

**Northern
Health Authority**

**2017/18
ANNUAL SERVICE PLAN REPORT**



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Board Chair's Accountability Statement



On behalf of the [Board of Northern Health](#), I am pleased to present to you Northern Health's *Annual Service Plan Report* for 2017/18. The *2017/18 Northern Health Annual Service Plan Report* 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 service plan report and plans described herein are consistent with Government's strategic priorities and strategic plan and the Ministry of Health's goals, objectives and strategies. The Board is accountable for the contents of the plan.

The *Northern Health 2017/18 Annual Service Plan Report* compares the health authority's actual results to the expected results identified in the *2017/18 - 2019/20 Service Plan* as prepared under the Board's direction in accordance with the [Budget Transparency and Accountability Act](#).

On behalf of the Board,

A handwritten signature in black ink that reads "Colleen Nyce". The signature is written in a cursive, flowing style.

Colleen Nyce, Board Chair, Northern Health

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Chair/CEO Report Letter

Welcome to the *Northern Health 2017/18 Service Plan Annual Report*. This report is our opportunity to provide assurance that our plans and actions over the course of the past year are in the interest of the public and are clearly in line with government direction as outlined in the Northern Health Mandate Letter dated February 22, 2017. At the outset of each year the Minister of Health provides our Board with a set of strategic directions. Throughout this report you will see these directions reflected as we seek to: improve care for key populations; deliver on key priorities for high quality and appropriate health services; pursue innovative approaches to service delivery; and manage within our budget allocation.

The past year has been very exciting for Northern Health as we are seeing clear and encouraging progress toward the vision established in our [2016-2021 Strategic Plan](#). The Board continues to be impressed with the organization's ability to plan, implement and innovate on a variety of fronts. In the last year Northern Health demonstrated yet again, the ability of our staff and physicians to respond to emergency situations when they arise. The summer wildfire season was one of the worst in history in British Columbia, and Northern Health – actually much of northern British Columbia – was faced with the dual concerns of helping people from other regions/communities facing evacuation while dealing with “what if” scenarios as fires threatened their own communities. The Northern Health Board wishes to commend all staff and physicians involved in the province's wildfire response. The responsiveness, collaboration and innovation of our people continue to be a source of pride for the Board and leadership.

At the same time, Northern Health has continued to lead the way in transforming the primary and community care services to be more integrated and patient-focused. Forty-two primary and community care teams have been established in collaboration with physicians to realign the way services are provided overall and particularly for individuals with complex needs including those with Mental Health and Substance Use (MHSU) issues and for frail seniors. 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. 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. In 2017/18 Northern Health was able to expand MRI diagnostic services to the Northwest and Northeast Health Service Delivery Areas through the purchase and installation of MRI machines in Terrace and Fort St. John respectively. At the same time service upgrades were made possible in the Northern Interior with a new MRI in Prince George. Other diagnostics upgrades include: SPECT CT in Terrace and a Fluoroscopy unit in Prince Rupert. Also in 2017/18 a much-needed emergency generator replacement was undertaken in Quesnel and electrical upgrades are in progress at the University Hospital of Northern British Columbia (UHNBC). Northern Health continues to look to the future with our partners; continuing to develop Master Plans, Functional Plans, Concept Plans and Business Plans for major developments across the region. In 2017/18 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 (FNHA) 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 delivered on a balanced budget for 2017/18. 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 Board and Executive take our responsibilities under the [Budget Transparency and Accountability Act](#) seriously. All members of our Board have signed the government [Mandate Letter](#) which sets out expectations. These principles have become embedded in our policy structure, our new member orientation process and our regular governance processes. Our plans and actions relative to the six principles are provided in this Annual Report.



Colleen Nyce, Board Chair, Northern Health



Cathy Ulrich, CEO and President, Northern Health

Purpose of the Organization

Northern Health provides a full range of health care services to the 285,254¹ 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;
 - MHSU 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 of 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 be designed through shared care conversations with specialists and 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 FNHA 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 or Indigenous Health Improvement Committees.

A number of Regional services, including finance, human resources, information management, and information technology are based in Prince George. Northern Health has been an active partner in the province's B.C. Clinical and Support Services 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 – B.C. Governance and Disclosure Guidelines for Governing Boards of Public Sector Organizations*](#).

Strategic Direction and Operating Environment

The context for providing health services in British Columbia, and across northern British Columbia, is complex and ever-changing. Our ongoing strategic and operational plans must take 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 "[Rural Living Circumstances](#)" 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 Of particular concern is the recent loss of Greyhound bus services to rural communities in the Northwest. 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.^{15 16 17} 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.¹⁸ 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 a significantly resource based economy. It has and continues to generate much of this province's revenue and wealth.¹⁹ Despite this contribution, some of the least diversified and vulnerable local economies in the province are found in the North.²⁰

Other dimensions of our uniquely rural and resource based economy are reflected in the Socio-economic Indices (SEI) that are produced by B.C. 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.²¹

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.²²

Underlying this growth is a fluid or transient workforce, including both men and women, many of whom have permanent homes elsewhere in B.C. 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.²³

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 Indigenous 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 B.C. 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.^{24 25 26 27}

Indigenous Peoples and Communities

Northern British Columbia's landscape is home to the highest proportion of First Nations people of all the provincial health authorities in BC. Within northern BC, 18 per cent of the population identifies as First Nations. Within BC overall, over 35 per cent of the First Nations population live in the north. There are 54 First Nations, 9 Tribal Councils and 17 distinct linguistic groups. Eighty communities are continuously inhabited and range in size from less than a hundred to several thousand people. There are also 11 Métis Chartered Communities²⁸.

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. Northern Health is a signatory to the [Declaration of Commitment to Cultural Safety and Cultural Humility in BC Healthcare Services](#) (in 2015). Northern Health is also moving towards fully adopting and implementing the [United Nations Declaration on the Rights of Indigenous Peoples](#), the [Truth and Reconciliation Commission of Canada: Calls to Action](#), and the [Metis Nation Relationship Accord II](#).

On October 1, 2013, Health Canada's First Nations Inuit Health Branch B.C. Region transferred responsibility for health services in First Nations communities to the FNHA. The FNHA plans, designs, manages, and funds the delivery of First Nations health programs and services in B.C. 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 B.C. 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 (with the population age 75+ nearly tripling in the next 20 years), 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 B.C. 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, MHSU issues continue as endemic factors in northern rural communities. MHSU issues pose significant challenges for the health care system an example of this is the ongoing opioid overdose public health emergency. 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. MHSU 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 in the midst of implementing 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.

Report on Performance

The following performance report outlines the goals/strategies identified by Northern Health for 2017-2020 and provides commentary regarding our progress. Where measures were identified we provide an indication of our performance against targets and relevant explanation.

Northern Health continues to demonstrate cost consciousness through continuous efficiency improvement as evidenced by our track record for realizing balanced or surplus budget performance. Accountability is demonstrated through our rigorous attachment of responsibilities to actions and our use of 360-degree evaluations at the Board, CEO and now, Executive levels. Northern Health stringently follows compensation guidelines expressed by the Health Employers' Association of BC to ensure that appropriate compensation principles are followed. High quality services are planned and monitored throughout the organization by performance monitoring culminating with focused review at the Performance, Planning and Priorities Committee of the Board. Respect is expressed as one of four of Northern Health's values. In 2017/18 Northern Health began work through our Organizational Development department to better ensure that we are living our values. The value of respect is pre-eminent in our Team Based Care curriculum that is gaining widespread application across the organization. Finally, Northern Health has established and follows a variety of policies and processes to ensure and demonstrate integrity in all that we do. The Northern Health Board and Executive see their critical role in modeling integrity in our dealings with government, communities, partners, staff and physicians.

Goals, Strategies, Measures and Targets

Northern Health is responsible for providing health services based on government goals and directions. In 2018/19, the Ministry Service Plan goals changed. The Ministry of Health 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. We provide, below a report on our 2017/18 performance related to these key priorities.

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, however 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 for 2017/18 was 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

- 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 placed 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 involved extensive work to clarify primary care and specialty functions and roles. This work enabled Northern Health to begin to develop new, innovative service delivery models 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.
- Designed and implemented focused health promotion and prevention initiatives aligned with the Primary Care Home. In concert with the above transformational work Northern Health planned

and pursued public and population health activities in a focused, thoughtful manner. Priorities in 2017/18 were:

- System-oriented prevention and health promotion approaches focused on the inter-related targets of: increasing healthy eating and access to healthy food; increasing physical activity; and reducing the use of tobacco products
- Child health and healthy aging
- Environmental health monitoring including strengthened systems related to safety of food and drinking water.
- Strengthened 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.
- Continued to partner with First Nations communities and the First Nations Health Authority (FNHA) to implement the First Nations Health and Wellness Plan. Early partnered work supported the development of Mental Health and 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 promoted movement toward a health service environment that is safe, respectful and equitable.

Performance Measure 1: Healthy Communities.

Performance Measure	2011/12 Baseline	2017/18 Target	2017/18 Actual	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 and Health Promotion 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.

As demonstrated in this performance measure, Northern Health has had considerable success working in partnership with our communities toward healthy community planning and action as we have exceeded our original targets. The 63 per cent is, in fact, an underestimate of the number of communities engaged simply because some communities prefer to integrate health into their broader plans rather than developing a stand-alone healthy living strategic plan. Northern Health recognizes that there is variation among northern communities in the resources/infrastructure available to formalize community health plans.

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 continued in 2017/18 to implement changes to the community health service delivery model. These services are being transformed to ensure that they are 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. In 2017/18 the team numbers were increased to 42. IPTs consolidate care delivery from public health, home and community care and MHSU. This past year Northern Health continued to work in partnership with physicians/nurse practitioners to provide better, more integrated support for people with complex health needs.
- **Interprofessional Team Development:** The establishment of teams was just the first step toward the envisioned primary and community care model of service delivery. In 2017/18 team members and teams were 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 included: 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 also included Electronic Medical Record using the Community Medical Office Information System.
- **Service Alignment:** Support for planning and improvement for identified patients with complex health care needs including those experiencing MHSU, frail elderly, chronic disease, children and youth, and families expecting babies (perinatal population). Critical in this work was, and continues to 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 requires a methodical approach to clarifying functions, roles and relationships. Northern Health continued in 2017/18 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., MHSU, 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.

Performance Measure 2: Managing Chronic Disease in the Community.

Performance Measure	2013/14 Baseline	2017/18 Target	2017/18 Actual*	2018/19 Target	2019/20 Target
The number of people with a chronic disease admitted to hospital per 100,000 people, aged 75 years and over (age standardized).	4,119	4,558	4,773	4,449	4,341

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

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.

Northern Health continues to grapple with the challenges of aging population, poorer than average health status, stoic behaviours with respect to health problems and our limited ability to provide cost effective alternatives to hospital based care given our dispersed rural population. While recent years continue to see movement away from our target on this performance measure, we have now implemented IPTs in all of our communities and are now realigning support and specialty services to enable better care in the community environment. As IPTs begin to work in earnest in upcoming years we expect to see improvement in our ability to provide community based care for higher needs individuals.

Performance Measure 3: Community Mental Health Services.

Performance Measure	2012/13 Baseline	2017/18 Target	2017/18 Actual*	2018/19 Target	2019/20 Target
Percent of people admitted to hospital for mental illness and substance use who are readmitted within 30 days, aged 15 years and over.	13.1%	12.0%	11.6%	12.0%	12.0%

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

Discussion

In British Columbia, there is a focus on improving access to a range of services and supports in the community, including for persons with mental health and substance use issues. This performance measure focuses on one aspect of the effectiveness of community-based supports to help persons with mental health and substance use issues receive appropriate and accessible care, and avoid readmission to hospital. Other components include good discharge planning and maintaining the appropriate length of stay in a hospital. Central to these efforts is building a strong system of primary and community care which enhances capacity and provides evidence-based approaches to care.

Northern Health has established a focused quality improvement priority related to the transition in service for people with mental health and/or substance use problems from inpatient to community. In 2016/17 Northern Health demonstrated the province's lowest readmission rate and out-performed our target. We believe that this performance is a direct result of work done to improve linkages among acute and community service providers and to ensure that follow-up takes place in the community shortly after discharge. The 2018/19 and 2019/20 targets presented are those that were established in 2012/13. Northern Health has surpassed these targets and they will be reset in the upcoming year.

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

- Enhanced rehabilitative aspects of facility-based care. With an aging population and an increasing incidence of chronic disease, Northern Health needs 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. In 2017/18 Northern Health developed a care in the right place strategy which focuses on a widespread rehabilitative approach. Training and resource alignment began to strengthen this critical focus for the organization.

- Enhanced timely access to appropriate surgical care. Northern Health worked with our internal stakeholders and with the Ministry of Health and other Health Authorities to make significant progress toward optimization of surgical care. Northern Health met targets established earlier in the year toward improved wait time performance. Hip and knee replacement volume targets were exceeded and wait times improved. Dental surgery wait times improved to the point where nearly all surgeries were performed within 26 weeks. At the same time, Northern Health exceeded other surgery volume targets to ensure that wait times were stabilized across-the-board.
- Worked toward the 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:
 - Spread prototype models for rapid mobilization of home support as they have proven effective in early implementations
 - Examined innovative care models in each HSDA related to: dementia care, assisted living and supportive housing, Mental Health service provision, and convalescent care. Conducted a resource modeling process for seniors services including complex care, dementia alternative care, assisted living and home support services.
 - Sought innovative approaches to meeting provincial service enhancement commitments regarding addictions recovery and palliative care. Responded to the province's opioid crisis with integrated and innovative surveillance, risk minimization and addictions service delivery models.
 - Conducted 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	2017/18 Target	2017/18 Actual	2018/19 Target	2019/20 Target
Percent of scheduled surgeries completed within 26 weeks	93%	95%	89%	95%	95%

Data Source: Surgical Wait Time Production, Ministry of Health. Includes all elective adult and pediatric surgeries. Paediatric priority code VI cases are excluded from the numerator and denominator because the benchmark wait time is 52 weeks.

Notes:

1. Baseline is for surgeries completed from April 1, 2013 to March 31, 2014. Target percents 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.

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.

Though not yet at target Northern Health continues to demonstrate the province's best 26-week elective surgical access. Hip, knee and dental surgery targets were met in 2017/18 and plans are in place to continuously improve over upcoming years. Northern Health continues to face pressures related to surgical Health Human Resources that can challenge progress toward the system target of 95 per cent. Anesthesia, Surgical Nursing and Surgeon services have strengthened during 2017/18 but remain "fragile." Focused improvement plans were implemented in 2017/18 to address health human resources (HHR) issues and Northern Health has moved substantially back to required levels of staffing and surgical capacity. If improvements can be sustained, Northern Health will be in a good position to perform strongly on this indicator over the next year. Performance on this measure could be impacted in the future by the exposure to "hidden demand" – in health services it is often the case that as service capacity improves, demand increases commensurately.

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

- Established and executed strategies to achieve our HHR plan including ongoing work, planning and response to a review undertaken by the Office of the Auditor General regarding nurse recruitment and retention practices. Northern Health developed and continued implementation of a health human resource strategy that will meet the unique needs of the North. Generalist service models and grow-our-own strategies underpin the service delivery system with pathways to and from specialty services and specialists. Recruitment and retention of key physician and staff positions is critical to the plan. Northern Health continues to work in collaboration with the Ministry of Health on HHR planning and organizational change capacity planning.
- Leveraged technologies that enable safe and appropriate care closer to home. Northern Health has developed a strong telehealth strategy and we continue to implement improvements in both the clinical use of such service approaches and in the technology supporting them.
- Continued to refine our service distribution model to ensure a rural network of clinical services. 2017/18 saw considerable focus on transportation and service pathways in alignment with our service distribution model and that there are explicit pathways of patient care, networking and partnering across and beyond northern communities. In 2017/18 Northern Health continued to work with the Provincial Health Services Authority BC Emergency Health Services to improve patient transfers and patient transportation to and from higher levels of care.
- Collaborated with the University of Northern British Columbia to establish a regional node for the provincial Academic Health Sciences Network and Strategy for Patient Oriented Research 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

- Continued implementation of a strategy to enhance person and family-centered care. Focus in 2017/18 was on communication of the person and family-centred care vision, development of a strategic and planning infrastructure involving patients and families, incorporation of patient and family voices on a variety of Northern Health decision and advisory bodies including a number of Clinical Programs and piloting of a variety of initiatives including Terrace’s trial of the NOD (name, occupation, duty) strategy to enhance provider/patient communications. Northern Health continued 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).
- Prepared for and implemented a very successful survey of our facility-based services by Accreditation Canada. Accreditation Canada has established standards that are known to help build patient and family oriented, safe, and reliable health services. Northern Health prioritized these Required Operational Practices (ROPs) for implementation for the service planning period 2017-2020. 2017/18 involved considerable improvement and auditing processes to ensure movement toward fulfilment of all ROPs. The survey, conducted in early 2018/19 demonstrated substantial improvement in compliance with standards (94 per cent overall) and ROPs (50 per cent reduction from previous survey in outstanding ROPs).
- Continued progress toward strengthening the reliability of our medication systems to reduce harm related to medication errors. Northern Health made substantial progress toward regional spread of a rigorous, comprehensive medication reconciliation system.
- Supported the continuous professional development of Northern Health staff and physicians. Evidence indicates that curious, continuously learning staff/health professionals are more engaged, more service oriented, and provide safer care. Northern Health worked in 2017/18 to 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.
- Made improvements across the region to help 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 included:

- Mental Health and 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 Northern Health 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 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 supported 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.
- Implemented violence prevention training and response strategies. 2015/16 saw the initiation of a regional focus on workplace violence that continued and intensified in 2017/18 – 2020. The objective of training and response programming is to reduce the risk of incidents and harm related to workplace violence.
- In collaboration with the Ministry and provincial partners, Northern Health strengthened the overall capacity for HHR planning and continued 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	2017 Target	2017 Actual	2018 Target	2019 Target
Nursing overtime hours as a percent of productive nursing hours	4.9%	<=4.0%	7.2%	<=4.0%	<=4.0%

Data Source: Health Sector Compensation Information System, Health Employers Association of British Columbia.

Note: Based on calendar year.

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.

Unfortunately a number of communities in northern British Columbia have faced significant shortages of HHR – particularly in specialty areas such as surgical services, emergency department, intensive care and rehabilitative services. At the same time, some sites including UHNBC have seen a dramatic increase in the use of hospital services as evidenced by lengthening stays and backup in the Emergency Department. In the short term Northern Health has addressed these pressures through use of overtime. The organization is committed, however, to take longer term action to address these pressures in a more sustainable way. In 2015/16 Northern Health welcomed a recent provincial initiative to enhance full time employment for nurses. Processes are now in place to ensure appropriate utilization of these positions, this initiative should lead to greater capacity to deal with utilization surges and should help us to reduce unsustainably high overtime rates. In 2017/18 Northern Health initiated other HHR strategies including the development of a nurse staff pool to enable flexible response to address short-term staffing pressures. Northern Health continues to grapple with serious staff shortages in many areas in the Northeast Health Service Delivery Area. Northern/rural factors and industry/economic variability combine in the Northeast to create a very challenging HHR environment.

Financial Report

The Northern Health Board and staff continue to practice good stewardship and financial due-diligence. In 2017/18 Northern Health ended the fiscal year with a small surplus of \$3.4 million.

Financial Resource Summary Table

\$ millions	2017/18 Budget	2017/18 Actual	2017/18 Variance
OPERATING SUMMARY			
Provincial Government Sources	760.1	766.8	6.7
Non-Provincial Government Sources	73.0	76.2	3.2
Total Revenue:	833.1	843.0	9.9
Acute Care	449.2	463.3	(14.1)
Residential Care	111.3	114.2	(2.9)
Community Care	128.0	120.4	7.6
Mental Health & Substance Use	46.2	44.0	2.2
Population Health & Wellness	28.5	27.3	1.2
Corporate	69.9	66.0	3.9
Cariboo Wildfires	0.0	4.4	(4.4)
Total Expenditures:	833.1	839.6	(6.5)
Surplus (Deficit) – <i>even if zero</i>	0.0	3.4	3.4
CAPITAL SUMMARY			
Funded by Provincial Government	9.9	14.3	(4.4)
Funded by Foundations, Regional Hospital Districts, and other Non-Government Sources	41.2	15.5	25.7
Total Capital Spending:	51.1	29.9	21.2

Major Capital Projects

The following table provides an update on the status of all Northern Health capital projects with a budgeted cost of \$50 million or greater.

Major Capital Projects (over \$20 million)	Targeted Completion Date (Year)	Project Cost to March 31, 2018 (\$ millions)	Estimated Cost to Complete (\$ millions)	Approved Anticipated Total Capital Cost of Project (\$ millions)
Haida Gwaii Hospital and Health Centre – Xaayda Gwaay Ngaaysdll Naay	2017	48.1	1.9	50.0
<p>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 on 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.</p> <p>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>				

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 B.C. Stats: Sub Population Population Projections P.E.O.P.L.E. 2017): <https://www.bcstats.gov.bc.ca/apps/PopulationProjections.aspx>
- 2 Statistical Profile for Northern Health: 2009. B.C. Stats:
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices/Profiles.aspx>
- 3 *Health Authorities Act*. Chapter 180 http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96180_01
- 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.
<https://secure.cihi.ca/estore/productFamily.htm?pf=PFC1380&lang=fr&media=0>
- 8 Building on Values: the Future of Health Care in Canada. Final Report: Roy J. Romanow. November 2002.
<http://publications.gc.ca/site/eng/237274/publication.html>
- 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.
<https://chip.northernhealth.ca/CommunityHealthInformationPortal/WhatDeterminesHealth/RuralLivingCircumstances.aspx>
- 12 Statistical Profile for Northern Health: 2009. B.C. Stats:
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices/Profiles.aspx>
- 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 What is Rural - Community Health Information Portal, Northern Health : 2012.
<https://chip.northernhealth.ca/CommunityHealthInformationPortal/WhatDeterminesHealth/RuralLivingCircumstances.aspx>
- 15 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>
- 16 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>
- 17 What is Rural - Community Health Information Portal, Northern Health, 2012.
<https://chip.northernhealth.ca/CommunityHealthInformationPortal/WhatDeterminesHealth/RuralLivingCircumstances.aspx>
- 18 Rural Health Services In B.C: A Policy Framework To Provide A System Of Quality Care; B.C. MoH 2015
<http://www.health.gov.bc.ca/library/publications/year/2015/rural-health-policy-paper.pdf>
- 19 Regions and Resources: Foundation of British Columbia's Economic Base; B.C. Urban Futures Institute: 2005.
http://static1.squarespace.com/static/52012782e4b0707e7a30fda8/t/5240c1c2e4b0eb37f4220fd2/1379975618159/ufi_regions_resources.pdf
- 20 British Columbia Local Area Economic Dependencies. B.C. Stats, March 2009.
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/Economy/BCInputOutputModel.aspx>
- 21 B.C. Stats: Regional Socio-economic Profiles and Indices; 2011.
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices.aspx>
- 22 Regions and Resources: Foundation of British Columbia's Economic Base; B.C. Urban Futures Institute: 2004.
http://static1.squarespace.com/static/52012782e4b0707e7a30fda8/t/5240c1c2e4b0eb37f4220fd2/1379975618159/ufi_regions_resources.pdf
- 23 Understanding the State of Industrial Camps in Northern B.C: Background Paper. Northern Health, 2012.
https://www.northernhealth.ca/sites/northern_health/files/about-us/leadership/documents/industrial-camps-bkgrd-p1v1.pdf
- 24 Birch S, Chambers S: To Each According to Need: A Community-Based Approach to Allocating Health Care Resources. Canadian Medical Association Journal 1993; 149(5): p .609.

- 25 Prince George Regional Hospital Role Review. Joint MOH-NIRHB Steering Committee, Final Report. January 25, 1998.
- 26 B.C. Health Atlas Second Edition. Section 2.1 Premature Mortality: UBC Center for Health Services Policy and Research: 2004
<https://open.library.ubc.ca/cIRcle/collections/facultyresearchandpublications/52383/items/1.0048358>
- 27 B.C. Vital Statistics VISTA Data Warehouse. UCOD 358 All Causes of Death. Accessed February 28, 2017
- 28 Fact Sheet: https://indigenoushealthnh.ca/sites/default/files/2017-01/Fact%20Sheet%20-%20Governance_web.pdf
- 29 The Crisis of Chronic Disease Among Aboriginal Peoples: CAHR; University of Victoria
<https://dspace.library.uvic.ca/bitstream/handle/1828/5380/Chronic-Disease-2009.pdf?sequence=1>
- 30 Pathways to Health and Healing: 2nd report on the Health and Wellbeing of Aboriginal People in British Columbia. B.C. Provincial Health Officer's Annual Report 2007. <http://www.health.gov.bc.ca/pho/pdf/aboh1h11-var7.pdf>
- 31 Discharge Abstract Database (DAD), Medical Service Plan (MSP) and B.C. Pharma-care data 2006/07.
- 32 Population Patterns of Chronic Health Conditions in Canada. Health Council of Canada.
<https://healthcouncilcanada.ca/files/2.23-Outcomes2PopulationPatternsFINAL.pdf>
- 33 Why Health Care Renewal Matters: Lessons from Diabetes. Health Council of Canada.
https://healthcouncilcanada.ca/files/2.24-HCC_DiabetesRpt.pdf
- 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 B.C. B.C. Ministry of Health: 2007.
<http://www.health.gov.bc.ca/library/publications/year/2007/healthpathwaysforward.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 B.C. B.C. Ministry of Health: 2007.
<http://www.health.gov.bc.ca/library/publications/year/2007/healthpathwaysforward.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