Introduction
Northern Health provides a full range of health care services for the approximately 287,729 residents of northern British Columbia. This includes acute care services available in hospital, residential care services and a range of community services and family supports focused on prevention, health protection, chronic disease management and supporting seniors to stay healthy and at home.

Responding to an Aging Population
The seniors’ population (age 65 or older) in northern BC is proportionally growing more rapidly in comparison to the rest of the province. This growth is expected to continue at an accelerated pace over the next 15 years (see Table A in Appendix C). The increasing number of older adults in northern B.C. can be attributed to two different processes: more youth moving away from the north and older adults choosing to remain in the north as they age instead of retiring elsewhere. This is a relatively recent phenomenon for northern B.C., a region that has historically been characterized by a younger population. For rural and remote areas, this has profound implications for the delivery of health services.

To best support older adults within Northern Health’s resources, there will be a focus on health promotion, prevention, and community support for healthy aging in order to reduce premature and unnecessary acute care visits, as well as inappropriate and premature admissions to facility based care.

Developing a Healthy Aging in the North: Action Plan
The Healthy Aging in the North: Action Plan provides a framework for the delivery of seniors’ health services in northern BC spanning the next 5 years. It is a broad framework intended to be flexible and responsive to a particular community’s context, needs, health services, and other related resources.

In 2013, Northern Health engaged in extensive consultations with seniors and seniors’ groups throughout northern communities. During these consultations, Northern Health gleaned insights into what healthy aging and wellness mean to seniors in the north, what is working for them in terms of meeting their health needs, as well as what could be improved upon. The Healthy Aging in the North: Action Plan is designed to “take the lead” from the results of these conversations and put them into action.
This action plan was presented to other key community stakeholders and Northern Health decision-makers. Input and feedback from these consultations is integrated into the final action plan. Consultations were held with:

- Regional Hospital Districts
- Northern Health Medical Directors
- The Northern Health Medical Advisory Committee
- The First Nations Health Authority
- The North Peace Division of Family Practice
- The Prince George Division of Family Practice
- Community Groups (e.g. Smithers Health Committee)
- Northern Health Staff

**Elements of the Action Plan**

The action plan is embedded within the context of Northern Health’s Idealized System of Services (Appendix B). The principal aim is to assist seniors to live well, retain their independence, and where possible, to avoid or minimize the duration of hospital stays. Ultimately, the goal is to support seniors to continue to be active and vibrant in their communities and to age healthily and gracefully at home. If hospital or facility care is required, the action plan guides the best quality experience possible for the elderly.

The Healthy Aging in the North: Action Plan is underpinned by care planning processes that are constructed in the Primary Care Home in collaboration with the person and their family. Of significant importance is a focus on anticipating the wishes and needs of seniors well before a health crisis. Finally, this action plan contemplates dementia care and a palliative approach to care for individuals with chronic disease(s) or other life limiting conditions as being integral to this five year plan. For clarity, and to enable a depth of focus, both dementia and palliative care plans will be developed separately but will be closely related to the senior action plan.

The following principles guide the action plan:

- A Population Health Approach
- Supporting Community and Family Capacity
- Primary Care Homes and Integrated Services
- Person and Family Centered Care
- Care in the Right Place
- A Rehabilitative Approach in Northern Health Care Settings
- Recognizing Diversity and Choice

**Defining Population Health**

“A population health approach aims to elevate the health of the entire population and to reduce health inequities among population groups. It simply means that we look at the health of groups of people rather than at the health of one person at a time.”

(Northern Health, Population Health)
This action plan is divided into three focus areas that encompass the pathway of support and care as seniors’ transition through the stages from healthy, active aging to end of life. The services provided through the Primary Care Home including advance care planning play the most critical role in supporting smooth transitions within the system as health needs change, and to facilitate crisis prevention.

The focus areas that guide this work are:

1. Healthy Aging in Community
2. Frail Seniors Living in Community
3. Quality of Life in Facility-Based Care
Focus Area 1: Supporting Healthy Aging in Community

Over 90% of older Canadians live independently in the community and wish to remain there\(^5\). This is certainly reflective of what Northern Health heard throughout the 2013 Seniors’ Consultation\(^6\). Therefore, the first focus of this action plan is to engage and work with communities and volunteer agencies to promote and establish age-friendly communities.

Age-friendly communities are characterized by appropriate, accessible and affordable transportation, housing and support services. Seniors are able to take part in inter-generational, religious, social and recreational events of importance to them. A supportive community fosters lifelong learning and allows seniors meaningful opportunity to be involved in community life. By acting as a resource, Northern Health can assist communities in recognizing barriers for seniors and developing strategies to address them.

Target Population

The target population for supports and services at this stage of aging are seniors who can manage at home on their own with little or no assistance. They are\(^7\):

- Physically active/mobile
- Generally well with no active disease or who may have treated, stable comorbid disease(s).

Key Elements

Community focused elements include:

- Affordable, accessible transportation and housing options
- Housing with appropriate adaptations to meet changing needs
- Partnering with volunteer and not for profit organizations (e.g. Better Care At Home)
- Providing a variety of opportunities to stay active and involved in community life
- Health promotion including education and advanced care planning

Northern Health focused elements include:

- Acting as a resource to communities for ideas on leveraging resources, health promotion and partnerships with available community supports across the region (e.g. Tobacco Reduction Program, providing grant money for health initiatives, partnering with organizations such as the Red Cross and United Way)
- Providing communities with health information and Northern Health’s influence (voice) to assist their efforts to advocate for investment in community resources and services for seniors
- Communicating with seniors and their families in a variety of ways to ensure they are aware of services and how to access them.
- Recognizing the transitioning needs of seniors and ensuring timely access to primary care

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Focus Area 2: Supporting Frail Seniors Living in Community

Pressure on the acute care system coupled with seniors’ desire to stay in their homes requires Northern Health to re-imagine supports for seniors across the health continuum with an emphasis on strengthening community based services and supports for seniors’ and their families to prevent or delay the need for higher levels of care.

Target Population

Seniors experiencing frailty are vulnerable and have complex needs involving both community-based services and service provided by Northern Health. This strategic area of focus addresses the needs of seniors who are:

- Experiencing increased burden of symptoms
- Medically complex and highly vulnerable to adverse health outcomes
- Require assistance in order remain at home

The goal is to enable seniors with early signs of increasing frailty, to maintain relative independence and prevent or delay functional decline. The emphasis is on the provision of person and family-centered primary care and supports that are timely, accessible, coordinated, and delivered through the efforts of our physicians, nurse practitioners and the other members of the inter-professional team. Recognition, support and prevention of burnout of caregivers are essential to this focus area as is providing flexible supports and respite care with a rehabilitative focus.

Key Elements

Key elements of the action plan for frail seniors living in the community include:

- Providing support for chronic disease management, advanced care planning, and establishing strong relationships through the Primary Care Home in advance of medical crises
- Developing the care plan with the senior and the family
- Using the Electronic Medical Record to enable care planning and service pathways, including timely and seamless transitions to and from specialised services
- Rapid and flexible information sharing/communication amongst all members of the Interprofessional Team
- Geriatric focused education for all members of the Interprofessional team
- Assessment and early recognition of frailty risk factors and focus on preserving or improving function
- Rapid, flexible mobilization of resources (including the Interprofessional Team; Home and Community Care, volunteer organizations)
- Seamless transitions to specialized community supports and/or age-friendly, rehabilitative care in hospital when hospitalization is required.
- Recognition and support of caregiver’s needs including provision of respite and convalescent care (in home and in facility as appropriate).

“Frailty develops as a consequence of age related decline in multiple body systems, which results in vulnerability to sudden health status changes triggered by minor stress or events such as infection or a fall at home. People with frailty have a substantially increased risk of falls, disability, long-term care and death.”

(NHS England, 2014)
Focus Area 3: Quality of Life in Residential Care
At some point, despite best efforts, a certain percentage of seniors will need to be cared for in a residential care or alternative housing environment. It is important that Northern Health project the need for residential care and alternative housing into the future in order to plan services for this percentage of people in northern BC (Table E Appendix C). Focusing on care in the right place means having housing and facility options that prevent inappropriate admissions to hospital and long term care facilities and ensuring these options are flexible enough to meet the variable care needs of seniors as they age.

Target Population
Residential care options are designed for seniors who have significant health and mobility restrictions/challenges such that they are no longer able to manage in their own homes, even with support. This may include:

- Those with extensive functional deficits and complex needs who require 24 hour nursing care
- Seniors who require a supportive, supervised living arrangement but are physically well (e.g. seniors living with dementia, mental health and addictions, etc.)
- Seniors who are cognitively intact but have extensive physical deficits (e.g. seniors living with Parkinson’s or ALS (Amyotrophic Lateral Sclerosis -Lou Gehrig’s Disease)
- Seniors who are no longer able to stay at home but can maintain relative independence in an assisted living type arrangement.

Key Elements
The focus at this stage is on improving and/or maintaining health and optimizing residents’ quality of life in residential care. Key aspects include:

- Increased options for facility-based care (e.g. seniors living in special supervised care homes, assisted living, residential care).
- Education for nurses and other staff to ensure care is delivered in ways that promote respectful and gentle interactions and provide positive outcomes for the senior
- Living environments that are tailored to the needs of people with dementia who are otherwise physically well.
- Culturally safe care for Elders
- Medication reviews and a falls prevention program
- Education capacity for staff to care for people with special considerations (for example - mental health and addictions, developmental disabilities, Huntington’s disease)
- End of life care that respects the wishes of the person and their family.

The Residential Care Initiative through the General Practices Services Committee supports physicians to provide ‘best practice’ care for people living in residential care environments. An incentive fee is available to enable, among other things, call availability to the care home, meaningful medical reviews and other supportive medical care. The incentive funding is available through divisions of family practice (or where no division exists, a self-organized group of General Practitioners).
Healthy Aging in the North: Action Plan: Areas of Special Consideration

Acute Care

Although this action plan describes a continuum of care that appears linear and progressive towards admission to residential care, this is not the case. The continuum simplifies a dynamic set of circumstances that affect how care strategies are deployed to address what is often a changing set of health issues and needs. For example, while not desirable, older adults will likely require admission to hospital to address acute health care issues. The admission of a senior to hospital should trigger an immediate, coordinated intervention with a rehabilitative focus, and attention to appropriate discharge planning with necessary community supports in place. This is particularly important when supporting seniors living with frailty. The care seniors receive in an acute care facility has a significant impact on the trajectory of their recovery and how long they will be able to remain in their homes after the acute care visit. The goal is to facilitate a return home for a senior as rapidly possible, with appropriate supports in place to restore function to the previous baseline where possible and to minimize decline as a result of the adverse health event that precipitated the hospital admission.

Improvements to current hospital based care practices and approaches to care in community will need to occur in order to achieve the above. Staff competency in geriatric friendly approaches to care provision is critical for seniors’ recovery. Senior Friendly Hospitals including targeted education in gerontology and a rehabilitative approach are essential for the senior population to be provided the highest quality care. As well, improved awareness and communication of care plans between Primary Care Homes and acute care is important.

System Level Outcomes

This Healthy Aging in the North: Action Plan is designed to improve services for the seniors population but also to impact system level outcomes, including:

- reduction in emergency room visits,
- Reduction in length of stay in acute care
- Reduction in waitlist times for residential care beds (see Table D in Appendix C)
- Reduction in Alternate Level of Care (ALC) inpatient days in acute care settings. (Inpatient days are considered ALC if the patient no longer requires acute care and is waiting to be discharged and/ or placed in other types of care, e.g., residential care, mental health facilities, assisted living).

On average, 22 percent of all Northern Health inpatient days are considered ALC, which accounts for 39,120 inpatient days (Table C in Appendix C). ALC is a very complex issue and a substantial number of ALC patients are comprised of individuals awaiting residential care placement, alternate housing solutions, further rehabilitation and those requiring palliative and sub-acute/ convalescent levels of care.
Aboriginal Health and Caring for Other Cultures
Canada’s population is not only aging but it is also culturally diverse. Culture is a determinant of health influencing perceptions of health and illness, health practices, behaviours and decisions to seek health care.

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

Northern Health continues to work with the First Nations Health Authority, Aboriginal people and communities on approaches that better address their health needs and to provide services in a culturally safe manner. During the census in 2006, approximately 48,050 persons identified themselves as being Aboriginal: either status First Nations; Metis; or Inuit. Aboriginal people represent approximately 17% of the northern BC population: the highest of all British Columbia Health regions. Northern Health is working alongside the First Nations Health Authority to understand what supports and resources exist in the First Nations communities that will allow aging in place and to facilitate supported and smooth transitions from hospital back to their communities.

In 2001, visible minorities made up 12.3 percent and immigrants made up 36 percent of the total senior population in BC. In northern British Columbia there are approximately 12,660 visible minorities or about 4.6 percent of the North’s population.

Seniors services needs to be culturally safe with respect for all cultural diversity. Services will enable maximum family and patient participation and involvement in all care settings and will adopt philosophies of care that honor and promote cultural safety. Age related programs and policies will recognize that the seniors’ population is not a homogenous group.

Dementia Care
Dementia is a condition where cognitive ability declines in a manner beyond that associated with normal aging. Individuals with dementia often need a variety of supports to keep them safe and also to prevent burnout of their caregiver(s). Wandering and agitation are challenging behaviors that can be associated with various stages of dementia and require special attention. Dementia care is a special area of focus within the broader action plan as some seniors are physically well despite having dementia and require different approaches to care and support to optimize safety and quality of life. The focus of Northern Health’s

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8 The Crisis of Chronic Disease Among Aboriginal Peoples: CAHR; University of Victoria
http://www.cahr.uvic.ca/docs/ChronicDisease%20Final.pdf


Dementia Care will be to increase the individual’s, community’s and health service’s capacity to provide early, appropriate and effective care and support to assist people with dementia to remain at home and in their communities to the greatest extent possible. Education for the public and health care staff is the cornerstone of dementia care including early recognition and available supports. Northern Health will concentrate efforts on education through evidence based programs and initiatives (Appendix F). The other key focus will be on educating and supporting caregivers through a variety of means (home support, respite, education etc.). A companion document is being developed to guide Northern Health’s approach to Dementia Care.

Palliative and End of Life Care in the North

The Northern Health Hospice Palliative Care Action Plan provides the framework for all services in the region offering palliative care. This is to ensure standardized evidence-informed guidelines are followed when providing palliative care services in any setting (community, acute and residential care). The Northern Health Palliative Care Program is a regional consultative service delivered by family physicians and other health professionals with palliative care expertise. The Palliative Care Program supports and mentors primary care providers in communities across the health authority.

Northern Health has developed a five year Palliative Care Action Plan which is guided by:

- A Population Health Approach
- A Person and Family Centered approach,
- Palliative Care in the location of the patient/family’s choosing
- Service delivery within a rural and remote context
- Within the context of Primary Care Homes, supported by Interprofessional Teams, a Palliative Approach to Care (care in the right place, at the right time and by the right provider when a person is diagnosed with a condition that will ultimately end their life)

The Palliative Care Action Plan goals are to:

- Improve access to hospice palliative care
- Standardize the quality of hospice palliative care
- Promote the integration and coordination of care throughout Northern Health.

Interventions will focus on:

- Provision of palliative care information, education, tool and resources
- Supporting quality palliative care in communities
- Strengthen health system accountability and efficiency and
- Designating palliative care beds.
Summary
Healthy Aging in the North: Action Plan outlines three areas of focus designed to support the health needs of an aging population in northern BC. The action plan is meant to provide a guiding framework that is flexible and responsive to the specific context of communities throughout the region. The specific role for Northern Health and related priority actions and commitments over the next 5 years are outlined in Appendix A. Northern Health’s Elder Program will develop goals informed by these priorities. For example:
- Resources will be provided to every community for advanced care planning
- An ‘early identification frail elderly tool’ will be provided to Primary Care Homes with 100% of Primary Care homes using the identified tool
- Quality of life surveys will be performed at every residential care facility in northern British Columbia. Goals will be established to improve quality of life in residential care.

Alignment with Other Initiatives & Guidelines
Northern Health is not working in isolation to address the changing needs of an aging population. This 5-year action plan is informed by and aligns with other local, provincial and federal senior and age-friendly initiatives and guidelines. Specific details with respect to these key initiatives and guidelines will be outlined in a forthcoming operational plan and include:
- Government of Canada Guide for Age-Friendly Rural and Remote Communities
- Office of the Seniors’ Advocate Report
- Northern Health Position Statements: Healthy Aging & Healthy Communities
- Provincial Dementia Strategy Refresh Advisory Committee
- Collaborative anti-psychotic medication reduction project (residential care)

Next Steps
Following the endorsement of this action, a summary will be developed for distribution to Northern Health communities, residents and our partners in service delivery. A more detailed operational plan will follow, along with sub-strategies addressing aspects of palliative and dementia care.
Appendices

Appendix A: The Role of Northern Health & Priority Actions in Development - Priorities to be determined through consultation with HSDA Operational Leaders.

<table>
<thead>
<tr>
<th>The Role of Northern Health</th>
<th>Priority Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Priority #1:</strong> Supporting Healthy Aging in Community</td>
<td><strong>Year 1</strong></td>
</tr>
<tr>
<td>Work with communities to create and partner with age-friendly initiatives</td>
<td>* provide data to communities (both community groups and municipalities) to support and advocate in designing and promoting community efforts to plan and invest in age friendly initiatives (i.e. transportation, housing, exercise programs). (Appendix E). *will lend Northern Health influence and voice to help build age friendly initiatives and infrastructure</td>
</tr>
</tbody>
</table>

| **Advanced Care Planning** | | | |
| | *participate in provincial work around advanced care planning (this will include evaluation of ‘My Voice’ Document’, testing ‘Speak Up BC’ resource, inventory of advanced care planning tools and resources) | *pilot protocols for Advanced Care Planning *evaluation of pilot *implement and educate health care staff on Advanced Care Planning resources *promote Advanced Care Planning to the public (including a calendar of public awareness and education activities for the communities) | *monitor the progress and uptake of advanced care planning documents and re-evaluate activities if necessary *continue promotion of advanced care planning |

| **Priority #2:** Frail Seniors Living in Community | **Year 1** | **Year 1-3** | **Year 3-5** |
| Promote and implement care plans and implement a Frail Elder care pathway. | *engage primary care providers around standardize care planning for frail elderly, include person and family in this process * improve the gerontology knowledge base of all care providers through education opportunities such as Gentle Persuasive Approach Training and the Gerontology Certification | *Set the standard for care plans for frail elderly and support the implementation and sustainment with primary care homes and interprofessional teams | *review care planning including % of seniors with care plan in hospital, community and residential care. Review to inform next steps |

| **Falls Prevention** | | | |
| | *review best practices and incorporate any new best practices into existing policy and | *monitor falls incidents in acute care, residential care and community *continue to provide | *promote falls prevention activities that will decrease the number of falls |
### Guidelines

- Review current acute care falls prevention strategy and identify any gaps in the strategy and make appropriate adjustments to strategy (including education to accompany changes).
- Create and implement community and residential care falls prevention strategy.
- Adopt and implement a screening tool for early identification of frail elderly.

### Support to Help Sustain Falls Prevention as a Practice Change

- Include education and review of resources.
- Falls Prevention Public Campaign to the public including a falls prevention exercise program.
- Support communities to implement Strategies and Actions for Independent Living (SAIL) programs (falls prevention program focused on staying active).

### Continuous Review of the Falls Prevention Strategy

- Further inform next steps (i.e., identifying hospitals, communities or residential care sites with high number of falls and provide support to decrease number of falls through education and activities).

### Review Home Support

- Review best practices.
- Perform environmental scan (including reviewing current policies and current practice).
- Review human resource impact.

### Development and Recruitment of a Dementia and Geriatric Lead

### Priority #3: Support Quality of Life in Facility-Based Care

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 1-3</th>
<th>Year 3-5</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Promotion of General Practice Services Committee (GPSC) Residential Care Initiative to provide more physician support in residential care</em></td>
<td><em>Northern Health to enter into Memorandum of Understanding with Divisions of Family Practice for GPSC Residential Care services</em></td>
<td><em>Respond to areas of concern identified in survey results.</em></td>
</tr>
<tr>
<td><em>Education opportunities for physicians and health care staff to promote quality residential care</em></td>
<td><em>Quality of Life Surveys administered in all NH owned Residential Care Facilities</em></td>
<td><em>Re-survey and measure improvement in quality care every eighteen to twenty four months.</em></td>
</tr>
</tbody>
</table>

### Determine the Projected Future Needs for Facility-Based Care in Northern Health

- Review residential care bed modeling scenarios including application of Residential Assessment.
- Investigate and identify opportunities and barriers for options for alternate facilities and services.
- Trial a group home for people with dementia that are able to perform their activities independently.
<table>
<thead>
<tr>
<th>Instrument (RAI) data to ensure only persons who meet residential criteria are in residential care. When residential care is identified as not appropriate will work with residents and families to return the resident to a more appropriate level of care (assisted living, group home, own home with supports).</th>
<th>levels of care (i.e. group homes for people living with dementia, development of Dementia Cottages)</th>
<th>activities of daily living but need supervision for safety reasons (wandering, forgetting to turn off the stove etc.)</th>
</tr>
</thead>
</table>
| Risk Aversion | *Identify staff, resident and family perception of risk in facility care  
*Develop a working group to identify best practices that will ensure a balance between quality of life and risk | *Implementation of guidelines of risk across facilities  
*Monitor number of safety incidents residents are involved in due to perceived risky behaviors (i.e. falls occurring when residents are walking in the outdoor spaces) | *Evaluation of guidelines impact on facility care and quality of life  
*Review number of safety issues and update guidelines where appropriate |
Appendix B: Idealized Northern Health System of Services
Appendix C: Background Information and Tables

Responding to an Aging Population

Table A: Northern Health Population Projection 2010-2030

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>75,268</td>
<td>71,885</td>
<td>71,342</td>
<td>71,101</td>
<td>70,041</td>
<td>-1,844, -2.6</td>
</tr>
<tr>
<td>20-44</td>
<td>97,586</td>
<td>100,448</td>
<td>101,010</td>
<td>100,879</td>
<td>100,990</td>
<td>542, 0.5</td>
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<tr>
<td>45-64</td>
<td>83,861</td>
<td>85,850</td>
<td>83,683</td>
<td>78,959</td>
<td>76,528</td>
<td>-9,322, -10.9</td>
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<tr>
<td>65+</td>
<td>31,968</td>
<td>40,646</td>
<td>51,604</td>
<td>62,982</td>
<td>72,454</td>
<td>31,808, 78.3</td>
</tr>
<tr>
<td>Total Population</td>
<td>288,683</td>
<td>298,829</td>
<td>307,639</td>
<td>313,921</td>
<td>320,013</td>
<td>21,184, 7.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Focus on Seniors</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>Population Change 2015-2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>65+</td>
<td>31,968</td>
<td>40,646</td>
<td>51,604</td>
<td>62,982</td>
<td>72,454</td>
<td>31,808, 78.3</td>
</tr>
<tr>
<td>75+</td>
<td>12,577</td>
<td>15,419</td>
<td>19,670</td>
<td>25,543</td>
<td>32,470</td>
<td>17,051, 110.6</td>
</tr>
<tr>
<td>85+</td>
<td>3,035</td>
<td>4,333</td>
<td>5,840</td>
<td>7,010</td>
<td>8,923</td>
<td>4,590, 105.9</td>
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<tr>
<td>90+</td>
<td>1,034</td>
<td>1,630</td>
<td>2,417</td>
<td>3,120</td>
<td>3,650</td>
<td>2,020, 123.9</td>
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</tbody>
</table>

BC Stats: Population Projections: PEOPLE 2013: Published August 2013

Pressure on Inpatient Beds

The following table (Table B) provides Northern Health’s current staffed and in operation acute bed complement contrasted with beds required to meet current needs and those projected over the next 15 years (2025). The projection assumes occupancy rates no greater than 95 per cent and 90 per cent.

Table B: Northern Health Acute Care Bed Needs

<table>
<thead>
<tr>
<th>HSDA</th>
<th>Current 2012</th>
<th>Modeled 2012</th>
<th>Modeled 2017</th>
<th>Modeled 2022</th>
<th>Modeled 2027</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beds</td>
<td>Occupancy</td>
<td>Beds</td>
<td>Occupancy</td>
<td>Variance from 2012</td>
</tr>
<tr>
<td>Northeast</td>
<td>108</td>
<td>86.9%</td>
<td>105</td>
<td>88.9%</td>
<td>-3</td>
</tr>
<tr>
<td>Northern Interior</td>
<td>273</td>
<td>99.6%</td>
<td>316</td>
<td>93.1%</td>
<td>-43</td>
</tr>
<tr>
<td>Northwest</td>
<td>124</td>
<td>94.6%</td>
<td>121</td>
<td>88.1%</td>
<td>-3</td>
</tr>
<tr>
<td>Northern Health</td>
<td>505</td>
<td>95.6%</td>
<td>546</td>
<td>91.2%</td>
<td>-41</td>
</tr>
</tbody>
</table>

To meet targeted occupancy rates, Northern Health would need an additional 41 acute beds. As the population ages, this pressure increases significantly - to the point where an additional 299 beds would be needed by 2027. Clearly, the aging of the population (near doubling of the 65+ and 75+ subpopulations in the next ten years) will exert a dramatic pressure on Northern Health’s acute inpatient services. Indeed nearly the entire 299 bed pressure which represents an increase of
approximately 104,000 inpatient days can be attributed to increases in the seniors/elderly population.

**Alternative Levels of Care (ALC)**

Table C: Northern Health ALC Inpatient Days

<table>
<thead>
<tr>
<th>HSDA</th>
<th>Facility</th>
<th>Total Inpatient Days (Acute + ALC)</th>
<th>Acute Inpatient Days</th>
<th>ALC Days</th>
<th>ALC Days as a % of Inpatient Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>Chetwynd</td>
<td>1,748</td>
<td>1,370</td>
<td>378</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Dawson Creek</td>
<td>15,939</td>
<td>11,686</td>
<td>4,253</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>Fort Nelson</td>
<td>2,947</td>
<td>1,880</td>
<td>1,067</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td>Fort St. John</td>
<td>15,049</td>
<td>8,423</td>
<td>6,626</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>NE Total</td>
<td>35,683</td>
<td>23,359</td>
<td>12,324</td>
<td>35%</td>
</tr>
<tr>
<td>NI</td>
<td>GR Baker Memorial</td>
<td>13,541</td>
<td>10,201</td>
<td>3,340</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Lakes District</td>
<td>3,591</td>
<td>2,829</td>
<td>762</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>MacKenzie</td>
<td>1,035</td>
<td>1,035</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>McBride</td>
<td>1,063</td>
<td>956</td>
<td>107</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>St John</td>
<td>6,615</td>
<td>3,693</td>
<td>2,922</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Stuart Lake</td>
<td>1,727</td>
<td>1,700</td>
<td>27</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>UHNBC</td>
<td>76,720</td>
<td>63,907</td>
<td>12,813</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>NI Total</td>
<td>104,292</td>
<td>84,321</td>
<td>19,971</td>
<td>19%</td>
</tr>
<tr>
<td>NW</td>
<td>Bulkley Valley</td>
<td>4,968</td>
<td>4,300</td>
<td>578</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Kitimat General</td>
<td>5,326</td>
<td>5,027</td>
<td>300</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Mills Memorial</td>
<td>15,068</td>
<td>12,936</td>
<td>2,132</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>N. Haida Gwaii</td>
<td>838</td>
<td>545</td>
<td>293</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>Prince Rupert</td>
<td>9,261</td>
<td>7,188</td>
<td>2,073</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>QCIGH</td>
<td>1,533</td>
<td>1,245</td>
<td>288</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Wrinch Memorial</td>
<td>3,104</td>
<td>1,942</td>
<td>1,162</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>NW Total</td>
<td>40,098</td>
<td>33,273</td>
<td>6,825</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Northern Health Total</td>
<td>180,073</td>
<td>140,953</td>
<td>39,120</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: NH MIS data, June 2014

**Residential Care Wait Times & Bed Pressures**

Table D: Northern Health Residential Care Wait Times (June 2014)

Source: Procura Information System. 27/6/2014
Table E: Northern Health Residential Care Bed Projections - 2012, 2017 & 2022

<table>
<thead>
<tr>
<th>HSDA</th>
<th>2012 Current</th>
<th>2012 Projections*</th>
<th>2017 Projections*</th>
<th>2022 Projections*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beds Actual</td>
<td>Beds Projected</td>
<td>Variance from</td>
<td>Beds Projected</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2012 Actual</td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>245</td>
<td>335</td>
<td>90</td>
<td>377</td>
</tr>
<tr>
<td>Northern Interior</td>
<td>580</td>
<td>662</td>
<td>82</td>
<td>721</td>
</tr>
<tr>
<td>Northwest</td>
<td>267</td>
<td>315</td>
<td>48</td>
<td>343</td>
</tr>
<tr>
<td>Northern Health</td>
<td>1092</td>
<td>1312</td>
<td>220</td>
<td>1441</td>
</tr>
</tbody>
</table>

*projections model required bed capacity to meet 90% in 90 days placement target

Aboriginal Health  **Both graphs: Statistical Profile of Aboriginal Peoples by Health Authority; 2006. BC Stats April 2009.  
http://www.bcstats.gov.bc.ca/StatisticsBySubject/AboriginalPeoples.aspx

Table F: 2006 Aboriginal Population Information

<table>
<thead>
<tr>
<th>BC Health Authorities: 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
</tr>
<tr>
<td>Northern</td>
</tr>
<tr>
<td>Van Island</td>
</tr>
<tr>
<td>Van Coastal</td>
</tr>
<tr>
<td>Fraser</td>
</tr>
<tr>
<td>Interior</td>
</tr>
</tbody>
</table>

BC = 4.8%
Table G: Aboriginal Identity Information

![Aboriginal Identity Information](chart.png)

Table H: Northern Health Population 75+: 2013 & 2023

<table>
<thead>
<tr>
<th>Year</th>
<th>Population 75+ P.E.O.P.L.E. 2012</th>
<th>Frailty CPS 2: Mild</th>
<th>CPS 3-4: Moderate</th>
<th>CPS 5-6: Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td># % of Pop # % of Pop # % of Pop # % of Pop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>14,307</td>
<td>1430 10.0%</td>
<td>440 3.1%</td>
<td>606 4.2%</td>
</tr>
<tr>
<td>2023</td>
<td>23,317</td>
<td>2331 10.0%</td>
<td>717 3.1%</td>
<td>988 4.2%</td>
</tr>
</tbody>
</table>

Sources: Northern Health HCC 2014, MOHS Health System Matrix 5.0

Note: 
- This is a straight line projection.
- The frailty figure (from the Health System Matrix 5.0) does not capture all those whom we have identified as having dementia. Likewise, it does not count individuals who may be case managed, but choose to purchase their own services (the community segment captures "People who are living in publicly funded Assisted Living units or living in their own homes receiving publicly funded home support.")
Appendix D: Definitions (Facilities, Services, Terms)

TYPES OF FACILITIES

Adult Day Centers
- Adult day centers provide an organized program of personal care, health care and therapeutic social and recreational activities in a group setting that meets client health care needs and/or caregiver needs for respite.

Home Care
- Home Care is health services provided in clients’ homes. The services may be provided by a number of professionals including: nursing, physical therapist or occupational therapist, and dietician. All services are for clients who may require acute, chronic, palliative or rehabilitative support.

Home Support
- Home Support services are direct care services provided by unregulated care providers to clients who require personal assistance with activities of daily living, such as mobilization, nutrition, lifts and transfers, bathing, grooming and toileting. There is also the provision for services to include delegated tasks from professionals – an example is medication management.

Assisted Living
- Assisted Living services are provided in a supportive accommodation environment for clients with physical and functional health challenges who can no longer reside at home but are able to make decisions on their own behalf. Each unit incorporates all of the following: private housing unit with a lockable door; personal care services; and hospitality services that include: meals, housekeeping, laundry, social and recreational opportunities and a 24-hr response system.

Residential Care
- Residential care services provide a secure, supervised physical environment, accommodation, and care to clients who cannot have their care needs met at home or in an assisted living residence. Some residential care facilities offer Special Care Units; short term services such as: Respite; Convalescent Care; and hospice palliative care. Other residential care facilities provide long term services only, termed Complex Care.

Special Care Units
- Within residential care services, some facilities provide specialized supports and constant supervision for medically stable, mobile seniors living with dementia.

Residential Care Short Term Services:
- Respite
  o Residential respite care is intended to allow the client’s principle caregiver a period of relief, or to provide the client with a period of supported care to increase independence.
- Convalescent
  o Residential convalescent care is provided to clients with defined and stable care needs who require a supervised environment for reactivation or recuperation usually prior to discharge home, most commonly following an acute episode of care.

13 Definitions from Home and Community Care iportal Page: https://iportal.northernhealth.ca/clinicalresources/hcc/Pages/default.aspx.
- Hospice palliative care
  o Residential hospice palliative care is provided to clients who require support with comfort, dignity and quality of life in the final days or weeks of their lives and is distinct from end-of-life care provided to residential care clients who become palliative.

Residential Care Long Term Services:
- Complex Care
  o Residential complex care is provided for clients who are assessed as needing 24-hour professional nursing supervision and care needs that cannot be met in the client’s home; or the degree of risk is not manageable within available community resources/services; the client has an urgent need; the client has been investigated and treated for medical causes and the need continues; the client may also have a caregiver who is living with unacceptable risk or there is no caregiver.

Primary Care Home
- A primary care home is “a place where people establish a long-term relationship with a multidisciplinary team and, through this team, receive health care and are supported in managing their own health.”14 The primary care home consists of physicians, the infrastructure that supports their practices, and a multidisciplinary team. Care can be provided in a shared location or virtually. The multidisciplinary team helps the frail elderly, perinatal and other specialized populations, such as people with complex conditions like chronic disease or mental health/addictions issues.

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### Definitions & Notes

**ADC / ADP:** Adult Day Centre / Programs (ADC / ADP) - many of the ADC / ADP are physically delivered in our Acute care / residential facilities. ADC / ADP assist seniors and adults with disabilities to continue to live in their own homes by providing supportive group programs and health services that assist with daily activities of living and give clients a chance to be more involved in their community.

**Case Management:** Case Managers act as coordinators to help eligible clients obtain Home and Community Care services. They determine the nature, intensity and duration of services that would best meet clients’ needs and arrange their services.

**Community Nutrition:** Community Dieticians assist clients with education and choices around healthy eating and may provide instruction and techniques for feeding clients with developmental challenges.

**Community Rehabilitation:** Community Rehab (OT/PT) is a professional service, delivered to eligible clients in the community by rehabilitation therapists who provide assessment and treatment to ensure a client’s home is suitably arranged for their needs and safety. The availability of staff strongly influences our ability to provide OT /PT services. Consequently there can be quite a bit of variability in the levels of service provision.

**CSIL:** Choices in Supports for Community Living (CSIL) is an alternative option for eligible home support clients. CSIL was developed to give British Columbians with disabilities and high-intensity care needs more flexibility in managing their home support services. CSIL is a “self-managed model of care.” Clients receive funds directly for the purchase of home support services. They assume full responsibility for determining how to spend the funds within an annual budget.
responsible for the management, coordination and financial accountability of their services, including recruiting, hiring, training, scheduling and supervising home support workers.

HCN: Home Care Nursing (HCN), or Community Nursing, is professional services, delivered to eligible clients in the community by registered nurses. Nursing care is available on a non-emergency basis for British Columbians requiring acute, chronic, palliative or rehabilitative support.

HOP: Home Oxygen Program (HOP) is regionally coordinated by Northern Health. Participation requires an application from a physician. Clients, often seniors, may have such conditions as Emphysema or COPD. Presently there are more than 600 clients participating in the HOP across northern BC.

HPC: The Hospice Palliative Care program (HPC) is a core service provided to all patients and their families. Registration of the patient with the HPC program is required in order to access identified services and ensure timely access to HPC. Registration requires written confirmation, by a physician, that the patient meets the palliative care status criteria as outlined in the program. Northern Health also offers access to publicly subsidized hospice palliative care beds in a number of our residential care facilities.

HS: Home Support (HS) services are designed to help eligible clients remain independent and in their own home as long as possible. Home Support provides personal assistance with daily activities, such as bathing, dressing and grooming. Home Support services complement and supplement, but do not replace the efforts of individuals to care for themselves with the assistance of family.

HSCL: Health Services for Community Living (HSCL) program provides non-emergency nursing, rehabilitation, dietary and dental hygiene services to adults who live in the community and have a developmental disability and are eligible for services under Community Living British Columbia (CLBC).

Meals on Wheels: Meals on Wheels (MOW) is a program that prepares and delivers meals for clients to help ensure they can remain healthy, well-nourished and independent in their living circumstances. There are 3 MOW Delivery models:

MOW 1: Northern Health contracts for food preparation and distribution: Prince George (Laurier Manor A/L) and Quesnel and Mackenzie

MOW2: Northern Health prepares the meals at hospital facilities; Contractor takes care of distribution: Burns Lake and Smithers

MOW3: Northern Health prepares the meals and provides distribution: Haida Gwaii (Queen Charlottes), Kitimat, Terrace, Fort St John and Prince Rupert

Social Work: Social Workers help clients to navigate, coordinate and schedule services as well as address psycho-social needs of the clients.

Other Definitions

HSDA: Health Service Delivery Area (HSDA) is a geographic area used for health service governance as well as health services planning, delivery and analysis.
LHA: Local Health Area (LHA) is a geographic area that we use for health services planning and analysis - similar in size to school districts.

Service Definitions: Northern Health
http://www.northernhealth.ca/YourHealth/HomeandCommunityCare/HomeandCommunityCareServices.aspx

Service Definitions: BC Ministry of Health
http://www2.gov.bc.ca/gov/topic.page?id=95C3022D0E3A422BBBE3F99B03F035C4
Appendix F: Dementia Related Education and Initiatives

Northern Health is involved in two provincial and one local initiative that collectively build on each other to develop a continuum of assessment, intervention and action within the concept of a person centered model of care.

PIECES (Physical, Intellectual, Emotional Health, Center or Focus in Care, Environment individual interacts within, Social Self and Support Network) is an acronym used to describe a best practice learning and development initiative that provides an approach to understanding and enhancing care for individuals with complex physical and cognitive/mental health needs and behavior changes. PIECES is a holistic, person and care partner-directed model which enhances capacity at the individual, TEAM, organization and system levels to support the care of the older individual living with complex chronic disorders, including cognitive and/or mental health needs and associated responsive behaviors. PIECES provide a practical framework for assessment and supportive care strategies using a comprehensive interprofessional person-directed approach. This framework complements and integrates other strategies, approaches and relevant bodies of knowledge. A common set of values, a common language for communicating across the system and a common yet comprehensive approach to collaborative care are embedded within the model and supports a shared accountability for person and care partner-directed care across the system of care focused on health promotion, prevention and chronic disease management.  

PIECES Consult Group, 2009)

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15 (PIECES Consult Group, 2009)
Gentle Persuasive Approach (GPA) in an innovative dementia care curriculum based on a person centered approach. Designed for interdisciplinary point of care staff across a variety of sectors. The education session is evidence-based, interactive and practical. The information assists care providers to fully understand responsive behaviors in order to be able to respond effectively and appropriately to the needs of a person with dementia. Reducing Antipsychotics in Residential Care is a work focused on the appropriate use of antipsychotic medications in residential care. One in three long term care (LTC) residents in Canada is on antipsychotic medication without a diagnosis of psychosis from a doctor. There is also significant variation between rates in different long term care homes, pointing to the potentially inappropriate use of these medications. Research has shown that antipsychotic practices are, at best, only minimally effective in managing behavioural issues and have serious risks associated with them, especially in the elderly. Research shows that 33% of residents in British Columbian residential care homes may have their quality of life affected because they are taking potentially inappropriate antipsychotic medications.

Canada is taking steps to make quality improvements in this area. New accreditation standards, that will mandate LTC facilities to assess the appropriateness of antipsychotic use and use this information to improve services, will be in effect in 2015. Northern Health will aim to provide a person centred non-pharmaceutical approach to managing behaviors associated with dementia. Support for this work has occurred by partnering with the Canadian Foundation for Healthcare Improvement and BC Patient Safety and Quality Council to implement initiatives in Residential Care facilities in Northern Health, this work will continue through education and support of staff until it is an embedded best practice.


Appendix G: Bibliography


