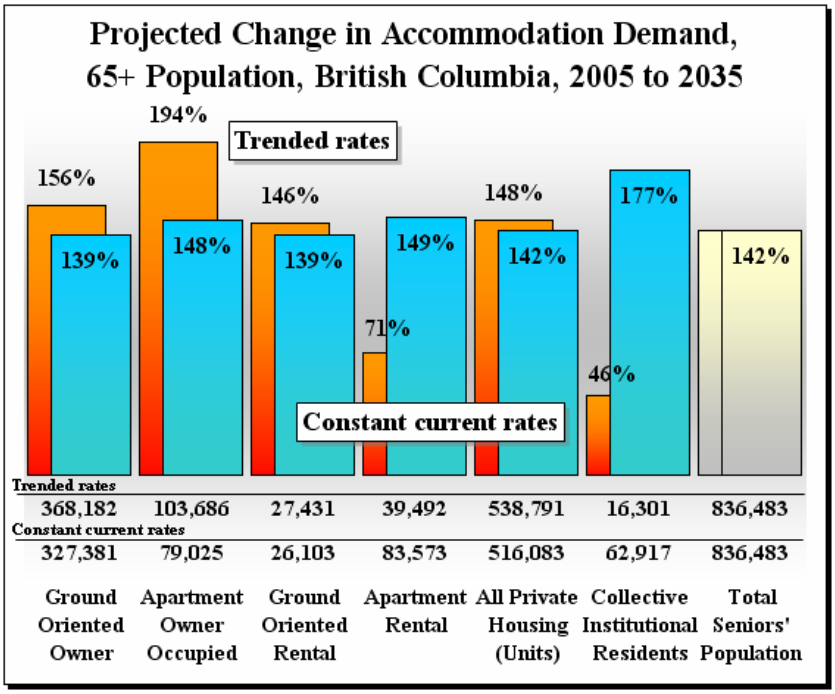
Seniors' Housing Demand in British Columbia over the Next Thirty Years



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URBAN FUTURES
Strategic Research to Manage Change

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Preface

The findings of this research vividly remind us that the characteristics of seniors' households are changing more quickly than dwelling types. This phenomenon suggests that there are a range of needs and opportunities that communities will have to address more extensively in the next 20 years than has been the case in the past.

Not only are the number of household headships 65 years and older growing very rapidly, but there is an increasing propensity to live as part of a couple. These seniors are very likely to own their own homes and to prefer a ground-oriented dwelling. The obvious question is: What happens when they cannot be maintainers of their own dwelling? In the same context, what range of services might they need to support their preference to remain in their own home?

Some of the most extensive social and economic adjustments related to seniors' housing needs will befall the non-metropolitan communities. Previous research by the Foundation focused on the Fraser Fort George Regional District. It found that in 2001 people 65 and older accounted for 7.1% of the population; by 2021 the ratio will increase to 16%. Consider the related housing supply questions: Where will those households that cannot maintain a single family dwelling live, particularly if they want to continue to live independently? Is it likely that Prince George, because it is the north central service centre in BC, will have to supply the alternative dwellings? If the residents of many of these households cannot drive a car and depend on pedestrian mobility for short trips, will there be urban infrastructure to support them? This raises a number of questions related to urban design and maintenance of public precincts. What are the economic impacts of retaining or losing seniors' households?

Perhaps, over the next two decades, many BC communities will address the supply and servicing of the seniors housing market as a strategic component of their local economies.

The Real Estate Foundation thanks the Urban Futures Institute for its interest in the subject of seniors' households and their dwelling needs, and for providing in-kind services to complete this study.

Tim Pringle
Executive Director
Real Estate Foundation

January 10, 2006

I Overview

The next three decades in British Columbia will bring with them significant changes with respect to the province's economic structure and its social and cultural institutions, partly brought about through changes in its demography. In the context of this report, which is concerned with forecasting seniors' demand for accommodation, it is changes in the size and composition of the province's population – and more specifically, its seniors' population – that are of primary interest, along with changes in these seniors' affinities and abilities to live alone, to live in couples, and to maintain various types of dwellings, characterized by their structure type (ground oriented or apartment) and tenure type (owned or rented). Before we begin, however, the following should be noted.

a) The Seniors' Population

In the past, the use of a chronological age definition of a senior as someone 65 years of age and older implied some sort of archetypal image of a person and their behaviour. Today, in contrast, few would argue that age alone would be useful in characterizing a particular group within a community or their behaviour, because the tremendous diversity of lifestyles, values, aptitudes, and abilities present in our communities renders any chronological delimitation of a group merely a tool of analytical convenience. For the purposes of this analysis, we use the traditional age criterion of 65 plus to define the seniors' population. As the report illustrates, however, this implies no single condition or pattern of behaviour, but rather simply permits examination of the diversity of ways in which people, who happen to be 65 years of age and older, choose, and are able, to be accommodated.

b) Private and Collective Housing

The basic definitions used in housing analyses are generally those used by Statistics Canada, whose periodic Census surveys provide most of the data used in housing studies. With respect to types of housing, Statistics Canada defines a dwelling as follows:

> a set of living quarters designed for or converted for human habitation in which a person or group of persons reside or could reside. In addition, a private dwelling must have a source of heat or power and must be an enclosed space that provides shelter from the elements, as evidenced by complete and enclosed walls and roof and by doors and windows that provide protection from wind, rain and snow. [i]

Dwellings are further classified as being either private or collective. A private dwelling, in which most of us live, is a dwelling with

> a separate set of living quarters with a private entrance either from outside or from a common hall, lobby, vestibule or stairway inside the building. The entrance to the dwelling must be one that can be used without passing through the living quarters of someone else.[ii]

Collective dwelling[iii], in contrast, do not offer private access to one's living quarters. Such a dwelling is generally of

> a commercial, institutional or communal nature. Included are lodging or rooming houses, hotels, motels, tourist homes, nursing homes, hospitals, staff residences, communal quarters (such as military bases), work camps, jails, missions, group homes, and so on. [iv]

Thus, privacy – being able to enter one's living quarters without passing through someone else's – is what defines a private dwelling, not who owns it, as it may be owned by private individuals and companies, the public sector, or non-profit organizations.

While dwellings tell us about physical structures, households tell us about the occupants of dwellings. According to Statistics Canada, a household

> refers to a person or a group of persons (other than foreign residents) who occupy the same dwelling and do not have a usual place of residence elsewhere in Canada. It may consist of a family group (census family) with or without other non-family persons, of two or more families sharing a dwelling, of a group of unrelated persons, or of one person living alone. Household members who are temporarily absent on Census Day (e.g. temporary residents elsewhere) are considered as part of their usual household. For census purposes, every person is a member of one and only one household. Unless otherwise specified, all data in household reports are for private households only.[v]

By combining data on dwellings and households the diverse nature of accommodation that characterizes our communities emerges. In a single city block we might find a 60 year old married couple living with their two sons and their daughter in a single detached home; two twenty-somethings sharing the rent, and space, in a townhouse; a 75 year old couple empty-nesting in the home in which they raised their children with a 25 year old tenant living alone in their basement suite; and 10 seniors residing in an assisted living dwelling.

c) Living Arrangements and Household Maintainers

There are two dimensions of housing that are the focus of this research. The first is the living arrangements of individuals in terms of their relationship to the people they live with: whether they live alone; with their parents or their spouse in a family; or with unrelated people in a private or collective dwelling. The second is concerned not with the relationship among people living in a household, but rather between these groups of people and the types of dwellings they live in.

This latter concept creates three occupancy-based groups: individuals occupying institutional dwellings such as care facilities, nursing homes, prisons, work camps and military barracks; individuals who are part of larger households occupying collective dwellings such as boarding and rooming houses, religious colonies, monasteries, and communes; and individuals who are part of households occupying private dwellings. The characteristics of private dwellings that are of most common interest are those of tenure

(owner-occupied or rental) and structure type (single detached, row, duplex, apartment, etc.).

As this research focuses on an age-defined segment of the population – people 65 and older – it is necessary to include an age dimension for the population occupying these various types of housing. When the area of interest is the various living arrangements of individuals, the age dimension is relatively straightforward: it is simply the age of the individual. However, households are the relevant variable when the focus is on the number of type of dwelling units. With most households being made up of more than one person, consideration of an age dimension is more difficult. For most housing research, including the research comprised in this report, the "age" of a household is keyed to the age of the primary household maintainer, which Statistics Canada defines as

> the person in the household who pays the rent, or the mortgage, or the taxes, or the electricity, etc., for the dwelling. If no person in the household is responsible for such payments, [the first adult person listed on the Census form] is considered to be the only household maintainer.[vi] [If more than one person is responsible, the first person listed as a household maintainer is considered to be the primary household maintainer.]

In the cases of both individuals and their living arrangements and households and their occupancy patterns, age-related patterns and changes in these patterns are based on the percentage of the total population in each age group that either a) lives in a particular form of relationship with other people in the household, which indicates the relative propensity of people in an age group to live in such relationships, or b) maintains a household within a specific structure type and/or tenure of dwelling, which indicates the relative propensity of people in an age group to maintain households living a particular structure type and tenure combination. As such, the discussion in the following major sections of this report considers such things as changing age specific propensities for seniors to live alone or in couples in private dwellings, as well as age specific propensities for seniors to maintain households living in owner-occupied apartments.

d) Data Sources

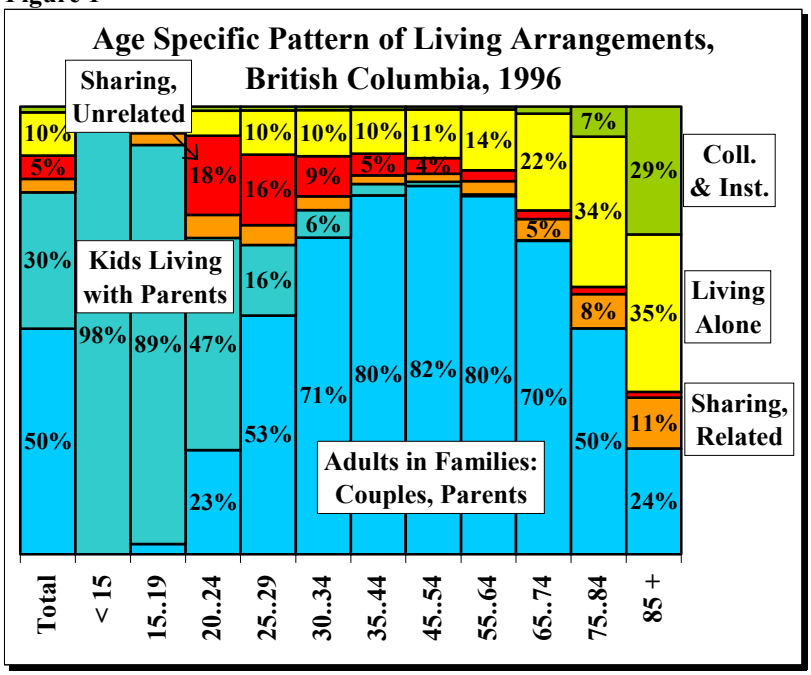
Historical data on British Columbians' living arrangements and patterns of household maintainership have been obtained from Statistics Canada for the Census years 1996 and 2001, a time frame necessitated by virtue of changing data definitions and classifications. In addition, age specific spending data have been obtained from the Canadian Institute for Health Information.

Forecasts of growth and change in BC's population and the components of population change, as well as future patterns of seniors' accommodation demand, are derived from Urban Futures' projection models.

II Changing Patterns of Living Arrangements

a) Living Arrangements in British Columbia in 1996

Figure 1



There is a distinct lifecycle pattern of living arrangements – how, and with whom, people live – that follows a regular and predictable age-related pattern. That said, the pattern changes subtly over time. This pattern, and its change over time, is clearly demonstrated in the Census data on the population of British Columbia by age and living arrangements. As a starting point, consider the pattern that prevailed in 1996: as Figure 1 shows, the vast majority of people under the age of 20 in British Columbia in 1996 lived with their parents (with 98 percent of those under the age of 15 and 89 percent of those between the ages of 15 and 19 doing so). As might be anticipated, as people age there is a steady and significant decline in the propensity of people to live with their parents, which becomes relatively insignificant in the 35 plus age groups. Over this stage of the lifecycle, the propensity to live as adults in a family (as married or common law couples with or without children or as single parents) increased, from 23 percent in the 20 to 24 age group to 80 percent in the 35 to 44 age group.

Focusing specifically on the 65 plus population, it is apparent that in 1996 people in the older age groups had an increasingly greater propensity to live in collective and institutional dwellings than people in the younger age groups, with seven percent of all 75 to 84 year olds and 29 percent of all people aged 85 plus residing in collective or institutional dwellings. While compared to the younger age groups these represent sizeable shares, it is important to note that for all age groups comprising the seniors' population the propensity for people to occupy private dwellings was significantly greater, ranging from 71 percent for those aged 85 years and older to 93 percent for those between the ages of 75 and 84. It is worth emphasizing that the vast majority of people (and as is shown in the following section, an increasing majority of people) in each age group comprising the seniors' population lives in private accommodation – not in nursing homes and other collective and institutional residences.

Within private housing, there was an increasing propensity for people to live alone in the older age groups, with 34 percent of all people aged 75 to 84 and 35 percent of people

aged 85 plus doing so in 1996. This increase was matched with a decreasing propensity to live as adults in couples, from 70 percent in the 65 to 74 age group down to 24 percent in the 85 plus age group. The shifting of these two propensities is almost entirely attributable to the death of a spouse reducing a couple to a single: given the shorter life expectancies of males than females, this would result in an increasing propensity for older women to live alone.

Also increasing with age, although not of a significant magnitude in any one age group, was the propensity to share private accommodation with related persons other than a spouse, which increased from five percent of the 65 to 74 age group to eleven percent of the people in the 85 plus age groups. This is in contrast to the pattern of sharing accommodation with unrelated persons, which encompassed two percent of people in the 65 to 74 age group and a mere one percent of those in the 85 plus age group. (As Figure 1 shows, sharing private accommodation with unrelated people is significant only in the 20 to 34 age groups, where between seven and 14 percent of the people engaged in this type of living arrangement.)

Thus, in 1996, as people entered their senior years in the 65 to 74 age group, they were most likely to live in private housing as part of a couple (70 percent) or alone (22 percent). A different pattern could be seen in the oldest of the seniors' age groups – the 85 plus age group – where a person was most likely to live alone in private housing (35 percent), reside in a collective or institutional dwelling (29 percent), or live in private housing as one of a couple (24 percent).

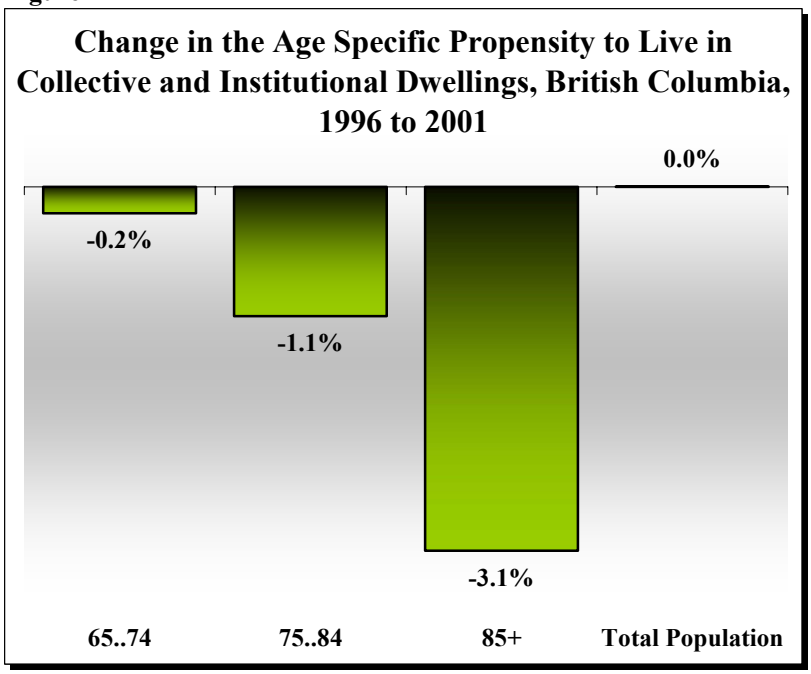
While this general lifecycle pattern prevailed in 2001 – the year of the most recently-available Census data (see Figure 6) – finer examination of the changes that occurred over the 1996 to 2001 period points to potential trends in how seniors accommodate themselves, which in turn would hold significant implications for their housing in the future.

b) Changing Living Arrangements, 1996 to 2001

i) A Declining Propensity to Live in Collective and Institutional Dwellings

Continuing a trend that has been underway since the early 1970s, and which has been observed in most regions in Canada, the propensity for seniors to live in collective and institutional dwellings declined – and thus, the propensity to live in private dwellings increased – between 1996 and 2001 (Figure 2). The greatest decline in collective and institutional living was the 3.1 percentage point decline in the number of people 85 plus living in this type of accommodation, with lesser declines in the 75 to 84 and 65 to 74 age groups. This pattern of decline contrasts the unchanging propensity for the province's entire population to live in this type of dwelling over this period of time.

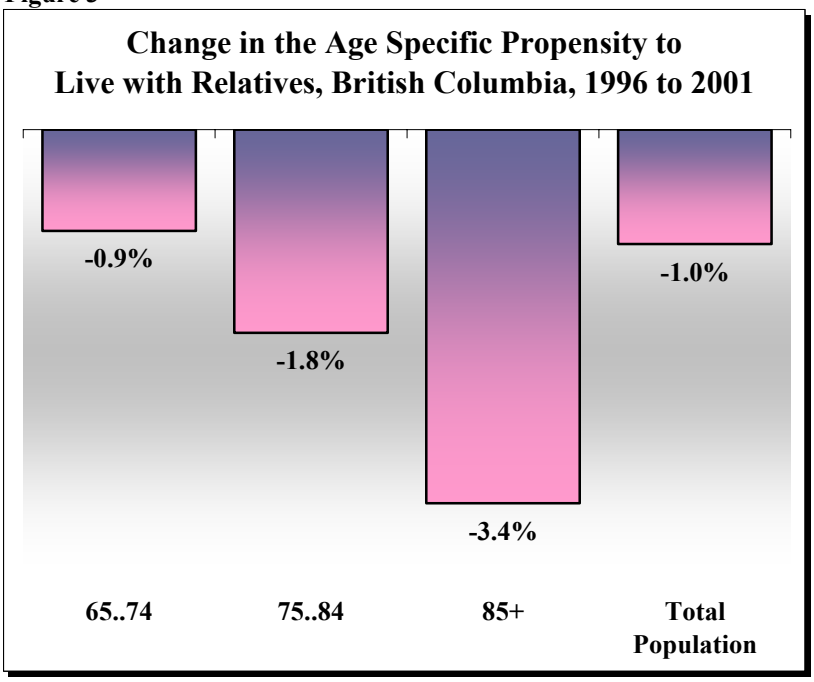
Figure 2



While an analysis of trends underlying this shift warrants its own study, it is appropriate to note that while the propensity to live in collective and institutional dwellings declined for both males and females in all seniors' age groups, the greatest relative change in the propensity for this segment of the population to live in collective and institutional dwellings was seen for women 85 and older. There are a number of factors that have contributed to this on-going and long-term trend, including the greater relative health of the older population, and changes in housekeeping and care technology, including the way in which services are delivered to seniors that make living in private accommodation more feasible for an increasing share of the older population.

ii) A Declining Propensity to Live with Relatives in Private Housing

Figure 3

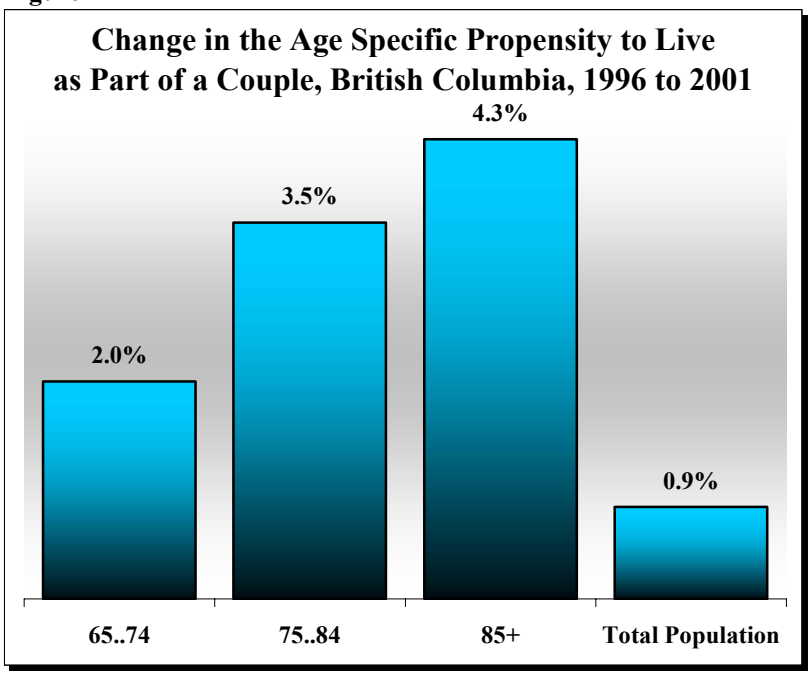


The propensity of seniors to live with relatives other than a spouse (common law or married) also declined significantly between 1996 and 2001, again with the biggest decline occurring in the oldest age group (Figure 3). With an overall decline in living with relatives of one percentage point for the total population, the 0.9 percentage point decline in the propensity for people aged 65 to 74, the 1.8 percentage point drop for the 75 to 84 and the 3.4 percentage point drop for persons aged 85 plus all represent fairly significant changes, particularly given the relatively small base values for this propensity, which were in the range of five to eleven percent in 1996.

Combined, the two dimensions of change in seniors' living arrangements considered thus far paint a picture of seniors increasingly living like, well, everyone else. This means a decline in the number of people living in the stereotypical nursing home or sharing accommodation with people other than their spouse, and as the next sections show, this means a greater proportion of seniors living in couples and, in the oldest age group, alone in the privacy of their own home.

iii) An Increasing Propensity to Live in Couples in Private Housing

Figure 4



The biggest change with respect to the living arrangements of the seniors' population in British Columbia over the 1996 to 2001 period was the increase in the proportion living in couples. The percentage of people aged 65 to 74 living as part of a couple increased by 2.0 percentage points; for those aged 75 to 84 it increased 3.5 percentage points; and for those aged 85 plus it increased 4.3 percentage points (Figure 4).

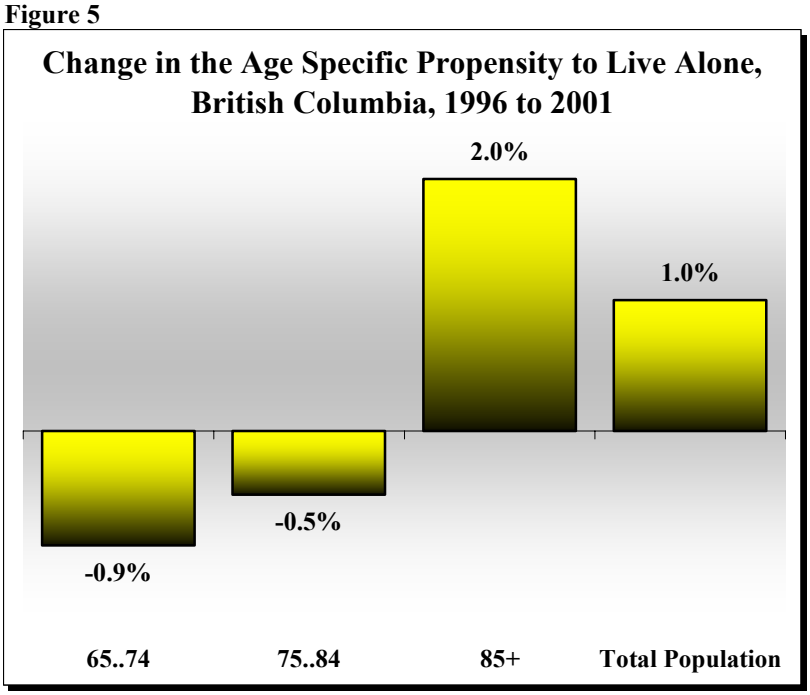
There are two demographic forces that underlie a significant portion of this change. The first is that male life expectancy is, and has been for some time, increasing faster than that of females (which is also increasing), resulting in a narrowing of the life expectancy gap between males and their female counterparts. This means that couples in all age groups are surviving longer, thereby increasing the percentage of seniors living in couples and shrinking the proportion living alone.

The second demographic factor is more specific, and rooted further back in history. The succession of wars during the first half of the twentieth century, from the Boer War (which ended in 1902), the First and Second World Wars (the latter of which ended in 1945) and the Korean War (which ended in 1953), involved the deaths of a significant number of young Canadian males, resulting in a reduction of the number of males per 100 females in the corresponding population cohorts. Since 1953, Canada has not been involved in any military action that resulted in the deaths of a large number of Canadian enlisted men; hence, there is today, relative to the past, a larger number of males per 100 females in the applicable cohorts. The youngest of the combatants of the Korean War are now approaching their 75th birthday, and the youngest participants of the Second World War are approaching their 80th. As the cohorts of the population who reached adulthood

after 1953 age into their senior years, we can anticipate proportionately more couples in the older population than we have seen over the past fifty years.

iv) A Changing Propensity to Live Alone in Private Housing

Figure 5



With a greater share of the seniors' population living in couples, it would be reasonable to anticipate a decrease in the share living alone; on the other hand, with a declining share living in collective and institutional dwellings, it would also be reasonable to anticipate an increase in the proportion living alone in their own homes. In fact, as seen in Figure 5, the data demonstrate both of these trends.

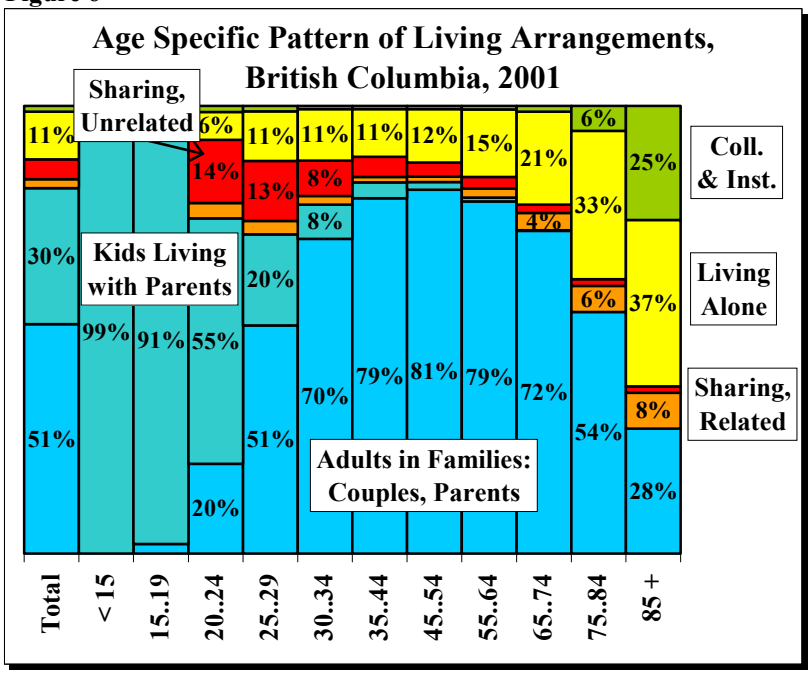
In the 65 to 74 and 75 to 84 age groups, there were drops of 0.9 and 0.5 percentage points, respectively, in the propensity to live alone, reflecting the increases in the propensity to live in couples in these age groups. In the 85 plus age group, however, there was a significant increase in the propensity to live alone in one's own home, reflecting the significant declines in the propensity of people in this age group to share private accommodation with non-spouse relatives or to live in collective and institutional dwellings.

[As a final comment, it should be noted that not only are the propensities to share private accommodation with unrelated persons insignificant in the older age groups, but so too were the changes in these propensities over the 1996 to 2001 period.]

c) Living Arrangements in British Columbia in 2001

As illustrated, a picture of a seniors' population that increasingly lives like the non-seniors' population emerges from the Census data, characterized by a reduction in the propensity to live in collective and institutional dwellings and an increasing propensity to live in couples in the privacy of their own home. Having noted this trend, these changes tend to be on the margin, and will only significantly alter the lifecycle pattern of living arrangements over longer periods of time than the 1996 to 2001 period. Thus, when we look at the 2001 pattern in Figure 6 we see that it shares the same general age-related attributes that were embodied in the 1996 data (refer back to Figure 1).

Figure 6



The seniors' population remains one where the probability of living in collective and institutional accommodation is higher than in younger age groups, and where this probability increases with age. The same situation prevails with respect to living in private accommodation, either alone or with related (non-spouse) persons. Conversely, the seniors' population has a smaller propensity to live as persons in couples residing in their own (private) accommodation versus those in the 30 to 54 age groups, and this propensity declines through the oldest age groups (Figure 6).

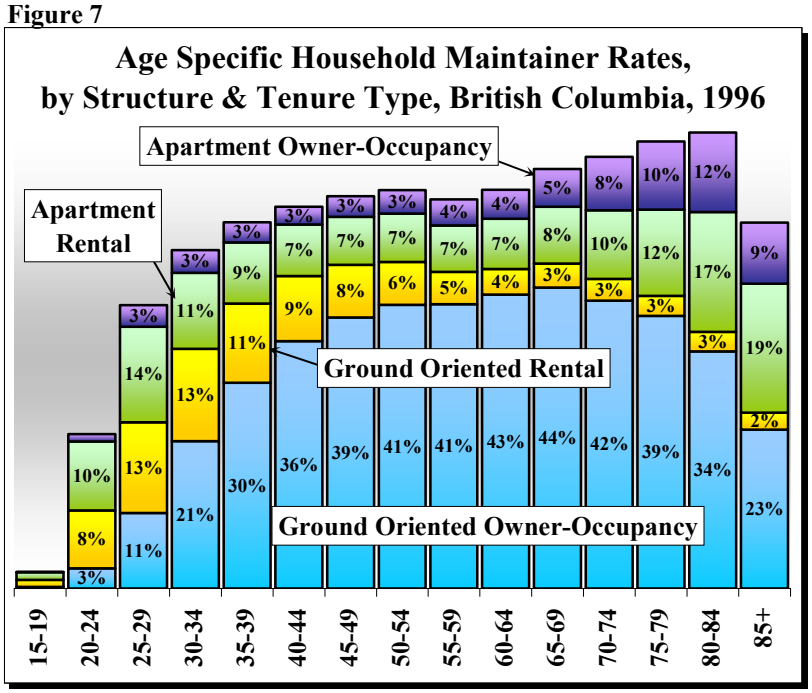
Thus, when we look to the implications of current lifecycle patterns of living arrangements, and the changes in these patterns as the population ages, we see a situation where demographic change, when considered in the absence of behavioural change, will generate significant increases in the number of seniors living in collective and institutional dwellings, in the number sharing private accommodation with related persons, and in the number living alone. That said, changing behaviour – from increasing and converging life expectancies to increasing ease of private living – will shift the pattern towards seniors increasingly living in couples in private accommodation.

III Changing Patterns of Household Occupancy

Household maintainer rates are the percentage of people in an age group who are primarily responsible for payment of the major housing related expenditures of a group of people living together in a dwelling (the household). With an increasing propensity over the 1996 to 2001 period for women in the 85 plus age group to live alone in private housing and a declining propensity for them to live in collective and institutional dwellings, it would be reasonable to anticipate an increase in their propensity to maintain private households. Similarly, with declining propensities for people in the 65 to 84 age groups to both live in collective dwellings and to live in alone in private dwellings it would be reasonable to anticipate little change in their propensities to maintain households in private dwellings. The data on changes in age specific maintainer rates over the 1996 to 2001 period show not only that these expected changes (or lack thereof) occurred, but more significantly they assist in understanding why these changes occurred, and what their implications could be for seniors' accommodation in the future.

a) Household Maintainer Rates in British Columbia in 1996

Figure 7



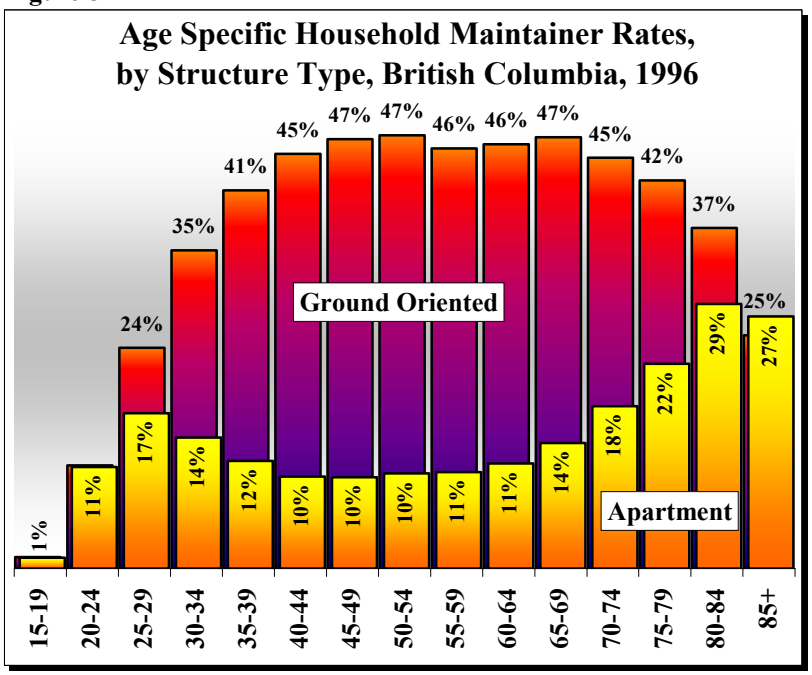
Just as there is a clear and distinct lifecycle pattern to living arrangements, so too is there a distinct lifecycle pattern of the structure type and tenure of dwellings that households occupy. As people get older, there is an increasing propensity for them maintain households, a trend that reaches it peak in the 80 to 84 age group. In 1996, two out of every three people in the 80 to 84 age group were household maintainers (with the other one-quarter living in a household maintained by someone else), compared to the 58 percent of 50 to 54 year olds, and 41 percent of 25 to 29 year olds. To a large extent, this overall lifecycle pattern can be explained by the increasing propensity with age of people to live alone (as shown in the living arrangements data in Figure 1), especially in the 65 plus population.

Underlying the lifecycle pattern with respect to total maintainer rates are very distinct lifecycle patterns with respect to the structure type and tenure of the dwellings that households occupied (Figure 7). The core lifecycle pattern of household maintainer rates, as shown in the 1996 data, reveals an increasing propensity to maintain households living in owner-occupied ground oriented dwellings (single detached dwellings, duplexes, row

houses, or townhouses), up to a peak in the 65 to 69 age group (44 percent), and then declining to a relatively low proportion (23 percent) of the 85 plus age group. Thus, in the seniors' population we find the highest propensity to maintain households living in ground oriented accommodation of all age groups, and a general pattern of decline thereafter.

The propensity to maintain a household living in rented ground oriented dwellings also declined within the seniors' age groups, from three percent in the 65 to 69 age group to two percent in the 85 plus age group, which represents an end-point in what is a general pattern of decline from the peak propensity seen in the 25 to 34 age groups (at 13 percent). This pattern is largely the result of this structure type and tenure combination often representing the first stage of ground oriented living for families, with the second stage being a shift to owner-occupancy after age 35.

Figure 8



Therefore, the overall propensity to maintain a household living in ground oriented accommodation (owner-occupancy and rental combined) increases steeply through early stages of the lifecycle, with the 1996 data show this propensity increasing from eleven percent of the population in the 20 to 24 age group to a peak in the neighbourhood of 47 percent in the 45 to 69 age groups (Figure 8). Thereafter, there is a declining propensity to maintain ground oriented accommodation within the seniors' population, dropping steadily to 37 percent in the 80 to 84 age group and then sharply to 25 percent in the 85 plus age group in 1996.

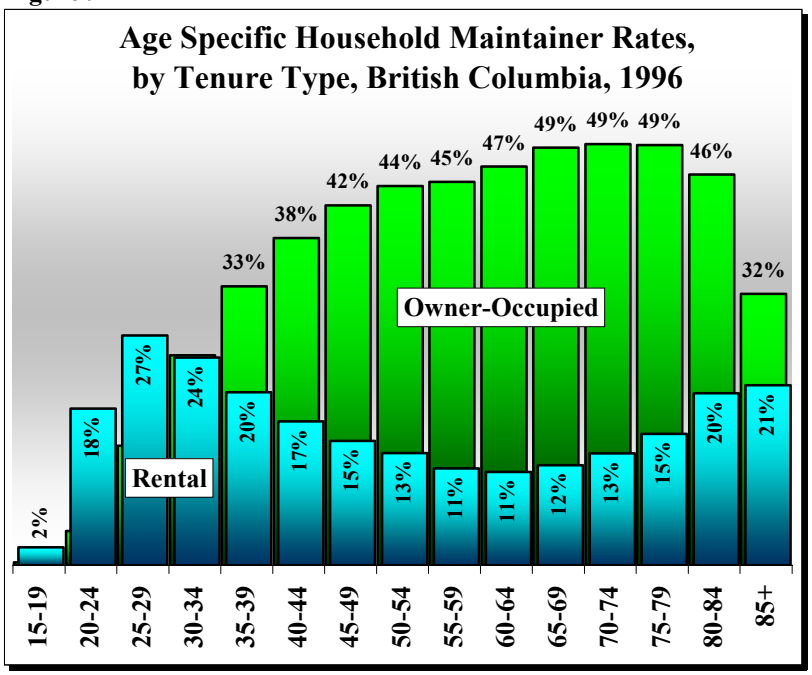
In the seniors' population this decline is matched with an increase in the propensity to live in apartments. In 1996, 14 percent of the seniors aged 65 to 69 maintained households living in apartments: from here through the older age groups this propensity increased steeply, doubling into the 27 to 29 percent range for the 80 plus age groups.

As with ground oriented maintainership there is a distinct age-related pattern for households living in rental and owner-occupied apartment units (refer back to Figure 7). The propensity for people to maintain households living in rental apartments follows a bit of an accordion pattern, rising in early adulthood (to 14 percent in the 20 to 24 age group), then falling as the prevalence of home-ownership increases (to about seven

percent in midlife), before increasing steadily again, from eight percent in the 65 to 69 age group to its record level of 19 percent in the 85 plus age group.

In contrast, the propensity to maintain households living in owner-occupied apartment units is relatively low throughout the first half of the lifecycle, but increases steadily from its modest three percent rate in the under 50 age groups to four percent of the population aged 65 to 69, and further to a peak of 12 percent in the 80 to 84 age group. In the 85 plus age group this rate falls back nine percent.

Figure 9



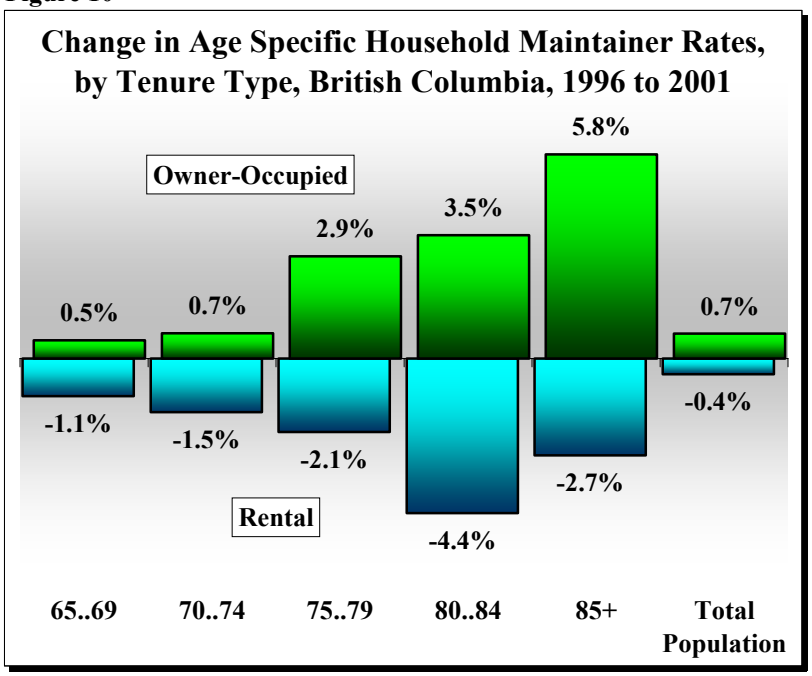
Ignoring structure type composition within each of the tenure classifications reveals the lifecycle pattern of housing tenure (Figure 9). As the 1996 data show, the propensity to own one's home (be it ground oriented or apartment in nature) increased steadily through to the 75 to 79 age group (reaching a peak of 49 percent), before dropping substantially to 32 percent in the 85 plus age group. Furthermore, the propensity to maintain an owner-occupied household exceeds that of rental accommodation beginning at age 30.

The propensity to maintain a household living in rental accommodation is highest in the young adult, household formation stage of the lifecycle (reaching 27 percent of the people aged 25 to 29 in 1996), dropping to a low of eleven percent in the 60 to 64 age group. Within the seniors' population, the rental propensity increases steadily, climbing from 12 percent of the 65 to 69 age group to 21 percent of those aged 85 plus.

b) A General Overview of Changing Occupancy Patterns, 1996 to 2001

Just as the living arrangements of individuals changed over the 1996 to 2001 period, so too did the structure type and tenure of housing that they occupied. Keeping with the theme of household maintainership by tenure, the propensity of seniors to maintain households living in owner-occupied dwellings increased in every age group, albeit substantially more in the older seniors' age groups (Figure 10). Compared to a 0.7 percentage point increase for the total population, the percentage of people aged 85 plus maintaining an owner-occupied household increased by 5.8 percentage points; for those

Figure 10

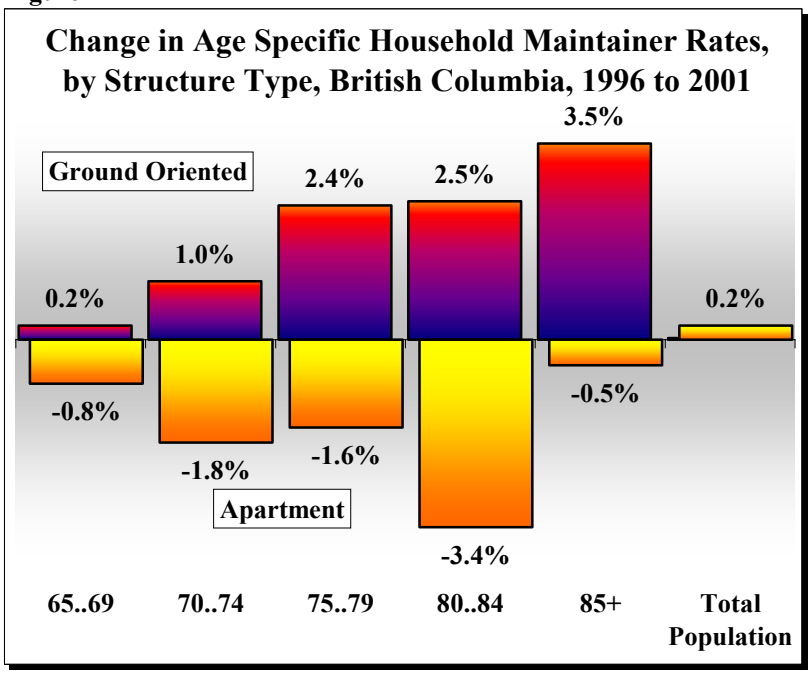


aged 80 to 84 it increased by 3.5 percentage points; and for those aged 75 to 79 it increased by 2.9 percentage points.

It is clear that seniors were increasingly becoming (or more accurately, remaining) owner-occupiers. Part of this increase came at the expense of rental accommodation, with the age specific propensity for rental accommodation declining in every seniors' age group, from 1.1 percentage points in the 65 to 69 age group to 4.4 percentage points in the 80 to 84 age group.

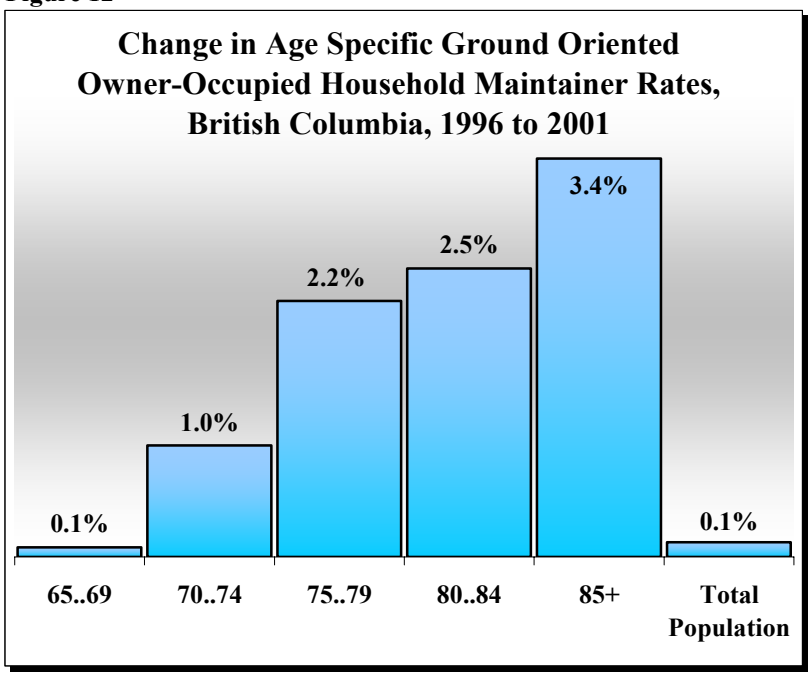
Note, however, that there is not an exact correspondence between changes in the rental and owner-occupancy propensities. For example, the propensity of people in the 85 plus age group to maintain owner-occupied households increased by 5.8 percentage points, while that for rental households declined by only 2.7. The gap between these two changes is the result of the fall in the propensity of people to live in collective and institutional dwellings in this age group, resulting in the 3.1 percentage point net increase in the private household maintainer rate for this age group. In the case of the 80 to 84 age group, the increase in the propensity to maintain households in owner-occupied dwellings increased by 3.5 percentage points, while rental accommodation fell by 4.4 percentage points, resulting in a net decline of 0.9 percentage points in the overall maintainer rate for this age group. This is ultimately the net result of the increase in the propensity of people in this age group to remain in couples pulling the overall maintainer rate down by more than the increase in the propensity to live alone.

Figure 11



A parallel pattern is observed in the net changes in maintainer rates by structure type (Figure 11). In every seniors' age group, the propensity of people to maintain households living in ground oriented accommodation increased (and increased more with age), from a 0.2 percentage point increase in the 65 to 69 age group to a 3.5 percentage point increase in the 85 plus age group. Somewhat balancing these increases were declines in the age specific propensity to maintain households living in apartment buildings, from a 0.8 percentage point decline in the 65 to 69 age group to decline of 3.4 percentage points in the 80 to 84 age group. Note that the greatest gap between the increase in the propensity to maintain a household living in an owner-occupied dwelling and the decline on the rental side was in the 85 plus age groups, with a 3.5 percentage point increase for ground oriented units comparing to a 0.5 percentage point decline in for apartments. Again, this is the net effect of the increase in the overall maintainer rate for this age group as the result of the increase in living alone and the decline in living in shared accommodation, be it with non-spouse kin or in collective and institutional dwellings.

Figure 12

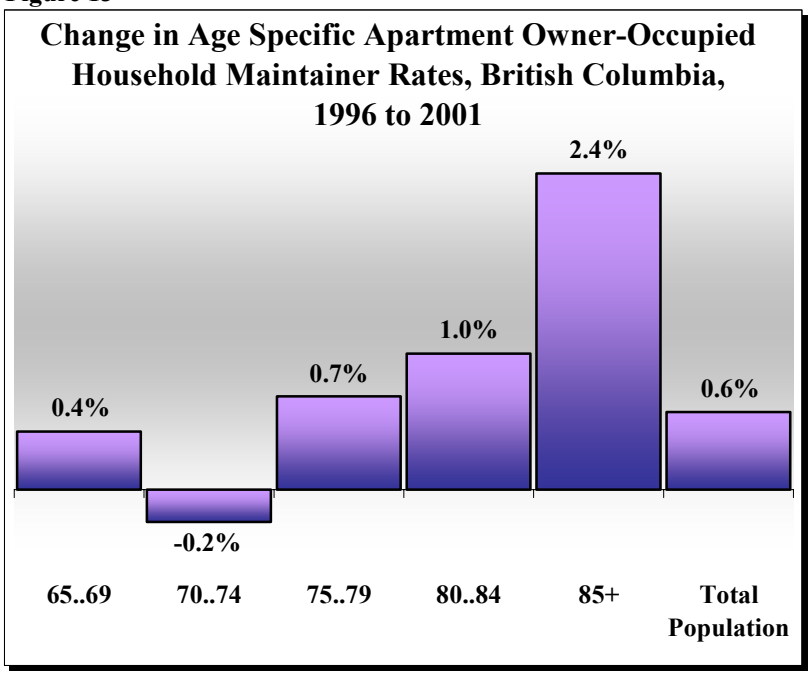


c) A Detailed Overview of Changing Occupancy Patterns, 1996 to 2001

Given the correlation between ownership and ground oriented housing, and with renting and apartment dwellings, it should come as no surprise that the propensity to maintain a household living in an owner-occupied ground oriented dwelling increased in every seniors' age group (Figure 12). There was a negligible 0.1 percentage point increase in the

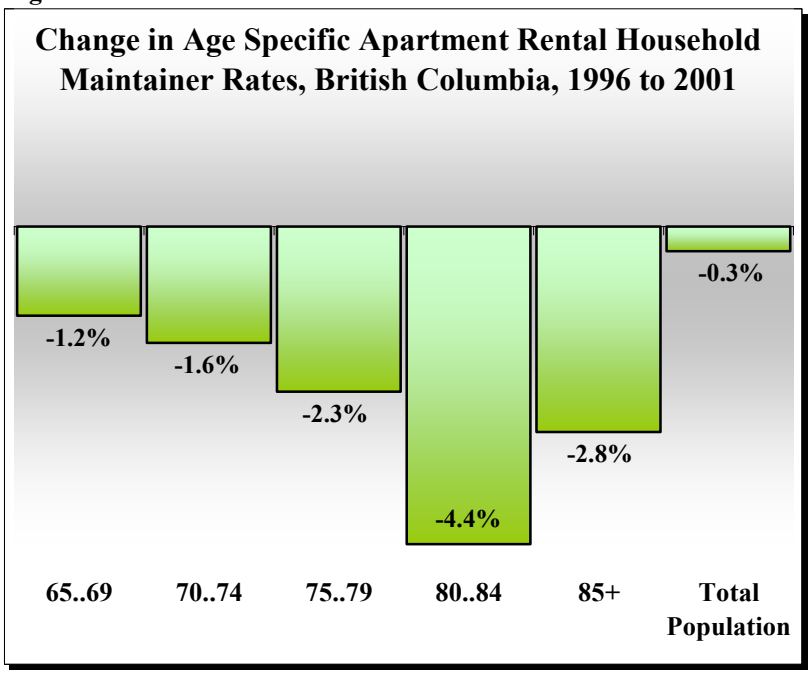
propensity of people aged 65 to 69 to maintain a household living in this tenure/structure type combination, compared to a 3.4 percentage point increase for the 85 plus population. It is most likely that this increase is not the result of seniors moving into this type of accommodation, but rather of them being less likely to move out of it and into other types of accommodation.

Figure 13



A similar pattern of change occurred with respect to the propensity of seniors to maintain households living in owner-occupied dwellings in apartment buildings, although the percentage point increases were significantly smaller in 65 to 84 age groups (Figure 13). In the oldest age group, however, the propensity to maintain households living in owner-occupied apartment units increased substantially, growing by 2.4 percentage points (on a base of 8.8 percent of people aged 85 plus maintaining households in this owner-occupied apartments in 1996). Thus, the growth in the overall propensity to maintain households living in owner-occupied dwellings was driven by both the ground oriented and apartment sectors of the housing market.

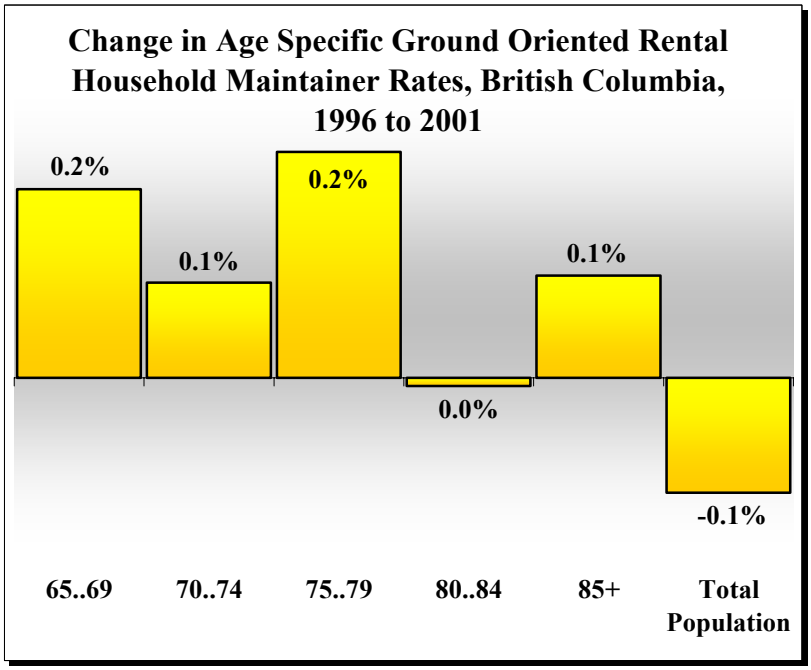
Figure 14



The declines in the propensity to maintain households living in rented dwellings were essentially all accounted for by declines in rental apartment maintainership, from a 1.2 percentage point decline in the 65 to 69 age group to a 4.4 percentage point decrease in the 79 to 84 age group (Figure 14). The propensity in the 85 plus age group declined less significantly, by only 2.8 percentage points, reflecting the offsetting effect of the increase in living alone and

the overall decrease in living in collective and institutional dwellings over this period.

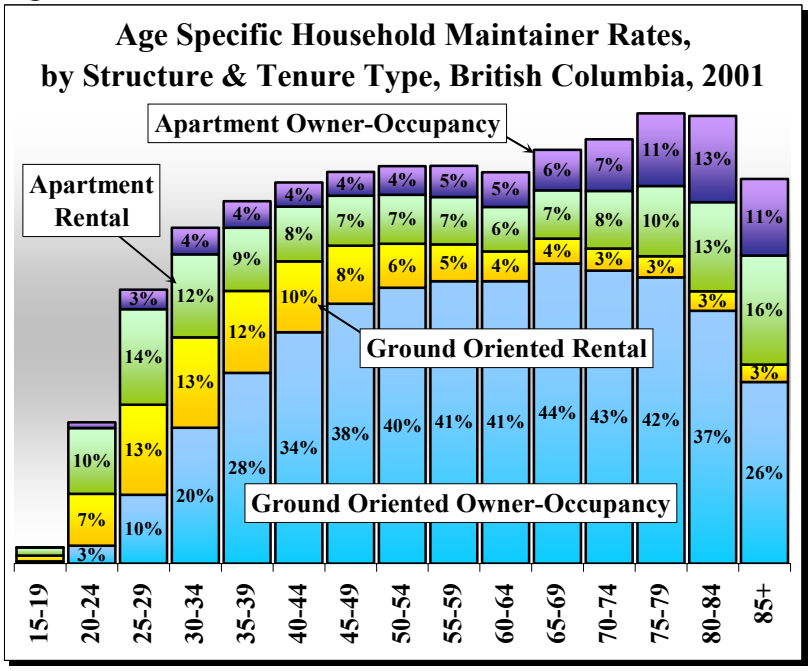
Figure 15



As noted earlier, the propensity of seniors to maintain households living in ground oriented rental accommodation was not of a significant magnitude in 1996. In addition, the changes in the propensities within this segment of the population over the 1996 to 2001 period were also insignificant, as the rental ground oriented sector was not significant in either the base propensities in 1996 or the changes observed over the 1996 to 2001 period. In order to ensure completeness, however, Figure 15 shows the changes in the age specific propensities of the seniors' population to maintain households in rental ground oriented dwellings.

d) Household Maintainer Rates in British Columbia in 2001

Figure 16



As with the pattern of living arrangements, the general lifecycle pattern of household maintainer rates was not dramatically changed by shifts in private household maintainer rates seen over the 1996 to 2001 period. Nevertheless, these shifts did alter the lifecycle pattern in an important direction, pushing propensities up for households maintaining owner-occupied dwellings – both ground oriented and apartment in nature – and reducing those for households living in rental apartments (Figure 16).

The result was that in the 65 to 84 age groups, a senior was as likely to maintain a household living in an owner-occupied apartment as one living in a rental apartment (in the range of seven to ten percent), and much more likely to live in an owner-occupied ground oriented unit (in the range of 42 to 44 percent). As a result of these changes, a greater percentage of people aged 65 to 79 were maintainers of households living in ground oriented owner-occupied dwellings than in any other age groups.

In summary, the 2001 lifecycle pattern of household maintainership by structure type and tenure remained one of:

- an increasing propensity with age for seniors to maintain households living in rental apartments, but with this propensity declining over time;

- an increasing propensity with age for seniors to maintain households living in owner-occupied apartments (with the exception of the 85 plus age group), and with the propensity increasing over time;

- a declining propensity, albeit from record levels, of seniors to maintain households living in owner-occupied ground oriented dwellings, with this propensity increasing over time; and

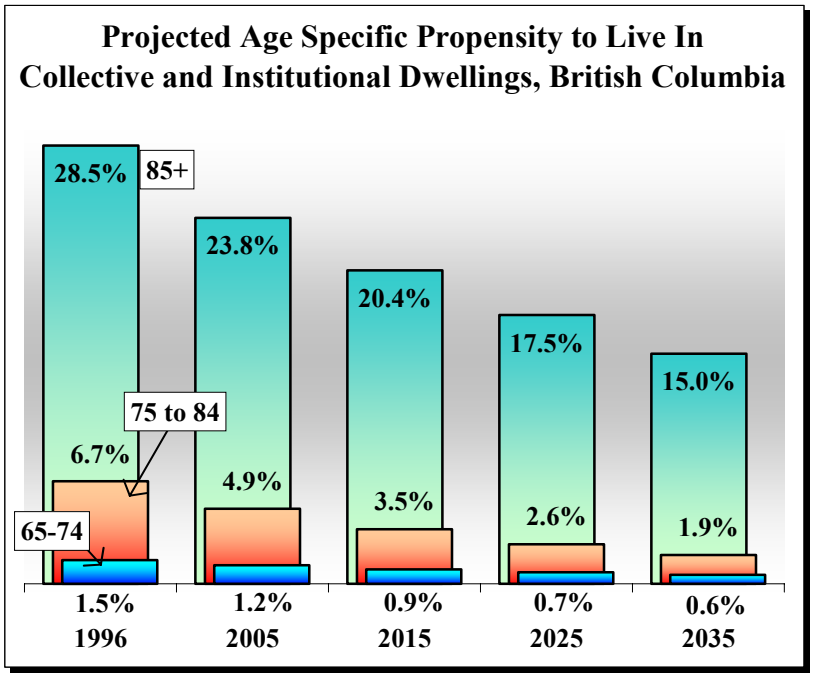
- an increasing propensity to live in collective and institutional dwellings with age, but with this propensity declining over time.

IV The Future of Seniors' Housing Demand in British Columbia

There are two dimensions to the factors that will shape future demand for housing occupied by seniors in the province of British Columbia. The first is behavioural, involving consideration of how the lifecycle pattern of housing occupancy changes in the future, and the implications of these changes on housing demand. The second is demographic, involving consideration of how changes in the number of seniors, and the composition of the seniors' population, will shape the demand for housing. Within these two dimensions the myriad detailed factors that shape demand for housing, from changing life expectancies to changing housing prices, will be reflected.

a) Trends in the Lifecycle Pattern of Housing Occupancy

Figure 17



Trends in the lifecycle pattern of housing demand will be informed by many factors, such as ongoing increases in both male and female life expectancies, male life expectancies increasing faster than those for females, and increasing disability-free life expectancies resulting from an increasingly fit and healthy seniors' population. Given these factors, it is reasonable to expect the trend towards independent living and away from living in collective and institutional dwellings will continue in the future.

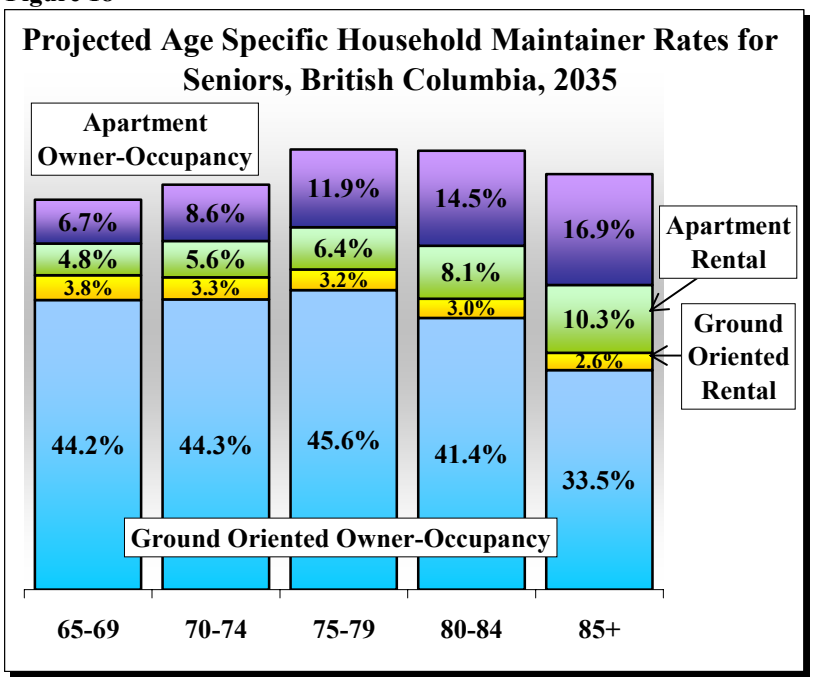
Having said this, as with many trends, the laws of diminishing returns are likely to result in incremental changes slowing as we move into the future. As a result, it is prudent to project future changes in the share of the seniors' population that will be living in institutional and collective dwellings to occur at a diminishing rate relative to the changes that have occurred in the past. For purposes of this projection, changes observed over the 1996 to 2001 period were extended forward using a dampened exponential decay function, resulting in a projected decline in the share of people aged 65 to 74 living in collective and institutional dwellings to 0.6 percent by 2035, down from 2001's 1.3 percent. For those aged 75 to 84, a decline to 1.9 percent was forecasted, from 2001's 5.6 percent, and for those aged 85 plus the share was projected to fall to 15.0 percent, down from 2001's 25.4 percent. As Figure 17 shows, with reference to 1996, the decade-by-decade declines in this propensity become smaller as time progresses, so that overall, projected change under this scenario implies average annual percentage point declines in

the range of one-half of the average annual declines recorded over the 1996 to 2001 period.

A similar approach was adopted to project future age specific private household maintainer rates by structure type and tenure. The mathematics employed to produce these values implied that the average annual change in age specific maintainer rates in the seniors' population will result in annual average percentage point changes that are approximately one-quarter of those that occurred over the 1996 to 2001 period.

The result is a lifecycle pattern of maintainer rates that preserves the general pattern observed in 1996 and 2001, with overall maintainer rates increasing with age up to the 80 to 84 age group (reaching 67 percent, compared to 2001's 65 percent), before dropping slightly to 63 percent in the 85 plus age group. These declines, while not as significant as those which occurred in the 1996 and 2001 data, continue to reflect the increasing opportunity for independent living in this oldest age group.

Figure 18



Underlying the overall pattern is the lifecycle pattern of household maintainership by structure and tenure type (Figure 18). These trends reinforce owner-occupied ground oriented living's predominance in the older age groups, with the most marked increases being those in the 80 to 84 and 85 plus age groups, where household maintainer rates are projected to increase to 41.4 percent and 33.5 percent, respectively. One of the most significant implications of the continuance of historical trends will be the reversal of the roles of rental and owner occupancy in the apartment markets, with the propensity to maintain a household living in an owner-occupied apartment increasing with age, reaching a peak of 16.9 percent of the people aged 65 plus, and with these propensities exceeding those for rental apartments in each age group. Having said this, it is important to note that despite the projected pattern of change in the rental apartment sector, the age specific propensity for seniors to maintain households living in rental apartments is projected to increase with age, also reaching a peak in the 85 plus age group, at 10.3 percent.

This scenario reflects one pattern that seniors' housing occupancy may follow in the future, a pattern that acknowledges both that increasing life expectancies, abilities, and health in the seniors' population will continue to affect how seniors accommodate

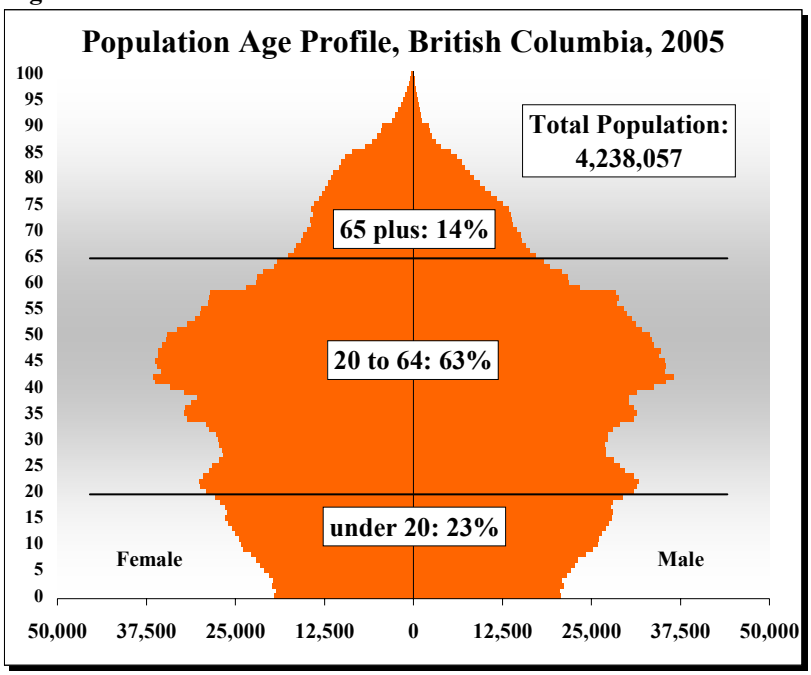
themselves, and also that on an absolute, and most likely relative, basis the magnitude of such changes will likely diminish in the future. This is the scenario on which the projection of future housing demand from the seniors' population presented later in this report is based.

In keeping with common forecasting practice, the implications of this modified trend scenario projection will be compared to a scenario where constant, 2001 maintainer and institutional living rates are maintained throughout the projection period. Preparing a constant rate projection is not to argue that change will not occur in the future, but rather to construct a base for comparative analysis, of which there are two aspects. The first is to hold the behavioural elements of housing (that is, household maintainer rates) constant, in order to identify the extent to which change in demand is driven solely by demographic change. The second aspect of the comparison is to measure the magnitude and direction of the projected behavioural change in the modified trend scenario against a standard, thereby measuring the sensitivity of the projection to changing behaviour.

b) An Aging Population

The base driver for housing demand for the seniors' population will be the changes in the number of people in the age groups in this segment of the population. Population projections indicate that this driver will be a strong one, with the seniors' population expected to grow twice as quickly as the population as a whole.

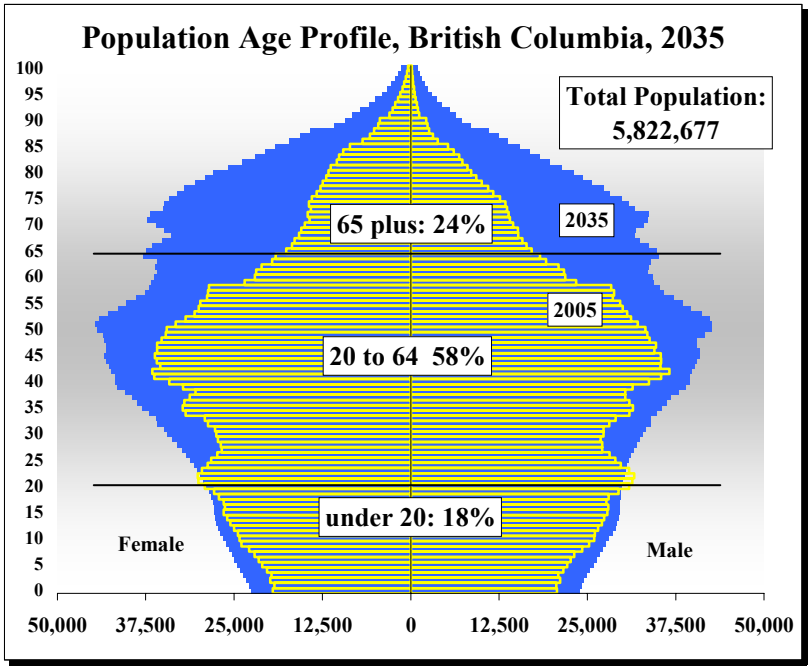
Figure 19



Currently, British Columbia's population is middle-aged, with only 14 percent (588,234 people) of its 4.24 million population aged 65 plus, 23 percent under the age of 20, and 63 percent aged 20 to 64 (Figure 19). Given the shape of the current age profile, it is clear why the seniors' population is projected to increase significantly in the future: the current seniors' population is relatively small and the population currently aged 40 to 64 is relatively large. There are currently 1.5 million people – comprising 36 percent of British Columbia's population – who are in the 40 to 64 age group: these are the people born during and after the Second World War – the ones who will become part of the province's seniors' population over the next thirty years. For example, the typical British

Columbian today is 42 (there are more people aged 42 than of any other age): in 2035, this person will be 77 years old and fully engaged in the seniors' housing market.

Figure 20

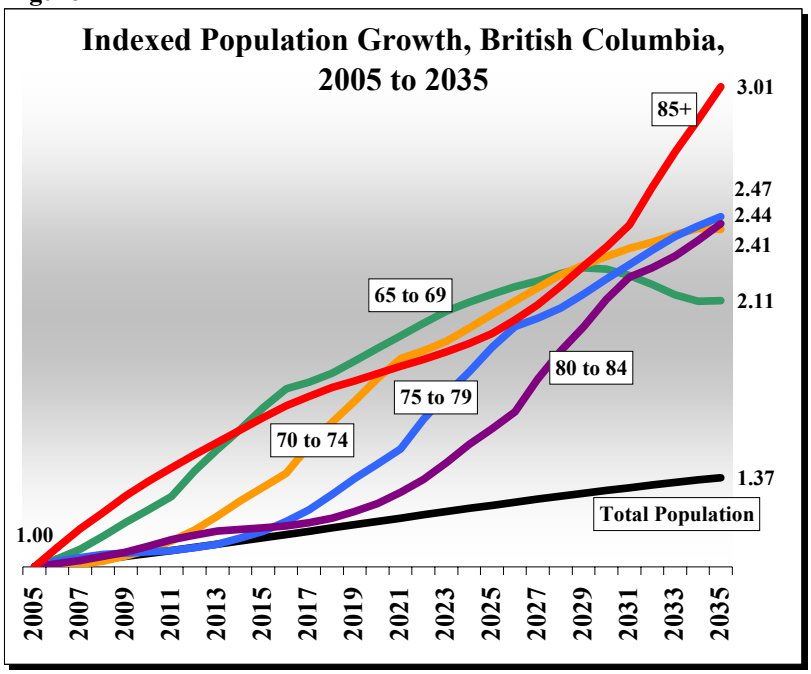


Trends in age specific birth, death and migration rates will shape both the size and composition of the population resident in the province in the future. In total, the province's population is projected to increase from its current 4.24 million inhabitants to 5.82 million in 2035, adding 1.58 million residents as it grows by 37 percent (Figure 20). Given our long and increasing life expectancies and the 1.5 million people aged 40 to 64 who will inevitably become seniors, the population aged 65 plus is projected to increase by 836,483 people (142 percent) over the next 30 years, swelling the ranks of the seniors' population to 24 percent (1.4 million people) of the province's population.

As the discussion of housing occupancy showed, there is a clear age-related pattern of changing accommodation realities within the seniors' population. As a result, it is important to consider the projected pattern of change within the 65 plus age group (Figures 21 and 22). In the near term, the most rapidly-growing seniors' age group will be those aged 85 plus, the result of the aging of the first of the generations of Canadian males who were not militarily involved in a global war (i.e., those who were under the age of 20 in 1945). Other age groups will then increase faster than the 85 plus population during the 2013 to 2030 period, and then, as the first of the post-World War II baby boomers reach this oldest age group, it will again become the most rapidly-growing age group.

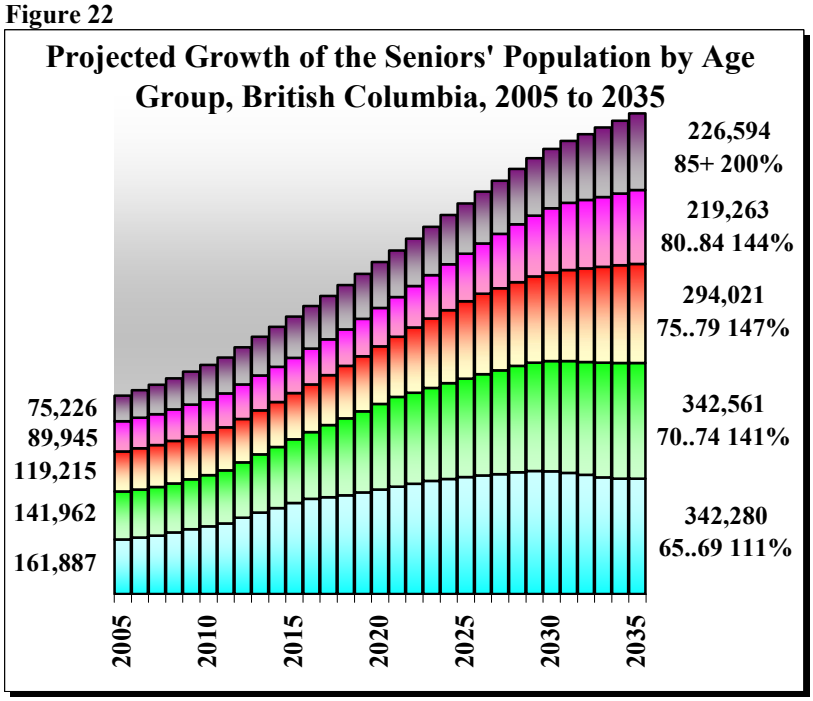
Over the next thirty years, the 85 plus age group is projected to increase three-fold (a 200 percent increase), as it adds 151,368 people to reach a total of 226,594 people by 2035. [Note: the output from the projections have not been rounded to allow readers to carry out their own calculations and verifications using the projected values. They are not meant to represent any greater degree of accuracy than would be implied by the use of rounded numbers.]

Figure 21



The pattern of aging of today's 40 to 59 population bulge that pushes the growth of the 85 plus population back to the most rapidly-growing age group by 2030 can be clearly observed throughout the projection period (Figure 21). The 65 to 69 age group grows most steeply from 2001 to 2016, the 70 to 74 age group from 2016 to 2021, the 75 to 79 during the following five years, and the 80 to 84 age group from 2026 to 2031. These high growth periods correspond to periods when the front edge of this baby boom bulge pass through successive age groups. As the typical boomer – today's 42 year old – reaches an age group, its population will begin to decline (for example, note the decline in the size of the 65 to 74 age group after 2029) reflecting the smaller birth cohorts that follow the bulge. As with the growth pattern, this decline in the number of people in the 65 plus age group will be followed by similar declines in subsequent older age groups in the 2035 to 2050 period.

Figure 22



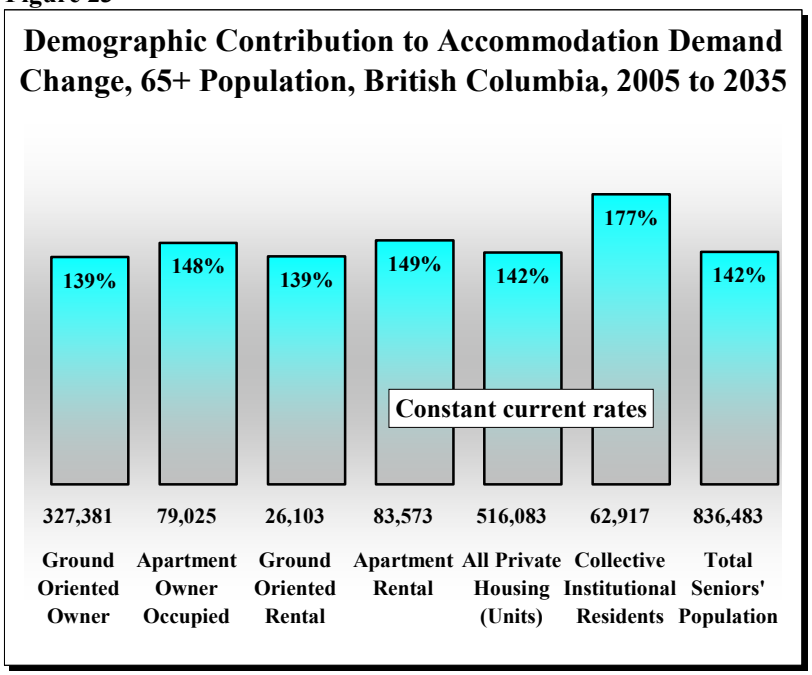
Over the next decade, changes in seniors' housing demand will largely emanate from changes that will occur in the 65 to 74 and the 85 plus age groups. Over the 2015 to 2024 period, the focus will shift to the 70 to 79 population, with the focus of the following decade being of the 80 plus population. Over the thirty-year projection period, the largest absolute growth will be in the 65 to 74 age group (adding 684,841 people), while the greatest relative growth will be the doubling of the number of people 85 plus who live in the province.

V Seniors' Accommodation over the Next Thirty Years

This section, which presents a thirty year outlook for seniors' accommodation demand in British Columbia, has been divided into two parts. The first part explores impact that demographic change alone would have on future patterns of accommodation demand, holding occupancy rates (age specific household maintainer rates and propensities to reside in collective and institutional dwellings) constant at the levels observed in the 2001 Census data. Building on this, the second part presents a projection of future accommodation demand based on a modified trend projection of changes in occupancy rates combined with demographic change.

a) Consequences of Demographic Change: Constant Current Rate Analysis

Figure 23

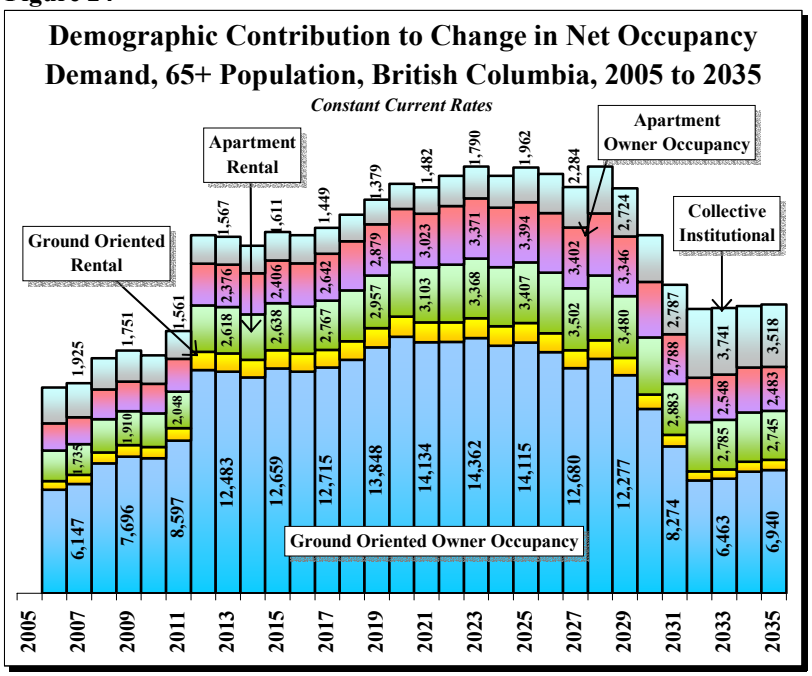


Over the next thirty years the net addition of 836,483 people aged 65 plus in British Columbia (a 142 percent increase) would, with age specific living arrangement patterns and maintainer rates held constant, result in a 177 percent (62,917 person) increase in the number of seniors living in collective and institutional dwellings and a 142 percent (516,083 unit) increase in the number of private dwellings maintained by people 65 years of age and older (Figure 23).

Demographic change alone would cause the occupancy of collective and institutional dwellings to grow by approximately 1,500 additional seniors per year over the 2005 to 2022 period, then increase steeply into the neighbourhood of 2,700 additional seniors by 2029 and 3,900 additional seniors by 2032, driven by the population aging into the 75 to 84, and more significantly the 85 plus, age groups, where these collective and institutional occupancy rates tend to be the highest (Figure 24).

Demographic change alone would result in the greatest annual increments of growth in seniors' demand for private housing occurring during the 2012 to 2029 period, coinciding with the movement of today's population bulge (i.e., the baby boomers) through the stage of the lifecycle where private household maintainership is currently most prevalent. More specifically, the annual net increase in the number of occupied private dwellings maintained by seniors jumps from 11,000 per year over the 2005 to 2011 period into the range of 18,000 to 22,000 per year beginning in 2012, as today's 59 year olds (the front

Figure 24



edge of the baby boom) age into the 65 to 69 age group. Net additional demand for private housing would remain at this level until it would drop back into the neighbourhood of 12,000 per year, when today's 59 year olds age out of the 75 to 79 age group in 2029.

Without behavioural change, demographic change would result in most of the annual incremental change in additional private dwellings occupied by seniors being seen in the ground oriented owner-occupied sector, which would see net additional demand for these types of dwellings increase from the current 6,000 units per year to approximately 14,000 per year by the mid-2020s, before dropping back towards 6,500 units by 2035. Net additional apartment rental demand would increase from the close to 1,800 units per year in the near term to 3,600 by 2027, after which it would decline to about 2,800 units annually by 2035. At the same time net additional demand by seniors for owner-occupied apartment dwellings would increase from 1,500 per year to almost 3,400 per year by the late-2020s, before declining into the neighbourhood of 2,500 by 2035.

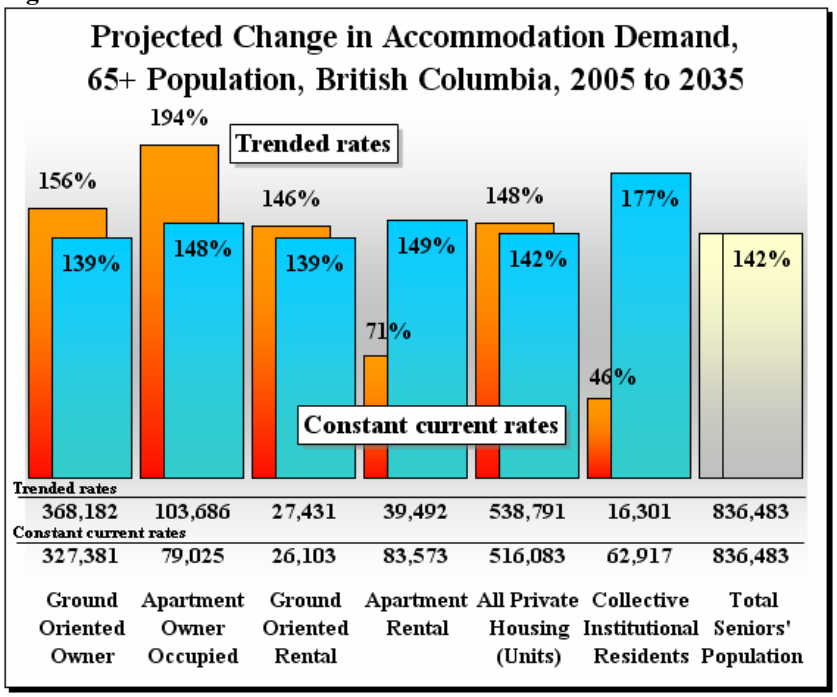
Overall, demographic change alone would result in the greatest proportion of seniors' net additional demand for housing occurring in the owner-occupied ground oriented sector, with there being an additional 327,381 such units maintained by seniors in 2035 compared to 2005 (a 139 percent increase). In the absence of behavioural change, total net additional demand for rental apartments from the seniors' population over the next thirty years would see the greatest growth among the four structure type and tenure combinations, at an increase of 83,573 units (a 149 percent increase), closely followed by growth in demand for owner-occupied apartments, at 79,025 units (a 148 percent increase). As noted earlier, ground oriented rental dwellings do not play a major role in the seniors' housing market, although growth induced by demographic change alone would bring about a 26,103 unit increase to this sector (for 139 percent total growth in occupancy demand for this type of accommodation by 2035).

The preceding analysis shows the impact that demographic change, considered in isolation without any consideration of changing occupancy patterns, would have on the seniors' housing market in the future. As housing occupancy behaviour has changed, and will certainly continue to change in the future, this baseline analysis merely provides a useful measure of the role that population change would play in this particular market,

serving as a useful comparator in the analysis of the role that changing behaviour may play in the market for seniors' housing.

b) A Trended Occupancy Rate Projection of Seniors' Housing Demand in BC

Figure 25



Earlier, part a) of Section IV outlined the implications for occupancy rates over the 2005 to 2035 period if the changes observed in the rates over the 1996 to 2001 period occurred at a diminishing pace in the future. When these future rates are then combined with projections of British Columbia's seniors' population, the result is an indication of the consequences of both population and behavioural change (with respect to housing) over the next thirty years and, hence, is useful in both planning for seniors' future accommodation demand as well as in determining the impact of behavioural change on this demand. [Detailed numerical tables of the following projections can be found in Appendix II of this report.]

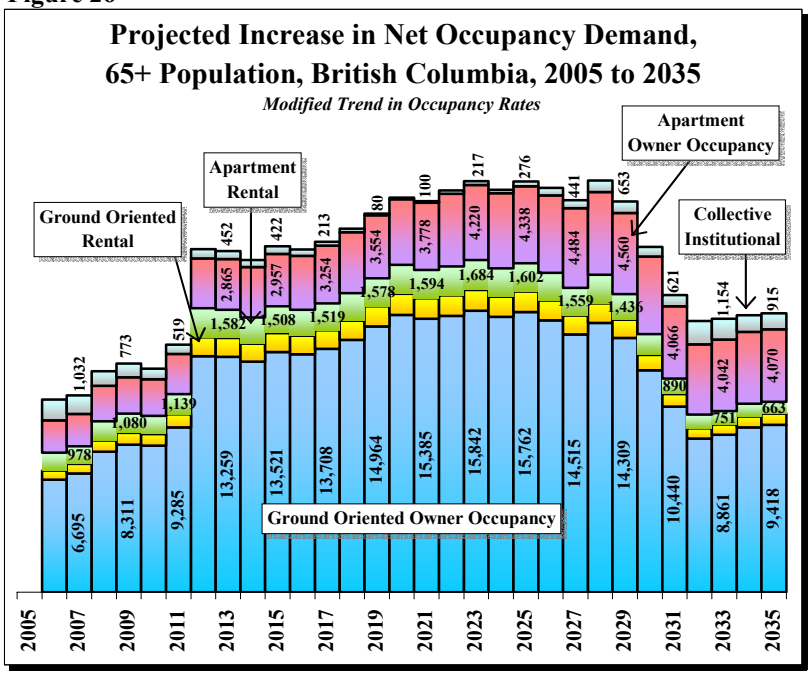
The greatest relative impact that a continuation – albeit at a slowing rate – of observed trends into the future would be seen (or appear) in the private apartment sector and the collective and institutional sector (Figure 25). This trend based scenario would see a net increase in seniors' demand for accommodation in collective and institutional dwellings of only 46 percent (16,301 additional units), increasing the number of seniors in the stock of such units from an estimated 35,476 living in 2005 to 51,777 by 2035. This suggests that while the growth in overall demand for this type of accommodation will be quite healthy (in the range of 1.27 percent per year, faster than the overall rate of population growth), much of the development activity in this sector will be focused on the existing stock of accommodation to ensure that it matches contemporary standards, assuming this slowing-rate of change trend towards a greater proportion of seniors living independently continues. Consequently, any new investments into this type of accommodation will be of particular interest because the population residing in collective and institutional dwellings will increasingly be those who lack the ability to live independently, in contrast to the majority of seniors who will be residing in their own, private dwellings.

This scenario would also have a major impact on the margin with respect to the demand for rental apartments, translating into an overall increase of 39,492 units of this structure

type and tenure (71 percent more than there were in 2005) over the next thirty years. This contrasts with the projected 103,686 unit (194 percent) increase in seniors' occupancy demand for owner-occupied apartments. As occurred over the 1996 to 2001 period, part – but only part – of the shift away from both rental apartments and collective and institutional dwellings would show up as an increase in demand for accommodation in owner-occupied apartments.

The other part of the shift would be apparent in the owner-occupied ground oriented sector, where demand would increase by 156 percent (368,182 units) as a result of people not moving out of their ground oriented owner-occupied homes as early as they have historically, thereby reducing not only the demand for rental apartments, but also the demand for accommodation in collective dwellings and institutions.

Figure 26



The behavioural change embodied in the modified trend maintainer rates projected for the next three decades would augment, but not eliminate, the inter-temporal pattern of housing demand that demographic change alone would bring about (Figure 26). The demand for accommodation in collective and institutional dwellings would grow very slowly between 2012 to 2025 – averaging a net increase of only 227 additional persons per year – before moving up into the neighbourhood of 1,000 additional residents per year by the early-2030s. This pattern is the result of the interplay between the steady decline in occupancy rates forecast for this type of accommodation and the fact that the highest propensities to occupy this type of accommodation is seen in the oldest age group, one that the bulge in the population – the baby boomers – will not reach until the end of the projection period.

Future demand by seniors for rental apartments will be affected by two factors: the lifecycle-induced increases in people's propensity to maintain households in this structure type and tenure combination with age; and the declines in these propensities over time, as observed historically, with the greatest declines occurring in the oldest age groups. The modified trend scenario would see a relatively constant increase in rental apartment demand of 1,500 occupied units per year from 2012 to 2029, followed by a gradual decline to the range of 600 per year by 2035.

Seniors' demand for owner-occupied apartments will also be affected by two factors: the lifecycle-induced pattern of increasing demand for this type of accommodation with age, and the historical trend for these propensities to increase over time, with the greatest increases occurring in the oldest age groups. When combined with the projected aging of the province's population over the next thirty years, the results would be a generally steady increase in the annual incremental demand for this type of accommodation, growing from the current 2,000 additional units demanded and occupied each year, to approximately 3,000 per year by 2015, 4,000 per year by 2022, before finally moving into the neighbourhood of 4,500 per year by 2035.

Due to improved health and longer life expectancies – resulting in seniors living longer in their ground oriented owner-occupied dwellings, and living longer in couples in private housing – this type of housing form will continue to play a significant role in the accommodation of the seniors' population in BC. Net additional demand will increase as people age in place, with the number of households maintained by seniors living in ground oriented owner-occupied dwellings increasing from approximately 6,500 today to 13,000 in 2012 (when the 59 year old cohort ages into the 65 to 69 age group), reaching a peak of almost 16,000 by 2024 (when BC's typical 42 year old resident today has their 65th birthday), before declining back to 10,000 additional households by 2035. Note that this increasing occupancy demand will not be accompanied by high levels of net construction of ground oriented housing specifically for seniors, as by and large the people who will occupy these units as seniors already live in them.

VI Closing Observations

British Columbia's population will age significantly in the coming decades, with the demographic bulge currently aged 40 to 64 bringing significant absolute and relative growth to successive older age groups, beginning with the 65 to 69 age group over the next five years, and following through to the 85 plus age group by 2026. Additionally, this oldest age group will grow rapidly, albeit on a small base, over the next five years as the relatively large first generation of males not to have fought in a World War age into this cohort on the heels of the last, smaller generation of males that did. The result of this aging will be a seniors' population (aged 65 years plus) that is set to grow by 142 percent over the next thirty years, compared to growth in the number of people under the age of 65 of 16 percent and total population growth of 37 percent.

This demographic change itself will have a dramatic and distinct impact on housing markets, increasing the demand for those forms and types of housing that seniors seek and require as they move through successive stages of the lifecycle. These lifecycle patterns will evolve due to the changing housing behaviour of seniors as they live longer, healthier and more independent lives. The general shift is away from collective and institutional housing and towards the privacy of independent (i.e., private) housing. Within private housing, other shifts are occurring, with increasing propensities to remain in ground oriented owner-occupied dwellings and to live in apartment owner occupancy, and a diminishing propensity to live in rental apartments.

The modified trend projection presented here acknowledges that these trends will continue in the future, but at a rate significantly slower than was observed in the 1996 to 2001 period. This results in a projection of housing occupancy demand for seniors accommodation in collective and institutional housing increasing by 46 percent (16,301 residents) over the next 30 years and for seniors accommodation in private housing by 148 percent (538,791 dwelling units).

Within the private sector, there would be an increase of 71 percent (39,492 units) in rental apartments maintained by seniors, 146 percent (27,431 units) in rental ground oriented dwellings, 156 percent (368,182 dwellings) in owner-occupied apartments, and 194 percent (103,686 units) in owner-occupied ground oriented units.

This projection is based on a scenario that reflects anticipation of some continuation of past trends, although there are other scenarios that might see these observed trends changing more, and others that would seem them change less. Readers can anticipate the consequences of some of these other scenarios by determining where these other scenarios might be located relative to the distance between the purely demographic scenario (no behavioural change) and the modified trend scenario presented here. Scenarios which anticipate less change will result in projections which will produce results proportionately between the two sets of values presented here: those which anticipate more change will result in projections whose values will have those of the modified trend scenario between them and the purely demographic scenario.

This modified trend scenario can be used for strategic planning of the orders of magnitude of the future demand for seniors' accommodation by tenure and structure type. Given this context, the next step will be to shift the analysis to a more specific level, examining and projecting specific forms of accommodation. The trend away from the traditional forms of nursing and care home accommodation does not mean that these forms of accommodation will not be important in the future; rather, while they will accommodate a smaller proportion of population in each age group, the members of the age groups that they do accommodate will be those most in need of the format of care that these facilities offer. Thus the seniors' population in collective and institutional dwellings will become increasingly characterized as those who are far from able to live independently.

Similarly, that an increasing share of the seniors' population is living in the privacy of their own, private households does not deny that there are requirements for services and facilities that younger occupants may not utilize. Concerns with limits on physical activity, agility, mobility, hearing and vision; greater medical and community needs; and apprehension about safety will create the need to bring to private housing, and the services provided to seniors living in private housing, some of the attributes of what has traditionally been seen as medical-care-oriented collective and institutional housing. From protective oversight to concierge services, engaging seniors in private housing will increasingly involve more than "meals on wheels".

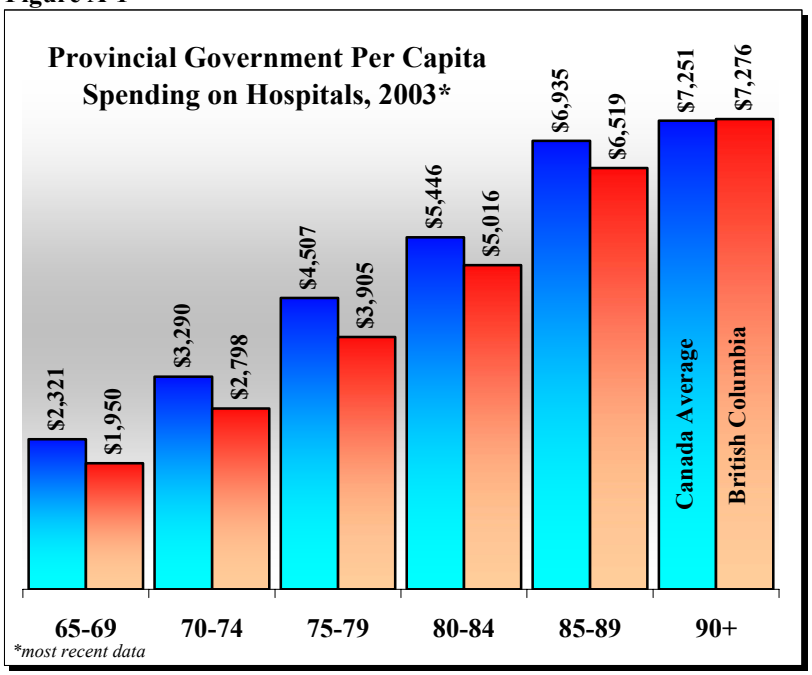
As our population ages, changing seniors will translate into changing housing – of both a private and institutional nature – in ways that bring transformations to the accommodations for British Columbia's fastest-growing population group.

VII Appendix I: Spending on Hospitals and Care Facilities

While not at the heart of the issue of seniors' accommodation demand, spending on hospitals and care facilities – including assisted living and nursing homes – is, and will continue to be, an important dimension of the accommodation for the admittedly relatively small segment of the province's seniors' population that dwells in collective and institutional dwellings. In light of this, this section provides a brief look into the recent trends in provincial government and private sector spending on these types of facilities, using the most recent data available from the Canadian Institute for Health Information.

a) Provincial Government Per Capita Hospital Expenditures

Figure A-1



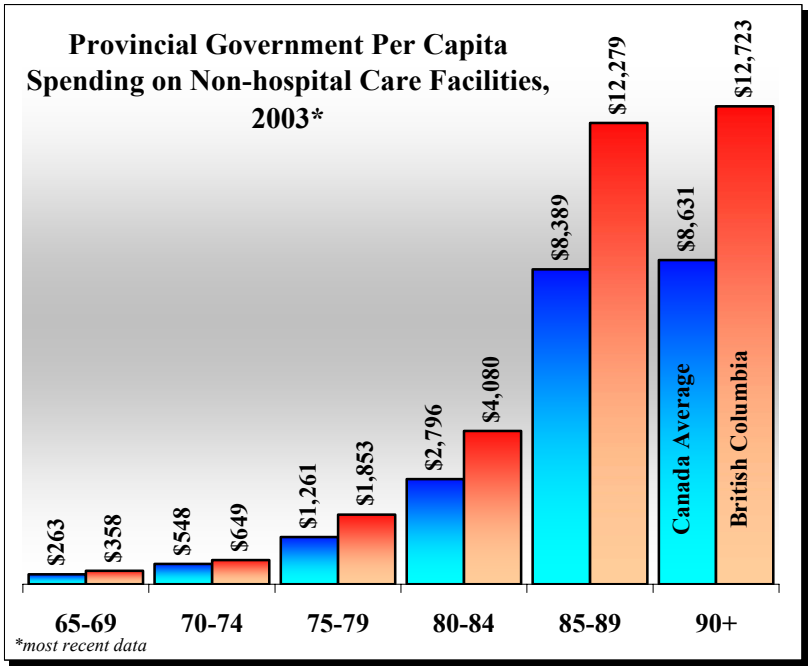
To the extent that some seniors may live in accommodation that is part of a hospital, provincial age specific spending on hospitals may capture some aspects of seniors housing, although most of this spending will be on medical services rather than accommodation. The most recent data (2003) on per capita provincial government spending on hospitals for seniors in British Columbia reveals a pattern of increasing per capita spending with age (Figure A-1).

Per capita spending on hospitals reaches its highest level in the 85 to 89 and 90 plus age groups, with an average of $6,519 and $7,276 per year spent per person of these ages resident in the province. This spending is almost four times the $1,950 spent per person in the 65 to 69 age group.

b) Provincial Government Per Capita Non-Hospital Care Facility Expenditures

Note that age specific hospital spending is, with the exception of the oldest age group, lower than the corresponding age specific averages for Canada as a whole. In contrast, provincial government spending on non-hospital care facilities, which encompass the vast majority of collective and institutional dwellings that provide seniors accommodation in every age group, significantly exceeds the national average (Figure A-2). In the oldest age group, for example, the provincial government spends an average of $12,723 per person aged 90 plus resident in the province, almost 50 percent more than the national average. As with hospital spending, age specific per capita spending increases with age,

Figure A-2

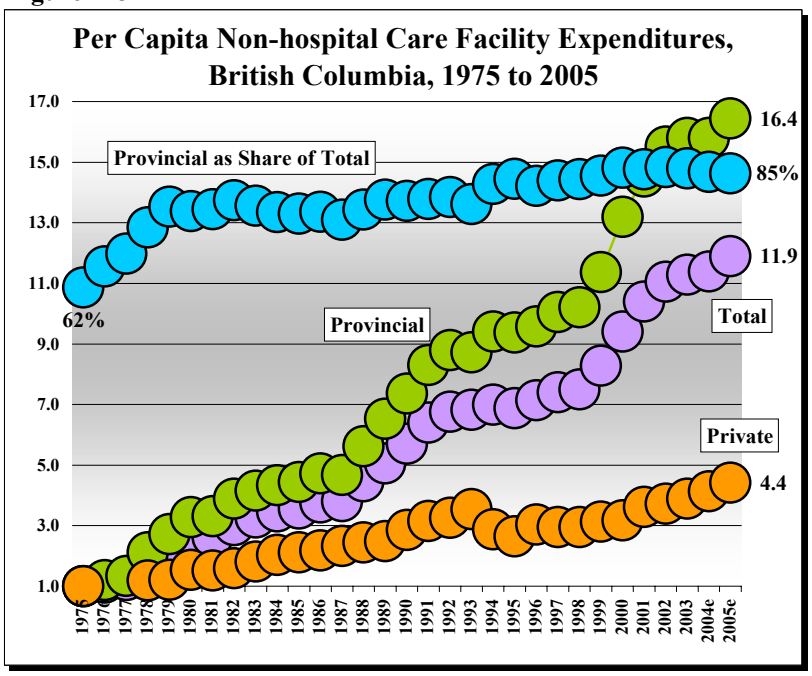


from the $358 per person aged 65 to 69 resident in the province to the more than $12,000 per person aged 85 plus, with more than a 45 percent margin between the BC and national per capita averages generally maintained through the seniors' lifecycle.

These two patterns (plus the patterns of spending on the rest of the medical and care, housing and accommodation spectrum) indicate differences in housing and health care delivery approaches between provinces.

c) Per Capita Spending on Non-hospital Care Facilities

Figure A-3



Over the past thirty years both provincial government and private per capita non-hospital care facility expenditures in British Columbia have grown at a relatively rapid pace, a reflection of the compound effect of an aging population and increased per capita expenditures of this nature that come with age (Figure A-3).

The funding of non-hospital care facilities in the province is overwhelmingly a provincial government activity, with 85 percent of the total expenditures on these forms of collective and institutional dwellings coming from the provincial government, 14 percent from private sources, and one percent from federal government and other public sector organizations. British Columbia, along with Newfoundland, leads Canada in terms of the provincial government's share of non-hospital institutional spending, with their 85 percent share well above the shares of the Alberta (73 percent), Ontario (77 percent) and Quebec (57 percent) governments.

Provincial government spending on non-hospital institutions has increased much faster than private spending on these care institutions, with total provincial spending in 2005 being more than 16 times its 1975 base level, compared to a slightly more than four fold increase for private spending, for total spending that was almost twelve times greater in 1975. This pattern of increase was the result not only of growth in the number of people in the seniors' population, but also of significant increases in provincial government per capita spending within the seniors' population: for example, between 1996 and 2003 per capita spending on non-hospital institutions in the 90 plus age group increased by 27 percent compared to inflation of only 15 percent over the same period.

VIII Appendix II: Summary Tables

Table A-1

Projected Seniors' Population, British Columbia

	Year							2005 to 2035 Change	
Age	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**Absolute**	**Relative**
65..69	161,887	200,567	269,882	310,109	346,797	363,856	342,280	180,393	111%
70..74	141,962	152,120	189,198	254,137	292,023	326,530	342,561	200,599	141%
75..79	119,215	126,681	136,960	170,518	228,829	262,980	294,021	174,806	147%
80..84	89,945	97,721	104,589	113,758	141,978	190,659	219,263	129,318	144%
85+	75,226	102,183	122,272	136,111	148,764	175,989	226,594	151,368	201%
All Seniors	**588,234**	**679,273**	**822,902**	**984,633**	**1,158,391**	**1,320,014**	**1,424,718**	**836,483**	**142%**

Table A-2

Age Specific Household Maintainership* by Structure Type and Tenure, BC
Modified Trend Scenario

Ground Oriented Owner-Occupied

	Year							2005 to 2035 Change	
Age	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**Absolute**	**Relative**
65..69	70,694	87,762	118,330	136,242	152,668	160,501	151,288	80,594	114%
70..74	60,721	65,437	81,851	110,572	127,780	143,694	151,608	90,887	150%
75..79	50,144	54,013	59,194	74,706	101,625	118,389	134,173	84,029	168%
80..84	33,519	37,060	40,364	44,678	56,745	77,547	90,755	57,236	171%
85+	20,419	28,723	35,592	41,029	46,438	56,891	75,855	55,436	271%
All Seniors	**235,497**	**272,994**	**335,332**	**407,227**	**485,256**	**557,021**	**603,679**	**368,182**	**156%**

Apartment Owner-Occupied

	Year							2005 to 2035 Change	
Age	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**Absolute**	**Relative**
65..69	9,661	12,205	16,745	19,618	22,369	23,930	22,953	13,291	138%
70..74	10,804	11,804	14,969	20,502	24,020	27,386	29,294	18,490	171%
75..79	12,754	13,789	15,167	19,212	26,230	30,669	34,885	22,130	174%
80..84	11,489	12,751	13,941	15,490	19,749	27,091	31,827	20,338	177%
85+	8,833	12,747	16,206	19,167	22,258	27,975	38,269	29,437	333%
All Seniors	**53,541**	**63,296**	**77,028**	**93,988**	**114,626**	**137,051**	**157,227**	**103,686**	**194%**

Ground Oriented Rental

	Year							2005 to 2035 Change	
Age	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**Absolute**	**Relative**
65..69	5,925	7,371	9,960	11,493	12,907	13,599	12,846	6,921	117%
70..74	4,613	4,966	6,206	8,375	9,669	10,863	11,450	6,837	148%
75..79	3,707	3,958	4,301	5,381	7,256	8,380	9,416	5,709	154%
80..84	2,571	2,808	3,022	3,304	4,146	5,597	6,471	3,901	152%
85+	1,914	2,615	3,148	3,526	3,877	4,614	5,976	4,063	212%
All Seniors	**18,729**	**21,719**	**26,637**	**32,079**	**37,855**	**43,053**	**46,160**	**27,431**	**146%**

Apartment Rental

	Year							2005 to 2035 Change	
Age	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**Absolute**	**Relative**
65..69	10,870	12,747	16,235	17,657	18,690	18,560	16,526	5,655	52%
70..74	11,301	11,407	13,364	16,910	18,303	19,279	19,052	7,751	69%
75..79	11,522	11,434	11,545	13,423	16,822	18,054	18,851	7,328	64%
80..84	10,999	11,147	11,129	11,292	13,146	16,468	17,666	6,667	61%
85+	11,322	14,445	16,234	16,974	17,424	19,360	23,412	12,090	107%
All Seniors	**56,015**	**61,181**	**68,508**	**76,255**	**84,385**	**91,721**	**95,506**	**39,492**	**71%**

Number of dwelling units demanded

Table A-3

Population in Collective and Institutional Accommodation, British Columbia
Modified Trend Scenario

	Year							2005 to 2035 Change	
Age	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**Absolute**	**Relative**
65..74	3,633	3,745	4,328	4,724	4,749	4,558	4,015	382	11%
75..84	13,916	13,611	12,914	12,709	13,378	13,807	13,818	-98	-1%
85+	17,927	22,538	24,961	25,717	26,015	28,484	33,944	16,018	89%
All Seniors	**35,476**	**39,894**	**42,203**	**43,150**	**44,142**	**46,849**	**51,777**	**16,301**	**46%**

IX Endnotes

[i] Statistics Canada's 2001Census Dictionary:
http://www12.statcan.ca/english/census01/Products/Reference/dict/dwe006.htm .

[ii] Statistics Canada's 2001Census Dictionary:
http://www12.statcan.ca/english/census01/Products/Reference/dict/dwe006.htm .

[iii] While the classification system suggests precise clarity in separation of private and collective dwelling types, the method of collection of data ("refers to a dwelling of a commercial, institutional or communal nature. It may be identified by a sign on the premises or by a census representative speaking with the person in charge, a resident, a neighbour, etc.") may occasionally result in misclassification. For example, nursing homes have historically been collective dwellings. Increasingly, however, one finds independent and assisted living dwelling units – which are self-contained and include their own cooking and bathroom facilities, and which are accessed without passing through other people's living quarters – located in the same building, meaning they should be classified as private dwellings. However, unless the enumerator individually delivers Census forms to each of the independent and assisted living units within the nursing home itself, the dwellings will be (mis-)classified as being collective, rather than private. This potential discrepancy, although marginal in its effect on any analysis of seniors' housing, should nonetheless be noted.

[iv] Statistics Canada's 2001Census Dictionary:
http://www12.statcan.ca/english/census01/Products/Reference/dict/dwe002.htm .

[v] Statistics Canada's 2001Census Dictionary:
http://www12.statcan.ca/english/census01/Products/Reference/dict/hou009.htm .

[vi] Statistics Canada's 2001Census Dictionary:
http://www12.statcan.ca/english/census01/Products/Reference/dict/hou010.htm .