Part 2:

Understanding Resource and Community Development in Northern British Columbia:

A Background Paper

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northern health
the northern way of caring

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1.0 Introduction

The purpose of this background paper is to provide an historical overview of resource and community development in northern BC. The goal is to help Northern Health better address health care needs through a better understanding of the context for changing demographics and fluctuating populations in northern BC related to resource development. This paper is the second in a series being developed by Northern Health looking at different aspects of industrial camps, resource development and a transient workforce.

Canada's economic stability and prosperity is founded on a staples economy and continues to rely largely on the export of natural resource-based goods and products to manufacturing countries (Britain, the United States and China).[i] Communities in northern BC are intimately linked to these international markets, as they are the sites of primary resource extraction and processing activities (logging, mining, drilling, milling) that supply these international markets. Since World War II, northern BC has experienced many changes in industrial resource development, its economy and its communities. Understanding the broader political and economic contexts that influence the (sometimes cyclical) growth and decline of these communities can prepare Northern Health staff to better address changing health care needs. This paper presents northern BC's development experience in the context of community development models. These models provide a framework to understand the historical development of these communities. This paper also updates and expands the models to capture and explain northern BC's current complex and unpredictable resource development. Rapid changes in international markets and resource sector investment make it difficult to predict and plan for future economic development opportunities and related pressures.

Based on recent observations, this paper outlines *where we are now* in terms of resource and community development, the different cycles of resource industries, the current (demographic) profile of a changing population and transient workforce, and starts to make connections to planning for health care services. The intent is to highlight key aspects of resource and community development in northern BC and how these changes affect changing health care needs.

> *Resource commodities have been the backbone of the regional economy [in northern BC] since the 1820s when Fur Trade trails, following long established First Nations' trade routes, linked this region to a global trading network.*
>
> *-- Halseth, G.; 1999*

2.0 Northern BC Resource and Community Development: An Historical Overview

Before contact with Europeans, First Nations had long-established economic, political and trade systems. After contact, trading posts and forts were built across Canada to facilitate the fur trade.[ii] In northern BC, many of these posts developed into communities. In addition, other communities developed that were centred on small-scale forestry, mining, fishing and agricultural activities (Box 1)[1]. In this landscape, there were numerous small settlements with economies based on small companies.[iii] Settlement was rural and remote, with small populations dispersed along traditional transportation routes (rivers, lakes, rail).[iv] Despite being small, communities were connected to international markets and, therefore, trade with other countries.[v] After World War II, the international demand for natural resources increased and the province of BC looked to the resource-rich rural regions.[vi] As a result, existing and new communities became the focus and more intimately linked with global, national and provincial political and economic activities and influences.[vii] The period from World War II to the current day can be summarized in two distinct phases: province-building and restructuring. Both are reviewed below.

[1] As identified in Part 1, the scope of this paper series is specifically forestry, mining and oil and gas sectors (and related developments) that result in industrial camps and a transient workforce.

Box 1: Single-Industry Resource Community

Many northern BC communities are often described as single-industry resource communities. This means that, although there may be more than one resource sector providing employment in the community, the majority of employment (including supporting services), income and revenue comes from one main industry. Different communities have developed around different resources (specialization), as will be discussed in Section 4.

Because the primary economic activity is invested in one resource, changes in demand for that resource deeply affect the community. Economic upswings (high demand for the local resource) and economic downturns (low demand for local resource) make up the boom and bust cycle for these communities.

2.1 Province-building (1950s to 1980s)

World War II significantly changed the world order. Post-war agreements led to standardizing currency (using the US dollar as the benchmark) and paved the way for more international trade.[viii] At this time, BC's economy was not doing well; BC was a *have-not* province (receiving transfer payments from the federal government).[ix] At the same time, demand increased for raw resources from manufacturing countries (e.g., the United States).[x] The Government of BC at the time, with Premier W.A.C. Bennett, took advantage of this opportunity, and the vast resources in northern BC, and started an era of *province-building* based on large-scale industrial development.[xi, xii]

This model for province-building depended on rapid expansion of industry and settlement in rural areas.[xiii] The goal was to generate as much wealth as possible from export of BC's raw materials.[xiv] Resource development revenues were used to develop the province, and would ultimately lead to provincial economic dependence on exports.[xv] The 1950s to the 1980s was a period of prosperity and economic growth for BC and northern BC – largely based on the forest industry. In this period, BC changed from a *have-not* province to a *have* province – increasing the economic and political autonomy of BC.[xvi]

As noted above, prior to such large-scale development, northern BC was a landscape of small, rural settlements and small-scale businesses.[xvii] In order to access the vast resources in northern BC and essential to attracting and retaining workers and their families, the Province of BC invested heavily in infrastructure (roads, power, buildings)[xviii] and services (schools, housing, health and social services).[xix] Communities developed on the premise that these services were provided by the Government.[xx] The private sector (industry) also invested by providing company housing and recreation facilities and ensuring services were available for workers and their families in the community. Government and industry investments allowed these communities to prosper and maintain their workforce. These investments also generated long-term benefit for both industry (no need for retraining) and government (royalties, corporate taxation, person income taxation).[xxi]

As part of this investment, resource development and labour were encouraged in rural regions, including northern BC.[xxii] In some cases, new communities were established to house workers close to resource extraction activities in remote areas (Box 2). In other places, different communities were established or expanded. In nearly all cases, the community's economic activity was focused on resource extraction, most specifically forestry, mining and power generation.[xxiii] Government policies favoured larger companies over smaller firms (e.g., granting forest tenures [the right to harvest trees on a certain land base][xxiv]).[xxv] This changed the landscape of northern BC, as fewer and bigger companies formed the economic foundation of the region. The provincial government policy of appurtenancy "*required timber to be processed in the region of harvest.*"[xxvi] This meant that locally harvested timber would be transported to local mills for processing, supporting local employment and creating local and regional economic benefits.[xxvii]

Box 2: Instant Towns

Three instant towns were established in northern BC: Kitimat (industrial processing centre; port), Mackenzie (forestry) and Tumbler Ridge (coal) through the Instant Town Legislation.[xxviii]

At this time, northern BC held valuable and accessible resources that were in demand and brought to market due to the industrial and settlement investments in the region. Because of the related prosperity, there was no need for resource companies to diversify their activities. These firms focused on exporting basic resources.[xxix] To a large extent, the significant wealth generated from these resources facilitated the development of the entire province of BC.[xxx]

As the rural regions of the province became the sites of resource extraction, the headquarters for all this new activity became concentrated in the Lower Mainland and Victoria.[xxxi] The revenues generated in northern BC through resource extraction were *processed* in the administration centres and then *re-invested* (disproportionately) back into northern BC communities.[xxxii] Bennett's development model and settlement policies resulted in a specific pattern of development (Box 3).[xxxiii]

Box 3: BC's Core-Periphery Model

The core-periphery model describes relationships between communities, regions or nations at different scales.[xxxiv] The concepts of core and periphery are used to describe the different aspects of resource and community development in northern BC throughout the rest of this document.

Periphery: dependent on specialized economies; revenue from economy flows to the core; sometimes also known as the hinterland.[xxxv]
Core: decision-making, political, administration, business and service centres; sometimes also known as the heartland.[xxxvi]

Relationships between the core and periphery are typically defined by economic and political decision-making: sites where decisions are made (core) and the sites which are fundamentally affected by those decisions (periphery). Of specific note, revenue from the periphery generally flows to (and is administered by) the core and political decisions about the periphery are also commonly made in the core.[xxxvii]

This model is useful because it can be applied at different scales.[xxxviii] On a provincial scale in BC, the Lower Mainland and Victoria have developed as the core and the rest of province is the periphery. On a regional scale in northern BC, communities like Prince George and to some extent Smithers, Terrace and Fort St. John have emerged as administration, transportation and service centres in their regions. [xxxix] Or, on an inter-provincial scale where, for example, Calgary, AB, serves as the core (business and administrative centre) for oil and gas activity in northeast BC.

Because of the different economic and political functions, changes in demand for resources affect the core and periphery differently. Resource peripheries (e.g., northern BC, northern interior) are more vulnerable to changes in markets, while the diverse economies in the core (e.g., the Lower Mainland and Victoria, Prince George) provide more stability.[xl]

2.2 Restructuring (1980s to ~2000)

This period is characterized by changes in the political and economic context of resource development (monetary systems, market demands, competition from other countries and companies), as these changes impacted the way resources are extracted and processed.[xli] In the 1980s, a global recession and changes in the international monetary system resulted in economic uncertainty and instability for countries and trade networks that had become highly dependent on each other.[xlii] Investing in other countries and operations became easier. Assets (machines, plants and workers) became more mobile and trade became easier.[xliii] Governments and the private sector started to change policies and practices to continue to generate profit.

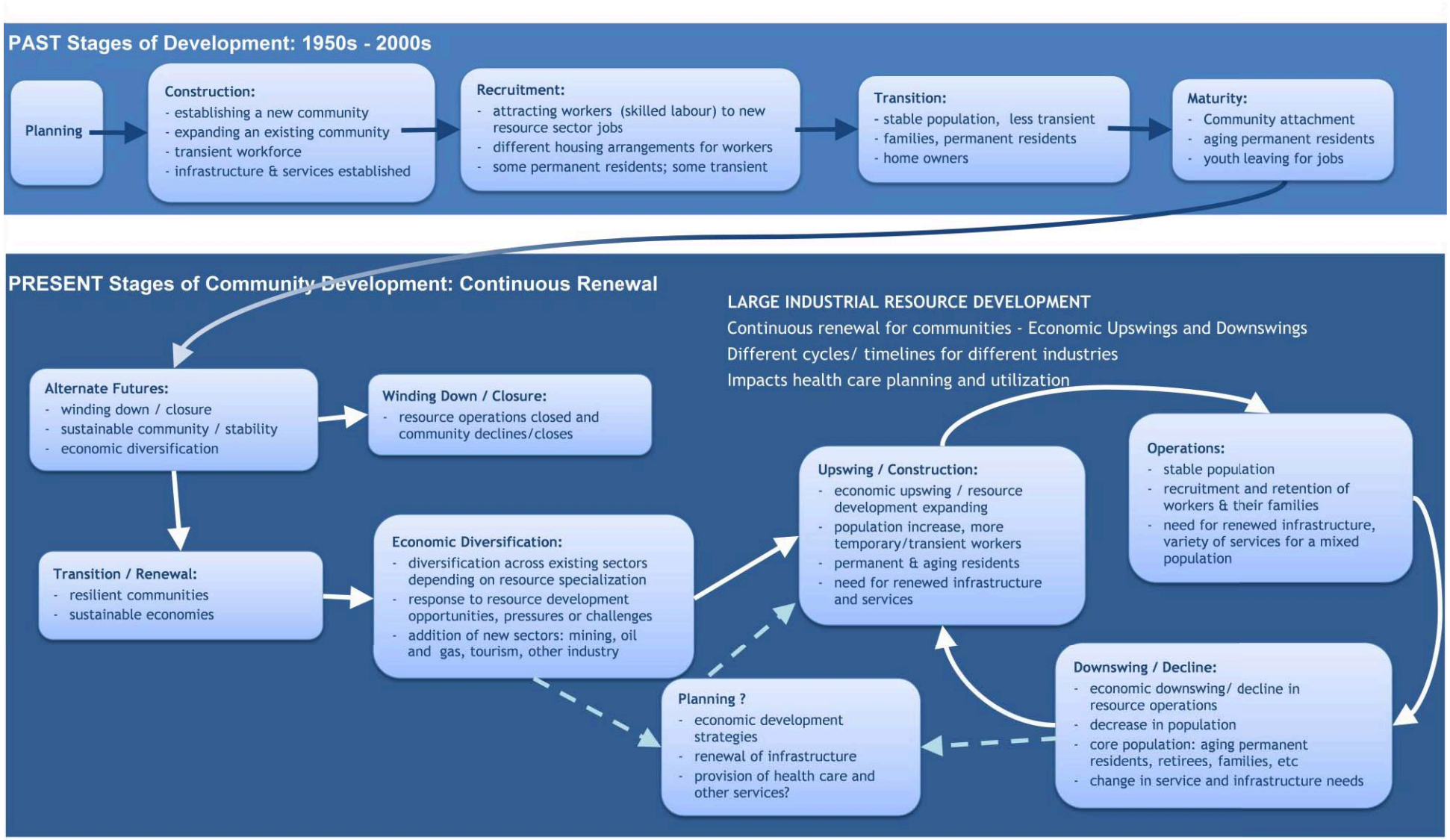
On an international scale, the private sector became defined by fewer and bigger companies operating in more than one country and vying for the same resources and markets. Companies had to be more flexible to continue to be competitive and profitable[xliv] and there became a need for a more flexible workforce.[xlv] Economic pressures meant less investment in stationary aspects of their operations (communities, services, facilities) and an increased use of technology.[xlvi] Government policies led to more local responsibility for, and less investment in,[xlvii] communities and related services (housing, schools) and levels of regulation and taxation were reduced.[xlviii] Service closures significantly impacted rural and small towns.[xlix]

For northern BC communities, the advantage of having vast resources changed as other countries and companies were able to deliver the same resources to the international market with less cost and at a cheaper rate. This was exacerbated by Canadian federal policies such as the Free Trade Agreement and the North American Free Trade Agreement.[l] In short, more intense and rapid globalization meant that economies were (and are) more interconnected and had to respond to increased competition.[li] International trade agreements and declining transportation costs (i.e., container ships) meant increased market access for raw material-producing countries such as Canada.[lii] As noted above, in times of economic instability, the resource periphery is impacted differently than the administrative core.[liii] Ultimately, communities are faced with the need to diversify their traditional economic base in order to cope with economic transition or face closure.[liv]

3.0 Past Stages of Community Development (Pre-2000)

As the above brief history demonstrates, northern BC's resource and community development is inextricably tied to international economies. Political and private sector influences, and the cyclical nature of resource economies, shape the histories and affect the social fabric of single-industry resource communities. This section presents a model of community development to explain the different stages that these communities go through related to resource development. Initially conceptualized in the 1970s, this linear model outlines four distinct phases of community development: construction, recruitment, transition and maturity (Figure 1).[lv] Models are developed and used as frameworks to organize information to increase our understanding of what we observe. While communities in northern BC may not have followed these steps exactly, the simplified stages of community development as presented in this model are useful to illustrate some of the community-level impacts as they related to resource development and employment opportunities. These impacts include: demographics, infrastructure, housing, work, and social and health services, as well as on the civic life of residents.

Figure 1: A Model of Community Development in Northern BC: Past and Present



Adapted from: Halseth, G. and Sullivan, L. (2002), Page 16; Greg Halseth, Personal Communication, October 02, 2012 & February 04, 2013.

3.1 Historical Stages of Community Development

Communities in northern BC were established or expanded largely to attract and house workers for a surge in industrial resource development. They have different and unique histories and realities that cannot be captured by a simple model. However, these stages of community development help to understand their contexts and current economic pressures. The population (demographic) profile of these communities has changed over time, which has important implications for current health care services planning and delivery.

3.1.1 Construction

The construction stage of single-industry resource community development involves the establishment of a new community or the expansion of an existing one – usually by the company involved in resource development operations. This occurred in northern BC from the 1950s to the 1980s and was an integral part of the large-scale industrial development policy at the time. Communities needed services and companies (or government) commonly built community infrastructure (e.g., recreation centres) to make employees more comfortable. As such, this phase is costly to the company or government investing in the communities. There is a short-term boom in the area.[lvi]

In this stage, residents are commonly single, male construction workers. They work long hours in temporary, seasonal jobs. The job sites are often very isolated and there is a high turnover in population and workers. Services, infrastructure and conventional housing are being established. The overall health of the workers is impacted by the long work hours, shift work and isolation. Civic life or community attachment is very limited due to the temporary, transient nature of the work.[lvii] Health services and service delivery models are based on existing programs from other jurisdictions, or are supplied directly by firms leading the industrial construction projects at the time.[lviii]

3.1.2 Recruitment

In the recruitment stage, services, infrastructure and housing are new and established. Houses are largely owned by the company and rented to the residents. People are drawn to the community for the employment (and, typically, relatively high wages).

Community infrastructure (e.g., recreation centres) is extremely important to attracting and retaining workers and their families. Although companies have a great deal of control over the infrastructure and community administration, people will start to call the place home and a civic life is beginning to develop.[lix]

During the recruitment stage of community development, both semi-skilled and unskilled workers and their families are recruited to live and work in the community. Some construction workers remain to live and work in the community. As such, there is a combination of single men and families in the community at this time. The age of residents is increasing as well as the ethnic mix.[lx] Resident contentment and length of stay is influenced by employment stability and the services available for their stage of life.[lxi] There is a high level of mobility at this stage (workers and their families moving in and out of the community) and turnover in the workforce. However, some people begin to make the place home and community life starts to develop.[lxii] Although there is now a mix of different ages, sexes, families and cultures, the majority are still young families and with young children.[lxiii] This demographic mix means that different social and health services are needed.

3.1.3 Transition

There is movement toward community stability during the transition stage of community development. The company (or government) involved in establishing the community becomes less involved in aspects of community life.[lxiv] As the company sells the homes, residents begin to purchase houses in the community.[lxv] The company also transfers ownership of and responsibility for other infrastructure and aspects of the community to local governments, including community administration and councils. This

stage can cause concern among residents because there may be lingering expectations about company obligations and responsibilities to the community; it is expected that the company will always be an active participant, as they are seen as an institutional citizen.[lxvi]

Residents at this stage are more and more attached to the community, there is a more vibrant civic life and the community is perceived to be viable.[lxvii] The resident population becomes more permanent and consists largely of families. The need for services and infrastructure is similar to that in the recruitment stage; however, the community itself is now more responsible for ensuring they are available. Health care and social service needs evolved in attempt to serve residents of different ages and families at different stages of life.

3.1.4 Maturity

In this model, community maturity means that fewer adults leave and more of the older residents retire in the community to live for the rest of their lives. Because people are not leaving their jobs (lack of job mobility), youth are forced to leave to find work. Where there is enough employment, several people from the same family may work for the local company (occupational inheritance). The male dominated workplaces and limited service sector and other opportunities make it difficult for women to find employment. In short, the adults (and sometimes youth) of these communities are vulnerable because employment and income is tied to a single economic base.[lxviii]

Community life expectancy is tied to the local resource. Residents are very aware of the uncertainty of if/when an operation will close and/or get used to the economic up and downswings.[lxix] To complicate matters, the duration of an industrial operation can be extended beyond the original anticipated term, therefore prolonging the vulnerability to and dependence on a single industry for their livelihood. For example, the expected life of a mine (and therefore employment opportunities) can be from 15-20 years. Depending on the demand for the resource and physical reserves of the resource, the life of the mine can be extended.[lxx] In this phase, health care needs have evolved again. In response, providers try to meet them based on a service delivery model implemented in the construction phase on community development. One of the most important factors for service delivery and community life at this stage is the age cycle of the residents – an aging population or, what some experts call, *resource frontier aging* (Section 4).[lxxi, lxxii]

3.1.5 Winding Down

The original, linear model of community development ended with *maturity*. Until the 1970s, resource dependent communities in northern BC developed as predicted by the above community development model.[lxxiii] However, economic and political restructuring of the 1980s resulted in this model being updated to reflect more current realities. The *winding down* stage is characterized by the decline of company operations in the community – either temporary or permanent. Temporary winding down occurs when a company waits "for a more favourable economic climate."[lxxiv] The company (and/or government) becomes less and less involved in the community and infrastructure can be hard to maintain. Services are also hard to maintain due to decreased subsidies and a decline in community population. In some cases, winding down leads to the outright closure of a company (and relative closure of the community).[lxxv]

In this stage, there is increased population turnover, as people may leave while unemployed or to seek more stable employment. A loss of workers from the community can make it difficult when operations start back up as there is a lack of workers. Different skills are required for remaining or new jobs (more technical and managerial).[lxxvi] Temporary or seasonal workers are laid off and permanent employees can be transitioned to seasonal or contract status.[lxxvii] There is also an increasingly transient workforce coming in and out of these communities[lxxviii] due to the need for a different skill set (management and computer technology) and less long-term, full time, stable job opportunities. Some call this a *transient cohort of employees* (Section 4).[lxxix]

For residents, there is often an increased cost of living and owning a home can be a negative aspect due to declining property values; local small businesses also feel the negative effects of a downturn.[lxxx] Community attachment and civic life can be fractured. However, for some residents it can be strengthened as they pull together to fight for their community to survive the economic turmoil.[lxxxi]

4.0 Present Stages of Community Development (~2000 to now)

Since the 1980s, there has been an economic and political shift internationally, nationally and provincially towards favouring and promoting privatization of industry, government services and deregulation.[lxxxii] In BC, as in other places, this shift has re-shaped the relationships between the administrative cores (Lower Mainland-Victoria, BC, and Calgary, AB) and resource peripheries (including northern BC)[lxxxiii] and has resulted in the establishment of secondary regional cores.[lxxxiv] Local governments in the resource periphery now have more responsibilities to address with fewer fiscal resources.[lxxxv] In the meantime, the province is still dependent on resource royalty revenues, dispersed largely in metropolitan areas.[lxxxvi] Due to changes in regulations, the private sector has more authority over resource production and less of an obligation to communities and workers than in previous eras.[lxxxvii]

Policy changes mean that firms can withdraw from local economies but retain "the capacity to 'touch back down' in local spaces when markets are favourable."[lxxxviii] Market-driven operations mean more frequent shut downs.[lxxxix] Companies employ people on shorter-term contracts, allowing for greater flexibility in the workforce and their operations.[xc] Communities are subject to fluxes in employment due to economic restructuring.[xci] There is also increased use and number of industrial camps and other flexible accommodation options to house transient workers for resource development operations.[xcii]

In addition to policy changes in the private sector, governments contribute to regional resource specialization through the closure of smaller public service offices and the consolidation of health care.[xciii] This further emphasizes the establishment of regional centres, where private sector and government services become concentrated.

4.1 Alternate Futures

While some experts predict that single-industry resource communities will ultimately decline, others suggest that another stage of community development is underway where communities to evolve and grow in different ways.[xciv] Adding *alternate futures* to the community development model means that communities may close, wind down or transform their economies through economic diversification.[xcv] Diversification occurs within and across existing resource sectors, as well as through the addition of entirely new sectors.[xcvi] This diversification can include "tourism activity, combining more than one type of resource industry [forestry and mining, or mining and tourism, or tourism and agriculture, or fisheries and tourism], creating large-scale value-added industries [building furniture]…and taking advantage of new communications technologies."[xcvii] At this stage of community development, the desire and initiative for growth and change must come from the residents of a community. Community attachment and a strong civic life are important.[xcviii] Alternate futures specifically related to large-scale resource development in northern BC are further discussed in Section 4.5.

4.2 Regional Resource Specialization and Diversified Service Centres

Northern BC's economic foundation is agriculture, fisheries, forestry, mining, power generation and tourism, and includes a *traditional economy* of hunting, fishing and trapping.[xcix] They contribute to the available economic diversification opportunities and current resource development pressures that communities face. Northern BC communities have developed unevenly depending on the commodity (oil and gas versus forestry versus mining).[c] Some communities in northern BC are struggling with the transition from economic prosperity and certainty to a fast-paced era of economic diversification and renewal.[ci] There is a net outflow of economic wealth from northern BC.[cii] Most communities no longer realise a share of the wealth from the resources around them but continue "to absorb negative social,

economic and/or environmental externalities associated with the activity."[ciii] Some companies operating in northern BC are foreign-owned and their main offices are located in large and medium-sized metropolitan areas (*cores*, such as Lower Mainland/Victoria, BC; Calgary, AB; and Toronto, ON) and as a result are tied more to a global rather than a local economy.[civ] Resource specialization,[cv] and the roles of service centres (cores) and peripheral communities, have affected the development and economic diversification pressures for different communities.[cvi] Community leaders (including those in the health care sector) must grapple with how to meet the rapid pace of change and development,[cvii] the related influx of workers and demands for services and investment in infrastructure.[cviii]

4.2.1 Regional Resource Specialization

BC's export profile is changing which contributes to the effects of regional resource specialization. Traditionally, the province's primary trading partner was the United States; however, trade with Pacific Rim countries is increasingly becoming a more prominent trade partner.[cix] This shift in trade partners signifies a change in the types of resource goods in demand. Due to a decline in the United States housing market, there is less demand from the United States for lumber.[cx] Consecutively, BC is meeting increased demand for coal and other energy products from countries such as Japan, South Korea and China. There is also an increase in shipments of metallic mineral products such as copper ores and concentrates.[cxi] The change in international trade partners and the shift in respective resources in demand have important implications for northern BC communities.

In the northwest and northern interior of BC, some communities are thriving while others are in decline depending on their economic base.[cxii] For example, Smithers has a diverse economic base and acts as a service centre.[cxiii] It is currently experiencing an upswing and is a base for mining company offices and training.[cxiv] However, long-term impacts on mining-related investment and economic activity in this region are not clear. In comparison, forest resource-reliant regions (e.g., the Omineca-Lakes area) are facing an economic downswing because of a changing forest industry. There is a downturn in the BC forest industry for a variety of reasons resulting in a decline in related employment.[cxv] Changes in government policies such as appurtenancy have resulted in job losses and economic difficulties from some communities in Northern BC. Forestry companies are no longer obligated to process timber in the same region as it is harvested. This change benefited other communities (jobs and economy) in Northern BC as technological and infrastructure investments meant that some companies are competitive in the global market.[cxvi] The challenge for communities is to weather the downswing of any industry. In the northeast, there is considerable economic activity and changes in population tied to the oil and gas industry. Generally, the challenge is to meet the demands of seasonal resource industries and the related transient workforce. As resource and economic development opportunities change in northern BC, different health services will be in demand at different times and in different communities.

4.2.2 Diversified Service Centres

Adding another layer of complexity to the different impacts of economic upswings and downswings in northern BC is the emergence of diversified (secondary) service centres (*secondary cores*, Box 4). These centres have more diverse economies than the smaller communities surrounding them.[cxvii] Due to changes in government policies (e.g., consolidation of services) and the private sector, these are centres for retail, commercial, social and health services and other administrative and service functions (e.g., legal, education, finance, technology).[cxviii] Prince George is northern BC's primary regional centre and is the service centre for the northern interior.[cxix] Additionally, the populations of Terrace (northwest BC) and Fort St. John (northeast BC) have remained steady or grown relative to their neighbours, emerging as diversified service centres.[cxx] Similarly, Smithers plays a role as a hub for the mining sector; its economy has diversified through tourism and amenity migration.[cxxi]

Box 4: Diversified Service Centres

*Communities that are **diversified service centres** have more diverse economies compared to the smaller communities surrounding them. They provide a central location for a variety of retail, commercial, government, health and administrative services. These communities can also be referred to as **secondary cores** because they play the same role on a smaller scale in their regions as the Lower Mainland-Victoria plays for northern BC.*

4.3 A Changing Population and Workforce

As outlined above, restructuring since the 1980s has impacted communities in northern BC differently because of resource specialization and the emergence of diversified service centres. There has also been a significant change in the demographics of people residing in these communities since restructuring. While some communities are growing and others are stable or declining,[cxxii] the population mix is different than was anticipated when initially planning or developing these communities.[cxxiii] Community infrastructure and services were generally planned to accommodate a stable population, comprised largely of families with very young children and few older residents.[cxxiv]

Because of the impacts of restructuring, several different types of workforces and populations now reside in northern BC communities. There are permanent residents who are *aging in place* (long-term residents) which has implications for health care delivery to support healthy aging and aging at home.[cxxv] There is a transient cohort of workers and their families migrating from community to community as a response to economic uncertainty and employment opportunities (medium-term residents).[cxxvi] There is also a significant transient workforce related to an increase in industrial activity (short-term residents). These workers are more likely to reside (and families remain) out-of-region or out-of-province and come to northern BC for work. For the purposes and scope of this current work, we are primarily concerned with this demographic as it is not well understood in a northern BC context. However, it is important to highlight the changes in population overall as it illustrates the complexity of health service delivery and utilization in these communities.

4.3.1 Transient Workforce

The use of a non-local workforce in the context of community, industrial and resource development in Canada is not new.[cxxvii] Historically, people from other countries, provinces and communities came to Canada and northern BC because of the gold rush, to work on construction projects (e.g., the railway), to work in manufacturing industries (urban and rural) and different resource sectors.[cxxviii] These non-local workers were sometimes from different countries and cultural backgrounds such as Asian (Chinese & Japanese) and European (Ukranian, Italian, etc).[cxxix] Some of these workers stayed in camps, including First Nations and Japanese-Canadians among the others who migrated to the north coast to participate in the fisheries industry and work in canneries.[cxxx] The majority lived in the communities; many stayed and made those communities their home.[cxxxi]

However, the current industrial and resource development context is unique. Workers are needed for the different stages such as construction, operation and perhaps reclamation (Figure 1). As noted, this is not new practice.[cxxxii] However, many current resource sector jobs are contract positions; and many resource operations are accessing a larger, more skilled and specialized labour pool through the use of a transient workforce. Over time it has become harder to find workers with the necessary skills who reside relatively locally. There are several explanations for this: 1) local residents do not possess the necessary skills and expertise for the more technological jobs;[cxxxiii] 2) there has been a change in government policy and private sector practice to building a permanent town close to resource development activity; and, 3) due to changes in service delivery models and business practices over the last decade or so, rural and small towns close to resource development activities do not always provide the amenities and services that people expect to meet their desired quality of life. Thus, many workers and their families permanently reside in bigger centres where these services and amenities are available.[cxxxiv]For these reasons, the

development of industrial camps means companies can and do bring in a larger supply of qualified labour.[cxxxv] Alternatively, commuter settlements (for the transient workforce) allow workers to fly-in and fly-out on a regular schedule of long-term shifts.[cxxxvi] Traditionally a male dominated workforce, female participation is on the rise in part because of a labour and skills shortage.[cxxxvii] These factors mean that industrial camps and this type of commuting to work is being used more often as an alternative to establishing new, permanent communities as seen in the historical model of community development.[cxxxviii]

Different companies use different accommodation arrangements. Over time, the size, number and type of operations using industrial camps in northern BC has increased, as have their impacts.[cxxxix] They range from tent camps and recreational vehicles (e.g., silviculture, forestry, mining, exploration) to large camps with permanent or semi-permanent trailers, kitchen, leisure and (hopefully) recreation spaces (e.g., oil and gas, mining, some forestry, construction). New operations that are close to existing communities are also becoming commute operations (from community to industrial camps).[cxl] Hotels in communities are acting as industrial camps to house workers,[cxli] and in other places companies are purchasing or renting homes for their employees (in-community camps). At this time, the focus of this work is on industrial and community camps related to large-scale industrial resource development projects.

4.3.2 Different Economic Impacts

Industrial and community camps are economically efficient for companies to bring in workers for their operations in the current competitive economic climate.[cxlii] Some advantages of using industrial and community camps include: less environmental impact compared to town site development; less social and economic disruption associated with a shut down or closure (boom-bust); and, dispersed economic benefits and accommodation of workers who may not want to leave their home communities where workers' families sometimes have better access to employment, schooling, health care, recreation and other services.[cxliii] For the time when workers are resident, incomes are high, service levels can improve (though, not always), the population grows and there is more diversification.[cxliv] Related communities may see some advantages with workers and companies spending money and investing in their communities; however, this is largely dependent on the company's worker accommodation choice(s).

However, some single-industry resource communities do not reap economic benefits of this industrial activity; this is often called the *fly-over effect*.[cxlv] In northern BC, some companies fly their employees in for work and bus them directly between the airport and the industrial camp; the employees never enter the adjacent community.[cxlvi] Another company purchases and flies in food for their employees from out of the country.[cxlvii] These are two examples of the *fly-over effect*.

The impact that companies using this business model have on the delivery and use of healthcare services is unclear. Transient workers housed in industrial camps place fewer demands on local infrastructure and services (e.g., healthcare) than other workers who have migrated to live in the community.[cxlviii] Depending on the intensity of development, the cumulative effects of industrial camp workers can exceed local capacities, such as in Fort McMurray, Alberta.[cxlix] These impacts likely vary depending on the type, planning and location of a particular development.

As previously stated, the complexity of resource development and the differences among communities in northern BC means that communities *weather* the impacts of economic upswings and downswings differently. Diversified service centres are less likely to feel the acute effects of a downswing as they are not as impacted by changes in resource commodity markets. Regional centres are likely to benefit from additional resource sector related support services and businesses and are not as acutely impacted by the *fly-over effect*.

The changing relationship between communities, government and the private sector (industry) adds another layer of complexity to the differing economic impacts of resource development. As previously noted, government and company support for infrastructure and services has decreased since the 1980s.

However, in the current resource development context, government and companies are entering into economic benefit agreements with individual communities regarding specific resource development projects and activities.[cl]

For example, the multi-year Fair Share Agreement entered into by the BC provincial government and the Peace River Regional District supports infrastructure development and helps to mitigate social and infrastructure impacts relate to the oil and gas sector. Provincial oil and gas royalties are reallocated to the Peace region and top-up municipal budgets to address impacts.[cli] Another example is companies entering into agreements with First Nations communities, particularly in the mining sector. These agreements (often referred to as impact and benefit agreements or IBAs) can create economic and employment opportunities for communities and can help minimize adverse impacts. IBAs also create certainty for private sector companies involved in resource development.[clii] Agreements are entered into on an individual basis, creating complex and varied economic impacts among northern BC and First Nations communities.

4.4 Changing Infrastructure and Service Needs

With increased resource development activity, increasing demands are placed on the existing social fabric of communities and existing aging infrastructure.[cliii] Regarding infrastructure, facilities and services are still important in the recruitment and retention of workers and their families.[cliv] Regarding pressures on the social fabric of the community, the (transient) workforce staying in industrial and community camps draw on limited local police, health and public service amenities. There can be an associated increased cost of living and an increase in housing and rental prices.[clv] Service sector and other businesses are unable to compete for employees with the high wages from the resource sector.[clvi] The scale and pace of industrial activity affects the quality of life for all of the residents in the area.[clvii]

Some of the negative social consequences of a transient workforce for individuals include increased problematic substance use, potential for violence and family violence, break-ups, parenting problems and decreased community involvement.[clviii] There may be unhealthy work practices, lack of integration with the community, family stresses and an increase in motor vehicle crashes.[clix] This range of consequences puts pressure on all types of health services, including emergency and acute care, primary care, maternity and perinatal care, and labs. These aspects of the potential impacts of a transient workforce will be explored in more detail in forthcoming background papers.

The current context for health care planning and delivery is complex and unpredictable (Box 5). The rapid pace of resource development in northern BC, differences in communities (single-industry vs. diversified service centres), different timelines of resource development (seasonal, five to 10 years, 15-20 years), a changing and aging population and a transient workforce contribute to this complexity and many questions are raised:

- What are the overall implications for health care planning?
- What are the needs of this mixed demographic (transient workers, families, retirees, aging population)?
- What are the needs of the companies operating in the resource industry?
- What types of health care services are companies providing? Or expecting?
- What types of service delivery models exist, if any, that can be drawn upon?

Box 5: Northern Health's Changing Model of Services[clx]

Northern Health is participating in integration work with communities. This is an example of adapting health services to changing needs and contexts, such as the impacts of increased resource development activities.

The Primary Care Home (PCH) model integrates a range of services in order to promote high quality care in an increasingly complex and fragmented health service delivery environment. It involves centralizing care around the patient and involving a wide range of clinical stakeholders to provide longitudinal, comprehensive and coordinated care.

4.5 A Current Model of Community Development

In order to capture some of this complexity, especially regarding large-scale industrial resource development, we propose that northern BC is currently experiencing a different, more cyclical model of community development. Drawing from a model of community development and incorporating the northern BC experience of boom and bust and changes in resource development, we think that communities (especially single-industry resource dependent communities) are seeking economic diversification opportunities and are in a cycle of *continuous renewal*.[clxi] Figure 1 illustrates the complexity of community development in the current resource development context and links this with the community development model presented in Section 3.[2] This updated model is based on our knowledge and observations of community and resource development to date, but economic activity in northern BC is continually and rapidly changing. This uncertainty makes it difficult to project how this model will look two, five or 10 years from now.

Depending on resource specialization or their role as a regional service centre, communities move through the stages of economic upswings and downswings in response to resource development opportunities, but continue to seek renewal. As such, as an *alternate future*, some communities may experience varying degrees of economic upswing accompanied by a construction stage of development with a related (and temporary) increase in population. Then, in a resource industry operations stage, the population shrinks and stabilizes, with the (hopeful) recruitment and retention of workers and their families. This would be in addition to a transient workforce along with the permanent, aging residents of these communities. This cycle continues after an economic downswing or decline. Planning for the next upswing may or may not occur and could include economic development strategies, the renewal of infrastructure and the provision of health care and other services.

At each stage the infrastructure and service needs change, especially in single-industry resource dependent communities. These changes depend on the different cycles and timelines of different resource industries. For example, oil and gas communities move through this cycle on a shortened, seasonal basis and experience overall economic change with large fluctuations in population. Mining-based communities would move through these stages at a slower pace (10-20 years). Other industrial activities (perhaps hydro-electric or resource processing communities) would move through these stages in a two- to five-year cycle. The implications for health care and planning for services are different for each community and circumstance.

[2] This model was updated with input and expertise from Dr. Greg Halseth, Professor, Geography Program, University of Northern BC; Canada Research Chair in Rural and Small Town Studies.

5.0 Summary

The increased resource and industrial development activity in northern BC in conjunction with the influx of new and transient workers, industrial camps and community camps, and the pressures on available housing in communities, presents a new, more intense set of challenges in providing services to this population. It is hard for communities, local decision-makers and service providers to plan for services for these resource operations and their workers because of a number of influencing factors, including: changing markets, fluctuations in resource development, population fluctuations, the atypical nature of shiftwork, and because of the uncertain long-term timelines of resource development and economic activity.[clxii] Changing government policies, service delivery models and private sector practices play an important role in whether communities see any impacts due to resource development and a transient workforce.[clxiii] In some cases communities may not see any impacts, either positive or negative.

In the past, changes in industry and the stages of community development occurred at a slower rate. The infrastructure and services in northern BC's single-industry resource dependent communities have been tailored for a *mature* community. Currently, the infrastructure is aging and the context and mixed demographics of these communities has changed from *mature* to *continuous renewal*.[clxiv] Services and infrastructure are important to the growth in resource development this region is experiencing. These same services and infrastructure must serve multiple purposes and populations, not only for the recruitment and retention of workers and their families, but the transient workforce related to resource operations.

The purpose of this paper is to provide an historical overview and current insights into resource and community development in northern BC. It outlines the changes in resource development and operations and the related stages of community development. Some ideas are presented about the complexity of *where we are now* in this region in terms of the cycle of resource and community development, a changing population and the differences in northern BC communities. This complexity means it is hard to predict and plan for future changes.

5.1 Next Steps

This paper is the second in a series being developed by Northern Health looking at different aspects of industrial camps, resource development and a transient workforce. The next (third) paper in this series aims to identify the impacts of a transient workforce by tracing trends in health services utilization in northeast BC. Based on available information, this paper intends to illustrate *patient flow* through primary and acute health care at different scales. The intent is to examine where individuals are from (out-of-country, out-of-province, out-of-region, out-of-town) and what types of services they are accessing through local hospital facilities and physicians (where possible). The goal is to address some of the key focus areas that were identified in part one of this series of background papers[clxv], including:

- Physician visits / access to primary care
- Access to emergency and trauma care
- Perinatal care: physician visits; deliveries

Other key focus areas and topics that merit further investigation are continually identified through this work. It will be valuable to have a better understanding of the community and health service impacts of resource industry business models used to house workers (e.g., self-sufficient camps; industrial camps adjacent to communities; hotels and private residences in communities). It will be beneficial to learn from the experiences of other places (such as Fort McMurray, AB) and contexts (such as the military) to begin to develop a *roadmap* for health planning in this context. In the short-term, the next goal is to provide more detailed background information for Northern Health regarding health utilization impacts of transient workers in the industrial camp and community setting as outlined above.

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Appendix A: Table 1.0 - Resource and Community Development in Northern BC: Past and Present

(Adapted from: Halseth, G. and Sullivan, L. (2002), Page 16; Greg Halseth, Personal Communication, October 02, 2012 & February 04, 2013.)

Post-WWII to 1980s (Province-Building): Political, Economic and Private Sector Influences	***1980s to Present (Restructuring & Diversification): Political, Economic and Private Sector Influences***
• Post-World War II = international monetary and economic stability • Increased international demand for raw resources • Policy of industrial resource development in Northern BC by provincial government • Investment in infrastructure, services and establishment & expansion of communities in Northern BC • Communities & services = recruitment of workers & their families to towns for employment • Bigger companies favoured over smaller firms = fewer and bigger companies operating • Resource development in Northern BC (periphery) generates significant revenues and builds the province • Lower Mainland (Vancouver-Victoria – the core) is the trade and administrative centre for this increased economic activity • 1950s – 1980s: A period of economic prosperity and stability	• Countries now more reliant on each other due to development of more international trade, global markets and globalization • Global recession in the 1980s = international economic instability and uncertainty • Companies cut operating costs to be more competitive with other companies operating internationally • Government policies change – privatization of services and less regulation of resource sectors • People lost jobs and moved out of rural areas to get employment elsewhere • Remaining jobs required a more flexible workforce and a different set of skills than before • Economic pressures mean less investment in communities & declining infrastructure • Overall rural population decline and an increasingly transient, mixed workforce • Different economic futures depending on a community's primary industrial resource activity (forestry vs. mining vs. oil and gas); There is an overall need for economic diversification

	Historical Overview (1950s-2000): Stages of Community Development					**Present (2000-2012) Continuous Renewal**
	Construction	Recruitment	Transition	Maturity	Winding Down	Alternative Future
Characteristics and Effects	• building a new community or expanding an existing	• attracting workers to new/existing communities	• less company ownership & responsibility	• community attachment; older permanent residents	• economic downturn / closure of town	• transition / renewal for resilient communities and sustainable economies
Demographics	• high population turnover • high & of young men • short term growth	• large % of young families • strong ethnic/ cultural mix	• stable population • families	• more adults/ older retired residents • youth out-migration	• population loss/ turnover •	• increase or decrease in population depending on circumstance; changing
Labour	• transient workforce • temporary, seasonal construction jobs	• lots of workers & families moving in and out of community • influenced by employment stability	• less transient/ more stable workforce	• people not leaving jobs • lack of employment for youth	• different skills set required • more seasonal work	• more contract work and less permanent positions • lack of local skilled labour • hard to attract and retain b/c of amenities & services
Housing	• housing being established workers in temporary housing	• affordable housing • company-owned, renting to families	• residents start to buy homes from companies	• residents own homes	• increased cost of living • decreased property values	• mixed – high or low housing costs/ values • changing population = mixed housing needs
Infrastructure	• facilities being built • largely company owned or government subsidized	• facilities in use • recreation facilities important	• becoming the responsibility of the community rather than the company	• largely the responsibility of the community	• hard to maintain • company not involved • community responsibility	• aging infrastructure • needs renewal to meet needs of residents & to attract/retain workers
Social and Health Services	• being established • company/government subsidized	• serving a mixed and mobile population • services important for retention	• more community responsibility for ensuring services available • services important for retention	• services needed for families and an aging, permanent (retired) population	• declining due to population loss & lack of subsidies • services important for retention	• needs to serve a mixed population: aging residents, retirees, families, transient, etc • services important for recruitment and retention
Civic Life / Community Attachment	• limited • transient workforce	• limited • transient workforce dependent on employment stability	• community attachment developing; participation in community administration	• strong civic & community life; community becomes home • move toward community stability	• community attachment strong but hard to stay	• 'attached' residents organize to diversify/ transition economy