

A Macdonald-Laurier Institute Publication

# RUNNING OUT OF TIME

## Demographic Pressures and the Future of Canadian Health Care

Brian Ferguson, Sean Speer, and Ariel Freeman-Fawcett



December 2017



True North in  
Canadian public policy



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Canadian public policy



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# Executive Summary

Canada's population is aging. The 2016 Census shows that the share of seniors is witnessing its biggest increase in our country's history. The percentage of the population older than 65 has gone up by 20 percent since 2011. It is set to continue growing. By 2031, nearly 25 percent of the population will be seniors. This will put us on par with Japan's current rate, which presently makes it the world's oldest country.

This demographic transformation will have various consequences – including for government policy and public services. Health care is one area in which policy-makers must account for these trends.

The intersection between an aging population and health care spending is driven by two separate yet linked trends. The first is that older citizens disproportionately consume health care services. Provincial health care spending on those aged between 85 and 89 is more than four times higher than the per capita average. The second is that old people – those aged 65 and older – are the fastest-growing population group in the country. The confluence of these two forces will continue placing a significant burden on provincial and territorial health care spending and their attendant fiscal capacities for the foreseeable future.

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“*This demographic transformation will have various consequences – including for government policy and public services.*”

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This study seeks to analyse and elucidate these two trends to better understand who is placing demand on our health care system, how that demand will evolve in the future as Canada's population ages, and what policy-makers might do about it.

The key is to establish this powerful and inexorable combination of lifecycle consumption and population aging as part of the present debate about the future of Canadian health care. This is important now as provincial health care spending becomes more and more unsustainable in the future. A clear understanding of this dynamic can help Canadian governments craft policy solutions to help Canadians prepare for future health

care consumption and mitigate the rising costs that will eventually place real pressure on provincial and territorial budgets.

That is the goal of this study. It seeks to contribute to the debate by assessing how each province may be affected by these inexorable trends. We estimate how these trends will drive provincial and territorial spending on hospitals and doctors (see Charts 15a and 15b) and squeeze revenues as the relative size of the working-age population shrinks (see Chart 20). We also set out some clear ideas of how policy-makers may respond now to these demographic and fiscal forces.

Here are some key findings and observations that policy-makers, the media, and the general public ought to be aware of:

- Roughly 46 percent of current health care costs are dedicated to Canadians aged 65 and over who only represent 16.9 percent of the population.
- Annual per capita physician expenditures on an 80–84 year old (\$874) are nearly three times as much as those on someone between 35–39 (\$302). It climbs to roughly 14 times as much for the same two age groups when it comes to hospital spending.

- Average per capita provincial and territorial health care spending in 2014 was \$3981 for all ages. It was \$16,078 for those between 80 and 84, \$24,576 for those between 85 and 89, and \$29,204 for those aged 90 and older.
- Statistics Canada estimates that the share of the population aged 65 and over could reach as high as 25 percent by the mid-2030s.

According to our analysis, Newfoundland and Labrador will face the greatest demographic pressure on its public health care system with its age-adjusted, per capita hospital spending reaching 25 percent higher than Ontario's (which is a close benchmark for the national average) in 2038 and its physician spending at 12 percent higher. Alberta will experience the most muted demographic forces with its age-adjusted, per capita hospital spending at 19 percent less than Ontario's in 2038 and 9 percent lower for physician-related expenditures.

Our study covers four key areas. The first examines how the interplay between lifecycle health care consumption and population aging will place demographic pressure on provincial and territorial health care systems. The second aims to estimate how these trends will also affect provincial and territorial fiscal capacity. The third considers the policy and political implications of these demographic pressures. The final sets out policy recommendations for Canadian governments to adopt in order to mitigate these inexorable pressures.

Key recommendations are:

- Ottawa and the provinces and territories should work together to enable greater scope for private involvement in the financing and delivery of health care. This could enable greater health care competition, reduce budgetary pressure on provincial and territorial governments, free up public resources to expand coverage for low-income citizens, and provide greater freedom and choice for patients.
- The federal government should consider policy options to increase awareness and usage of Health Savings Accounts, including expanding tax preferences or using matching public funds, in order to help people prepare for future health care consumption – particularly services and treatments outside of public insurance.
- The federal government should launch a modern Rowell-Sirois Commission with the purpose of rethinking and modernizing fiscal federalism. The goal should be to match revenue and expenditure responsibilities among the different levels of government as well as enhance political accountability and exclusivity in our federalism.

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“*The inexorable combination of lifecycle consumption and population aging must be discussed.*”

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# Sommaire

La population du Canada vieillit. Le Recensement de 2016 a révélé que la part des aînés dans la population canadienne a connu la plus forte hausse dans l'histoire du pays. Le nombre de personnes âgées de plus de 65 ans a crû de 20 pour cent depuis 2011, et cette croissance est appelée à se poursuivre. En 2031, près de 25 pour cent de la population sera constituée de personnes âgées. Le Canada sera alors à pied d'égalité avec le Japon actuel, la société la plus vieille dans le monde.

Ce virage démographique aura des conséquences diverses – y compris sur le plan des politiques gouvernementales et des services publics. Les soins de santé sont un secteur où les décideurs doivent tenir compte de ce virage.

Deux tendances distinctes, mais corrélées, se trouvent à la croisée d'une population vieillissante et des soins de santé. Premièrement, les personnes âgées consomment plus de services de santé qu'en moyenne : les dépenses des provinces en soins de santé prodigués aux personnes de 85 à 89 ans sont quatre fois plus élevées que pour l'ensemble de la population. Deuxièmement, le groupe des 65 ans et plus est celui qui s'accroît le plus rapidement au pays. Ces deux tendances vont continuer, dans un avenir prévisible, de lourdement peser sur les dépenses des gouvernements provinciaux et territoriaux en soins de santé et sur leurs soldes budgétaires.

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Cette étude a pour but d'analyser et de comprendre ces deux tendances afin de mieux cerner la provenance des demandes sur le système de soins de santé, la manière dont les demandes évolueront sous l'influence du vieillissement de la population canadienne et les options offertes aux décideurs en la matière.

Dans le cadre du débat actuel sur l'avenir des soins de santé, il est primordial d'aborder simultanément la consommation selon les cycles de la vie et le vieillissement de la population, en raison de la puissance et du caractère inexorable de ces facteurs, et d'autant plus que les dépenses des provinces en la matière deviennent de plus en plus insoutenables. Une compréhension approfondie de cette dynamique peut aider les gouvernements à concevoir des stratégies propres à inciter les

Canadiens à se préparer à leurs dépenses à venir et à la montée des coûts, laquelle en viendra à exercer de réelles pressions sur les budgets des provinces et des territoires.

L'objectif visé par cette étude, c'est de contribuer au débat en évaluant la mesure dans laquelle chaque province pourrait être touchée par ces tendances incontournables. Nous estimons dans quelle mesure ces tendances augmenteront les dépenses provinciales et territoriales pour les hôpitaux et les médecins (graphiques 15a et 15b) et réduiront les revenus au fil des baisses de la taille relative de la population en âge de travailler (graphique 20). Nous formulons également quelques idées précises sur la manière dont les décideurs pourraient répondre dès maintenant à ces forces démographiques et financières.

Les décideurs, les médias et le grand public devraient prendre connaissance des conclusions et des observations suivantes :

- Environ 46 % des dépenses de santé sont consacrées dans le moment aux Canadiens âgés de 65 ans et plus, qui ne représentent pourtant que 16,9 pour cent de la population canadienne.
- En moyenne, les dépenses annuelles consacrées aux médecins sont presque trois fois plus élevées

pour les personnes âgées de 80 à 84 ans (874 \$) que pour les personnes âgées de 35 à 39 ans (302 \$). Le ratio 80-84/35-39 bondit à 14:1 dans le cas des dépenses consacrées aux hôpitaux.

- En 2014, les dépenses provinciales et territoriales en soins de santé se sont établies à 3 981 \$ par personne, tous groupes d'âges confondus. Elles étaient de 16 078 \$ pour les personnes âgées de 80 à 84 ans, de 24 576 \$ pour les personnes âgées de 85 à 89 ans et de 29 204 \$ pour les personnes âgées de 90 ans et plus.
- Statistique Canada estime que la proportion de personnes âgées de 65 ans et plus dans la population pourrait atteindre un niveau aussi élevé que 25 pour cent au milieu des années 2030.

Selon notre analyse, en 2038, la pression démographique sur le système de santé publique sera la plus accentuée à Terre-Neuve et Labrador, puisque les dépenses par habitant ajustées en fonction de l'âge seront 25 pour cent plus élevées que celles de l'Ontario (repère pour la moyenne nationale) pour les hôpitaux et 12 pour cent plus élevées pour les médecins. Le virage démographique sera le moins marqué en Alberta, puisque cette même année, les dépenses par habitant ajustées en fonction de l'âge seront 19 pour cent moins élevées que celles de l'Ontario pour les hôpitaux et 9 pour cent moins élevées pour les médecins.

Notre étude porte sur quatre axes clés. Le premier trait à la pression exercée sur les systèmes de santé provinciaux et territoriaux par l'action conjuguée d'une population vieillissante et des schémas de consommation des soins de santé selon les cycles de la vie. Le deuxième a pour but d'estimer les répercussions de ces tendances sur les capacités budgétaires des provinces et des territoires. Le troisième porte sur les politiques et les incidences politiques de ces pressions démographiques. Le dernier présente des recommandations de politiques à l'intention des gouvernements au Canada afin d'atténuer ces pressions inexorables.

Les recommandations principales sont les suivantes :

- Ottawa devrait collaborer avec les provinces et les territoires en vue de permettre une plus grande participation du secteur privé dans le financement et la prestation des soins de santé. Cela pourrait réduire les pressions budgétaires sur les gouvernements provinciaux et territoriaux, élargir les services remboursés par l'assurance publique pour les citoyens à faible revenu et offrir plus de liberté et de choix aux patients.
- Le gouvernement fédéral devrait envisager des stratégies permettant aux Canadiens d'améliorer leurs connaissances au sujet des comptes d'épargne-santé et d'inciter ces derniers à investir dans ces comptes, par exemple au moyen d'un nouveau mécanisme de fonds de contrepartie, afin de préparer leurs dépenses à venir en soins de santé – en particulier à l'égard des services et des traitements non remboursés par l'assurance publique.
- Il y aurait lieu pour le gouvernement fédéral de faire renaître d'un lointain passé la Commission Rowell-Sirois afin de repenser et de moderniser le fédéralisme fiscal. L'objectif devrait être de favoriser entre les paliers de gouvernement une répartition des pouvoirs d'imposition en lien avec les charges et de renforcer la responsabilisation politique et l'exclusivité au sein de notre fédéralisme.

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# Introduction

Recent political debates have suffered from a frustrating case of myopia. Debates about ephemeral issues miss the major, transformational trends that we must confront as a society. Short-termism seems to regularly trump long-term thinking. The problem, of course, is that deferment eventually catches up to us. Long-term issues become immediate ones and are invariably more problematic by that stage. It is hard to outrun arithmetic.

The policy implications of Canada's aging population are such an example. Previous MLI work has shown the long-term fiscal consequences of Canada's aging demographics (Ragan 2012). Governments cannot afford to wait and see how these fiscal challenges manifest themselves. It is critical that we start to prepare in order to avoid the inevitable "fiscal squeeze." We must be thinking about how to act now.

Health care is one area in which we must adopt policies to account for these trends. Simply spending more is hardly the answer given that health care expenditures already represent nearly 40 percent of overall provincial budgets. We must have a more sustainable plan before health care spending further crowds out other provincial priorities and ultimately leads to higher taxes, more debt, or both.

The source of the fiscal squeeze is two separate yet linked trends. The first is that older citizens disproportionately consume health care services. Provincial health care spending on those aged between 85 and 89 is more than four times higher than the per capita average. The second is that old people – those aged 65 and older – are the fastest-growing population group in the country. The confluence of these two forces will continue placing a significant burden on provincial and territorial health care spending and their attendant fiscal capacities for the foreseeable future.

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“*Debates about ephemeral issues miss the major, transformational trends that we must confront as a society.*”

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This study seeks to analyse and elucidate these two trends to better understand who is placing demand on our health care system, how that demand will evolve in the future as Canada's population ages, and what policy-makers might do about it.

The key is to establish this idea about the powerful and inexorable combination of lifecycle consumption and population aging as part of the present debate about the future of Canadian health care, particularly as provincial health care spending becomes more and more unsustainable. A clear understanding of this dynamic

can help Canadian governments craft policy solutions to help Canadians prepare for future health care consumption and mitigate the rising costs that will eventually place real pressure on provincial and territorial budgets.

Our study aims to (a) examine how the interplay between lifecycle health care consumption and population aging will place demographic pressure on provincial and territorial health care systems, (b) show how these trends will also affect provincial and territorial fiscal capacity, (c) consider the policy and political implications of these demographic pressures, and (d) set out policy recommendations for Canadian governments to adopt in order to mitigate these inexorable pressures.

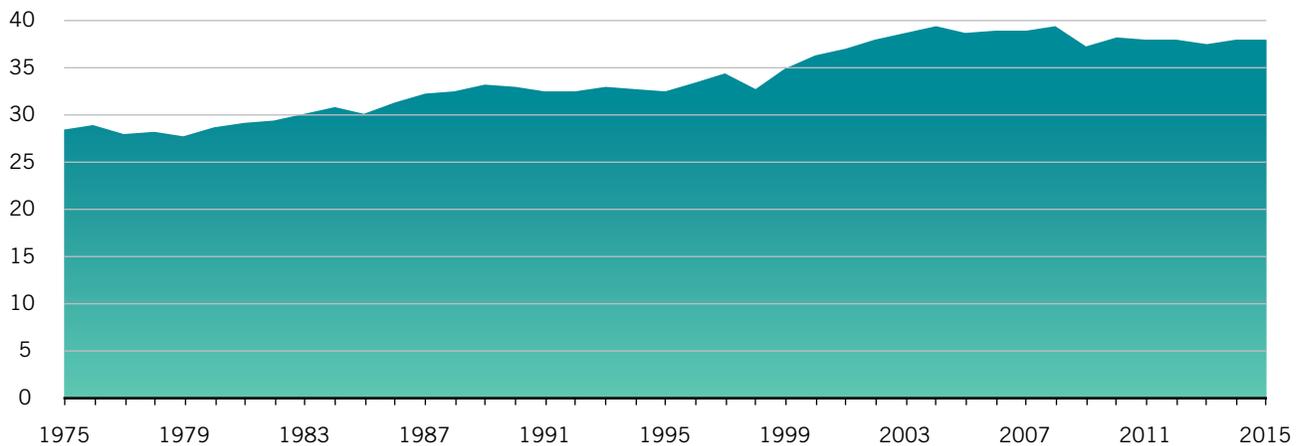
We do not cover the wider implications of an aging population on government policy or public services. Its effects will obviously be felt more broadly with regards to public pensions, labour policies, and care giving support. Previous MLI research has sought to confront some of these tangential questions (Ragan 2012). But our focus here is on the interplay between demographic change and health care spending and what policy-makers can do to mitigate the long-term pressures.

# Population Aging and the Unsustainability of Canada's Health Care System

Health care spending is rising in Canada. It is hardly a controversial observation. A large body of analysis has documented its rise over the past two decades. The story is increasingly well known.

Health expenditures now represent a major share of provincial spending – reaching nearly 40 percent across all provinces and territories (see chart 1).

**CHART 1: Provincial/territorial health expenditures as a share of total provincial/territorial government programs, 1975–2015**



Source: CIHI 2017b.

There has been somewhat of a flattening in recent years as provinces and territories have better controlled spending growth. But even still we have witnessed a continued rise in health care expenditures. And, absent some type of structural reforms, it is only set to grow further due to various factors, including demographic pressures.

It is no surprise therefore that the Parliamentary Budget Office (2017) reports that overall provincial spending is unsustainable mostly due to health care spending, which it estimates will increase by 6.9 percentage points of GDP from 2020 to 2091. There is little doubt that rising health care costs are a long-term challenge that will be a key political and policy issue for decades to come.

There are various causes of rising health care expenditures including new medical technologies, rising incomes, institutional or policy changes, and population aging. There is some debate in academic and policy circles about the relative importance of these different factors (Speer and Lee 2016). The truth of course is these determinants interact with one another in complicated ways that are difficult to isolate or predict.

This study is focused on the role of population aging. It is not to diminish these other factors but rather to conduct a “deep dive” into the relationship between population aging and health care costs.

The implications of the aging of the population for the Canadian health care system has been a matter of debate since the earliest days of Medicare. It has become even more contentious in recent years as

some provinces – namely those with large senior populations – have called for an adjustment to federal transfers based on age distribution (CBC News 2016). Think-tank scholars, academics, and other policy commentators have also weighed in on the debate at various times. But the questions of whether, how, and to what extent the health care system in general and the financing regime in particular needs to adjust for demographic change remain unresolved.

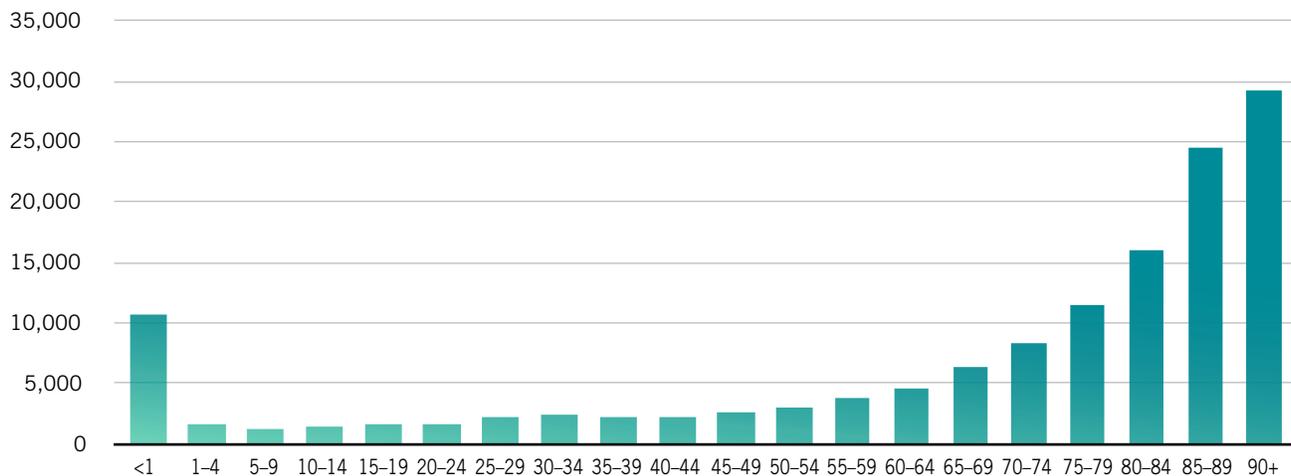
The effects of population aging involve the interaction of two facts: first, older individuals make more demands on health care resources than younger people, and second, the pattern of demographic change regularly described as “population aging,” which Canada is presently going through. This section will address the first factor. The next one will deal with the second.

This first factor is well-established in Canadian-based data and evidence from comparable jurisdictions such as the United States. Health care consumption based on age invariably produces an “aging curve.” Generally, health care consumption is high in the first year or two of birth and drops significantly by age five. Costs increase modestly through one’s teenage years. Female costs then begin to accelerate more quickly during child-bearing ages and flatten out in one’s 40s before increasing again. Male costs are relatively flat in the 20s and begin to accelerate after age 30, but remain lower on a per-person basis than females in the same age group. The “cross-over age” occurs in the early 60s, when per capita spending for males exceeds that for females. Both rise significantly at age 65 and continue to increase with age thereafter (Yamamoto 2013).

Recent data from Canada certainly accords with these trends. Provincial and territorial governments spent \$141.2 billion on health care in 2014. Roughly 46 percent of these resources were dedicated to Canadians aged 65 and over. In fact, 22 percent was spent on those 80 years and older (CIHI 2017b). Think about this for a moment. The share of the population aged 65 or older is 16.9 percent (Grant and Agius 2017). There is essentially a 3:1 gap between this cohort’s share of the population and its share of health care consumption.

Per capita spending by age tells a similar story. Average per capita provincial and territorial health care spending in 2014 was \$3,981 for all ages but \$24,576 for those between 85 and 89 and \$29,204 for those older than 90 (see chart 2).

**CHART 2: Estimate of total per capita provincial/territorial government health expenditures by age, 2014 (current dollars)**



Source: CIHI 2017b.

A breakdown of health care spending by function (or use of funds) shows the lifecycle consumption of physician and hospital services in the form of the “aging curve” referred to earlier. Charts 3a and 3b illustrate how per capita spending on physician and hospital services is age determinant.

CHART 3A: Canada, per capita physician expenditures by age group, 1996

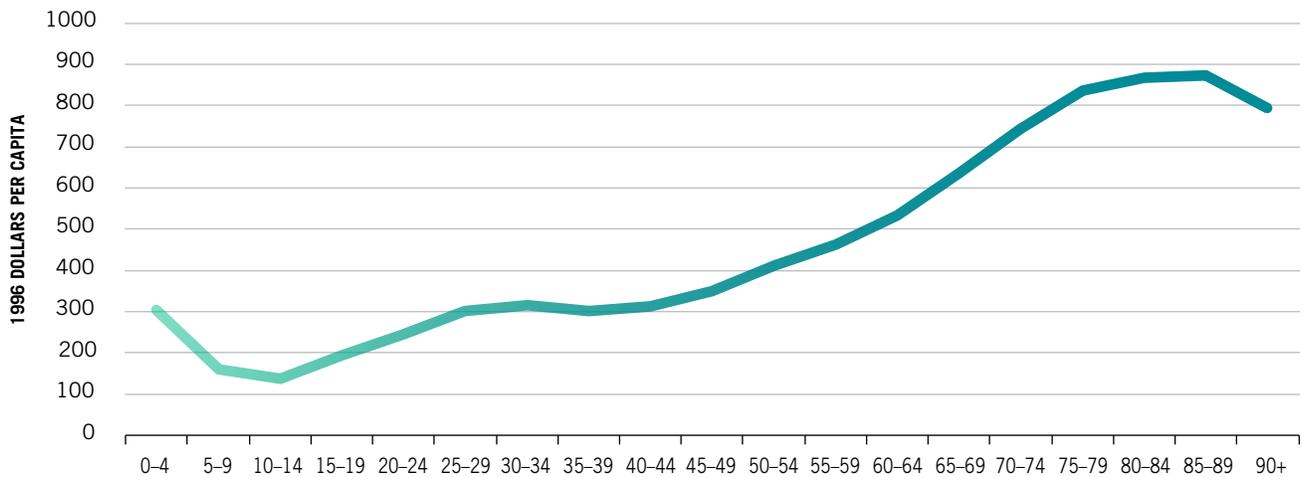
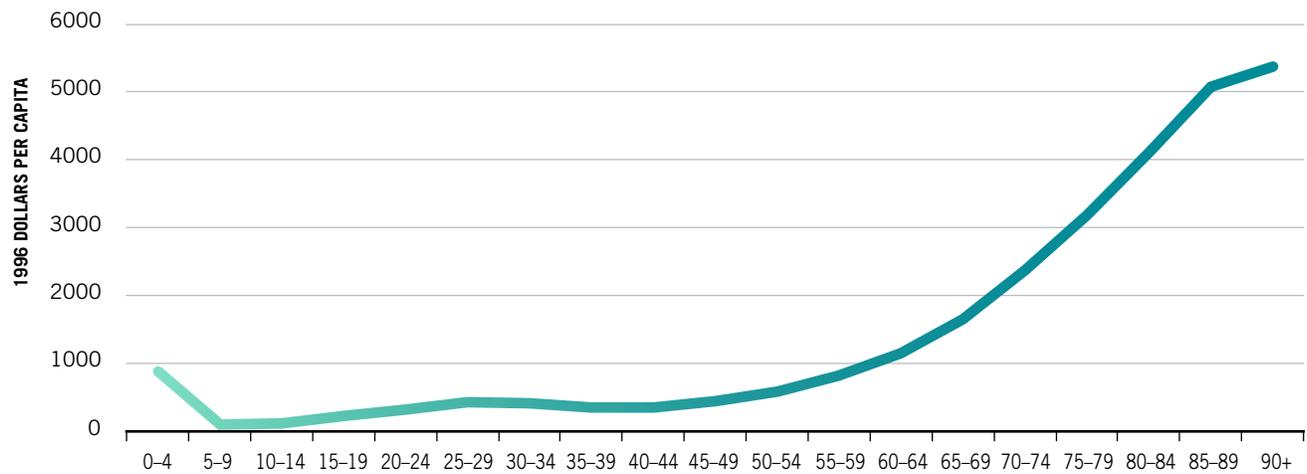


CHART 3B: Canada, per capita hospital services expenditures by age group, 1996



Source: CIHI 2017b, data tables series E.

Annual physician expenditures on an 80–84 year old (\$874) are nearly three times as much as those on someone 35–39 (\$302). It climbs to roughly 14 times as much for the same two age groups when it comes to hospital spending.

This lifecycle consumption of health care services is an unavoidable feature of any health care system. It is intuitive. We need more care, services, and treatment (including pharmaceuticals) as we get older, frailer, and sicker. This consumption pattern would not in and of itself have major fiscal sustainability implications if demographic patterns were stable. But, of course, they are not. Our population is aging, by which we mean that the share of the population at or near the peak of its health care consumption is growing faster than other population groups. That is an arithmetic recipe for rising health care spending and ultimately fiscal unsustainability.

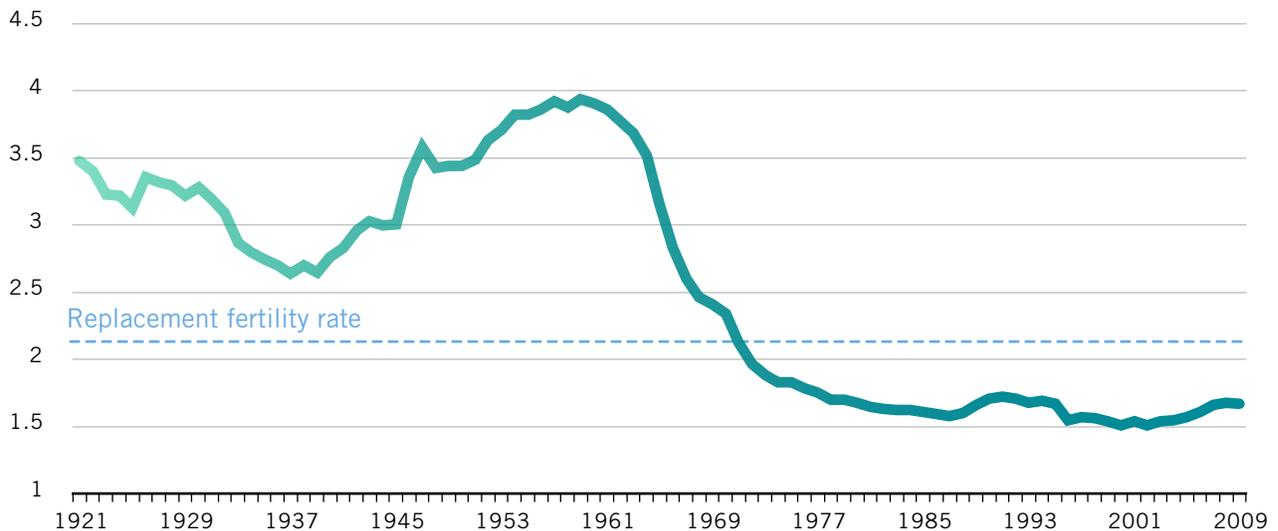
# The Basic Facts of Canada's Aging Population

Population aging then is the second important part of this equation. This section examines the data and trends in Canada's population trajectory. We have sought to limit statistical jargon or technical analysis, but some is inevitable. Population analysis – particularly long-term projections – involves some assumptions and technical calculations. We have aimed to provide simplified explanatory notes where necessary.

As mentioned, the second factor in the interrelationship between population aging and health care spending is the pattern of demographic change that Canada has experienced for a significant share of the twentieth and now twenty-first century. This tends to be primarily associated with the “baby boom” of the 1950s and 1960s but the effects are actually of longer standing. While it is true that life expectancy at birth has increased considerably over the years (male life expectancy has increased from 59 years in 1920 to 79 in 2009 and female life expectancy has gone from 61 to 83 over the same period), the real driving force in this relevant demographic pattern is fertility.

The total fertility rate in Canada dropped from 3.5 children per woman in the post-Second World War period to 1.6 in 2009 (see chart 4).

**CHART 4: Total fertility rate by year, all ages of mother, Canada, 1921–2009**



Source: Milan 2015.

This rate put us below the replacement fertility rate (which refers to the number of children per woman necessary if the population is to maintain itself in the absence of immigration) of roughly 2.1. The precise structure of a trend line in chart 4 would be a matter for debate, but there is no question that we have witnessed a drop in fertility rates since the baby boom era.

Population aging refers to the process of change in the proportion of the older population (these days usually defined as the retirement-age population of age 65 and over) in the total population. Mathematically the age distribution of a population (excluding immigration) is a function of age-specific birth and

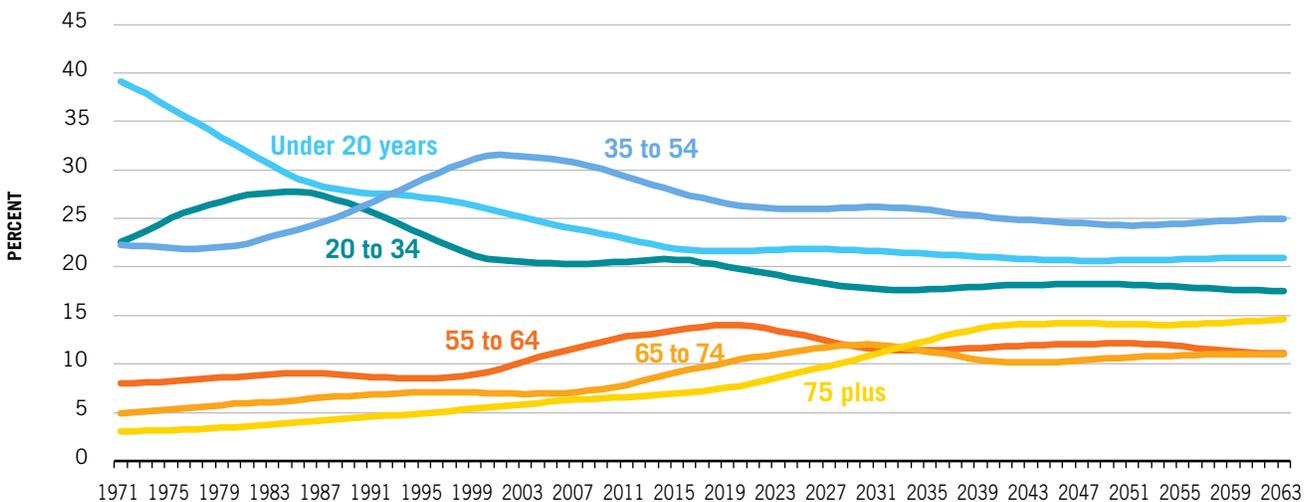
death rates. If those rates are stable over a long period, the population’s age distribution will settle down to a stable distribution in the sense that even if the population is continuing to grow in absolute numbers the proportion in any specific age group will remain unchanged over time. Yet changes in, say, the age-specific birth rate will not only change the rate of population growth, they will also set in motion a long-term process of changes in age distribution. Alternatively, if the birth rate drops, younger cohorts will be smaller than older ones until the older ones have died out, a process which is of course ultimately associated with population aging.

In terms of the Canadian fertility experience as set out in chart 4, the birth cohorts of the Depression-era and war years are smaller than the birth cohorts of the early 1920s and the post-war years. The baby boom cohort of the 1950s and 1960s is not only larger than the cohorts which preceded it (and which therefore were older than the so-called “boomers”) but also than the cohorts which followed it – the so-called “baby bust” cohorts (which were, by definition, younger than the baby boom group). The result was a bulge in the Canadian population age distribution.

In the 1950s and 1960s, the bulge was naturally in the younger age groups: in those years the working-age population was primarily children of the 1920s and earlier. This was a period when demographic pressure was felt in the school system, for example. Through the 1970s and 1980s, the baby boom group was entering the prime labour force years, and the cohorts following it were smaller than the baby boom group, so the locus of demographic pressures, at least in the aggregate, shifted away from the public-school system. As the baby boom group approaches retirement years, the Canadian population is moving into an aging population scenario, with the demographic weight shifting upward in age.

The process of population aging is typically illustrated graphically. Statistics Canada has been producing population projections since the 1970s. Its latest figures for Canada extend out to 2063. Combining actual population figures with one of Statistics Canada’s median projection series and generating the shares of different age groups in the overall population gives the series plotted in chart 5.

**CHART 5: Population age group shares, Canada, 1971–2063**



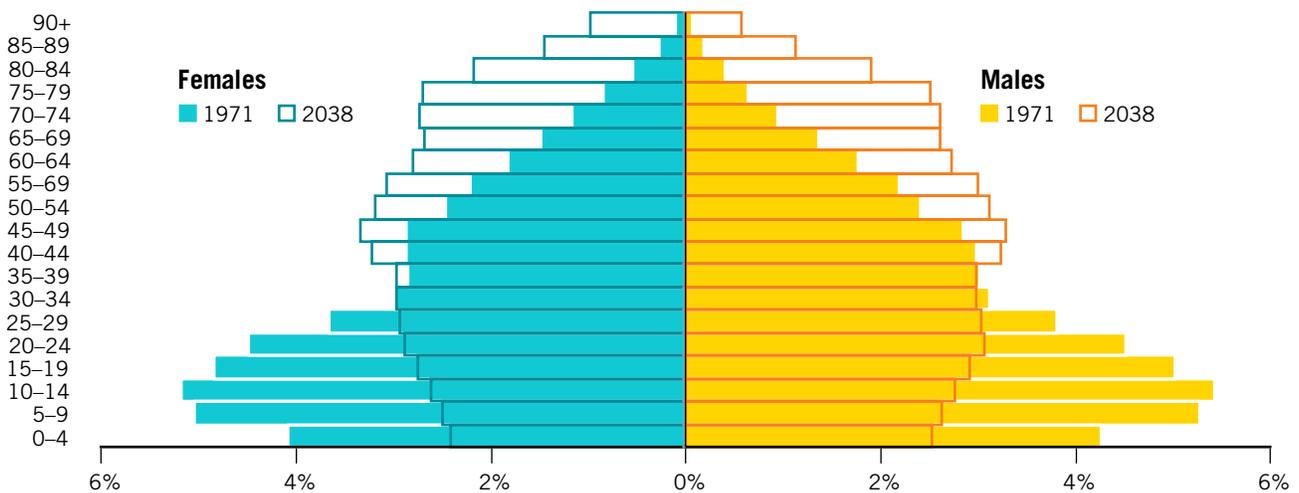
Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

One point to note is that the age distribution, as represented by the relative positions of the lines on the chart, changes continuously until roughly the 2050s, after which there is a tendency for them to stabilize. This in part because Statistics Canada is using constant birth, death, and migration rates to generate credible projections after roughly the 2020s.

We see in the chart the steady decline in the share of the population under age 20, combined with an initial increase, then decrease in the share aged 20 to 34. The prime age group, aged 35 to 54, increases later as the younger two groups age into it, and then drifts down steadily after 2001. The share of the older age groups – 65 to 74 years and 75 years and over – increases steadily through the graph. It is worth remembering that someone born in 1950 will reach age 75 in 2025, and that someone reaching age 75 in 2040, when the line representing 75 years plus levels off, was born in 1965. It is thus fair to say that the baby boom is a significant driving force through much of the graph.

While an age share graph such as that in chart 5 is one way of looking at the aging process, it is more common to look at age pyramids: graphs whose vertical axis represents age groups and whose horizontal axes are population shares. The next chart illustrates Canada's age pyramids in 1971 and 2038.

**CHART 6: Population age pyramids, Canada, 1971 and 2038**



Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

The relative lengths of the bars in this chart show clearly the changes in the relative sizes of the various age groups in the Canadian population, and the shift from what is known as a high-youth dependency rate (the ratio of the younger to the working-age populations) to a high-aged dependency rate (the ratio of the older to the working-age populations).

Assuming that Statistics Canada's population projections are at all on target (and it is important to remember that the birth and death rate effects are in a sense built in, and that they generally dominate immigration effects at the national level in Canada, although, as we will see, the picture can be quite different at the provincial level), Canada is experiencing a long-term process of shifting of the weight of the population age distribution from the younger to the older years. This process has some years yet to run (an individual born in the late 1960s will be in their early 70s in 2038, and someone reaching that age in Canada can reasonably expect to live another 20 years). Demographic aging is not fast (it takes, after all, 67 years to get from the 1971 pyramid to the 2038 pyramid) but it is inexorable. This inexorability in part is where the effect on the health care system comes from at the national level.

# Population Aging and Health Care Spending at the National Level

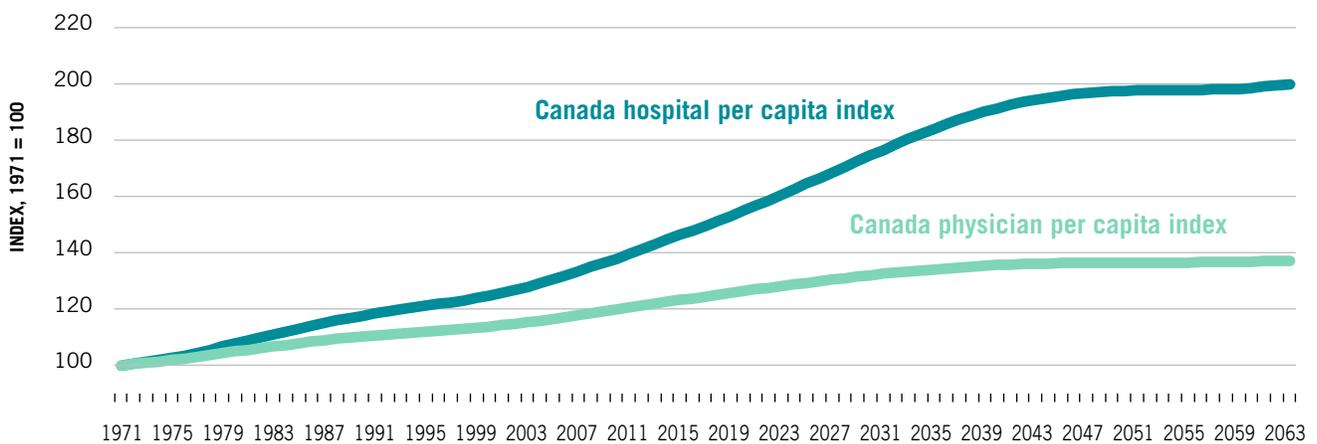
Our purpose in this section is to illustrate what we refer to as “demographic pressures” on physician and hospital costs at the national level in Canada. We are focused on these two areas of health care spending because they are almost entirely publicly financed and thus most germane to a discussion about the budgetary effects of population aging (Speer and Lee 2016). Other areas of health care expenditures such as pharmaceuticals are a combination of public/private financing (36.3 percent is public financing and 63.7 percent is private financing) are of course affected by these same trends. But the impact on provincial and territorial budgets and the attendant policy issues are different so we have excluded them from this analysis.

It is also important to note that we are not aiming to provide statistical estimates of the impact of demographics on past health care spending, nor to make projections about future spending. Instead we hope to give a sense of what the aging issue is about and what it means for policy-makers. This is more about the trend line and which provinces are facing the greatest fiscal threat than it is about statistical fortune telling.

To do this, we need to look at indicators of the effects that changing demographics would have were nothing else – health care prices, technology, and so on – to change. We do this by taking data on age-specific per-capita expenditures on hospital and physician services for Canada as a whole for a single year. We are using the 1996 data represented in charts 3a and 3b earlier in this study (the midpoint of the data available in CIHI 2017b). We then apply these expenditure figures to the data on actual and projected population age distributions. By applying the 1996 spending distribution to age distributions for a number of years, we hope to give a sense of how health care costs might have changed had demographics been the only factor at play.

We apply these data to population age shares similar to, but more detailed than, those shown in chart 5. In order to avoid confusion associated with the use of 1996 dollars, we generate constant 1996 dollar national per-capita expenditure figures, which we then index to 1971 = 100. Indexing the data allows us to easily compare expenditures across time by showing the growth rate rather than showing absolute values; so, for instance, when the hospital expenditures line reaches 200 on the chart, hospital expenditures are twice as much as they were in 1971. Canada’s national population projections to 2063 enable us to cover this period of demographic change (see chart 7).

**CHART 7: Indices of demographic pressure on physician and hospital expenditures, Canada, 1971–2063, based on 1996 age-specific expenditure data**

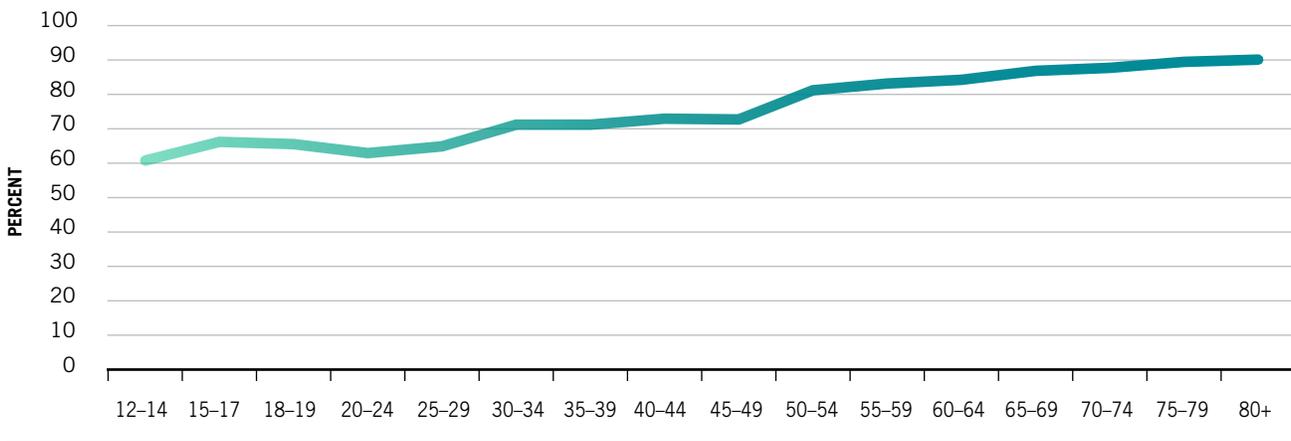


Source: CIHI 2017b, data tables series E; Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

The per capita expenditure figures represented by these indices do not represent enormous demographic pressures at the national level. For physician expenditure services (and it is important to remember that we are holding age-specific expenditure, and hence treatment patterns, constant at 1996 levels) the per capita index for 2063 is 137 compared to a 1971 figure of 100. For hospital expenditures the demographic pressures are greater, going from 100 in 1971 to 200 in 2063. The effects of the aging process show up in a number of ways: both series show some acceleration in the early 2000s, and both level off after about 2040, reflecting the projected stabilization of the population age distribution. Neither of these series shows large increases in any short interval along the graph, which explains why statistical analysis of the drivers of health care costs conclude that demographic effects are not major factors in the short run at the national level, but both show steady long-run trends out to the 2040s.

We can drill down further into the data on hospital-related expenditures. From the Statistics Canada 2014 Canadian Community Health Survey (CCHS), we can plot the percentage of each age group that indicated it had an overnight stay in the hospital in the previous year (see chart 8).

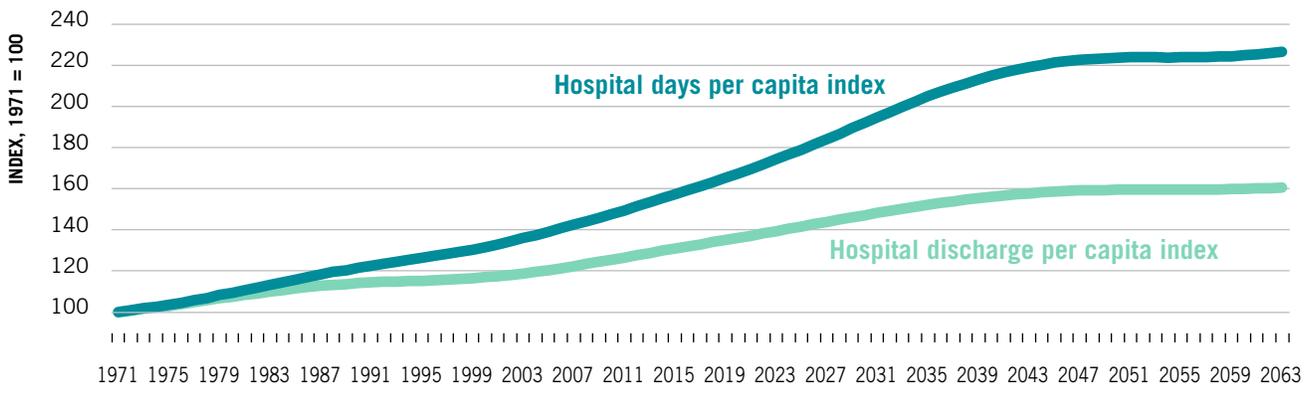
**CHART 8: Percentage of population by age group with overnight hospital stay, Canada, 2014**



Source: Statistics Canada 2014a.

Chart 9 applies CIHI’s national data on per-capita age-specific hospital discharges and days for 1996 to the Canadian population projections. It serves as a reminder that the aging population effect shows up in a combination of more cases of hospitalization (reflected in the discharge figure) and longer admissions per spell, with the days line showing a greater increase than the discharge line. This in turn shows that in producing our indices of demographic pressures there are limits to how we account for capacity. Canadian hospitals have historically operated at high occupancy rates and increasing demands cannot be met unless supply also grows.

**CHART 9: Indices of demographic pressure on hospital discharges and days per capita, Canada, 1971–2063**



Sources: CIHI 2017a; Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

This is an important point: The growth in hospital expenditures that would stem from demographic pressures can be slowed simply by rationing. But this is hardly a satisfactory solution. It is worth noting, too, that while older patients show up as having longer lengths of stay when they are admitted to hospital, an increasing number of those patients are what are termed *alternative level of care (ALC) patients* – a more diplomatic classification than the older, casual term “bed blockers.”

ALC patients are those who do not need the level of capital intensity of treatment that a modern acute care hospital is equipped to provide, but do need a certain level of inpatient care and for whom beds in less capital-intensive facilities are not available. It is often assumed that these patients could be cared for through improved home care services. While it is certainly true that advances in treatment and the portability of capital equipment have greatly increased that option through the years, it must be recognized that home care involves family members providing labour inputs. Moreover, for elderly patients the only family members at home may also be elderly and limited in their capacity to supply care labour. It is also true that current health care financing that fully covers hospital-related costs but not outpatient costs incentivizes patients to seek hospitalization.

Home nursing services can be used to augment family labour, but in calculating the cost of providing nursing at home it must be recognized that the productivity of nursing labour-hours is lower in that context than in a hospital setting of some sort, simply because of the travel time involved in getting from patient to patient. The indices of demographic pressure on discharges and days shown in chart 9 suggest that this issue is likely to press increasingly hard over the next 20 years. It emphasizes that, while demographic factors may be relatively small factors in creating pressure on the system in any given short-run period, over the longer run they cumulate steadily.

This is just one example of the policy implications stemming from the trends set out in this section. The truth is the effects of population aging at the national level should logically have been matters for long-term planning including, for instance, expanding the role for home nursing services. Whether they have been given sufficient weight by policy-makers at that horizon is an interesting question.

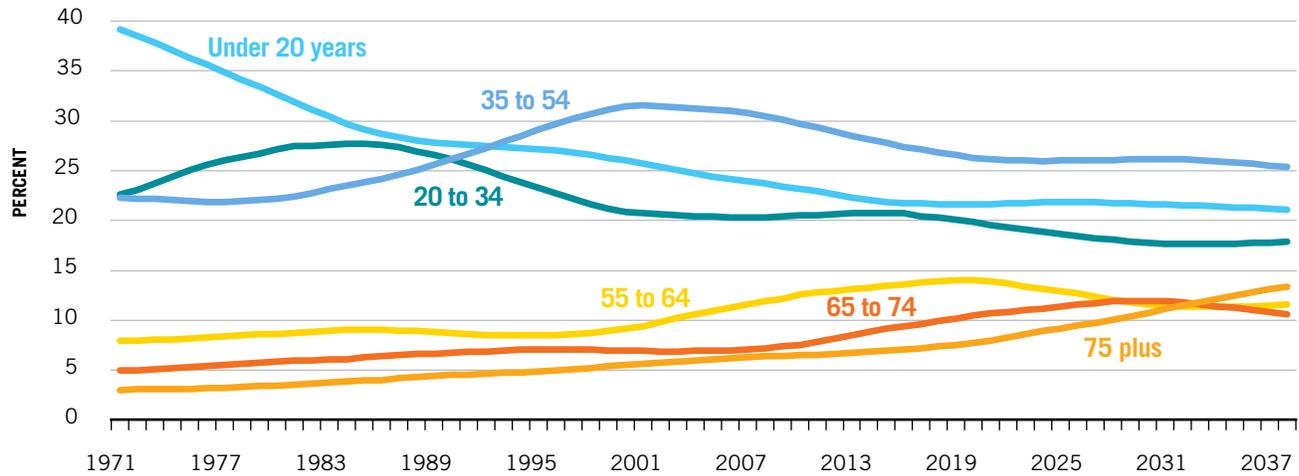
## Population Aging and Health Care Spending at the Provincial Level

The provincial-level effects of population aging are more interesting than the national ones, and it is those we turn to in this next section. The methodology will be the same as we have used earlier, applying Canada-wide per-capita age-specific hospital and physician expenditure figures to each province’s demographic history and projections.

We use Canada-wide per-capita figures rather than province specific ones in the analysis that follows for the same reason as we used only the 1996 figures previously: we want to isolate the demographic pressures on spending, holding all else constant. Thus, in the following sections we will not be taking into account differences between individual provincial per-capita age-specific spending and national (actually 10-province) per capita age-specific spending.

Remember demographic change is driven by a combination of birth, death, and international migration rates. At the provincial level all three determinants apply, but in addition, provincial population change will depend on interprovincial migration, a factor that washes out at the national level. In some cases, this can make for considerable differences between the national demographic trends and the experience of a particular province. As an example: charts 10 and 11 show Canada’s and Newfoundland and Labrador’s population age shares for the period from 1971 to 2038.

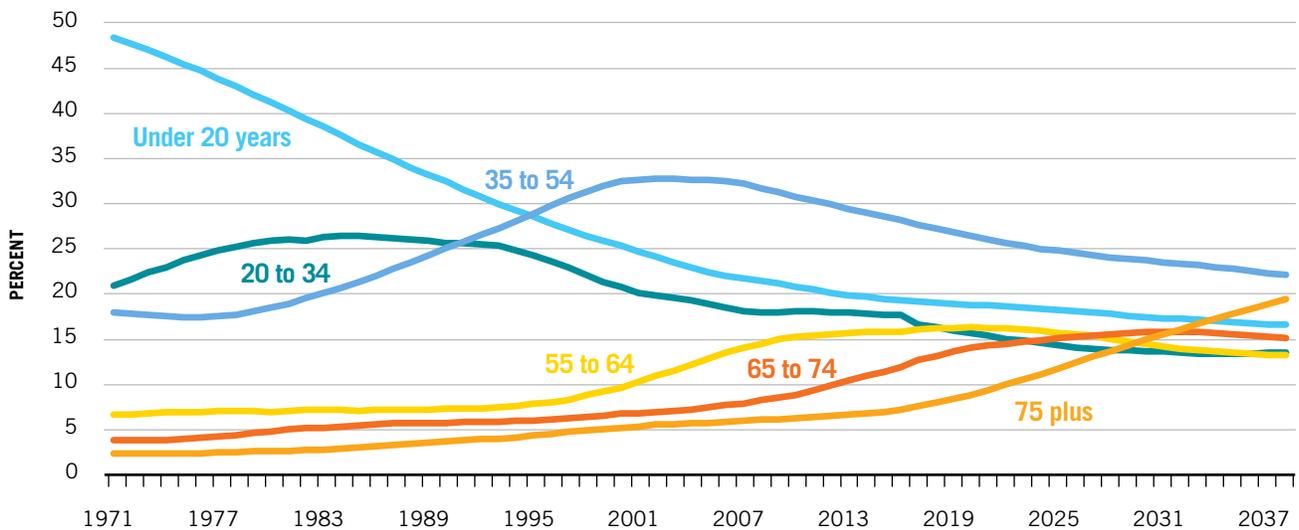
CHART 10: Population age shares, Canada, 1971–2038



Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

We chose Newfoundland and Labrador because it is experiencing these trends more dramatically than other provinces. But it is hardly alone. As you will see, every province is experiencing these trends to varying degrees.

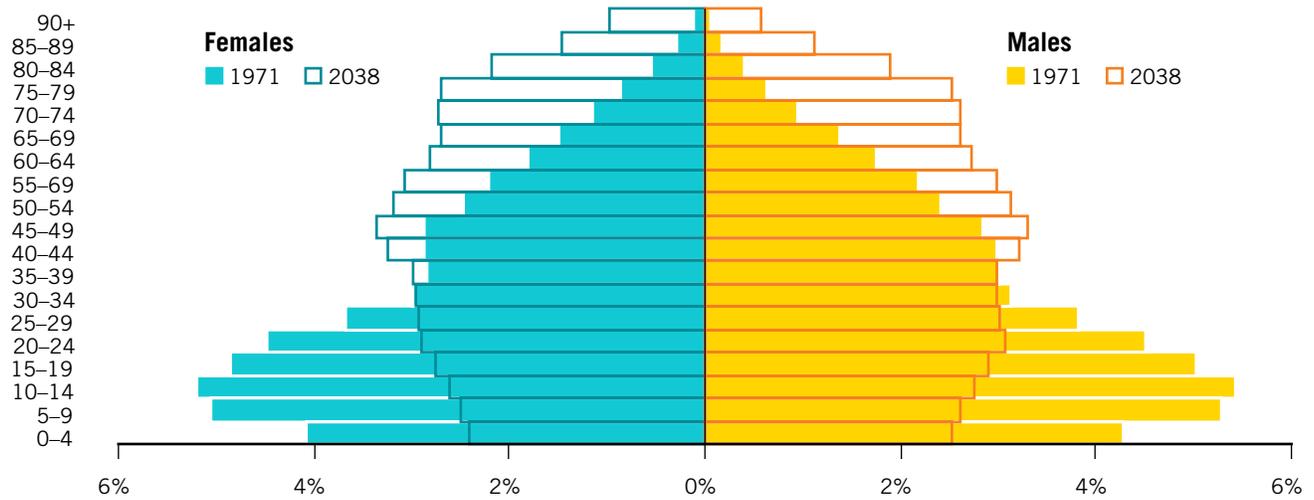
CHART 11: Population age shares, Newfoundland and Labrador, 1971–2038



Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

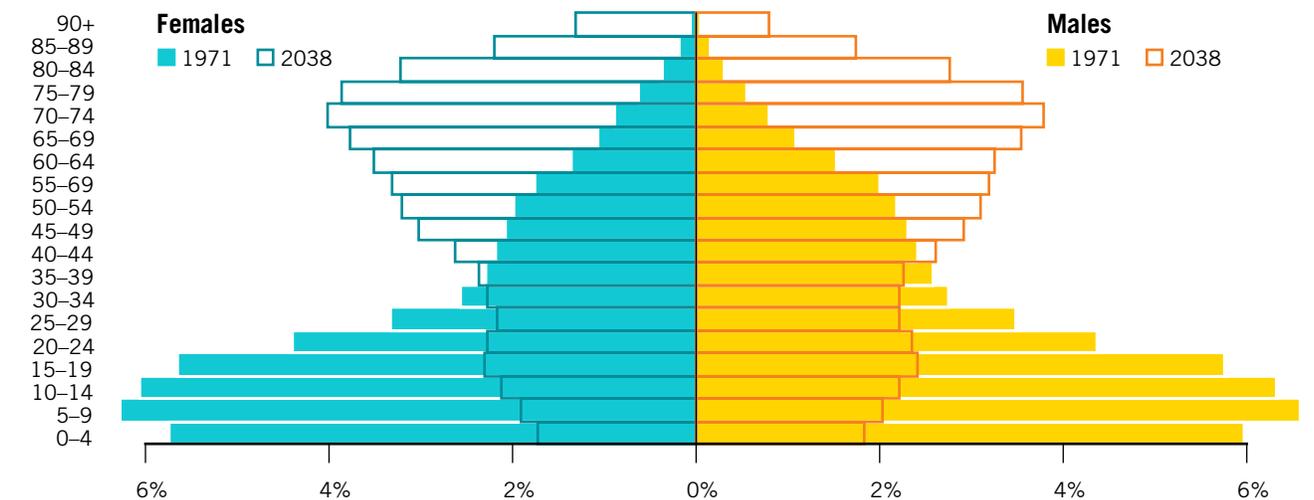
While we see the same general pattern of aging in Newfoundland and Labrador as we do in Canada as a whole, the effects are stronger in the province even though it was slightly younger than the Canada in the earlier part of the time series. Similar trends are reflected in the age pyramids for Canada and Newfoundland and Labrador (see charts 12a and 12b).

CHART 12A: Population age pyramids, Canada, 1971 and 2038



Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

CHART 12B: Population age pyramids, Newfoundland and Labrador, 1971 and 2038

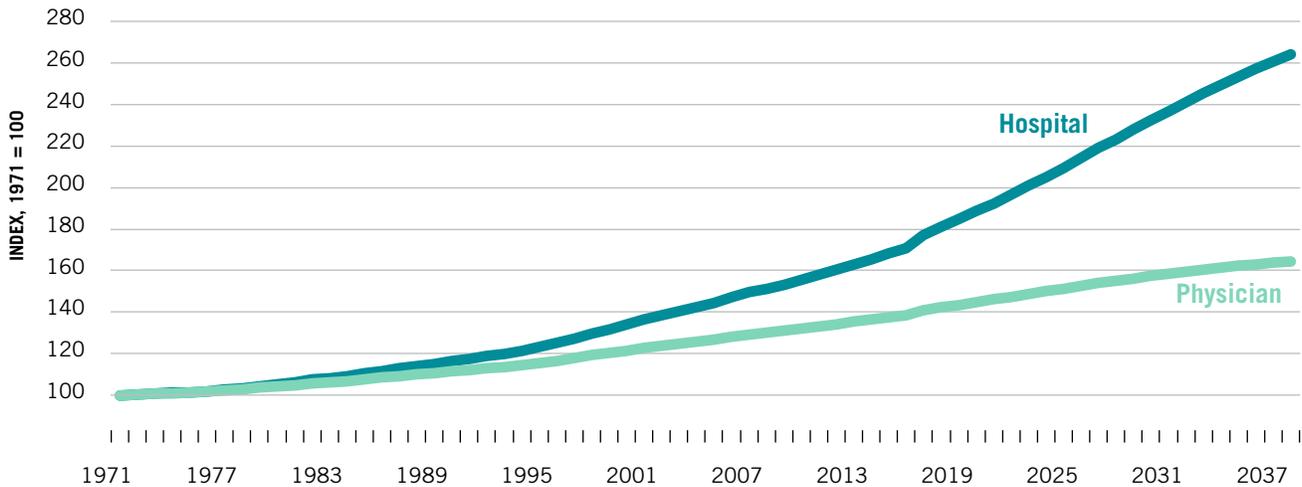


Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

While we see the same pattern of inversion of the pyramid in Newfoundland and Labrador as we do for Canada as a whole, the effect is much larger for the province. Part of this difference is explained by interprovincial migration which tends to disproportionately involve those in their early labour force years. In terms of impact on the health care system, this means that migration will affect both the long-run demand for services and also the capacity of individual provinces to pay for those services through own-source revenues.

What does this mean for age-related health care spending expenditures? Chart 13 shows Newfoundland and Labrador's demographic pressures related to physician services and hospitals from 1971 to 2038 similar to chart 7, which showed similar pressures at the national level.

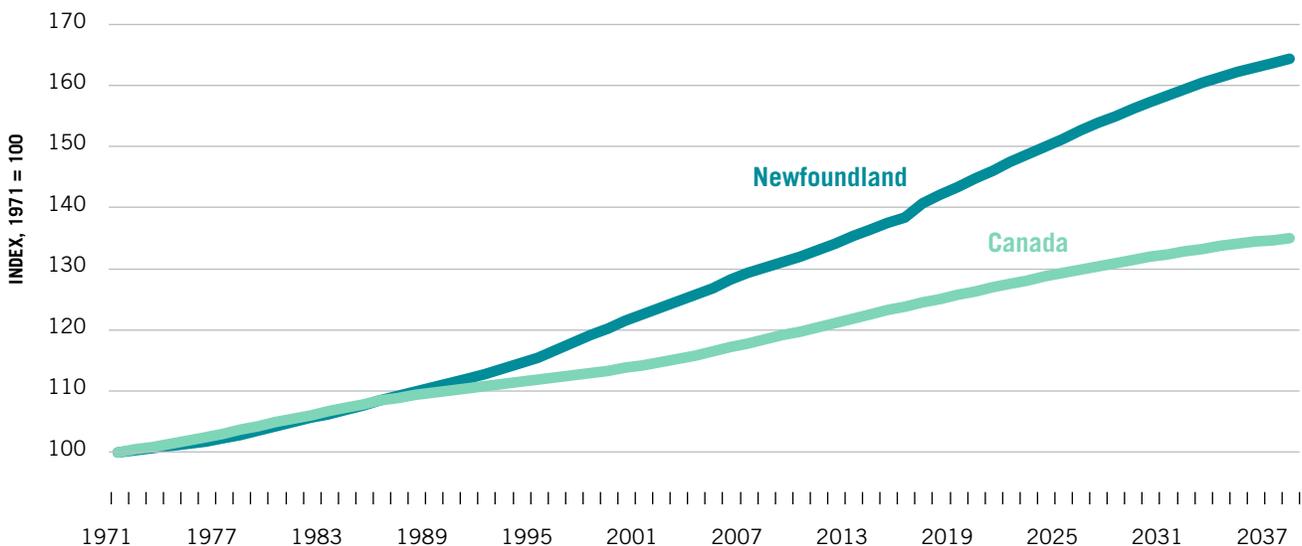
**CHART 13: Indices of demographic pressure on physician and hospital expenditures, Newfoundland and Labrador, 1971–2038, based on national 1996 age-specific expenditure data**



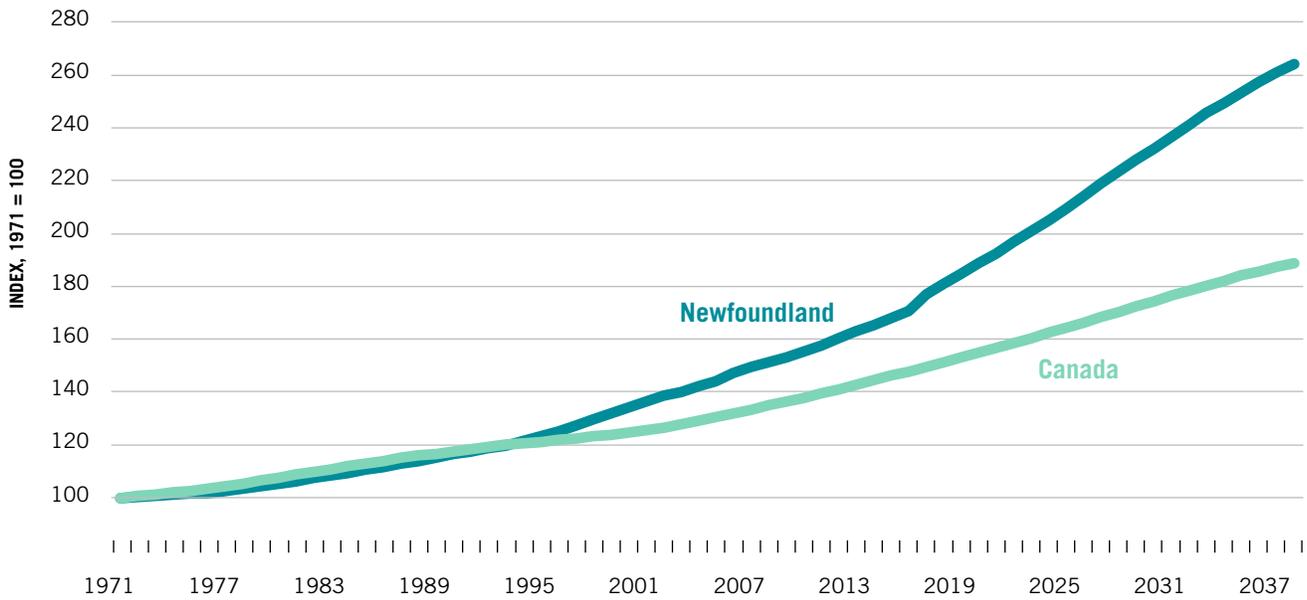
Sources: CIHI 2017b, data tables series E; Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

Charts 14a and b compare these data to the trends at the national level to show how Newfoundland and Labrador is experiencing greater demographic pressure than Canada as a whole. Because we are using the same age-specific per-capita expenditure figures for both Newfoundland and Labrador and Canada, the differences between the lines in these two figures arise directly from differences between Newfoundland and Labrador’s demographic history and projections and those for Canada as a whole.

**CHART 14A: Indices of demographic pressure on physician expenditures, Newfoundland and Labrador and Canada, 1971–2038, based on national 1996 age-specific expenditure data**



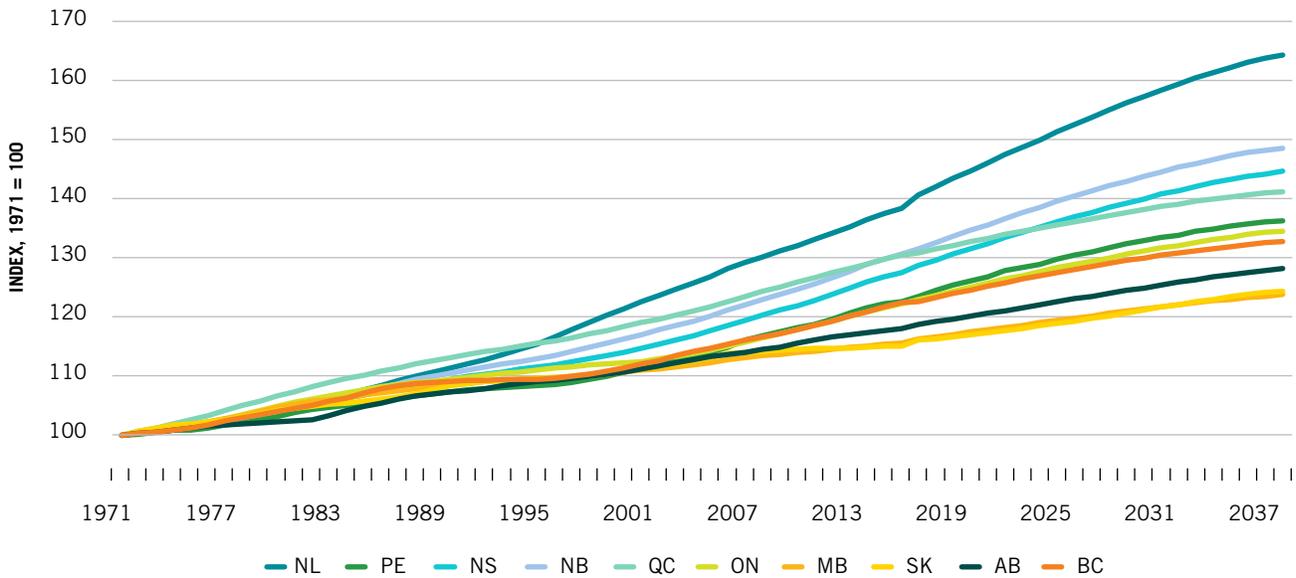
**CHART 14B: Indices of demographic pressure on hospital expenditures, Newfoundland and Labrador and Canada, 1971–2038, based on national 1996 age-specific expenditure data**



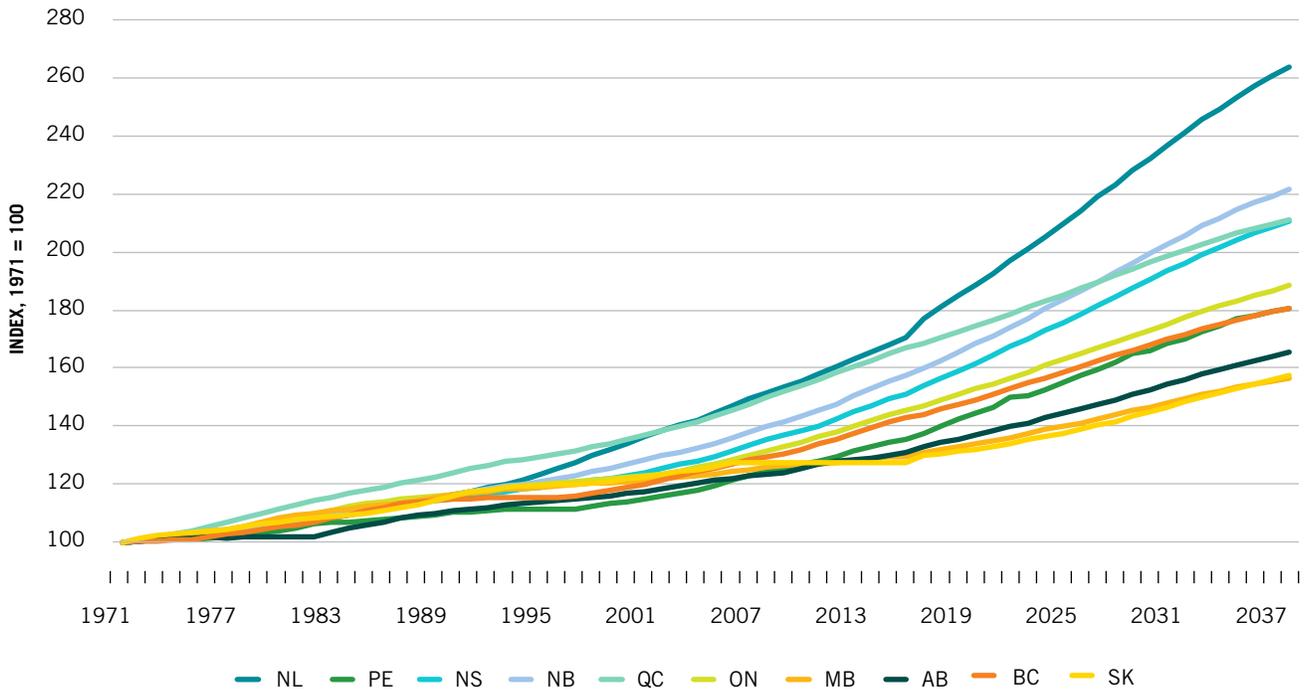
Source: CIHI 2017b, data tables series E; Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

We can produce similar analysis for all 10 provinces. Charts 15a and 15b illustrate these trends for each province.

**CHART 15A: Indices of demographic pressure on physician expenditures, all provinces, 1971–2038, based on national 1996 age-specific expenditure data**



**CHART 15B: Indices of demographic pressure on hospital expenditures, all provinces, 1971–2038, based on national 1996 age-specific expenditure data**



Sources: CIHI 2017b, data tables series E; Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

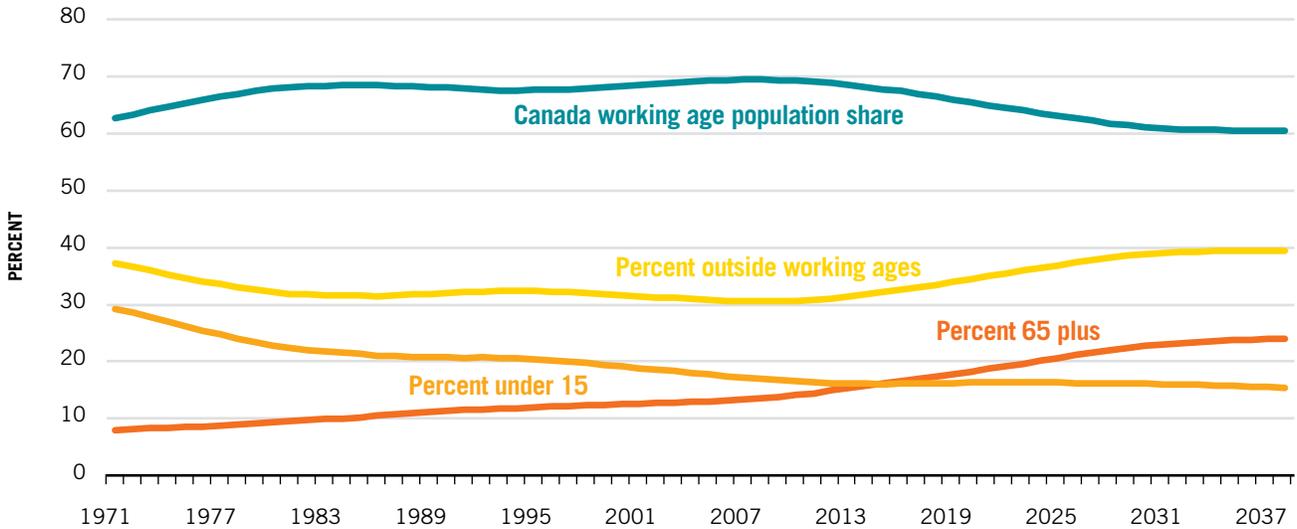
We have omitted the Canada average because by the nature of the way its calculated it closely tracks the Ontario line. We see that up to the early 2000s the demographic pressure indices were tightly bunched. Thereafter the effects of differential interprovincial migration result in a widening spread among the indices, with the eastern provinces, with the interesting exception of PEI, moving further above the rest. The provinces facing the slowest increase in demographic pressures, based on Statistics Canada’s population projections, are Manitoba and Saskatchewan.

## Demographic Change and Fiscal Capacity

These demographic changes will not only put pressure on provincial health care spending. They may also have implications for the provinces’ capacity to generate revenues as more and more people become dependent on fewer and fewer in the work force. This is source of the demographic squeeze. It will affect both fiscal capacity and health care consumption.

Among the standard measures of demographic change in the literature are figures referred to as dependency rates. In chart 16 we show, for Canada as a whole, the percentage of the population in what are traditionally regarded as the working ages, ages 15 to 64, youth (under 15), and older (over 65) dependent ages.

CHART 16: Canada, working age and dependent age population shares, 1971–2038

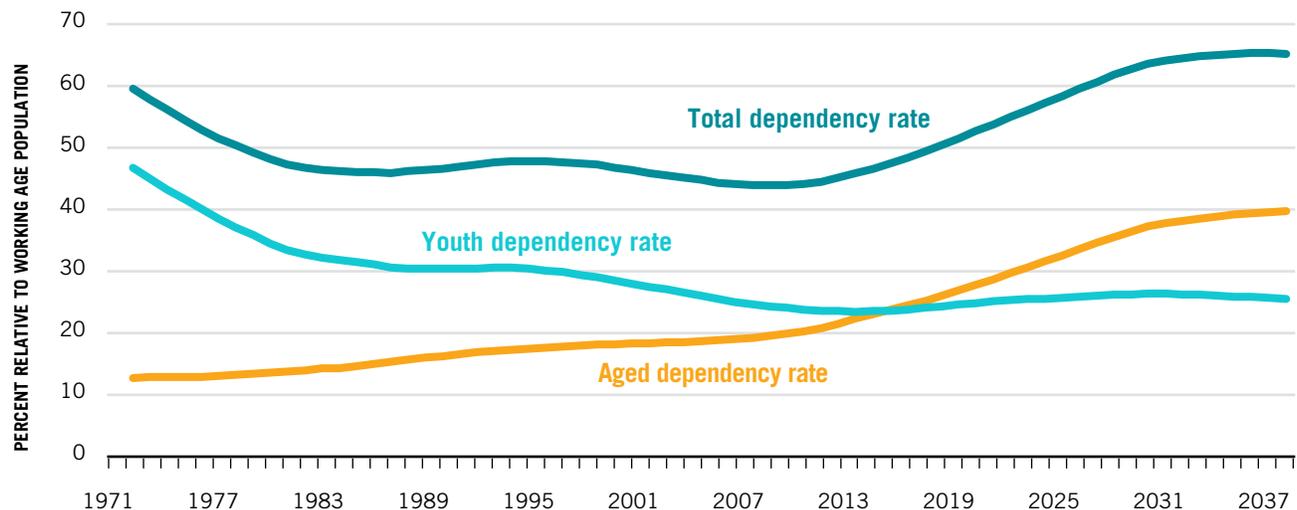


Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

We see that the percentage in the traditional working years (we take no account here of labour force participation rates or fluctuations in unemployment rates as a result of the business cycle) increased through the 1970s and remained fairly steady through the next several decades. Beginning, in recent years, it is now projected to experience a steady decline until 2038. The relative sizes of the two age ranges traditionally defined as dependent (youth and older) change over time, with the percentage under 15 declining and the percentage of the population over 65 increasing, with the sum of the shares of the dependent age groups first falling and then beginning to rise again.

Chart 17 shows the ratio of the population shares of the dependent age groups to the population share of the working-age group. This is how we are able to determine the dependency ratio – that is, the share of working-age people paying for dependent age groups. Here the overall dependency rate has just passed its minimum and is projected to rise out to 2038 as the aged dependency rate rises and the youth dependency rate levels off.

CHART 17: Dependency rates, Canada, 1971–2038



Sources: Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

Our interest in the dependency rate figures is not in their numbers per se, but in what we can tell from them about what we term demographic pressures on fiscal capacity – the way demographic change might affect provincial incomes.

As people age, their income in any year is likely to include an increasing amount of capital income, which they may either spend or reinvest, just as they do their labour income. Our interest here is not in trying to sort out the details of the production of provincial income each year, rather it is in trying to get a picture of how demographic change affects the overall incomes of residents of a province. If we were trying to estimate a provincial-level aggregate production function to determine how income is generated we would be looking at what is termed factor income: here we are interested in the social distribution of income, which means that rather than separating labour and capital income, we are going to assign them, in a rough manner, to different age groups in the population.

To do this, we take Canada Revenue Agency (CRA) (2006) data for 2004 on income reported on tax forms, broken down by province and age group. We use total income rather than taxable income since the distinction between the two is a matter of tax policy, which can change over time. We are interested here in the income that people receive as a result of their ownership of factors of production, including their own labour, in order to generate an estimate of non-transfer income, excluding items like Employment Insurance payments. Canada and Quebec Pension Plan payments and income from private pension plans are treated as capital income to the individuals, on the assumption that it is generated by capital investments that are owned at one remove on the behalf of the individual. Guaranteed Income Supplement

data is treated as a transfer and not included. We use CRA data from 2004, a choice based on data availability considerations and a desire to use data from before the 2008/09 recession.

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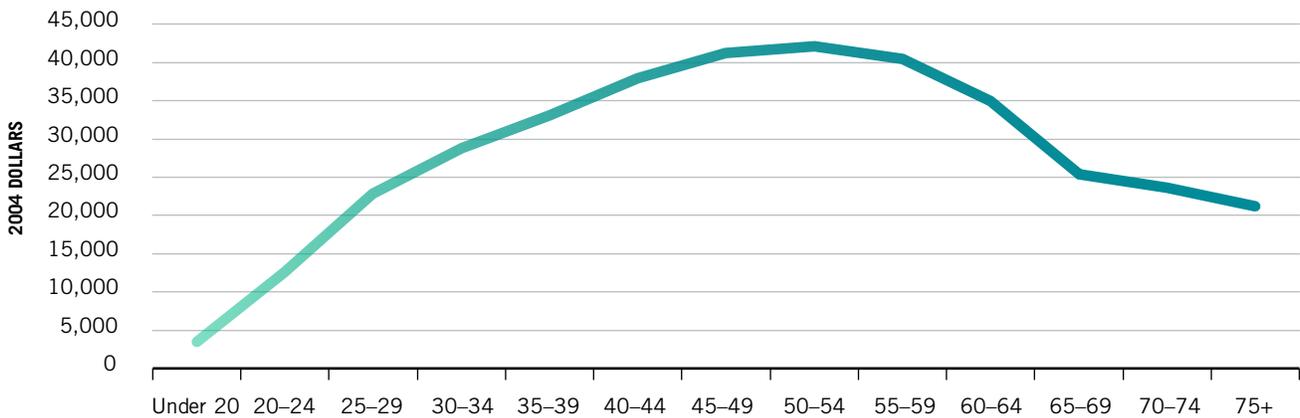
“*The indices suggest that demographic change may be putting downward pressure on aggregate income, and hence on fiscal capacity, during the same period as they will be putting upward pressure on health expenditures.*”

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This section requires us to make some simplifications. We generate a total income series, from taxable and non-taxable returns, by age group, in each province, for 2004. That provincial age-specific figure is then divided by the total provincial population in that age group, so that we are working on a per capita rather than a per filer basis. This amounts, in effect, to assuming that labour force participation rates are constant over time and can be neglected for our purposes. We also neglect the effect of changing labour force participation and composition on age-specific labour income. This means that we ignore the fact that as the baby boom generation entered the labour force, causing an increase in the labour supply in the younger ages, female labour force participation was also increasing, causing a further increase in labour supply in the early labour force years. In practice, this large an increase in the supply of younger labour

can be expected either to have increased unemployment rates among those age groups, or to have driven down the average labour income of those in those age groups who were employed. We also neglect the fact that, as the baby boom group retires, the drop in the supply of labour is likely to push average labour incomes up. Taking account of these factors would require us to estimate an age-specific labour demand/supply model, which is beyond the scope of this paper. We also, in this case, unlike the cases shown in the previous sections, work with per-adult rather than per-capita figures. Chart 18 shows the result.

**CHART 18: Age-specific, per-adult, average non-transfer income, Canada, 2004**

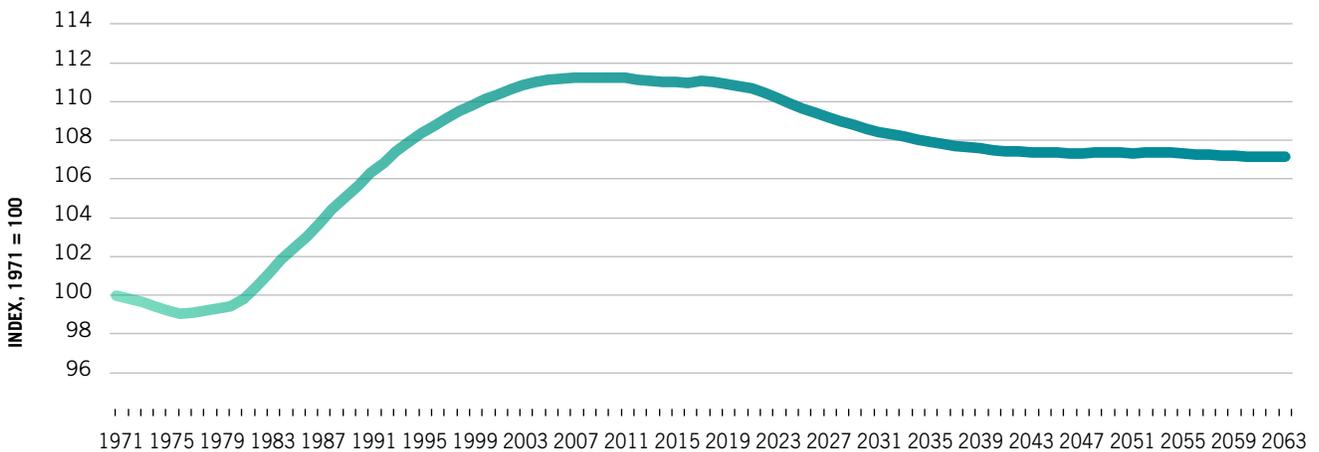


Source: Canada Revenue Agency 2006.

The inverted-U pattern is standard in demographic economics, although the numbers on the vertical axis are smaller than they would be if we were just dividing by the number of tax filers in each age group and not the total population in each age group.

Chart 19 applies this age-related income data to Canada’s population trends.

**CHART 19: Index of demographic effect on per adult income, Canada, 1971–2063, based on Canada 2004 age-specific incomes**

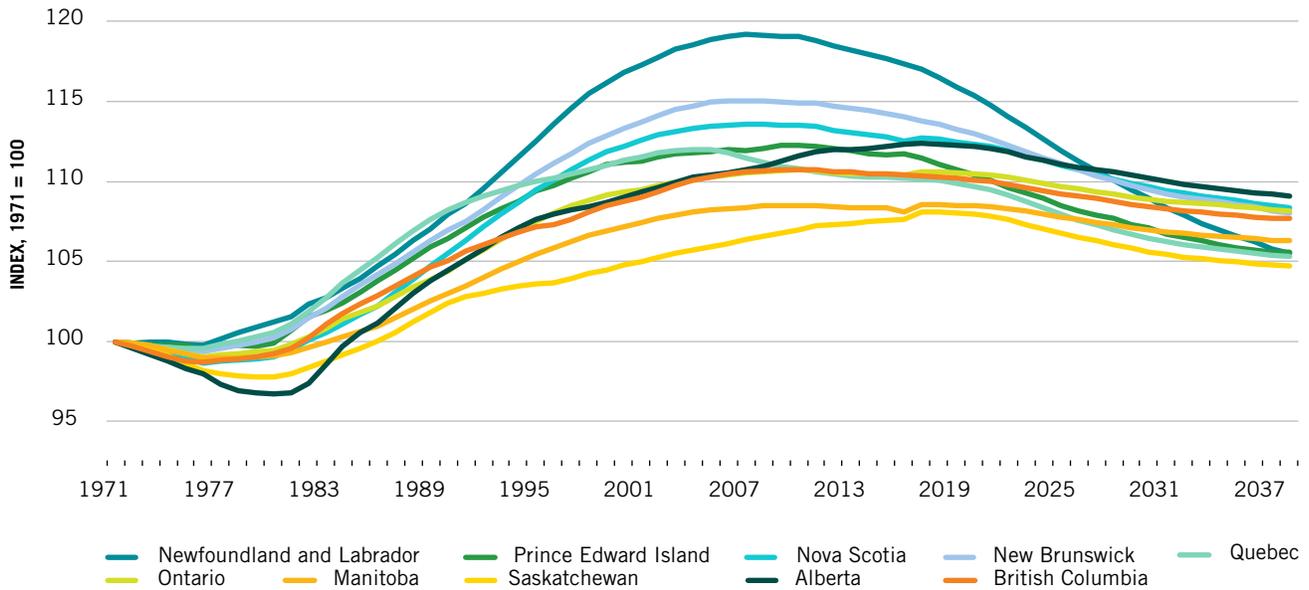


Source: Canada Revenue Agency 2006; Statistics Canada 2014b, M1 medium growth scenario.

One point that stands out here is the increase in per-adult non-transfer income through the 1980s and 1990s. Comparing this graph with data in chart 16, we see that the upswing in chart 19 occurs during a period when the working-age population as a share of total population was generally constant (note that since we are looking at the share of population age in chart 16 we do not see changes in the absolute number of people in each age group). Irrespective of other factors, the movement of the largest segment of the population into more and more productive labour force years, combined with the effect of their accumulation of assets, would have created a tendency for per adult incomes to rise. Chart 19 shows that demographic forces can be expected to create a tendency for per-adult incomes to drift down slightly and level off as the population age distribution is projected to stabilize.

As in the case of the effects of demographics on health expenditure, this is a long-term rather than a large short-term effect, but it is worth noting that the indices suggest that demographic change may be putting downward pressure on aggregate income, and hence on fiscal capacity, during the same period as they will be putting upward pressure on health expenditures. Provincial governments will effectively be squeezed in both directions. How does this translate at the province-by-province level? Chart 20 shows the results.

**CHART 20: Indices of demographic pressure by province, 1971–2038, based on 2004 province-specific age distributions of income**



Sources: Canada Revenue Agency 2006; Statistics Canada 2017; Statistics Canada 2014b, M1 medium growth scenario.

As it shows, again, there is a changing spread across the provinces, although this time it narrows again in the later years. Newfoundland and Labrador received the greatest boost in its per-adult income index through the 1980s and 1990s, although it must be remembered that since these are indices, with 1971 = 100 in all cases, we are looking at the change in Newfoundland per-adult income relative to 1971, not at an absolute level of income and not at the absolute level of income in Newfoundland and Labrador relative to the absolute level of income in other provinces. The province will also experience the greatest relative fall in income because of the aging effect.

## Policy Implications

That an aging population will affect health care spending in particular or government budgets in general is intuitive. Most people are familiar with the concept and may even have a sense of the trends that have been described. But it is rarely analysed and understood as the interplay between age-based health care consumption and population aging. It is the confluence of these two separate yet linked forces that make these trends relevant for policy-makers. A potential revenue squeeze because of the dependency rates set out in the previous section would only exacerbate these demographic pressures for Canadian governments.

But what does it all mean? What are the potential policy and political implications? Past MLI research (Ragan 2012) has set out the various implications including:

**Slowing tax revenue** – Population aging will lower the share of the working-age population relative to the dependent age groups. This will cause real per capita GDP to grow more slowly than it did over the past four decades. The implications for government tax revenues are clear: without changes in tax rates, the slowing of the growth in per capita income will lead to a slowing of government’s per capita tax revenues. Economist Christopher Ragan (2012) estimates that the annual growth rate of per capita income for the next 30 years will be lower by about 1 percentage point than it was over the past few decades due to population aging and as a result the annual growth rate of government’s per capita tax revenues will also fall by about 1 percentage point.

**Accelerating age-related spending** – Population aging will not only put pressure on health care expenditures, it will also accelerate other areas of age-related spending such as public pensions. Ragan (2012) estimates that spending on health care and elderly benefits as a share of GDP will increase gradually but inexorably into the future, and by 2040 the total spending will be approximately 4.2 percentage points of GDP higher than its 2015 level. For an economy in which all levels of government combined spend roughly 37 percent of GDP, this increase translates into an 11 percent expansion in the scale of government spending.

**Crowding out other public investments** – Health care spending already represents nearly 40 percent of all provincial and territorial program expenditures. This has jumped by 10 percentage points since 1975 and will continue to rise in light of these demographic pressures. The result will be that health care spending comes to crowd out other areas of public investment such as education and infrastructure (Barua, Palacios, and Emes 2017). This would be problematic because it is these types of public investments that are generally associated with contributing to more economic activity, economic opportunity, and intergenerational mobility.

**Rising public debt** – The fiscal gap created by rising expenditures and slowing revenues will lead to significant debt accumulation at the provincial level. The Parliamentary Budget Office’s annual fiscal sustainability report estimates that Canada’s sub-national debt could grow from 28 percent of GDP to more than 100 percent over the next 75 years. Only Quebec and Nova Scotia are estimated to be on a sustainable fiscal path. All other provinces and territories will require fiscal action to achieve fiscal sustainability. A failure to do so could produce excessive debt accumulation, rising interest payments, and ultimately a market-induced correction.

**Federal-provincial tensions** – These trends could lead to a new era of federal/provincial tensions as the provinces and territories agitate for more federal transfer payments – especially in light of the Parliamentary Budget Office’s analysis that shows that Ottawa’s finances are in much better long-term health than the provinces. This would be an unproductive political development in several key ways. A greater reliance on federal transfer payments would not only undermine political accountability (the level of government responsible for spending should also be responsible for collecting the corresponding revenues), it would risk discouraging provincial-led reforms or policy innovations. Past MLI research shows that past episodes of lower federal transfers have been associated with successful provincial and territorial policy reforms (Speer and Crowley 2015).

**Intergenerational inequity** – A so-called “elderly bias” in government programs and spending is not unique to Canada but that does not make it any less a policy and political challenge. A comprehensive

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“*[S]ticking to the status quo would actually be the equivalent to perpetuating a bad deal for young generations.*”

–Pieter Vanhuyse

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study by Belgian scholar, Dr. Pieter Vanhuyse (2013), who conducts economic and social research with the European Centre for Social Welfare Policy and Research (affiliated with the United Nations), found varying degrees of pro-elderly bias in 29 OECD countries. Of the 29 jurisdictions, Estonia ranked highest overall in terms of “intergenerational justice.” Canada is the fifth worst (or least just from an intergenerational perspective) after only the United States, Japan, Italy, and Greece. Vanhuyse’s estimates suggest that Canadian governments spent about 3.5 times as much on every elderly citizen as they did on non-elderly citizens in 2007/08. The trends described in this study could lead to greater intergenerational inequity. The result would be an erosion of key public investments in areas such as human capital and exacerbate social tensions. This is why Vanhuyse rightly argues that, for the least intergenerationally just countries such as Canada, “sticking to the status quo would actually be the equivalent to perpetuating a bad deal for young generations.”

## Policy Recommendations

There are various steps that Canadian governments can take to mitigate these risks and long-term challenges. Any proactive reforms must be rooted in some key arithmetic facts: (a) “doing nothing” is essentially a choice in favour of higher taxes, more debt, or both, (b) there are economic limits to raising taxes especially since seven of 10 provinces already have top marginal tax rates on individuals that exceed 50 percent, (c) absorbing more public spending in the form of a national or provincial pharmacare program will only serve to worsen these fiscal pressures, and (d) simply increasing federal transfer payments amounts to papering over more structural problems.

In light of these key observations, here are three steps that federal and provincial policy-makers ought to be considering.

### Reforming the financing and delivery of our health care system

Countries around the world are experiencing similar long-term pressures in their health care systems (Speer and Lee 2016). Canada is not unique in this regard. But Canada’s challenges are among the most acute because our health care system is so expensive. We now have the second most expensive health care system among OECD countries that provide for universality (Clemens and Barua 2014).

Why? Our present public monopoly in the financing and delivery of physician services and hospitals is inefficient and discourages innovation or cost savings.

Our current mix of public and private financing involves an overdependence on public insurance in certain areas and weak public support for coverage in others. Public insurance represents more than 90 percent of all physician and hospital expenditures and then covers a much smaller share of other health-related expenditures (which represent more than 50 percent of all health care spending) such as drugs, dental, and outpatient care. Put differently: we have a generous public insurance model

for 45 percent of health care spending and limited public coverage or subsidies for the other 55 percent. MLI has previously called this public insurance system a “mile deep and an inch wide” (Speer 2016a).

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“Our present public monopoly in the financing and delivery of physician services and hospitals is inefficient and discourages innovation or cost savings.”

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This is out-of-step with how most other jurisdictions pay for health care. The present imbalance between public and private financing in Canada is different than most other jurisdictions where governments provide some public coverage or subsidies for drugs, dental, and continuing care services but there is more private financing in the form of cost-sharing or private health insurance in hospital and physician services. In effect, these countries are able to spread their public monies further by requiring different forms of patient cost-sharing based usually on means.

Canada does not. As mentioned, ours is a model of highly universal yet expensive public coverage for nearly half of health-related costs and more stratified and uneven private financing for the rest. This means that scarce public resources are being dedicated to physician and hospital services irrespective of one's income or circumstances instead of helping low-income citizens with their drugs, dental, or out-patient costs. This is the reason why out-of-pocket spending is such a rising share of health care spending in Canada. This is inequalitarian, inefficient, and ultimately highly costly.

Health care delivery is also dominated by the government. There is little room for private delivery as a series of recent high-profile cases has exhibited. The result is minimal competition or innovation. It is part of the reason why we have poor access to doctors and medical technologies.

The ongoing Cambie case in British Columbia is a major challenge to the provincial government's prohibition on private billing (Palmer 2017). A successful ruling could open the door to experimentation with different private delivery options. This would be a positive development that would only bring Canada in line with other countries with universal health care systems (Lundbäck 2013). There are various options to bring greater market discipline to the delivery of health care. International examples such as Asia and Europe are worth exploring (Peng and Tiessen 2015). It must be emphasized that expanding the role for private delivery need not come at the expense of public system.

Reforming how our health care system is financed and delivered is thus key to improving its fiscal sustainability. These types of institutional reforms are necessary to bring our highly-costly system more in line with comparable jurisdictions and remove some of the pressure off of provincial budgets. It could also improve health-related outcomes including addressing Canada's serious wait-time challenges.

As a first step, Ottawa should repeal sections 18–21 of the Canada Health Act, which presently disallow patient charges – including any charge for an insured health service authorized or permitted by the provincial plan that is not payable by the plan – in the health care system (Clemens and Esmail 2012). Such a legislative change would enable the provinces to experiment with different forms of patient cost-sharing for services and treatments that are currently covered by public insurance.

Of course, it does not mean every province would adopt such reforms. But past history shows that greater provincial policy flexibility can enable trial-and-error experimentation and innovation that can ultimately produce positive outcomes (Speer and Crowley 2015). It is certainly worth a try in health care.

### **More savings incentives for future health care consumption**

The lifecycle consumption of health care services is something that policy-makers cannot afford to neglect. Old people consume more health care and Canada's demographic pattern will produce more old people. This interplay is key to understanding the sustainability risks that governments will gradually face.

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“Greater provincial policy flexibility can enable experimentation and innovation that can ultimately produce positive outcomes.”

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Just consider that one Statistics Canada study estimates that households in their early 70s spend \$800 more on health on a per-adult basis each year than households in their late 40s and most of this incremental spending is on goods and services presently uninsured by public coverage (LaFrance and LaRoche-Côté 2017, Health). It is neither affordable nor desirable for public insurance to cover all health care costs. What can public policy do to help individuals and families prepare for these inevitable future costs?

One option to improve and modernize the policy framework around the growing use of Health Spending Accounts. These accounts were first introduced in 1986 by the Canada Revenue Agency aimed at the self-employed and employees at companies (Morrison 2010). They function as a special savings account whereby a capped amount of money is deposited to be used exclusively for health care costs. Eligible expenses include: vision care expenses, prescription drug expenses, paramedical practitioners, adult orthodontics, and deductible amounts and co-insurance. Employer contributions to a Health Spending Account do not constitute a taxable benefit and all claims paid are tax-free benefits. These accounts appear to be popular amongst those who have them but evidence shows that the take-up rates and product knowledge are low. A basic Google search finds limited information.

The federal government could consider establishing a mechanism to incentivize the use of Health Savings Accounts particularly by small businesses for their employees. The tax treatment is already favourable so additional incentives could include introducing means-tested matching grants up to a capped amount or the deposit of Canadian Savings Bonds. Both models would be styled in part based on Registered Education Savings Plans or Registered Disability Savings Plans.

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“*Out-of-pocket spending is a growing share of total health care spending in Canada.*”

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Another option is to expand or augment Tax-Free Savings Accounts (TFSA) including possibly raising the maximum contribution room (it was doubled by the previous government and subsequently reversed by the current one) or building in a means-tested matching grant for the purposes of health-related savings. The TFSA is already a highly-successful savings vehicle. There are now roughly 11 million TFSA holders across the country (Marr 2015). While there a slight bias among high-income earners, the distribution is broad. As a Department of Finance (2012) study notes: “TF-

SAs are a popular means of savings for individuals across all income levels. In particular, individuals with incomes below \$80,000 accounted for about 80% of all TFSA holders and TFSA contributions in 2011.”

C.D. Howe Institute research has previously proposed building on the TFSA model with special funds for low-income savers (Stapleton and Shillington 2008). There would be some administrative considerations including for instance ensuring that public monies are locked in for specific durations or purposes. But these are not insurmountable. Provinces could design savings top-ups that meshed with their other social assistance programs, and therefore could make the exemption from provincial income and asset tests conditional on certain uses of the money, such as for health-related expenses. It is a worthwhile idea to leverage the broad-based use of TFSAs to rebuild a savings culture including related to future health care consumption.

These types of measures would smooth out income, savings, and consumption to better reflect the lifecycle patterns described in this paper. This is important because out-of-pocket spending is a growing share of total health care spending in Canada. Now roughly four out of 10 Canadians do not have access to private health insurance and are thus responsible for covering a wide range of health care services with out-of-pocket spending (Allin and Hurley 2009). The result is that less affluent households, unattached individuals, and senior couples tend to spend a greater share of their disposable income on health care than the average Canadian and usually with minimal public support (Statistics Canada 2009). And it is rising. Between 1998 and 2009, out-of-pocket expenditures on health care services increased by 2.9 percent annually and the per-

centage of households spending more than 10 percent of their total after-tax income on health care rose by 56 percent (Sanmartin et al. 2015). These figures are bound to grow due to population aging. It makes sense for policy-makers to help people prepare now so that they are better ready for the future.

### Rethinking fiscal federalism

One of the most commonly discussed policy responses is to increase federal transfers or establish a new age-adjusted payment for provinces with older populations. These calls for more federal dollars may be understandable but are the wrong solution to these challenges. Past experience shows that more federal dollars risk obstructing reform rather than catalysing it (Speer 2016b). There are also political accountability issues when one level of government is collecting the revenues and another is responsible for spending it. Having provincial politicians regularly lobby Ottawa for more federal funding is thus not a real solution in our view.

But just because we advise against further increases to federal transfers or *ad hoc* federal spending in health care does not mean that we are opposed to rethinking Canada's fiscal federalism. Quite the contrary. It makes a lot of sense to step back and ask basic questions about the matching of revenues and spending to reflect contemporary issues and how our fiscal federalism can function better. Put differently: there may be a good case for revisiting the fiscal roles of our various levels of government, but this should be done in a deliberate and comprehensive way.

There are plenty of fundamental reforms that ought to be considered to improve political accountability, achieve greater exclusivity in roles and responsibilities of the different levels of government, and ensure that resources and responsibilities are in better alignment.

The last time that we conducted such a review of our fiscal federalism was more than 75 years ago. The Rowell-Sirois Commission was established in the Great Depression and went about its careful and deliberate work to produce recommendations that would have remade fiscal federalism. The recommendations failed to generally achieve much progress in part because of provincial infighting and in part because the commencement of the Second World War overshadowed these questions. An exception was a constitutional amendment to grant the federal government responsibility for Employment Insurance. But the spirit of this exercise was essentially correct. The premise was that much had changed since Confederation and so it seemed sensible to investigate whether the basic parameters of our fiscal federalism needed a revamp.

As we celebrate the 150<sup>th</sup> anniversary of Confederation, it seems appropriate to ask these same questions. What, if any, changes ought to be made to ensure that the various levels of government have revenues that are commensurate with their expenditures? What steps could be undertaken to improve accountability, exclusivity, and better enable the functioning of our federalism? These questions are worth posing and bound to be more productive than hassling over whether the federal health transfer should grow annually by 6 percent or based on a rolling average of nominal GDP.

One major reform that could come out of such an exercise is a major tax swap whereby Ottawa would withdraw from the federal sales tax (GST) to enable the provinces to assume this tax jurisdiction in exchange for phasing out the Canada Health Transfer (CHT). The GST collects roughly \$35 billion per year. The CHT costs roughly \$35 billion per year. The federal government may need to augment the equalization program to ensure that protects against short-term losses for certain provinces. But granting the provinces and territories this exclusive sales tax room would provide them with greater responsibility and flexibility in the fi-

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“*There may be a good case for revisiting the fiscal roles of our various levels of government, but this should be done in a deliberate and comprehensive way.*”

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nancing of their health care systems. It would also enable them to download or share some of these taxation powers to major centres if they believed more revenue-generating capacity was required.

But the key point is that these decisions should be made as part of a broader review of our fiscal federalism rather than the subject of ad hoc federal/provincial lobbying. It is time for a Rowell-Sirois Commission for the twenty-first century.

## Conclusion

The interplay between age-based health care consumption and population aging will have significant implications for health care spending in particular and government budgets in general. This study has sought to analyse and elucidate these trends, how they interact, and what it will mean for Canadian public policy with a specific focus on the health care system.

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“Demographic pressures are slowly yet surely beginning to surface and time is running out for policy-makers to properly prepare.”

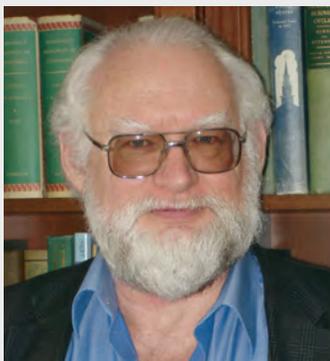
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These demographic pressures are slowly yet surely beginning to surface and time is running out for policy-makers to properly prepare. The risk of inaction is that these challenges only grow and ultimately squeeze provincial and territorial budgets and ultimately put them on an unsustainable path as others have warned.

This study has thus put forward policy recommendations to address these trends now including reforming the financing and delivery of health care, expanding mechanisms to encourage personal savings, and revisiting parts of our fiscal federalism. We recognize that

some of these proposals would represent significant policy changes but, as we have set out throughout this paper, these are major, long-term challenges and our solutions will need to be proportionate. The arithmetic is inexorable. We cannot afford to ignore it.

## About the Authors



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## Endnotes

- 1 See for instance Ruolz Ariste, 2013, “Accounting for Aging in the Canada Health Transfer Allocation,” and Nicole Thompson, 21 September 2015, “Raise Health Transfers to Reflect Aging Boomers, Conference Board Tells Ottawa,” *Toronto Star*.
- 2 See Nora Bonhert, Jonathan Chagnon, and Patrice Dion, 2017, *Population Projects for Canada (2013 to 2063), Provinces and Territories (2013 to 2038)*, Statistics Canada. This analysis involves several assumptions about fertility, mortality, and migration. While projections can give a general sense of what is going on, it is of course possible that even the most carefully constructed of them will ultimately prove wrong.
- 3 Statistics Canada’s population and demographic analyses are not predictions but rather attempts to understand what the Canadian population might be in the future based on various assumptions and changes. This is the reason that the agency produces several scenarios to show a wide range of possible trend lines – including a median one.
- 4 The CCHS data is based on surveys rather than administrative records.
- 5 These are the same expenses as are eligible for claiming the Medical Expense Tax Credit.



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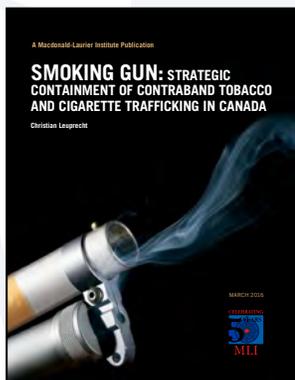


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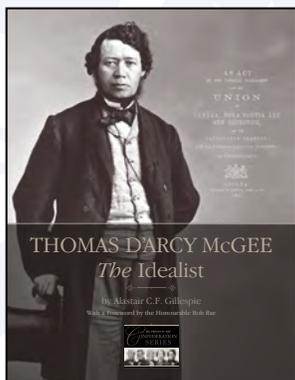
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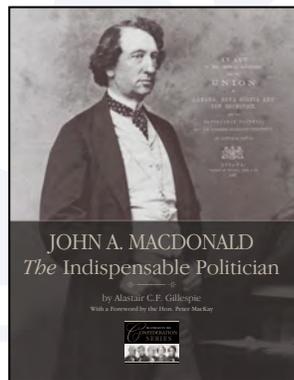
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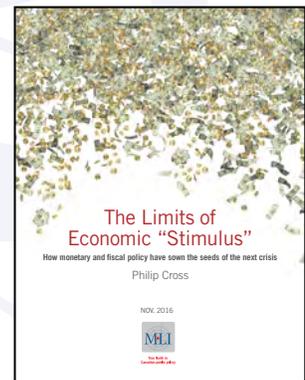
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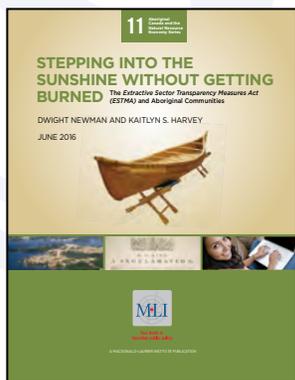
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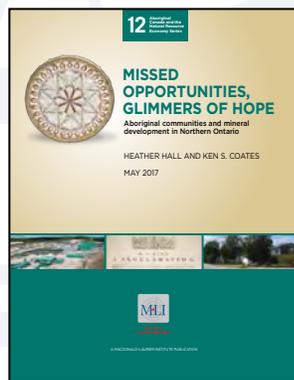
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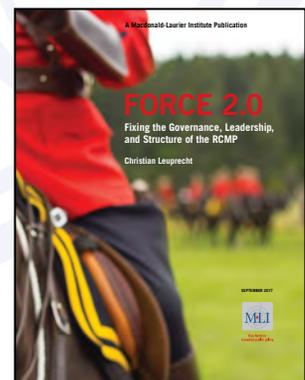
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Ken S. Coates



**Force 2.0**  
Christian Leuprecht



True North in  
Canadian public policy

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## What people are saying about the Macdonald-Laurier Institute

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*In five short years, the institute has established itself as a steady source of high-quality research and thoughtful policy analysis here in our nation's capital. Inspired by Canada's deep-rooted intellectual tradition of ordered liberty – as exemplified by Macdonald and Laurier – the institute is making unique contributions to federal public policy and discourse. Please accept my best wishes for a memorable anniversary celebration and continued success.*

THE RIGHT HONOURABLE STEPHEN HARPER

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*The Macdonald-Laurier Institute is an important source of fact and opinion for so many, including me. Everything they tackle is accomplished in great depth and furthers the public policy debate in Canada. Happy Anniversary, this is but the beginning.*

THE RIGHT HONOURABLE PAUL MARTIN

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*In its mere five years of existence, the Macdonald-Laurier Institute, under the erudite Brian Lee Crowley's vibrant leadership, has, through its various publications and public events, forged a reputation for brilliance and originality in areas of vital concern to Canadians: from all aspects of the economy to health care reform, aboriginal affairs, justice, and national security.*

BARBARA KAY, NATIONAL POST COLUMNIST

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*Intelligent and informed debate contributes to a stronger, healthier and more competitive Canadian society. In five short years the Macdonald-Laurier Institute has emerged as a significant and respected voice in the shaping of public policy. On a wide range of issues important to our country's future, Brian Lee Crowley and his team are making a difference.*

JOHN MANLEY, CEO COUNCIL

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