

January 3, 2019

Department of Finance Canada  
Ottawa, ON

The Canadian Institute of Actuaries (CIA) is pleased to participate in the 2019 pre-budget consultations.

We are particularly encouraged to see “A Secure Retirement” as one of the consultation themes. A significant number of our members practice in the retirement area, and consequently we have a deep interest in pension issues, affecting both public-sector and private-sector arrangements.

On December 6, we participated in a round-table discussion on enhancing retirement security, hosted by Innovation, Science and Economic Development Canada (ISED). Subsequently, we issued the attached written comments on the same topic. The document summarizes the CIA’s current thinking on retirement security issues, so we submit it to you as part of the pre-budget consultation. We hope that the ideas and suggestions it raises will be useful in your deliberations.

We also note that “A Healthier Canada” is another chosen theme. In light of that, we also attach our submission to the Advisory Council on the Implementation of National Pharmacare, which we issued this past September. Although the submission is limited specifically to pharmacare, we believe that any national prescription drug program will be an important element of the healthcare discussion.

The CIA appreciates the opportunity to provide these comments. If you have any questions, please contact [Chris Fievoli](#), CIA Staff Actuary, Communications and Public Affairs, at 613-656-1927.

Regards,

[original signature on file]

John Dark, FCIA  
President, Canadian Institute of Actuaries

*The Canadian Institute of Actuaries (CIA) is the national, bilingual organization and voice of the actuarial profession in Canada. Its members are dedicated to providing actuarial services and advice of the highest quality. The Institute holds the duty of the profession to the public above the needs of the profession and its members.*

December 21, 2018

Mark Schaan  
Director General  
Marketplace Framework Policy Branch  
Innovation, Science and Economic Development Canada  
235 Queen Street, 10th Floor  
Ottawa, ON K1A 0H5

**Re: Enhancing Retirement Security for Canadians**

Dear Mr. Schaan,

The Canadian Institute of Actuaries (CIA) welcomes this opportunity to offer input to the consultations on retirement security, issued by Innovation, Science and Economic Development Canada (ISED), Finance Canada, the Minister of Seniors, and Employment and Social Development Canada on November 22. Our comments build on the roundtable discussion that took place in Toronto on December 6, which Joe Nunes, FCIA, was pleased to join on behalf of the CIA.

A significant number of our members practice in the retirement area, so as a profession, we take a particular interest in this topic. The following comments address four areas:

1. Our view on the **public policy** aspects associated with retirement income security;
2. Suggestions on potential changes to **pension legislation**;
3. **Insolvency law**; and
4. **Corporate governance**.

**1. Public Policy**

At the outset of our comments, we believe it is important to be clear on the goals of the private sector pension plan and the role of actuaries within Canada's retirement income system (RIS). Existing pension regulation is designed to encourage full funding of defined benefit (DB) pension promises but allows for underfunding at times. Implicit in the design of the legislation is the understanding that the long-term delivery of pension benefits in an underfunded DB plan is dependent on the continued solvency of the plan sponsor.

Although it may not be well understood by plan members and beneficiaries, under the current legislative framework in Canada there is no guarantee that every pension promise will be paid without the continued solvency of the sponsor (Ontario's Pension Benefits Guarantee Fund provides some guarantees). In this submission, we assume that the government wishes to continue with this type of framework as a policy matter. Should the government be seeking to ensure that all pension promises are guaranteed to be paid, even in the absence of a solvent plan sponsor, then our response would be different.

Actuaries do not make the public policy decisions on how to balance the interests of stakeholders, which include among others pension plan beneficiaries, employees, shareholders, and lenders, in a private sector DB plan. Actuaries report on the funded status of the plan and the minimum and maximum contribution requirements based on the applicable legislation. With that said, as mentioned below, one of the guiding principles of the CIA is to serve the public interest. We believe that the public interest is well-served if the legislative framework supports pension promises being fulfilled and also encourages plan sponsors to continue to offer DB plans. Fulfilling pension promises is especially important for those plan members who can least afford the risk of benefit reductions, such as those with a modest monthly pension and those who are at an age where pension losses cannot easily be made up with new savings.

## **2. Pension Legislation**

Current pension legislation in Canada does not guarantee the delivery of promised pensions. If that were the goal of government, pension plans would be regulated more similarly to insurance companies. One rationale for allowing this approach to pension funding is rooted in an era where the value of benefits paid on the wind-up of a pension plan was most often considerably less than the value of benefits expected to be paid should the plan remain in operation.

Changes in minimum benefit requirements on wind-up, declining interest rates, and freezing of benefits promised under DB plans have all served to bring the wind-up liability of a pension plan closer to the going-concern liability—and in many cases over the past decade the wind-up liability has been greater.

If the government is concerned that the current RIS does not perform effectively in securing pension promises, there are several changes to pension legislation that could be considered and implemented:

- Introduction of solvency reserve accounts (or other terminology that may not refer to solvency, such as a banker's clause being used in Québec) have long been promoted by the CIA as one tool to encourage plan sponsors to provide greater levels of funding without the risk of losing control of those assets if they ultimately become surplus.

- Letters of credit could play a more prominent role in securing unfunded benefits, not only on a solvency basis but also on a going-concern basis, and a sponsor who can obtain a letter of credit from its banker can be seen as a safe provider for the plan members' pension promises.
- Greater restrictions on taking investment risk could be placed on plan administrators of underfunded plans.
- Legislation could provide regulators with broader powers to intervene in the administration of an underfunded pension plan as it pertains to investment, funding, and benefit policy to avoid perpetual underfunding of plans.
- Where a pension plan is wound up and the plan sponsor is insolvent, legislation could be modified to prioritize certain groups of beneficiaries, such as retirees. This is a public policy decision rather than an actuarial decision. Note that moving away from applying a single solvency funded ratio to all plan beneficiaries also moves away from the concept of providing plan members with the market value of their benefit.
- It may be a reasonable public policy to allow plan stakeholders to agree in advance that certain benefits such as indexing and early retirement subsidies will be paid only on wind-up to the extent that sufficient assets are available. This approach might better solve or partially solve the problem of insufficient assets as opposed to prioritizing different classes of plan beneficiaries.
- Where a plan sponsor becomes insolvent, there may be an opportunity for the government or other impartial entity to take over the administration of the plan and undertake a "work-out" process to minimize benefit reductions rather than forcing the immediate liquidation of all pension investments for either lump sum settlements or annuity purchases, thereby crystallizing benefit reductions. We note that there have been several examples of such an approach with positive outcomes, especially in Québec. Given the possibility that this approach could result in subsequent investment losses (or other experience losses such as unexpected variations in longevity or expenses), any such arrangement should be clear on who bears the risks; to the extent it is the plan members, they should be given the option to opt out of such an arrangement in favour of taking a reduced pension in the form of an annuity.
- We caution the government on the difficulty of expanding the concept of a guarantee fund beyond Ontario. It is challenging to price the risk of employer default, and the size of a future deficit to be guaranteed is a moving target. In addition, contributions to a guarantee fund are diverted from contributions that could be made to the pension fund

to facilitate higher funding levels, and these guarantee fund premiums are another disincentive to establishing and maintaining a DB plan.

### **3. Insolvency Law**

Canada's insolvency laws are not the domain of actuarial practice. While we recognize that placing pension deficits in a higher priority during an insolvency or bankruptcy might improve the security of a pension promise, any change in the legislated priorities might have unintended consequences such as discouraging the continued operation of a DB plan or eliminating a plan sponsor's access to borrowed capital.

At the same time, recent legislative efforts in some provinces to ease funding requirements are in direct opposition to the goal of securing pension benefits without further recourse to assets of the plan sponsor and may provide a rationale for improving the priority of pension plan beneficiaries.

### **4. Corporate Governance**

Canada's laws on corporate governance are not the domain of actuarial practice. As a general comment, we support requiring plan sponsors to disclose that the full payment of pensions is subject to a fully funded status of the pension plan or the ongoing solvency of the plan sponsor.

Company employees holding a pension promise are very similar to bond holders. However, where bond holders can negotiate the terms of lending to enforce repayment and to determine the appropriate level of compensation for the risk of default, pension plan members do not generally have the knowledge or the tools to do so. As a result, pension plan members rely on the government and pension regulators to play this role. Requiring that companies consider workers and former workers with pension entitlements as stakeholders similar to bond holders could be effective in providing workers with greater protection of pension promises. Also, limiting the ability of a sponsor of a poorly funded pension plan to withdraw capital beyond regular dividends might better balance the interest of all stakeholders including pension plan beneficiaries.

In closing, we would like to note that, increasingly, retirement income is being provided to workers through defined contribution pension plans, which pass all of the investment and longevity risks to plan members. In this regard, an imperfect system for DB pension plans may still achieve better outcomes than a defined contribution alternative. As a final note, Target Benefit Plans may offer the best compromise between risk sharing and guaranteed benefits, and we recommend that work continues on the legislative framework for these plans in Canada.

The CIA appreciates the opportunity to engage on these important issues, and we would welcome further discussion with you and your stakeholder group throughout this process.

If you have any questions, please contact [Chris Fievoli](#), CIA Staff Actuary, Communications and Public Affairs, at 613-656-1927.

Sincerely,

[original signature on file]

John Dark, FCIA  
President, Canadian Institute of Actuaries

cc. Joe Nunes

*The Canadian Institute of Actuaries (CIA) is the national, bilingual organization and voice of the actuarial profession in Canada. Its members are dedicated to providing actuarial services and advice of the highest quality. The Institute holds the duty of the profession to the public above the needs of the profession and its members.*

September 28, 2018

Advisory Council on the Implementation of National Pharmacare Secretariat  
Brooke Claxton Building  
70 Colombine Driveway  
Ottawa, ON  
K1A 0K9

The Canadian Institute of Actuaries (CIA) is the national, bilingual organization and voice of the actuarial profession in Canada. Its members are dedicated to providing actuarial services and advice of the highest quality. The Institute holds the duty of the profession to the public above the needs of the profession and its members.

We support the goal that every Canadian should have better health by being able to access the essential drugs for their medical needs and at an affordable price. A national pharmacare program should be sustainable. We can help ensure this consideration in the development of a program.

Actuaries have extensive experience in the design, pricing, and risk management of financial and social security programs. We believe that a national pharmacare program would benefit greatly from the perspectives that the actuarial profession can bring to the discussion.

The attached submission reflects our opinions on this important issue. In it, we identify program design considerations, including: who is covered; what drugs are covered and at what price; volume of covered drugs dispensed and their effective use; overall cost impact on the health-care system; and delivery, administration, and management costs. Additionally, we highlight monitoring requirements, including: modelling and sensitivities, data collection, and analysis of experience.

We thank you for this opportunity to contribute and would welcome further discussion with the Advisory Council on any of the concepts presented in our submission. Please contact [Chris Fievoli](#), CIA staff actuary, communications and public affairs, at 613-656-1927.

Sincerely,

[original signature on file]

John Dark  
CIA President

# Submission to the Advisory Council on the Implementation of National Pharmacare

## Introduction

The central goal of national pharmacare is to ensure that every Canadian has better health by being able to access the essential drugs for their medical needs, and at an affordable price. We support this goal, and we believe that for a national pharmacare program to be successful, it must be able to achieve long-term sustainability.

A sustainable model requires careful up-front design and regular ongoing monitoring—both of which are informed by modelling the potential impacts of various pharmacare options, constant analysis of trends and evidence, and sound risk management. These are exactly the areas where actuaries have expertise and experience, and we believe that a national pharmacare program would benefit greatly from the perspectives that the actuarial profession can bring to the discussion.

This submission focuses on the financial and risk considerations to achieve sustainability, leaving the very important medical and ethical considerations to experts in other fields. In addition, we are not taking a position as to whether delivery should be public, private, or mixed.

## Current Situation

Health care has been a growing segment of the national economy, reaching 11.5 percent of gross domestic product (GDP) in 2017, and represents close to 40 percent of provincial program expenditures in most jurisdictions.

A major challenge with health-care expenditures, including drugs, has been that the rate of growth has exceeded that of GDP. Therefore, to ensure a sustainable program, the ability to manage cost and cost trend is critical.

## Up-front Design Considerations

The long-term cost of the program and its durability will be influenced by the following:

- [Who is covered](#);
- [What drugs are covered and at what price](#);
- [Volume of covered drugs dispensed and their effective use](#);
- [Overall cost impact on the health-care system](#); and
- [Delivery, administration, and management costs](#).

## Who is covered

Improving access to necessary drugs is the driving force behind consideration of national pharmacare. A national pharmacare program should ensure that the entire Canadian population is covered for clinically safe and effective drugs that are medically necessary for the health of each individual. Further, participation in the program should be compulsory for all

Canadians while leaving room for complementary coverage to coexist with national pharmacare.

### **What drugs are covered and at what price**

The most critical aspect of plan design will be drug management: drug selection, formulary management and drug purchasing, as well as the management of biologic, oncology, and rare disease (BORD) drugs. These elements will have a predominant influence on the sustainability of a national pharmacare program.

#### *Drug selection*

One challenge will be striking a balance between health outcomes and the ability of the program to pay. This can be mitigated if the drug selection process uses a combination of clinical evidence and cost-effectiveness. Cost-effectiveness will require a model with the capability to predict the impact of adding specific drugs or categories of drugs when their addition can have a material impact on the overall cost of the program or on other components of the health-care system. Actuaries in insurance companies already use such techniques to assess the cost of private drug coverage.

The plan could include concepts such as least-cost alternatives in various drug classifications, generic substitution, the use of biosimilar drugs when clinically appropriate, and a formal process of drug deletion to ensure a contemporary drug list over time.

The plan should leverage the purchasing power of all drugs dispensed under national pharmacare regardless of public, private, or mixed delivery model. However, some risks to consider and manage include disruption in the supply compared to the savings achieved, and the need to ensure that pricing agreements result in overall savings, not only to one part of the delivery system.

#### *Formulary management*

Another key component will be the efficiency of the process to include drugs in the formulary. The pace at which new drugs are assessed and introduced into the formulary is critical to ensure that the benefit of these drugs is available to those who need them, on a timely basis. Historically, public delivery systems have been slow to add new drugs.

#### *Biologic, oncology, and rare disease (BORD) drugs*

Another challenge is managing the addition of new, more expensive, BORD drugs to the formulary. Given their significance, they could threaten the sustainability of national pharmacare over time. Ways to mitigate this risk must be built in from the onset of the program, such as establishing a mechanism to limit the level of cost increases from BORD drugs borne by the program. England, for example, introduced a maximum price on what their version of national pharmacare is prepared to pay for an additional year of healthy living.

### **Volume of covered drugs dispensed and their effective use**

The volume of covered drugs dispensed will be driven primarily by aging, the progression of diseases, the evolution of drug therapies, prescribing habits, and the filling of prescriptions. It is a waste of national pharmacare's resources if a drug is prescribed, dispensed, and then either

not taken by the patient or not taken as prescribed, so that the anticipated health outcome is not achieved. This risk needs attention; therefore, adherence to protocols, analysis of prescribing patterns, and patient monitoring are examples of medical practice management that need up-front medical input and ongoing monitoring.

One specific aspect to manage is the clinical follow-up on drug efficacy, especially for BORD drugs and for patients with high-cost drug regimens. Cost-effectiveness and affordability trends will be highly influenced by the ability of national pharmacare to implement mechanisms to monitor health outcomes of these individuals. The inability to do so will likely increase the need for other more expensive health-care services. Hence, there is a need to determine the types of professional services required to effectively manage these critical groups and the level of financial incentives for health-care professionals to do so.

Effective use of drugs can be influenced by plan design where payment is contingent on following certain protocols and step therapies (e.g., demonstrating failure to achieve health outcomes with a cheaper drug or demonstrating inappropriateness of treatment before payment for a more expensive drug).

Financial participation of individuals in the program will also influence use of drugs. Patients and prescribers' choices of drugs or therapies could be influenced through some form of deductible and co-insurance. These will assist in keeping the cost trend in check; however, they can also reduce the ability of the most vulnerable to access essential drugs and, indeed, everyone's access to more expensive drugs. Therefore, any system to enrol individuals to contribute to the program should include an annual out-of-pocket maximum based on income level, or other measures to help ensure that access to essential drugs is not compromised.

### **Overall cost impact on the health-care system**

Better access to drugs should mean better health outcomes. This in turn should lead to reduced expenses in other areas of the health-care system as individuals' health conditions are resolved or managed by the drugs. Risks centre around failure to achieve savings due to poor adherence to drugs, over- or under-prescribing of drugs, failure to prescribe the right drugs, and failure to monitor patients with high-cost drug regimens.

To further inform the initial financial and design elements of the implementation of national pharmacare, there should be an analysis of the impact that different designs of a national pharmacare program might have on other health-care expenditures. This would help to fully determine the benefit, cost, and sustainability of each possible design of a program to provide access to drugs to all Canadians.

At the same time, the potential impact of other parts of the health-care system on the national pharmacare plan should also be monitored. Are there more effective methods to treat medical conditions rather than drugs? Or cost-effective public health methods to prevent or reduce the need for drugs?

### **Delivery, administration, and management costs**

Efficient delivery, administration, and program management will impact the performance, level of satisfaction, and overall cost of national pharmacare. Even though these elements represent a small percentage of the total cost—the cost of the actual drugs is much higher—they can play

a critical role in the effectiveness of a new pharmacare plan and help improve the health of Canadians.

Various risks include the following: failing to achieve the potential savings in drug costs; failing to efficiently manage eligibility for the program; inability to obtain timely access to specific drugs; insufficient control of prescribing protocols; poor program delivery; and inefficient payment system.

### **Ongoing Monitoring**

The world of drugs is evolving rapidly and the national pharmacare design will need ongoing improvements, course corrections, and reassessment. One way to achieve this is to apply the same rigour to the ongoing review of the performance of national pharmacare that applies to other social programs. Such formal monitoring should take place every three to five years, for example. The Canada Pension Plan is a good example of a program that gets significant benefit from an independent, systematic review of its performance and financing, yielding high confidence in the sustainability of the system.

To support this periodic evaluation, the program will have to include strategies for the following:

- [Modelling and sensitivities](#);
- [Data collection](#); and
- [Analysis of experience](#).

### **Modelling and sensitivities**

A model of the system, as has been developed for other social programs, is crucial to the ongoing management and sustainability of national pharmacare. While models cannot predict the future, given good data and analysis they can give a very good indication of what is happening, and more importantly, can be used to identify the sensitivities and allow pre-emptive actions to help proactively manage the program.

A good example of sensitivity modelling will be the addition of BORD drugs. The model should allow the demonstration of the financial impact of these drugs on national pharmacare and on other health-care services as part of the initial decision stage.

Unless the model includes the impact on the rest of the health-care system, there is a risk that decisions may consider only the significant cost to national pharmacare without offsetting potentially significant savings in the rest of the system. The discovery of drug treatment for hepatitis C is a good recent example: a [US\\$68,000 drug treatment](#) will almost certainly cure the disease and lead to potentially hundreds of thousands of dollars saved from what would otherwise be needed in future treatment—possibly 10 to 30 years in the future.

### **Data collection**

Complete and accurate data provides better modelling and more ways to analyze the trends. So, an essential element is the accumulation of information on all drugs dispensed through the program regardless of the delivery process (public, private, or mixed) and the geographical location.

## **Analysis of experience**

The total cost of the program comes from a combination of the price of each drug and the volume of drugs dispensed, which is driven by prescribing habits and patient adherence to their prescriptions.

As part of the periodic reviews, it will be important to undertake exhaustive data analysis on drug utilization, drug price evolution, and prescribing patterns to identify trends and understand emerging patterns. In-depth analysis of BORD drugs and high-cost drug regimens will be critical because of their significant share of the total cost of the program.

These analyses will feed into the models and help develop insights into the performance of the program, and assist in shaping proper program policies, such as the development of new prescribing guidelines and consumer information on drug utilization.

## **Conclusion**

The Canadian Institute of Actuaries' primary goal is to serve the public interest.

Actuaries have been instrumental in the development, implementation, and ongoing monitoring of social programs both in Canada and abroad. Actuarial expertise has been leveraged during the creation of comprehensive drug plans in Québec, and several OECD nations have noted the value-added by actuaries' unique skill set, and have integrated actuaries into their health-care system. In Canada, actuaries model and constantly examine trends in the drug experience of private drug plans to appropriately assess and suggest ways to mitigate risk for plan members, plan sponsors, and insurers.

We are convinced that sustainable national pharmacare can be achieved with sound financial management of the program through regular periodic evaluation, modelling of trends, and collection and analysis of data on drugs. The application of sound risk management principles outlined in this submission are also essential to the implementation of a sustainable national pharmacare that will achieve better health for all Canadians.

We would welcome an opportunity to elaborate on any of the concepts in this submission.