

PROVINCE OF BRITISH COLUMBIA

Public Health and Medical Services Annex

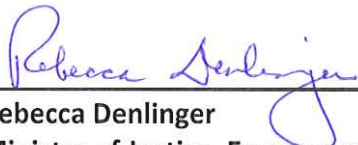
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Graham Whitmarsh
Ministry of Health

May 30, 2012

Date Signed



Rebecca Denlinger
Ministry of Justice, Emergency Management BC

October 16, 2012

Date Signed

Amendments

COMPREHENSIVE EMERGENCY MANAGEMENT PLAN
HEALTH ANNEX

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1. PURPOSE

The purpose of this document is to describe how the British Columbia health system will respond to major emergencies or disaster events, including the provision of health care and the promotion and protection of public health.

2. SCOPE

This health annex to the Comprehensive Emergency Management Plan (CEMP) addresses the health response to the following:

- Public health emergencies, such as an influenza pandemic;
- Emergencies and/or disasters that increase the demand for health services; and
- Emergencies and/or disasters that impact the health system and the continuity of health services.

This health annex provides a high-level overview of the health response. The specific emergency procedures of the health system and its associated organizations and agencies are out of scope.

3. AUTHORITIES

The BC health system's response to an emergency/disaster is guided by the following legislation:

- **Public Health Act:** The *Public Health Act* (PHA) provides a wide range of powers for health officers (medical health officers – MHOs, and environmental health officers - EHOs) and the provincial health officer (PHO) in dealing with public health threats. Emergency powers available under the Act include:
 - Allow MHOs to mandate social distancing measures such as quarantine, closure of public facilities, restriction of travel and restriction of public gatherings;
 - Allow the PHO to authorize health officers to act in other geographic areas than those in which they are designated;
 - Authorize a health officer to order an evacuation;
 - Authorize the PHO to require that infectious agents, hazardous agents, or health hazards be reported to MHOs; and
 - Enable the Minister to require a facility to be used for health purposes (e.g. make a building a quarantine facility).
- **Emergency Health Services Act:** The *Emergency and Health Services Act* and the associated *Emergency Medical Assistants Regulation* govern the provision of emergency health services in the province. This includes the establishment of and licensing of ambulance personnel.
- **Emergency Program Act:** The *Emergency Program Act* (EPA) is the key piece of legislation that governs emergency management in BC. The Act requires that ministers develop emergency plans and procedures to be followed in the event of an emergency or disaster and sets out the manner in which and the means by which the government will respond and recover.

- **Emergency Management Program Regulation:** Requires that each minister develop emergency plans and procedures to be followed in the event of an emergency or disaster. Schedule 2 of the regulation outlines the responsibilities of the Minister of Health in the event of an emergency.

4. HEALTH SYSTEM OVERVIEW

4.1. The Ministry of Health

The Ministry of Health (MoH) has overall responsibility for ensuring that appropriate, cost effective and timely quality health services are available to all British Columbians. The Ministry works with health authorities, care providers, agencies and other groups to guide and enhance the Province's health services and ensure British Columbians are supported in their efforts to maintain and improve their health and to provide access to care.

The Ministry directly manages a number of provincial programs and services. These programs include: the Medical Services Plan, which covers most physician services; PharmaCare, which provides prescription drug insurance for British Columbians; the BC Vital Statistics Agency, which registers and reports on vital events such as a birth, death or marriage; and HealthLink BC, a confidential health information, advice and health navigation system available by telephone (8-1-1) or on the web (www.healthlinkbc.ca). HealthLink BC also publishes the BC HealthGuide, which is available through local pharmacies.

4.2. Health Authorities

The Province's six health authorities are the organizations primarily responsible for health service delivery.

Five regional health authorities deliver a full continuum of health services to meet the needs of the population within their respective geographic regions. Health services provided by the regional health authorities include Public Health, Acute Care, Residential, Home & Community Care, Clinical Services and a broad scope of Health and Human Services.

A sixth health authority, the Provincial Health Services Authority, is responsible for managing the quality, coordination and accessibility of services and province-wide health programs. These include specialized programs and services provided through the following agencies:

- BC Cancer Agency (BCCA);
- BC Centre for Disease Control (BCCDC);
- Provincial Laboratories;
- BC Children's Hospital and Sunny Hill Health Centre for Children;
- BC Women's Hospital and Health Centre;
- Health Shared Services BC (HSSBC);
- BC Provincial Renal Agency (BCPRA);
- BC Transplant Society;
- Cardiac Services BC;

- Provincial Blood Coordinating Office;
- Emergency and Health Services Commission (EHSC), which provides ambulance services across the province and operates BC Bedline, the provincial acute bed management system;
- BC Mental Health and Addiction Services, including Riverview Hospital and the Forensic Psychiatric Services Commission; and
- Perinatal Services BC.

4.3. First Nations Health Authority

The new First Nations Health Authority will be responsible for the planning, management, delivery and funding of health programs that are presently provided for First Nations in BC through Health Canada. An interim First Nations Health Authority has been established to coordinate the transition to the new health authority. Through its department of Health Actions, the interim First Nations Health Authority has established a Tripartite Planning Committee for Injury Prevention and Control. This Tripartite Committee will include representatives from Health Canada's First Nations and Inuit Health Branch and the Ministry of Health. Ministry of Health Emergency Management staff will continue to work with the Public Health Agency of Canada, the Interim First Nations Health Authority, and the Tripartite Planning Committee for Injury Prevention and Control, to develop a framework for health authority emergency management.

4.4. BC Centre for Disease Control

The BC Centre for Disease Control (BCCDC) provides provincial and national leadership in public health through communicable disease and environmental health surveillance, detection, treatment, prevention and consultation services. The Centre also provides diagnostic and treatment services for people with diseases of public health importance and analytical and policy support to all levels of government and health authorities.

BCCDC investigates and evaluates the occurrence of communicable diseases in BC and is the provincial reporting centre for reportable cases and categories of communicable diseases. In addition, the Centre creates opportunities for scientists, health professionals, university and other partners to contribute their knowledge and experience in resolving the outstanding health challenges facing British Columbians. The BCCDC has been delegated by the PHO and the ministry to carry out these duties, including designation by the PHO under the *Public Health Act* to receive communicable disease reports on behalf of the PHO. The BCCDC provides direct support to the PHO in health and public health emergencies and takes the lead for provincial public health response when delegated by the PHO. The BCCDC also houses the provincial biologics stockpile (including antiviral medications, antidotes and antibiotics).

4.5. BC Ambulance Service

The BC Ambulance Service (BCAS) provides emergency pre-hospital treatment and transportation by ambulance to medical facilities and has stations in 170 communities throughout the province. An air ambulance service is coordinated by the *Patient Transfer Co-ordination Centre (PTCC)* in Vancouver.

5. EMERGENCY PLANNING & PREPAREDNESS

5.1. Health Emergency Management Council (HEMC)

Planning for emergencies by the BC health system is a collaborative effort, involving a broad array of agencies and stakeholders. The Ministry of Health (MoH) sponsors and chairs the *Health Emergency Management Council* (HEMC). HEMC is comprised of Emergency managers from:

- Ministry of Health (MoH);
- Vancouver Island Health Authority (VIHA);
- Northern Health Authority (NHA);
- Interior Health Authority (IHA);
- Lower Mainland Health Emergency Management (HEM);
- BC Ambulance Service (BCAS); and
- BC Centre for Disease Control (BCCDC).

The council promotes comprehensive emergency management including the standardization of health emergency processes, the production and maintenance of health emergency plans, as well as training and exercising. In addition, HEMC provides linkages to other emergency management planning entities such as the Inter-Agency Emergency Preparedness Council (IEPC). Responsibilities of HEMC include:

- Providing advice and support on emergency management and business continuity issues to MoH, Health Authorities, BCCDC and BCAS;
- Setting priorities for provincial projects and programs;
- Providing recommendations and facilitation of the development and implementation of provincial health emergency management guidelines, standards, policy and procedures;
- Facilitating exercises to test and/or validate emergency plans; and
- Providing a point of contact for health sector emergency management and response.

5.2. Agency Emergency Preparedness

The BC government mandates that all public entities within the province utilize an incident management system compliant with BCERMS. This consistency permits agency leads to come together in unified command at the site level, and supporting Emergency Operations Centers at various levels of response.

Each British Columbia health sector organization has developed and maintains emergency plans for a range of situations, which are compliant with the British Columbia Emergency Response Management System (BCERMS).

5.3. Training & Exercises

The health system works with a number of partner agencies, such as Emergency Management BC, to ensure emergency management training and exercising are integrated. In addition, the MoH, through the Emergency Management Unit (EMU) has an agreement with the Justice Institute of BC (JIBC) to develop and maintain a written Academic Plan for health emergency management training

and exercising. JIBC provides support to the Ministry of Health, Regional Health Authorities, Provincial Health Services Authority, BC Ambulance Service and other BC health agencies in ensuring consistency in the provision of training and exercise development in health emergency management.

In order to facilitate the operational development of health emergency management training and exercise programs across the provincial health system, the Health Emergency Management Training & Exercising Working Group (HEMTEWG) has been established. HEMTEWG is a working group that guides BC's health emergency management training and exercising program in collaboration with JIBC, and reports to the Health Emergency Management Council (HEMC).

6. EMERGENCY RESPONSE

6.1. Notification and Activation

The health system's first notice of an incident can come from a variety of sources including first responders, such as the BC Ambulance Service and the Technical Advisor program, a regional Health Authority, Emergency Management BC or Government Communications. The MoH Emergency Management Unit, maintains a 24/7 Duty Officer Program for emergency notification purposes.

Once notified, the MoH Duty Officer will:

- Provide information internally as required, including to Ministry Executive (ADMs and Deputy Minister);
- Ensure health system partners are notified of the incident and maintain ongoing communication;
- Manage documentation related to the event using ETeam; and
- Activate further emergency response personnel/structures, as required.

In the event that further response coordination capability is required, MoH will:

- Establish the Health Emergency Coordination Centre (HECC) (see section 6.3.);
- Through the HECC Director, ensure that all health authorities and Emergency Management BC (EMBC) are notified of HECC activation;
- Notify health authorities, health agencies, EMBC and other affected entities of telephone conference coordinates to establish order of business related to the Emergency or Disaster;
- Create linkages and provide expert personnel to the provincial emergency management structure, including the Provincial Emergency Coordination Centre (PECC), as necessary;
- Provide timely and well-coordinated communication to other provincial, national and international health sector entities; and
- Manage, monitor and authorize the deployment of BC health resources, such as those contained in the National Emergency Stockpile System (NESS), Medical Mobile Unit (MMU), Isolation Chambers and Disaster Psychosocial Services.

Once notified of an emergency, the health authorities will:

- Activate their emergency plans as necessary to support their management objectives and to coordinate the health authority response;

- Notify the MoH (Duty Officer) and other health partners and agencies of activation and current relevant status information; and
- Create linkages and provide expert personnel as necessary to the provincial emergency management structure, including the Provincial Regional Emergency Operations Centre (PREOC).

6.2. Health Response Coordination

In the event of a wide-scale emergency or major disease outbreak, each health authority, BC Ambulance Service (BCAS), BC Centre for Disease Control (BCCDC), HealthLink BC (HLBC), Ministry of Health (MoH) and other health agencies will activate their own internal response framework. This may include the activation of emergency/outbreak response teams and EOCs. The processes for coordinating the broader health sector response are represented in Section 6.4. Provincial Emergency Management Structure.

6.3. Health Emergency Coordination Centre (HECC)

The Ministry of Health has established HECC in compliance with BCERMS. In the event of an emergency, the Ministry of Health will activate the Health Emergency Coordination Centre (HECC) to provide policy direction and coordination for health authorities. It acts as an overall provincial health coordination centre in the event of simultaneous multi-region disasters, such as disease outbreak, earthquake, wildfires or floods.

HECC serves as the coordination and communications link with the provincial emergency management structure, as well as the Federal Health Portfolio (Public Health Agency of Canada/Health Canada). HECC has overall responsibility for the following activities:

- Provide support to BC Ambulance Service, HealthLinkBC, BC Bedline, and Health Authority EOCs;
- Manage event documentation, situational awareness and reporting through the use of ETeam;
- Manage health specific media and public information issues with Government Communications and Public Engagement (GCPE);
- Provide emergency-related direction and advice to BC Health Sector organizations;
- Ensure that detailed and accurate information is provided to the Ministry Executive for the purpose of situational awareness, and strategic and operational policy decisions and direction;
- Provide timely and well-coordinated communication with the provincial emergency management structure;
- Provide timely and well-coordinated communication to other provincial, national and international health sector entities; and
- Manage, monitor and authorize the deployment of BC health resources, such as those contained in the National Emergency Stockpile System (NESS), Medical Mobile Unit (MMU), Isolation Chambers, health sector services, and Disaster Psychosocial (DPS) services.

For more information on HECC, please refer to HECC Operational Guidelines available through the Emergency Management Unit (EMU) at MoH.

6.4. Provincial Emergency Management Structure

All actions of the health sector during an emergency or outbreak will be undertaken within the framework of the integrated provincial response model, with appropriate health sector representation at each level of BCERMS. In this respect, the MoH will provide staff to the Provincial Emergency Coordination Centre (PECC) to provide health expertise and input. Similarly, the health authorities and BC Ambulance Service will provide liaison staff to the appropriate Provincial Regional Emergency Operations Centre(s) (PREOC). Health representation will also be provided to the Central Coordination Group (CCG) through the Emergency Management Unit (EMU) of the MoH.

The *Emergency Program Management Regulation* prescribes the duties of the health sector in the event of an emergency or disaster. Under Schedule 1, the Minister of Health is also responsible for coordinating Government response to human disease outbreaks and epidemics, as well as radiation or infectious material events. In all emergencies, when required, a complementary health emergency response coordination structure will be activated, with health EOCs at each level to handle the health-specific aspects of the response and recovery.

Refer to the end of this document for a diagram of the BC Health Emergency Management Response Structure (Figure 1).

6.5. Response Activities

The BC Health System is responsible for a host of activities in the event of an emergency. These include actions to respond to an increased demand for health services as well as the continued protection and promotion of public health. In addition, the BC health system must ensure appropriate communication pathways to the public, stakeholder organizations and across the health system. A number of these activities and communications responsibilities are described below.

6.5.1. Public Health

The BC health system manages the public health activities required by a particular emergency. This could include a number of activities, such as:

- **Messaging:** The Provincial Health Officer (PHO) is the lead spokesperson for information on public health related matters as a result of a major disease outbreak or emergency/disaster impacting the province. This lead can be shared or delegated to BCCDC at the PHOs discretion. Public messaging will be coordinated across the health system to ensure consistency in messaging and will be available through a number of avenues, including:
 - Health agency websites, such as BCCDC, Health Authorities and MoH;
 - By calling 8-1-1, HealthLink BC;
 - Media briefings, such as television, print and radio; and
 - Messaging to professional groups through associations, colleges or Non-Governmental Organizations.
- **Disease Surveillance:** Surveillance provides an overall impression of emerging and evolving trends and allows picking up signals of possible concern. It is the systematic collection, analysis and feedback of information so that action can be taken. Ongoing surveillance activities enable a record of baseline expected activity levels. Once established these can be compared with new or changing trends.

- **Public Health Measures:** In the event of an emergency, the BC health system will coordinate measures to protect the health of British Columbians. Public health measures could include:
 - Delivery of vaccinations;
 - Provision of pharmaceutical prophylaxis or treatment (e.g. antivirals);
 - Providing public education, such as the promotion of hand cleaning;
 - Social distancing measures, such as restricting public gatherings and closing schools;
 - Issuing travel restrictions and screening travelers;
 - Conducting case and contact management; and
 - Screening at ports of entry e.g. Airport screening during SARS.
- **Epidemiology:** The BCCDC provides information, professional advice and specialist support in the control of communicable disease and infection and in the assessment and management of environmental exposures. In a health emergency, activities conducted include:
 - Investigation, intervention, monitoring and coordinated reporting of communicable diseases or environmental exposures; and
 - Using the data to provide provincial leadership in support of the PHO and MHOs to manage the outbreak or public health emergency.
- **Public health laboratories:** Laboratories establish early diagnosis of diseases and notify the appropriate authorities through established channels. The BCCDC Public Health Laboratory has a key role in diagnosing illness and conducting laboratory surveillance during a public health emergency. Laboratories must coordinate their activities closely with applicable emergency and epidemiology programs. Diseases with outbreak potential include:
 - Water and food borne diseases;
 - Acute respiratory infections;
 - Bacterial meningitis;
 - Vector-borne diseases;
 - Zoonoses; and
 - Vaccine-preventable diseases.

6.5.2. Pre-Hospital Care

Disaster health services during the pre-hospital phase will be largely dependent on first aiders and first responders. Components of pre-hospital care include:

- **Ambulance Services:** BC Ambulance Service (BCAS) provides emergency, pre-hospital care as well as air ambulance services and critical care transportation. The focus of responders is on the initial stabilization of the patient within the capability of pre-hospital treatment facilities operating at the minimum level of capability. Typical care could include:
 - Maintenance of cardio-respiratory function;
 - Control of haemorrhage;
 - Alleviation of shock through vascular volume replacement;
 - Relief of pain and control of body temperature;
 - Reinforcement of dressings and splints;

- Protection from complications, including environmental and weapons effects;
- Provision of on scene triage management; and
- Provision and/or support of on scene decontamination from exposure to biological and/or chemical substances.

BCAS operates a 24/7 Technical Advisor (TA) program to provide real time information and support to scene level supervisors and crews related to CBRNE (Chemical, Biological, Radiological, Nuclear, Explosive) and hazardous substance responses. In the event of an emergency or disaster, TAs can support first responders by:

- Providing advice and assisting in ensuring the safety of all BCAS staff, equipment and operations while working at a CBRNE or hazardous substance event;
 - Liaising with Incident Command at the scene regarding appropriate response methods and medical actions;
 - Ensuring timely notification of other responders and agencies, such as health authorities, BCCDC, MoH and EMBC; and
 - Activating decontamination personnel and equipment in support of the Incident Command Post (ICP).
- **Health Information:** HealthLink BC (HLBC) provides non-emergency health information and services to the province. In an emergency or disaster, HLBC will provide health related information to the public through 8-1-1 and a comprehensive website (www.healthlinkbc.ca). Information on public health measures, the location of clinics, as well as tips and advice on non-emergency care will be available.

6.5.3. Acute Care (Hospitals)

Hospitals are a key link in the health emergency response and are required to maintain emergency plans which include plans for surge management and business continuity. Hospital emergency plans will require each facility to have a tested disaster response infrastructure that includes defined circumstances under which the plan is activated, a designated EOC, and predetermined roles and lines of authority. Hospitals are prepared to manage a number of emergency scenarios, such as:

- **Mass Casualties:** Mass casualties may result from any type of emergency. The term *mass casualties* applies with any number of casualties produced in a relatively short period of time that overwhelms current capabilities. This disparity may involve medical staff, facilities, equipment, supplies, communications and evacuation means. In response to a mass casualty event, health facilities will look to expand or contract services appropriately to manage the surge.
- **Mass Fatalities:** A mass fatality incident is defined as any incident where the number of fatalities is greater than normal local arrangements can manage. In response to a mass fatality incident affecting health services, health facilities may establish an expedited means of identifying, documenting and storage of the deceased, depending on the capabilities at each level and the scale and the complexity of the emergency. Close linkage with BC Coroners service will be essential. The BC Coroners Service determines cause of death and identifies bodies in non-natural incidents and implements the BC Coroners Service Mass Fatality Response Plan when necessary.

6.5.4. Home and Community Care

Home and community care services provide a range of health care and support services for residents who have acute, chronic, palliative or rehabilitative health care needs. In-home services include home care nursing, rehabilitation, home support and palliative care. Community based services include adult care programs, meal programs, as well as assisted living, residential care services and hospice care.

Health authorities in BC manage business continuity programs aimed at ensuring the continuity of care and services in the event of an emergency or disaster, including those services provided through home and community care.

6.5.5. Mental Health & Disaster Psychosocial Services

Disaster Psychosocial (DPS) support is based on the assumption that no one who sees a disaster is untouched by it. Stress and grief reactions are normal responses to crisis and loss, both for survivors and responders. Short-term emotional effects, such as fear, acute anxiety, feelings of numbness or grief are very common. The emotional effects of a disaster may show up immediately or appear months later. Providing a range of psychosocial responses in support of, and in consultation with, survivors can alleviate stress and promote resilience and self reliance.

Under the *Emergency Program Management Regulation*, the Minister of Health and the health system are responsible for the provision of critical incident stress debriefing and counselling services (DPS support) in the event of an emergency or disaster. The Ministry of Health works collaboratively with health authorities, Ministries and other partner organizations on the provision of psychosocial support, which in an emergency includes:

- Providing education and information on stress management;
- Providing access to one-to-one support;
- Scheduling manageable work hours for responders;
- Ensuring the availability of water and healthy food; and
- Offering problem solving techniques.

In addition to the mental health services provided through the health authorities, the Disaster Psychosocial Services volunteer network is available to respond to communities in the event of an emergency or disaster. The network is a voluntary response group made up of registered professional mental health clinicians and paraprofessionals, including clinical counsellors, psychologists, social workers, police victim services and spiritual care representatives.

7. RESOURCES & LOGISTICS

7.1. Mobile Medical Unit

In 2010, the Mobile Medical Unit (MMU) became the property of the Provincial Health Services Authority (PHSA) for use in disaster/emergency recovery, short-term business continuity and continuing medical education (especially disaster simulation training).

Building on a trained cadre of healthcare professionals around the province, the MMU can be pre-emptively deployed to an impacted area to offer short-term surge capacity during a disease

outbreak to free up space to allow hospitals and other health facilities to continue their normal operations.

Medical facilities may themselves be damaged by an event with regionalized impacts or by a catastrophe at the hospital itself. In cases where the interruption of services is extended during repairs, the MMU can serve as a substitute facility or provide a temporary platform, allowing area emergency services to be resumed much sooner. The MMU consists of three trailers:

- A Patient Care Trailer provides approximately 1000 square feet of floor space supporting a limited-scope Emergency Surgical Suite as well as a 4-bed Critical Care Section. In addition there are six emergency/acute beds. Other features include:
 - integrated oxygen system and oxygen generator system;
 - provision for a self-contained water purification unit, including desalination capability; and
 - laboratory capability including chemistry, CBC, blood gas, coagulation profiles, cardiac markers, trauma (base excess and lactates), urinalysis and pregnancy tests provision for fully digital portable x-ray with satellite image transfer.
- An Auxiliary Support Trailer provides transport and storage for all core hospital and/ward equipment, pharmaceuticals and medical supplies, ramps and railings, used to interconnect components, and other support equipment, such as lights, fans, heaters and other supplies.
- An Equipment Support Trailer provides transport and storage of a deployable shelter system (awning) holding capacity can be extended to approximately 100 beds as well as additional resources such as isolation chambers.

7.2. Health Human Resources

Large-scale emergencies or disasters often require the support and assistance of individuals and organizations outside the affected jurisdiction. For the BC health system, this could include the services of physicians, nurses, paramedics and other health care professionals from neighbouring provinces or states. In order to ensure the rapid inclusion of such personnel into the health response to a major event, the licensing and registering bodies of the College of Physicians and Surgeons of BC (CPSBC) and the College of Registered Nurses of BC (CRNBC) have included provisions for emergency registration in their bylaws and appropriate procedures have been established. For more information refer to the [emergency registration bylaws of the CPSBC](#) and the [temporary registration procedures for the CRNBC](#).

7.3. Blood

The availability of blood and blood products is essential to the provision of emergency, surgical and medical care. In a blood system based on voluntary donation and in which BC imports 10-15% of its blood supply, the potential for blood shortage is an ongoing risk. A number of emergency scenarios, including natural or man-made disasters, pandemic outbreak, terrorism and/or extremes of weather, could contribute to extremely low blood inventory levels.

The BC Blood Contingency Plan provides a framework for a rapid and effective response to a localized or widespread blood shortage in BC. It is an advisory document for those involved with the management, supply and use of blood in the province. The aim is to ensure access to safe blood

transfusions for as many patients as possible during a blood shortage and to provide a means to enable equitable allocation of blood on the basis of need.

7.4. Health Shared Services BC (HSSBC)

The BC health sector uses a centralized approach to managing health equipment and supplies through HSSBC and its component organizations. HSSBC supports health authorities overall operational readiness for both day-to-day operations and emergencies. HSSBC's emergency preparedness and response role includes:

- Acquisition and maintenance of Emergency and Disaster inventories;
- Distribution of inventory elements in an emergency as required; and
- Emergency acquisition and delivery of equipment and supplies.

7.5. Stockpiles and the National Emergency Stockpile System (NESS)

Health Authorities and other health system organizations maintain stockpiles of various supplies that can be utilized in the event of an emergency. In addition, the Public Health Agency of Canada's (PHAC) Centre for Emergency Preparedness and Response (CEPR) maintains a National Emergency Stockpile System (NESS) to provide emergency supplies to provinces and territories when requested. NESS includes items ranging from small backpack trauma kits to complete 200-bed emergency hospitals. Items are stored and maintained at eight federal warehouses located across the country and multiple storage sites under federal/provincial/territorial care. NESS standard is to deliver supplies within 24 hours of receiving a request.

Some of the pre-positioned supplies are on loan to the province under a Memorandum of Understanding (MOU) and may be maintained by regional health authorities under agreements with the MoH. All jurisdictions holding stocks of NESS assemblies are required to have written, integrated emergency plans that address the circumstances under which NESS assemblies will be deployed and the modalities for such deployment. Deployment of whole or partial NESS assemblies can be authorized by MoH.

8. DEACTIVATION AND RECOVERY

The BC health system will work to ensure the effective and rapid recovery of health care services following an emergency or disaster. In addition, after a reasonable interval following an incident, and while the event is still fresh in the minds of the participants, a post-incident review should be conducted. An After Action Report will be consolidated based on the discussions from various debrief sessions. The After Action Report should include:

- Brief summary of key events and activities;
- Overview of response successes and challenges;
- Outline of lessons learned;
- Recommendations for future events; and
- Workplan to ensure recommendations are implemented in a timely fashion.

9. ROLES & RESPONSIBILITIES SUMMARY

9.1. Ministry of Health

The Ministry of Health will lead and support all elements of the British Columbia Health System during an emergency. Specific responsibilities include:

- Maintenance of a 24/7 Duty Officer program to receive and disseminate emergency advisories and notifications;
- Operation of the Health Emergency Coordination Centre (HECC);
- Provision of support to health authorities, PHO and BCCDC;
- Endorsing and supporting implementation and maintenance of the *BC Blood Contingency Plan*;
- Liaison with other government ministries through BCERMS;
- Management of Public Health issues and information in partnership with PHO and BCCDC;
- Other roles specific to agencies of the Ministry (i.e. Vital Statistics, HealthLink BC, etc); and
- Support PECC and PREOC with appropriate health expert representation.

9.2. Government Communications & Public Engagement (GCPE)

Government Communications and Public Engagement (GCPE) ensures that information about government programs and services is accessible to British Columbians. It also has the responsibility for leading and coordinating communications with internal and external stakeholders.

9.3. Provincial Health Services Authority

PHSA operates a number of key agencies and programs involved in Health Emergency Management, including:

- **BC Ambulance Service (BCAS)**
BCAS is responsible for pre-hospital care. This includes preparedness for, and response to:
 - Emergency and disaster sites including triage, resuscitation and emergency care of casualties;
 - Transportation of casualties to hospitals;
 - Establishment of required pre-hospital care sites, such as advance treatment centres, mini clinics, staging areas and other similar pre-hospital concepts; and
 - Technical advisor program providing safety related information to ambulance crews and health authorities regarding hazardous situations.
- **BC Centre for Disease Control (BCCDC)**
BCCDC is responsible for a provincial public health leadership, coordination and support role. BCCDC will:
 - Support PHO as lead for response to public health emergencies and to health aspects of other emergencies;
 - Support MHOs operating within Regional Health Authorities;
 - Distribute vaccine and antivirals;
 - Lead and coordinate province-wide surveillance for health hazards; and

- Conduct investigation and identification of illness or threats to health.
- **BC Children’s Hospital**
This facility in Vancouver provides specialized children’s emergency and critical care services. Preparedness for and response to mass casualties and contaminated patients highlight their roles and responsibilities.
- **Health Shared Services BC (HSSBC)**
HSSBC is responsible for acquisition and replenishment of supplies and equipment for BC Health Authorities. Their preparedness and response role includes:
 - Acquisition and maintenance of Emergency and Disaster inventories;
 - Distribution of inventory elements in an emergency as required; and
 - Emergency acquisition and delivery of equipment and supplies.
- **Disaster Psychosocial Program (DPS)**
DPS program provides a range of supportive services for those affected by an emergency or disaster, thereby improving adaptive coping strategies in the community. Professional volunteers from across the province provide psychosocial services, coordinated by PHSA, upon request of local, provincial or health authorities.
- **Mobile Medical Unit (MMU)**
The Mobile Medical Unit will deploy upon request of a health authority, and confirmation of the request by the Ministry of Health, on 24 hours notice (see section 7.1. for further information regarding the MMU).

9.4. Regional Health Authorities

Regional Health Authorities prepare for a number of issues that may impact their ability to provide required care and treatment, as well as public health services. Their roles in an emergency or disaster may include:

- Provision of emergency, acute and critical care hospital services;
- Lead and coordinate regional surveillance for health hazards;
- Regional investigation of illness or threats to health;
- Decontamination of casualties at hospital sites, prior to entry to emergency rooms;
- Assurance of community based services such as residential care, home care and support, Mental health and addictions services;
- Liaison with HECC, local governments and other health authorities as required through BCERMS based Emergency Coordination systems; and
- Implementing recommendations of the BC Emergency Blood Management Committee (BC EBMC) as appropriate.

9.5. Canadian Blood Services

The supply of blood and blood products to BC hospitals is managed by Canadian Blood Services, who in the event of a blood shortage, will:

- Alert the BC Emergency Blood Management Committee (BC EBMC) in a timely manner to potential and actual blood contingencies that affect BC;

- Declare the various phases of labile blood component shortages and recovery from such shortages in BC, in consultation with BC EBMC;
- Determine the distribution of blood components within BC in accordance with the contingency plan phase, in consultation with BC EBMC; and
- Coordinate communications regarding donor and supply issues.

9.6. Federal Health Portfolio

The Public Health Agency of Canada (PHAC) and Health Canada and their branches, regions and programs, collectively referred to as the Federal Health Portfolio, work collaboratively to ensure an effective and appropriate response capacity. The Federal Health Portfolio provides support to the provincial response.

Within the Health Portfolio, PHAC acts as the principal public health advisor to the Federal Minister of Health and has emergency management responsibilities in the areas relating to:

- Public Health emergencies involving natural and human induced disasters, including infectious disease outbreaks;
- Legislative and regulatory issues for quarantine;
- Protecting the health and safety of the public against risks posed by human pathogens and toxins through the implementation of the Human Pathogens and Toxins Act (HPTA);
- Laboratory biosafety and biosecurity;
- Emergency Operations Centre activation;
- Mobilizing the National Emergency Stockpile System (NESS), Health Emergency Response Team (HERT), Microbiological Emergency Response Team (MERT), and Epidemiology Emergency Response Team (Epi-ERT); and
- International Health Regulations (IHR, 2005).

Within the Health Portfolio, Health Canada acts as the principal policy advisor to the Federal Minister of Health and has emergency management responsibilities in the areas relating to:

- Health protection and health promotion for on-reserve First Nations and Inuit populations south of 60, federal public service workers and federal emergency responders;
- Health protection and quarantine response activities relating to conveyances and their ancillary services;
- Interdepartmental coordination of nuclear preparedness and response activities and scientific and technical advice;
- Technical advice and support on chemical, radiological and nuclear, drinking water and food events;
- The quality, safety, efficacy and approval of marketing authorization of human health products and veterinary drugs; and
- Pesticide exposure and associated risks.

10. AGREEMENTS

Emergencies, disasters and disease outbreaks underscore the need to ensure that geopolitical and jurisdictional boundaries do not impede response, control and surveillance efforts. Emergencies and diseases do not respect borders, making effective global collaboration critical in an age of increasing world travel and trade.

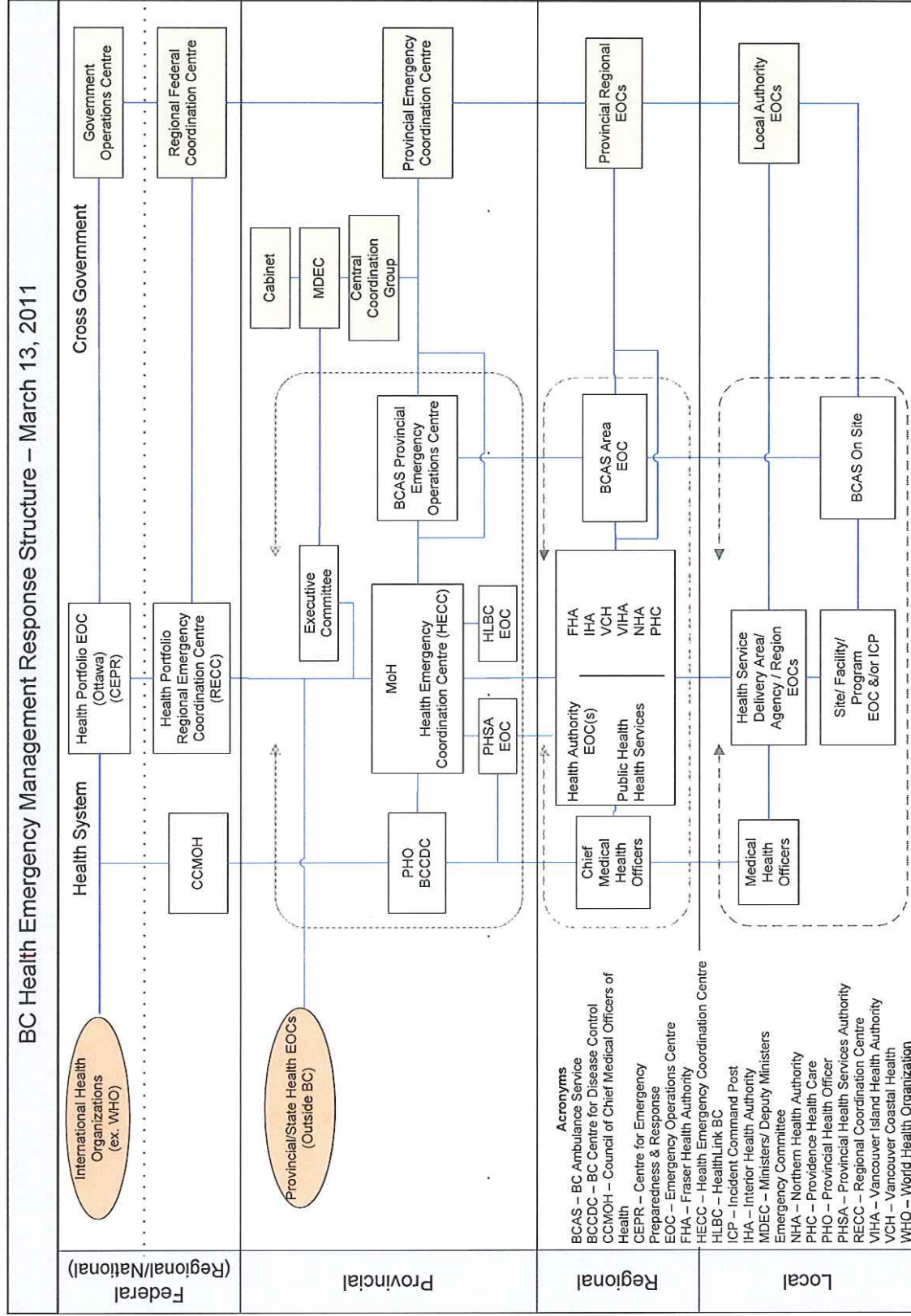
The BC health system is party to a number of agreements and arrangements to support effective communication and collaboration with cross border jurisdictions, including:

- **Canada-United States Civil Emergency Planning and Management**
The 1986 Canada-United States Civil Emergency Planning and Management Agreement was reaffirmed in 1998. The agreement establishes the means for bi-lateral cooperation in comprehensive emergency management and facilitates planning for the development of mutual cooperation for comprehensive civil emergency management by provinces, states and municipalities, including the exchange of information relative to prevention, mitigation and assistance.
- **Pacific Northwest Emergency Management Arrangement**
The *Pacific Northwest Emergency Management Arrangement (PNEMA)* was signed by Alaska, Idaho, Oregon, Washington, British Columbia and the Yukon Territory and was approved by Congress and the President in 1998. Washington State has been leading an effort to add an annex to PNEMA which specifically addresses issues related to public health that occur in emergencies. In particular, the dissemination of health data and licensing and liability of healthcare personnel are among the topics addressed by the annex.
- **Memorandum of Understanding (MOU) on Public Health Emergencies between the Province of British Columbia and the State of Washington**
In June 2006 a MOU on Public Health Emergencies was signed by the BC Minister of Health and Washington State Secretary of Health in response to the recognized need to formalize existing informal communication/collaboration through agreements between public health partners. In developing the MOU, the partners agreed to continue to undertake a collaborative approach on the use of available health service resources to prepare for, respond to and recover from public health emergencies.
- **Pacific North West Border Health Alliance**
The *Pacific Northwest Border Health Alliance (PNWBHA)* was endorsed at the 2008 Cross Border Public Health Workshop (Bellingham). The alliance encompasses the Provinces of British Columbia and Saskatchewan, the Yukon Territory, and the States of Alaska, Idaho, Montana, Oregon and Washington. The PNWBHA formalized the current informal cross border working groups at the 2011 Cross Border Public Health Workshop to ensure sustainability of the collaborations and provide a framework for further collaborative work, including mutual assistance and interagency and interdisciplinary collaboration.
- **Memorandum of Understanding (MOU) on Public Health Emergencies between British Columbia and Alberta**
In October 2006, the BC Minister of Health Services and AB Minister of Health and Wellness signed an MOU on Public Health Emergencies. The agreement calls for a collaborative approach between the provinces to respond to surge capacity demands on health systems and resources when public health emergencies arise in Alberta or British Columbia.

- **National Plan for the Management of Shortages of Labile Blood**

In 2009, the National Advisory Committee on Blood and Blood Products, in collaboration with Canadian Blood Services (CBS) and stakeholders across Canada, produced the National Plan. The specific purpose of the Plan is to maximize the effectiveness of a national response to any crisis which impacts the adequacy of the blood supply in Canada, with primary emphasis on the jurisdictions served by CBS, but also in contemplation of close collaboration with participants of the blood system in Québec. The Plan assumes that all efforts to increase the available supply of blood components have been exceeded and addresses the allocation of the available scarce blood supply. The Plan addresses labile blood components; however many of the principles would also be applicable to a shortage of fractionated or recombinant plasma protein products.

Figure 1: BC Health Emergency Management Response Structure



Note: Connecting lines do not preclude any operations centre or organizations from communicating directly with another operations centre or organization.

Appendix 1 – Glossary and Acronyms

BCAS	BC Ambulance Service	An organization that provides pre-hospital care and transportation for patients in BC.
BCCDC	BC Centre for Disease Control	Provides provincial and national leadership in public health through surveillance, detection, treatment, prevention and consultation services.
CBS	Canadian Blood Services	Canadian Blood Services is a not-for-profit, charitable organization whose sole mission is to manage the blood and blood products supply for Canadians.
CCG	Central Coordination Group	The Province activates a Central Coordination Group to ensure cross-government and multi-agency coordination of response activities. The CCG provides strategic direction to the Director of the PECC, and oversees the implementation of the BC Government Communication Plan.
DPS	Disaster Psychosocial Services	Those services that address the emotional and psychosocial impacts of emergencies or disasters.
EOC	Emergency Operations Centre	A pre-designated facility established by a local authority, jurisdiction or agency to coordinate the site response and support in an emergency. Health Authorities may establish EOCs at the site level (hospital), for Health Service Delivery Area(s), and at the corporate level.
HECC	Health Emergency Coordination Centre	Acts as an overall provincial health coordination centre in the event of simultaneous multi-region disasters, such as disease outbreak, earthquake, wildfires or floods. The HECC serves as the coordination and communications link with the provincial emergency management structure.
HEMC	Health Emergency Management Council	A council comprised of representatives from Health Authorities, Ministry of Health, BC Ambulance Service, and BC Centre for Disease Control to promote comprehensive emergency management including the standardization of health emergency processes, production and maintenance of health emergency plans, training and exercising.
HEMTEWG	HEM Training &	A working group established to guide BC's health

	Exercise Working Group	emergency management training and exercising program.
HLBC	HealthLink BC	A confidential health information, advice and health navigation system available by phone (8-1-1) or on the web (www.healthlinkbc.ca).
HSSBC	Health Shared Services BC	An organization that provides a centralized approach to managing health equipment and supplies for the Health Authorities.
MMU	Mobile Medical Unit	A unit of three trailers that can provide field health services following an emergency or disaster.
NESS	National Emergency Stockpile System	Maintained by the Public Health Agency of Canada, emergency supplies such as trauma kits emergency hospitals that can be used by provinces and territories as a last resort in the event of an emergency or disaster.
PECC	Provincial Emergency Coordination Centre	Coordinates the integrated provincial emergency response. PECC serves as a central point for the collection, analysis, and dissemination of provincial consequence information, and for making operational decisions according to provincial policy. The Ministry of Health may send a representative to PECC, when activated.
PHO	Provincial Health Officer	The Provincial Health Officer is the senior medical health officer for British Columbia.
PREOC	Provincial Regional Emergency Operations Centre	Each of the geographic regions of EMBC has facilities and capacity to operate a PREOC. PREOCs coordinate regional response activities by providing support and coordination to one or more Local Authority EOCs as needed. Regional health authorities may send a representative to a PREOC when activated.