

PHYSIO CAN HELP

Physiotherapy Can Improve Health for Seniors



February 2017



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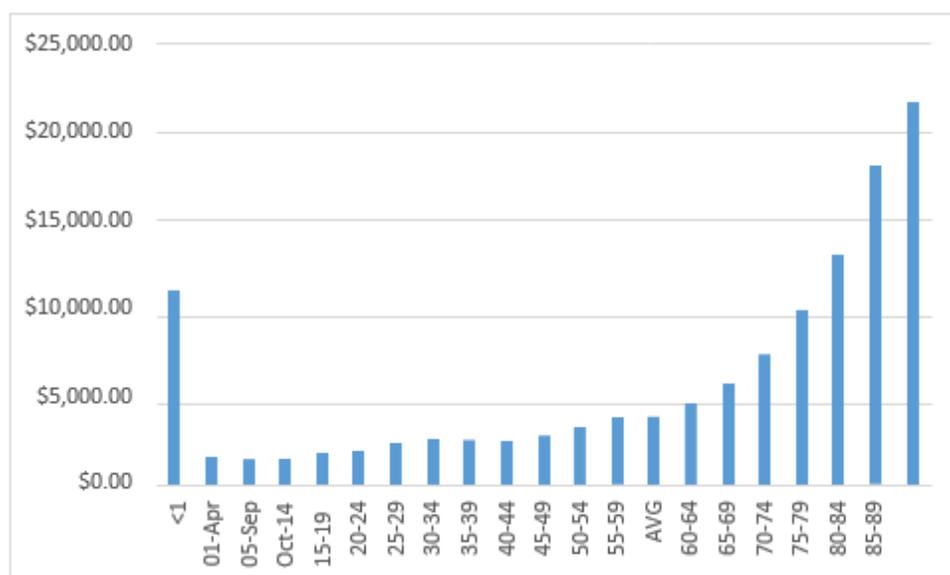
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Executive Summary

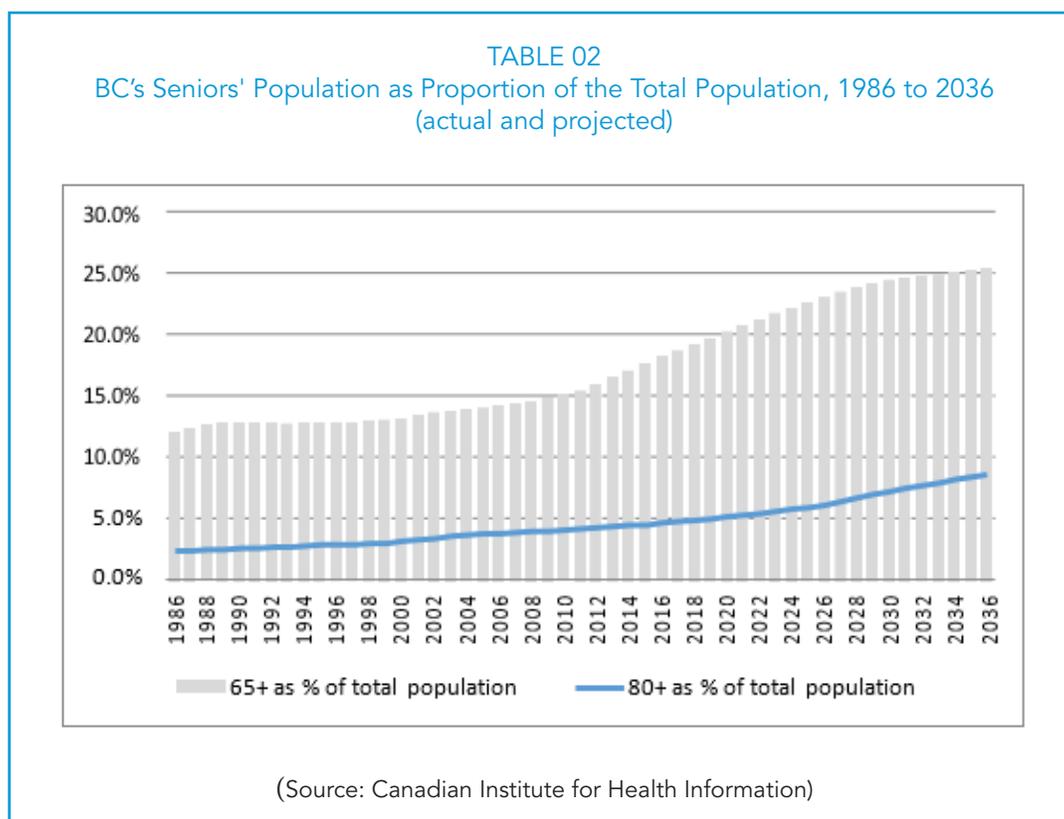
- Canada's seniors (individuals 65 years of age and older) represent approximately 16.0 per cent of the country's total population, yet they consume nearly 46.0 per cent of public sector healthcare dollars.¹
- The numbers are comparable in British Columbia — seniors compose 16.9 per cent of the total population, but consume 42.0 per cent of public healthcare dollars.
- Public healthcare spending on seniors is higher than for any other age group in Canada.
- A report published last year by the Canadian Institute for Health Information (CIHI) stated: "Per capita health care spending by provincial and territorial governments is highest for seniors and infants."²
- In 2014, the most recent year for which actual data has been collected, the average cost of health-care for Canadian youths one to fourteen years of age was \$1,423, for individuals between 15 and 64 years, \$2,663, and for seniors, \$11,635.
- BC's seniors' population is growing rapidly — both in absolute numbers and as a proportion of the province's total population.
- In 1976, the number of BC residents 65 years of age and older was 245,200 — or 9.7 per cent of the province's total population.³ By 2016, the number of seniors was estimated at 853,200, or 18.0 per cent of BC's total population. In absolute terms, the number of seniors has tripled over the last three decades, while as a proportion of the total it has nearly doubled.

TABLE 01
Canada Public Healthcare Expenditures by Age Cohort, per capita,
2014 (current dollars)



(Source: Canadian Institute for Health Information)

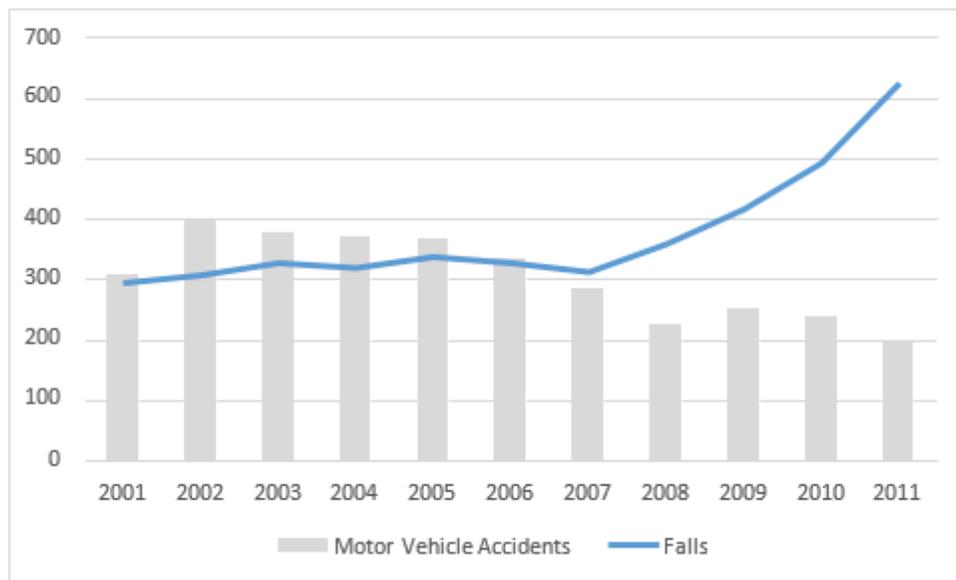
- BC's seniors' population is expected to continue growing into the foreseeable future, both in absolute and relative size.
- According to BC Stats, the province's seniors' population in 2021 — just four years from now — will surpass the one-million mark. That same year, BC's total population is forecast to exceed five million.⁴
- As a proportion of the total population, seniors are expected to represent 20.5 per cent. Two decades from now, in 2036, the province's population is expected to top 5.8 million.
- At the same time, the number of residents 65 years plus should reach 1,567,600, or 25.3 per cent of BC's total population.
- BC's population of seniors is growing at a rate much faster than that of the province as a whole.⁵
- Between 2011 and 2021, BC's seniors' population is forecast to grow from 686,700 to 1,033,600. That's an increase of 346,900, or 50.5 per cent.



- Over the same decade, the province's total population is expected to rise from 4,499,100 to 5,037,100 — an increase of 538,000, or 12.0 per cent. Viewed in this light, BC's seniors' population during the current decade will grow at a rate more than four times faster than that of the total provincial population.
- Demand is expected to grow for programs and services intended to keep seniors healthy (or, healthier) as they age. An example is the provision of proactive therapeutic programs, aimed at reducing or eliminating harmful incidents, such as falling down.

- Falls often are fatal for frail seniors. In BC from 2001 to 2011 — the latest year for which data is available — the number of deaths directly attributed to falls more than doubled, rising from 296 to 624.6
- That increase contrasts starkly to the decline in deaths in BC from automobile accidents, which in 2011 totaled just 196 — or less than one-third of the number of fatalities from falls.
- “The risk of falls and associated complications rise steadily with age,” states a recent analysis published in the United Kingdom, “and can be a marker of increasing frailty.”⁷
- Physiotherapists are highly trained professionals who design evidence-based programs that improve balance and teach fall prevention. In this way, physiotherapy serves to reduce hospitalizations and other costly medical treatments, while also assisting seniors in retaining their independence for as long as possible.
- Physiotherapy is proven to be beneficial for seniors diagnosed with Parkinson’s disease, which is a progressive neurological condition marked by tremor, uncertain movement and muscular rigidity.
- Physiotherapists have the medical skills to teach “movement strategies [intended] to overcome difficulty in generating automatic movement and thought” in individuals with Parkinson’s, as well as to minimize deterioration, promote self-management and maintain general fitness.⁸
- The Physiotherapy Association of British Columbia is dedicated to promoting physiotherapy as a cost-effective means of improving the health of our province’s growing seniors’ population. When it comes to better, affordable healthcare for BC’s seniors, [Physio Can Help](#).

TABLE 03
Deaths from Falls and Motor Vehicle Accidents in BC, 2001 to 2011



(Source: BC Vital Statistics Agency, annual reports, various years)

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Introduction

British Columbia’s fast growing seniors’ population consumes a larger share of the province’s annual public healthcare expenditures than any other age segment. In 2014, the latest year for which actual data is available, health spending on BC seniors totaled nearly \$7.6 billion.¹ That represented 42.0 per cent of the province’s healthcare operating Budget, even though BC seniors — who numbered 785,000 in 2014 — were only 16.9 per cent of the province’s total population.²

It is forecast that BC’s seniors’ population will continue its rapid rate of growth in the future, both in real numbers and as a proportion of the total population. By 2021, the province’s seniors’ population will surpass the one-million mark, and a decade and a half later, in 2036, it is forecast to climb to nearly 1.5 million. The former number will represent 20.5 per cent of the province’s total population; the latter, 25.3 per cent.

Clearly, healthcare spending rises dramatically with age, and British Columbia’s elderly population is growing at a quickened pace.

Provincial policy makers well understand that one of BC’s looming fiscal challenges is to continue providing stellar healthcare to all residents, regardless of age, while at the same time maintaining an affordable health system.

TABLE 04
British Columbia Public Healthcare Expenditures by Age Cohort, per capita, 2014

<i>Years of age</i>	<i>Per capita health spending</i>
20-24	\$1,942.95
25-29	\$2,364.52
30-34	\$2,635.40
35-39	\$2,587.87
40-44	\$2,477.26
45-49	\$2,738.20
50-54	\$3,228.66
55-59	\$3,805.14
60-64	\$4,654.59
65-69	\$5,763.41
70-74	\$7,412.85
75-79	\$9,916.73
80-84	\$13,055.85
85-89	\$17,999.60
90+	\$21,646.40

(Source: Canadian Institute for Health Information
"National Health Expenditure Trends, 1975 to 2016: Data Tables, Series E')

One of the greatest challenges is finding solutions to the growing incidence of falls. Unfortunately, the growth in the population of elderly British Columbians has been accompanied by a significant rise in the number of deaths directly attributed to falls.

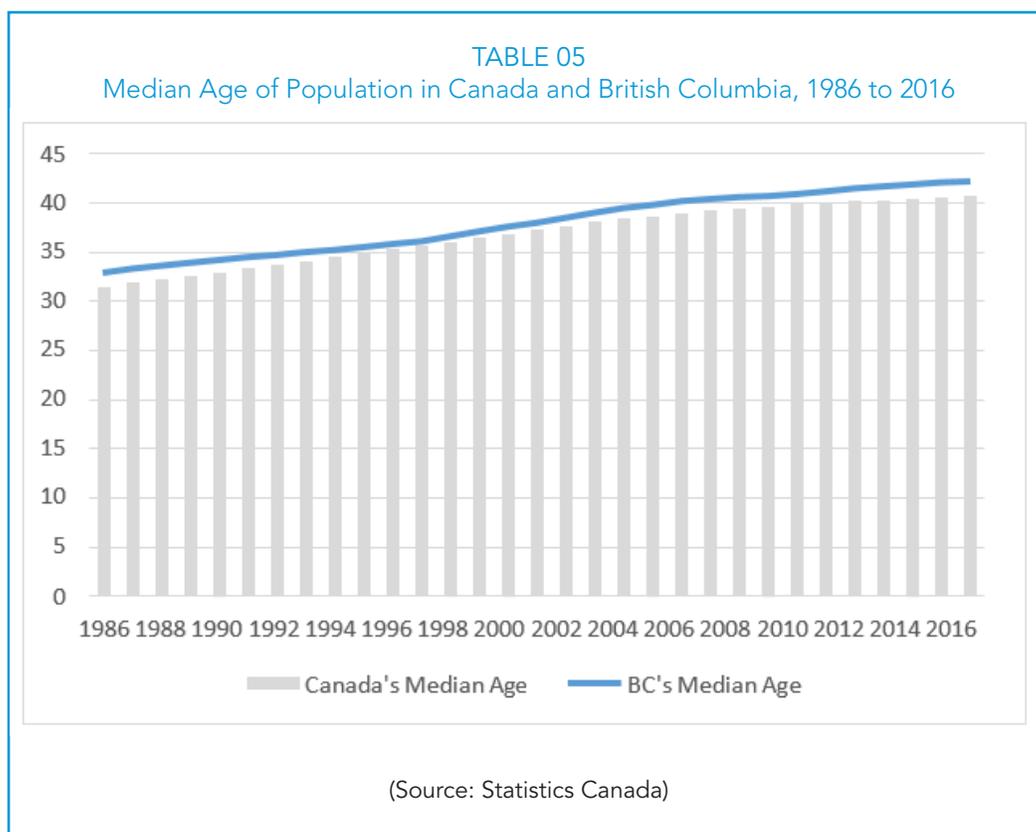
Between 2001 and 2011, the latest year for which data is available, the number of deaths in BC from falls more than doubled, from 296 to 624.³

Increasingly, academic researchers and medical professionals recognize the vital and cost-effective role performed by physiotherapy in helping seniors to maintain a healthy and independent lifestyle, prevent accidents — notably, falls — and recover from medical treatment.

In providing better public healthcare for BC seniors, [Physio Can Help](#).

BC's Seniors' Population: Past and Present

Four decades ago, in 1976, British Columbia was home to just over 2.5 million residents. Of that number, 245,200 — or 9.7 per cent of the total — were age 65 years and older.¹ By the turn of the century, in 2001, the province's total population had grown to nearly 4.1 million. And the number of seniors was counted at 537,900 — 13.2 per cent of the provincial total.



Over the course of that 25-year span — from 1976 to 2001 — British Columbia's total population surged upward by 60.9 per cent, at an annual average growth rate of 2.4 per cent. During the same period, the province's seniors' population skyrocketed by a phenomenal 119.4 per cent. That works out to an average annual increase of 4.8 per cent — or, exactly double the yearly growth rate for the province as a whole.

Over the next 15 years, from 2001 to 2016, BC's overall population growth rate slowed — at least when compared to historical standards.

Last year, the provincial population was estimated to be slightly more than 4.7 million, of which 853,400 — 18.0 per cent of the total — were age 65 years and older.

Between 2001 and 2016, BC added 663,200 new residents — a total increase of 16.3 per cent. That represents an average annual growth rate of just less than 1.1 per cent. The increase in the province's seniors' population over the same 15-year period was slightly more than 315,500 (from 537,900 to 853,400). That works out to a total rise of 58.7 per cent — or an average annual growth rate of 3.9 per cent.

Again, BC's average annual population growth rate from 1976 to 2001 was 2.4 per cent. Since the turn of the century that yearly rate of growth has been trimmed to less than 1.1 per cent.

The growth rate of the province's seniors' population over the same two time periods declined only slightly, however, from 4.8 per cent between 1971 and 2001, to 3.9 per cent between 2001 and 2016.

Viewed in this light, BC's seniors' population growth rate over the last quarter of the 20th century was double that for the province as a whole. Since 2001, the annual growth rate of the province's seniors' population increased to become 3.5 times greater than BC's overall annual growth rate.

Future Growth of BC's Seniors' Population

We can see from the preceding section that BC's total population growth rate has slowed in recent years, as has the annual average increase in the number of residents age 65 years and older.

At the same time, however, the growth rate of the seniors' population is more than 3.5 times as the province-wide rate of growth. These rates generally are expected to persist into the foreseeable future.

BC Stats, the provincial government's statistical agency, forecasts that British Columbia's population in 2021 — for the first time in history — will exceed five million.¹

And 15 years after that — two decades from now, in 2036 — that province is anticipated to grow to just over 5.8 million residents.

Between 2016 and 2036, then, British Columbia likely will add another 1,067,900 new residents. That number represents a rise of 22.5 per cent — or an average growth rate of slightly more than 1.1 per cent annually.

Over that same time frame (from 2016 to 2036) the province's seniors' population is expected to soar from 853,400 to 1,467,600 — an increase of 614,200. That's a total increase of 72.0 per cent, or an annual average of 3.6 per cent.

To reiterate those actual population increases: BC's total population over the next two decades is expected to grow by nearly 1.1 million; of that number, more than 614,000 will be age 65 years and older.

From just 9.7 per cent of BC's total population in 1976, the proportion of seniors had grown to an estimated 18.0 per cent by 2016. Two decades later, in 2036, that share is forecast to reach 25.3 per cent.

Viewed in this light, the province's seniors' population will have grown from fewer than one in every 10 British Columbians in 1976, to more than one in every four by 2036.

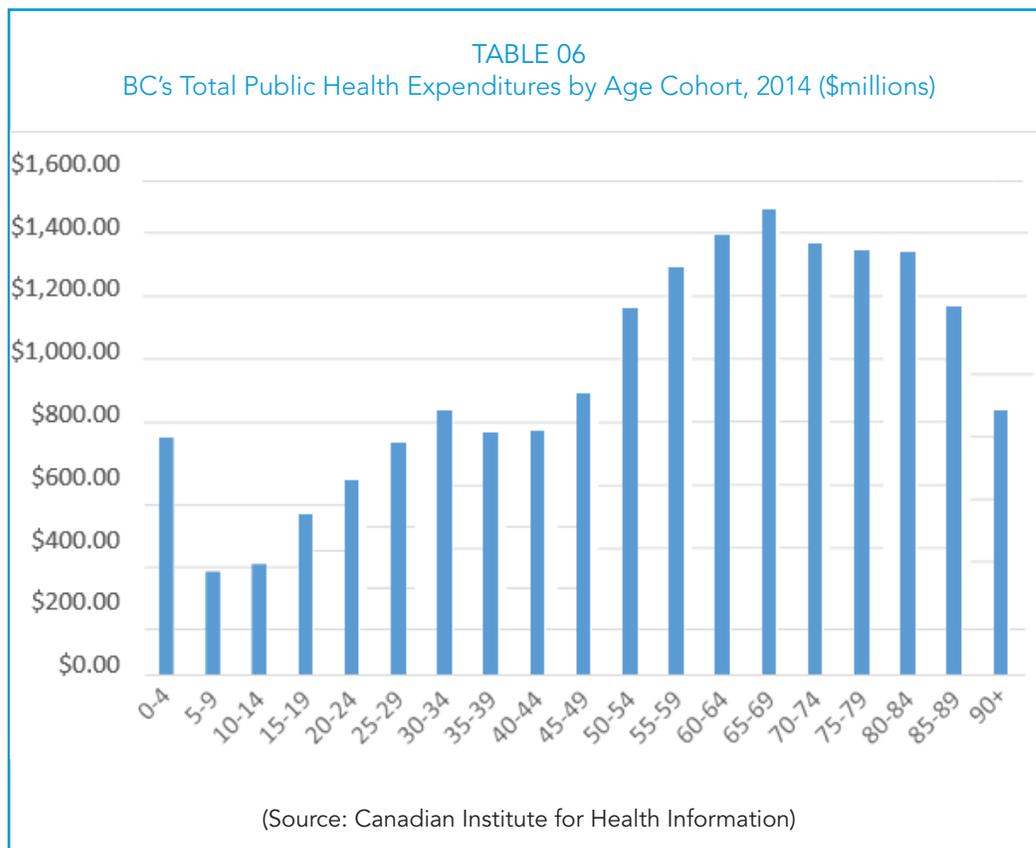
Healthcare Costs for Seniors in Canada and British Columbia

Public healthcare expenditures for seniors in Canada are higher than for any other age segment.¹

The most recent analysis of health expenditures by the Canadian Institute for Health Information (CIHI) — utilizing actual numbers from 2014 — found that the average yearly cost for a senior’s health care was \$11,635. That compares to an annual average of \$1,423 for those between the ages of one and 14 years, \$2,663 for those between 15 and 64 years, and \$10,800 for those under one year of age.

From 1986 to 2010, the number of Canadians 65 years of age and older grew from slightly more than 2.7 million, to almost exactly 4.8 million.² Viewed another way, between 1986 and 2010, the seniors’ share of Canada’s total population rose from 10.5 per cent, to 14.1 per cent.

However, the proportion of the country’s total public health spending allocated to seniors was considerably higher than its demographic share of the population. In 2010, when seniors represented 14.1 per cent of the population, their share of health expenditures was more than three times as high, 44.8 per cent.



By 2014, Canada’s seniors’ population had grown to nearly 5.6 million — an increase of 793,000 in just four years — to surpass 15.7 per cent of the total. And that same year, seniors’ share of public health

spending grew to an even 46.0 per cent. At least one estimate had forecast that, in 2015, seniors' share of the national population would surpass the proportion of youth — that is, Canadians under the age of 15.³

In 2010, Canada's total public spending on seniors' healthcare totaled nearly \$56.4 billion; by 2014 that number had climbed to an even \$65.0 billion. That's an increase of 15.2 per cent in just four years.

The Canadian Institute for Health Information reports that "the continued aging of the population will steadily increase future health spending."⁴

How much is that increase expected to cost? "Assuming population aging continues to contribute approximately [one] percentage point per year to total health expenditure in the near future," CIHI observed, "aging alone will add around \$2 billion per year to health spending in Canada."

British Columbia's seniors, as a share of the provincial population, represent a larger proportion than do seniors nationally. Whereas in 2014 individuals age 65 years and older composed 15.7 per cent of Canada's total population, they made up 17.9 per cent of BC's population.

One measure of the greying of Canada's population is median age. Three decades ago, when Vancouver hosted Expo '86, the nation's median age was 31.4 years, while in BC it was 32.8. Last year, in 2016, the national median had climbed to 40.6 years; in BC, it reached 42.1.

BC's Rising Seniors' Population: The Implications for Health Care

As elsewhere in Canada, public healthcare spending in British Columbia generally rises with age. (The exception to the rule is for babies under one year, whose annual health costs are roughly equivalent to the 70-79 age cohort.)

In 2001, per capita health expenditures were calculated at \$2,481 for each BC resident. That number was considerably lower for British Columbians between the ages of one and 60, and then rose steadily by each five-year age cohort until, it surpassed \$20,000 annually for individuals age 80 years and over.¹

By 2014, the average annual healthcare expense for each British Columbian had increased to \$3,885. Most age cohorts saw a considerable rise in per capita health spending between 2001 and 2014, yet the increase for most seniors was minimal, or actually fell.

For example, per capita healthcare expenditures for individuals in the 85-89 age cohort, saw a reduction from \$20,493 in 2001, to \$18,000 in 2014. Yet, because the seniors' population is growing so rapidly, total public healthcare spending soared upward.

Most dramatically, total public health spending on the 65-69 age cohort more than doubled, rising from \$638.2 million in 2001, to nearly \$1.5 billion in 2014. Over that same time period, total health costs incurred by the aforementioned 85-89 age cohort grew from \$857.9 million to nearly \$1.2 billion.

All of this underscores the urgency of finding and developing new means to provide healthcare to BC's fast growing seniors' population. For even as government cost efficiencies have reduced per capita health expenditures for British Columbia's seniors, the total cost of healthcare for those age 65 years and older continues to increase, year after year.

Physio Can Help: Providing Better Health and Healthcare for BC's Seniors

British Columbia's seniors' population — and this is true for every other jurisdiction in Canada — is growing rapidly in size. So, too, is the need for public healthcare services aimed at maintaining the health and well-being of our aging citizens.

As a recent study in Ontario concluded, the public healthcare system may expect to see an increase in demand “for more multidisciplinary treatments and chronic disease management plans” to care for elderly residents, especially those with “conditions such as rheumatoid arthritis, obesity, osteoporosis, diabetes, cancer and heart disease.”¹

Falls are a major concern for seniors and those who provide them with care. “The risk of falls and associated complications rise steadily with age and can be a marker of increasing frailty,” a study in the United Kingdom has reported.²

“Frailty ... includes a combination of weight loss, fatigue, reduced grip strength, diminished physical activity or slowed gait associated with increased risk of falls, hospitalization, loss of mobility and independence, increasing disability and death.”

To that end, it is also expected that demand will increase for programs and services intended to keep seniors healthy — or, healthier — as they age. Proactive therapeutic programs, which should include physiotherapy, will aim to reduce the incidence of harmful incidents, such as falls.

Physiotherapists are medically trained to design and teach evidence-based programs that will improve balance and prevent falls, increase self-confidence and reduce the fear of falling. Importantly, physiotherapy can reduce hospitalizations and other costly medical treatments, while also assisting seniors in retaining their independence for as long as possible.

Seniors also are susceptible to certain diseases, such as Parkinson's, a progressive neurological condition marked by tremor, uncertain movement and muscular rigidity.³ Physiotherapy is proven to be beneficial for people diagnosed with Parkinson's, as physiotherapists can design and teach “movement strategies to overcome difficulty in generating automatic movement and thought.” Individuals with Parkinson's also may benefit from physiotherapy treatment to minimize deterioration, promote self-management and maintain general fitness.

Physiotherapy can provide a valuable service in proactively speeding up seniors' recoveries after surgery and other medical treatment. In Ontario, health researchers expect to see a growing demand from seniors “for comprehensive rehabilitation programs for post-surgical orthopaedic procedures such as joint replacement.”⁴

It is expected by some healthcare researchers that policy makers will increasingly understand that services to keep an aging population healthy is a wise investment in the future of public healthcare.

Unfortunately, at present, the “majority of [the] healthcare spend is still used in treatment measures rather than prevention. This is beginning to change as evidence indicates that ... increased focus on prevention can result in a healthier population, and cost savings as well.”

Still, British Columbia appears to be lagging in the delivery to seniors of valuable physiotherapy treatment and services. Isobel Mackenzie, BC's Seniors Advocate, has published a report which found that “physical therapy is critical in keeping seniors as mobile and active as possible, for as long as possible.”⁵

Just 12.5 per cent of British Columbians living in residential care — one out of every eight — had received physiotherapy in the preceding seven days, the Seniors Advocate reported. Meanwhile, the proportion of elderly residential home patients in Alberta who had physiotherapy during the previous week was 23.7 per cent, and in Ontario, 50.0 per cent.

The Physiotherapy Association of British Columbia is dedicated to promoting physiotherapy as a cost-effective means of improving the health of our province's growing seniors' population. Because when it comes to better health services for BC's seniors, [Physio Can Help](#).

Conclusion

British Columbia's seniors' population is growing at a much faster rate compared to the province's population as a whole, and this trend is forecast to continue in the foreseeable future. Seniors also consume the largest share of the province's annual healthcare Budget.

Together, these two factors suggest that BC's Health spending on seniors will continue to grow ever larger, year by year, in coming decades.

At present, seniors represent 17.0 per cent of BC's total population, yet healthcare spending on British Columbians currently consumes 42.0 of the provincial Health Budget.

The former proportion is expected to increase to 25.3 per cent by 2036; how much higher must healthcare expenditures rise to accommodate the expansion of the population age 65 years and older?

This issue — the number of BC seniors and the resources allocated to their healthcare — is certain to increasingly occupy the attention of the province's policy makers in coming years.

The challenge will be to continue providing excellent, compassionate and affordable health services to all British Columbians, while at the same time ensuring that both the healthcare system, as well as the province's finances, remain viable and robust.

Fortunately, there is increasing awareness among academic researchers, health administrators and other medical professionals of the value of physiotherapy in providing cost-effective care for seniors, helping them to maintain their personal independence; providing education and training; working with other primary care team members on diagnosis, treatment, and recovery; and guiding the treatment of chronic conditions.

BC seniors deserve the best possible public healthcare. [Physio Can Help](#).

Recommendations

1. That the Province undertake a comprehensive examination of the impact of falls on BC's senior population, and institute measures — including physiotherapy — intended to reduce the number of direct and indirect deaths attributed to falls.
2. That the Province of British Columbia significantly increase physiotherapy services for seniors who live in residential care.
3. That the Province consider an expansion of physiotherapy services available to seniors following surgery or other medical treatment.

Notes

EXECUTIVE SUMMARY

1. Canadian Institute for Health Information (CIHI). National Health Expenditure Trends, 1975 to 2016.
2. Ibid.
3. BC Stats, British Columbia Population by Selected Age Groups Estimated (197-2015) and Projected (2016-2041). July 2016.
4. Ibid.
5. Ibid.
6. British Columbia Vital Statistics Agency. Annual Report, various years.
7. The Chartered Society of Physiotherapy. United Kingdom. Falls & frailty. 2016.
8. The Chartered Society of Physiotherapy. United Kingdom. Parkinson's. 2016.

INTRODUCTION

1. CIHI. op. cit.
2. BC Stats. op. cit.
3. BC Vital Statistics Agency. op. cit.

BC SENIORS' POPULATION: PAST AND PRESENT

1. BC Stats. op. cit.

FUTURE GROWTH OF BC'S SENIORS' POPULATION

1. BC Stats. op. cit.

HEALTH CARE COSTS FOR SENIORS

1. CIHI. op. cit.
2. BC Stats. op. cit.
3. CIHI. Health Care in Canada, 2011 — A Focus on Seniors and Aging. December 2011.
4. CIHI. National Health Expenditure Trends, 1975 to 2016.

BC's RISING SENIORS' POPULATION AND THE IMPLICATIONS FOR HEALTH CARE

1. CIHI. op. cit.

PHYSIO CAN HELP: PROVIDING BETTER HEALTH AND HEALTHCARE FOR BC'S SENIORS

1. Jones, Janet, Kathleen Norman and Spencer Saunders. College of Physiotherapists of Ontario. The State of the Union: Trends and Drivers of Change in Physiotherapy in Ontario in 2014.
2. The Chartered Society of Physiotherapy, United Kingdom. Falls & frailty. 2016.
3. The Chartered Society of Physiotherapy, United Kingdom. Parkinson's. 2016.
4. Jones. op. cit.
5. Ibid.
6. Mackenzie, Isobel. Office of the Seniors Advocate, British Columbia. Making Progress: Placement, Drugs and Therapy Update. November 2016.

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