New towns built along the Canadian resource frontier after World War II were designed to attract and retain a workforce for industry. The preferred workforce focused primarily on young married couples. As these towns developed a mature industrial base, limited new job creation led to workforce aging. More recent processes of social, political, and economic restructuring resulted in a process of accelerated “resource frontier aging” in a community setting not designed for older residents.
This presentation examines this process of “resource frontier aging” in Mackenzie, BC by tracking population change and by posing policy questions about how to cope with these changes. Following a brief introduction to the context and nature of resource towns, we will then turn our attention to the community of Mackenzie, BC to look at the way its population has been changing.
Resource towns along Canada’s resource frontier changed dramatically following the Second World War. The need to create an attractive community for the workforce led to a transition from transient work camps to more permanent town sites. The Canadian model for these new resource towns is Kitimat, BC. Designed by Clarence Stein, Kitimat became a model after which most new towns built along Canada’s resource frontier were patterned.
Stein’s vision for Kitimat focussed upon the needs of the company to keep operating costs down. One key to controlling cost was to reduce worker turnover. Stein argued that the best way to reduce worker turnover was to create a pleasant community which supplied all the amenities families would need.

Stein’s “Vision” for Kitimat

“The purpose of Kitimat is the industrial success of the plant. That success will depend on the degree that workers are content, that they like living in Kitimat. Unless the town can attract and hold industrial workers, there will be continuous turnover and difficulty … The workers must find Kitimat more than temporarily acceptable. It must become the place they … are going to make their own”.

Stein (1952, 3)
Stein’s plan for Kitimat involved four features. These include the need to build a diverse economy, to provide a wide range of housing options, to use neighborhood design ideas to create a functional community, and develop services for a town of young families. Whether Kitimat in the 1950s or Tumbler Ridge in the 1980s, northern BC’s resource towns looked to attract young workers with young families as these were hoped to provide the greatest chance for stability.
The neighbourhood principle is easily seen in this extract from part of Kitimat’s urban plan. Wide green spaces were also used to provide pathways for children to access playgrounds and elementary schools. A central civic centre was planned to provide all of the shopping and service conveniences the community would need.
No fan of the automobile, Stein designed Kitimat’s neighbourhoods and its shopping centre to push automobiles to the outside. The shopping and service centre contains a central pedestrian corridor – again the focus is on providing a safe environment for families with young children so they do not need to cross traffic.
Since 1950, many of these new resource towns were built across BC, nearly all patterned on the design principles that Stein developed for Kitimat.
In the case of Mackenzie, the curved streets, diversity of housing types, neighbourhood designs, and ample green spaces linking housing with schools and playgrounds were readily transferred.
The key difference is that the pedestrian friendly service and shopping centre from Kitimat was transposed into a set of roadway strip malls. Stein’s desire to displace the automobile never caught on in North America.
These new industrial towns have faced a variety of pressures as they have matured under a stage of late industrial capitalism. Having forgotten to apply Stein’s first lesson about economic diversity, the community has continued to struggle with the boom and bust cycle of single resource dependence. The lack of economic diversity, and continuing uncertainty about resource dependence, has meant limited new job growth.

Today, the service landscape designed for young families and children contains considerable unused services such as elementary schools. It also means that the growing service needs of older residents are not yet well accommodated.
Coupled with the pressures of a maturing industrial town are those associated with economic restructuring in Canada’s resource sector. The net outcome of global competition and corporate concentration has been efforts to significantly reduce labour costs on the production balance sheet. In many cases, this has been achieved through increasing substitution of capital for labour, especially with the advent of computer managed production equipment. This pattern of job downsizing only exacerbates processes of youth out-migration and workforce aging.

In addition to economic restructuring, processes of social and political restructuring have seen a significant retrenchment of public sector services. The loss of these services at a time when the community is undergoing demographic change is especially problematic.
What then are the implications of these economic and demographic changes for the community as it moves forward?

To explore this question, the District of Mackenzie entered into a research partnership with UNBC’s Community Development Institute.

The purpose was to conduct community based research to explore the scope and scale of needs for an older population.

The goal was to provide information to equip local decision-makers and service providers so that they could make informed decisions about meeting local needs.
Mackenzie, BC is located about 2 hours north of Prince George in north-central British Columbia. Built in the early 1950s, the town is a major forest products processing centre.
Mackenzie's population quickly grew to approximately 5,000 people soon after town site construction. As seen in this table, since 1976, the population remained between the 5,000 and 6,000 people. This population level has been maintained even though over the same period, the population of the province has nearly doubled and the population of the nearby regional centre of Prince George increased by 25%.
As seen in this table, Mackenzie’s population has fluctuated since 1981. As BC’s population grew more than 10%, Mackenzie appeared to enjoy growth. When the provincial population grew less than 10%, Mackenzie’s economy appeared to struggle.
Using population pyramids, we can see the implications of workforce aging in Mackenzie. In 1981, the workforce could be described as having a large share of young families, with adults between 20 and 34 years of age, and children less than 10 years old.
By 1991, this workforce is aging in place. The adult population is concentrated between 25 and 40 years of age, while many of the children are moving into their early teen years.
By 2001, this process of workforce aging is even clearer. The largest share of the adult population is now aged between 35 and 50 years while there is a notable reduction in the share of the population under 4 years of age. Neil Hanlon and Greg Halseth have recently labelled this process of workforce aging under pressures of economic restructuring as “resource frontier aging”.

In-situ aging of the mature industrial workforce

UNBC Community Development Institute
The pattern of population aging in Mackenzie can be demonstrated in two additional ways. In this case, a table of the youth dependency ratio over time shows a significant reduction. In 1971, Mackenzie’s young family recruitment strategy clearly appears to be working as the youth dependency ratio is well above that for the province. By 2001, however, that dependency ratio has dropped by half and is much closer to the provincial average.
Over this same time period, we can track growth in the population 65 years and older in Mackenzie. Again, in 1971, there were very few older people in the local population. This share is low even compared to the regional population as described by the Fraser Fort George Regional District. By 2001, the population in Mackenzie over 65 years of age has increased nearly five fold while that for the region has increased by just over half.
While Mackenzie’s older population does not yet present the absolute numbers that would constitute a major component of the local population, this older population is growing and it is something which the community was not designed to deal with.

In addition, the share of the local workforce which is nearing retirement has been growing steadily. Since 1971, the share of Mackenzie’s workforce aged 45 years and older has tripled to nearly 64%. This rate of aging is much higher than for the region around Mackenzie. The implication is that a significant “bubble” of older workers is now becoming close to retiring.

<table>
<thead>
<tr>
<th>Year</th>
<th>Mackenzie</th>
<th>Fraser Ft. George</th>
<th>RD</th>
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<tbody>
<tr>
<td>1971</td>
<td>22.8</td>
<td>41.2</td>
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<tr>
<td>1976</td>
<td>18.4</td>
<td>38.1</td>
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<tr>
<td>1981</td>
<td>20.4</td>
<td>39.8</td>
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<td>1986</td>
<td>26.5</td>
<td>30.6</td>
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<td>1991</td>
<td>31.9</td>
<td>49.0</td>
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<tr>
<td>1996</td>
<td>38.4</td>
<td>57.3</td>
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<tr>
<td>2001</td>
<td>63.7</td>
<td>77.7</td>
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</tbody>
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Source: Statistics Canada
The research we undertook with the District of Mackenzie suggests that many of these older workers will choose to retire in town. Between 1991 and 2001, the number of retirees in Mackenzie doubled, and it is conservatively expected that this number will double again between 2001 and 2011.

Key reasons which people identified for planning to retire in Mackenzie involves issues such as local quality-of-life, affordability, but most especially, their sense of community attachment and the presence of a large number of family and friends who can act as an informal support network. Thirty percent of people surveyed reported that they had lived in Mackenzie for more than 20 years, and an additional 20% had lived in Mackenzie for more than 30 years.

For many, these local bonds are what will govern their retirement decision-making.

This pending boom in local retirees creates a series of community and policy implications in at least four topic areas: infrastructure, facilities, services, and community.
In terms of infrastructure, making Mackenzie amenable to an older population is challenged by its winter environment. Roads, sidewalks, and parking lots will need both public and private sector investment to maintain them clear of winter snow and ice.

Roadways, especially those which bisect the strip malls within the central part of the town site, will need additional traffic lights installed to allow for safer pedestrian movement.

Sidewalks will require public investment to smooth uneven surfaces and ensure wheelchair accessibility.
Mackenzie’s high quality recreational and community facilities will need to be reoriented to meet the needs of an older population. For example, the recreational centre currently provides many services geared to youth, and thus everything from the public library collection to the hours and programs at the swimming pool will need to be rethought. Other community facilities such as elementary schools are presently under used community assets which can be potentially turned to new uses by targeting different population groups.

Most importantly, the community is going to have to come to grips with the need to provide seniors’ housing. At present, nearly 80% of Mackenzie’s housing involves detached single family houses. There is at present, no seniors’ housing facility.
Key amongst service needs in Mackenzie are those which involve health and wellness. Health services have been severely eroded in the community and will need to be rebuilt to meet the higher use levels common among an older population. Public policy has an opportunity in this to apply technology in an innovative way, to support rather than replace local caregivers, and reduce burdens on regional high end care facilities.

Wellness services fall more within the potential partnership between health authorities, local governments, and the voluntary sector. Key here are services such as meal provision, house cleaning, and yard maintenance.
As mentioned, the community has some time to deal with this issue of resource frontier aging. Even as the bubble of new retirees becomes a demographic fact in Mackenzie, most of these new retirees will be fit and active and will be able to contribute to local community development and community economic development enterprises. In this, it will be important that the local government and these active seniors help to support civil society organizations. Such organizations will be important in providing both wellness services and advocating and planning for the needs of older residents as they age.
Resource frontier aging is creating a community demographic for which these post World War II towns were not created. The combination of workforce aging and the more general Canadian pattern of population aging, means that both public policy and local communities will have to take innovative action to meet the needs of older residents in place. To set the foundation for these innovations, there awaits considerable research on population and needs assessment for resource towns in transition.