

Northern Health

2017/18 – 2019/20 SERVICE PLAN



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Accountability Statement



On behalf of the Board of Northern Health, I am pleased to present Northern Health's Service Plan for 2017/18 – 2019/20.

The past year has been very exciting for Northern Health as work continued to take shape under a new, refreshed Strategic Plan for 2016-2021. The new strategic plan builds on previously established strategic directions to provide greater clarity of the vision and of the steps needed to move forward. 2016/17 saw considerable progress and the Board continues to be impressed with the organization's ability to plan, implement and innovate on a variety of fronts.

This year Northern Health finalized the development of 36 teams to work in collaboration with physicians and nurse practitioners as Interprofessional Teams (IPTs) to better meet the health needs of northerners – particularly those with more complex requirements (i.e., those with chronic diseases, the frail elderly, families having babies, people with mental health and substance use issues, and vulnerable children and youth). With the establishment of these teams Northern Health can now work with physician partners including Divisions of Family Practice and specialists to determine new person-and-family-oriented ways of providing care.

At the same time, Northern Health has undertaken considerable change in the way population and public health activities are envisioned and supported. Enhancements have been made in our ability to assess data to understand over-arching community and population health needs. Child Health was a focus for this analysis in 2016/17 leading to a very useful and insightful Child Health Report which will provide a basis for improvement work in the years to come. We continue to expand our capacity to work in partnership with communities and industry toward healthy environments and work sites. We have also strengthened our ability both to identify and respond to health crises and outbreaks. Northern Health was able to establish a reasonable, successful response to the dramatic increase in opioid usage that has been experienced across British Columbia and much of Canada. Meanwhile, Northern Health has continued to strengthen its focus on quality improvement. There are many positive signs that a focus on quality and quality improvement action is becoming a more integral aspect of the organization's culture.

Northern Health has worked with the six Regional Hospital Districts, Foundations and Auxiliaries to implement significant capital development projects across the region. Recently, Northern Health opened the new Haida Gwaii Hospital and Health Centre – Xaayda Gwaay Ngaaysdll Naay in Queen Charlotte City. 2016/17 also marked the opening of the Lakes District Hospital and Health Centre in Burns Lake and the Learning and Development Centre on the University Hospital of Northern British Columbia (UHNBC) site. All of these major developments represent state of the art new facilities. Northern Health continues to look to the future with our partners; continuing to develop Master Programs, Plans, Concept Plans and Business Cases for major developments across the region. In 2016/17 planning was undertaken in Terrace, Dawson Creek, Prince George, Quesnel, and Fort St. James. On the topic of 'partnership', I would like to highlight our continuing work with communities to collaboratively identify and address the unique health needs of an aging population and the partnered work with the First Nations Health Authority and First Nations communities led by the Northern First Nations Health Partnership Committee to improve services and the cultural safety of these services for First Nations people.

Northern Health will develop and deliver balanced budgets for 2017/18 through to 2019/20. In upcoming years, Northern Health will face challenges as the organization seeks to ensure service levels that align with changing needs influenced by community size, demographics and socio-economic conditions. The Board and Executive are confident in the future of Northern Health, in our staff, physicians and volunteers, and in their ability to rise to these challenges. Northern Health will continue to respond to the people we serve, provide quality health services and continue to seek innovative solutions in order for Northern Health to lead the way in promoting health and providing health services for Northern and rural populations.

The *Northern Health 2017/18-2019/20 Service Plan* was prepared under the Board's direction in accordance with the *Health Authorities Act* and the *Performance Reporting Principles for the British Columbia Public Sector*. The plan is consistent with government's strategic priorities and fiscal plan. As the Northern Health Board Chair, I am accountable for the contents of the plan, including what has been included in the plan and how it has been reported as well as responsible for the validity and reliability of the information included in the plan.

All significant assumptions, policy decisions, events and identified risks, as of March 31, 2017 have been considered in preparing the plan. The performance measures presented are consistent with the Taxpayer Accountability Principles and the Ministry of Health's mandate and goals, and focus on aspects critical to the organization's performance. The targets in this plan have been determined based on an assessment of Northern Health's operating environment, forecast conditions, risk assessment and past performance.

On behalf of the Board,

A handwritten signature in black ink, appearing to be 'C. Jago', written in a cursive style.

Dr. Charles Jago, Board Chair, Northern Health
April 2017

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Organizational Overview

Northern Health provides a full range of health care services to the 285,131¹ residents of Northern British Columbia. Serving an area of 592,116 square kilometers², it is the largest geographic health region in the province covering over two-thirds of British Columbia and comprised largely of rural and remote communities.

The *Health Authorities Act*³ gives Northern Health the legislative authority to develop policies, set priorities, prepare budgets and allocate resources for the delivery of health services under a regional health plan that includes: (i) health services provided in the region, or in a part of the region, (ii) type, size and location of facilities in the region, (iii) programs for delivering health services in the region and (iv) human resources requirements under the regional health plan. Northern Health provides the following health services:

- Acute care services at 18 hospitals⁴ and nine diagnostic and treatment centres;
- Long term care at 13 complex care facilities, and in 10 acute care facilities;⁵
- Community health services including:
 - Home health services to clients in their homes;
 - Mental health and substance use services, including an extensive network of inpatient, clinic and community services; and
 - Population and public health services focusing on health promotion and injury prevention toward the improvement of health for people across the North.

Northern Health works collaboratively with a medical staff comprising some 250 family physicians and 125 medical and surgical specialists. Northern Health is organized into three Health Service Delivery Areas (HSDAs): the Northeast, the Northwest, and the Northern Interior. Each HSDA is led by a Chief Operating Officer, who has overall responsibility for the operations of the HSDA. Reporting to each Chief Operating Officer are Health Service Administrators, senior managers who handle the day-to-day provision of services in a community cluster. There are currently fifteen Health Service Administrators in Northern Health.

Northern Health is working with Divisions of Family Practice and primary care providers to establish teams of interprofessional community health services that are closely connected to primary care at the community level. The provision of specialized community health services will occur at the HSDA and regional level. Regional coordination and quality improvement will be undertaken through focused regional teams and through quality improvement programs.

Northern Health has entered into a Partnership Accord with the First Nations Health Authority and the First Nations Health Council: Northern Regional Health Caucus. A Northern First Nations Health and Wellness Plan has been developed by the partners and is guiding the work underway across the North. Leadership of this work in Northern Health is led by a Vice President, Indigenous Health who coordinates partnerships and provides expert advice, guidance, and oversight. Focused work on improving Northern Health's cultural safety is being coordinated through local Aboriginal Health Improvement Committees (AHICs).

A number of Regional services, including finance, human resources, information management, and information technology are based in Prince George. Northern Health is an active partner in the province's BC Clinical and Support Services (BCCSS) Society.

Northern Health is committed to providing health services based in the primary care home and linked to a range of specialized services which support people and their families over the course of their lives, from staying healthy to addressing disease and injury, to end-of-life care. The majority of northern physicians are appointed to Northern Health's Medical Staff and have privileges to practice within Northern Health facilities. These physicians are actively engaged in quality improvement and are participating with Northern Health to improve service delivery.

Long term care facilities in the North are operated by Northern Health, with the exception of two⁶ operated under contract. Most northern assisted living facilities are operated by non-profit societies, with Northern Health providing personal care support services and nursing care in these settings.

Northern Health is governed by a Board of Directors following the best practices outlined in Part 3 of the Board Resourcing and Development Office's *Best Practice Guidelines Governance and Disclosure Guidelines for Governing Boards of British Columbia Public Sector Organizations*.

Strategic Direction and Context

Strategic Direction

Northern Health receives its strategic direction from clearly identified government priorities set forth in Setting Priorities for the B.C. Health System and the Health Authority Mandate Letter. Successfully achieving Northern Health’s strategic vision requires close collaboration with partners, including the Ministry of Health, First Nations, physicians and health care providers, unions, patients and other stakeholders, in shaping and implementing key areas of focus. This collaborative approach aligns with the [Taxpayer Accountability Principles](#), which strengthens two-way communication between government and provincial public sector entities, promotes cost control and helps create a strong, accountable relationship between government and agencies.

Strategic Context

The context for providing health services in British Columbia, and across northern British Columbia, is complex and ever-changing. Planning for the next three years takes into account both environmental factors and strategic advantages, as presented below.

Environmental Factors

Rural/Remote Nature of Northern British Columbia

Northern Health seeks to promote good health and provide health services to approximately seven per cent of the province’s population over a vast geographic area (approximately two thirds of the province geographically). The challenges and opportunities in delivering a continuum of high quality health services in the rural and northern parts of Canada have been well articulated by many. The Romanow Report, Rural Health in Rural Hands and the Health Care in Canada series, amongst others, describe the opportunities and challenges inherent in rural and northern Canada.^{7 8 9 10} These reports and many others can be found on the “What is Rural” page of the Community Health Information Portal: a public resource that is maintained by Northern Health.¹¹

Challenges exist in northern British Columbia. Small clustered populations (less than 0.4 persons per sq. km)¹² scattered across vast geographies mean that economies of scale are difficult to achieve. The vast geography makes accessing services difficult and complicates the referrals and relationships that exist between practitioners.¹³ Additionally, many communities exist on the other side of the digital divide and lack other supporting infrastructures such as low cost public transit.^{14 15} These challenges and others related to human resources, transient resource-sector populations, poorer health status and a rising burden of chronic diseases are discussed in greater detail later in this document.

As a highly distributed health region, relatively small facilities and services are a common element of Northern Health’s service offerings. Smaller facilities and services can be difficult to sustain. The departure of a single practitioner, for instance, can have a significant impact on many northern communities. These facilities also operate with a cost structure that is “fixed.” For such services, efficiencies are not available “on the margin” – the facilities and services are either open or they are not.

The distributed nature of the northern population creates challenges when considering service distribution and mix. Many types of service benefit both in efficiency and effectiveness from

consolidation into service units that achieve critical staffing levels and patient volumes. It is often the case that service quality is related to volume of work and repetition of clinical skills. However, access to service closer to home is a critical factor contributing to health outcomes for the people who live in northern and rural communities. In addition, health services are often seen as essential to the sustainability of rural and northern communities. To address this paradox, Northern Health places considerable emphasis on dialogue with communities to collectively and creatively find the right balance of sustainable local service and reliable secondary and specialty services as close to home as possible.

For the North, opportunities lie in integrated, intersectoral, collaborative approaches where services are organized so that they address the needs and characteristics of the population and in a manner where teamwork and interprofessional collaboration are expected from providers.^{16 17 18} More and more Northern Health seeks to establish and support strong networks of service built on the principle that all parts contribute to a strong whole.

Northern Health knows the rural landscape and is committed to further developing its system of high-quality, health service networks toward meeting the needs of northern communities, people and their families.

Human Resources and Health System Infrastructure

Despite expanded education and training programs for health professionals and health workers in British Columbia, ensuring the availability of human resources remains a challenge for the health care system.¹⁹ As the population ages, so too does the health care workforce. Looming retirements in the health workforce combined with the rising demand for services and increased national and international competition for health professionals impact the province's ability to maintain an adequate supply and mix of health professionals and workers for British Columbia's health system.

Given Northern Health's unique rural context and service mix, there will continue to be a need for ongoing development of northern education for northern students in partnership with community colleges, the University of Northern British Columbia (UNBC), and the Northern Medical Program (NMP).

Another challenge in delivering health services is the need to maintain and improve the health system's physical infrastructure. The health system is faced with the continuous need to update or expand health facilities, medical equipment and information technology to ensure it provides high quality and safe health care to British Columbians.

Socio-Economic Context

The northern rural economy is significantly a resource based economy. It has and continues to generate much of this province's revenue and wealth.²⁰ Despite this contribution, some of the least diversified and vulnerable local economies in the province are found in the North.²¹

Other dimensions of our uniquely rural and resource based economy are reflected in the Socio-economic Indices (SEI) that are produced by BC Stats. For example, during 2012, the SEI reported that there were no Local Health Areas (LHAs) in the North that performed above average on the composite index. The SEI also indicated that northern LHAs consistently ranked amongst the worst in British Columbia on the Education Risk Index, the Children at Risk Index and Youth at Risk Index.²²

Transient Resource Sector Populations

The resource sectors have contributed greatly to the health and prosperity of communities in northern British Columbia and to British Columbia as a whole.²³

Underlying this growth is a fluid or transient workforce, including both men and women, many of whom have permanent homes elsewhere in BC and Canada. Northern communities, mayors and councils and others have raised concerns regarding the impact of resource sector projects on communities. Northern Health recognizes these concerns and views them as important considerations that merit attention, especially as these relate to the health of people and communities across the North.²⁴

Northern Health recognizes the need to work proactively with the resource sector to understand the health issues associated with resource development. To this end, an Office of Health and Resource Development has been created. Staff members within this office are monitoring the environmental assessment applications within Northern Health's geographic region. They are working with the resource based companies by sharing information regarding current health services capacity and establishing collaborative relationships to address environmental and health services issues related to individual projects. Northern Health continues to work with the Ministry of Health and other partners to establish and implement strategies for examining the cumulative effects of industrial development.

Variations in Health Status

Residents of northern British Columbia have poorer health status than residents of British Columbia as a whole. This burden of poorer health is broadly distributed throughout the population and is not only associated with poorer health status amongst Aboriginal people.

This poorer level of health in northerners is reflected across all health status indicators including the internationally recognized Standardized Mortality Ratio (SMR). The SMR compares the actual number of deaths in a population to the number of deaths that are expected to occur. This measure is also consistently correlated with higher burdens of population illness, higher unmet health needs and, correspondingly, with higher health service utilization.

During the five year period of 2010 – 2014, based on national averages, we would have expected to see 7,314 deaths within the population of northern BC. In reality, there were 9,349 deaths. In other words, we experienced over 2,000 more deaths in this five year period than would have been expected based on the national average.^{25 26 27 28}

Indigenous Peoples and Communities

While the health status of Indigenous people has improved in several respects over the past few decades, the Indigenous population in British Columbia continues to experience poorer health and a disproportionate rate of chronic diseases and injuries compared to other British Columbia residents.²⁹

³⁰ Northern Health continues to work with Indigenous people and First Nations communities on approaches that better address their health needs and to provide services in a culturally safe manner.

Addressing the unique needs of First Nations and Indigenous populations is a high priority for Northern Health and for the B.C. health system as a whole.

On October 1, 2013, Health Canada's First Nations Inuit Health Branch BC Region transferred responsibility for health services in First Nations communities to the First Nations Health Authority (FNHA). The First Nations Health Authority plans, designs, manages, and funds the delivery of First

Nations health programs and services in BC. These community-based services are largely focused on health promotion and disease prevention including: Primary Care Services, Children, Youth and Maternal Health, Mental Health and Addictions Programming, Health and Wellness Planning, Health Infrastructure and Human Resources, Environmental Health and Research, First Nations Health Benefits, and eHealth Technology.

Northern Health will work in partnership with the FNHA to coordinate planning and service delivery efforts in support of BC First Nations health and wellness objectives.

Population Change

Northern British Columbia faces considerable change in its population and demographics. These changes can be overlooked in province-wide analyses as the numbers are small in proportion to the larger population bases in the lower mainland. They are significant, however, from a northern perspective and from the perspective of the economic activity they represent.

Official population projections are slow to recognize some aspects of change in the population. The Northwest and Northeast Health Services Delivery Areas are experiencing industrial and economic development growth in the longer run. Yet the path forward is volatile – ebbing and flowing based on global economic conditions. The recent decrease in global oil prices is a reminder of the impact of the global economy on the local and regional economy.

In spite of evident uncertainty, Northern Health continues to plan for anticipated growth and industrial development in the Northwest and Northeast. In the Northwest activity is expected particularly in the Prince Rupert, Kitimat, and Terrace areas. Development in the Northwest is projected to have the following impacts:

- Industrial activity oriented toward liquid natural gas processing and transport
- Some downsizing of the forest sector in relevant communities
- Large influx of temporary workers related to construction and development with significant permanent job growth
- Cost of living impact

In the Northeast, this growth is expected to continue once resource pricing stabilizes, particularly in the North Peace. Development in the Northeast is projected to have the following impacts:

- Industrial activity oriented toward natural gas and hydro-electric energy production
- Short and long-term workforce increases
- Continued cost of living impact

These pressures will require focus and flexibility as there are many variables that will determine the short and long-term impact of this development on Northern Health's services.

Anticipated changes in population related to industrial development in both Health Service Delivery Areas highlight the need for capital redevelopment of Mills Memorial Hospital in Terrace and the Dawson Creek Hospital. These facilities have been under consideration for capital redevelopment. Based on current analysis both these facilities are inadequate to meet the expected demands over the next five to ten years.

In addition to the pressures described above, an aggregate analysis masks two challenges facing Northern Health: a rapidly aging population, bringing with it a variety of health challenges including

frailty, chronic disease and dementia, and proportionately more children and youth, many of whom are considered “at risk.”

A Rising Burden of Chronic Disease

Chronic diseases are prolonged conditions such as diabetes, depression, hypertension, congestive heart failure, chronic obstructive pulmonary disease, arthritis, asthma and chronic pain. People with chronic conditions represent approximately 34 per cent of the BC population and consume approximately 80 per cent of the combined physician payment, PharmaCare and acute (hospital) care budgets.³¹

The evidence points to opportunities to prevent these diseases and that many deaths, hospitalizations and costs can be attributed to a handful of risk factors: smoking, obesity, physical inactivity, and poor nutrition. Addressing these risk factors can prevent or delay the onset of many chronic conditions.³² The evidence also shows that there are opportunities to better manage these conditions and to improve outcomes through integrated approaches that include patient self-management strategies.^{33 34 35}

With the recent advances in health, we might consider the impact of expanding the existing definition of chronic diseases to include certain cancers, mental illnesses, HIV, and Hepatitis C, as people with these conditions can often live productive and rewarding lives if their care is well managed.^{36 37 38}

Mental Health and Substance Use Disorders

In addition to the pressures arising from the upcoming demographic changes, mental health and substance use issues continue as endemic factors in northern rural communities. Mental health and substance use issues pose significant challenges for the health care system an example of this is the current opioid crisis. These substance use challenges are, in and of themselves, difficult to address and relapse rates are high, especially where affected individuals cannot easily leave a high risk environment. Homelessness and low standards of housing and minimal positive family and social networks expose individuals to risk and offer little in the way of reliable support. Mental health and substance use issues also present as underlying complications in other clinical problems, preventing or impeding successful treatment and management.

Strategic Advantages

Northern Health faces a variety of challenges given the dispersed population and the higher incidence of illness and risk across northern British Columbia. But a number of unique “strategic advantages” also exist that will be helpful as Northern Health works with physicians, staff and other organizations to address the health needs of the region.

Motivated Communities, Staff and Physicians

Northern British Columbia is comprised of a large number of relatively geographically defined communities. While there are residents spread across a vast geographic area, northern residents hold a strong sense of community and are highly motivated to sustain and enrich their communities.

This presents opportunities for Northern Health to enter into an ongoing dialogue with communities about health in order to work in partnership to promote health and wellbeing and to plan and support high quality sustainable health services.

The sense of community exists at the level of Northern Health’s staff and the physicians of northern British Columbia as well. Rural community living brings a spirit of common interest and creativity to

staff and physicians. New approaches, new roles and team approaches are often established by local groups as a way to overcome challenges.

Northern Health is working to implement a team-based, inter-professional approach to service delivery focused on people and their families.

A team-based approach allows nurses, nurse practitioners, allied health professionals including physiotherapists, occupational therapists, social workers and others to work to their optimal scope of practice, enhancing the workforce environment, the quality of care, and the patient's experience.

Established Foundation of Primary Health Care

Northern British Columbia is unique in British Columbia in the degree to which primary health care has evolved as the foundation of our health service delivery system. In general, physicians across the North are committed to quality improvement in their primary care practices and to ensuring service comprehensiveness and continuity after hours. Approximately 98 per cent of the physicians practicing in northern British Columbia have a relationship with Northern Health, usually holding hospital privileges and often providing emergency care, obstetrical care and service to people residing in long term care facilities. Divisions of Family Practice are developing across the north and are establishing processes for joint planning, improvement and communication.

Northern British Columbia physicians have adopted electronic medical records (EMRs) at a higher rate than other jurisdictions and have availed themselves of opportunities to integrate with Northern Health information systems. Recent indications suggest that approximately 75 per cent of the physicians practicing in northern British Columbia are making meaningful use of EMRs through such processes as drawing laboratory test results from Northern Health's information system into their electronic records. Many of these physicians are also actively using information from the EMR to monitor quality of care and outcomes for patients.

Northern Health and northern British Columbia physicians place considerable emphasis on work toward healthy communities and populations. With strong existing relationships Northern Health has a great opportunity to further partner with physicians and communities to make improvements that will lead to healthier people in healthier communities.

A Spirit of Partnership

While the majority of health issues faced by residents of northern British Columbia can be addressed within the North, Northern Health does not provide specialized tertiary and quaternary services. Neurosurgical and thoracic surgical services, cardiac surgery and transplant services are some examples where Northern Health lacks the professionals and infrastructure to offer these services. For such services, Northern Health works in partnership with other Health Authorities, particularly the Provincial Health Services Authority and Vancouver Coastal Health Authority, to plan and ensure a strong continuum of care. It is with this spirit of partnership that Northern Health is able to provide quality services in the areas of cancer care, renal care, maternal and neonatal care, trauma care and HIV management.

Goals, Objectives, Strategies and Performance Measures

Northern Health is responsible for providing health services based on government goals and directions. The Ministry of Health has established three overarching goals that set the strategic stage for Northern Health:

- support the health and wellbeing of British Columbians
- deliver a system of responsive and effective health care services across British Columbia
- ensure value for money

Northern Health Implementation Strategy

Under these provincial goals, Northern Health has established a 2016-2021 implementation strategy that is guided by a clear mission, vision and directions that reflect our northern/rural context and our existing challenges and strengths.

Mission

Through the efforts of dedicated staff and physicians, in partnership with communities and organizations, we provide exceptional health services for Northerners.

Vision

Northern Health leads the way in promoting health and providing health services for northern and rural populations.

Strategic Priorities

- **Healthy people in healthy communities:** Northern Health will partner with communities to support people to live well and to prevent disease and injury
- **Coordinated and accessible services:** Northern Health will provide health services based in a Primary Care Home and linked to a range of specialized services, which support each person and their family over the course of their lives, from staying healthy, to addressing disease and injury, to end-of-life care
- **Quality:** Northern Health will ensure a culture of continuous quality improvement in all areas

Enabling Priorities

- **Our people:** Northern Health provides services through its people and will work to have those people in place and to help them flourish in their work
- **Communication, technology and infrastructure:** Northern Health will implement effective communications systems, and sustain a network of facilities and infrastructure that enables service delivery

Northern Health has identified a number of critical priorities and tactics related to our provincial strategic goals. These priorities are described briefly below.

Goal 1: Support the health and wellbeing of British Columbians.

The health system tends to focus on the provision of health services for those who are injured or ill. Acute care interventions will continue to be critical to the people of northern British Columbia and the focus of the system needs to shift to place considerably more emphasis on wellness and staying healthy while meeting a person's health needs at the earliest possible stage. This focus on wellness, prevention and early intervention is known as "moving upstream."

Objective 1.1: Healthy people in healthy communities

Northern Health seeks to help people in northern British Columbia to stay as healthy as possible by promoting healthy environments and behaviours. The objective of the following strategies is to build health surveillance capabilities and to partner with communities and the First Nations Health Authority to promote health and wellness and foster practices that support a healthy environment.

Strategies

- Undertake transformational work in population and public health to align with the "Primary Care Home" (physician(s)/nurse practitioner(s) practice with Northern Health interprofessional staff). Northern Health will place an early focus on change supports to enable local team development and strong regional leadership and support with respect to public and population health. This will involve extensive work to clarify primary care and specialty functions and roles. In parallel, new innovative service delivery models will be developed to support public and population health activities regionally and to capitalize on opportunities to embed population health principles within the primary care and community health service delivery model.
- Design and implement focused health promotion and prevention initiatives aligned with the Primary Care Home. In concert with the above transformational work Northern Health will plan and pursue public and population health activities in a focused, thoughtful manner. Priorities have been identified as follows:
 - Based on the potential health benefits for the people of northern British Columbia (and the potential for system use mitigation) system-oriented prevention and health promotion approaches will focus on the inter-related targets of: increasing healthy eating and access to healthy food; increasing physical activity; and reducing the use of tobacco products
 - During the past two years Northern Health has conducted reviews of health indicators and services related to child health and healthy aging. Plans are under development for the former and well formulated for the latter. The 2017-2020 service plan timeframe will involve focused efforts toward partnered improvements in health promotion and services for these important population groups.
 - While Northern Health monitors issues related to environmental health factors, activity will be undertaken during this service plan timeframe to understand the long term, cumulative impacts of industrial development and to work with partners to ensure safe drinking water.
- Strengthen Northern Health's communicable disease and broader health surveillance systems. Strong surveillance of health status and various conditions including transmission of communicable disease is critical to an ability to respond early and effectively. Northern Health has

made considerable progress toward enhanced surveillance capabilities and will continue to develop in this regard over the next three years.

- Continue to partner with First Nations communities and the First Nations Health Authority (FNHA) to implement the First Nations Health & Wellness Plan. Early partnered work will support the development of Mental Health & Substance Use Mobile Support Teams and improving the provision of primary care for First Nations communities. An over-arching emphasis on cultural safety and humility will promote movement toward a health service environment that is safe, respectful and equitable.

Performance Measure 1: Healthy Communities

Performance Measure	2011/12 Baseline	2016/17 Actual Results	2017/18 Target	2018/19 Target	2019/20 Target
Percent of communities that have completed healthy living strategic plans	15%	63%	63%	63%	72%

Data Source: Survey, Healthy Living Branch, Population and Public Health Division, Ministry of Health.

Discussion

Community efforts to support healthy living through joint planning, policy, and collaborative action are critical to improving the quality of life of individuals where they live, work, learn and play. Sustained community level actions will decrease risk factors and promote protective factors for chronic diseases and injury.

Goal 2: Deliver a system of responsive and effective health care services across British Columbia.

Northern Health is committed to service changes that implemented together will transform the services provided across the north. These changes include supporting a population health approach, embedding a person- and family-centred approach in the services we provide, realigning community health services to provide interprofessional team-based care closely connected to primary care, and optimizing patient and resident flow through Northern Health’s facilities.

Objective 2.1: Coordinated and Accessible Services

Northern Health continues to implement changes to the community health service delivery model. These services will be based in a Primary Care Home and linked to a range of specialized services which support each person and their family over the course of their lives, from staying healthy, to addressing disease and injury to end-of-life care.

Strategies

- Workforce Transition: In 2016/17 Northern Health created 36 teams that can continue to partner and align with physician/nurse practitioner practices to form Interprofessional Teams (IPTs) in northern British Columbia communities. IPTs consolidate care delivery from public health, home

and community care and mental health & substance use. The 2017-2020 planning timeframe will see continued work in partnership with physicians/nurse practitioners to provide better, more integrated support for people with complex health needs.

- **Interprofessional Team Development:** Northern Health recognizes that the establishment of teams is just the first step toward the envisioned primary and community care model of service delivery. Team members and teams must be supported to develop role clarity and competency and to move along a team based care maturity gradient that involves building interprofessional relationships, embedding person- and family-centred care planning and support, incorporating practice reflection and improvement and using evidence-informed standards and approaches. Team supports will include: Interprofessional team development training, aligned professional learning pathways beginning with the Primary Care Nurse development pathway, quality improvement skill development and support, practice automation to enhance meaningful use of data. Training will also include Electronic Medical Record using the Community Medical Office Information System (C-MOIS).
- **Service Alignment:** Support for planning and improvement for identified patients with complex health care needs including those experiencing mental health & substance use, frail elderly, chronic disease, children & youth, and families expecting babies (perinatal population). Critical in this work will be the clarification and strengthening of the relationship with physician specialists and Northern Health’s specialty services and the shared understanding of service flows, communication flows and support requirements necessary to meet the complex needs of these population groups.
- **Transitions in Care:** Ongoing progress toward integrated primary and community care with strongly aligned shared care involving specialists and specialty services will require a methodical approach to clarifying functions, roles and relationships. Northern Health will continue to advance our capacity in and support for the use of “Layered Enterprise Architecture” which will enable clarification of:
 - Population based service flows for the people we serve who are living with these complex needs (e.g., Mental Health and Substance Use, Perinatal, Frailty, Chronic Disease)
 - Focused examination of the flow of people to and from generalists and specialists and their respective roles and expectations
 - Examination, improvement and standardization of evidence-informed clinical and support processes.
- **Practice Support Program:** Across Northern Health, there are currently 20 Practice Support Coaches who interface with the collective interprofessional team inclusive of the primary care home physician to support quality improvement and identify complex patients for the physician to link with the interprofessional team.
- **Primary Care Accreditation Standards:** Northern Health will be including Primary Care Accreditation Standards for the 2018 Accreditation Cycle. The standards will be applied within several NH owned and operated primary care clinics and interprofessional teams will participate in self-assessment and site visits.

Performance Measure 2: Managing Chronic Disease in the Community

Performance Measure	2013/14 Baseline	2016/17 Actual Results*	2017/18 Target	2018/19 Target	2019/20 Target
Number of people with a chronic disease admitted to hospital per 100,000 people aged 75 years and over	4,124	4,664	4,558	4,449	4,341

Data Source: Discharge Abstract Database, Integrated Analytics: Hospital, Diagnostics and Workforce Branch, Health Sector Information, Analysis, and Reporting Division, Ministry of Health

* Up to and including quarter 1.

Discussion

This performance measure tracks the number of seniors with select chronic diseases such as asthma, chronic obstructive pulmonary disease, heart disease and diabetes, who are admitted to hospital. People with these chronic diseases need the expertise and support of health care providers to manage their disease in the community in order to maintain functioning and reduce complications that will require more medical care. This proactive disease management reduces unnecessary emergency department visits, hospitalizations and diagnostic testing. As part of a larger initiative of strengthening community based health care and support services, health care professionals are working to provide more appropriate care in the community and at home in order to help seniors with chronic disease to remain as healthy as possible.

Performance Measure 3: Community Mental Health Services

Performance Measure	2012/13 Baseline	2016/17 Actual Results*	2017/18 Target	2018/19 Target	2019/20 Target
Percent of people admitted to hospital for mental illness and substance use who are readmitted within 30 days, 15 years of age or older	13.1%	10.8%	12.0%	12.0%	12.0%

Data Source: Discharge Abstract Database, Integrated Analytics: Hospital, Diagnostics, and Workforce Branch, Health Sector Information, Analysis, and Reporting Division, Ministry of Health

* Up to and including quarter 2.

Discussion

With the release of *Healthy Minds, Healthy People*, a clear vision was established for addressing the complexities of mental illness and substance use. A number of interventions have been incorporated as part of British Columbia's health system which have successfully responded to individual patient needs. This measure focuses on the effectiveness of community-based supports to help persons with mental illness and substance use issues receive appropriate and accessible care and avoid

readmission to hospital. Central to this effort is building a strong system of primary and community care which enhances capacity and provides evidence-based approaches to care.

Objective 2.2: Optimize Patient and Resident Flow through Facility-Based Care

The focus on the flow of patients and residents through hospitals and long term care facilities is intended to improve appropriateness, access and timeliness of specialty and facility-based care. The objective of this work is to provide services that are of high quality and are as efficient as possible so the growing health needs of an aging population can be met.

Strategies

- Enhance rehabilitative aspects of facility-based care. With an aging population and an increasing incidence of chronic disease, Northern Health will need to strengthen our approaches to rehabilitation in acute and residential care to optimize quality of life and to help reduce the burden of demand on these high cost, highly specialized services.
- Enhance timely access to appropriate surgical care. Northern Health will work with our internal stakeholders and with the Ministry of Health and other Health Authorities to optimize surgical care. In order for surgical services to be patient rather than provider-centric, surgical care needs to be appropriate and efficiently delivered. The implementation of standardized preadmission screening processes was completed in 2016/17. Refinement of the processes will continue through 2017-2020. Electronic scheduling of elective surgeries was introduced across the region in 2016-2017 and standardization of surgical waitlist management processes will be implemented during the service plan timeframe. The Enhanced Recovery After Surgery (ERAS) guidelines piloted in Terrace during 2015/16 were spread to UHNBC in 2016/17 and will be further implemented there and across the region during the service plan timeframe. Northern Health has reviewed the surgical volumes and related resources required to meet increasingly aggressive wait time targets (moving from 40 to 26 week maximum wait times). Some surgical services will continue to be contracted in Prince George.
- Appropriately match service to need. Northern Health will examine facility-based care from a person- and family-focused service orientation to identify and implement changes that will meet needs in the most effective manner.
- Optimize efficiencies of services. Northern Health has a variety of tools (e.g., benchmarking, modeling, business process mapping) to support the examination of services to ensure that they are as efficient as possible. As the most expensive component of our health care system, facility-based services must be regularly reviewed to ensure efficiency and, where appropriate, implement standard and industry leading practice.
- Design and spread of innovative service delivery approaches. Northern Health's distributed, rural nature and complex service pressures calls for innovation in a variety of areas across the system. During the service plan timeframe Northern Health will:
 - Spread prototype models for rapid mobilization of home support as they have proven effective in early implementations
 - Examine innovative care models in each HSDA related to: dementia care, assisted living and

supportive housing, Mental Health service provision, and convalescent care.

- Seek innovative approaches to meeting provincial service enhancement commitments regarding addictions recovery and palliative care.
- Conduct a review of home based services and explore potential redesign options that would provide efficiency and service improvements for current clients and result in earlier identification of individuals living at home who would benefit from home based services.

Performance Measure 4: Access to Scheduled (Non-Emergency) Surgery

Performance Measure	2013/14 Baseline	2016/17 Actual Results*	2017/18 Target	2018/19 Target	2019/20 Target
Percent of scheduled surgeries completed within 26 weeks	93%	92%	95%	95%	95%

Data Source: Surgical Wait Time Production (SWTP, Site 155), Ministry of Health. Includes all elective adult and pediatric surgeries.

Notes:

1. Target percentages are for surgeries completed in the fiscal year.
 2. The total wait time is the difference between the date the booking form is received at the hospital and the date the surgery is completed.
- *. 2016/17 results are up to and including quarter 3

Discussion

Expanded surgical activity and funding incentives, combined with continuous efforts to foster innovation and efficiency in our hospitals, continue to improve the timeliness of access to an expanding range of surgical procedures. B.C. currently has five priority levels, each with its own wait time target that provides a benchmark for the time which patients with that priority level should wait for their surgery. This performance measure tracks whether scheduled surgeries are completed within the maximum established benchmark wait time of 26 weeks. Strategies are in place to address wait lists and to improve access with specific focus on serving patients who have been waiting the longest.

Objective 2.3: Ensure Sustainable Rural Health Services

Northern and rural jurisdictions in Canada continue to demonstrate poorer health outcomes than their urban counterparts. This is believed to be the result of health service provision challenges, socioeconomic status, and other contextual factors experienced by these jurisdictions in spite of their role as significant drivers for the Canadian economy. The objective of this initiative is to take needs and strengths-based approaches to ensuring high quality, sustainable health services in rural and northern British Columbia.

Strategies

- Establish and execute strategies to achieve our health human resources (HHR) plan. Northern Health will develop and implement a health human resource strategy that will meet the unique needs of the North. Generalist service models must underpin the service delivery system with pathways to and from specialty services and specialists. Recruitment and retention of key physician and staff positions will be critical to the plan. Northern Health will work in

collaboration with the Ministry of Health on HHR planning and organizational change capacity planning.

- Leverage technologies that enable safe and appropriate care closer to home. Northern Health will use technology to support care closer to home, and in the home. We will continue to build on industry leading applications of technology to support primary and community care and specialized care.
- Develop and describe a rural network of clinical services and adapt transportation and service pathways to this rural framework. The reality of rural health services is that not all services can be provided in every community. To enable quality care throughout a person and their family's care trajectory, Northern Health will clarify and adapt explicit pathways of patient care, networking and partnering across and beyond northern communities. We will continue work with the Provincial Health Services Authority and BC Emergency Health Services to improve patient transfers and patient transportation to and from higher levels of care. In collaboration with the Ministry of Health and other partners we will initiate planning of networks of service in 2016/17 as outlined in the Ministry of Health's Rural Health Strategy.
- Collaborate with the University of Northern British Columbia to establish a regional node for the provincial Academic Health Sciences Network (AHSN) and Strategy for Patient Oriented Research (SPOR) to align research, education and service.

Goal 3: Ensure value for money.

Northern Health seeks to optimize system performance based on a balanced framework known as the "triple aim." This framework describes a desired balance between improving the health of the population, ensuring strong patient outcomes and patient/provider satisfaction, and reducing the cost per capita of the health system. It is within this framework that Northern Health seeks to ensure value for money.

Objective 3.1: Establish a Culture of Continuous Quality Improvement and Assurance

Northern Health strives to ensure high quality services by monitoring our performance and by promoting continuous quality improvement throughout the organization. This quality assurance and improvement effort is focused at ensuring that supports are in place to enable quality monitoring (assurance) and improvement across the organization and to identify and structure our approaches to improvement priorities where they have been identified.

Strategies

- Develop and implement a strategy to enhance person and family-centered care. A focused strategy will enable Northern Health to reinforce a person and family focus through our planning, implementation, and evaluation processes (e.g., facility design, tools like patient journey mapping, and the involvement of Patient Voices Network in planning and decision-making processes).
- Meet Accreditation Canada required organizational practices (ROPs). Accreditation Canada has established standards that are known to help build patient and family oriented, safe, and reliable

health services. Northern Health has prioritized these ROPs for implementation for the upcoming period 2017-2020. Our objective is full regional compliance with Accreditation standards.

- Build and implement a highly reliable medication system to reduce harm related to medication errors.
- Support the continuous professional development of NH staff and physicians. Evidence indicates that curious, continuously learning staff/health professionals are more engaged, more service oriented, and provide safer care. Northern Health will strengthen our support for continuous learning and skill development and the alignment of these activities with Northern Health's strategies and the change management required.
- Meet prioritized improvement goals in targeted areas. In addition to meeting ROPs, Northern Health annually identifies a small number of regional improvement priorities toward which we can align plans and resources. Priorities identified for 2016/17 include:
 - Mental Health & Substance Use: 1) Decrease the percentage of patients being readmitted to hospitals for mental health and/or substance use issues within 30-days of initial discharge; 2) continue implementation of FNHA Mental Health and Substance Use Mobile Support Teams; 3) Co-lead NH response to the Provincial Overdose Strategy, and introduction of opioid agonist therapy in Primary Care Homes; and 4) Obtain approval for, and implement a regional mental health patient transfer policy.
 - Perinatal: improve post basic education opportunities for perinatal nursing, increase normal physiological birth, partner to implement perinatal depression screening, prevention and early intervention.
 - Critical Care: Improve and maintain use of sepsis protocol, implement Pain, Agitation and Delirium (PAD) protocols.
 - Elder Services: Implement elements of seniors strategy, reduce harm related to falls.
 - Surgical Services: standardize pre-admission and booking processes, clarify processes for OR add-on classification and management.
 - Diagnostic Services: Implement Diagnostic Imaging 10-year plan including MRI implementation at UHNBC, Mills Memorial Hospital and Fort St. John Hospital.

Objective 3.2: Enhance Workforce Safety and Sustainability

The objective of this initiative is to define the workforce design strategies that will improve efficiencies and system sustainability. In addition to ongoing efforts to improve the safety of Northern Health work environments, key regional priorities will be identified and supported on an annual basis. During the upcoming service plan period (2017-2020) the focus will be on preventing workplace violence in order to increase the safety of staff and physicians.

Strategies

- Proactively support employees to achieve and maintain regular consistent attendance. Proactive attendance support leads to positive outcomes for both employees and for Northern Health. Employees gain an opportunity to address issues impacting attendance (illness, workplace factors) positively and early while Northern Health realizes productivity benefits and reduction in costs related to prolonged employee absences.

- Work force stabilization through regularization of casual and part time positions. Position regularization (translating part-time and casual hours into full-time opportunities) is desired by many staff and can have a positive impact on Northern Health's ability to ensure consistency in workload management and overtime/agency staff cost management.
- Implement violence prevention, training and response strategies. 2015/16 saw the initiation of a regional focus on workplace violence that will continue through the 2017 – 2020 timeframe. The objective is to reduce the risk of incidents and harm related to workplace violence.
- In collaboration with the Ministry and provincial partners, Northern Health will strengthen the overall capacity for HHR planning and continue to build upon provincial strategies for leadership and management development with focus on:
 - Succession planning
 - Enhancement of confidence and skills at middle-management and supervisory levels.

Performance Measure 5: Nursing Overtime

Performance Measure	2010 Baseline	2016 Actual Results	2017 Target	2018 Target	2019 Target
Nursing overtime hours as a percent of productive nursing hours	4.9%	6.9%	<=4.0%	<=4.0%	<=4.0%

Data Source: Based on calendar year. Health Sector Compensation Information System (HSCIS)
Health Employers Association of British Columbia (HEABC)

Discussion

This performance measure compares the amount of overtime worked by nurses to the overall amount of time nurses worked. Overtime is a key indicator of the overall health of a workplace as high rates of overtime may reflect inadequate staffing or high levels of absenteeism. Reducing overtime rates by addressing the underlying causes helps promote both patient and caregiver safety while also reducing unnecessary costs to the health system.

Resource Summary

Resource Summary Table

(\$ millions)	2016/17 Actual	2017/18 Budget	2018/19 Plan	2019/20 Plan
OPERATING SUMMARY				
Provincial Government Sources	760.7	770.8	794.7	824.1
Non-Provincial Government Sources	53.3	53.5	55.1	57.1
Total Revenue:	814.0	824.3	849.8	881.2
Acute Care	456.4	455.4	462.1	473.3
Residential Care	106.3	107.7	111.6	114.9
Community Care	107.2	125.2	135.8	147.3
Mental Health & Substance Use	45.3	45.7	47.8	50.9
Population Health & Wellness	29.9	28.8	30.1	31.5
Corporate	64.9	61.5	62.4	63.3
Total Expenditures:	810.0	824.3	849.8	881.2
Surplus (Deficit)	4.0	0.0	0.0	0.0
CAPITAL SUMMARY				
Funded by Provincial Government	18.5	9.9	12.7	13.7
Funded by Foundations, Regional Hospital Districts, and Other Non-Government Sources	14.7	41.2	38.0	24.1
Total Capital Spending	33.2	51.1	50.7	37.8

Major Capital Projects

This section lists approved capital projects Northern Health that are over \$20 million in total capital cost.

Major Capital Project	Targeted Completion Date (Year)	Project Cost to Dec 31, 2016	Estimated Cost to Complete	Approved Anticipated Total Capital Cost of Project (\$ millions)
<p>Haida Gwaii Hospital and Health Centre – Xaayda Gwaay Ngaaysdll Naay Construction of the new Haida Gwaii Hospital and Health Centre Project is scheduled to complete October 31, 2017. The facility was commissioned and moved into November 14, 2016. Remediation and deconstruction of the old Queen Charlotte Hospital was complete December 31, 2016. Phase two development including final site and ground works was complete September 24, 2017. The new Hospital replaces an aging facility, consolidating health services into one location. The facility consist of 17 beds in a two-storey, 5,000 square metre state of the art facility. The new hospital will provide adequate space to facilitate delivery of client-focused care, as well as specialized care services such as low-risk maternity, obstetrics, and cancer care. The capital cost of the project is up to \$50 million and is cost-shared with the North West Regional Hospital District who funded \$18.9 M or 40%.</p>	2017	45.7	4.3	50.0

Appendices

Appendix A: Health Authority Contact Information

For more information on Northern Health, please visit www.northernhealth.ca, send an email to hello@northernhealth.ca or call 250-565-2649.

For information specific to this service plan or other Northern Health plans, please contact:

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Appendix B: Hyperlinks to Additional Information

- 1 BC Stats: Population Projections (PEOPLE 2016): Accessed February 2017. <http://www.bcstats.gov.bc.ca/>
- 2 Statistical Profile for Northern Health: 2009. BC Stats:
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices/Profiles.aspx>
- 3 *Health Authorities Act*. Chapter 180 (December 2009) http://www.qp.gov.bc.ca/statreg/stat/H/96180_01.htm
- 4 As at April 1, 2012 there are 525 acute care beds open and in operation
- 5 As at April 1, 2012 there are: 1,062 complex care beds and 35 respite care beds provided in the 23 noted facilities. Also allocated across northern British Columbia are 307 assisted living units
- 6 Simon Fraser Lodge operated by Buron Health Care; and complex care beds within Wrinch memorial Hospital Hazelton operated by United Church Health Services and affiliated with Northern Health.
- 7 Health Care in Canada: A Decade in Review. Canadian Institute for Health Information: 2009.
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- 8 Building on Values: the Future of Health Care in Canada. Final Report: Roy J. Romanow. November 2002.
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- 9 Rural Canada: Access to Health Care: Government of Canada, Economics Division 2002
<http://dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/BP/prb0245-e.htm>
- 10 Rural Health in Rural Hands: Strategic Directions for Rural, Remote, Northern and Aboriginal Communities. 2002.
<http://publications.gc.ca/site/eng/306146/publication.html>
- 11 What is Rural - Community Health Information Portal, Northern Health, 2012.
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- 12 Statistical Profile for Northern Health: 2009. BC Stats:
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- 13 Health Care in Canada: A Decade in Review. Canadian Institute for Health Information: 2009. (p. 64).
<https://secure.cihi.ca/estore/productFamily.htm?pf=PFC1380&lang=fr&media=0>
- 14 Aboriginal Health Services Plan: 2007 – 2010, Northern Health. July 2007. (p.12 – 22)
<https://indigenoushealthnh.ca/>
- 15 What is Rural - Community Health Information Portal, Northern Health : 2012.
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- 16 Rural Health in Rural Hands: Strategic Directions for Rural, Remote, Northern and Aboriginal Communities. 2002. (p.4)
<http://publications.gc.ca/site/eng/306146/publication.html>
- 17 Building on Values: the Future of Health Care in Canada. Final Report: Roy J. Romanow. November 2002. (p.117)
<http://publications.gc.ca/site/eng/237274/publication.html>
- 18 What is Rural - Community Health Information Portal, Northern Health, 2012.
<https://chip.northernhealth.ca/CommunityHealthInformationPortal/WhatDeterminesHealth/RuralLivingCircumstances.aspx>
- 19 Rural Health Services In BC: A Policy Framework To Provide A System Of Quality Care; BC MoH 2015
<http://www.health.gov.bc.ca/library/publications/year/2015/rural-health-policy-paper.pdf>
- 20 Regions and Resources: Foundation of British Columbia's Economic Base; BC Urban Futures Institute: 2004.
http://static1.squarespace.com/static/52012782e4b0707e7a30fda8/t/5240c1c2e4b0eb37f4220fd2/1379975618159/ufi_regions_resources.pdf

- 21 British Columbia Local Area Economic Dependencies. BC Stats, March 2009.
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/Economy/BCInputOutputModel.aspx>
- 22 BC Stats: Regional Socio-economic Profiles and Indices; 2011.
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices.aspx>
- 23 Regions and Resources: Foundation of British Columbia's Economic Base; BC Urban Futures Institute: 2004.
http://static1.squarespace.com/static/52012782e4b0707e7a30fda8/t/5240c1c2e4b0eb37f4220fd2/1379975618159/ufi_regions_resources.pdf
- 24 Understanding the State of Industrial Camps in Northern BC: Background Paper. Northern Health, 2012.
http://northernhealth.ca/Portals/0/About/NH_Reports/documents/2012%2010%2017_Ind_Camps_Backgrounder_PIVIComb.pdf
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- 26 Prince George Regional Hospital Role Review. Joint MOH-NIRHB Steering Committee, Final Report. January 25, 1998.
- 27 BC Health Atlas Second Edition. Section 2.1 Premature Mortality: UBC Center for Health Services Policy and Research: 2004
<http://www.chspr.ubc.ca/pubs/atlas/bc-health-atlas-second-edition>
- 28 BC Vital Statistics VISTA Data Warehouse. UCOD 358 All Causes of Death. Accessed February 28, 2017
- 29 The Crisis of Chronic Disease Among Aboriginal Peoples: CAHR; University of Victoria
<http://www.cahr.uvic.ca/docs/ChronicDisease%20Final.pdf>
- 30 Pathways to Health and Healing: 2nd report on the Health and Wellbeing of Aboriginal People in British Columbia. BC Provincial Health Officer's Annual Report 2007. <http://www.health.gov.bc.ca/pho/pdf/abohlth11-var7.pdf>
- 31 Discharge Abstract Database (DAD), Medical Service Plan (MSP) and BC Pharma-care data 2006/07.
- 32 Population Patterns of Chronic Health Conditions in Canada. Health Council of Canada.
<http://healthcouncilcanada.ca>
- 33 Why Health Care Renewal Matters: Lessons from Diabetes. Health Council of Canada.
<http://healthcouncilcanada.ca>
- 34 Primary Health Care Charter: a collaborative approach. British Columbia Ministry of Health: 2007.
http://www.health.gov.bc.ca/library/publications/year/2007/phc_charter.pdf
- 35 Healthy Pathways Forward: A Strategic Integrated Approach to Viral Hepatitis in BC. BC Ministry of Health: 2007.
<http://www.health.gov.bc.ca/library/publications/year/2007/healthypathwaysforward.pdf>
- 36 Public Health Agency of Canada: Chronic Disease Surveillance.
<http://www.phac-aspc.gc.ca/cd-mc/index-eng.php>
- 37 Healthy Pathways Forward: A Strategic Integrated Approach to Viral Hepatitis in BC. BC Ministry of Health: 2007.
<http://www.health.gov.bc.ca/library/publications/year/2007/healthypathwaysforward.pdf>
- 38 Primary Health Care Charter: a collaborative approach. British Columbia Ministry of Health: 2007.
http://www.health.gov.bc.ca/library/publications/year/2007/phc_charter.pdf