

- ❑ Adhere to previously established policies and procedures for the cleaning, disinfection and sterilization of patient care equipment.

Environmental Control (housekeeping, laundry, waste)

Note

Special handling of linen or waste contaminated with secretions from residents suspected or confirmed to have influenza is not required.

Process

During a pandemic Long-Term Care Facilities should:

- ❑ Adhere to the previously established policies and procedures for housekeeping, laundry and waste disposal, including regular garbage and biomedical waste.
- ❑ Enhance housekeeping, such as cleaning of hard surfaces, door knobs, railings, as required and resources permit.

Admission/Re-Admission

Note

Patients, from acute care who have recovered from pandemic influenza or who are immunized against the pandemic influenza strain, may be admitted into the LTC facility without restrictions.

Residents, who were transferred to acute care or other facility and who have recovered from pandemic influenza or who have been immunized against the pandemic influenza strain, may be re-admitted into the LTC facility without restrictions.

LTC facilities that have already had pandemic influenza through their facility, may admit individuals from the community or acute care without restrictions.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-Term Care Facilities: Infection & Environmental Control

Admission/Re-Admission (cont'd.)

LTC facilities that have remained “influenza free” may admit patients from acute care or the community who have been potentially exposed to influenza. For patients in this category,

Process

Long-Term Care Facilities should:

- Manage such residents using droplet precautions.
- Maintain one meter of spatial separation.
- Use face protection (mask, goggles or face shield), if within one meter of the resident.
- Emphasize proper hand hygiene.

Cohorting

Note

Cohorting resident groups; i.e., confirmed/suspected influenza, exposed/not exposed to influenza, is not a feasible measure to control pandemic influenza in a LTC facility.

When influenza has been identified in one area of the LTC facility (via residents, staff or visitors) it can be assumed that the facility has been exposed.

Process

During a pandemic, Long-Term Care Facilities should:

- Encourage ill residents to stay in their rooms.
- Serve meals in resident’s rooms, as resources permit.
- Cancel group outings and group activities, such as bingo, teas, choir, going to hairdresser, etc.
- Cancel resident appointments or medical procedures if possible until the outbreak is over.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Long-Term Care Facilities: Infection & Environmental Control

Visitor Restrictions

Note

There are no restrictions for asymptomatic visitors who have recovered from pandemic influenza or who have been immunized against the pandemic strain of influenza, at least two weeks previously.

Process

During a pandemic Long-Term Care Facilities should:

- ❑ Discourage visitors with ILI until they are asymptomatic. Close relatives of terminally ill residents may be exempted, but should put a mask on upon entry into the facility and their visit should be restricted to that patient only.
- ❑ Inform visitors when the long-term care facility has influenza activity. It is only useful for the visitor to wear a mask, upon entry to the facility, if there is no influenza in the community.
- ❑ Discourage visits by those who have not yet had the pandemic strain of influenza or who have not been immunized against the pandemic strain. Close relatives of terminally ill residents may be exempted, but they should restrict their visit to that individual only and they should wash their hands on exit from the patient's room.

HEALTH CARE FACILITIES

Long-Term Care Facilities: Providing Advanced Medical Care in Residential Facilities

Note

During a pandemic, it will be necessary to manage patients within the long-term care (LTC) facility rather than transfer them to an acute care facility. An area for advanced care may need to be designated, within the long-term care facility, where closer monitoring and more intensive nursing care can be provided and where parenteral therapy, oxygen therapy and end of life care may be given.

Process

In the interpandemic period, the Director, Seniors Program, should:

- ❑ Assess the need for education of LTC facility staff in providing advanced medical care to residents; e.g., starting IV's, end of life care.
- ❑ Develop and implement, with assistance from Home Care staff, educational programs to train LTC staff in the provision of advanced medical care.
- ❑ Provide new policy information for LTC facilities to Emergency Co-ordinator.

Note

Provincial working groups are addressing the need for explicit, province-wide policies to address:

- reduction or suspension of services;
- identification of specific conditions that would require transfer to acute care facilities;
- stockpiling of supplies for residential facilities;
- standardized messages to address family expectations or demands for patient transfer to acute care.

Process

The Emergency Co-ordinator should:

- ❑ Update the HSDA Pandemic plan to include new policy information for LTC facilities..

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Acute Care Facilities: Development of a Pandemic Plan

Process

Management of Acute Care Facilities should:

- ❑ Develop pandemic response plans for their facilities.
- ❑ Incorporate regionally developed guidelines and protocols, as appropriate.
- ❑ Assess ability to increase bed capacity to create alternate care sites.
- ❑ Provide updated bed capacity information annually to Emergency Co-ordinator.

The Emergency Co-ordinator should:

- ❑ Work with the Director of Acute Care Program and the Acute Care Facilities to review their pandemic plans.
- ❑ Insert updated acute care bed capacity information into the plan annually.

References & Resources

For information on the management of patients in acute care facilities during a pandemic see: VCH Pandemic Influenza Plan, Chapter 7, Clinical Management & Health Care Facilities, section 2. http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

A useful tool for the development of plans for acute care facilities is Pandemic Influenza Planning Guidelines, developed by the Toronto Academic Health Sciences Network, available online at:

http://www.baycrest.org/Family_Information/Pandemic_Information/TAHSNGuidelines.pdf

HEALTH CARE FACILITIES

ACUTE CARE FACILITIES: OPTIMIZING HOSPITAL CAPACITY

Developing Surge Capacity

To be able to meet pandemic demands, hospitals must develop a phased approach to surge capacity, including deferral of non-influenza care and dynamic use of influenza triage and admission/discharge criteria constantly adjusted to hospital capacity. Recent reviews of emergency response arrangements in the US suggest that 20% surge capacity is the maximum upper limit to an hospital “surge in place” response during major emergencies. This will vary according to local hospital resources.¹

Table 1 outlines approaches to optimizing hospital capacity and capability that, pending further advice from clinical experts and the Ministry of Health, are suggested for use in VCH planning for pandemic response.

Table 1: Approaches to Optimizing Hospital capacity in VCH

Capacity	Activity
Physical Capacity	Defer any services for conditions that are not life-threatening, where no adverse health consequences are expected from the delay.
	Discharge Alternate Level of care patients to Long-Term care facilities immediately beds are available
	Discharge acute patients to home support when care can be provided safely in that environment
	Discharge acute patients to family and self-care when care can be provided safely in that environment
	Create “flex beds” from reserved beds or recently closed beds.
	Use ventilator capacity anywhere in the hospital where sufficient oxygen capacity exists; e.g., ER, post-anaesthetic care units, cohort infectious patients and non-infectious patients
	Deploy freed-up beds for influenza patients
Hospital Staffing	Redeploy clinical staff from deferred services
	Defer staff holidays and leaves of absence until pandemic ends
	For staff willing to work extra hours, establish 12-hour shifts up to the maximum recommended number of days per staff member
	Train non-clinical staff to provide support services such as meals, personal care patient movement for treatment, site cleaning and support for health care workers and their families (child care, pet care) so health care workers can do their jobs
	Recruit clinical agency staff in co-ordination with other hospitals in the Region
	Encourage members of the public to take home health care courses before the pandemic so they know how to prevent infection and provide supportive care for family members who are ill; train family members of hospital patients to provide home health care
	Cross-train clinical staff for influenza care and other essential services during a pandemic and other large-scale emergencies
Clinical Practices	Adopt clinical practices to optimize hospital capacity, pending further development of clinical guidelines

¹ Adapted from Ontario Health Pandemic Influenza Plan, 2005

HEALTH CARE FACILITIES

Acute Care Facilities: Optimizing Hospital Capacity

Table 2 outlines strategies that hospitals and their community partners can use to respond to the need for surge capacity.

Table 2: Strategies to Enhance Surge Capacity

Surge Levels During an Influenza Pandemic	Surge Strategies		Response Level	ICS Command Function
Pre-Surge	Basic	<ul style="list-style-type: none"> ▪ Staffed and operational beds open 	Intra-facility	Hospital
Minor Surge 5% - 10%	Enhanced	<ul style="list-style-type: none"> ▪ Open approved ICU and ventilator-supported beds as staff redeployment/recruitment permits ▪ Defer elective surgery up to 72 hours as per routine surge protocols ▪ Cohort/isolate influenza patients in ER, acute units and ICU/ventilator units 	Intra-facility	Hospital
Moderate Surge 11% - 15%	Augmented	<ul style="list-style-type: none"> ▪ Establish early discharges; home support transfers; ALC transfers to LTC facilities ▪ Open more ICU/ventilator beds where oxygen available; e.g., operating rooms or post-anaesthetic care units ▪ Defer some treatment for non-life threatening conditions if no severe adverse health consequence anticipated from the delay 	Intra-facility	Hospital
Major Surge 16%-20%	Optimum	<ul style="list-style-type: none"> ▪ Defer all treatment for non-life threatening conditions where no severe adverse health consequences are anticipated from the delay 	Inter-facility	Region
Large Scale Emergency >20%	Over capacity	<ul style="list-style-type: none"> ▪ No more beds available ▪ Maintain services for life-threatening conditions ▪ Triage for all treatment ▪ Mass emergency care 	Inter-facility	Region/Province

Mass Emergency Care

After hospital surge capacity and other health system resources have been exhausted, mass emergency care will be declared in order to ensure the fair and equitable allocation of scarce resources and maximize the benefit to the population at large. This approach is consistent with federal and provincial goals of pandemic influenza planning: to minimize serious illness and overall deaths.

Since there are substantial political, legal, regulatory and logistical implications to declaring the shift to mass emergency care, further advice will be sought from clinical experts and the Ministry of health about the criteria for mass emergency care and guidelines for implementing that care once hospital surge capacity is exhausted.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Acute Care Facilities: Optimizing Hospital Capacity

Deferral of Non-Influenza Services

When a pandemic is declared, hospitals will begin a phased deferral or scale-back of certain non-influenza services; e.g., elective surgeries, outpatient procedures, in order to ensure that essential services are there for both influenza and other care. By using a phased approach hospitals will avoid unnecessary deferral of services before the full impact of the pandemic is known, but will be able to act quickly to defer services as the pandemic impact increases.

Process

When making decisions to defer services, **Managers in Acute Care** should:

- ❑ Establish a senior, multidisciplinary team to make decisions and seek support from ethical and legal experts
- ❑ Apply an ethical framework for decision making
- ❑ Use consistent criteria that are flexible enough to allow local responses based on local demands and resources
- ❑ Ensure their decisions are transparent.

Note

All hospital service deferrals should be based on a careful and compassionate clinical assessment of each patient's health condition, prognosis, risk of infection during acute hospital care.

HEALTH CARE FACILITIES

Acute Care Facilities: Optimizing Hospital Capacity

Table 3 lists criteria and indicator conditions for hospitals to use to identify services that can be deferred and those that are essential and must be maintained. These criteria will be refined based on advice from clinical experts and the Ministry of Health.

Table 3: Criteria and Indicator Conditions for Deferring Hospital Services

Site of Care	Level 1 Defer services for non-life threatening conditions immediately if no severe adverse health consequences anticipated by the delay	Level 2 Maintain services for non-life threatening conditions as long as resources are available, if severe adverse consequences are anticipated from delay	Level 3 Maintain services for life-threatening conditions throughout the influenza pandemic
Hospital inpatient Surgery or Procedure	<ul style="list-style-type: none"> ▪ Elective abdominal aortic surgery ▪ Cholecystectomy ▪ Hip/knee replacement ▪ Prostate transurethral resection 	<ul style="list-style-type: none"> ▪ Carotid endarterectomy ▪ Colectomy ▪ Thoracotomy ▪ Total prostatectomy ▪ Lumpectomy/mastectomy 	<ul style="list-style-type: none"> ▪ Initiation of mechanical ventilation
Hospital Outpatient Surgery or Procedures	<ul style="list-style-type: none"> ▪ Vasectomy ▪ Myringotomy ▪ Carpal tunnel syndrome ▪ Cataract surgery 	<ul style="list-style-type: none"> ▪ Breast biopsy ▪ Chemotherapy ▪ Percutaneous coronary intervention (PCI) ▪ Cardiac catheterization 	
Hospital Emergency Department Care	<ul style="list-style-type: none"> ▪ Superficial injuries ▪ Back or neck pain ▪ Extremity strain 	<ul style="list-style-type: none"> ▪ Severe cuts ▪ Upper/lower respiratory infection ▪ OTITIS MEDIA 	<ul style="list-style-type: none"> ▪ Initiation of mechanical ventilation

Notes to Table 3:

1. These criteria are based in the three health care urgency categories developed by the Institute for Clinical Evaluative Sciences (ICES) to assess the impact of SARS on health services utilization.
2. If the spread of influenza is gradual, a scale-back may be time-sensitive, with some services deferred earlier than others according to the assessed impact from the delay.
3. These recommendations mirror the Alberta Clinical Subcommittee report (2003, page 21) which states that the exact details of rationing health care resources cannot be anticipated in advance by algorithm or list of trade-offs.
4. The report recommends a step-wise process, starting with decisions about elective surgery by the Chiefs of Surgery, Neurosurgery and Medicine, followed with shared decision-making among attending physicians, health care workers, senior physicians, the head of nursing, an ethicist and the Chief executive Officer, for all other treatment.

HEALTH CARE FACILITIES

Acute Care Facilities: Bed Capacity/Ventilator Capacity

Accurate counts of beds and ventilators are a necessary element of pandemic planning in the acute care sector.

Process

The Management of Acute Care Facilities should:

- ❑ Develop accurate bed capacity and ventilator capacity counts for all acute care facilities in the HSDA.
- ❑ Provide updated bed capacity and ventilator capacity counts for all acute care facilities in the HSDA annually.

Ventilator Capacity at Lion’s Gate Hospital

Type of Ventilator	Intensive Care (ICU)	Coronary Care (CCU)	Special Care Nursery	Recovery Room (PAR)	Emergency Department	Storage	CT Scan	Other
Evita	2							
Home Vents (Legendaire)								
Transport LTV's					1		1	
MRI Ventilator							1	
Siemens 300	2			1		1		
Non-invasive Ventilators (BiPAP)	1				1			
PB 840	4							
Baby Logs			2					
Totals	9		2	1	2	1	2	
TOTAL NUMBER OF VENTILATORS	17							

The Emergency Co-ordinator should:

- ❑ Insert updated bed capacity and ventilator capacity counts for all acute care facilities in the HSDA into the plan annually.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Acute Care Facilities: Bed Capacity/Ventilator Capacity

Tools

For the following tools see: VCH Pandemic Influenza Plan, Chapter 7, Clinical Management & Health Care Facilities, section 8.

http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

Emergency Ventilator Capacity Considerations Worksheet
Inventory of Ventilators Worksheet

References & Resources

For information on the **assessment of bed and ventilator capacity in acute care facilities** see: VCH Pandemic Influenza Plan, Chapter 7, Clinical Management & Health Care Facilities, section 4.

http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

Note

For information on the **clinical management of influenza** see: VCH Pandemic Response Plan, Chapter 7, section 1. http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

HEALTH CARE FACILITIES

Acute Care Facilities: Infection & Environmental Control - Physical Setting

Note

Acute care settings group patients together, who have a high risk of developing serious, sometimes fatal complications related to influenza. In addition, morbidity and mortality related to nosocomial; i.e., hospital-acquired infections, is much greater in acute care populations than in other populations.

Process

When a pandemic is declared, **Acute Care Facilities** should:

- Open triage settings in acute care hospitals.
- Open cohort areas or units in hospital.
- Post signs at all entrances informing patients, residents, clients, visitors, volunteers and staff of appropriate actions to be taken before or upon entering the facility.
- Provide education to all staff.

HEALTH CARE FACILITIES

Acute Care Facilities: Infection & Environmental Control

Routine Practices

Process

During a pandemic, **Acute Care Facilities** should:

- ❑ Adhere to the previously established policies and procedures they have in place for routine infection control practices.

Additional Precautions

Note

Although droplet and contact precautions are recommended in preventing the transmission of influenza during an inter-pandemic period, these precautions may not be achievable or practical as the pandemic spreads and resources become scarce. Infection control resources may need to be prioritized to the acute care settings where the complexity of patient care is greatest.

Process

During a pandemic, **Acute Care Facilities** should:

- ❑ Adhere to the previously established policies and procedures for using additional infection control precautions, when routine practices are not sufficient to prevent transmission.

Hand Hygiene

Waterless alcohol-based hand sanitizers can be used as a substitute for hand washing. They are especially useful when access to sinks or warm, running water is limited.

Process

Managers of acute care facilities should:

- ❑ Remind staff, patients and visitors that hand washing/hand hygiene is the most important procedure in preventing and controlling the spread of infection. Meticulous hand hygiene will inactivate the virus.

Health Care Workers should:

- ❑ Perform hand hygiene after direct contact with individuals with suspected or confirmed influenza and after contact with their personal articles or their immediate environment.

HEALTH CARE FACILITIES

Acute Care Facilities: Infection & Environmental Control

Basic Hygiene Measures

Note

Strategically placed alcohol-based hand sanitizers and boxes of tissues may enhance personal hygiene practices.

Process

Acute Care Facilities should:

- ❑ Remind patients, staff and visitors to minimize potential influenza transmission through hygienic measures; e.g., use disposable, single-use tissues for wiping noses; covering nose and mouth when sneezing and coughing; hand washing/hand hygiene after coughing, sneezing or using tissues.
- ❑ Emphasize the importance of keeping hands away from the mucous membranes of the eyes and nose.

Personal Protective Equipment

Masks/Eye Protection

Note

Masks (surgical/procedure) to minimize transmission of influenza may be helpful when having face-to-face contact with individuals suspected of having influenza during the early pandemic period, especially when immunization and chemoprophylaxis is not available. The use of masks may not be practical or helpful when transmission is widespread in a facility or a community.

Process

Health Care Workers should:

- ❑ Wear masks, eye protection or face shields to prevent exposure to sprays of blood, body secretions or excretions.
- ❑ Wear a fitted particulate respirator (N95 mask) during:
 - Contact with patients who have an undiagnosed cough that may be caused by an organism that is spread by the airborne route e.g. TB, chickenpox, and measles.
 - Aerosolizing procedures with a patient suspected or known to have an organism spread by droplet transmission.
- ❑ Avoid touching their eyes with their hands to prevent self-contamination with pathogens.

HEALTH CARE FACILITIES

Acute Care Facilities: Infection & Environmental Control

Personal Protective Equipment (cont'd.)

Gloves

Note

Gloves are not required for the routine care of patients suspected or confirmed to have influenza. Gloves should be used as an additional measure. They are not a substitute for hand washing. Single-use gloves should not be re-used or washed.

Process

Health Care Workers should:

- Wear clean, non-sterile gloves for:
 - Contact with blood, body fluids, secretions, excretions, mucous membranes and non-intact skin
 - Handling items visibly soiled with blood, body fluids, secretions or excretions.

Gowns

Gowns are not required for the routine care of patients suspected or confirmed to have influenza.

Process

Health Care Workers should:

- Wear gowns to protect uncovered skin and prevent soiling of clothing, during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions.
- Ensure any open skin areas or lesions on forearms or exposed skin are covered as appropriate.
- Wash intact skin that has been contaminated with blood, body fluids, secretions or excretions as soon as possible.

HEALTH CARE FACILITIES

Acute Care Facilities: Infection & Environmental Control

Cleaning, Disinfection and Sterilization of Patient Care Equipment

Process

When a pandemic is declared, **Acute Care Facilities** should:

- ❑ Adhere to previously established policies and procedures for the cleaning, disinfection and sterilization of patient care equipment.

Environmental Control (housekeeping, laundry, waste)

Note

Special handling of linen or waste contaminated with secretions from patients suspected or confirmed to have influenza is not required.

Process

When a pandemic is declared, **Acute Care Facilities** should:

- ❑ Adhere to previously established policies and procedures for housekeeping, laundry and waste disposal, including regular garbage and biomedical waste.
- ❑ Enhance cleaning and disinfection of common touch surfaces (handrails, door knobs, sink/toilet), as resources permit.

Patient Accommodation or Placement

Process

When a pandemic is declared, **Acute Care Facilities** should:

- ❑ Limit single rooms in acute care settings to patients suspected or confirmed to have airborne infections; e.g., tuberculosis, measles, varicella and disseminated zoster, or for patients who visibly soil the environment or for whom appropriate hygiene cannot be maintained.
- ❑ Minimize crowding; i.e., maintain at least a one meter spatial separation between patients, visitors and staff, whenever possible.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Acute Care Facilities: Infection & Environmental Control

Patient Triage or Cohorting

Process

When a pandemic is declared, **Acute Care Facilities** should:

- ❑ Open the following cohort areas:
 - Influenza-Like-Illness (ILI) Assessment Area;
 - Non ILI Assessment Area;
 - Suspected/Exposed to ILI inpatient units;
 - Not Exposed/Immune to Influenza, inpatient Units;
 - Not exposed to ILI but at very high risk of complications, inpatient units.

Patient Admission

Process

When a pandemic has been declared, **Acute Care Facilities** should:

- ❑ Prioritize medical and surgical acute care hospital admissions, according to pre-established guidelines.
- ❑ Move patients who have recovered from influenza into the “Non Influenza” cohort areas, after the period of communicability of the pandemic strain has passed.
- ❑ As the pandemic progresses, merge the “Suspect/Exposed” cohort and the “Confirmed Influenza” cohort, as necessary to accommodate surge in demand.
- ❑ Maintain cohort principles, until the pandemic wave has been declared over.

HEALTH CARE FACILITIES

Acute Care Facilities: Infection & Environmental Control

Patient Activity Restrictions

Process

When a pandemic has been declared, **Acute Care Facilities** should:

- ❑ Enhance triage and admission processes.
- ❑ Limit patient movement and activities, including transfers within the hospital, unless the patient has recovered from pandemic influenza.
- ❑ Allow patients with ILI, who are coughing, to leave their rooms only for urgent, necessary procedures.
- ❑ Consider the need for and scheduling of procedures so that patients who do not have influenza are not exposed to those with influenza.
- ❑ Cancel group activities. One-on-one activities, such as physiotherapy, are desirable if the patient feels well enough.
- ❑ Put a surgical or procedure mask on patients with ILI who are coughing whenever they need to be out of their room until the period of communicability of the pandemic strain has passed.

References & Resources

For information on the **management of patients in acute care facilities** during a pandemic see: VCH Pandemic Influenza Plan, Chapter 7, Clinical Management & Health Care Facilities, section 2. http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

Visitor Restrictions

There are no restrictions for asymptomatic visitors who have recovered from pandemic influenza or who have been immunized against the pandemic strain of influenza, at least two weeks previously.

Process

During a pandemic **Acute Care Facilities** should:

- ❑ Discourage visitors with ILI until they are asymptomatic. Close relatives of terminally ill residents may be exempted, but should put a mask on upon entry into the facility and their visit should be restricted to that patient only.
- ❑ Inform visitors when the acute care facility has influenza activity. Wearing a mask upon entry to the facility is only useful if there is no influenza in the community.
- ❑ Discourage visits by those who have not yet had the pandemic strain of influenza or who have not been immunized against the pandemic strain. Close relatives of terminally ill residents may be exempted, but they should restrict their visit to that individual only and they should wash their hands on exit from the patient's room.

HEALTH CARE FACILITIES

Home Care Settings: Management of Patients in the Community

Note

For case definitions, common clinical presentations and instructions for the assessment, triage, care and discharge of influenza patients, refer to the VCH Pandemic Response Plan, Chapter 7, section 1, Clinical Management of Influenza: http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

Discharge and Follow-up

During a pandemic, a shortage of hospital beds is anticipated; therefore identification of patients who can be discharged to an alternate care facility or to care at home must be timely.

Patients who are deemed clinically stable may be considered for transfer out of acute care to an alternate care facility or to care at home. The use of an alternative centre of care should be considered, if more prolonged observation is necessary for patients with pneumonia, co-morbidities or for those who are not functionally independent.

Clinically stable patients, receiving care in acute care facilities for conditions other than influenza, may also be considered for early discharge, in order to free up bed capacity.

Process

In the interpandemic period, the **Management of Acute Care Facilities** should:

- ❑ Identify and document local capacity to provide at-home care.
- ❑ Provide updated local capacity assessment information for at home care annually to Emergency Co-ordinator.

The **Emergency Co-ordinator** should:

- ❑ Insert updated local capacity assessment information for at home care into the plan annually.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Home Care Settings: Infection & Environmental Control

Physical Setting

Note

These guidelines may be used for any health care provided in the home setting.

Process

When a pandemic is declared, **Home Care Providers** should:

- Cancel or postpone non-essential visits.
- Provide education to all staff.

Routine Practices

Process

During a pandemic, **Home Care Workers** should:

- Adhere to the previously established policies and procedures in place for routine infection control practices or to the Health Canada Infection Control Guidelines: *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care*.

Additional Precautions

Note

Although droplet and contact precautions are recommended in preventing the transmission of influenza during the interpandemic period, these precautions may not be achievable or practical as the pandemic spreads and as resources become scarce. Adherence to routine practices is achievable.

HEALTH CARE FACILITIES

Home Care Settings: Infection & Environmental Control

Hand Hygiene

Waterless alcohol-based hand sanitizers can be used as a substitute for hand washing. They are especially useful when access to sinks or warm, running water is limited.

Process

Home Care Providers should:

- ❑ Remind home care workers, clients and household members that hand washing/hand hygiene is the most important procedure in preventing and controlling the spread of infection. Meticulous hand hygiene will inactivate the virus on the hands.

Home Care Workers should:

- ❑ Perform hand hygiene after direct contact with individuals with suspected or confirmed influenza and after contact with their personal articles or their immediate environment.

Basic Hygiene Measures

Note

Strategically placed alcohol-based hand sanitizers and boxes of tissues may enhance personal hygiene practices.

Process

Home Care Providers should:

- ❑ Encourage home care workers and their clients to minimize potential influenza transmission through hygienic measures.

Home Care Workers and their clients should:

- ❑ Use disposable, single-use tissues for wiping noses.
- ❑ Cover nose and mouth when sneezing and coughing.
- ❑ Wash hands/hand hygiene after coughing, sneezing or using tissues.
- ❑ Keep hands away from the mucous membranes of the eyes and nose.

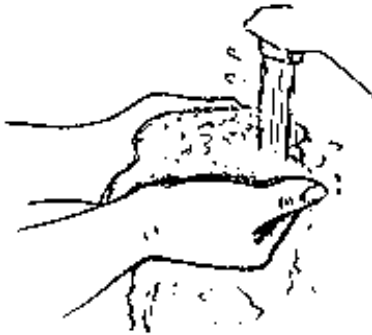
Tools

Hand Hygiene Poster: Soap and Water

Hand Hygiene Poster: Hand Sanitizer

Hand Hygiene with Soap and Water

**1. Remove jewelry.
Wet hands with warm
water**



**2. Add soap to
palms**



**3. Rub hands together
to create a lather**



**4. Cover all surfaces
of the hands and
fingers**



**5. Clean knuckles,
back of hands and
fingers**



**6. Clean the space
between the thumb
and index finger**



**7. Work the finger
tips into the palms to
clean under the nails**



**8. Rinse well under
warm running
water**



**9. Dry with a single-
use towel and then
use towel to turn off
the tap**



Minimum wash time 10-20 seconds.

Hand Hygiene with Alcohol-based Hand Sanitizer

1. Remove jewelry. Apply enough product to open palms.**



2. Rub hands together palms to palms



3. Rub in between and around fingers



4. Cover all surfaces of the hands and fingers



5. Rub backs of hands and fingers. Rub each thumb.



6. Rub fingertips of each hand in opposite palm



7. Keep rubbing until hands are dry.

****The volume required to be effective varies from product to product. Enough product to keep hands moist for 15 seconds should be applied.**

Do not use these products with water. Do not use paper towels to dry hands.

Note: Wash hands with soap and water if hands are visibly dirty or contaminated with blood or other body fluids. Certain manufacturers recommend washing hands with soap and water after 5-10 applications of gel.

HEALTH CARE FACILITIES

Home Care Settings: Infection & Environmental Control

Personal Protective Equipment

Masks/Eye Protection

Masks (surgical/procedure) to minimize transmission of influenza may be helpful when having face-to-face contact with individuals suspected of having influenza during the early pandemic period, especially when immunization and chemoprophylaxis are not available. The use of masks may not be practical or helpful when transmission is widespread in the community.

Process

Home Care Workers should:

- ❑ Wear masks, eye protection or face shields to prevent exposure during procedures likely to generate sprays of blood or contact with body secretions or excretions.
- ❑ Avoid touching their eyes with their hands to prevent self-contamination with pathogens.

Gloves

Gloves are not required for the routine care of patients suspected or confirmed to have influenza. Gloves should be used as an additional measure. They are not a substitute for hand washing. Single-use gloves should not be re-used or washed.

Process

Home Care Workers should:

- ❑ Wear clean, non-sterile gloves for:
 - Contact with blood, body fluids, secretions, excretions, mucous membranes and non-intact skin
 - Handling items visibly soiled with blood, body fluids, secretions or excretions.

Gowns

Gowns are not required for the routine care of patients suspected or confirmed to have influenza.

Process

Home Care Workers should:

- ❑ Wear gowns to protect uncovered skin and prevent soiling of clothing, during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions.
- ❑ Ensure any open skin areas or lesions on forearms or exposed skin are covered as appropriate.
- ❑ Wash intact skin that has been contaminated with blood, body fluids, secretions or excretions as soon as possible.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Home Care Settings: Infection & Environmental Control

Cleaning, Disinfection and Sterilization of Patient Care Equipment

Process

During a pandemic, **Home Care Workers** should:

- ❑ Adhere to previously established policies and procedures for the cleaning, disinfection and sterilization of patient care equipment.
- ❑ Find alternative means of cleaning and disinfecting equipment for home use, as supplies become scarce.

Environmental Control (housekeeping, laundry, waste)

Note

Special handling of linen or waste contaminated with secretions from residents suspected or confirmed to have influenza is not required.

Process

During a pandemic, **Home Care Workers** should:

- ❑ Adhere to previously established guidelines for the management of linen, environmental cleaning and waste disposal or adhere to Health Canada Infection Control Guidelines: *Hand Washing, Cleaning, Disinfection and Sterilization In Health Care*.

Triage

Process

During a pandemic and prior to an appointment or before entering the home, **Home Care Workers** should:

- ❑ Perform a telephone assessment for influenza-like illness (ILI) among clients and their household contacts.
- ❑ Assess the risk of influenza in clients or household contacts.
- ❑ Provide clients and family members with information regarding influenza symptoms and self-care guidelines.
- ❑ Ask clients to notify home care staff if an ILI develops.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Home Care Settings: Infection & Environmental Control

Visitors

Note

Severely immunocompromised patients; e.g., transplant recipients, haematology/oncology patients, are at risk of serious complication if infected with influenza.

Only well (asymptomatic or unexposed) visitors should visit severely immunocompromised patients at home during a pandemic.

Visitors for terminally ill clients may be exempted but, should put on a mask before entering the home and restrict the length of time spent with the patient, if possible.

References & Resources

For information on self care during a pandemic, see VCH Pandemic Influenza Response Plan, Chapter 5: http://www.vch.ca/pandemic/docs/ch05_self_care.pdf.

Coastal Health Services: HSDA Pandemic Response Plan

HEALTH CARE FACILITIES

Alternate Care Facilities (ACF's): Designation of Sites

Alternate care facilities will augment services provided by traditional medical care facilities to patients affected by pandemic influenza. Alternate care facilities will be considered secondary sites and will assist residential and home care institutions, social services and hospitals, in meeting the surge in demand for services.

Process

The MHO should:

- ❑ Assess potential sites, using the ACF Assessment Checklist.
- ❑ Identify one or more potential ACF sites, based on compliance with criteria as detailed on the assessment tool.
- ❑ Negotiate memorandum of understanding with the appropriate authority; refer to VCH Legal Affairs and Risk Management for advice on terms for memorandum of understanding.

Note

The capacity to add beds to existing facilities, such as LTC facilities or acute care facilities should be explored before turning to outside resources. Cafeterias, meeting rooms and other common areas that may not be used, during a pandemic (in order to increase social distance) can, perhaps, be converted to patient care areas.

References & Resources

http://www.vch.ca/pandemic/docs/ch07_medical_management.pdf

Tools

Alternate Care Facility Assessment Checklist (see following)

HEALTH CARE FACILITIES

Alternate Care Facility Assessment Checklist

Face Page

Page 1 of 3

Alternate care facilities (ACF) are intended to augment services provided by traditional medical care facilities to patients affected by pandemic influenza. These facilities should be located in close proximity to an emergency department (ED) of a hospital. Alternate care facilities will be considered secondary sites. ACF's can provide care beyond basic first aid but are not intended for patients who are self-sufficient and are able to take care of daily personal needs. However, ambulatory patients may be sent to the ACF for care. ACF's will assist residential and home care institutions, social services and hospitals.

Facility name:	
Address:	
Contact name:	
Position title:	
Telephone #:	
Fax #:	
E-mail address:	

	Yes	No
Memorandum of Understanding (MoU) negotiated?		
Signed copy of MoU appended?		
Facility complies with CSA regulations?		

Criteria for Selection of Alternate Care Facilities (ACF's)

- ACF's should be located in a well-known geographic location, close to a hospital and major roads, be wheelchair accessible, have several entrances and exits and have adequate parking space.
- The building must be structurally sound, have large rooms on the ground floor, have toilet and shower facilities and food preparation and service facilities.
- The building should be (preferably) gas-heated and equipped with a power generator.
- The facility must comply with the regulations of the Canadian Securities Administrators (CSA).
- The layout should include areas to be allocated for registration, triage, treatment, ambulatory and non-ambulatory services, secured areas, food areas and pharmacy.
- Examples of inventory needs include cots, bedding, food, water, intravenous supplies, medications, biohazard supplies, clothing, specimen and trash bags, urinary health supplies, linens and patient gowns, janitorial and logistical supplies and respiratory supplies.
- All alternate care facilities need an Emergency Operations Centre for incoming information and co-ordination with other response resources. The choice of location should depend on safety considerations and the capacity to install and operate a variety of communications equipment.

HEALTH CARE FACILITIES

Alternate Care Facility Assessment Checklist

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Location:			
Proximity to Hospital:			
	Yes	No	Comments
Easily located by public?			
External Facilities:			
Parking?			
Proximity to transit?			
Off-loading facilities? Ramps?			
Internal Facilities:			
Washroom facilities: (M/F), sinks			
Kitchen: food prep area? Dishes? Dishwashing capability? Refrigeration?			
Secure space for patient records/admin?			
Adequate space for reception, waiting, patient care, patient/family education?			
Area for counselling & support services?			
Secure storage for pharmacy? Medical supplies?			
Mortuary space?			
Critical Support Systems:			
Adequate ventilation, heat, air conditioning, air flow?			
Power for lighting, sterilizers, refrigeration, food services?			
Back-up power?			
Adequate electrical outlets?			
Sanitation: adequate toilet bathing/shower and laundry facilities?			

HEALTH CARE FACILITIES

Alternate Care Facility Assessment Checklist

Page 3 of 3

Essential Support Services: Advance planning for provision of essential services to alternate care sites should consider the necessity to provide the following essential support services. Questions to consider: what facilities are available in-house? how will external services be supplied? by whom? what agreements can be negotiated now?			
	Yes	No	Comments
Security			
Communication Capability			
Building maintenance			
Laundry			
Environmental cleaning services			
Sterilization services			
Pharmaceutical services			
Medical waste disposal/storage			
Food services			
Facilities for staff lodging/eating			

Facility Assessment Checklist completed by:

Name: _____

Date: _____

HEALTH CARE FACILITIES

ALTERNATE CARE FACILITIES (ACF'S): Identify Triggers for Implementation of an Alternate Care Site

Since it is likely that a pandemic will not start in Canada, the first trigger for the consideration of establishment of ACF's may be reports of the severity and epidemiology of the pandemic from other countries. This is likely to be the first indicator of potential demand on traditional health care services when the pandemic reaches Canada.

It will be important to monitor the availability of resources in local acute care facilities and project when capacity may be exceeded (especially if there will be free-standing sites). Therefore, potential triggers include:

- The proportion of emergency room visits attributable to influenza
- The proportion of influenza cases requiring hospitalization
- The capacity of the hospital to accommodate influenza cases
- The proportion of cases who normally live with high-risk individuals or who have no support at home and cannot care for themselves.

Other triggers may include reports from sentinel physician or walk-in clinics that they cannot accommodate all patients requesting appointments for influenza-like-illness.

An increase in ambulance re-routings due to full emergency rooms may serve as another trigger for further implementation of plans for ACF's.

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

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Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Identification of Priority Groups for Pandemic Vaccine

Pandemic influenza vaccine, once available, will be administered first to priority groups, consistent with nationally agreed policies.

Priority Group 1: Health Care Workers - Coastal Urban	
Coastal Urban Acute Care Staff	
Coastal Urban LTC Staff	
Coastal Urban Community Staff	
Ambulance and Paramedic Staff	
Physicians' Offices	
Laboratory Staff	
Pharmacy Staff	
Total Health Care Workers (Coastal Urban)	

Priority Group 1: Health Care Workers - Coastal Rural	
Coastal Rural Acute Care Staff	
Coastal Rural LTC Staff	
Coastal Rural Community Staff	
Ambulance and Paramedic Staff	
Physicians' Offices	
Laboratory Staff	
Pharmacy Staff	
Total Health Care Workers (Coastal Rural)	

Priority Group 1: Health Care Workers - Central Coast	
Central Coast Acute Care Staff	
Central Coast LTC Staff	
Central Coast Community Staff	
Ambulance and Paramedic Staff	
Physicians' Offices	
Laboratory Staff	
Pharmacy Staff	
Total Health Care Workers (Central Coast)	

Total Priority Group 1: Health Care Workers (Coastal Health Services):

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Identification of Priority Groups for Pandemic Vaccine

Priority Group 2: Essential Service Providers - Coastal Urban	
Police	
Fire	
Key Emergency Response Decision Makers	
Utility Workers	
Funeral Service/Mortuary Personnel	
Transit Workers	
Food Distribution Workers	
Total Essential Service Providers (Coastal Urban)	

Priority Group 2: Essential Service Providers - Coastal Rural	
Police	
Fire	
Key Emergency Response Decision Makers	
Utility Workers	
Funeral Service/Mortuary Personnel	32
Transit Workers	
Food Distribution Workers	
Total Essential Service Providers (Coastal Rural)	

Priority Group 2: Essential Service Providers - Central Coast	
Police	
Fire	
Key Emergency Response Decision Makers	
Utility Workers	
Funeral Service/Mortuary Personnel	
Transit Workers	
Food Distribution Workers	
Total Essential Service Providers (Central Coast)	

Total Priority Group 2: Essential Services Workers (Coastal Health Services):

VACCINES & ANTIVIRALS

Identification of Priority Groups for Pandemic Vaccine

Priority group 3 - people at high risk of severe or fatal outcomes following influenza infection - includes:

- Adults and children with chronic cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis, and asthma) severe enough to require regular medical follow-up or hospital care
- People of any age who are residents of nursing homes and other chronic care facilities
- People ≥ 65 years of age
- Children aged 6-23 months of age (current vaccines are not recommended for children under 6 months of age)
- Adults and children with chronic conditions, such as diabetes mellitus and other metabolic diseases, cancer, immunodeficiency, immunosuppression (due to underlying disease and/or therapy), renal disease, anemia, and haemoglobinopathy
- Children and adolescents (aged 6 months to 18 years) with conditions treated for long periods with acetylsalicylic acid

Estimates of the numbers of people in the Coastal HSDA who meet the criteria for inclusion in priority group 3 follow.

Priority Group 3: People at High Risk (est.) - Coastal Urban	Low	High
Age Group ≤ 1 to 19 years	2,359	4,325
Age Group 20 to 64 years	16,834	30,060
Age Group ≥ 65 Years	11,024	15,159
Total People at High Risk (Coastal Urban)	30,217	49,544

Priority Group 3: People at High Risk (est.) - Coastal Rural	Low	High
Age Group ≤ 1 to 19 years	1,101	2,019
Age Group 20 to 64 years	7,217	12,888
Age Group ≥ 65 Years	4,393	6,040
Total People at High Risk (Coastal Rural)	13,711	30,947

Priority Group 3: People at High Risk (est.) - Central Coast	Low	High
Age Group ≤ 1 to 19 years	95	174
Age Group 20 to 64 years	427	762
Age Group ≥ 65 Years	183	252
Total People at High Risk (Central Coast)	705	1,188

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Identification of Priority Groups for Pandemic Vaccine

Total Priority Group 3: High Risk Individuals (Coastal Health Services):

Low Estimate: 44,673

High Estimate: 81,679

Priority Group 4 includes healthy adults; priority group 5 includes children aged 24 months to 18 years of age.

Total doses of vaccine (one dose series) required for priority groups 1 - 3:

Total courses of vaccine (one dose series) required for priority groups 4 - 5:

Total doses of vaccine (two dose series) required for priority groups 1 - 3:

Total courses of vaccine (two dose series) required for priority groups 4 - 5:

Process

The Medical Health Officer should:

- Determine numbers of people in the HSDA in the Health Care Worker priority group for receipt of vaccines.
- Determine the groups to receive vaccine first.
- Maintain ready access to inventories of members of priority groups 1 and 2.
- Identify contacts and maintain current contact information for internal and external groups.
- Provide updated counts of priority groups for receipt of vaccines annually to Emergency Co-ordinator

The Emergency Co-ordinator should:

- Insert updated counts of priority groups for receipt of vaccines into the plan annually.

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Identification of Priority Groups for Pandemic Vaccine

Tools

Contact List for Inventory of Priority Groups for Vaccine Distribution

Organization	
Police Department	Contact: Position: Phone: Fax: e-mail: Cell:
Fire Department	Contact: Position: Phone: Fax: e-mail: Cell:
BC Hydro	
Terasen Gas	
TransLink	
BC Ferries Corporation	
Etc.	

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Identification of Priority Groups for Pandemic Vaccine

References & Resources

http://www.vch.ca/pandemic/docs/ch10_vaccine_antivirals.pdf

http://www.vch.ca/pandemic/docs/ch02_health_impact.pdf

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: Establishing Clinics

Pandemic influenza vaccine, once available, will be distributed to the general population, through mass vaccination clinics to be held in designated sites.

Establishing Mass Vaccination Clinics

The Director, Community, and Family Health in collaboration with the Director, Communicable Disease Control, should:

- Establish/adapt plans for clinic operations
- Determine personnel and resource needs for clinic operations
- Establish processes for monitoring vaccine coverage and ordering of product
- Identify clinic directors
- Identify medical screeners (physicians/nurses)
- Identify vaccine administrators
- Provide current population statistics annually to Emergency Co-ordinator.

The Medical Health Officer should:

- Establish a strategy to conduct follow-up of adverse events
- Determine procedures to report vaccine use and adverse events to BCCDC
- Identify locations for mass vaccination clinics
- Collaborate with local authority for use of facility
- Draft memorandum of understanding with local authority for use of sites
- Review memorandum of understanding with VCH Legal Affairs and Risk Management

The Emergency Co-ordinator should:

- Insert current population statistics into the plan annually.

Employee Engagement personnel should:

- Establish a list of alternate vaccinators (e.g., retired health care providers)

HSDA Educators, in collaboration with Communicable Disease Educators, should:

- Plan training and educational materials for traditional and non-traditional providers
- Identify, designate and train traditional and non-traditional personnel within the HSDA to administer vaccine and epinephrine

Facilities Management should:

- Identify strategies and personnel for crowd control at vaccine clinics

Logistics should:

- Determine vaccine transport within the HSDA
- Establish a protocol for biomedical waste management and disposal

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: Numbers of Clinics

Numbers of Mass Vaccination Clinics Required

- Assuming no shortage of vaccine, staff in Coastal HSDA (Urban) can establish clinics to immunize 2,500 people in an 8-hour shift and 3,750 people in a 12-hour shift.
- Assuming no shortage of vaccine, staff in Coastal HSDA(Rural) can establish clinics to immunize 1,000 people in an 8-hour shift and 1,500 people in a 12-hour shift.
- A course of vaccine may be one dose or two doses per person.
- The mass immunization is target 100% of the population in a 4-month (17-week) period.
- Total population of the Coastal HSDA is 272,107 people. Population Coastal HSDA (Urban) is 187,280; population Coastal HSDA (Rural) is 84,827.

The numbers of clinics required to achieve this target in the Coastal HSDA (Urban) are as follows:

Doses/Person	Total Doses	Hours/Day	Clinics/Week	Clinics/Day*	Total Clinics
2	374,560	8	9	>1	150
1	187,280	8	4	<1	75
2	374,560	12	6	1	100
1	187,280	12	3	<1	50

*These values may be imprecise; number clinics/week should be used for planning purposes.

The numbers of clinics required to achieve this target in the Coastal HSDA (Rural) are as follows:

Doses/Person	Total Doses	Hours/Day	Clinics/Week	Clinics/Day*	Total Clinics
2	169,654	8	10	>1	170
1	84,827	8	5	<1	85
2	169,654	12	7	1	113
1	84,827	12	3	<1	57

*These values may be imprecise; number clinics/week should be used for planning purposes.

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: Staffing

Tools

Staff Required for a Mass Vaccination Clinic (Subdivided by Functional Area)

Functional Area	Number
Clinical Staff	
Registration	1
Pre-intervention Patient Holding/Waiting	2
Intervention	16
Medical Care & Holding	1
Subtotal	20
Volunteer Staff	
Registration	4
Patient Flow	1
Intervention	2
Post-intervention Holding	1
Subtotal	8
Logistics Staff	
General Administration/Finance	1
Medical/General Supply Receiving	1
Transport	1
Cleaner	1
Subtotal	4
Security Staff	
Parking & Traffic Control	1
Crowd Control	1
Facility security	2
Subtotal	4
Total	36

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: Selection of Clinic Sites

Note

Sites selected for holding mass clinics must meet specific space requirements and must have adequate capacity to handle the expected traffic flow. For most sites, the target for immunizations is 2500 people/day for 17 weeks. This target assumes that a day consists of an 8 hour shift. Capacity can be increased by running clinics for 12 hour shifts. The facility should be set up as a mass clinic with designated areas assigned to specific activities as follows:

- ❑ **Reception Area:** The reception area is in the designated “lobby” area to “meet and greet” clients. The reception area is supervised by VCH security at all times.
- ❑
- ❑ **Orientation and Registration Area:** probably the largest room where clients are provided with information about the vaccine, fill out any required documents, see medical staff as needed and wait for immunization.
- ❑
- ❑ **Immunization Area:** smaller area where immunizations are administered.
- ❑
- ❑ **Post-immunization Area:** room where patients can wait for 15 minutes to be monitored by health staff for emergencies, ideally with an exit door monitored by security staff.
- ❑
- ❑ **Washrooms and Kitchen:** washrooms should be available for both public and staff use.
- ❑
- ❑ **Administration Space:** a room for filing, ordering of supplies and for meetings for supervisory staff, equipped with telephones and computers.
- ❑
- ❑ **Storage Space:** a room that can be locked and that can accommodate bulk supplies and 1 or 2 large refrigerators (provided by VCH) for storing vaccines, ideally located in such a way as to facilitate daily deliveries.

Coastal Health Services: HSDA Pandemic Response Plan

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: Identified Sites

Tools

Sites Identified for Mass Vaccination Clinics

The following sites have been identified as potential sites for mass vaccination clinics:

Harry Jerome Centre	Address:	Contact: Position: Phone: Fax: E-mail:
West Vancouver Senior's Centre	Address:	Contact: Position: Phone: Fax: E-mail:
	Address:	Contact: Position: Phone: Fax: E-mail:
	Address:	Contact: Position: Phone: Fax: E-mail:
	Address:	Contact: Position: Phone: Fax: E-mail:
	Address:	Contact: Position: Phone: Fax: E-mail:
	Address:	Contact: Position: Phone: Fax: E-mail:
	Address:	Contact: Position: Phone: Fax: E-mail:

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: Clinic Supplies

Following are lists of medical and general supplies needed for mass vaccination clinics. The total requirement for each item depends on whether or not the item will be re-used at each clinic shift, the numbers of clinics held and the numbers to be vaccinated at each clinic. Requirements for clinics to be held in Coastal Rural will differ from those for clinics held in Coastal Urban settings.

Process

The Director, Community and Family Health should:

- Ensure lists of medical and general supplies required for mass immunization clinics are developed annually.
- Provide updated lists of medical and general supplies required for mass immunization clinics to Emergency Co-ordinator annually.

The Emergency Co-ordinator should:

- Insert updated lists of medical and general supplies required for mass immunization clinics into the plan annually.

Clinic Supplies

Items	Number of Items / Clinic Session	Reusable or Disposable
Ampules of epinephrine 1:1000 SQ (1 / nurse)	20	reusable
Ampules of diphenhydramine 50 mg IM (1 / nurse)	20	reusable
Tuberculin syringes with 5/8" needles (for epinephrine)	100	reusable
Adult airways	2	reusable
Pediatric airways	2	reusable
Portable O ₂ with masks and tubing	1	reusable
Tourniquet	20	reusable
BP cuff and stethoscope	2	reusable
Flashlight	4	reusable
Cots/Mats	10	reusable
Blankets	10	reusable
Pillows	10	reusable
Hard-sided coolers	10	reusable
Refrigerator	1	reusable
Vaccine	3,000	disposable
3 cc syringes 1", 25 gauge needles	3,000	disposable
Alcohol wipes	6,000	disposable
Vaccine information sheets	3,000	disposable
Sharps containers (300 syringe capacity)	20	disposable
Latex-free gloves (1 small, 2 medium 1 large)	4	disposable
Antibacterial handwashing solutions (bottles)	20	disposable

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Q-tips	4,000	disposable
Rectangle Band-aids	2,000	disposable
Adhesive tape (rolls)	10	disposable
Emesis bags	20	disposable
Spray bottle of bleach solution	1	disposable

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: General Supplies

General Supplies

Items	Number of Items / Clinic	Total Number of Items for All Clinics
Signage		reusable
Tables	16	reusable
Chairs	500	reusable
Portable partitions		reusable
Stapler/staples	4	reusable
Scissors	4	reusable
Clipboards	20	reusable
File boxes	5	reusable
Telephone (fixed and mobile)	10	reusable
ID badges for staff (Colour coded T-shirts)	33	reusable
Water and cups	2,500	disposable
Pads of paper	5	disposable
Pens, pencils	100	disposable
Rubber bands		disposable
Tape	20	disposable
Post-it notes		disposable
Paper towels (rolls)	10	disposable
Kleenex tissue (boxes)	20	disposable
Table pads and clean paper to cover table for work site	20	disposable
Garbage containers and trash bags	25	disposable
Canteen supplies (i.e. juice, cookies)		disposable

Public Announcement Systems and Bullhorns

Items	Number of Items / Clinic Session	Total Number of Items for All Clinics
Computers		reusable
Printers		reusable
Photocopier Paper (perhaps already in facility)		reusable
Video Camera (for orientation & training as necessary)	1	reusable
VCR/TV (for orientation & training as necessary)	1	reusable
Two-way hand-held radios or messaging devices	2	reusable

VACCINES & ANTIVIRALS

Mass Vaccination Clinics: Reporting of Adverse Vaccine Reaction

Note

Vaccine side effects are usually mild and may include a slight fever or soreness or redness at the injection site. With any vaccine or drug there is the possibility to a shock-like reaction (anaphylaxis). This can include hives, swelling around the throat, wheezy breathing or swelling of some part of the body. Serious adverse reactions to the vaccine should be reported to the public health nurse or doctor.

Process

Clinic Reception Staff should:

- Provide patients with information about the vaccine and possible vaccine side effects.
- Advise patients to report serious side effects to their doctor or to the public health nurse.

The Doctor or Public Health Nurse receiving information about an adverse vaccine reaction should:

- Complete and submit the Vaccine Adverse Reaction Report form (To be developed).

References & Resources

Guidelines for Operating Influenza Pandemic Mass Vaccination Clinics: see VCH Pandemic Influenza Plan, Chapter 10 Vaccines & Antivirals, section 4.

http://www.vch.ca/pandemic/docs/ch10_vaccine_antivirals.pdf

http://www.vch.ca/pandemic/docs/ch02_health_impact.pdf

http://www.vch.ca/pandemic/docs/pandemic_influenza_inservice.pdf

VACCINES & ANTIVIRALS

Antiviral Program

As it is highly likely that pandemic influenza will reach the region before a vaccine becomes available, antivirals are expected to be the only initial virus-specific intervention available. Antiviral medication will be administered on a prioritized basis.

The effectiveness of antiviral drugs in a pandemic, particularly their effectiveness in reducing mortality in cases of severe disease (including viral pneumonia) is not known. If treatment with antiviral drugs is as effective in a pandemic as during seasonal influenza, early treatment (within 48 hours of onset of illness) should shorten illness by around one day, may ameliorate symptoms and should reduce hospitalizations.

The potential uses of antivirals in a pandemic include:

Interpandemic and pandemic alert periods (Phases 1, 2, and 3)

Antivirals may be used in occupational groups exposed to animal hosts for a novel virus for personal protection and to prevent the establishment and evolution of novel influenza viruses in people.

Pandemic alert period (Phases 4 and 5)

At the onset of the pandemic when isolated cases and small confined outbreaks are occurring, antiviral drugs may have a role in trying to contain the infection or delay or slow its spread. If this strategy is employed, it is likely to be a short-term strategy.

Pandemic period (Phase 6)

Antiviral medications may be used, depending on availability, according to the priority groups as described below.

The Antivirals Working Group of the Canadian Pandemic Influenza Committee determined priority groups for antiviral administration. Priority groups are tentative and will be updated, as more information about the pandemic virus becomes available. National stockpiles of antiviral drugs will be increased throughout 2007-2008 to provide sufficient quantities to treat every person who may become ill with influenza in a pandemic.

Priority Groups For Antiviral Administration (Tentative)

1. Treatment of people hospitalized for influenza
2. Treatment of ill health care and emergency services workers
3. Treatment of ill high-risk people in the community
4. Prophylaxis of health care workers
5. Control of outbreaks in high-risk residents of institutions (nursing homes and other chronic care facilities)
6. Prophylaxis of essential care workers (police, fire, correctional services, armed forces, key emergency response decision makers, funeral service, utilities, telecommunications, public transport and transportation of essential goods)
7. Prophylaxis of high-risk people hospitalized for illnesses other than influenza
8. Prophylaxis of high-risk people in the community

VACCINES & ANTIVIRALS

Antiviral Program

Definition of People at High Risk

The definition of people at high-risk may change, based on the epidemiology of the pandemic strain. Those currently considered to be at high risk for the complications of influenza include:

- Adults and children with chronic cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis, and asthma) severe enough to require regular medical follow-up or hospital care
- People of any age who are residents of nursing homes and other chronic care facilities.
- People \geq 65 years of age
- Children aged 6-23 months of age (note that Oseltamivir Phosphate is not licensed for children under 1 year of age)
- Adults and children with chronic conditions, such as diabetes mellitus and other metabolic diseases, cancer, immunodeficiency, immunosuppression (due to underlying disease and/or therapy), renal disease, anemia, and hemoglobinopathy.
- Children and adolescents (aged 6 months to 18 years) with conditions treated for long periods with acetylsalicylic acid.

References & Resources

For Information for health care providers about antiviral medications for influenza see: VCH Pandemic Influenza Plan, Chapter 10 Vaccines & Antivirals, section 2.

For information for the general public about antiviral medication that may be prescribed to them see: VCH Pandemic Influenza Plan, Chapter 10 Vaccines & Antivirals, section 2.

http://www.vch.ca/pandemic/docs/ch10_vaccine_antivirals.pdf

VACCINES & ANTIVIRALS

Antiviral Program

Adverse Drug Reaction Reporting

Suspected adverse reactions to antiviral medication should be reported through the Canadian Adverse Drug Reaction Monitoring Program. These reports should be made by the provider of the antiviral medication, when an adverse reaction occurs after the administration of a drug.

In a pandemic, antiviral medications may be used for longer periods than indicated for prophylaxis during seasonal influenza epidemics. Therefore, monitoring of adverse drug reactions will become particularly important.

Since the provider may not know if the reaction is a result of the medication, these reactions are referred to as suspected adverse drug reactions. Suspected adverse drug reactions should be reported by the medication provider if the adverse reaction is:

- unexpected, regardless of its severity (not consistent with product information or labeling);
- serious *, whether expected or not;
- in an individual for whom the medication was recently licensed (in the last five years)

*A serious adverse reaction is one which requires inpatient hospitalization or prolongation of existing hospitalization, causes congenital malformation, results in persistent or significant disability or incapacity, is life-threatening or results in death. Adverse reactions that require significant medical intervention to prevent one of these outcomes are also considered to be serious.

The adverse drug reaction reporting form can be found on the Health Canada website at:

<http://www.phac-aspc.gc.ca/dird-dimr/pdf/hc4229e.pdf>

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HANDLING & DISPOSAL OF THE DECEASED

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HANDLING & DISPOSAL OF THE DECEASED

Natural Death Surge

Deaths resulting from influenza will constitute a natural death surge; i.e., “an increased number of deaths from natural causes that can occur over a period of weeks or months,” as opposed to a single mass or multiple fatality event where several people die, as the result of a single incident, and where the number of deaths exceeds the capabilities of local resources to respond.

Role of the Coroner

Deaths resulting from a declared influenza pandemic would be natural deaths but would not be “sudden and unexpected”. The Chief Coroner would not automatically have jurisdiction or become involved in all pandemic deaths.

Waiving of Requirements

In an influenza pandemic, the Chief Coroner in collaboration with the Provincial Health Officer might act to waive current processing requirements to facilitate rapid processing and burial.

Under a provincial emergency declaration the Chief Coroner may:

- Direct changes to the documentation and processing requirements to facilitate a rapid burial where there is reasonable presumptive cause of death and no identification issues
- Authorize the use of mass graves
- Introduce special measures for the processing of unidentified bodies
- Direct the establishment of temporary morgues
- Direct the burial of bodies without embalming, using body bags only
- Direct the burial of unclaimed bodies
- Waive autopsies
- Direct the taking of body fluid samples (this is not considered an autopsy and does not need permission of the next of kin).

Role of the Local Authority (Municipality or Regional District)

In a situation where local resources are overwhelmed, the local authority may be called upon to assist in the collection, storage, transport, processing and burial of the dead.

References & Resources

Coroners Act [RSBC 1996] CHAPTER 72 is available at:
http://www.qp.gov.bc.ca/statreg/stat/C/96072_01.htm

Managing Pandemic influenza for Local Governments, Annotated Annex is available at:
<http://www.health.gov.bc.ca/pandemic/local.html>

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HANDLING & DISPOSAL OF THE DECEASED

Pronouncement of Death

The pronouncement of death is not a reserved medical act or a delegated medical function. There are no laws governing the event when death is expected nor are there laws defining who is qualified to pronounce death in such circumstances. An unexpected death must be reported to the coroner, pursuant to s.9(1) of the *Coroners Act*.

Pronouncement of death is undertaken in practice and by custom to formalize the occurrence of death, and is done to reassure relatives and the public that a patient is, indeed, deceased before being treated as such. The actual pronouncement can be reassuring to the family and can contribute to the dignity of the end of a person's life. The skills to pronounce death are not exclusive to physicians. Other regulated health professionals have the requisite skills.

Physicians are advised to ensure that long-term care facilities, palliative care units and hospices with which they are associated develop policy and procedures with respect to pronouncement of death when death has been expected.

Registration of Death

Section 17 (1) *Vital Statistics Act* [RSBC 1996] CHAPTER 479 requires that:

The death of a person who dies in British Columbia must be registered as provided in this Act.

Section 17 (2) requires that:

The personal particulars of the deceased person must, on the request of the funeral director, be set out in a statement in the form (*referred to here as the Registration of Death form*) required by the chief executive officer (under the Act) and delivered to the funeral director by one of the following as applicable:

- a) by the nearest relative of the deceased present at the death or in attendance at the last illness of the deceased;
- b) if no such relative is available, by any relative of the deceased;
- c) if no relative is available, by any adult person present at the death;
- d) by any other adult person having knowledge of the facts;
- e) by the occupier of the premises in which the death occurred;
- f) by the coroner who has been notified of the death and has made an inquiry or held an inquest regarding the death.

The **Registration of Death** form will include the following information:

- Full name
- Date of Birth
- Birthplace
- Personal Health Number
- Occupation (if retired, kind of work done most of working life)
- Spouse's name (If wife list maiden name)
- Full name of father and father's birthplace
- Full name of mother (maiden name) and mother's birthplace.
- Method of Disposition (burial or cremation)

Coastal Health Services: HSDA Pandemic Response Plan

HANDLING & DISPOSAL OF THE DECEASED

Medical Certificate of Death

Section 18 (1) specifies that:

A medical certificate must be prepared in accordance with subsection (2) in any of the following circumstances:

- (a) if a medical practitioner
 - (i) attended the deceased during the deceased's last illness,
 - (ii) is able to certify the medical cause of death with reasonable accuracy, and
 - (iii) has no reason to believe that the deceased died under circumstances which require an inquiry or inquest under the *Coroners Act*;
- (b) if the death was natural and a medical practitioner
 - (i) is able to certify the medical cause of death with reasonable accuracy, and
 - (ii) has received the consent of a coroner to complete and sign the medical certificate;
- (c) if a coroner conducts an inquiry or inquest into the death under the *Coroners Act*.

Section 18 (2) requires that:

Within 48 hours after the death, the **medical practitioner or the coroner**, as applicable, must

- (a) complete and sign a medical certificate in the form required by the chief executive officer (under the Act) stating in it the cause of death according to the international classification, and
- (b) make the certificate available to the funeral director.

Section 19 requires that:

On receipt of the statement referred to in section 17 (2) (*Registration of Death form*) and of the medical certificate or the interim medical certificate, the **funeral director** must promptly deliver the statement and certificate to a vital statistics registrar.

Applying for the Death Certificate/Permit of Burial or Cremation

In order to apply for a death certificate(s), the Medical Certification of Death form must be submitted with the Registration of Death form. The funeral director will complete all this documentation. Once the death has been registered, a permit of burial/cremation is issued along with the requested number of original death certificates. The Vital Statistics Agency currently charges \$27.00 per original death certificate.

References & Resources

Vital Statistic Act [RSBC 1996] CHAPTER 479 is available at:
http://www.qp.gov.bc.ca/statreg/stat/V/96479_01.htm

VCH Regional Pandemic Response Plan, Chapter 12, Handling & Disposal of the Deceased is available at:
http://www.vch.ca/pandemic/docs/ch12_handling_deceased.pdf

Coastal Health Services: HSDA Pandemic Response Plan

COMMUNICATIONS

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Coastal Health Services: HSDA Pandemic Response Plan

COMMUNICATIONS

Communication During a Pandemic

Communication during a pandemic will be phase-specific and will include information on the prevention and mitigation of a pandemic. The VCH Pandemic Influenza Response Plan details the key messages, stakeholders and means of communication to be used. Additional information will be developed specific to the pandemic strain.

Communication Lead

The Vice President, Communications & Community Engagement, as primary communication lead, is responsible for communications, in conjunction with the Chief Medical Health Officer, and for liaison with and updating the Board and Senior Executive Team.

Communication with the Media

The Director, Media and Issues Management will deal with all media queries.

Process

The Director, Media and Issues Management will:

- Coordinate all information released to the media.
- Ensure key messaging is consistent with the Chief Medical Health Officer or designate.
- Recommend appropriate response strategies.
- Approve all written, electronic, or photographic information for media use.
- Act as official spokesperson, as needed.

Key Spokespersons

The official spokesperson during a pandemic is the Chief Executive Officer or designate. The Chief Medical Health Officer will be the primary designate for speaking to and answering media queries.

Chief Medical Health Officer (Dr. Patricia Daly or designate)

Regional Director, Public Affairs (Laurie Dawkins)

Office: 604-708-5312

All media queries forwarded to Director

Medical Health Officer On-Call (available 24/7)

604-527-4893

Media Relations Officer (Viviana Zanocco or designate)

604-708-5282

After-hours Media Pager For media inquiries after regular office hours and on weekends, call the media pager at 604-686-9983

Coastal Health Services: HSDA Pandemic Response Plan

COMMUNICATIONS

Contacting Employees

During a pandemic, consistent and timely communication with health care workers will be critical to managing response and appropriately deploying resources. We will maintain accurate and current contact information for all employees and develop and maintain the mechanisms necessary to contact them.

Process

Manager, **Employee Engagement** should:

- Work with line managers to maintain accurate and current contact information for all employees.

Coastal Health Services: HSDA Pandemic Response Plan

COMMUNICATIONS

Information for Employees

During a pandemic, employees will need access to accurate and timely information about the disease outbreak and to information about the response within the HSDA and throughout the region.

Process

VCH Communications, in collaboration with VCH Communicable Disease Control will:

- ❑ Develop internet- and intranet-based resources to respond to employee information needs throughout the region.
- ❑ Develop plans for the dissemination of information by alternate means, including a toll-free hotline for employees.

During a pandemic, VCH Staff should:

- ❑ Visit the VCH Intranet site at www.vcha.ca for access to staff bulletins, policies and procedures and question and answer documents.
- ❑ Call the VCH toll-free **hotline for employees** at **1(877) 822-4646** for pre-recorded information (regularly updated) for those calling from home or without access to e-mail.

Coastal Health Services: HSDA Pandemic Response Plan

COMMUNICATIONS

For External Audiences

VCH Website

Information on influenza and the VCH Pandemic Influenza Plan are posted on the VCH website at www.vch.ca/pandemic.

When a pandemic is declared, an information portal will be available on the VCH home page at www.vch.ca and will include:

- Up-to-date pandemic information.
- Information on the availability of vaccine and eligible groups for vaccination.
- Information for travellers returning from or travelling to pandemic areas (co-ordinated with Health Canada).
- Information on seeking medical care during the pandemic.
- Information on prevention and self-care.
- Links to other sites.

Toll-free Hotline

A toll-free hotline for the public has pre-recorded messages that can be updated, as needed. During a pandemic, it will be staffed by trained personnel to answer questions from the public.

The toll-free hotline for public enquiries is 1 (888) 875-4334.

References & Resources

For additional information on communications plans for a pandemic see VCH Pandemic Influenza Plan, Chapter 11, http://www.vch.ca/pandemic/docs/ch11_communication.pdf.

Vancouver Coastal Health's pandemic self-care guide, "Look after yourself" is available at: http://www.vch.ca/pandemic/docs/Look_after_yourself.pdf.

Coastal Health Services: HSDA Pandemic Response Plan

HUMAN RESOURCES

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Coastal Health Services: HSDA Pandemic Response Plan

HUMAN RESOURCES

Health Care Worker Education

Education and training should prepare health care workers to respond to a pandemic event in the workplace, at home and in their communities. Programs will include materials to address:

- epidemiology of influenza and its modes of transmission
- avian influenza
- pandemic influenza
- infection control and hygiene practices
- staying healthy during a pandemic
- self care during a pandemic, including when to seek further care
- review of psycho-social supports
- personal protective equipment
- cross-training to create surge capacity
- ethical framework for decision making

Process

The Emergency Co-ordinator should:

- ❑ Work with the MHO, colleagues in the HSDA and Communicable Disease Control staff at the regional level to co-ordinate opportunities to provide health care worker education about pandemic influenza in the HSDA.
- ❑ Co-ordinate exercise of the HSDA plan. Exercise of the HSDA pandemic response plan is an important educational opportunity for staff.

VCH Communicable Disease Control staff should:

- ❑ Co-ordinate development of educational resources for health care worker education.
- ❑ Ensure consistency of message across the region.

Regional resources may include:

- regional webcasts
- web-based resources
- in-service training
- information in pay stubs
- print resources

References & Resources

http://www.vch.ca/pandemic/docs/ch08_human_resources.pdf

http://www.vch.ca/pandemic/docs/ch04_infection_control.pdf

http://www.vch.ca/pandemic/docs/ch05_self_care.pdf

Tools

To be developed.

Vancouver Coastal Health's pandemic self-care guide, "Look after yourself" is available at:

http://www.vch.ca/pandemic/docs/Look_after_yourself.pdf

Coastal Health Services: HSDA Pandemic Response Plan

HUMAN RESOURCES

Planning for a Supplementary Work Force

During a pandemic, shortages of personnel can be expected to limit the ability of institutions to respond to a significant increase in patient volume. Increased pressure for adequate staffing will arise from the fact that a significant proportion of personnel will be taken out of the work force due to illness or family needs.

In order adequately to respond to the surge in demand for health care services, VCH will look to alternate sources of workers to supplement staff in our facilities and community. Alternate sources of health care workers may include but, are not limited to:

- retired physicians or nurses (need to be assurance that work during a pandemic would not affect their pension plans)
- physicians or nurses currently not working in clinical health care (i.e., working in education, administration, research, private industry)
- students & trainees (e.g., medical, nursing and therapy students)
- registered nursing assistants
- patient care assistants
- emergency medical technicians
- veterinarians
- pharmacists
- therapists (respiratory, occupational and physiotherapists)
- technicians (laboratory, radiography)
- health care aides

Process

The Manager, Employee Engagement should:

- ❑ Develop inventories of people in the categories, above, in the HSDA, to be considered as a source of supplementary workers during a pandemic.
- ❑ Provide updated inventories of people in the HSDA considered as a source of supplementary workers during a pandemic annually to Emergency Co-ordinator.

The Emergency Co-ordinator should:

- ❑ Insert updated inventories of people in the HSDA considered as a source of supplementary workers during a pandemic into the plan annually.

Note

A regional Human Resources Committee will identify and address training needs for supplementary workers.

References & Resources

http://www.vch.ca/pandemic/docs/ch08_human_resources.pdf

EQUIPMENT & SUPPLIES

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EQUIPMENT & SUPPLIES

Transportation

Worker absenteeism or implementation of public health measures may result in disruption to transport, especially in remote areas. HSDA's will identify alternate means of transporting essential health equipment and supplies in a pandemic.

Process

The VCH Supply Chain should:

- ❑ Assess availability of alternate means of transport.
- ❑ Develop, in collaboration with HSDA staff, plans to ensure alternate means of transport of essential health equipment and supplies in a pandemic annually.
- ❑ Provide updated plans to ensure alternate means of transport of essential health equipment and supplies in a pandemic to Emergency Co-ordinator.

The Emergency Co-ordinator should:

- ❑ Insert updated plans to ensure alternate means of transport of essential health equipment and supplies in a pandemic into the plan.

EQUIPMENT & SUPPLIES

Stockpiling

Consistent with regional policies and with due regard to the security of supply, HSDA's will identify sites for the stockpiling of essential health equipment and supplies in advance of the declaration of a pandemic.

Process

The Medical Health Officer should:

- ❑ Work with VCH Supply Chain to identify sites for the stockpiling of essential health equipment and supplies for use in a pandemic.
- ❑ Work with VCH Supply Chain to ensure timely rotation and replenishment of stockpiled inventories, with due regard to expiration dates.
- ❑ Provide identified sites for the stockpiling of essential health equipment and supplies for use in a pandemic to Emergency Co-ordinator.

The Emergency Co-ordinator should:

- ❑ Insert identified sites for the stockpiling of essential health equipment and supplies for use in a pandemic into the plan.