

**Implications**

**Of**

**Regional**

**Growth**

**In**

**Cowichan:**

**Part**

**One**

A report prepared by  
Social Planning Cowichan  
August 2008



# Implications of Regional Growth in Cowichan: Part One

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## **Acknowledgments**

This report would not have been possible without the generous advice of staff from BC Stats, the Vancouver Island Health Authority (VIHA) and key community stakeholders.

The invaluable information provided by health care professionals, families of seniors and residents and staff at local complex residential health care facilities is gratefully acknowledged. Their contributions were particularly helpful in identifying the quality of life factors in complex care residential settings.

We would like to thank those involved in sharing information for this report; it would not have been achievable to produce work of this quality without these resources.

Thank you also to the researchers and authors of this report:

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The final publication of this report was produced under the direction of Candace Spilsbury, Chair of Social Planning Cowichan, with layout and graphics assistance by Kim Martin.



# Table of Contents

Letter from the Chair .....	i
Research Methodology.....	ii
Executive Summary.....	iii
Introduction .....	1
Chapter One: Cowichan Population Forecasts .....	2
1.1 Cowichan.....	2
1.2 Projected Population Growth Rates .....	2
1.3 Expected Regional Population Growth.....	2
1.4 Expected 75+ Seniors Population Growth .....	4
Chapter Two: Seniors Residential Health Care Needs.....	6
2.1 Seniors Residential Care .....	6
2.2 Current Seniors Residential Health Care .....	7
2.3 Future Complex Residential Care Bed Needs .....	8
Chapter Three: Quality of Life in Seniors Residential Health Care Settings .....	9
3.1 Standards and Policy.....	9
3.2 Leisure Activities .....	11
3.3 Green Spaces.....	11
3.4 Health and Safety.....	13
a. Safety.....	13
b. Dementia/Alzheimer.....	14
c. Elder Abuse.....	15
d. Susceptibility to Disease .....	15
Chapter Four: Summary Recommendations .....	17
Chapter Five: Conclusions.....	19
Appendix I: Projected Population by Age Group.....	20
Appendix II: Projected Population 75+ .....	21
Appendix III: Glossary of Terms .....	22



## Letter from the Chair



Social Planning Cowichan is pleased to provide the community with a report on the “Implications of Regional Growth in Cowichan: Part One.”

The Cowichan population is predicted to show steady growth in our future. This beautiful, peaceful area is especially attractive to retirees and the greatest increase in population growth is predicted to be those 65 and over.

Complex residential care has become a priority issue for Cowichan as the increase in the number of elderly in our community continues to grow. This report documents the projected population growth, the need for complex residential care and the components of care that provide quality residential care in health care facilities for the elderly.

Thank you to Katrina Halkett, an undergraduate student from SFU who was funded by Service Canada as a summer research student to prepare the research for this report. Thank you also to Michelle Nowzek, Executive Assistant of Social Planning Cowichan, who acted as an advisor to the report.

It is our hope that the community will use this report to study the research and recommendations in order to plan for quality health care for our Senior citizens, which will ultimately benefit all citizens in the Cowichan Region.

Yours truly,

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

Candace Spilsbury, Chair  
Social Planning Cowichan

## Research Methodology

The research for this project was conducted from June to August 2008. Research for the purpose of the population projections contained in this report was done by consulting various experts in this field: local government planning departments, consulting firms, BC Stats and Statistics Canada.

Contact with key stakeholders and others in the community was made through telephone calls, e-mails, and personal contact. For those that gave consent to be identified in the report a list of names appears in the reference portion of this report; all other interviewees were assured of confidentiality.

The task of understanding the changing language of Seniors health care housing created complexity for the research. Much time was spent in researching this aspect of the report to ensure accuracy in data collection. This work would not have been possible without the help of those working in the health care profession.

### Data Collection

Major Sources:

- BC Stats and Statistics Canada
- BC Health Coalition
- BC Ministry of Health publications
- Extensive use of the internet and other community reports
- Health Canada publications
- Local Government Planning Reports
- Key Stakeholders
- Scholarly Articles
- Vancouver Island Health Authority
- World Health Organization

## Executive Summary

Research for the *Implications of Regional Growth in Cowichan* report began by determining population projections for the Cowichan area. These projections were then broken down into various demographic profiles which gave an indication of the needs for the Region with respect to Seniors health care.

Overall, Cowichan is expected to see steady growth. The 2008 population has been projected from BC Stats data to be 79,161. This number will increase by over 10,000 people by the year 2016 and reach 106,970 by 2036. Due to a declining fertility rate, the number of people aged 0-14 is expected to rise slightly from 12,799 in 2006 to 13,436 in 2036; an overall increase of only 5% in this time frame. Cowichan will have a dependency ratio of 8 dependents for every 10 people of working age by the year 2036.

The ageing population in Cowichan becomes apparent when looking at the statistics, which show an increase in the proportion of older age groups and a decrease in the proportion of younger age groups. The major contributing factors to this case are a declining fertility rate, increased life expectancy, migration of retirees and aging of local baby boomers (born 1946-1965). Once population projections for Cowichan were completed the information from the demographic profile on Seniors showed that the Region has a higher than average percentage of those aged 75+ than for the rest of BC. The population of Seniors 75+ in Cowichan is 7.8% vs. 6.9% for British Columbia.

This ageing population, and higher than average proportion of Seniors 75+ in Cowichan, has had an impact on sources of supports for the Region. As people age, the likelihood of developing health problems such as chronic disease, mobility problems, dementia and injury increases. More specifically, ageing in our community has impacted the need for resources and supports in the health care system.

This report looks at the current and future needs of Seniors in Cowichan for health care in complex residential care settings. Health care providers consider quality of life in these settings an essential part of service. In this report we have explored this issue as recommended by service providers, family members of Seniors, and Seniors in care.

The major recommendation in this report is that the community work together to develop a regional strategy on the projected regional growth and Seniors health care needs.

## Introduction

Population projections for Cowichan were based on those developed for the province of British Columbia. There were some differences to consider in this process namely that Cowichan has a higher proportion of Seniors than the province does as a whole and the population also has a higher median age. There is also a greater variability when predicting populations of a relatively small area or region such as Cowichan. Given these considerations the methods used for the purpose of this report are considered by experts in the field to be the most accurate.

Projected population growth rates for Cowichan show steady growth in the future. Cowichan has a higher proportion of Seniors due in part to the migration of retirees to the area and the ageing of local baby boomers (born 1946-1965).

Because of the demographics of Cowichan's ageing population, direction for the first part of this report is focused on aspects of supports and services for Seniors. Indicators show Seniors residential health care as an area that is currently showing need as a result of Cowichan's Seniors population growth.

Seniors residential care is a complex issue partly due to a shift in how care is delivered, as an increasing demand for services is required. This report tries to clarify this complex issue by defining Seniors public residential health care options. The report also gives a current listing of the public Seniors residential care facilities in Cowichan and presents future complex residential health care needs based on population projections for the area.

Health care professionals, families of Seniors in residential care settings and Seniors themselves indicated that quality of life was an important factor when considering Seniors residential health care issues.

These quality of life factors include standards and policy, leisure activities, green spaces, safety, and management of certain health issues as they relate to Seniors residential health care.

Recommendations on population forecasts, Seniors residential care needs and quality of life in these settings can be found in the final chapter of the report under summary recommendations. The ideas for the quality of life recommendations were formed from research.

# Chapter One: Cowichan Population Forecasts

## 1.1 Cowichan

Cowichan extends from the Malahat in the south to the town of North Oyster in the north and west to the Pacific Ocean (Pacific Rim National Park and Trail) including the communities of Honeymoon Bay and Youbou on Cowichan Lake. Within Cowichan there are nine electoral areas and four municipalities: the City of Duncan; the Municipality of North Cowichan (the largest municipality in the Cowichan Region); the Town of Ladysmith; and the Town of Lake Cowichan. The area covers 373,000 hectares with a population of over 79,000. Agriculture and forestry are the primary industries, combined with a full range of recreational, tourism and business services.

## 1.2 Projected Population Growth Rates

Population projections describe what the future is likely to be if a given set of assumptions proves to be true. The population projections developed for this report are based on those developed for the Province of British Columbia by BC Statistics.

The decision to use the provincial rate to predict the Cowichan population forecasts was based on a number of similar factors found in the BC Stats Quarterly Regional Statistics report. These 'factors' include: the principle industries/employers in an area, the dependence on the safety net, dependency ratios and other variable factors as they act as indicators of the population composition in a particular area.

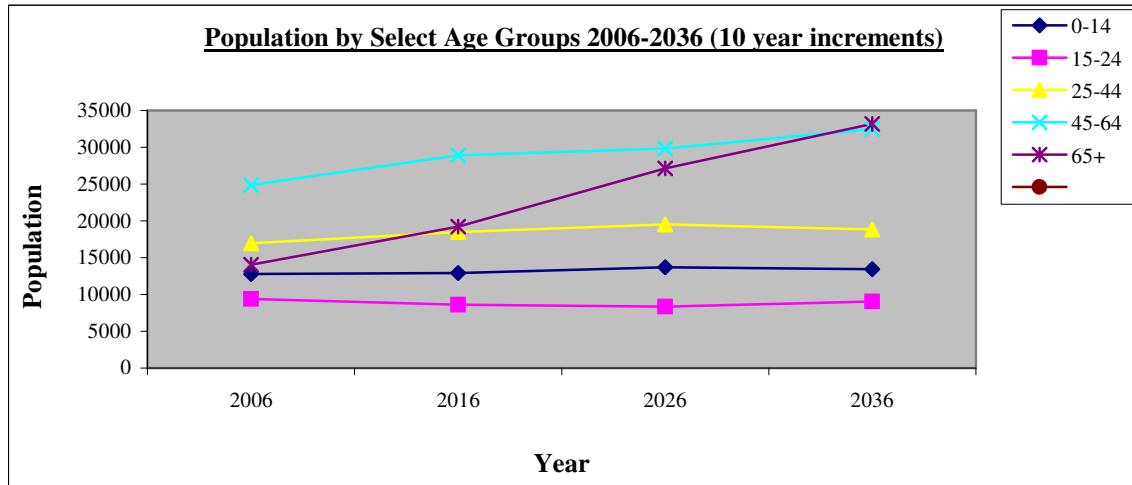
Differences to consider include that, as of 2006, Cowichan already had a greater percentage of people 75+ than the province as a whole did. The population of Seniors 75+ in Cowichan is 7.8% vs. 6.9% for British Columbia. There is also a greater variability associated with predicting the population of a relatively small area or region; given these conditions the method used for forecasts in this report are considered to be the one most accurate (Gabbour, 1993).

## 1.3 Expected Regional Population Growth

Regional growth projections show a steady population growth in the future. The 2006 BC Census data lists Cowichan's population at 76,940. Table I & the graph below give the projected population of Cowichan by age group in 10 year increments from 2006-2036.

**Table I – Population by Select Age Group 2006-2036**

Year	0-14 Population	15-24 Population	25-44 Population	45-64 Population	65+ Population	Total
2006	12,799	9,380	16,971	24,852	14,053	78,055
2016	12,900	8,628	18,469	28,916	19,224	88,137
2026	13,708	8,337	19,528	29,825	27,117	98,515
2036	13,436	9,064	18,836	32,458	33,176	106,970



(See Appendix I)

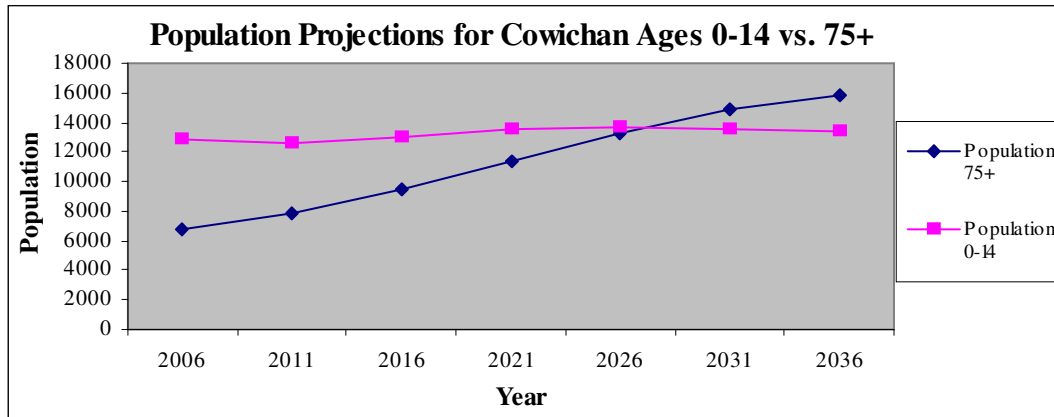
By 2016, Cowichan’s population is predicted to be 87,030 up by 10,090 people from the 2006 BC Census count. By 2036, the Regional population projection is 106, 970 people living in the Cowichan Region.

Cowichan, like most areas of North America, shows signs of the baby boom generation age structure with a smaller boom in the 15-20 age group (Suderman, 2008). The Region is a migration destination for retirees from across North America due to our mild climate. This influx of retirees combined with the ageing of the local baby boomers means that the population has been steadily growing older over the past 30 years. This trend is expected to continue and accelerate over the next 30 years with those aged 75+ increasing by a predicted 143% to 15,865 in 2036.

Another predictor of an ageing population is median age. The median age in 2006 for Cowichan was 44.4 compared to the median age 40.8 for the province as a whole. Due to a declining fertility rate, the number of people aged 0-14 is expected to have only a slight increase from 12,799 in 2006 to 13,436 in 2036 an overall increase of only 5% in this time frame.

The overall dependency ratio of 8 dependents (most of which will be seniors) for every 10 people of working age for the CVRD is higher than the provincial average of 7 dependents for every 10 people of working age predicted for the year 2036 by BC Stats. This ratio has implications that can be used in a predictive manner when considering the future of such things as the Region’s economy, infrastructure and overall vibrancy.

Dependents here are being defined as people who are not capable of meeting their needs on their own and therefore dependents require more time, energy and resources from others to meet these basic needs. If a community is not adequately prepared for this high proportion of dependents, resources could become limited.



A society with demographics of this nature tends to place more strain on the people of working age (15-64). This scenario will be explored further in terms of how this will affect the Region’s social well-being, the economy and other factors in subsequent parts of *Implications of Regional Growth in Cowichan*.

#### 1.4 Expected 75+ Seniors Population Growth

Currently, the number of Seniors age 75+ living in Cowichan is approximately 6,914. Based on population projections for the area, the increase for this age group will be over 30% by the year 2016. The natural increase in population is expected to slow growth in Cowichan as deaths outnumber births by a widening margin. The number of seniors 75+ will increase to 9,523 in the next seven years. This represents 2,609 new 75+ seniors in the region during this period.

**Table II – Projected Population 75+ for Cowichan**

<b>Year</b>	<b>75+ Population of the Region</b>	<b>Overall Population Of the Region</b>	<b>% of the Total Population</b>
<b>2006</b>	6,713	78,055	8.6%
<b>2011</b>	7,880	83,598	9.4%
<b>2016</b>	9,523	89,254	10.7%
<b>2021</b>	11,398	94,528	12.1%
<b>2026</b>	13,329	99,550	13.4%
<b>2031</b>	14,933	104,004	14.4%
<b>2036</b>	15,865	106,970	14.8%

(See Appendix II)

The dramatically increasing proportion of elderly people in Cowichan will have wide-ranging impacts throughout the community. These impacts will be focused on supports and services across sectors such as transportation, housing and health care (Schrier, 1992).

Health care is one area that is already displaying the affects of the aging population in Cowichan. The older one gets, the more likely they are to develop health problems requiring some form of health care. Due to the likelihood of those in this age group developing health problems such as chronic disease, mobility problems, dementia and injury, research for Part I of this report has centered on this issue as it pertains to seniors complex health care needs.

## Chapter Two: Seniors Residential Health Care Needs

### 2.1 Seniors Residential Care

While many seniors will continue to remain healthy and active into their 80's and are able to live in their own residences, many will need some care. Seniors who are generally in good health but who are capable only of a certain level of independence are being supported to stay in their own residences with the aid of home nursing services, home support services and rehabilitative care.

**Acute care** can be necessary for seniors if they become ill or suffer from an injury. Currently there is one hospital in Cowichan (Cowichan District Hospital) that offers acute care beds.

Seniors who have required acute hospital care may need to be transferred to a **transitional care** facility while they undergo rehabilitation necessary to return home. Transitional care beds are used for Seniors who need 24-hour professional nursing assistance, but whose health problems are not serious enough to warrant full hospital care. Transitional care beds are also used to facilitate Seniors health care needs when they are waiting for a bed in a more permanent residential health care facility.



For those Seniors who require more permanent **residential health care** than they are capable of receiving in a home setting there is a variety of different residential health care options. Over the years the language used in the health care system to describe Seniors residential health care options has changed. Previously, Seniors residential health care options were based on a scale from 1-3, where 1 represented minimal care and 3 represented the most intensive care. Residential care facilities were then called level 1, 2, or 3 intermediate care.

Today, Seniors requiring level 1 or 2 intermediate care are being offered beds in **assisted living** facilities. Assisted living facilities include a combination of housing and hospitality services as well as a range of support services including assistance with personal activities such as grooming, bathing or taking medications. Housing facilities typically provide meals, housekeeping and laundry services, social and recreational opportunities and 24-hour emergency response systems. Residents are capable of directing their own care, but require some assistance performing between 1-2 daily activities. Housing facilities may be large or small in scale and government subsidized facilities may be delivered by private or non-profit organizations.

Level 3 intermediate care is now being called **complex residential care**. Complex residential care facilities provide accommodation, care and 24-hour nursing supervision for Seniors who are no longer capable of directing their own day-to-day activities. Complex residential care settings typically provide a combination of housing and hospitality services, as well as extensive support services. Complex residential care facilities must be licensed and services may be delivered by private or non-profit organizations. Some facilities offer publically subsidized care options.

## 2.2 Current Seniors Residential Health Care

In Cowichan, there are 87 assisted living beds, 19 transitional care beds, and 572 complex residential care beds that are fully or partially funded by the public health care system. These facilities serve a population of 79,161 of which 6,914 Seniors are 75+.

There are seven facilities in Cowichan that offer services at the complex residential care end of the spectrum: one in Ladysmith (The Lodge on 4<sup>th</sup>), one in Chemainus (Chemainus Health Care), four in Duncan (Cerwydden, Cairnsmore Place, Sunridge Estates and Cowichan Lodge) and one in Shawnigan Lake (Acacia Ty Mawr). Out of these seven facilities, four are run by for-profit organizations and three by non-profit organizations (Cowichan Lodge, Cairnsmore and Chemainus Healthcare).

**Table III: Current Government Subsidized Seniors Health Care Housing Facilities in Cowichan**

Facility	Assisted Living	Transitional Care	Residential/ Complex Care	Total
Lodge on 4 <sup>th</sup> (Ladysmith)	*		75	75
La Rosa Gardens (Ladysmith)	21	*	*	21
The STEEPLES (Chemainus)	16		*	16
Chemainus Healthcare	*	*	75	75
Cerwydden (Duncan)	*	*	52	52
Cairnsmore Place (Duncan)	*	*	100	100
Cowichan Lodge	*	19	75	94
Sunridge Estates (Duncan)	50	*	160	210
Acacia Ty Mawr (Shawnigan Lake)	*	*	35	35
<b>Total</b>	<b>87</b>	<b>19</b>	<b>572</b>	<b>678</b>

### 2.3 Future Complex Residential Care Bed Needs

According to the Office of the Chief Medical Officer the rate typically used by health care planners for the complex residential care end of the spectrum for senior's health care is 95-100 beds per 1000 population age 75+. Based on this rate, the current need of beds (see Table V below) is approximately 92-127.

Anecdotal research from stakeholders including VIHA, health care professionals and facilities have reported waitlists for Complex residential care in the Cowichan region anywhere from 80 to 200 Seniors waiting for complex residential care, with many seniors not included on this list because they currently residing in complex residential care facilities outside of Cowichan or waiting for an assessment by a case manager. There is no concrete waitlist kept regarding the exact number of seniors waiting for complex residential care in Cowichan.

As the forecasts indicate, with more and more people reaching the 75+ threshold each year, demand for this type of care will only continue to increase. This increasing demand will widen the gap substantially between the number of beds the Region actually has and the number we will need. By 2016, 918 beds will be needed to facilitate the needs of Seniors in the Region, an overall increase of 440 beds.

**Table IV – Complex Residential Care Bed Needs for Cowichan**

Year	Population aged 75+	Number of Complex Residential Care Beds 95 beds/1000 people 75+	Number of Complex Care Beds 100 beds/1000 people 75+	Needs for Beds based on population growth
2008	6,914	664	699	92-127
2011	7,880	749	788	177-216
2016	9,523	905	952	333-380
2021	11,398	1,083	1,139	511-567
2026	13,329	1,266	1,333	694-761
2031	14,933	1,419	1,493	847-921
2036	15,865	1,507	1,586	935-1014

(see Appendix II)

## Chapter Three: Quality of Life in Seniors Residential Health Care Settings

*We've put more effort into helping folks reach old age than into helping them enjoy it.*

~Frank A. Clark

### 3.1 Standards and Policy

Quantity is not the only factor when considering needs for Seniors care. Research shows that it is not enough to provide a bed and basic health care, but many other factors must be taken into account when considering planning for seniors residential care facilities. The first of these factors is the number of hours of professional care and interaction received by seniors each day, as well as the type of care received.

As people age and their bodies begin to deteriorate, most people will require more and more help performing everyday tasks. This help may come in the form of a family member or in-home services if the senior still resides at home. However, once a senior enters into a residential care facility this help may be offered by a mixture of professionals that include: **Licensed Practical Nurses (LPN)**, **Registered Nurses (RN)**, other care providers such as **Registered Care Attendants (RCA)**, an uncertified staff member. Currently BC has the lowest average accumulated paid hours during the year for each senior in residential care per day (see Table V below).

**Table V – British Columbia Average Accumulated Paid Hours in Residential Care**

Province or Health Region	Average accumulated paid hours during year, per resident per day
Alberta	5.1
British Columbia	3.7
Saskatchewan	5.7
Manitoba	5.2
Ontario	3.8
Quebec	6.6
Nova Scotia	5.7
New Brunswick	4.2
Prince Edward Island	4.2
Newfoundland & Labrador	4.8
Territories	7.5
Canada	4.7
Vancouver Island Health Authority (VIHA)	2.8 (currently) 3.24(target)

(Source: Stats-Can Residential Care Facilities Survey, 2005/2006)

In addition to having the lowest average accumulated paid hours in residential care, BC also has the lowest expenditures in the country for residential care facilities (see Table VI below).

**Table VI - Residential Care Expenditures by Province**

	Total Expenses (\$)	Population	Expenses per Capita (\$)	Total Expenses (\$)	Population 65+	Expenses per capita for 65+ (\$)
<b>Newfoundland and Labrador</b>	233,432,621	513,962	454	216,709,900	<b>67,709</b>	<b>3,201</b>
<b>P.E.I.</b>	89,627,238	138,176	649	68,360,415	19,565	3,494
<b>Nova Scotia</b>	460,352,916	936,130	492	339,914,517	133,918	2,538
<b>New Brunswick</b>	345,944,162	751,481	460	271,708,844	104,749	2,594
<b>Quebec</b>	3,080,340,626	7,597,768	405	2,913,959,776	1,045,332	2,788
<b>Ontario</b>	5,213,297,168	12,558,669	415	3,986,665,436	1,610,533	2,475
<b>Manitoba</b>	704,985,244	1,174,148	600	522,509,321	158,967	3,287
<b>Saskatchewan</b>	629,322,662	989,957	636	492,747,091	147,160	3,348
<b>Alberta</b>	1,199,454,539	3,277,582	366	908,684,699	341,918	2,658
<b>B.C.</b>	<b>1,490,393,318</b>	<b>4,257,833</b>	<b>350</b>	<b>1,098,699,449</b>	<b>586,408</b>	<b>1,874</b>
<b>Territories</b>	48,494,739	73,750	658	32,283,228	4,944	6,530
<b>Canada</b>	13,495,645,233	32,299,496	418	10,852,242,676	4,221,203	2,571

(Source: Stats-Can Residential Care Facilities Survey, 2005/2006)

Many health care professionals consider providing effective, quality care in complex residential care settings as a good way to reduce health care expenses. Health Policy Analyst Dr. Michael Rachlis' states that, "Good quality care costs less than poor quality care because poor quality care often results in patients prematurely returning to emergency hospital settings." In addition, "the re-admission rates of elderly patients to hospitals is 1 in 6 which not only takes away acute care beds, but also ends up costing the healthcare system extra money." In Rachlis' 2006 publication, *Seniors Health: Can We Afford the Future?* he states "focus on quality and prevention and you will achieve sustainability; focus on cost control and you will never achieve quality or sustainability."

**Major recommendations from the research regarding policy/standards in complex residential health care are:**

- Establish National, Provincial and/or Regional Standards for the quality of care being offered in ALL care facilities. This includes ensuring that public and private facilities uphold the same care standards with regards to cleaning/maintenance and patient/staff interaction so that residence are not at an advantage or disadvantage based on their facility of choice
- Establish and honour regulations regarding staffing procedures, for example, guidelines stating the type of staff required for people with different needs and how many staff are required for specific numbers of residents (for example, 1 staff member for every 3 residents with dementia, 24 hours/day).

### 3.2 Leisure Activities

*I still have a full deck; I just shuffle slower now.*  
~Author Unknown

Physical activity is important for everyone but as person ages it becomes increasingly significant. Physical activity has been proven to promote longevity by decreasing or slowing the progress of some ailments while helping prevent certain new ones.

One of the more common ailments reported in Seniors who reside in residential care settings are pain and depression. Access to affordable leisure activities can help remedy the effects of such ailments. Mossey et al. (2008) state that “having and retaining favourite pastimes are associated with reduced levels of depression.”

Senior’s preferences of leisure activities vary but most say that they enjoy participating in certain common leisure activities and the corresponding social setting that come with them. Such leisure activities include: attending social events, participating in some sort of exercise (ex. sport or mental exercise in the form of a game). New activities may even be introduced and have been shown to encourage a better quality of life.

#### **Major recommendations from the research regarding leisure activities in complex residential health care are:**

- Ensure no resident at any care facility is denied access to ‘life enriching’ activities, such as community outings or optional leisure activities at the facility.
- Develop and encourage activities that enable people with a wide range of physical and mental capabilities to participate. This may include tailoring specific activities to certain groups of residents when required (e.g. Dancing with familiar music may be better suited for someone with dementia than to someone with physical or mobility difficulties).

### 3.3 Green Spaces

*‘Only when the last tree is cut, only when the last river is polluted, only when the last fish is caught, will they realize that you can’t eat money’*  
~ Native American Proverb

There is a strong correlation between how long one lives and their proximity to parks and other green spaces that enable social interaction and exercise. The correlation between life span and green space access is so strong that a study done at the Medical and Dental University in Tokyo, Japan was able to determine a significant predictive value between the years of life one could expect to have and their access to park space.

The natural environment plays an important role in not only the quality of life and longevity Seniors experience but also is a factor in their decision to stay in their community or region. Perhaps most surprising however, is that when all factors were considered, living in areas with accessible green spaces was found to positively influenced the life span of senior citizens *independent* of age, sex, marital status, baseline functional status, and socioeconomic status (Takano et al, 2002).

While green spaces are most often revered because they help promote exercise and active living, they have also been found to promote psychological well being in such ways as helping reduce stress and/or high blood pressure, especially among older adults (Kearney et. al., 2006). One experiment found that simply viewing a ‘natural landscape’ lowered both systolic and diastolic pressures significantly in elderly women. This has important implications for people who are either unwilling or unable to venture outside to enjoy the natural environment as it appears that just being able to see nature in the form of gardens or trees contributes to one’s overall sense of well-being (Tang & Brown, 2006).

Studies also suggest that people with severe psycho-physiological imbalances, such as dementia or Alzheimer disease are among those most affected by their surroundings. Having access to a green space helps counteract imbalances and returns the persons mental condition back to a state of equilibrium (Ottosson & Grahn, 2006).



**Major Recommendations from the research regarding green spaces in complex residential health care are:**

- Provide easy access to outdoor green spaces for Seniors of varying physical or cognitive abilities.
- Provide smaller green spaces instead of one central courtyard for easy access from different ‘wings’ or sections of the facility and to limit the probability that residents will become disoriented trying to navigate the facility. Another option is to have different ‘themes’ or different plants/colours/features in the various gardens to promote cognitive recollection.
- Avoid high contrast paving patterns which may confuse some residents who see it as a void that they may not pass (Kearney et. al.).

- Create places for ‘therapeutic gardens’ in which residents can cultivate their own garden and ‘harness the healing power of nature’ (Norfolk, 2000).
- Memorial gardens can also be a valuable resource, especially if the deceased persons family or spouse lives near by as it can be a lasting contribution and a positive reminder of the loved one.

### **3.4 Health and Safety**

*The great secret that all old people share is that you really haven't changed in seventy or eighty years. Your body changes, but you don't change at all. And that, of course, causes great confusion.*

~Doris Lessing

#### **a. Safety**

Due to the current critical shortage of complex residential care beds in Cowichan, seniors are often moved from facility to facility until they reach their desired destination. One of the problems that can occur with this transfer to new settings is the increased risk of falling. According to the World Health Organization, the incident of falls can double after older people are relocated to a new environment. It takes 3 months for the Seniors to return to their baseline abilities. It is estimated that 1 in 3 seniors fall at least once a year, resulting in a number of different maladies from hip fractures (the most common injury) to death (Health Canada, June 2008).

Evidence has shown that people with lower socio-economic status are more likely to experience falls in part because they are unable to afford the devices needed to assist them (ex. walkers, canes or prescription glasses). Alcohol consumption, smoking, narcotic use (both legal and illegal) and poor diet have also been linked to cognitive impairment and/or bone and muscle degradation, both of which can contribute to an increased prevalence of falls (Health Canada, June 2008).

#### **Major Recommendations from the research regarding safety in complex residential health care are:**

- Ensure medications are taken only when recommended and try to minimize the use of ‘benzodiazepines’ which are known to increase the risk of falling among seniors.
- Implement exercise programs that involve strength training, balance training (ex. Tai Chi) and endurance at seniors centers and residential care homes to help increase strength and reduce the incidence of falls.
- Avoid ‘obstacles’ and uneven surfaces such as floor mats and other low level fixtures that may pose a tripping hazard.

- Provide hand rails and other assistive devices when needed this may include anything from railings on the sides of beds in residential facilities to walkers/wheel chairs for independent seniors to use in shopping centers.
- Use extra lighting when needed (ex. night lights in the hallways etc.) or consider installing a 'clapper' to turn lights on or off.
- Limit access to alcohol and ensure all containers stored in kitchen cupboards are properly labeled.

### **b. Dementia/Alzheimer**

In Canada, 360,000 people (1 in 20) over the age of 65 have Alzheimer's or Dementia and this number is expected to more than double by 2031. With a current population of 14,474 people aged 65+ in Cowichan this translates into 724 people who could potentially be in various stages of these diseases.

The Canadian healthcare system currently spends \$5.5 billion annually helping people with Dementia/Alzheimer's; much of this money is spent on complex residential care facilities. Many of the Seniors afflicted require extra help during the late stages of the disease when their current living situation is no longer suitable or their care provider (often a spouse or family member) can no longer deal with the 24hr supervision required by a person with dementia/Alzheimer's.

Effective housing for dementia or Alzheimer's patients at a complex residential care facility can become even more costly. It is recommended that people with dementia be given more space (i.e. few people in one room/area, not a 'ward' type setting) and live in a calm, quiet, 'home-like' environment. Murals have been used to contribute to the 'homely' atmosphere and also work well to disguise exit doors. Silent 'help' buzzers are recommended over conventional call systems that are audible to multiple residents and may lead to agitation among dementia/Alzheimer's suffers. (Healthcare Quarterly)

### **Major Recommendations from the research regarding dementia/ Alzheimer's Disease in complex residential health care are:**

- Incorporate as many familiar features (ex. photographs, special keep-sakes) in the residents room as possible.
- Create a 'home-like' setting with colour, pictures, comfortable seating and minimal reminders of being in a hospital.
- Limit noise in any way possible.
- Encourage settings that involve other family members, for example a communal kitchen where families can bake together.
- Use lighting in places where you want to attract residents to (ex. common rooms).
- Limit access to objects that may be used as a weapon as Alzheimer patients have a tendency to become aggressive when agitated.

- Associate colours with different areas of the building to help avoid disorientation.

### **c. Elder Abuse**

Elder abuse is one of the most under studied and under reported issues concerning seniors. While reports estimate that between 4 and 10 percent of Canadian seniors will experience some type of abuse, according to Seniors Canada up to 96% of Canadians feel that most of the abuse seniors receive is hidden or goes undetected.

There is no clear-cut answer as to why elder abuse occurs, however there are theories suggesting that factors relating to everything from the socio-economic environment of the institution, to the ownership status of the facility to the gender of the abused person may be contributing factors. The most widely supported theory however, attributes elder abuse to stressful working conditions in short-staffed facilities or to lack of support or resources for caregivers when elder abuse occurs at home.

While abuse is most often thought as being physical, sexual (rape) or emotional (neglect/social isolation), elderly people are often more susceptible than the general population to financial abuse as well. When a senior becomes completely dependent on their abuser or conversely, when the abuser is completely dependent on the senior (ex. in the case of a grandchild living in their grandparents house and 'living off' their grandparents savings) this may create a power struggle that leads to greater instances of any type of abuse, including financial abuse (Public Health Agency of Canada,2000).

### **Major Recommendations from the research regarding elder abuse in complex residential health care are:**

- Monitor the senior you expect may have experienced elder abuse for changes in behavior, especially behavioral changes in the presence of certain individuals (i.e. the abuser), or in certain situations (ex. shies away from being touched).
- Limit access to personal belongings and personal information (i.e. credit cards, jewelry, bank account numbers). Also install security or monitoring systems if necessary such as 'silent buzzers', which the senior can use if they are in distress.

### **d. Susceptibility to Disease**

Seniors in residential care settings are vulnerable to infections because of the "physiological changes that occur with ageing, the underlying chronic diseases of the patients and the institutional environment within which residents socialize and live" according to Garibaldi's, 1999 publication: *Residential care and the elderly: the burden of infection*.

Residential health care settings also have the tendency to make infections more difficult to diagnose because of their minor appearance in the presence of other illnesses, which

may mask the symptoms of infection. Delays in diagnosing and treating infections due to lack of readily available diagnostic materials allow transmission to occur rapidly within the facility. The incidence of infections is also influenced by the general weakness of the patients as well as over-crowding that sometimes occurs in residential care facilities or hospital 'wards'.(Garibaldi, 1999).

Protecting seniors in Residential health care settings from disease is further complicated by the fact that residents often share everything including bathroom facilities, food services and the air they breathe. This presents the perfect breeding ground for any antigens brought in from the community via family members/visitors to reach and infect many of the residents in the facility. As elderly people generally have weakened immune systems becoming infected with anything from the Norwalk Virus to the 'common cold' can be extremely detrimental to their health and if not treated properly, may lead to death. (Strausbaugh et. al.2003).

**Major Recommendations from the research regarding susceptibility to disease in complex residential health care are:**

- Minimize the number of people per room/area to help control the spread of disease.
- Encourage hand washing/hand sanitizing for residents and visitors using signage and 'wash stations'.
- Avoid contact with ill resident until they get better and don't visit a relative in a facility if you are not well.
- Make sure that staff members are well trained on how to prevent the spread of disease.

## Chapter Four: Summary Recommendations

The recommendations below are based on an analysis of the research in the preceding chapters:

### **Cowichan Population Forecasts**

- Study the demographic profiles as presented in Cowichan’s population forecasts and conduct research on the impact to the 10 determinants of health; especially as they relate to Seniors projected growth.
- Work as a community to develop a regional strategy on the projected regional population growth and Seniors complex residential health care needs.

### **Seniors Residential Care Needs**

- Continue to gather evidence based research that can help to guide researchers and policy makers in planning for Seniors residential health care needs.

### **Quality of Life in Seniors Residential Health Care Facilities**

#### **Standards and policy**

- Establish National, Provincial and/or Regional Standards for the quality of care being offered in ALL care facilities. This includes ensuring that public and private facilities uphold the same care standards with regards to cleaning/maintenance and patient/staff interaction so that residence are not at an advantage or disadvantage based on their facility of choice.

#### **Leisure Activities**

- Ensure no resident at any care facility is denied access to ‘life enriching’ activities, such as community outings or optional leisure activities at any facility.

#### **Green Spaces**

- Provide easy access to outdoor green spaces for Seniors of varying physical or cognitive abilities.

#### **Health and Safety**

##### **a. Safety**

- Ensure that steps are taken to implement precautions necessary as suggested in recommendations from research based evidence on Seniors safety in residential health care settings.

**b. Dementia/Alzheimer Disease**

- Create an environment in the residential health care setting that is consistent, familiar, and 'home-like' for Seniors who are afflicted with dementia or Alzheimer's Disease.

**c. Elder Abuse**

- Work to reduce the factors that contribute to elder abuse and raise awareness on the issue.

**d. Susceptibility to Disease/Infection**

- Ensure that staff and caregivers of Seniors are well-trained on how to prevent the spread of disease in Seniors residential care settings.
- Work towards reducing the overcrowding in Seniors residential care settings that contributes to the spread of disease in these environments.

## Chapter Five: Conclusions

This report has described three areas that have Regional implications in the growth of Cowichan's Senior population.

### **Cowichan Population Forecast**

Cowichan is expected to experience steady population growth over the next 30 years. It is anticipated this growth will be characteristic of a 'baby boom' nation, in which a pattern of decreasing fertility rates in the younger population combined with prolonged life expectancy has helped contribute to a negative natural increase. As a result of both these factors, people aged 65+ will increasingly represent a greater percentage in the community over the next three decades.

### **Seniors Residential Health Care Needs**

Seniors who are no longer able to be independent and reside in their own home often require some form of residential care. For these seniors, there are a variety of public (i.e. government subsidized) or private options in Cowichan, ranging from Assisted Living for people who require light care to Complex Residential Care for people requiring round the clock assistance. The predicted number of Seniors who will require complex residential health care is based on the rate of 95 to 100 per 1000 population aged 75+. The projected growth of the 75+ population is expected to increase need for these services.

### **Quality of Life in Seniors Residential Health Care Settings**

Ageing seniors should be able to experience the full extent of the 'Golden Years' despite the onset of conditions sometimes associated with age such as Dementia, increased incidence of falls and greater susceptibility to disease. Part of helping seniors achieve a sense of well-being, whatever their circumstance, includes ensuring they receive appropriate levels of care and have access to activities or places they enjoy and can find like-minded individuals to socialize with.

### **Major Recommendation**

The major recommendation of this report is that the community work together to develop a regional strategy on the projected regional growth, especially as it pertains to Seniors residential health care needs.

## Appendix I: Projected Population by Age Group

**Table II: Projected Population of the Cowichan Region by Age Group 2006-2036**

Year <sup>1</sup>	0-14 Population	15-24 Population	25-44 Population	45-64 Population	65+ Population	Total
2005-2006	12,915	9,380	16,870	24,105	13,670	76,940
2006-2007	12,799	9,380	16,971	24,852	14,053	78,055
2007-2008	12,709	9,324	17,056	25,598	14,474	79,161
2008-2009	12,646	9,239	17,175	26,289	14,909	80,258
2009-2010	12,595	9,166	17,347	26,920	15,341	81,369
2010-2011	12,570	9,092	17,555	27,431	15,816	82,464
2011-2012	12,582	9,029	17,784	27,706	16,497	83,598
2012-2013	12,633	8,956	17,979	27,983	17,173	84,724
2013-2014	12,709	8,857	18,159	28,319	17,843	85,887
2014-2015	12,797	8,742	18,322	28,630	18,539	87,030
2015-2016	12,900	8,628	18,469	28,916	19,224	88,137
2016-2017	13,029	8,516	18,654	29,119	19,936	89,254
2017-2018	13,133	8,431	18,822	29,264	20,673	90,323
2018-2019	13,238	8,355	18,991	29,352	21,438	91,374
2019-2020	13,344	8,280	19,162	29,411	22,253	92,450
2020-2021	13,438	8,214	19,315	29,470	23,054	93,491
2021-2022	13,518	8,189	19,431	29,529	23,861	94,528
2022-2023	13,586	8,197	19,509	29,558	24,696	95,546
2023-2024	13,640	8,222	19,567	29,617	25,511	96,557
2024-2025	13,681	8,271	19,567	29,706	26,327	97,552
2025-2026	13,708	8,337	19,528	29,825	27,117	98,515
2026-2027	13,722	8,420	19,450	30,004	27,954	99,550
2027-2028	13,722	8,496	19,353	30,184	28,709	100,464
2028-2029	13,708	8,581	19,237	30,395	29,484	101,405
2029-2030	13,681	8,667	19,121	30,699	30,162	102,330
2030-2031	13,640	8,754	19,025	31,037	30,735	103,191
2031-2032	13,599	8,832	18,968	31,378	31,227	104,004
2032-2033	13,558	8,903	18,930	31,692	31,727	104,810
2033-2034	13,517	8,965	18,893	31,977	32,234	105,586
2034-2035	13,477	9,019	18,855	32,233	32,718	106,302
2035-2036	13,436	9,064	18,836	32,458	33,176	106,970

(Source: BC Stats Population Forecast – Table 4: Percent Change By Selected Age Groups; the time period for each projection begins on July 1<sup>st</sup> of the first year listed and ends on July 1<sup>st</sup> of the second year.)

1. Slight variations in the reporting of the population for a certain year arise as a result of how BC Stats does their projections (i.e. July 1<sup>st</sup> of one year to July 1<sup>st</sup> of the next as shown above). We have chosen to use different time frames (e.g. reporting the 2005/2006 population instead of the 2006/2007 population for entire 2006 year) in certain portions of the report in order to either coincide with the information presented or to give even, yearly intervals.

## Appendix II: Projected Population 75+

Table III: Predicted Complex Residential Care Bed Need based on 75+ Population

Year	Projected Rate of Change (%) <sup>2</sup>	Projected <sup>3</sup> Population 75+	Number of Complex Care Beds needed based on 95 <sup>4</sup> Beds/1000 people 75+	Number of Complex Care Beds needed based on 100 beds/1000 people 75+
2005-2006	N/a	6,530	620	653
2006-2007	2.8	6,713	638	671
2007-2008	3	6,914	657	691
2008-2009	3	7,122	677	712
2009-2010	2.9	7,328	696	733
2010-2011	3.1	7,555	718	755
2011-2012	4.3	7,880	749	788
2012-2013	4.1	8,203	779	820
2013-2014	3.9	8,523	810	852
2014-2015	3.9	8,856	841	886
2015-2016	3.7	9,183	872	918
2016-2017	3.7	9,523	905	952
2017-2018	3.7	9,875	938	987
2018-2019	3.7	10,241	973	1,024
2019-2020	3.8	10,630	1,010	1,063
2020-2021	3.6	11,013	1,046	1,101
2021-2022	3.5	11,398	1,083	1,139
2022-2023	3.5	11,797	1,121	1,180
2023-2024	3.3	12,186	1,158	1,219
2024-2025	3.2	12,576	1,195	1,258
2025-2026	3	12,953	1,231	1,295
2026-2027	2.9	13,329	1,266	1,333
2027-2028	3	13,729	1,304	1,373
2028-2029	2.7	14,100	1,340	1,410
2029-2030	2.3	14,424	1,370	1,442
2030-2031	1.9	14,698	1,396	1,470
2031-2032	1.6	14,933	1,419	1,493
2032-2033	1.6	15,172	1,441	1,517
2033-2034	1.6	15,415	1,464	1,541
2034-2035	1.5	15,646	1,486	1,565
2035-2036	1.4	15,865	1,507	1,586

2. Rate of Change based on BC Stats Population Forecast, (August 2007)
3. The number shown in the table is rounded up or down to correspond to a 'whole' person but the un-rounded numbers were used to calculate each consecutive value.
4. Incident rate used by planners for complex care facilities. The rate was given by Michael Pennock (Population Health Epidemiologist) from the Office of the Chief Medical Health Officer. Rate confirmed by the VP of Planning for the Vancouver Island Health Authority.

## Appendix III: Glossary of Terms

**Acute Care:** Acute care beds are defined as staffed and operational hospital beds for medical, surgical, obstetrical, psychiatric and critical care patients. This excludes hospital beds intended for rehabilitation, long term care and palliative care, and beds that are non-acute or intended for temporary occupancy.

**Assisted Living (previously level one and two intermediate Care):** This includes a combination of housing and hospitality services as well as a range of support services including assistance with personal activities such as grooming, bathing or taking medications. Housing units typically provide meals, housekeeping and laundry services, social and recreational opportunities and 24-hour emergency response systems. Residents are capable of directing their own care, but require some assistance performing between 1-2 daily activities (Source: BC HEU). Housing units may be large or small in scale and may be delivered by private or non-profit organizations. Services may be delivered privately or be delivered and subsidized through VIHA. Some Assisted Living buildings are registered with the Assisted Living Registrar.

**Complex Residential Care (previously level three intermediate care):** Residential Care units provide accommodation, care and 24-hour supervision for retired adults who are no longer capable of directing their own day-to-day activities. Residential Care settings typically provide a combination of housing and hospitality services, as well as extensive support services. These settings include intermediate care, extended care, complex care, multi-level care and nursing homes. Previously, residential care needs were based on a scale from 1-3 where a 1 represented minimal care and a 3 required the most intensive care. Now however, only people who fall under the category 3 are admitted to Residential Care facilities. Residential Care units must be licensed and services may be delivered by private or non-profit organizations. Some units offer government subsidized care options. (Source: BC HEU, 2006)

*Note: For the purpose of this report, complex residential care is used synonymously with long term care, nursing homes and residential care and in this context only applies to seniors. However, it is important to note that there are other types of residential care facilities, which serve people of any age with addiction issues, mental or physical disabilities etc.*

**Licensed Practical Nurse:** Also referred to as a Registered Practical Nurse (RPN) in Ontario and some U.S. states. A Licensed Practical Nurse cares for stable, less complex clients with more predictable outcomes. LPN's work in collaboration with other members of the health team (Source: University of Waterloo). Becoming a LPN generally requires two years of post-secondary education to obtain but different provinces and programs have different requirements in terms of how many years or hours LPN's must

complete train for before they are certified (Source: Canadian Nurses Association publication - Navigating to Becoming a Nurse in Canada, 2005)

**Registered Care Attendant:** Also referred to as Home Support or Personal Care Attendant (PCA) in some provinces. RCA's have the knowledge, skills and values necessary to function as a front-line caregiver in a variety of long term care settings which include both residential care facilities and home support agencies. They provide care to older adults experiencing diverse, often complex but relatively stable health and illness needs (Source: Kwantlen Polytechnic University Home Support/Residential Care Program). Programs that offer training for RCA's generally run an average of 6 months in length and courses focus on everything from communication skills to health and healing practices.

**Registered Nurse:** Self regulated health-care professionals who work autonomously and in collaboration with others. RNs enable individuals, families, groups, communities and populations to achieve their optimal level of health. RNs coordinate health care, deliver direct services and support clients in their self-care decisions and actions in situations of health, illness, injury and disability in all stages of life. RNs contribute to the health care system through their work in direct practice, education, administration, research and policy in a wide array of settings (Source: Canadian Nurses Association, 2007)

**Residential Health Care:** Umbrella term used to describe all levels of seniors health care housing in this report including: assisted living, acute care, transitional care and complex residential care.

**Transitional Care:** Transitional care is for people who are medically stable and who are waiting to be discharged from the hospital to return home, or are awaiting placement in another facility. These other facilities may include a rehabilitation center (ex. after a hip replacement) or a residential care facility.

**Ward:** A division in a hospital; especially: a large room in a hospital where a number of patients often requiring similar treatment are accommodated (Source: Merriam-Webster Dictionary). As stated above, it is recommended that elderly patients, especially those with dementia or Alzheimer disease are given as much personal space as possible (i.e. 1 to 2 people per sleeping room) to minimize the spread of infection/disease and to provide a 'familiar' place where they can keep their belongings while maintaining their privacy.

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