Government of
Northwest Territories

Northwest Territories COVID-19 Pandemic Planning Guide

DEPARTMENT OF HEALTH AND SOCIAL SERVICES

GOVERNMENT OF THE NORTHWEST TERRITORIES

MARCH, 2020

Table of Contents

Introduction

1.1 Background and Purpose for the Plan

The purpose of the Northwest Territories Pandemic COVID-19 Planning Guide is to guide the Health and Social Services (HSS) system planning for response in the event of the emergence of a COVID-19 pandemic.

A cluster of pneumonia cases of unknown origin in Wuhan, China caused concern amongst health officials in late December, 2019. On December 31, an alert was issued by the Wuhan Municipal Health Commission. The Chinese CDC and Prevention sent a rapid response team to Wuhan and a notification was made to the World Health Organization (CHINA CDC, 2020).

On January 7, 2020 a novel coronavirus was identified as the causative pathogen, the now named COVID-19, is distinct from both SARS-CoV and MERS-CoV, yet closely related. The purpose of this planning guide is to assist all areas of the health sector to update emergency and contingency management plans according to information received by the Public Health Agency of Canada, World Health Organization (WHO) and by direction of the NWT Department of Health and Social Services. Mounting evidence of human to human transmission via respiratory droplets expelled during coughing and sneezing is transmitting the virus to a rapidly increasing number of people.

It is important to note that the COVID-19 applies to *pandemic in humans*. This plan does not apply to seasonal influenza virus, nor does it apply to outbreaks of other infectious diseases.

PREPAREDNESS AND RESPONSE

The overall goal of COVID-19 preparedness and response is to minimize morbidity and mortality and, to decrease societal disruption. Actions are taken with the aim of preventing illness from spreading by providing prevention measures and care guidance. It is the responsibility of multiple levels within government and external to government to be prepared to respond to a pandemic and to ensure identified responsibilities align with organizational mandate.

In the NWT, the Chief Public Health Officer (CPHO), DHSS and the three Health and Social Services Authorities (HSS Authorities), lead the health and social services sector response to COVID-19. Emergency response mechanisms not specific to health and social services sector response are not described in the NWT Pandemic Influenze Plan (NWT PIP) as they are outside of the scope of this document, however, the NWT Emergency Response system is briefly described in section 4.

It is important to recognize that pandemic COVID-19 will have a significant impact on the operations of the HSS system; personnel will be expected to focus on engagement in planning and response activities, the system will need to respond to heightened service demands including increased clinic visits and hospitalizations, and will need to prioritize activities. Employees

themselves may be personally impacted by illness. Thus, GNWT authorities responsible for emergency response and planning are responsible for activating their own contingency plans as required, alongside actions taken by the HSS system for pandemic response.

PANDEMIC PHASES

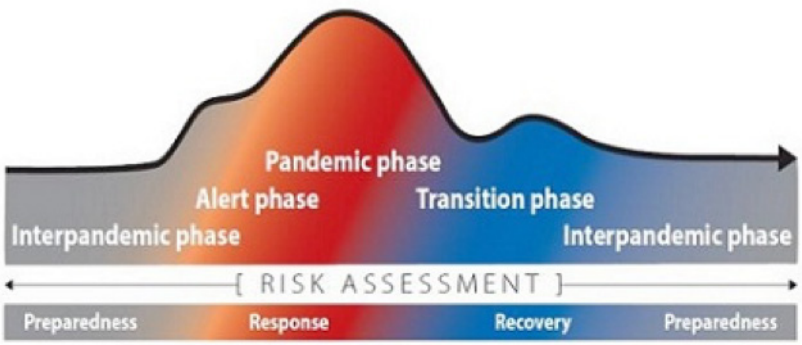
Interpandemic Phase– the period before COVID-19 pandemics.

Alert Phase – the phase when a novel virus caused by a new sub-type has been identified in humans. Increased vigilance and careful risk assessment at the local, national and global levels take place. If risk assessments indicate the new virus is not developing into a pandemic strain, de-escalation of activities towards those in the interpandemic phase may occur.

Pandemic Phase – the period of global spread of human COVID-19 caused by a new subtype based on global surveillance. Movement between the interpandemic, alert and pandemic phases may occur quickly or gradually as indicated by the global risk assessment, principally based on virological, epidemiological and clinical data.

Transition Phase – as the assessed global risk reduces, de-escalation of global actions may occur, and reduction in response activities or movement towards recovery actions by countries may be appropriate, according to their own risk assessments.

Figure 1: WHO Pandemic Phases[1]



1.3 Legal Framework

The legal context within which the GNWT responds to the COVID-19 is multi-tiered and tied to frameworks at both the international and national level. These frameworks have been established to outline respective responsibilities. Representatives from the medical community and officials with the Government of Canada have established relationships with international counterparts to ensure oversight and cooperation during emergencies.

The NWT *Public Health Act*[2] empowers the Chief Public Health Officer (CPHO) for the NWT to carry out measures identified within the Act and its Regulations in order to protect the health of the public. Included within the Act is the ability for the Minister of Health and Social Services, on the recommendation of the CPHO to declare a public health emergency which expands the powers of the CPHO for the purpose of mitigating the effects of the public health emergency[3]. The DHSS and CPHO are the lead department for pandemic response in the NWT.

1.4 Ethical Considerations in Pandemics

Pandemics are a public health emergency; its impact on the population will be far-reaching, life threatening and, in some cases, fatal. In the face of this and similar circumstances, public health decision making occurs in the context of balancing rights, interests and values, and focuses on the health and collective interests of the population, versus the health and interests of the individual.[4] This may be in contrast to typical ethical frameworks in health care where ethical questions arise in relation to individualized situations impacting the care of one person.

As the pandemic evolves, a continuous assessment will take place where decision-making is based on the current situation and the impact of the illness. Decisions regarding resource allocation, prevention and treatment interventions, service provision including potential suspension of medical services, and restrictions to individual freedoms may be encountered. This decision making often involves careful review and consideration of available evidence, consultation with experts and through weighing possible options prior to reaching a conclusion.

It is anticipated that decision-making made in the NWT will occur within the context of decisions being made by counterparts at the national level. The NWT often has the opportunity to contribute perspectives to this decision-making process through participation on F/P/T committees where the unique geographic, cultural and societal realities of the NWT are described. In most cases due to the relatively small size of the population, the NWT has the ability to proactively adapt decision-making to the local level to ensure this context is recognized.

1.5 Planning Assumptions

There are a number of considerations that should be taken into account when planning for a pandemic response however; it is not possible to plan for every outcome. Planning assumptions are based on historical evidence from past pandemics to provide predictions on the characteristics of disease and its potential impacts on the local population which can then serve as a best informed ‘guess’ for planning. Planning assumptions are also based on the

NWT's experience and provide a context from which the HSS system can situate its response. Jurisdictions use evidence from what is known generally about pandemics, and then what is known based on the local context.

Assumptions for the NWT:

- Disease emergence and impact may vary from community to community.
- Similar to the 2009 H1N1 response, financial support to facilitate response will be readily available.
- Morbidity from previous pandemics shows a disproportionate impact to Indigenous individuals. In the NWT, people identifying as Indigenous (First Nation, Inuit or Metis), comprise 50.7% of the population[5].
- Current front-line human resource shortages in the NWT Health and Social Services sector will be exacerbated by the emergence of pandemic COVID-19, and surge capacity responses will be impacted. A sustained response will likely overtax existing human resource capabilities.
- A sustained pandemic will necessitate acquiring front line human resources from outside the territory.
- Severely ill patients will be transferred to facilities in Alberta if there are more patients requiring care than can be accommodated within NWT facilities.
- Resources such as the PHAC Mini Clinic will be utilized when temporary alternative care sites are required to be established apart from traditional clinical settings.

These planning assumptions are used in conjunction with planning scenarios described below, as a way to concretely assess the readiness of the system to respond to pandemic COVID-19 and to facilitate informing the risk management process.

1.6 Planning Scenarios

It is difficult to know with certainty, what impacts may result from a novel coronavirus. History has shown that based on the severity of illness resulting from previous pandemics, there may be varying impacts in terms of health effects and on the health system and society at large. The Canadian Pandemic Influenza Plan proposes four pandemic planning scenarios associated with varying impact on the population which can assist initially as starting points for risk identification to inform potential risk management approaches described in section 1.7 and operationalized through a risk assessment tool (Appendix A).

When a novel virus emerges, WHO and PHAC will engage in ongoing analysis to assist in determining severity but this will only fully be known over time and as evidence emerges. A risk management approach necessitates real-time assessment of the situation informed by what is occurring in the territory and also in the country and internationally. The four planning scenarios[6] assess the potential characteristics of the pandemic virus (transmission and severity) and are proposed for planning activities as follows:

Scenario A - Low impact: a scenario involving a virus with low transmissibility (ability to spread) and low virulence (clinical severity). Its impact is comparable to moderate to severe seasonal influenza outbreaks or to the 2009 influenza A(H1N1) pandemic. It might be expected to stress health care services.

Scenario B - Moderate impact: a scenario that involves a virus with high transmissibility and low virulence. Its impact is worse than seasonal influenza in terms of numbers ill, which would be expected to stress health care services through sheer volume. High absenteeism would put all sectors and services under pressure.

Scenario C - Moderate impact: a scenario that involves a virus with low transmissibility and high virulence. Its impact is worse than seasonal influenza outbreaks in terms of severe clinical illness, which would be expected to stress critical health care services. The high virulence could cause significant public concern and may lead to people staying home from school and work.

Scenario D - High impact: – a scenario that involves a virus with high transmissibility and high virulence, with an anticipated impact that is much worse than seasonal influenza outbreaks. It would cause severe stress on health care services and high absenteeism would put all sectors and services under extreme pressure.

HSS Authorities Operational Planning

In addition to the NWT COVID-19 Planning Guide, it is very important that HSS Authorities undertake separate regional and/or institution specific operational pandemic planning that take into account the varying impacts these pandemic scenarios may have in areas such as primary care, acute care and continuing care settings. Roles and responsibilities identified in Section 3 under "Key Components of Health System Response", further describe aspects of planning and response for which the HSS Authorities are responsible.

1.7 Risk Management Approach

Risk management is defined widely as a systematic approach to setting the best course of action in an uncertain environment by identifying, assessing, acting on and communicating risks. This approach is intended to be employed throughout a pandemic. In the NWT, the process is led by the DHSS' Office of the Chief Public Health Officer (OCPHO) in partnership with national expertise and local health regions.

In the context of COVID-19, this approach provides for ongoing assessment of the hazards posed by a pandemic, so that mitigation efforts can be implemented on a timely basis (e.g. , public messaging, respiratory etiquette information, case isolation, home isolation care), to prevent or decrease the likelihood of a health emergency from developing or escalating. Undertaking an assessment of risk enables authorities to ground their decision-making based on the context of the local situation and then implementing responses based on that evidence. Risk assessments assist in determining priorities for response and provide the ability for authorities to communicate decision making to the public based on these assessments.

Risk Management Process

- Risk identification involves identifying what might happen, or what situations might exist that could affect the system.

- Risk analysis involves analyzing the risks in terms of their probability and potential impact (who is affected and to what extent). This analysis helps identify the planning considerations and options for each component of the response. The analysis should also include assessment of the public's perception of risk and its potential influence on risk management response so that communication strategies can be developed accordingly.

- Risk evaluation involves determining the significance of the level and type of risk in order to make decisions about future actions. Inputs into decision making would include ethical, legal and financial considerations. Decisions may include need and priorities for risk treatment, whether an activity/intervention needs to be undertaken and timing for this, and/or which of a number of response paths should be followed.

At DHSS, the mechanism for undertaking the risk management process is through activation of the Emergency Risk Assessment Team and is described in the DHSS All-Hazards Emergency Response Plan (ERP).[7] Further discussion of this plan is found in section 2.2.

2.Health System Response to Pandemic COVID-19

2.1 Roles and Responsibilities in the Health Sector

Responding to COVID-19 involves multiple levels of responsibility. It is important that roles and responsibilities are documented to ensure the system responds in an effective manner and so as not to duplicate efforts. Planning and response efforts should be aligned with areas of expertise and with the mandate of the organization.

Government of the Northwest Territories

Department of Health and Social Services

DHSS has responsibility within the GNWT for implementation of the Pandemic COVID-19 Plan and to lead and coordinate planning, response and recovery. Other departments within the GNWT may be called upon to provide services, lend personnel and equipment, provide transportation, provide facilities and assist with communications. Emergency response activities required during a pandemic that do not fall under the mandate of the DHSS will be led and coordinated by the NWT Territorial Planning Committee of which DHSS is a member participant.

The CPHO has been delegated authority by the Minister of Health and Social Services under the NWT *Public Health Act* to implement measures to protect the public health.[8] As such, the CPHO provides clinical public health direction to the HSS Authorities on public health measures for responding to pandemic COVID-19 in the NWT. The OCPHO, the Population Health Division and the Health Emergency Planner have established relationships with PHAC and collaborate with F/P/T counterparts in response to public health emergencies. Key to pandemic response, the Health Emergency Planner provides oversight of NAS and NESS supplies in the NWT and collaborates with the HSS Authorities on mobilizing these resources, as well as contacting PHAC to access further NAS and NESS supplies. The Health Emergency Planner also plays a key role in participating on the Territorial Planning Committee and communicates pandemic situational awareness to GNWT departmental counterparts in Emergency Response.

NWT Health and Social Services Authorities

The role of the HSS Authorities (Tlicho Community Services Agency, the Hay River Health and Social Services Authority, and the Northwest Territories Health and Social Services Authority), is to provide care and services to residents of the Northwest Territories. HSS Authorities adhere to the NWT COVID-19 planning guide and also develop and implement regional/operational Pandemic COVID-19 plans which are specific to their operational circumstances. When it is determined that COVID-19 is imminent, HSS Authorities take the lead in reviewing, assessing and prioritizing critical services and programs specific to their areas of operations during the pandemic.

Under the NWT *Public Health Act*, the CPHO provides clinical direction to health and social services providers in response to a public health threat. Senior Management and Clinical leadership within the HSSAs are responsible for ensuring staff implement this direction and are supported to meet surveillance, diagnosis, treatment and reporting requirements as legislated under the *Public Health Act* and its applicable regulations. The HSSA's also collaborate with the DHSS in disseminating information and education to the public.

2.2 Department of Health and Social Services All Hazards Emergency Response Plan

The All-Hazards DHSS Emergency Response Plan (ERP) applies to territorial health emergencies or national and international health emergencies with an NWT impact. It provides a framework for horizontal integration of efforts amongst DHSS divisions during a health emergency. The health and social services emergency response management process within the NWT HSS system is overseen by the Health Emergency Management Steering Committee. The Steering Committee is comprised of Senior Management representation from the three Health and Social Services Authorities, and from Senior Management within the Department of Health and Social Services. Its mandate is to provide strategic guidance for the development of the Health Emergency Management System. Under this process an Incident Command Structure is utilized and an Emergency Operations Centre is activated when responding to health and social services emergencies. This structure provides the mechanism and processes to coordinate the capabilities and resources of the DHSS during a health emergency.

Triggers for Pandemic Response

In the context of pandemic COVID-19, there are many unknowns. It is important to note that the DHSS All Hazards Emergency Response Plan[9] has its own identified activation criteria which should also be referred to.

TRIGGERS	SAMPLE ACTIONS
Novel/pandemic virus detected somewhere in the World.	• Special meeting of HSS Emergency Management Committee convened for situational update from OCPHO. • Process to initiate Emergency Risk Assessment Team on COVID-19 activated at DHSS, including representation from HSS Authorities. • Tailored health sector and public communications developed by DHSS and disseminated. • Surveillance guidance issued to health care providers by OCPHO. • Notification to GNWT Territorial Planning Committee.
Novel/pandemic virus detected in Canada.	• Continuation of above activities. • Activation of HSS Emergency Management Response protocols, including establishment of HSS Emergency Operations Centre. • Adaption/adoption of national clinical guidelines, laboratory guidelines and public health advice and dissemination. • Mobilization of NAS stockpile and NESS supplies in NWT as required.

Novel/pandemic virus detected in NWT.	• Continuation of above activities. • Treatment of cases. • Ramping up health sector capacity to deal with increasing number of cases. • Public Health Measures assessed and implemented. • Ongoing surveillance to monitor activity and epidemiological analysis to characterize pandemic. • Relevant public health and sector communications. • Implementation of clinical guidelines and public health advice. • Continued participation in and situational awareness reporting to GNWT Territorial Planning Committee.
Demands for service start to exceed available capacity	• Further escalation of surge capacity. • Prioritization or triage of services as needed. • Implementation of broader public health measures.
Pandemic wave wanes and demands for services fall to normal levels	• Preparation for resurgence. • Replenishing of supplies as needed in anticipation of another wave. • Evaluation of response and revision of plans as required. • Ongoing surveillance to detect resurgence. • Preparation for immunization program- *when and if becomes available.*
Pandemic vaccine is available for administration	• Not applicable at this time for COVID-19
Second or subsequent pandemic wave arrives.	• Not applicable at this time for COVID-19
	• Completion of pandemic studies, reports and cost analysis, including lessons learned through risk identification, analysis and evaluation process throughout the pandemic. • Evaluation of response and revision of plans as required. • Return to more normal operations.

***Adapted from Canadian Pandemic Preparedness: Planning Guidance for the Health Sector and Alberta Health: Alberta's Pandemic Influenza Plan.*

2.3 Communications

During pandemic COVID-19, the DHSS is the lead on public communications and messaging for the GNWT. It was identified that "one source of truth", as a result of centralized and coordinated territorial communications through the DHSS, was a strength to the communication approach undertaken during the H1N1 pandemic.[10] Additionally, DHSS as the lead mandated department for responding to health emergencies communicates with GNWT departments via established corporate communication protocols, and with the HSS Authorities.

DHSS	• Work with GNWT Corporate Communications to coordinate all communications regarding pandemic COVID-19. • Work with FPT partners on consistent pandemic response messaging. • Provide regular briefings/updates for Executive Council and MLAs. • Develop and disseminate communications materials as described further under DHSS specific components of health system response in section 3. • Coordinate media response with NT HSSAs and GNWT Corporate Communications and monitor and analyze coverage as part of ongoing risk management approach.
HSS Authorities	• Adopt/adapt DHSS communication materials and disseminate information to staff and to patients/clients. • Develop and disseminate communications materials specific to operations and services. • Coordinate media response with DHSS. Monitor and analyze coverage as part of ongoing risk management approach
GNWT Territorial Planning Committee	• Implement Territorial Emergency Response Communication protocols. • Share and disseminate materials as directed to appropriate audiences and partners.

***Adapted from Alberta Health: Alberta's Pandemic Influenza Plan, 2014.*

3.Key Components of Health System Response

3.1 Surveillance

During pandemic COVID-19 surveillance efforts would be enhanced and direction on surveillance and reporting requirements will be disseminated to the HSS Authorities by the OCPHO. The roles and surveillance responsibilities for the HSS sector are highlighted below.

DHSS	• Organizes and provides direction on surveillance activities. • Collects, analyzes and communicates surveillance information in accordance with the *Public Health Act*. • Provides direction to HSS Authorities including health care providers and laboratories, on pandemic surveillance requirements. • Continuously assesses, updates and disseminates direction on surveillance activities as new evidence emerges and liaise with FPT counterparts on findings • Track and report on the incidence, progression and severity of the virus. • Communicate surveillance activities to the public, to HSS Authorities and to PHAC.
HSS Authorities	• Participate in sentinel surveillance activities. • Undertake and report on surveillance activities as directed by the CPHO and in accordance with the *Public Health Act*. • Provide diagnostic testing and laboratory services, in collaboration with Alberta Health Services Provincial Laboratory and the National Microbiology Lab (NML) for identification and monitoring of the pandemic COVID-19 virus.

***Adapted from Alberta Health: Alberta's Pandemic Influenza Plan, 2014.*

3.2 Public Health Measures

When there is the emergence of a threat to public health, actions known as public health measures, can be taken by individuals, communities and organizations to reduce and slow the rate of transmission of pandemic COVID-19 when vaccine is not yet available. In accordance with an ethical approach to achieving desired outcomes by the least restrictive means possible, these measures are developed through careful consideration and based on public health expert opinion.

Risk management approaches to determining which measures are required and when, are made in relation to public health measures ranging from individual measures such as hand hygiene, cough etiquette and staying home when sick, to more extreme measures such as border and travel measures which could include travel restrictions, screening of travellers and implementation of isolation or quarantine measures under the *Public Health Act*.[11] Roles and responsibilities for public health measures are listed below. Further technical information on Public Health Measures can also be found in the corresponding Annex.

DHSS	• Assess the level of risk based on local, national and international evidence to inform approach to implementing public health measures. • Provide direction to HSS Authorities, health care providers, the public and other stakeholders on the implementation of public health measures. • Develop guidance documents and disseminate to partners and key stakeholders as needed. • Actively communicate rationale and decision-making process for selected public health measures as they are introduced.
HSS Authorities	• Consult with DHSS on the development of public health measures. • Implement and discontinue when required, public health measures that reflect DHSS guidance. • Adopt or adapt DHSS guidance documents into regional formats as needed for distribution to the public. • Report any issues, barriers, etc., to successful implementation of public health measures. • Inform DHSS of need to implement further public health measures based on observations and assessments. • Actively communicate rationale for selected public health measures to public and partners. • Complete case reporting as required under *Public Health Act*.
GNWT Territorial Planning Committee	• Share and disseminate materials as directed to appropriate audiences and partners.

***Adapted from Alberta Health: Alberta's Pandemic Influenza Plan, 2014.*

3.5 Infection Prevention Control & Occupational Health and Safety

During a pandemic event, the health sector will see increased numbers of ill individuals seeking care. Implementation of infection prevention control measures (IPC) and occupational health and safety (OHS) protection measures are required to prevent exposure and transmission of pandemic influenza while providing care. Workplace health and safety requirements are detailed in the NWT Safety Act and Regulations. Roles and responsibilities for Infection Prevention Control and Occupational Health and Safety are highlighted below.

DHSS	• Participate in FPT discussions regarding IPC and OHS measures. • Share federal/international guidance and direction documents with GNWT Territorial Planning Committee, HSS Authorities, and other health care providers outside the HSS system for their use and adaptation. • Continued support/participation in DHSS Joint Occupational Health and Safety Committee meetings. • Access PHAC's NESS stockpile as required to supplement territorial emergency supplies. • Stakeholder and public communications on public health measures.
HSS Authorities	• Undertake organizational risk assessments. • Adopt/adapt guidance documents on IPC and OHS measures and disseminate information to staff. • Assess and supplement emergency materials stockpile for adequacy of PPE supplies and supplement as needed. • Implement workplace IPC and OHS control measures. • Provide comprehensive education and training on IPC and OHS measures, including targeted information for front line staff. • Continued support/participation in respective HSS Authority Joint Occupational Health and Safety Committee meetings.
GNWT Territorial Planning Committee	• Share and disseminate IPC and OHS guidance materials from DHSS, HSS Authorities as directed to appropriate audiences and partners.

***Adapted from Alberta Health: Alberta's Pandemic Influenza Plan, 2014.*

3.6 Health Care Services, Continuity of Care, and Human Resources

During pandemic COVID-19 there will be a higher demand for services and care placed on the system. In order to effectively meet demand and to minimize the spread and impact of COVID-19, it is essential that the system engage in surge capacity preparation and business continuity planning. The NWT HSS system already finds itself with excess capacity challenges and therefore, may need to consider activating emergency service approaches and contingency plans early in the development of a pandemic as assessed through risk management activities, and as human resource capacity is likewise stretched in health and social services across the country, careful assessment of utilization of existing resources within the territory is essential.

Post-2009 pandemic response evaluation activities indicate that improved collaboration, coordination and integration across the continuum of care within a region and amongst jurisdictions is required to maximize health care responses and identified that relevant stakeholder engagement in planning is required.[13] The HSS Emergency Management Steering Committee plays the central role in facilitating this planning and identifying key stakeholders. It will also be essential for the GNWT's Territorial Planning Committee to increase monitoring of the territorial situation and to consider escalating through appropriate activation levels as required.

It is expected that even if the pandemic virus is not present in the territory, media attention on the pandemic will raise awareness and residents will have questions, concerns and service requests resulting in increased pressure on the HSS system. Health care service delivery in relation to the ability to maintain continuity of services and human resource capacity are discussed below.

CONTINUITY OF SERVICES

In order to maintain health care service delivery and preserve resources, the following approaches/supports will be implemented in the Northwest Territories:

Self-care instructions

Education campaigns with self-care instructions used during COVID-19 will be revised/ updated with pandemic specific instructions, including self-assessment, how to care for oneself and/or family members, and instructions on where, when and how to access medical care.

Health Line

The establishment of a telephone advice and triaging line during the COVID-19 is regarded as a helpful and necessary support in the NWT.[14] A telephone advice line will be operationalized and resourced to answer questions, provide self-care advice and to direct people to appropriate clinical assessment and care locations as needed.

Primary Care/Community-based Care

The first point of access to care in the community setting – either through medical clinics (in larger NWT communities) or at Community Health Centres. These settings will be responsible for the assessment and treatment of ambulatory COVID-19 patients but will need to be closely monitored to determine whether capacity is being challenged, how medevacs are being used and when service delivery and prioritization of critical health services needs to occur or when alternative care sites need to be established. Primary care surge capacity contingency plans may need activation.

Acute Care/Hospital-based Care

Depending on the severity of illness resulting from pandemic COVID-19, the demand for acute and critical care services may be increased. The epidemiology of subsequent pandemics will inform the activation of surge capacity plans in the acute care setting as well as tools and pathways for determining bed flow, intensive care access and medevac protocols. Frequent communication with referral centres in Alberta and elsewhere should be maintained.

Continuing Care Services

In the Northwest Territories, continuing care refers to home and community care, long term care and supported living. Services are delivered to NWT residents in their homes or other places of residence, such as group homes, assisted living apartments, independent seniors housing units, and in long term care facilities located in regional centres. The programs and services include, but are not limited to, nursing care, personal care, supervised or supported living, respite care, palliative care, and care in a facility. Continuing care also includes acute care services related to early discharge from the hospital.

During a pandemic the goal is to provide ongoing care for clients however, it may be necessary to scale care to a basic level when capacity is challenged. Prior to a vaccine being available, care providers will monitor clientele for COVID-19 and implement appropriate management and control protocols such as those outlined in the existing *IPAC Infection Prevention and Control Guidance* both of which can be accessed through the DHSS website. Due to the increased vulnerability of older adults to COVID-19, additional control precautions may need to be adopted in long term care facilities (i.e., limiting visitors who may be ill, etc).

Alternate Assessment/Care Sites

There are a number of factors that may influence the need for the HSS system to consider establishing alternate assessment/care sites for individuals experiencing influenza symptoms or illness during the pandemic period. Pandemic COVID-19 may occur alongside other circumstances (concurrent outbreaks of disease, traumatic accidents, as examples), creating increased demand on existing services and therefore alternate sites may need to be established and resourced in non-traditional settings within the community to ease the burden on traditional sites, and to divert potentially infectious individuals away from other susceptible/

vulnerable individuals such as those attending health care centres or emergency departments. Alternate sites can be used to perform basic assessments to determine whether an individual requires further care at an acute care setting and will facilitate transfer of that individual to this setting or, whether an individual is able to manage their symptoms/illness at home.

Alternate assessment sites/care sites are typically identified at the local level through routine emergency planning and response activities and documented in community emergency response plans. The DHSS also has access through NESS to medical and pharmaceutical supplies and equipment, social service supplies the establishment of "mini clinics" as mobile units which can be mobilized quickly in response to emergencies, such as public health emergencies.

- DHSS and NTHSSAs should make preliminary estimates of staffing needs based on planning assumptions, varying pandemic scenarios, and the unique needs of the region or service (e.g. minimum staffing requirements in community health centre setting, in acute care settings).

- Planning for optimal use of human resources, including all health care workers in front line and in non-front-line positions, trainees, including students and educational staff at Aurora College, retirees and volunteers. Cross deployment of staff within DHSS and the NT HSSAs should also be part of this planning.

- DHSS and NT HSSAs should be familiar with legislation regarding emergency licensing during public health emergencies such as provisions under the *Public Health Act*[15] and the *Medical Professions Act.*[16] Advance discussions should also occur with the Registered Nurses Association of the Northwest Territories and Nunavut regarding emergency provisions for nurses.

- Advance planning with regards to liability and professional insurance coverage must also be assessed for staff, re-activated retirees and volunteers.

- Permissions/accesses to EMR and other information systems will need to be expedited and training on systems should be anticipated and planned for.

Roles and responsibilities for Health Care Services, Continuity of Care and Human Resources are described below. Further information can be accessed in the Resource Management Guidelines for Healthcare Facilities during a Pandemic.

DHSS	• Liaise with FPT counterparts to ensure consistency in messaging. • Revise seasonal influenza self-care education materials and campaigns for pandemic COVID-19 relevance. • Plan for, resource, implement and advertise the Health Line. • Report to the Minister on impacts of the pandemic on health services. • Activate DHSS surge capacity/human resource contingency plans as required, including reallocation/redeployment of workers if available. • Maintain communication with partners at Alberta Health Services regarding impacts of the pandemic on NWT health services and Alberta's capacity to accept patient transfers from the NWT. • Provide advice on Legislation regarding emergency licensing provisions. Facilitate licensing process through Department of Justice. • Access required medical equipment, supplies and pharmaceuticals through the NAS and NESS, including request for deployment of mini-clinic(s) from PHAC. • Assist with procurement of additional human resources through FPT/interjurisdictional relationships.
HSS Authorities	• Continue to deliver health services and programs to the extent possible. • Assess and report to DHSS on impacts of pandemic COVID-19 on health services. • Activate Authority surge capacity/human resource contingency plans. Reallocate/re-deploy critical scarce resources and work with DHSS to identify additional or alternate resources. • Maintain communication with partners at Alberta Health Services to inform decision making processes regarding out-of-territory patient transfers and repatriation of NWT residents. • Work with DHSS to facilitate emergency professional licensing process.
GNWT Territorial Planning Committee	• Assist with identification of community logistical supports and alternate care sites as requested. • Liaise with community governments on logistical supports and alternate care sites.

***Adapted from Alberta Health: Alberta's Pandemic Influenza Plan, 2014.*

3.7 Psychosocial Supports

Like many aspects of pandemic influenza, it is difficult to know to what degree the disruption caused by illness will have on individuals who develop COVID-19, their family, caregivers, their colleagues those who provide medical support and interventions for them. Illness severity, the length of pandemic waves, resulting morbidity and mortality will cause stress and potentially exacerbate pre-existing mental health conditions.[17] Government and non-government organizations that serve vulnerable populations will need to take into account the likelihood that pandemic influenza will have negative impacts of individuals who already have increased stressors, and put plans in place to address these needs. Finally, as part of risk identification and planning endeavours, it is important to recognize that access to psychosocial and mental health supports need also be prioritized as part pandemic COVID-19 response for both the public and the health care workforce. Roles and responsibilities for psychosocial supports are described below.

DHSS	• Participate in FPT discussions regarding pandemic COVID-19 psychosocial supports. • In collaboration with mental health specialists, review, revise or develop psychosocial support guidance and direction based on current knowledge of situation. • Develop targeted psychosocial support communication materials in collaboration utilizing subject matter expertise and in collaboration with HSS Authorities. • Support coordinated psychosocial response plan with other mental health providers within GNWT, the Federal Government and at NGOs and Indigenous Organizations. • Work with Department of Finance to ensure GNWT employee supports are in place and enhanced as required.
HSS Authorities	• Adopt/adapt guidance documents on psychosocial support and self-care measures and disseminate information to staff for their use. • Assess surge capacity and human resource requirements for mental health providers. • Collaborate with other mental health providers within GNWT, the Federal Government and at NGOs and Indigenous Organizations. • Communicate with staff about access to workplace mental health supports for employees. • Provide subject matter expertise on collaborative efforts to develop communication materials and disseminate.
GNWT Territorial Planning Committee	• Share and disseminate psychosocial guidance materials from DHSS and HSS Authorities as directed to appropriate audiences and partners.

***Adapted from Alberta Health: Alberta's Pandemic Influenza Plan, 2014.*

5. Recovery

5.1 Scaling Down

Following the pandemic emergency, actions must be taken to transition back to "normal". The following are examples of activities that can be undertaken to assist with this transition:

Activity and Examples	
Assess situation and perform de-activation activities	• De-activate EOC activities • De-activate Health Line • Close alternate care sites, mini-clinics
Messaging for recovery period	• Reporting on diminished pandemic COVID-19 activity • In consultation with national counterparts, declare pandemic over in NWT • Update websites and messaging as required
Rescind orders, directives, appointments	• Declaration of public health emergency rescinded • Directives on pandemic specific surveillance scaled back or discontinued • Rescind appoints and temporary licenses as required
Initiate formal recovery plan	• Resume programs that may have been suspended or postponed • Plan for catch-up, recall of programs or services that may have been suspended • Communicate with public resumption of normal services and programs

***Adapted from Alberta Health: Alberta's Pandemic Influenza Plan, 2014.*

5.2 Response Evaluation

Evaluation can take many forms and assess many indicators. In addition to effectiveness, challenges and barriers, the overall cost of responding to the pandemic must be documented and form part of evaluation activities.

7. Glossary/List of Terms

Term	Definition
ACUTE CARE	Refers to hospital-based acute inpatient care. Acute care is a key component of the continuum of health services in Canada. It provides necessary treatment for a disease or severe episode of illness for a short period of time. The goal is to discharge patients as soon as they are healthy and stable.
ADDITIONAL PRECAUTIONS	Extra measures, when Routine Practices alone may not interrupt transmission of an infectious agent. They are: • Used in addition to Routine Practices (not in place of). • Initiated both on condition/clinical presentation (syndrome) and on specific etiology (diagnosis). Pandemic Influenza Precautions is one form of "Additional Precautions" protocols.
ALCOHOL BASED HAND SOLUTION	An alcohol-containing (60-90%) preparation (liquid, gel or foam) designed for application to the hands to kill or reduce the growth of microorganisms. Such preparations contain one or more types of alcohol with emollients and other active ingredients.
ALL-HAZARDS EMERGENCY RESPONSE	An emergency management approach that recognizes that the actions required to mitigate the effects of emergencies are essentially the same, irrespective of the nature of the incident, thereby permitting an optimization of planning, response and support resources. NOTE: The intention of an all-hazards approach is to employ generic emergency planning methodologies, modified as necessary according to the circumstances.
ASSESSMENT	A formal method of evaluating a system or a process, often with both qualitative and quantitative components.
BED	Refers to an institutional bed. In any institution, a "bed" includes infrastructure support, including staffing, that is required to care for the patient in that bed. Therefore the requirements for a bed in an intensive care unit, for example, include all the support required for a patient to be cared for at that level.
CLINICAL (CARE) GUIDELINES	Also called practice guidelines, are systematically developed statements to assist health care practitioners deliver appropriate, evidence-informed care to patients. Guidelines make explicit recommendations for care with the specific intent to influence what health care providers do. Guidelines are not rules; they support clinical decision-making, not supplant it.
CLINICAL ATTACK RATE	A form of incidence that measures the proportion of persons in a population who experience an acute health event during a limited period (e.g., during an outbreak), calculated as the number of new cases of a health problem during an outbreak divided by the size of the population at the beginning of the period, usually expressed as a percentage or per 1,000 or 100,000 population.

CRITICAL CARE	The direct delivery of medical care for a critically ill or critically injured patient. It involves decision making of high complexity to assess, manipulate, and support vital organ system failure and/or to prevent further life threatening deterioration of the patient's condition.
CRITICAL INFRASTRUCTURE	The processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of Canadians and the effective functioning of government. Critical infrastructure can be stand-alone or interconnected and interdependent within and across provinces, territories and national borders.
DROPLET	Solid or liquid particles suspended in the air, whose motion is governed principally by gravity and whose particle size is greater than 10µm. During an influenza pandemic, droplets will be generated primarily as the result of an infected source coughing or sneezing.
DROPLET TRANSMISSION	Transmission that occurs when the droplets that contain microorganisms are propelled a short distance (within 2 metres) through the air and are deposited on the mucous membranes of another person, leading to infection of the susceptible host. Droplets can also contaminate surfaces and contribute to contact transmission. (Also see Contact transmission.)
EPIDEMIOLOGICAL STUDIES/ANALYSIS	Refers to the study of the occurrence, distribution and determining factors associated with health events and diseases in a population (i.e., the study of how often diseases or health events occur in different groups and the reasons for them). The aims of epidemiology are to discover the sources and causes of health events and disease occurrences and to find ways to control and prevent them.
EPIDEMIOLOGY	The study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to control of health problems.
EVALUATION	Efforts aimed at determining as systematically and objectively as possible the effectiveness and impact of health-related (and other) activities in relation to objectives, taking into account the resources that have been used.
EXPOSURE	Contact with a microorganism or an infectious disease in a manner such that transmission may occur.
FPT GOVERNANCE STRUCTURE	A coordination structure and common set of roles and responsibilities for federal, provincial and territorial governments within the health sector.
HAND HYGIENE	A comprehensive term that applies either to hand washing, hand antisepsis and to actions taken to maintain healthy hands and fingernails.
HAZARD	A term to describe a condition that has the potential to cause harm. Work-related hazards faced by health care workers are classified in categories: biologic and infectious, chemical, environmental, mechanical, physical, violence and psychosocial.

HEALTH CARE FACILITY	Any location where health care is provided, including emergency care, pre-hospital care, health care facility, long term care (LTC), home care, ambulatory care and facilities and locations in the community where care is provided, (e.g., infirmaries in schools, residential or correctional facilities). Note: Definitions of settings overlap, as some settings provide a variety of care, e.g., chronic care or ambulatory care provided in acute care, complex care provided in LTC.
HEALTH CARE WORKER/ PROFESSIONAL	Individuals who provide health care or support services such as nurses, physicians, dentists, nurse practitioners, paramedics and sometimes emergency first responders, allied health professionals, temporary workers from agencies, unregulated health care providers, students, volunteers and workers who provide support services (e.g., food, laundry, housekeeping). This term encompasses the following individuals in the health care setting: health care workers including professionals (e.g., nurses, physicians); volunteers; trainees; retirees; temporary workers from agencies; other employees who provide health care services; and, workers who provide support services (e.g., food, laundry, housekeeping).
IMMUNITY	The protection against a disease. There are several types of immunity: passive, active and humoral. The immunity is indicated by the presence of antibodies in the blood and can usually be determined with a laboratory test.
INCUBATION PERIOD	The period between the first exposure to a pathogen and the appearance of signs or symptoms of disease.
INFECTION	Situation in which microorganisms are able to multiply within the body and cause a response from the host's immune defences. Infection may or may not lead to clinical disease.
INFECTION PREVENTION CONTROL PROGRAM	An organization wide set of protocols and practices which aim to prevent and limit the spread of infectious agents within a health care setting.
INFECTIOUS	Capable of causing disease (infection).
INFLUENZA	A respiratory infection caused by influenza A and B viruses. In Canada, seasonal influenza generally occurs each year in the late fall and winter months.
INTERPANDEMIC PHASE	The interpandemic period is the interval between the last pandemic and the onset of the Pandemic Alert Period. During this period no new virus subtypes have been detected in humans although an influenza virus subtype that has caused human infection may be present in animals.
ISOLATION (IN CONTEXT OF INFECTION PREVENTION)	Separation, for the period of communicability, of infected persons or animals from others in such places and under such conditions as to prevent or limit the direct or indirect transmission of the infectious agent from those infected to those who are susceptible or who may spread the agent to others.

MATHEMATICAL MODELING	A method for predicting the behaviour or outcome of a system (for example, the progression of an infectious disease in a population) using mathematical techniques and assumptions based on past experiences.
MORBIDITY	Departure from a state of well-being, either physiological or psychological; illness.
MORTALITY	Death, as in expected mortality (the predicted occurrence of death in a defined population during a specific time interval).
NATIONAL EMERGENCY STRATEGIC STOCKPILE (NESS)	A federally-owned stockpile of emergency pharmaceuticals, medical supplies and equipment managed by the Public Health Agency of Canada. Medical supplies and equipment range from beds and blankets to advanced pediatric ventilators. Pharmaceuticals include antibiotics and antivirals.
NOSOCOMIAL TRANSMISSION	Infections that are transmitted within a health care setting during the provision of health care. Also referred to as health care associated transmissions.
N95 RESPIRATOR	A disposable, particulate respirator (Note: most respirators used for health care purposes are disposable filtering face pieces covering mouth, nose and chin). Airborne particles are captured from the air on the filter media by interception, inertial impaction, diffusion and electrostatic attraction. The filter is certified to capture at least 95% of particles at a diameter of 0.3 microns, the most penetrating particle size. Particles of smaller and larger size are collected with greater efficiency. The 'N' indicates a respirator that is not oil-resistant or oil-proof. N95 respirators are certified by the National Institute for Occupational Health and Safety (NIOSH –organization based in the United States) and must be so stamped on each respirator. (Also see Respirator.)
OCCUPATIONAL HEALTH	The disciplines of Occupational health medicine and nursing, Occupational Hygiene and Occupational Health and Safety.
OCCUPATIONAL HEALTH AND SAFETY	A legal term that is defined in legislation, regulation and/or workplace (e.g., union) contracts that impact a variety of disciplines concerned with protecting the safety, health and welfare of people engaged in work or employment. The use of the phrase "Occupational Health and Safety" (OHS) invariably refers back to legislation and or regulation that influence workplace safety practices. The definition and therefore the content encompassed by OHS legislation varies significantly between and within jurisdictions in Canada.
ORGANIZATIONAL RISK ASSESSMENT	The activity whereby a health care organization identifies: a. a hazard b. the likelihood and consequence of exposure to the hazard c. the likely means of exposure to the hazard d. the likelihood of exposure in all work areas in a facility/office/practice setting; and then e. evaluates available engineering, administrative and PPE controls needed to minimize the risk of the hazard.
PANDEMIC	An epidemic occurring worldwide, crossing international boundaries and usually affecting a large number of people.

PANDEMIC PHASES	A method of communicating the status of a pandemic outlined in the WHO's 2013 pandemic guidance. There are four global phases: Interpandemic phase; Alert phase, Pandemic phase; and Transition phase.
PANDEMIC VIRUS	An influenza A virus to which most humans have little or no immunity that acquires the ability to cause sustained human-to-human transmission leading to community-wide outbreaks. Such a virus has the potential to spread rapidly worldwide, causing a pandemic.
PANDEMIC WAVE	The time period that the pandemic influenza virus is the predominant influenza strain, circulating within a community. The pandemic influenza virus is likely to cause more than one wave of illness as the pandemic spreads through a region.
PATHOGEN	Any disease-producing microorganism or material.
PATIENT	Those receiving health care, including patients, residents or clients.
PERSONAL PROTECTIVE EQUIPMENT (PPE)	One element in the Hierarchy of Controls. Personal protective equipment consists of gowns, gloves, facial protection (i.e., masks and eye protection, face shields or masks with visor attachment) or respirators that can be used by HCWs to provide a barrier that will prevent potential exposure to infectious microorganisms.
POINT OF CARE	Place where a patient or resident receives health care from health care workers. Point of care incorporates three main elements being present at the same time: the patient, the HCW and an interaction that could result in transmission of an infectious agent.
POINT OF CARE RISK ASSESSMENT	An activity whereby health care workers (HCW) (in any health care setting across the continuum of care): 1) Evaluate the likelihood of exposure to an infectious agent a. for a specific interaction b. with a specific patient c. in a specific environment (e.g., single room, hallway) d. under available conditions (e.g., no designated hand washing sink) 2) Choose the appropriate actions/PPE needed to minimize the risk of exposure for the specific patient, other patients in the environment, HCWs, visitors, contractors, etc.
POPULATION VULNERABILITY	Refers to the factors that affect the severity of disease in certain groups including the presence of underlying health conditions, or unexpected new risk factors for severe disease. Risk of more severe outcomes can also be elevated because of age, poor access to health care, poor socioeconomic conditions and/or other factors related to the social determinants of health. Impact may be increased in vulnerable populations, including First Nations, Inuit and Metis populations, or settings such as remote communities, homeless shelters and overcrowded housing.
PRE-EXISTING POPULATION IMMUNITY	The level of immunity in the human population who have had previous exposure to the virus in childhood or adulthood; these exposures result in the development of various forms of pre-existing immunity to the most common serotypes or variants of the virus.

PRIMARY CARE	The element within primary health care that focuses on health care services, including health promotion, illness and injury prevention, and the diagnosis and treatment of illness and injury.
PUBLIC HEALTH ACT	Legislation that outlines the specifications of powers and duties of public health officials for communicable disease prevention and control, environmental health hazard response, chronic disease and hazard prevention, and public health emergency response.
PUBLIC HEALTH MEASURES	Non-pharmaceutical interventions that can be taken by individuals and communities to help prevent, control or mitigate pandemic influenza. Public health measures range from actions taken by individuals (e.g., hand hygiene, self-isolation) to actions taken in community settings and workplaces (e.g., increased cleaning of common surfaces) to those that require extensive community preparation (e.g., pro-active school closures).
QUALITATIVE	Of, relating to, or expressed in relative or subjective terms. Impossible to quantify precisely.
REPRODUCTIVE NUMBER (R0)	The basic reproductive number (R0) for an infectious disease in a homogeneous host population is the expected (average) number of secondary cases infected by a single infectious individual, if that individual is placed into a wholly susceptible host population at its demographic equilibrium.
RESISTANCE	The development of strains of a pathogen that are able to withstand the effects of an antimicrobial agent.
RISK ANALYSIS	Risk analysis involves analysing the risks in terms of their probability and potential impact (who is affected and to what extent). In pandemic preparedness, this analysis helps identify the planning considerations and options for each component of the response. The analysis should also assess the public's perception of risk and how it could influence the risk management response, so that communications strategies and messaging can be tailored appropriately.
RISK ASSESSMENT/ FORMAL RISK ASSESSMENT	A component of risk management meant to provide evidence-informed information and analyses for making informed decisions on how to treat particular risks and select between options.
RISK COMMUNICATION	An exchange of information aimed at increasing the understanding of health risks.
RISK EVALUATION	Risk evaluation involves determining the significance of the level and type of risk in order to make decisions about future actions. Ethical, legal, financial and other considerations are also inputs to the decisions. Decisions may include the need and priorities for treatment, whether an activity should be undertaken or which of a number of paths should be followed.
RISK FACTOR	Physical or other condition that predisposes an individual to develop a specified outcome (e.g., illness, or severe disease if infected).

RISK IDENTIFICATION	Risk identification involves identifying what might happen, or what situations might exist that could affect achievement of the objectives of the organization or system.
RISK MANAGEMENT (APPROACH)	The use of policies, practices and resources to analyze, assess and control risks to health, safety, environment and the economy.
RISK TREATMENT	Identification and recommendation of risk treatment options, i.e. options for management or control. Risk treatment options should include steps that need to be taken in advance, as well as potential actions at the time of the pandemic.
SCALABILITY OF RESPONSES	The ability to adapt the response to the pandemic, with triggers to activate and deactivate specific responses while taking into account the variable impact and timing of the pandemic in different geographic regions.
SELF-CARE INSTRUCTIONS	Any tools to assist the public in conducting a self-assessment.
SEROLOGICAL ATTACK RATE	The cumulative incidence of infection over a period of time as determined by laboratory findings (serology) of infected individuals.
SOCIETAL DISRUPTION	Disruption caused by pandemic such as discontinuation of health care and other essential services; discontinuation of day-to-day activities, and delay of return to normal community functioning.
SURGE CAPACITY PLANNING	The development of strategies for enhancing levels of staff and volunteers, equipment and supplies and, potentially, space to accommodate more patients. It also includes consideration of novel approaches to enhancing assessment and care. Surge capacity plans should include regional or even province-wide components.
SURVEILLANCE	Systematic, ongoing collection, collation, and analysis of health-related information that is communicated in a timely manner to all who need to know which health problems require action in their community. Surveillance is a central feature of epidemiological practice, where it is used to control disease. Information that is used for surveillance comes from many sources, including reported cases of communicable diseases, hospital admissions, laboratory reports, cancer registries, population surveys, reports of absence from school or work, and reported causes of death.
SYMPTOMS	Any perceptible, subjective change in the body or its functions that indicates disease or phases of disease, as reported by the patient.
TRANSMISSION	The process whereby an infectious agent passes from a source to cause infection in a susceptible host.
TRIAGE	A system whereby a group of casualties or patients is sorted according to the seriousness of their illness or injuries, so that treatment priorities can be allocated between them. It is designed to maximize the number of survivors in emergency situations.

VACCINE	A substance that contains antigenic components from an infectious organism. By stimulating an immune response (but not disease), it protects against subsequent infection by that organism.
VIRULENCE	Virulence refers to the ability of the infectious agent to cause severe disease (e.g., Ebola virus: high; rhinovirus: low).
VIRUS	A group of infectious agents characterized by their inability to reproduce outside of a living host cell. Viruses may subvert the host cells' normal functions causing the cells to behave in a manner determined by the virus.

Appendix A – Pandemic Risk Assessment: Considerations for the Northwest Territories

***adopted/adapted from the 2018 Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector.*

CATEGORY	WHAT INFORMATION IS NEEDED?		HOW WILL THIS BE LEARNED?	SOURCES OF INFORMATION/ DATA
	INITIAL RISK ASSESSMENT	ONGOING RISK ASSESSMENTS		
OVERALL RESPONSE				
NATURE OF RESPONSE	What will be the overall impact?	Is the impact changing? How are we coping?	Estimates/predictions of impact (see sections below)	Planning assumptions/ past experience PHAC PT Reports CPHO NWT NWT HSSAs/local assessments
CHARACTERISTICS OF THE VIRUS				
TRANSMISSIBILITY	How fast will it spread?	Will there be more than one pandemic wave?	Molecular and genetic studies Incubation periods Reproductive number (R0) Real-time modeling	WHO PHAC PT Reports CPHO NWT NWT HSSAs/local assessments
	How many will be affected? See also *population vulnerability*	Will follow-up waves be larger or smaller? When will the next wave begin, peak, end?	*As above* Serological attack rate Clinical attack rates in various settings	Planning assumptions/ past experience WHO PHAC PT Reports CPHO NWT NWT HSSAs/clinical and local assessments
VIRULENCE (CLINCAL SEVERITY)	How severe is the disease? What proportion of ill people will have complications, need hospitalization, die? Are there unusual clinical presentations?	Is the disease severity changing?	Molecular and genetic studies Rates of hospitalization, intensive care unit (ICU) admission, ventilator use Case fatality rate/ration Clinical case series of persons with severe disease Outbreak reports	WHO PHAC PT Reports CPHO NWT NWT HSSAs Stanton Territorial Hospital Local assessments
POPULATION VULNERABILITY				
POPULATION VULNERABILITY	Will all age groups be affected and to what extent?	How is population immunity changing as the outbreak progresses?	Level of pre-existing population immunity Periodic seroprevalence surveys	WHO PHAC CPHO NWT NWT HSSAs
	What are the risk factors for severe disease?	Are new risk factors/ groups emerging?	Epidemiological studies Clinical case series Outbreak reports	Planning assumptions/ past experience WHO PHAC CPHO NWT NWT HSSAs

CATEGORY	WHAT INFORMATION IS NEEDED?		HOW WILL THIS BE LEARNED?	SOURCES OF INFORMATION/ DATA
	INITIAL RISK ASSESSMENT	ONGOING RISK ASSESSMENTS		
CHARACTERISTICS OF THE VIRUS				
ANTIVIRAL MEDICATIONS	Is there antiviral resistance? Will antivirals be safe? Is the NAS effectively mobilized?	Are antiviral resistance patterns changing? Are the antivirals safe? Are the antivirals effective? Are the right patients receiving them in a timely way?	Antiviral susceptibility and resistance testing Antiviral distribution and uptake Adverse reaction reports Effectiveness studies Distribution reports and special studies	
VACCINE	Will vaccine be safe? Will vaccine be effective? When will it be available?	When will vaccine be available? Are there changes to the usual high-risk groups? Is there adequate capacity for rapid immunization? How can vulnerable groups be reached? Is pandemic vaccine safe? Is it effective?	Early epidemiological studies (re: high-risk groups) PT monitoring and feedback Vaccine uptake and effectiveness AEFI Reports	WHO PHAC PT Reports CPHO NWT NWT HSSAs NGOs
PUBLIC HEALTH MEASURES	What is the anticipated impact, including on transmission?	Are the interventions acceptable? Are they effective?	Measures of transmissibility and virulence Mathematical modeling Public opinion research Community surveys	PHAC PT Reports Media/Social Media CPHO NWT NWT HSSAs
INFECTION PREVENTION AND CONTROL (IPC)	Will the usual IPC measures be effective? If not or unsure, what additional precautions should be taken?	Are the usual IPC measures effective? If not or unsure, what additional precautions should be taken? Are there unintended consequences?	Information on incubation period, infectivity, routes of transmission, etc.,	WHO PHAC PT Reports CPHO NWT NWT HSSAs
SYSTEM RESPONSE				
PUBLIC HEALTH	What will be the potential impact?	What is the impact on public health and health human resources (HHR)? Are they able to cope?	Measures of transmissibility and virulence Surveillance and clinical studies PT Feedback Media monitoring	Planning assumptions/ past experience CPHO NWT NWT HSSAs Public Sector Union Professional Associations Indigenous Governments Media/Social Media MLAs
COMMUNITY HEALTH/PRIMARY CARE	What will be the potential impact?	What is the impact on community health care/ primary care services and HHR? Are they able to cope?	Measures of transmissibility and virulence Surveillance and clinical studies Information on antiviral resistance PT Feedback Media monitoring	Planning assumptions/ past experience CPHO NWT NWT HSSAs Public Sector Union Professional Associations Indigenous Governments Media/Social Media MLAs
ACUTE CARE SERVICES	What will be the potential impact?	What is the impact on community health	Measures of transmissibility and virulence	Planning assumptions/ past

CATEGORY	WHAT INFORMATION IS NEEDED?		HOW WILL THIS BE LEARNED?	SOURCES OF INFORMATION/ DATA
	INITIAL RISK ASSESSMENT	ONGOING RISK ASSESSMENTS		
ANTIVIRAL MEDICATIONS		care/primary care services and HHR? Are they able to cope? What bacterial infections are occurring? Are the treatment strategies effective?	Surveillance and clinical studies Information on antiviral resistance PT Feedback Media monitoring	experience CPHO NWT NWT HSSAs Public Sector Union Professional Associations Media/Social Media MLAs
CONTINUING CARE SERVICES	Will long-term care or other residential facilities for the elderly or disadvantaged be at significant risk of outbreaks?	What is the impact on these facilities and their HHR?	Information on pre-existing immunity Surveillance and outbreak investigations PT Feedback Media monitoring	Planning assumptions/ past experience CPHO NWT NWT HSSAs Public Sector Union Professional Associations Media/Social Media MLAs
SOCIETAL IMPACT	Will there be significant workplace of school absenteeism? Will community services be affected?	What is the impact on schools, businesses, critical infrastructure and other community services? What is the impact on vulnerable populations? What is the psychosocial impact on the population? What is the economic impact?	Measures of transmissibility and virulence School and workplace absenteeism surveillance PT Feedback Media monitoring and public surveys Clinician surveys Qualitative studies	Planning assumptions/ past experience District Education Authorities Chamber of Commerce Department of Human Resources Department of Municipal and Community Affairs Department of Industry, Tourism and Investment Local Governments Indigenous Governments Unions Professional Associations NGOs CPHONWT NWT HSSAs Media /Social Media MLAs
RISK COMMUNICATIONS	What will be the level of public concern? What issues will be of most concern?	What are the levels of public concern? What issues are of most concern and are we addressing them effectively?	Traditional and social media monitoring Tracking of public inquiries Public opinion research Stakeholder feedback (PTs and NGOs)	Planning assumptions/ past experience FPT Reports Local Governments Indigenous Governments Unions Professional Associations NGOs CPHO NWT System Navigator Patient Relations NWT HSSAs Media/Social Media MLAs

Appendix A – Northwest Territories COVID-19 Pandemic Planning Checklist

COVID-19 Planning Checklist

GOAL:

To reduce illness, death, and disruption of life from the consequences of Pandemic COVID-19 and other outbreaks of severe respiratory infections.

PREAMBLE:

COVID-19 is anticipated to be a serious threat to the health and well being and to the disruption of life to all communities of the Northwest Territories as well as communities around the world. Communities, Regions and the territorial government must each have in place a Contingency Plan dealing with this matter appended to each Community's Disaster Plan to ensure that all necessary and adequate resources will be available and coordinated to deal with the consequences of the disease.

BASE ASSUMPTIONS:

1. **A Community Disaster Plan is in place in every community.**
2. **A Health Centre or Hospital Disaster Plan is in place in every community.**
3. **Infection Control Guidelines are available and implemented in every Health Care Facility.**
4. **Worst-case scenario is considered: e.g. each community may be completely isolated and little or no extra resources (human or material) will be available from the Region, Territory or Nation during a Pandemic period.**

PURPOSE/OBJECTIVES:

- To ensure every community is prepared to deal with a worst-case scenario of Pandemic outbreak.
- To ensure communication guidelines for interactions between the community, regional, territorial, and federal stakeholders are in place.
- To ensure coordination with Community, Regional and Territorial Disaster Plans.
- To define available resources at the community level in order to ensure the community is prepared to respond to a Pandemic outbreak on its own if necessary.
- To determine appropriate level of assistance needed to support the communities' response to a Pandemic.

The COVID-19 Pandemic Plan is divided into three periods:

1. **PRE-PANDEMIC**
2. **PANDEMIC**
3. **POST-PANDEMIC**

THE FOLLOWING MAJOR COMPONENTS ARE ADDRESSED FOR EACH PERIOD:

- **INFECTION CONTROL**
- **SURVEILLANCE**
- **HEALTH SERVICES**
- **EMERGENCY PREPAREDNESS**
- **COMMUNICATIONS/EDUCATION**
- **EVALUATION**

APPENDED MATERIALS:

- DHSS Resource Request Form (NESS PPE etc.)

COMPLETED DATE: _____

REVIEW DATES: _____ **SIGNATURE:** _____

_____ _____

_____ _____

_____ _____

_____ _____

Period 1: PRE-PANDEMIC

Objective 1: Infection Control

1. To maintain the principles of infection control to prevent or reduce the spread of COVID-19.

ACTION 1.A. Infection control guidelines will be easily accessible in Health Care facilities and reviewed with the Pandemic COVID-19 Plan as necessary.

Refer to:

GNWT HSS Website
https://www.hss.gov.nt.ca/professionals/en

NOTE: to ensure the most up to date information please go to HSS website and search the appropriate document

- _____
- _____
- _____

ACTION 1.B. Guidelines and principles related to the spread of COVID-19 will be adhered to for limiting nosocomial spread to healthcare workers and the healthcare environment, staff, visitors and non-COVID-19 patients.

ACTION 1.C. Review of emergency facility and community structures contingency plans to develop appropriate cohorting spaces.

ACTION 1.D. Inventory of infection control protective barrier equipment is maintained at designated sites:

Simple Face masks _____

Face shields _____

N-95 masks _____

gloves _____

gowns _____

hand washing soap and/or alcohol based solution _____

Objective 2. Surveillance

1. To continue disease-based surveillance reporting.

ACTION 1.A. A Health Care Professional will be appointed as a Public Health designee to oversee surveillance within the community.

ACTION 1.B. COVID-19 specific surveillance forms and processes

ACTION 1.C. Reporting requirements

Link to reporting form:

https://www.canada.ca/content/dam/phac-aspc/documents/services/diseases/2019-novel-coronavirus-infection/health-professionals/2019-nCoV-case-report-form-en.pdf

OCPHO:

(p) 867-920-8646
(f) 867-873-0442

Objective 3: Health Services

1. To identify potential sites for medical care in the event of an outbreak with large numbers of residents/travelers becoming ill.

ACTION 1.A. As outlined in the health centre disaster plan.

ACTION 1.B. The following sites will be used for:

acute care _____

assessment/triage _____

observation _____

emergency _____

homeless/ under-housed _____

Health Link triage _____

other _____

2. To develop a list of supplies and equipment needed at each designated medical site.

ACTION 2.A. Refer to health centre disaster plan for medical equipment.

ACTION 2.B. Social Services or _____ _____ (designate group or position title if no social worker in community) will be responsible for providing other supplies (such as food and blankets) as designated in disaster plan. See Social Services' (or designates) responsibilities in Community Disaster Plan.

3. To determine in-patient options in the community of _____.

ACTION 3.A. Refer to Health Centre disaster plan and Home Care responsibilities.

4. To define health care personnel and volunteers who could be of assistance.

ACTION 4.A. Refer to Community and Health Centre disaster plans.

ACTION 4.B. Meet with local EMO to review and update on an annual basis.

ACTION 4.C. Assess human resource requirements to implement, manage and coordinate pandemic response activities. Ensure human resources are available for essential routine and pandemic response.

5. To formulate triage protocols for the community

ACTION 5.A. Refer to protocols in GNWT HSS Website and include in the Disaster Plan. These protocols will be consistent with Regional protocols.

ACTION 5.B. Centers of residential care listed below

https://www.hss.gov.nt.ca/professionals/en

NOTE: to ensure the most up to date information please go to HSS website and search the appropriate document:

_____

_____

_____

_____

_____

(e.g. group homes and shelters) will care for their residents on site.

6. To develop discharge criteria from hospital to community taking into consideration the community capacity to provide care.

ACTION 6.A. Refer to Health Centre Disaster Plan and discharge criteria.

ACTION 6.B. Information brochures for patients discharged with COVID-19 for home care, self-isolation situations, cleaning and disinfection to protect others in the home / care environment.

7. To develop a plan for the social and psychological need of the community.

ACTION 7.A. Refer to Social Services or _____ (designated position) disaster plan responsibilities.

https://www.hss.gov.nt.ca/professionals/en

NOTE: to ensure the most up to date information please go to HSS website and search the appropriate document

8. To determine the capacity of mortuary/burial services.

ACTION 8.A. Refer to Social Services or _____ (designated position) disaster plan responsibilities. Refer to Community Disaster Plan.

Objective 4: Emergency Preparedness

1. To minimize social disruption as much as possible from pandemic COVID-19 consequences in the community of _____.

ACTION 1.A. NIC to organize review of the COVID-19 Plan in preparation for a pandemic emergency and ensure the plan is attached as an Appendix to the Community and Health Centre Emergency Contingency Plan.

ACTION 1.B. Review and revisions will occur on at least an _____basis.

2. To minimize essential service disruption as much as possible.

ACTION 2.A. Liaise and work with the local EMO in the review of the COVID-19 plan in conjunction with the overall community disaster plan.

ACTION 2.B. Review community disaster plans with EMO to ensure plans for maintenance of essential services are in place in the event that primary providers are ill.

☐ water testing and delivery

☐ sewage collection

☐ garbage collection

☐ back-up power generators

☐ policing (RCMP and By-law)

- _____
- _____
- _____

Objective 5: Communication

1. To develop a protocol for sharing timely accurate and consistent information among health care providers, media and the general public.

ACTION 1.A. Refer to protocols on chain of communication as determined by regional and territorial policy guidelines.

2. To disseminate public educational/awareness campaigns in all applicable languages.

ACTION 2.A. The Public Health Designee will coordinate a promotional campaign. Promotional campaign will include:

☐ PSA's for radio

☐ Local cable TV

☐ Local newspapers

☐ Posters

☐ Faxes

☐ Fact sheets

☐ Pamphlets

_____

_____

3. To make available copies of_____ _____Pandemic COVID-19 Plan.

ACTION 3.A. Copies will be provided to Regional Health and Social Services Authority.

ACTION 3.B. Copies will also be provided to all community stakeholders with a request for a stakeholder meeting to discuss, clarify, and revise if necessary, roles and responsibilities. Meeting to occur annually.

Objective 6: Evaluation of Pre-Pandemic Activities

1. To evaluate pre-pandemic period activities.

ACTION 1.A. To be done at end of pandemic season. See Pre-Pandemic Evaluation Checklist.

ACTION 1.B. Areas to be assessed:

- timeliness of directives received from Region and Territory.

- promotional campaign, including timeliness of materials received

- _____
- _____
- _____

2. To have the plan updated as more becomes known about the novel virus.

ACTION 2.A. The plan will be reviewed and revised as required to ensure current recommendations are included.

PRE-PANDEMIC Evaluation Checklist

Actions to be completed:	*Completed: yes/no*	*Comments/ Revisions:*	*Initial/ Date:*	*Initial/ Date:*	*Initial/ Date:*	*Initial/ Date:*
SURVEILLANCE:						
1.All health units activated surveillance as per guidelines.						
2. All health units activated surveillance reporting system.						
VACCINES:		*Not applicable*				
1. Flu clinics re-opened to prevent other outbreaks. Mass immunization plan reviewed and revised as deemed necessary.						
COMMUNICATION:						
1. Educational/promotion materials received from Region/Territory in timely manner.						
2. Education/awareness campaigns carried out.						
INFECTION CONTROL:						
1. Infection Control guidelines easily accessible.						
2. Infection Control Manual or guidelines reviewed.						
3. Protective Barrier equipment inventory maintained						

Pandemic Influenza Contingency Plan - Community Responsibilities:

Period 2: PANDEMIC

Objective 1: Emergency Preparedness

1. To activate the emergency response plan.

ACTION 1.A. Refer to community and health centre emergency response plan.

ACTION 1.B. Designate a stakeholder meeting place in conjunction with EMO and SAO away from Health Centre or Regional H&SS Authority offices.

ACTION 1.C. Call meeting of all major stakeholders as suggested in the response plan. Such as:

- ☐ Local EMO
- ☐ Regional Health Authorities
- ☐ Health Centre
- ☐ Home Care
- ☐ Social Services
- ☐ Wellness Centres
- ☐ Hamlet – SAO and Mayor
- ☐ Health committee
- ☐ R.C.M.P.
- ☐ Fire/Ambulance
- ☐ Group Homes
- ☐ Shelters
- ☐ Education Board/School Principle
- ☐ Clergy

_____

_____

_____

ACTION 1.D. Review and clarify roles and responsibilities of all stakeholders in Community Disaster Plan and Pandemic Contingency Plan including communication strategy and identified spokesperson.

ACTION 1.E. Activate contingency plan for providing essential services for persons confined to their homes by choice or by direction of health officials as per triage protocols included in the community emergency plan.

Objective 2: Health Services

1. To ensure that human resources and logistics are in place to provide essential health services.

ACTION 1.A. To review the plan as above with the major stakeholders ensuring all partners are clear on roles and responsibilities.

ACTION 1.B. Major HSS stakeholders (including NIC/SHP, Manager of Social Programs, Manager of Mental Health Programs, Director/s of Health Programs, and Executive Director) to review the plan.

ACTION 1.C. Plan will be revised as determined by the disease, it's severity, and geography.

ACTION 1.D. The regional Manager will be responsible for securing additional professional staff as determined by the needs of the community.

ACTION 1.E. The NIC will provide updates of staffing levels to Regional Managers of Health Programs.

ACTION 1.F. Volunteer list will be activated according to need by the person delegated to this task, according to the community disaster plan.

ACTION 1.G. The regional Manager will determine need to have identified individuals given temporary license to carry out specific tasks.

ACTION 1.H. Employ at least one full time hospital emergency manager in each hospital. Each hospital will identify an on-call manager and contact information.

Objective 3: Infection Control

1. To maintain infection control measures to reduce the spread of COVID-19

ACTION 1.A. Infection control guidelines and principles will be followed.

Refer to:

Infection Prevention and Control Guidance documents provided for COVID-19.

https://www.hss.gov.nt.ca/professionals/en

NOTE: to ensure the most up to date information please go to HSS website and search the appropriate document

Objective 4: Surveillance

1. To activate surveillance protocols immediately in order to investigate outbreaks and track progress of COVID-19 disease throughout NWT.

ACTION 1.A. All health units as outlined in pre-pandemic plans will activate the surveillance protocols, complete the appropriate reporting forms, and forward to the CDC as required. Forms are due to the afterhours OCPHO/CDC immediately.

ACTION 1.B. The CPHO will determine the beginning of the pandemic period based on the above surveillance reports.

ACTION 1.C. The CPHO will give direction as to increasing obtainment of specimens to further investigate outbreaks.

ACTION 1.D. CPHO will collate data and inform The Public Health Agency of Canada.

Objective 5: Communications

1. Activate communication plan immediately.

ACTION 1.A. All communications to the media will be done at a Territorial level according to the Communication Strategy.

ACTION 1.B. Meet with local and Regional health managers and local EMO to review lines of communication and Communication Strategy.

ACTION 1.C. NIC will identify who will interpret and provide information to the public as received from H&SS, such as:

- CHR
- Clerk/interpreter
- _____
- _____
- _____

ACTION 1.D. Identify community communication resources:

- radio
- local cable TV
- public places for posters
- _____
- _____

ACTION 1.F. Daily briefings to occur with health and social service staff and volunteers. Each manager will be responsible for briefing their staff and volunteers.

ACTION 1.G. NIC will attend Regional /Territorial briefings as required.

Antiviral Drugs
NOT APPLICABLE FOR COVID-19 – SEE CHECKLIST

Vaccine
NOT APPLICABLE FOR COVID-19 – SEE CHECKLIST

Pandemic Influenza Contingency Plan - Community Responsibilities:

Period 3: POST PANDEMIC

Objectives:

1. To evaluate the pandemic contingency plan for each component of the pandemic period.

ACTION 1.A. Evaluation will be initiated when the CMHO declares the pandemic period is over.

ACTION 1.B. The evaluation checklist will be completed by the NIC and forwarded to the Regional H&SS Authority

2. To determine effectiveness of plan as experienced during a Pandemic.

ACTION 2.A. Revisions will be incorporated into the overall contingency plan.

POST PANDEMIC Evaluation Checklist

Actions to be completed:	*Completed: yes/no*	*Comments/ Revisions:*	*Initial/ Date:*
SURVEILLANCE:			
1.All health units activated influenza surveillance as per ILI guidelines.			
2. All health units activated weekly surveillance reporting system.			
VACCINES:		*Not applicable for COVID-19*	
1. Mass immunization plan reviewed and revised as deemed necessary			
ANTIVIRALS:		*Not applicable for COVID-19*	
HEALTH SERVICES:			
1. Sites/facilities were adequate for the numbers of ill residents.			
2. Supplies/equipment were adequate for each site.			
3.In-patient, home care, Group Homes and shelters were adequate.			
4. Health Care personnel and volunteers were identified and roles clearly defined.			
5.Triage protocols were adequate and consistent with regional protocols.			
6. Discharge criteria were established and effective.			
7. Social and Psychological needs were adequately met.			
8. Mortuary and burial capacity was adequate.			
INFECTION CONTROL:			
1. Infection control guidelines followed.			
COMMUNICATION:			
1. Communication protocols were developed and activated at the community, regional and territorial levels.			
2. Media spokespersons were identified.			
3. Daily briefings with all stakeholders were held.			
4. All major stakeholders were provided copies of the plan at the community, regional and territorial levels and participated in review and revision.			
EMERGENCY PREPAREDNESS:			
1. The NWT Pandemic COVID-19 Pandemic Plan was activated and served to minimize social description during the pandemic emergency as much as possible.			
2. The NWT COVID-19 Pandemic Plan is attached as an appendix to the overall Community Emergency Preparedness Plan			

NOTES:

NOTES:

References:

[1]*World Health Organization. 2019. WHO's Global Pandemic Alert Level. Available from: https://www.who.int/influenza/preparedness/pandemic/h5n1phase/en/*

[2]*Government of the Northwest Territories. SNWT 2007, c.17. Public Health Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/public-health/public-health.a.pdf*

[3]*Government of the Northwest Territories. SNWT 2007, c.17. Public Health Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/public-health/public-health.a.pdf*

[4]*Pan-Canadian Public Health Network. 2018. Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector. Available from: https://www.canada.ca/en/public-health/services/flu-influenza/canadian-pandemic-influenza-preparedness-planning-guidance-health-sector.html*

[5]*Government of the Northwest Territories. 2017. NWT Bureau of Statistics: Indigenous Peoples, 2016 Census. Available from: https://www.statsnwt.ca/census/2016/Indigenous_Peoples_2016_Census.pdf*

[6]*Pan-Canadian Public Health Network. 2018. Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector (page 34). Available from: https://www.canada.ca/en/public-health/services/flu-influenza/canadian-pandemic-influenza-preparedness-planning-guidance-health-sector.html*

[7]*Government of the Northwest Territories. August 2018. Department of Health and Social Services All Hazards Emergency Response Plan.*

[8]*Government of the Northwest Territories. SNWT 2007. Public Health Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/public-health/public-health.a.pdf*

[9]*Government of the Northwest Territories. August 2018. Department of Health and Social Services All Hazards Emergency Response Plan.*

[10]*Terriplan Consultants. 2010. Evaluation of the Department of Health and Social Services, Planning and Response to the H1N1 Pandemic – Final Evaluation Report.*

[11]*Government of the Northwest Territories. SNWT 2007. Public Health Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/public-health/public-health.a.pdf*

[12]*Government of the Northwest Territories, RSNWT 1988. Safety Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/safety/safety.a.pdf*

[13]*Pan-Canadian Public Health Network. 2018. Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector. Available from: https://www.canada.ca/en/public-health/services/flu-influenza/canadian-pandemic-influenza-preparedness-planning-guidance-health-sector.html*

[14]*Terriplan Consultants. 2010. Evaluation of the Department of Health and Social Services, Planning and Response to the H1N1 Pandemic – Final Evaluation Report.*

[15]*Government of the Northwest Territories. SNWT 2007. Public Health Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/public-health/public-health.a.pdf*

[16]*Government of the Northwest Territories. SNWT. 2010, c.6. Medical Professions Act. Available from: https://www.justice.gov.nt.ca/en/files/legislation/medical-profession/medical-profession.a.pdf*

[17]*Government of Alberta. 2014. Alberta Health: Alberta's Pandemic Influenza Plan. Available from: https://open.alberta.ca/dataset/c89245b6-a7fc-4c24-be87-c2686341ffb5/resource/a652811e-42f2-4c0d-90af-54e0e759e05e/download/2014-albertas-pandemic-influenza-plan-apip-march-2014.pdf*

[18]*Government of Alberta. 2014. Alberta Health: Alberta's Pandemic Influenza Plan. Available from: https://open.alberta.ca/dataset/c89245b6-a7fc-4c24-be87-c2686341ffb5/resource/a652811e-42f2-4c0d-90af-54e0e759e05e/download/2014-albertas-pandemic-influenza-plan-apip-march-2014.pdf*