



The Conference Board
of Canada

Le Conference Board
du Canada

Canadian Alliance for
Sustainable Health Care

Assessing the Options for Pharmacare Reform in Canada.



REPORT OCTOBER 2018

Assessing the Options for Pharmacare Reform in Canada

Michael Law, Fiona Clement, and Thy Dinh

Preface

National pharmacare has once again arisen as a major health policy issue in Canada. However, there has been limited comparison of how well potential models might improve access to medicines, value for money, and the patient and provider experience.

For any particular pharmacare model, the specifics of coverage can impact the access to medicines. This report can be viewed as a primer in understanding some of the major policy options as part of larger discussions on national pharmacare in Canada. It reviews several major proposed models for pharmacare reform as part of The Conference Board of Canada's National Pharmacare Initiative.

To cite this report: Law, Michael, Fiona Clement, and Thy Dinh. *Assessing the Options for Pharmacare Reform in Canada*. Ottawa: The Conference Board of Canada, 2018.

©2018 The Conference Board of Canada*

Published in Canada | All rights reserved | Agreement No. 40063028 | *Incorporated as AERIC Inc.

An accessible version of this document for the visually impaired is available upon request.

Accessibility Officer, The Conference Board of Canada

Tel.: 613-526-3280 or 1-866-711-2262 E-mail: accessibility@conferenceboard.ca

©The Conference Board of Canada and the torch logo are registered trademarks of The Conference Board, Inc. Forecasts and research often involve numerous assumptions and data sources, and are subject to inherent risks and uncertainties. This information is not intended as specific investment, accounting, legal, or tax advice. The findings and conclusions of this report do not necessarily reflect the views of the external reviewers, advisors, or investors. Any errors or omissions in fact or interpretation remain the sole responsibility of The Conference Board of Canada.

CONTENTS

i	EXECUTIVE SUMMARY
1	Setting the Context
5	What Is Universality?
6	Assessing Different Models for Pharmacare Reform
7	Criteria for Assessing Different Models
11	Model 1: Universal Public Coverage
29	Model 2: Targeted Public Coverage
36	Conclusion
	Appendix A
38	Bibliography

Acknowledgements

This report was written by Michael Law, Canada Research Chair in Access to Medicines, Centre for Health Services and Policy Research, School of Population and Public Health, University of British Columbia; Fiona Clement, Associate Professor, Director, Health Technology Assessment Unit, O'Brien Institute for Public Health, University of Calgary; and Thy Dinh, Director, Health Economics and Policy, The Conference Board of Canada.

For their guidance and support, the authors wish to thank the members of the [National Pharmacare Initiative Steering Committee](#).

The authors also thank Greg Sutherland, Principal Economist, Health Economics and Policy, The Conference Board of Canada, for his internal review, as well as Dr. P.-G. Forest, Director and Palmer Chair, School of Public Policy, University of Calgary, for his external review.

This report was funded by [investors of the National Pharmacare Initiative](#), as well as [the Canadian Alliance for Sustainable Health Care \(CASHC\)](#).

About The Canadian Alliance for Sustainable Health Care

The Canadian Alliance for Sustainable Health Care (CASHC) was created to provide Canadian business leaders and policy-makers with insightful, forward-looking, quantitative analysis of the sustainability of the Canadian health care system and all of its facets.

The work of the Alliance is to help Canadians better understand the conditions under which Canada's health care system is sustainable—financially and in a broader sense. These conditions include the financial aspects, institutional and private firm-level performance, and the volunteer sector. CASHC publishes evidence-based, accessible, and timely reports on key health and health care systems issues.

Research is arranged under these three major themes:

- Population Health
- The Structure of the Health Care System
- Workplace Health and Wellness

Launched in May 2011, CASHC actively engages private and public sector leaders from the health and health care sectors in developing its research agenda. Some 33 companies and organizations have invested in the initiative, providing invaluable financial, leadership, and expert support.

For more information about CASHC, and to sign up to receive notification of new releases, visit the CASHC website at www.conferenceboard.ca/CASHC.

CASHC Member Organizations

Lead Level

Ontario Ministry of Health and Long-Term Care

Partner Level

British Columbia Ministry of Health

Health Canada

Medtronic

Mercer (Canada) Limited

The Great-West Life Assurance Company

Participant Level

AbbVie Corporation

Canadian Dental Association

Canadian Nurses Association

HealthPartners

Hoffmann-La Roche Limited

Innovative Medicines Canada

Medavie Blue Cross

Merck Canada

Neighbourhood Pharmacy
Association of Canada

Sanofi Canada

Workplace Safety & Prevention
Services

EXECUTIVE SUMMARY

Assessing the Options for Pharmacare Reform in Canada

At a Glance

- Separating the delivery model from the terms of coverage is necessary to advance the implementation of a national pharmacare plan.
- Broadly, two models are possible: universal public coverage or a combination of private and public coverage. Each variation has different implications for access to medicines, value for money, and patients' ability to navigate the system.
- The specifics of coverage matter a great deal to the ability of any model to impact access to medicines, particularly the presence and level of deductibles, copayments, and other cost sharing.

National pharmacare has once again arisen as a major health policy issue in Canada. This debate is not new: Over the past several decades, various options for pharmacare reform have been proposed and debated. However, there has been limited direct comparison of how well the potential models might improve access to medicines, value for money, and the patient and provider experience. Further, it is important to consider the feasibility of implementing each model. We assessed five different models for achieving universal coverage against these objectives.

Comprehensive Public Coverage

This form of coverage would include public coverage, with or without a copayment, of a comprehensive formulary of medications for everyone in Canada. This option would likely improve access to medicines for many Canadians who are currently underinsured. However, the longer-term impact on those with private insurance is less clear, particularly if some employers cease coverage. On a societal level, this option may be less expensive than current coverage but would result in a large shift of privately spent dollars to public expenditures. This would make the transition to this model complex, but it would mean consistent and portable coverage that would simplify the experience for both patients and providers. Public support for this option appears high, but there is concern from current holders of private insurance about benefit reductions.

An individual mandate approach would leave significant differences between Canadians' level of coverage.

Public Coverage of Essential Medicines

This option would provide public coverage of a small formulary of essential medications for everyone in Canada, with the most discussed proposal being for 125 medicines based on the World Health Organization's list of essential medicines. Analyses have shown that such a list could cover most currently used medications (including class equivalents). This option would likely improve access to medicines on the list and would also likely improve value by encouraging physicians to prescribe lower-cost therapies. As with comprehensive coverage, this option would increase public spending (albeit not as much as comprehensive coverage). Public support for this type of plan is mixed, and it would be unlikely to simplify coverage options as it would not fully replace current public and private plans.

Public Coverage With Income-Based Deductibles

A final fully public approach is to provide everyone with coverage for high drug expenditures relative to their household income. This design is relatively common in Canada, with several provinces having such models in place. If implemented more broadly, the impact on access to medicines would depend on the amount charged to patients, particularly those at lower income levels. If a significant portion of the population was exempted from paying the deductible, this plan could provide some benefit to people currently underinsured. It would likely not significantly reduce overall expenditures, but could result in lower private health insurance premiums in provinces that do not currently use this design. This model would cause comparatively minimal disruption to current coverage, but would leave the complexity of the current system in place.

Individual Mandate

An individual mandate is a requirement that each individual hold insurance, either public or private, that meets specified standards. For example, Quebec currently requires all individuals to have prescription drug insurance and provides a premium-based public plan for those who do not receive employer-based coverage. This approach would likely improve access to medicines for those who do not have sufficient coverage but would not improve access for people with private insurance who currently cannot afford their medicines (3.4 per cent of individuals with private insurance). It would leave significant differences between Canadians' level of coverage and is unlikely to improve value for money in the system. Further, while it would be administratively expensive, it would result in less public spending than other options. There is some evidence of public support for this option from those who currently hold private insurance, and it would be comparatively less disruptive to existing coverage.

Optional Public Coverage

In this model, Canadians could purchase public coverage should they desire it. This type of plan, which requires premiums to be paid for enrolment, is currently in operation in Alberta for those under 65 years of age. This model may improve access to medicines for those who are currently underinsured, but its impact is not likely to be large. This model is also unlikely to improve value for money in the system but it would be comparatively less expensive for the public sector. Lastly, it would be the least disruptive option in terms of displacing current coverage.

There is a range of options available to policy-makers considering implementing national pharmacare. These models have different implications for access to medicines and public and total cost, and the implementation challenges that would accompany them vary. What is clear is that the success or failure of any one of these models will be intimately tied to the terms of coverage that are offered to Canadians, which will have a significant bearing on their ability to access medicines in the future.

Setting the Context

Canada is once again debating the future of drug coverage in the country. Over the past several decades, numerous options for pharmacare reform in Canada have been studied and discussed. Calls for a more coordinated approach to national pharmacare are often rooted in the fact that Canada is one of a handful of Organisation for Economic Co-operation and Development (OECD) countries that does not provide comprehensive publicly funded prescription drug coverage for all of its citizens (the others being Israel, Mexico, and the United States).¹

Absent national standards, every province and territory has asserted their jurisdiction over health care and developed their own unique publicly funded prescription medication insurance plans, as the federal government has for some populations. In addition, many private insurers offer insurance either as an employment benefit or for purchase by individuals. This has led to significant variability in prescription drug coverage across Canada, both between provinces and individuals.²

In the course of this debate, there have been many ideas and little consensus on the right model for prescription drug coverage and how it should be implemented. While several models have been proposed, they have different potential impacts for different populations and stakeholders. Some models have been discussed in depth, but to date there has been limited direct comparison of how well these different models might achieve specific goals of national pharmacare, and little contrasting of potential unintended consequences. Therefore, this report reviews several major proposed models for pharmacare reform as part of The Conference Board of Canada's National Pharmacare Initiative.

¹ Barnieh and others, "A Systematic Review of Cost-Sharing Strategies."

² Daw and Morgan, "Stitching the Gaps in the Canadian Public Drug Coverage Patchwork?"

(See “About the National Pharmacare Initiative.”) This report can be viewed as a primer in understanding some of the major policy options as part of larger discussions on national pharmacare in Canada.

About the National Pharmacare Initiative

In the interest of supporting and informing the critical and historic discussions on national pharmacare, The Conference Board of Canada, together with its Canadian Alliance for Sustainable Health Care (CASHC), launched the National Pharmacare Initiative (NPI) in April 2018. The initiative involves a series of activities including policy research and analysis, education, and deliberative dialogue. In addition, the NPI website serves as a clearinghouse for resources about pharmacare that is accessible to the public. The initiative also provides access to information, data, and the tools necessary to support stakeholders in understanding and responding to any proposed pharmacare models or policy discussions. The initiative is designed to evolve in tandem with the work of the national Advisory Council on the Implementation of National Pharmacare.

NPI is led by a pan-Canadian Steering Committee³ representing a cross-section of senior leaders from government, CASHC member organizations, patient and provider organizations, and industry, and is chaired by Fred Horne, senior policy consultant and former Alberta minister of health.

The objectives of this initiative over the course of 2018 are to:

- inform the national pharmacare debate in Canada;
- provide insightful analyses, data, and tools for assessing options for pharmacare that consider the core principles and research evidence;
- create a neutral forum for thought leaders and stakeholders to discuss the issues, opportunities, core principles, and critical design elements of pharmacare options.

3 For more information on the NPI Steering Committee, please visit <https://www.conferenceboard.ca/CASHC/npi/npi-steering-committee>.

There are a variety of cost-sharing mechanisms employed by both public and private plans that lead to variation across the country.

At present, almost every Canadian is enrolled in or eligible for some form of publicly funded prescription drug coverage.⁴ However, this coverage varies considerably across regions and can be confusing for patients, caregivers, and prescribers. In general, specific programs exist in each province and territory that provide coverage for seniors, residents under 65 years of age, and residents on social assistance. What is more, there are also specialty plans in some provinces that target specific needs, such as cancer and palliative care.⁵ Possibly adding to the confusion, approximately 60 per cent of the population holds private prescription drug insurance with varying terms of coverage.⁶

In addition to these differences in public and private plan coverage, there are also a variety of cost-sharing mechanisms employed by both public and private plans that lead to variation across the country.⁷ (See “Common Terms.”) For example, those under the age of 65 in Alberta, Quebec, and New Brunswick are charged premiums, and those in the remaining provinces may be subject to variable deductibles ranging from 2 to 35 per cent of income across provinces and co-insurance.⁸ Some provinces do not have different plans for those over 65 (British Columbia, Manitoba), others charge premiums (Quebec and Nova Scotia), and some use deductibles (British Columbia, Quebec, Ontario, Manitoba, and some seniors in Saskatchewan).⁹ In addition, several provinces employ a sliding scale based on income, which offers more generous support from the government to those with lower incomes (British Columbia, Manitoba, Ontario, Quebec, Nova Scotia, and New Brunswick).¹⁰ While we have less specific data on private plans, we do know that cost-sharing requirements and the use of other cost-control tools vary between plans.¹¹

4 Sutherland and Dinh, *Understanding the Gap*.

5 Campbell and others, “Comparison of Canadian Public Medication Insurance Plans.”

6 Kratzer and others, “Cost-Control Mechanisms in Canadian Private Drug Plans.”

7 Campbell and others, “Comparison of Canadian Public Medication Insurance Plans.”

8 Ibid.

9 Ibid.

10 Ibid.

11 Kratzer and others, “Cost-Control Mechanisms in Canadian Private Drug Plans.”

Common Terms

Co-insurance: a system where a patient pays a set percentage of the amount per drug or per prescription.

Copayment: an amount per drug or per prescription that a patient pays. In some jurisdictions, the dispensing fee charged by the pharmacist is charged to the patient.

Deductible: a limit up to which a patient pays the full cost of the drug. After the deductible is reached, the patient either does not pay or has reduced payments for prescriptions.

Fixed copayment: a system where a patient pays a fixed, or set, amount per drug or per prescription.

Prescription drugs: drugs that are prescribed by a health care professional (e.g., a doctor, nurse practitioner, dentist, or, in some provinces, a pharmacist). Drugs that can be purchased over the counter without a prescription are excluded.

Premium: a fixed amount, not related to the number of prescriptions, that a beneficiary must pay to be eligible for prescription drug insurance.

Formulary: a list of medicines that are included within the insurance plan.

Universal coverage: coverage for prescription drugs that is available to all Canadians and enables them to access necessary medicines.

In total, approximately \$34 billion was spent in Canada on prescription drugs in 2017.¹² Approximately 43 per cent of this total is from public sources, 36 per cent from private insurers, and 22 per cent from out-of-pocket payments from patients. These out-of-pocket charges can mean patients may have trouble affording medicines. For example, estimates suggest 5.5 per cent of Canadians skip, stretch, or simply do not take their medications as prescribed due to cost.¹³ Within this context of

12 Canadian Institute for Health Information, *National Health Expenditure Trends*.

13 Law and others, "The Consequences of Patient Charges for Prescription Drugs in Canada."

When public and private coverage are combined to cover the entire population, this would constitute universal coverage.

a mixed public and private system, the conversation about national pharmacare has continued to develop.

What Is Universality?

To date, much of the conversation about national prescription drug coverage has focused on universality. However, the term universality has been used too broadly and means different things to different groups in the ongoing policy discussion. To many in Canada, the definition of universality comes from the definition used for hospital and physician services defined in the *Canada Health Act*. This definition posits that public coverage for services should be available on uniform terms and conditions for all people.¹⁴ By this definition—which has become the policy benchmark—universality within a national pharmacare plan would focus on providing a single plan that would cover all Canadians in a uniform manner, regardless of other factors.

In contrast to this definition, universality has been defined by others as a set of public policies that provide everyone in the country with some form of prescription drug coverage, or the option to register for a public program if they wish. Based on this definition, some have argued that Canada has already reached universal coverage.¹⁵ As outlined above, virtually all residents of Canada are currently eligible for publicly funded prescription drug coverage, albeit some plans have premiums that may pose a financial barrier to accessing this coverage. In effect, when public and private coverage are combined to cover the entire population, this would constitute universal coverage.

The Advisory Council on the Implementation of National Pharmacare appears to take elements of both definitions as a baseline for its ongoing work. It has defined national pharmacare as “a system of health insurance coverage that provides people with access to necessary prescription drugs.”¹⁶ The council then makes it clear that there are different ways to achieve this goal, including models that focus on public

14 *Canada Health Act*.

15 Skinner, “Canadians Are Being Fooled Into Thinking We’ll Like Pharmacare.”

16 Government of Canada, *Towards Implementation of National Pharmacare*.

The conversation about pharmacare options has lacked clarity in differentiating the model of coverage versus the terms of that coverage.

plans, similar to the first definition of universality, and blended public-private models, which is more consistent with the second. This definition, however, goes beyond simply providing insurance, as it explicitly includes access to necessary medicines as being part of universality. Thus, it is not simply the availability of insurance; the terms and structure of the insurance plan(s) are equally important. Throughout this report, we assess different models for achieving this type of universal coverage—a plan that covers everyone but aims to provide access to necessary medicines.

Assessing Different Models for Pharmacare Reform

To date, the conversation about pharmacare options has also lacked clarity in differentiating the model of coverage versus the terms of that coverage. The model of coverage specifies the overall design of the insurance program, for example, whether public coverage covers everyone in the population or covers a specific subgroup of the population. In contrast, the terms of coverage outline the operation of the coverage plan, for example, what drugs are covered by the plan and how much patients pay out-of-pocket. These choices are, to some degree, independent of one another—one could devise a pharmacare scheme with low copayments for patients using different models of coverage. In debates on pharmacare to date, these issues often become intertwined and this distinction lost.

Therefore, in this report we assess several models of coverage and attempt to assess them independent of the terms of coverage. In a broad sense, discussion to date has focused on two major models for achieving coverage for all Canadians: comprehensive public coverage for everyone, or targeted public coverage that covers a specific population. These are further described and expanded to submodels below.

Model 1: Universal Public Coverage

In a model of universal public coverage, all Canadians would have some form of publicly funded insurance for prescription drugs. Within this

broad category, there are three major forms of coverage currently used, or proposed, within Canada and globally:

- **Option 1a: Comprehensive public coverage**—A public plan that includes coverage for a broad formulary of medicines for all Canadians; the government would pay all drug costs or there would be a limited copayment where the patient would pay a certain percentage and then the government would pay the remainder.
- **Option 1b: Public coverage of essential medicines**—A public plan that covers a more limited formulary of medicines for all Canadians with little or no patient cost sharing.
- **Option 1c: Income-based deductible public coverage**—A public plan that includes coverage for a broad formulary, with the cost of drugs paid for by the patient or a private drug plan until a specific amount is reached. After this threshold is reached, the government pays all costs.

Model 2: Targeted Public Coverage

In a targeted public coverage model, publicly funded plans would target specific subgroups of Canadians that require additional support due to a lack of insurance, income status, or significant drug burden. By insuring or being available to everyone, these options would make drug coverage universal in nature when both public and private sources are considered as a whole. The two broad structures include the following:

- **Option 2a: Individual mandate**—A requirement that all Canadians must be insured either privately or publicly. The details of each plan might vary by provider, but would generally be subject to a minimum formulary and cost-sharing provisions.
- **Option 2b: Optional public coverage**—Publicly funded plans with premiums would be available for all Canadians, should they wish to become insured.

Criteria for Assessing Different Models

A range of assessment criteria was used to compare and contrast the previously mentioned pharmacare models. The criteria, described below, were informed by those outlined in the discussion paper issued by the

Advisory Council on the Implementation of National Pharmacare¹⁷ and by the foundational principles for pharmacare¹⁸ identified by a stakeholder roundtable assembled by the Conference Board. (See “Core Principles of National Pharmacare.”) In aggregate, the models can be compared against each other with respect to the following three major aims:

Aim 1: Improve access to medicines—Canadians should be able to fill medically necessary prescriptions without experiencing financial hardship. Access to medications should be based on medical need rather than an individual’s capacity to pay.

Aim 2: Improve value for money—A plan should provide value for the public investment required. This includes a consideration of the clinical outcomes (effectiveness) of individual pharmaceuticals, effective stewardship of resources, and considerations of fiscal sustainability over the long term.

Aim 3: Improve patient and provider experience—The model should be easy for patients to navigate, have a limited administrative burden for both patients and providers, and be simple to understand and clear about the coverage plan.

There is an inherent tension between the above aims. For example, some models may increase access to medications but reduce value for money, whereas other models might do the opposite. As a result, a discussion of how each model will offer advantages and disadvantages, as well as trade-offs between these overall aims, is needed.

Additional Analyses: The Short-Term Considerations

In addition to these broader aims, we also discuss short-term considerations for each of the models that might impact implementation. These short-term considerations include public acceptance or support, the feasibility of implementation, the impact on patients with existing private coverage, and other potential unintended consequences. Public and political support are important factors in the development,

¹⁷ Ibid.

¹⁸ Dinh, Horne, and Edwards, *Setting the Stage*.

Commonly cited concerns with changes to drug coverage include the speed with which decisions about coverage are made.

implementation, and longevity of policies. Feasibility of implementation, which can be likened to the degree of change management required, is another important factor in the potential for any particular model to be successfully implemented. This obviously depends on the degree to which each model would disrupt existing coverage programs. To gauge public support, we cite several surveys that have collected opinions on national pharmacare. While these surveys are an important source of evidence, we feel it is important to note that many have been commissioned by actors with vested interests in the outcome of these discussions or clearly stated advocacy positions. Thus, the outcomes of these surveys must be viewed through the filter of the commissioning stakeholder. Finally, we consider some potential unintended consequences of each model, including those that would impact patients, providers, payers, insurers, and drug manufacturers.

Other Considerations That Are Not Model-Dependent

We limit our discussion to the models and terms of coverage, and exclude the regulatory framework. This is because none of the models are explicitly tied to any particular regulatory structure that would affect the availability of newer therapies. One could design a system using any of the models we review here that is particularly generous in terms of what drugs are covered and what is paid for them. Research has backed this idea, with the shortest delay in launching new drugs shown in systems that vary substantially in the coverage model they use.¹⁹ By the same token, one could design a system that is the exact opposite. But, all in all, we have omitted issues where the outcomes are not model-dependent.

There are other considerations that are also not model-dependent. For example, commonly cited concerns with changes to drug coverage include the potential for newer therapies to become available in Canada, whether these newer therapies will be covered under insurance plans, and the speed with which decisions about coverage are made.

¹⁹ Danzon and Epstein, *Effects of Regulation on Drug Launch and Pricing*.

Comparison of Model Design Elements and Anticipated Outcomes

For each model, we have produced a summary graphic, similar to Exhibit 1, with some of the key traits that differ between them in terms of major outcomes. In each graphic, arrows and lines denote where each model lies on the spectrum of choices that decision-makers face in this area. Arrows indicate a more certain outcome: for example, everyone is covered under mandatory public insurance plans. In contrast, lines represent features of each model that are flexible based on the specific terms of coverage: for example, the extent of copayments used in a particular insurance arrangement.

Exhibit 1

An Outline of Comparison Traits Applied to Each Model



Source: The Conference Board of Canada.

Core Principles of National Pharmacare

CASHC's National Pharmacare Initiative (NPI) convened a Leaders' Roundtable on June 12, 2018, in Ottawa. This event included facilitated working sessions to discuss and identify areas of convergence around foundational principles and key design elements of any national pharmacare program. The following is a summary of the core principles:

The Conference Board of Canada

Do no harm: Every Canadian should have coverage or access to needed medications that is at least as good after any pharmacare reform.

Improve patient outcomes: Outcomes should be measured and tracked; these include costs, real-world evidence of outcomes, and experiences that are meaningful to patients and other key stakeholders.

Effective stewardship of resources and fiscal sustainability: Pharmacare should ensure value for money and responsible medications use.

Timely access to necessary medications and related services: Access should be universal and equitable (same for everyone) and portable (from one jurisdiction to the next).

No one left behind: Every Canadian should have access to prescription medications based on need, not ability to pay.

Patient-centricity and involvement in decision-making: Decisions should be based on patient values.

Simplicity and transparency for patients and health care providers: Access to medications needs to be simple; programs need to be easy to understand and navigate by users.

Allow Canadians to feel and be truly insured: Coverage should include a range of issues, such as chronic, acute, and rare diseases, and establish a shared/pooled risk based on insurance principles.

Build or improve upon what exists: A new pharmacare program should effectively leverage the current infrastructure of public programs and private plans.

Ensure appropriate and consistent coverage: All Canadians should have uniform access to necessary medications.

Model 1: Universal Public Coverage

The idea of universal public drug coverage has a long history in Canada, including several major reports, inclusion in several party platforms, and the generation of extensive research evidence. By nature, a universal public plan includes models where all Canadians are covered by a public

One major deciding factor for comprehensive plans is the degree of cost sharing that is required of plan members.

plan. Thus, the key difference between the different models we discuss below hinges on two major considerations: how many drugs are covered and how costs are shared.

Model 1a: Comprehensive Public Coverage

Perhaps the most prolific literature and debate on the topic of universal drug coverage in Canada has revolved around arguments for and against comprehensive public coverage. This form of coverage would include public coverage of a comprehensive formulary of medications for everyone. (See Exhibit 2 for the comparison traits.) Several other countries with similar medical and hospital coverage as Canada also run similar pharmacare programs, including New Zealand, Australia, and the United Kingdom.²⁰ The specific rules of these plans vary based on the formulary covered, copayments required, and other factors. Within Canada, comprehensive public coverage has been the subject of numerous studies and proposals, including work by both academics and, most recently, in a costing report released by the Parliamentary Budget Office.²¹

One major deciding factor for comprehensive plans is the degree of cost sharing that is required of plan members. These requirements differ between existing public plans in Canada. For instance, several comprehensive public plans in Canada require a copayment, with the Ontario Drug Benefit plan for seniors being the largest example. In this plan, all residents aged 65 and older receive on-formulary prescriptions for a fixed copayment of \$6.11 after a small annual deductible (or \$2.00 with no deductible if they are of lower income). The Alberta seniors' plan has a co-insurance of 30 per cent to a maximum of \$25 per prescription. Notably, most estimates of the impact of universal comprehensive coverage have assumed a continued role for some patient charges.

20 Barnieh and others, "A Systematic Review of Cost-Sharing Strategies."

21 Gagnon and Hébert, *The Economic Case for Universal Pharmacare*; Morgan, Daw, and Law. *Rethinking Pharmacare in Canada*; Parliamentary Budget Officer, *Federal Cost of a National Pharmacare Program*; Standing Committee on Health, *Pharmacare Now*.

Exhibit 2

Model Traits of Comprehensive Public Coverage



Source: The Conference Board of Canada.

In contrast, complete first-dollar coverage (i.e., coverage without any direct patient payment) is uncommon both within Canada and globally. For example, some current provincial plans for social assistance recipients provide first-dollar coverage for formulary drugs with no cost-sharing requirements (other provinces have copayments of \$2 to \$5 per prescription). The recently introduced OHIP+ plan in Ontario, for those aged 24 and under, also provides coverage for many medicines without requiring a patient copayment. However, with a significant budget requirement, limited precedent, and limited support for complete first-dollar coverage, a model that includes cost sharing appears more likely. Continued patient cost sharing may lead to more of the affordability issues currently reported by many Canadians. (See “Cost Sharing or No Cost Sharing?”)

Cost Sharing or No Cost Sharing?

Cost sharing between the payer and the patient is present in nearly every drug insurance plan globally. The most common tools are co-insurance and deductibles. Often, a maximum out-of-pocket limit (an amount above which the patient no longer shares costs) is applied. A recent review identified only seven studies that evaluated the association between the type of cost sharing and

outcomes of any kind.²² Broadly, this literature found that small cost-sharing amounts do not affect drug utilization in the general population. However, for those with lower income, even small barriers (as low as \$2) decrease the utilization of drugs. The most recent Canadian study reported that Canadians who spend more than 5 per cent of their household income on medications were three times more likely to report cost-related non-adherence.²³ Thus, careful consideration of cost-sharing amounts and for whom is required.

Model 1a Assessment

Aim 1: Improve Access to Medicines

Public coverage with copayments would likely benefit a portion of the Canadian population who currently experience cost-related non-adherence because they are uninsured or underinsured. This would, of course, be limited to drugs that would be available on the resulting formulary. Given the wide range of drug types and costs for which Canadians are currently forgoing recommended treatment, it is probable that this benefit would be significant.²⁴

It is unclear, however, what the medium- and longer-term impacts of comprehensive public coverage would be on individuals who currently have private insurance in Canada. If comprehensive coverage was introduced, it is likely that private benefits would decline. For example, in a recent survey, about 36 per cent of employers felt that with comprehensive universal coverage there would no longer be a need to provide employer coverage.²⁵ One circumstantial piece of evidence that suggests this would probably lead to a decline in coverage rates, perhaps on a significant scale, is the introduction of Australia's universal Medicare program. This resulted in a reduction of private insurance holdings from over 75 per cent of the population in the early 1970s to a

22 Choudhry and others, "Full Coverage for Preventive Medications"; Doshi and others, "Impact of a Prescription Copayment Increase"; Keeler and others, "How Free Care Reduced Hypertension"; Pilote and others, "The Effects of Cost-Sharing on Essential Drug Prescriptions"; Schneeweiss and others, "Adherence to β -Blocker Therapy"; Schneeweiss and others, "Adherence to Statin Therapy"; Zhang and others, "The Impact of Medicare Part D."

23 Hennessy and others, "Out-of-Pocket Spending on Drugs and Pharmaceutical Products."

24 Law and others, "The Consequences of Patient Charges for Prescription Drugs in Canada."

25 Aon Hewitt, *Pharmacare in Canada*.

There is some indication from existing research that a comprehensive program would positively impact health outcomes.

low of about 30 per cent in the late 1990s.²⁶ It recovered afterward, but only with the help of significant government subsidies and requirements that higher-income individuals purchase insurance. While this example is for hospital and physician coverage, it does demonstrate the decreased viability of private insurance as a complementary coverage. Along these same lines, it is notable that there is essentially a non-existent marketplace for insurance to cover hospital and physician services in Canada, despite several provinces not having explicit bans on such coverage.²⁷ Insurance markets suffer in the face of full public coverage for the same services, as people who are healthy will drop out of the risk pool, thus raising premiums—a phenomenon known as adverse selection.

As detailed above, if private coverage declined with the advent of a public plan, this may leave the 60 per cent of Canadians with private coverage worse off for access to some medicines. Given that most private plans currently have formularies that cover all Health Canada–approved medicines, this might be a significant factor for some patients.²⁸ Such a change is likely to be slow given that significant portions of current private drug coverage are embedded within long-term collective agreements and employment contracts. Further, given that public formularies are typically designed to include treatments with a favourable cost-benefit profile, this impact is likely to be tilted toward medications with high incremental cost-effectiveness ratios on average.

Finally, there is some indication from existing research that a comprehensive program would positively impact health outcomes. For example, having insurance coverage that pays a portion of drug costs is one of the most important variables related to the affordability of medications in Canada that can be impacted through policy changes.²⁹ Also, in both quasi-experimental and survey studies, financial barriers to accessing medicines have been shown to increase the use of hospital

26 Silvester, Jeyaratnam, and Jackson-Webb, “Private Health Insurance Premium Increases Explained In 14 Charts.”

27 Flood and Archibald, “The Illegality of Private Health Care in Canada.”

28 Kratzer and others, “Cost-Control Mechanisms in Canadian Private Drug Plans.”

29 Law and others, “The Consequences of Patient Charges for Prescription Drugs in Canada”; Law and others, “The Effect of Cost on Adherence to Prescription Medications in Canada.”

and physician services by Canadians.³⁰ Further research on the likely impact of more comprehensive drug coverage is hampered by a lack of data and sufficient study. Recently, a study published by the Canadian Federation of Nurses Unions suggested that “hundreds” of Canadians die prematurely every year due to a lack of drug coverage.³¹ This study, however, was hampered by a lack of available data and made significant extrapolations from cross-sectional and international data that increase the uncertainty of their estimates. To date, there have also not been comparisons with other health and social programs that might produce a similar, if not greater, impact on health for a similar investment of public dollars.

Aim 2: Improve Value for Money

There has been significant debate over the degree to which a comprehensive public program would affect overall prescription drug spending. Proponents of such a plan have indicated that cost savings would accrue through two main avenues: improving value-based drug utilization, and enabling governments to better negotiate the price of prescription drugs.

It is almost certainly the case that a comprehensive public plan would improve value for the funds invested. Public drug plans in Canada have been much more active at using cost-saving measures that limit overall expenditures. This includes much higher rates of generic drug utilization, the use of formularies, and in some provinces, the use of innovative tools to reduce drug spending, such as reference-based pricing.³² While the exact extent of these savings is unclear, estimates of “waste” from not using such measures in private insurance plans have been in the billions of dollars in recent years.³³ Thus, moving to a comprehensive public drug program would undoubtedly save money from a societal perspective.

30 Tamblin and others, “Adverse Events Associated With Prescription Drug Cost-Sharing”; Dormuth and others, “Effects of Prescription Coinsurance and Income-Based Deductibles.”

31 Lopert, Docteur, and Morgan. *Body Count: The Human Cost of Financial Barriers to Prescription Medications*.

32 Schneeweiss and others, “Outcomes of Reference Pricing for Angiotensin-Converting–Enzyme Inhibitors.”

33 Express Scripts Canada, “Poor Patient Decisions Waste up to \$5.1 Billion Annually.”

A comprehensive public program would represent a major shift in spending from the private sector to the public sector.

A comprehensive public plan would result in a larger consolidated market share by moving drug volumes from private plans, which have been slow to engage in negotiated discounts,³⁴ to public plans that negotiate on price. This would reduce overall expenditures, although it remains unclear whether pharmaceutical companies would continue to offer the same level of discount were they unable to charge private plans full list prices. However, in terms of public plans negotiating better discounts, the advantages of a comprehensive public plan program have likely been overstated. Over the past several years, every provincial, territorial, and federal plan has collaborated on price negotiations through the pan-Canadian Pharmaceutical Alliance (pCPA). The collective budget for these programs is more than \$14 billion every year—on par or larger than other international drug programs held up as examples of strong negotiations, such as the U.S. Department of Veterans Affairs or New Zealand’s public drug program. It is also unlikely that a comprehensive public plan would be able to significantly reduce generic drug prices in the short term given that the provinces already negotiate prices for the entire market through the pCPA and have just reached a five-year agreement that sets prices and prohibits tendering for the duration.³⁵

In net public terms, a comprehensive public program would almost certainly represent a major shift in spending from the private sector to the public sector. While some of this would represent new spending on prescriptions that would not otherwise have been obtained, a significant amount would be a transfer from private to public hands. The Parliamentary Budget Office, for example, calculated that a comprehensive program would represent a net increase in cost of \$19.3 billion to the federal government, but \$12.6 billion of this would replace costs currently incurred privately. Experience with the OHIP+ program in Ontario—a comprehensive coverage program for children—supports this projection. The claim that the overlap between private coverage and new public coverage would result in a simple transfer

34 Mani, O’Quinn, and Bonnett, *Private Payer Product Listing Agreements in Canada*.

35 Zafar, “Generic Drug Industry Agrees to Cut Prices up to 40%.”

was borne out, and private insurers saw a 50 per cent drop in claims for individuals covered by the plan.³⁶

Aim 3: Improve Patient and Provider Experience

A key advantage of a comprehensive public plan would be consistent coverage across the population, eliminating the current plethora of drug plans. This would increase providers' knowledge about what drugs are covered, and under what rules. It would also eliminate issues faced by individuals when transitioning between different jobs, jurisdictions, or into retirement, when drug coverage can change significantly. Issues may arise when drugs are not covered by the formulary for the plan, particularly if private insurance coverage dwindles after the advent of a comprehensive universal public plan.

Short-Term Considerations

Comprehensive public coverage does display seemingly high levels of public support in most survey work on the topic. For example, a 2015 survey by Angus Reid found that 87 per cent indicated support for adding medicines to Medicare.³⁷ This support, however, is not unequivocal: more respondents in this group were moderately supportive rather than strongly supportive (48 per cent versus 39 per cent). Similarly, other surveys with different question wording have shown some hesitation to a comprehensive system. An Abacus Data survey conducted in the same year found that 31 per cent of respondents favoured a comprehensive system that replaced current coverage, compared with 46 per cent who favoured a system that focused on covering individuals currently without coverage.³⁸ Similarly, the 2018 Health Care in Canada survey found that nearly identical proportions of the public favoured a single public plan (29 per cent) and an approach that would cover those who were currently un- or underinsured.³⁹

36 Busby and Blomqvist, "Covering Drugs for Young People Isn't the Best Way to Fill Gaps in Health Care"; Welds, "Youth Drug Claims Cut in Half."

37 Angus Reid Institute, *Prescription Drug Access and Affordability*.

38 Abacus Data, *National Pharmacare in Canada*.

39 Pollara Strategic Insights, *Results of the 2018 Health Care in Canada Survey*.

Comprehensive public coverage would likely be subject to significant opposition from major stakeholders.

Across the board, a major issue with all of the above is the lack of clarity given to respondents and a lack of understanding about what they are actually deciding between. For most households, we suspect that the terms of coverage (out-of-pocket payments, formulary restrictions, etc.) matter more for their preference than the specific model of coverage. Further, the fiscal implications of such decisions are often not included in surveys, such as the respondents' willingness to increase taxes to potentially cover the cost of coverage. More broadly, comprehensive public coverage would likely be subject to significant opposition from major stakeholders, including private insurers, and the brand-name pharmaceutical industry.

In terms of the transition to a comprehensive public plan, it is important to recognize that private financing has become institutionalized in Canada.⁴⁰ Thus, particularly for those with existing private coverage, a move to a comprehensive public program would create uncertainty about the future of their benefits. As discussed above, it is unclear how many employers would be able to change their benefits should the government introduce such a plan. Similar changes have been controversial due to reductions in coverage. For example, when the BC Nurses' Union changed its plan to mirror the public formulary in 2015, the resulting controversy from members led it to be retracted to a more traditional private formulary only a year later.⁴¹ The coordination of formularies would also be quite difficult, but this concern may be mitigated by the vast overlap in existing formularies in terms of what drugs people are actually using.⁴² Similarly, existing eligibility and cost-sharing models across different provinces would have to be considered, as some groups might end up worse off if they have to pay a fixed amount (such as lower-income groups in B.C.). Finally, and importantly, a comprehensive public plan would likely require additional government revenues, which could prove controversial depending on the model employed.⁴³

40 Boothe, "How the Pace of Change Affects the Scope of Reform."

41 BC Nurses' Union, "Increased Benefit Coverage."

42 Patented Medicine Prices Review Board, *Alignment Among Public Formularies in Canada*.

43 McBride and Bartlett, *National Pharmacare in Canada*.

Model 1b: Public Coverage of Essential Medicines

A more recent addition to the options for public coverage is the concept of universal coverage for so-called essential medicines.⁴⁴ This has focused on the CLEAN Meds list, which is a list of 125 medications based on the World Health Organization’s essential medicines list and the input of two primary care clinics in the Toronto area.⁴⁵ These medicines would be covered by a public plan, while medicines not on this list would be paid for either through existing public and private insurance plans or directly from patients. (See Exhibit 3 for the comparison traits.) A recent analysis found that the specific drugs on the CLEAN Meds list are mostly covered by existing provincial plans.⁴⁶ It is likely that nearly every drug or a close therapeutic alternative is available under existing coverage plans. In 2015, these medicines constituted 44 per cent of all prescriptions dispensed in Canada.⁴⁷ However, this model could be formulated using a more extensive list of medicines.

Exhibit 3

Model Traits of Public Coverage of Essential Medicines



Source: The Conference Board of Canada.

44 Taglione and others, “Development of a Preliminary Essential Medicines List for Canada.”

45 Ibid.

46 McBride and Bartlett, *National Pharmacare in Canada*.

47 Morgan and others, “Estimated Effects of Adding Universal Public Coverage.”

Coverage for essential medicines would likely increase access to medicines in Canada, but it is difficult to estimate the degree to which it would do so.

While a public essential medicines coverage plan does not currently exist in Canada, it has recently been proposed in two provincial elections—by both the B.C. Green Party and the Ontario New Democratic Party.⁴⁸ In the latter case, an essential medicines coverage program was envisioned as a step toward a more comprehensive program. Essential medicines coverage also formed part of the governing agreement between the B.C. New Democratic Party and Green Party, but after taking power has not been implemented (see Model 1b below for more details on the changes that were implemented).

Model 1b Assessment

Aim 1: Improve Access to Medicines

Overall, while complete coverage for essential medicines would likely increase access to medicines in Canada, it is difficult to estimate the degree to which it would do so. A recent survey demonstrates that drugs forgone due to cost are prescribed for a number of conditions that could be treated in primary care settings.⁴⁹ Further, while the current CLEAN Meds list covers about 44 per cent of prescriptions in Canada, the rate of potentially interchangeable medicines is higher.⁵⁰ Given the structure of the list, drugs prescribed in primary care settings would see the best improvements in affordability. Of course, the impact of such a program would critically depend on the copayments charged for the plan, as reflected in the broad bar in Exhibit 2.

The equity considerations of a limited formulary are also worth considering. With only 125 medicines, there will be many conditions for which there is not a suitable treatment on the list of covered medicines. This would be the case for health conditions not manageable with primary care, but instead requiring specialized care. If the “essential” drugs are preferentially covered over others, it raises significant concerns that people of the same need for medicine might receive different subsidies based simply on whether their condition has a treatment that is deemed essential. While this would, of course, be an issue for any drug

48 BC Green Party, “Healthy Lives Strategy”; Ontario New Democratic Party, *Pharmacare for Everyone*.

49 Law and others, “The Consequences of Patient Charges for Prescription Drugs in Canada.”

50 Morgan and others, “Estimated Effects of Adding Universal Public Coverage.”

plan with a formulary, it would be more pronounced under an essential drugs program with only 125 medications.

Aim 2: Improve Value for Money

Theoretically, having an essential medicines program would help improve value for money in several ways. First, it is likely that prescribers would become familiar with the list and direct patients toward the favoured medications within a particular class when they are available. This would, of course, move patients to drugs on the list, which have been chosen based on value. Second, it would give governments the ability to procure generic drugs more effectively within those classes, particularly given higher volumes.⁵¹ This, however, would be hampered in the medium term by the five-year generic pricing agreement.

There are three analyses that have studied the impact of moving to an essential medicines program on both overall and public drug expenditures. The first model suggested that implementing a national program including 117 of the CLEAN Meds drugs would result in an incremental public expenditure of \$1.23 billion, but result in overall system savings of \$4.27 billion in the base-case scenario.⁵² These estimated savings accrued largely from two sources: savings on generic drug prices and lower brand prices. In terms of achieving lower prices for brand-name drugs through negotiated discounts, the analysis used a weighted average of discounts obtained by the U.S. Department of Veterans' Affairs, which, given the larger population size of people covered, would likely be reasonable for Canada. However, it is unclear whether the discounts given in the U.S. might be higher as a result of their higher list prices for brand-name medicines.⁵³ On the generic drug component, the authors estimated generic savings by assuming generic drug prices could be lowered to the median of the lower prices found in the U.S. Department of Veterans' Affairs, and the public coverage systems in New Zealand and Sweden. While these prices were found to be much lower, it is unclear how practical achieving these lower prices is given the five-year agreement with generic drug manufacturers noted

51 Law and Kratzer, "The Road to Competitive Generic Drug Prices in Canada."

52 Morgan and others, "Estimated Effects of Adding Universal Public Coverage."

53 Patented Medicine Prices Review Board, *Alignment Among Public Formularies in Canada*.

An essential medicines plan would likely not change overall or public sector administrative costs.

above that limits the potential for tendering agreements that would achieve such price levels.⁵⁴ This is important, as many of the cost-saving opportunities (including all of the drugs in the top two therapeutic classes by savings) are from generic drugs. Thus, the potential savings in this study are likely not feasible to the extent the five-year agreement restricts tendering to achieve lower generic drug prices.

The second and third analyses estimating the impact of adopting an essential medicines list were budget impact assessments performed by the B.C. and Alberta ministries of health. The B.C. analysis used 2016 claims in the province to estimate the net budget impact of moving existing expenditures on CLEAN Meds drugs to full coverage by the province (as opposed to their current coverage, including deductibles for most individuals). This analysis estimated an increase in annual provincial expenditures of between \$519 million and \$616 million per year, depending on the copayments that patients would have to pay (\$5 and \$0, respectively).⁵⁵ Notably, this would represent between a 44 or 53 per cent increase in the total budget for the public drug program. A similar analysis was completed in Alberta, projecting approximately the same budgetary impact.⁵⁶ Neither analysis accounted for any behavioural responses that would likely occur due to the change in coverage, such as increased utilization by patients, so these likely underestimate the true budget impact. Overall, this suggests that the budget impact estimated in the first analysis is highly dependent on price reductions for medicines, which now may not be possible due to limitations on generic tendering.

Finally, an essential medicines plan would likely not change overall or public sector administrative costs, as private plans would likely continue to provide additional coverage and public sector plans for other populations would likely remain in effect.

Aim 3: Improve Patient and Provider Experience

In some ways, a universal essential medicines program would be understandable to patients. It would also be portable across provinces and territories if the federal government devised a standard formulary to

54 Zafar, "Generic Drug Industry Agrees to Cut Prices up to 40%."

55 BC Ministry of Health, *High Level Budget Impact Analysis (BIA) for Essential Drug Program*.

56 Manns and Clement, *Assessing the Impact of Potential Changes*.

The degree of public support for an essential medicines program is less positive than a more comprehensive public program.

be put into place across Canada. To this end, there is a reasonably high alignment between existing formularies and the drugs on the CLEAN Meds list.⁵⁷ It would not, however, be immediately clear to patients what drugs were on the list and why. This would be a particular issue for patients currently established on another therapy or those who have a condition without a treatment who might wonder why their needs are not deemed “essential.” Such a plan would likely do little to allay the confusion over the many available drug plans, as it would not be a complete replacement for existing private and public coverage for many people with a need for prescription drugs.

Short-Term Considerations

Based on available data, the degree of public support for an essential medicines program is less positive than a more comprehensive public program. For example, when asked about a “basic pharmacare program that only covers the cost of the most common and essential drugs,” 36 per cent of respondents to an Angus Reid survey thought this would improve the current system, 28 per cent thought it would make it worse, and 36 per cent chose neither.⁵⁸ Depending on the scope and composition of the list, it might be subject to opposition from the pharmaceutical industry (particularly brand manufacturers) and insurance companies, which would stand to lose claims volume as a result. The response from patient groups would also largely depend on whether their medicines were included on the list, and they would likely exert substantial pressure on the government to include particular medications on the essential list.

In contrast to a more comprehensive public plan, the transition to an essential medicines program would likely be less disruptive to the current market structure. Given the much broader list of medicines on most existing public and private drug plans, it is likely that these coverage vehicles would remain, albeit with a lower cost given the transfer of spending to the essential drugs program. The coordination of formularies would remain a challenge, but analyses have shown fairly large overlap

57 Patented Medicine Prices Review Board, *Alignment Among Public Formularies in Canada*.

58 Angus Reid Institute, *Prescription Drug Access and Affordability*.

The Conference Board of Canada

between the CLEAN Meds list and existing formularies.⁵⁹ Beyond these considerations, an essential medicines program would add another “patch” to the current patchwork of coverage in Canada, but perhaps one that could be expanded to a more comprehensive program over time.

Model 1c: Public Coverage With Income-Based Deductibles

The second form of limitation on comprehensive public coverage comes in the form of limiting what expenditures are covered, as is done with income-based public coverage. These plans cover drug expenditures for plan registrants once they surpass a percentage of their income in private expenditure. For example, in B.C.’s Fair PharmaCare Plan, most individuals in the standard coverage plan receive full coverage for medicines on the provincial formulary once they surpass a maximum private expenditure of 4 per cent of household income. Several other jurisdictions in Canada use such plans in public coverage regimes, including Manitoba, Nova Scotia’s Family Pharmacare Program, and the Ontario Trillium Drug Program.⁶⁰ Income-based coverage, or coverage with high deductibles, has also been the subject of varying recommendations from past commissions and think tanks, including the Romanow Commission,⁶¹ Kirby Report,⁶² and C.D. Howe Institute.⁶³ It has also been subject to a significant amount of debate, with contrasting reports on the role income-based plans should play.⁶⁴ (See Exhibit 4 for the comparison traits.)

59 Patented Medicine Prices Review Board, *Alignment Among Public Formularies in Canada*.

60 Campbell and others, “Comparison of Canadian Public Medication Insurance Plans.”

61 Romanow, *Building on Values*.

62 Standing Senate Committee on Social Affairs, Science and Technology, *The Health of Canadians*.

63 Busby and Pedde, *Should Public Drug Plans Be Based on Age or Income?*

64 Ibid.; Morgan, Daw, and Law, *Are Income-Based Public Drug Benefit Programs Fit for an Aging Population?*

Exhibit 4

Model Traits of Income-Based Public Coverage



Source: The Conference Board of Canada.

Model 1c Assessment

Aim 1: Improve Access to Medicines

Given changes in the design of provincial drug plans to include income-based components, we have a reasonable amount of literature on the implications of these plans for drug access by patients. Overall, this literature suggests that the use of deductibles in a public drug plan can impact access to medicines, but this does not appear to be the case across all population groups. An analysis undertaken in British Columbia after the implementation of Fair PharmaCare suggested that population-level prescription drug use remained unchanged, and the program reduced overall public drug expenditures.⁶⁵ Similarly, a more recent B.C. study found that imposing deductibles on older adults with low household incomes (\$15,000 to \$30,000 per year) did not impact overall drug use or utilization of other health care services.⁶⁶

In contrast, other studies of specific population groups and drug classes have found that imposing deductibles on some patients decreased drug use. For example, a study of younger children in Manitoba and a separate study of older adults in B.C. both found reductions in the

65 Morgan and others, "Income-Based Drug Coverage in British Columbia."

66 Law and others, "Impact of Income-Based Deductibles on Drug Use."

use of inhaled medications for diseases such as asthma and chronic obstructive pulmonary disorder (COPD) following the imposition of income-based deductibles.⁶⁷ A more recent study in B.C. found that lower-income women who qualified for more generous Fair PharmaCare benefits through their spouse were more likely to receive cardiovascular medicines.⁶⁸ Finally, another study in B.C. leveraged the fact that deductibles are only imposed on households with a total income of more than \$15,000 and found that the income-based deductibles reduced drug spending by 7.2 per cent for households with incomes at this level.⁶⁹ Finally, some studies have pointed out that provinces with income-based coverage have higher rates of cost-related non-adherence than other provinces.⁷⁰ However, it is impossible to disaggregate the impact of drug plan design on drug use from other powerful forces, such as the differential cost of living between different provinces. Further, the extent to which this model would avert cost-related issues would be intimately tied to the terms of coverage, particularly exemptions to the deductibles at low income levels.

Taken as a whole, there are two primary messages arising from this literature. First, the design of any drug plan using income-based deductibles is critical to ensuring that access to medicines is not an issue for members. In particular, exemptions to deductibles for lower-income groups will be important to ensure access to medicines. This approach was taken up into policy earlier this year by the province of British Columbia, where the income threshold at which deductibles start being charged will be raised starting in 2019.⁷¹ Second, the fact that B.C. changed to an income-based program and maintained overall population-level access to medicines while reducing public expenditure leaves open the possibility that a revenue-neutral plan could increase subsidies and increase access in more vulnerable segments of the population.

67 Dormuth and others, "Emergency Hospital Admissions"; Kozyrskyj and others, "Income-Based Drug Benefit Policy."

68 Morgan and others, "The Effects of Catastrophic Drug Plan Deductibles."

69 Law and others, "Impact of a Household-Level Deductible."

70 Law and others, "The Consequences of Patient Charges for Prescription Drugs in Canada"; Law and others, "The Effect of Cost on Adherence to Prescription Medications in Canada."

71 BC Ministry of Health, "\$105-Million Investment to Make Prescription Medications More Affordable for Families."

Aim 2: Improve Value for Money

There is little reason to believe that an income-based approach to drug coverage in provinces that do not use one would result in dramatically different cost control relative to current public plans. For example, while B.C.'s Fair PharmaCare program did limit government spending as was intended, overall drug use and expenditures in the province did not appreciably change. The administration of these programs from a public standpoint would also remain largely unchanged, as it would still be necessary to administer both public and private plans. Income-based coverage might, however, benefit existing private insurance plans. As income-based plans to date have been universal in nature, they do provide a reinsurance function when private insurers are the first payer. For example, in B.C., the provincial plan will pay all costs for on-formulary drugs after households exceed their maximum, meaning private plans gain some stop-loss coverage. This has led to Western Canada having lower per-beneficiary private drug plan costs than the remainder of the country.⁷²

Aim 3: Improve Patient and Provider Experience

While these plans do provide a ceiling for drug expenditure across the entire population, confusion about who is covered for what amount still remains. Most people do not actually receive government support in provinces with income-based plans (i.e., they do not spend over their deductible). For example, the B.C. Fair PharmaCare program only provided benefits to 15.2 per cent of the eligible population in the 2016–17 fiscal year.⁷³ While this will likely increase with the deductible changes announced in 2018, other plan designs would likely provide direct benefits to more individuals. Patients would also still be uncertain of what is covered by the private plan versus the public formulary, as income-based plans would do little to reduce the complexity in the number of plans in Canada.

Short-Term Considerations

As with plans for essential medicines, there is a limited amount of evidence on public sentiment about income-based deductible coverage

⁷² Telus Health, *2018 TELUS Health Drug Data Trends & National Benchmarks Report*.

⁷³ BC Ministry of Health, *Pharmacare Trends 2015/16*.

The transition to an income-based plan would be straightforward for some provinces, while being more complex in others.

plans. There has been publicly expressed support for the idea of income-based coverage from many circles, however, including the Canadian Medical Association⁷⁴ and the Pharmacare 2.0 initiative of the Canadian Pharmacists Association.⁷⁵ Such a plan would also face more limited opposition from the insurance and medicines industries as it would not disrupt their businesses to the same degree as a comprehensive public plan. To this end, it is worth noting that provinces where income-based coverage currently exists retain a significant role for private insurance plans to cover below-deductible out-of-pocket payments and non-formulary drugs.

The transition to an income-based plan would be straightforward for some provinces, while being more complex in others. For provinces with existing income-based arrangements, federal support could be used to improve the terms of coverage (such as including more medicines or higher deductible-exempt thresholds). In other provinces, a new income-based structure could provide a reinsurance backstop for both existing public and private plans for on-formulary medicines. This would provide some assistance to provinces that are currently struggling with the cost of expensive newer medications.

Model 2: Targeted Public Coverage

In contrast to the universal public options, a targeted public coverage approach would see publicly funded options tailored to specific subgroups of Canadians. In essence, this is currently the model operating in Canada, as all provinces have specific programs covering those with low income and programs to support individuals with high drug burdens. This is universal in most provinces, but in others it leaves gaps or a requirement to enroll in the plan. Presumably, changes to a more national model of pharmacare would aim to consolidate and standardize these programs, improve access to medicines, and improve overall value for money in the system.

74 Canadian Medical Association, "National Pharmacare in Canada."

75 Canadian Pharmacists Association, *A Prescription for a Healthier Canada*.

Changes to a more national model of pharmacare would aim to improve access to medicines and improve overall value for money in the system.

Below, we review two models of targeted public coverage: an individual mandate and optional public coverage. The major distinction between the two subtypes of targeted public coverage models is whether or not it is mandatory. With an individual mandate, every Canadian would be required to hold prescription drug insurance, whereas in an optional insurance model every individual would have the option to enroll in the public program.

Model 2a: Individual Mandate

An individual mandate is a requirement that each individual holds insurance, either public or private, that meets certain standards. (See Exhibit 5 for the comparison traits.) This type of approach is used in several European countries that have universal coverage (e.g., Germany, France, Switzerland), the United States under the *Affordable Care Act*, and currently in Quebec. Different approaches to individual mandates might specify what kinds of employers are required to offer employment-based insurance (e.g., a company with more than 50 employees), outline minimum standards for what drugs should be covered, and stipulate the minimum terms, such as copayment levels.

Exhibit 5

Model Traits of an Individual Mandate



Source: The Conference Board of Canada.

For example, Quebec requires that an individual must obtain private insurance if it is offered by their employer, and employers must offer insurance if they offer any other health benefits. The *Health Insurance Act* sets out an annual maximum contribution, or ceiling, for patients. The maximum set by a private plan must be equal to or less than the amount outlined in this legislation. Also, private insurance plans must cover at minimum all the drugs included on the public formulary. For those who are ineligible or unable to obtain private insurance, a publicly funded plan with income-based premiums is available.

Model 2a Assessment

Aim 1: Improve Access to Medicines

Compared with present drug coverage programs in Canada, it is likely that an individual mandate would improve access to medicines to some degree in provinces outside of Quebec. Such a plan would likely also decrease financial hardship for Canadians who do not have a private drug plan or are underinsured in their public plan. This impact would most likely be felt by populations currently subject to high deductibles in their respective provincial drug program, such as those in B.C. and Saskatchewan and working-age individuals in Ontario. To this end, there is evidence that cost-related non-adherence is the lowest in Quebec, where an individual mandate is in place (this is, of course, subject to the same caveats as above regarding cross-provincial variations).⁷⁶ Further, as noted in Model 1a, holding insurance that pays a portion of drug costs is an important factor associated with affordability, better health outcomes, and lower use of health services. Quebec has been criticized for maintaining significant copayment and premium requirements that fall more heavily on lower-income users.⁷⁷ These impacts, however, are more related to the specific terms of coverage imposed by the province, as opposed to something inherent to the individual mandate model itself.

It is important to note, however, that the impact of an individual mandate would likely not improve access or affordability for those who are currently underinsured. Rates of cost-related non-adherence in Quebec

⁷⁶ Law and others, "The Consequences of Patient Charges for Prescription Drugs in Canada."

⁷⁷ Parliamentary Budget Officer, *Federal Cost of a National Pharmacare Program*.

remain at 3.7 per cent of the population, and rates among the privately insured population are 3.4 per cent. On the whole, this represents hundreds of thousands of Canadians who may be underinsured with a private insurance plan. This is likely the consequence of significant coinsurance required by many of these plans: Most require patients to pay 20 per cent of the cost of the drug out-of-pocket.⁷⁸ Thus, while this model would drive the number of uninsured toward zero, the impact on the affordability of medicines will critically depend on the terms of coverage imposed by the mandate itself. Further, depending on how an approach like this is implemented, Canadians may still experience significant differences in coverage, as presumably some private and employment-based insurance would choose to be more generous than the required minimum.

Aim 2: Improve Value for Money

Overall, the impact of an individual mandate on value for money from a system-level perspective would likely be limited. A system of national pharmacare based on an individual mandate would retain much of the inefficiency of existing insurance plans and not benefit from any ability to improve pricing practices. Further, retaining multiple insurers in a mixed system would lead to ongoing duplication in administration costs between multiple public and private plans. From a pricing perspective, at least in the short term, it is likely that costs would be higher in the private sector than might be achieved under a comprehensive public plan as private insurers are still in the early stages of negotiating price discounts.⁷⁹ It is unclear how effective they will be at this practice in the medium to longer terms, but there is reason to think they will be less effective simply due to the small size of many plans. Overall, there is little reason to think that an individual mandate would improve value for money at a system level, and it could be more expensive than other models due to administrative duplication.

From the perspective of the public budget, however, an individual mandate with public and private options would certainly cost less publicly than a comprehensive public plan that had similar terms of coverage.

78 Kratzer and others, "Cost-Control Mechanisms in Canadian Private Drug Plans."

79 Mani, O'Quinn, and Bonnett, *Private Payer Product Listing Agreements in Canada*.

An individual mandate with public and private options would cost less publicly than a comprehensive public plan with similar terms of coverage.

While the Quebec model has been subject to significant criticism for higher average costs and expenditure growth than other provinces, it is difficult to assess whether these differences are inherent to the individual mandate model itself or due to choices that the Quebec government has made about product listing, prescription length, price negotiations, and patent protection.⁸⁰ These choices, of course, are not inherent to the model itself, and the cost of any particular program using an individual mandate will be closely tied to the terms of coverage.

Aim 3: Improve Patient and Provider Experience

This approach would be more complex than most other models. Within this approach, there would be multiple plans available for private purchase, and coverage would differ between individuals and groups. However, given providers would all have to maintain standard formulary coverage, they would know more about the coverage of any individual if they were familiar with these medicines. The suite of options would presumably respond to market pressures; thus, if patients and their employers demanded simplicity and transparency, the market would respond by enhancing these attributes. This model would also retain significant latitude for employers and individuals to choose plan coverage options that are tailored to their covered population.

Short-Term Considerations

There is some evidence of popular support for this option as a model for national pharmacare. For example, the above-cited Abacus Data survey respondents would prefer a model that covers those currently without coverage (46 per cent) versus replacing current coverage with a comprehensive public system (31 per cent).⁸¹ It is likely that there would be opposition from members of the public who would be required to purchase either public or private insurance they may not feel they need, or to pay premiums for the public plan if they are required. For those who are currently rational non-consumers (i.e., they have not purchased insurance because their drug burden is less than their premiums), being forced into the market is unlikely to be popular. For example, in Quebec there has been concern about the requirement to pay into the public plan

⁸⁰ Bonnett, "National Pharmacare."

⁸¹ Abacus Data, *National Pharmacare in Canada*.

In an optional public coverage model, Canadians would have the option to purchase public coverage in addition to any private insurance options available to them.

for those not covered by private insurance.⁸² However, their participation in the market will lead to a balanced risk pool that may lead to lower premiums for others. Given the strong role for private insurance, this option is likely to have support from major stakeholders such as the private insurance and pharmaceutical industries.

Imposing an individual mandate across Canada could also lead to less disruption to current coverage than other options for reform. As the majority of Canadians hold private insurance, most would continue with their present plan. The largest changes would come for populations that are currently uninsured, who would be required to purchase coverage (this could be from either a public or private provider, depending on how the model is formulated). It is unlikely, however, that an individual mandate model would result in worse coverage for most Canadians compared with what they have at present.

Model 2b: Optional Public Coverage

In an optional public coverage model, Canadians would have the option to purchase public coverage in addition to any private insurance options they might have available to them. Current examples of this type of approach are in operation in Alberta for those under 65 years of age, and in Nova Scotia for those over 65. Both of these plans require the payment of a premium but have open enrolment for all residents of the province. Every Canadian would then have the option of insuring either with a private insurance plan or the public option. (See Exhibit 6 for the comparison traits.)

Model 2b Assessment

Aim 1: Improve Access to Medicines

This model might lead to marginal improvements in access to medicines for some segments of the population. There may be a small population in provinces that currently have high-deductible coverage that would benefit from the lower cost of paying public sector premiums. But this, of course, would critically depend on the terms of the existing and new coverage regimes. Were an optional public coverage plan structured to focus on

82 Gagnon, "Quebec Should Not Be the Model for National Pharmacare."

Exhibit 6

Model Traits of Optional Public Coverage



Source: The Conference Board of Canada.

ensuring that financial burden was responsive to capacity to pay, then it could represent an improvement for certain segments of the population. It would not, however, help the 3 to 4 per cent of Canadians with private insurance plans who cannot afford their prescription drugs.⁸³

Aim 2: Improve Value for Money

An optional public plan approach is unlikely to improve value for money in relation to current practice. In particular, if premiums are maintained or introduced, an optional approach will not force individuals with a low drug burden into the insurance pool, and thus the pool of insured individuals will be sicker than the general Canadian population. This may increase premiums and will likely result in the sickest people being the ones insured on public plans. It is also unlikely that adding patients to the public insurance rolls would substantially alter bargaining power with pharmaceutical companies. For example, coverage of this type in Alberta was about 74,000 individuals in 2017, or less than 2 per cent of the provincial population.⁸⁴

83 Law and others, "The Consequences of Patient Charges for Prescription Drugs in Canada."

84 Alberta Health, *Alberta Health Care Insurance Plan*.

Decisions about reforming this sector will depend on the interest of the public, the willingness of the political actors, and the budget they are willing to commit to.

Aim 3: Improve Patient and Provider Experience

This model is unlikely to affect the simplicity and transparency of the plans, as it would only add one more option to the existing mix of plans. Patient and provider experiences are likely to remain unchanged.

Short-Term Considerations

The transition to this model would likely be simple, as it is the least disruptive to the current system. However, depending on the changes that may be required, implementing this model may be more difficult in some provinces than others. For example, it is unclear how this model would function in provinces with existing income-based drug coverage programs. As this approach would not replace existing private plans, there is likely to be support from insurance industry stakeholders. Public support of this approach, however, remains unclear.

Conclusion

There is a range of potential options available to policy-makers for improving universal coverage of prescription drugs in Canada. It is clear that the models we have assessed have differing implications for access to medicines, patient outcomes, public cost, private cost, and the implementation challenges that would accompany them. Ultimately, decisions about reforming this sector will depend on the interest in the public to see change, the willingness of political actors to promote a specific type of change, and the budget they are willing to commit to.

Importantly, it is also clear that much depends on the specifics of coverage that are implemented with each model. For example, if a limited public budget is going to be allocated to changes to pharmacare, it may make sense to choose a model that will have a lower public sector budget impact and could target the highest areas of need. The specifics of coverage matter a great deal to the ability of any particular model to impact access to medicines, particularly the presence and level of deductibles, copayments, and other cost sharing. Regardless of the model chosen, it remains vital to communicate with Canadians about changes to their drug coverage so they understand it.

The Conference Board of Canada

It will be valuable for our discussions about pharmacare to be explicit about choices in the model versus choices in the terms. They are obviously related—choices about who is covered will impact the terms that can be feasible based on certain models within a particular budget envelope. However, advocacy for or against any model based on one particular implementation of that model conflates what is present with what is possible.

Rate this publication for a chance to win a prize!

www.conferenceboard.ca/e-Library/abstract.aspx?did=9970

APPENDIX A

Bibliography

Abacus Data. *National Pharmacare in Canada: A Survey of Canadian Attitudes Towards Developing a National Pharmacare Program*. Ottawa: Abacus Data, 2015. Accessed June 26, 2018. http://www.pharmacists.ca/cpha-ca/assets/File/pharmacy-in-canada/Pharmacare%20Survey%20Results_July%202015.pdf.

Alberta Health. *Alberta Health Care Insurance Plan Statistical Supplement 2016/2017*. Edmonton: Alberta Health, 2017. Accessed October 10, 2018. <https://open.alberta.ca/publications/0845-4775>.

Angus Reid Institute. *Prescription Drug Access and Affordability an Issue for Nearly a Quarter of All Canadian Households*. Vancouver: Angus Reid, 2015. Accessed July 30, 2018. www.angusreid.org/wp-content/uploads/2015/07/2015.07.09-Pharma.pdf.

Aon Hewitt. *Pharmacare in Canada*. Survey results. Ottawa: Aon, 2016. Accessed July 30, 2018. www.aon.ca/surveys/rr/Aon_Pharm_2016_EN.pdf.

Barnieh, L., F. Clement, A. Harris, M. Blom, C. Donaldson, S. Klarenbach, D. Husereau, D. Lorenzetti, and B. Manns. "A Systematic Review of Cost-Sharing Strategies Used Within Publicly-Funded Drug Plans in Member Countries of the Organisation for Economic Co-Operation and Development." *PLOS ONE* 9, no. 3 (2014): e90434. Accessed August 12, 2018. www.journals.plos.org/plosone/article?id=10.1371/journal.pone.0090434.

BC Green Party. "Healthy Lives Strategy." Accessed October 9, 2018. <https://www.bcgreens.ca/health>.

BC Ministry of Health. “\$105-Million Investment to Make Prescription Medications More Affordable for Families.” News release, February 9, 2018. <https://news.gov.bc.ca/releases/2018HLTH0011-000186>.

—. *High Level Budget Impact Analysis (BIA) for Essential Drug Program*. Unpublished internal report. Victoria: Government of British Columbia, 2018.

—. *Pharmacare Trends 2015/16*. Victoria, B.C.: British Columbia Ministry of Health, 2017. Accessed February 16, 2018. <https://www2.gov.bc.ca/assets/gov/health/health-drug-coverage/pharmacare/pharmacare-trends-2015-16.pdf>.

BC Nurses' Union. “Increased Benefit Coverage.” Special issue, *BCNU Update Magazine*, May 2016, 7. https://issuu.com/bcnursesunion/docs/update_may_2016_special_issue.

Bonnett, C. “National Pharmacare: Submission to the House of Commons Standing Committee on Health.” Brief submitted to the House of Commons Standing Committee on Health, 2017. Accessed July 30, 2018. www.ourcommons.ca/Content/Committee/421/HESA/Brief/BR9321650/br-external/BonnetChris-e.pdf.

Boothe, K. “How the Pace of Change Affects the Scope of Reform: Pharmaceutical Insurance in Canada, Australia, and the United Kingdom.” *Journal of Health Politics, Policy and Law* 37, no. 5 (October 1, 2012): 779–814.

Busby, C, and Å. Blomqvist. “Covering Drugs for Young People Isn't the Best Way to Fill Gaps in Health Care.” *Toronto Star*, July 17, 2017. Accessed October 9, 2018. www.thestar.com/opinion/commentary/2017/07/17/covering-drugs-for-young-people-isnt-the-best-way-to-fill-gaps-in-health-care.html.

Busby, C., and J. Pedde. *Should Public Drug Plans Be Based on Age or Income?* Toronto: C.D. Howe Institute, 2014. Accessed October 9, 2018. <https://www.cdhowe.org/public-policy-research/should-public-drug-plans-be-based-age-or-income>.

Campbell, D. J. T., B. J. Manns, L. J. J. Soril, and F. Clement. "Comparison of Canadian Public Medication Insurance Plans and the Impact on Out-of-Pocket Costs." *CMAJ Open* 5, no. 4 (December 21, 2017): E808–13. Accessed October 9, 2018. <https://dx.doi.org/10.9778%2Fcmajo.20170065>.

Canada Health Act. 1985. R.S.C., c. C-6.

Canadian Institute for Health Information. *National Health Expenditure Trends, 1975 to 2017*. Ottawa: CIHI, 2017. Accessed April 26, 2018. https://secure.cihi.ca/free_products/nhex2017-trends-report-en.pdf.

Canadian Medical Association. "National Pharmacare in Canada: Getting There From Here." Brief submitted to the House of Commons Standing Committee on Health, June 2016. Accessed October 9, 2018. <https://www.ourcommons.ca/Content/Committee/421/HESA/Brief/BR8354361/br-external/CanadianMedicalAssociation-e.pdf>.

Canadian Pharmacists Association. *A Prescription for a Healthier Canada—Rx: PharmAccord*. Ottawa: CPA, 2017. Accessed October 9, 2018. https://www.pharmacists.ca/cpha-ca/assets/File/cpha-on-the-issues/PharmAccord_Final_Online.pdf.

Choudhry, N. K., and others. "Full Coverage for Preventive Medications After Myocardial Infarction." *New England Journal of Medicine* 365, no. 22 (2011): 2088–97.

Danzon, Patricia M., and Andrew J. Epstein. *Effects of Regulation on Drug Launch and Pricing in Interdependent Markets*. NBER Working Paper w14041, Cambridge, Mass.: National Bureau of Economic Research, 2008.

Daw, J. R., and S. G. Morgan. "Stitching the Gaps in the Canadian Public Drug Coverage Patchwork? A Review of Provincial Pharmacare Policy Changes From 2000 to 2010." *Health Policy* 104, no. 1 (January 2012): 19–26.

Dinh, Thy, Fred Horne, and Chantal Edwards. *Setting the Stage for Discussions on National Pharmacare*. Ottawa: The Conference Board of Canada, forthcoming.

Dormuth, Colin R., Malcolm Maclure, Robert J. Glynn, Peter Neumann, Alan M. Brookhart, and Sebastian Schneeweiss. "Emergency Hospital Admissions After Income-Based Deductibles and Prescription Copayments in Older Users of Inhaled Medications." *Clinical Therapeutics* 30 (2008): 1038–50.

Dormuth, Colin R., Peter Neumann, Malcolm Maclure, Robert J. Glynn, and Sebastian Schneeweiss. "Effects of Prescription Coinsurance and Income-Based Deductibles on Net Health Plan Spending for Older Users of Inhaled Medications." *Medical Care* 47, no. 5 (May 2009): 508–16. Accessed October 10, 2018. <https://doi.org/10.1097/MLR.0b013e318190d482>.

Doshi, J. A., J. Zhu, B. Y. Lee, S. E. Kimmel, and K. G. Volpp. "Impact of a Prescription Copayment Increase on Lipid-Lowering Medication Adherence in Veterans." *Circulation* 119, no. 3 (2009): 390–97.

Express Scripts Canada. "Poor Patient Decisions Waste up to \$5.1 Billion Annually, According to Express Scripts Canada." News release, June 6, 2013. <http://www.express-scripts.ca/news-room/poor-patient-decisions-waste-51-billion-annually-according-express-scripts>.

Flood, Colleen M., and Tom Archibald. "The Illegality of Private Health Care in Canada." *CMAJ* 164, no. 6 (March 2001): 825–30.

Gagnon, Marc-André. "Quebec Should Not Be the Model for National Pharmacare." *The Globe and Mail*, June 26, 2015, updated February 28, 2018. Accessed September 20, 2018. <https://www.theglobeandmail.com/opinion/quebec-should-not-be-the-model-for-national-pharmacare/article25135678/>.

Gagnon, M.-A., and G. Hébert. *The Economic Case for Universal Pharmacare*. Ottawa: Canadian Centre for Policy Alternatives, 2010. Accessed August 1, 2018. <https://www.policyalternatives.ca/publications/reports/economic-case-universal-pharmacare>.

Government of Canada. *Towards Implementation of National Pharmacare: Discussion Paper*. Ottawa: Government of Canada, 2018. Accessed August 1, 2018. www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/implementation-national-pharmacare/discussion-paper.html.

Hennessy, D., C. Sanmartin, P. E. Ronksley, R. G. Weaver, D. J. Campbell, B. Manns, M. Tonelli, and B. Hemmelgarn. "Out-of-Pocket Spending on Drugs and Pharmaceutical Products and Cost-Related Non-adherence Among Canadians With Chronic Disease." *Health Reports* 27, no. 6 (2016): 3–8

Keeler, E. B., R. H. Brook, G. A. Goldberg, C. J. Kamberg, and J. P. Newhouse. "How Free Care Reduced Hypertension in the Health Insurance Experiment." *JAMA* 254, no. 14 (1985): 1926–31.

Kozyrskyj, A. L., C. A. Mustard, M. S. Cheang, and F. Simons. "Income-Based Drug Benefit Policy: Impact on Receipt of Inhaled Corticosteroid Prescriptions by Manitoba Children With Asthma." *CMAJ* 165, no. 7 (October 2, 2001): 897–902.

Kratzer, J, K. McGrail, E. Strumpf, and M. R. Law. "Cost-Control Mechanisms in Canadian Private Drug Plans." *Healthcare Policy* 9, no. 1 (August 2013): 35–43.

Law, M. R., and J. Kratzer. "The Road to Competitive Generic Drug Prices in Canada." *CMAJ* 185, no. 13 (2013): 1141–44.

Law, M. R., L. Cheng, A. Kolhatkar, L. J. Goldsmith, S. G. Morgan, A. M. Holbrook, and I. A. Dhalla. "The Consequences of Patient Charges for Prescription Drugs in Canada: A Cross-Sectional Survey." *CMAJ Open* 6, no. 1 (February 2018): E63–70.

Law, M. R., L. Cheng, H. Worthington, M. Mamdani, K. M. McGrail, F. K. I. Chan, and S. Majumdar. "Impact of Income-Based Deductibles on Drug Use and Health Care Utilization Among Older Adults." *CMAJ* 189, no. 19 (May 15, 2017): E690–96.

Law, M. R., L. Cheng, H. Worthington, S. R. Majumdar, K. McGrail, F. Chan, and M. Mamdani. "Impact of a Household-Level Deductible on Drug Use Among Lower Income Adults." Unpublished manuscript. Vancouver: UBC Centre for Health Services and Policy Research, 2018.

Law, M. R., L. Cheng, I. A. Dhalla, D. Heard, and S. G. Morgan. "The Effect of Cost on Adherence to Prescription Medications in Canada." *CMAJ* 184, no. 3 (February 2012): 297–302.

Lopert, Ruth, Elizabeth Docteur, and Steve Morgan. *Body Count: The Human Cost of Financial Barriers to Prescription Medications*. Ottawa: Canadian Federation of Nurses Unions, 2018.

Mani, A., S. O'Quinn, and C. Bonnett. *Private Payer Product Listing Agreements in Canada*. Ottawa: PDCI Market Access, November 2016. Accessed October 9, 2018. <http://www.pdci.ca/2016-private-payer-pla-report/>.

Manns, B., and F. Clement. *Assessing the Impact of Potential Changes to Publicly Funded Medication Insurance in Alberta: Premiums, Deductibles and Coverage for Essential Medications*. Unpublished internal report. Edmonton: Government of Alberta; 2018

McBride, A., and R. Bartlett. *National Pharmacare in Canada: Choosing a Path Forward*. Ottawa: Institute of Fiscal Studies and Democracy, 2018. Accessed July 16, 2018. www.ifsd.ca/web/default/files/Presentations/Reports/18006%20-%20National%20Pharmacare%20in%20Canada-%20Choosing%20a%20Path%20Forward%20-%202016%20July%202018%20-%20Final.pdf.

Morgan, S., R. Evans, G. Hanley, P. Caetano, and C. Black. "Income-Based Drug Coverage in British Columbia: Lessons for BC and the Rest of Canada." *Healthcare Policy* 2, no. 2 (November 15, 2006): 115–27.

Morgan, S. G., E. J. Gladstone, D. Weymann, and N. Khan. "The Effects of Catastrophic Drug Plan Deductibles on Older Women's Use of Cardiovascular Medicines: A Retrospective Cohort Study." *CMAJ Open* 5, no. 1 (March 3, 2017): E198–204.

Morgan, S. G., J. R. Daw, and M. R. Law. *Are Income-Based Public Drug Benefit Programs Fit for an Aging Population?* Montréal: Institute for Research on Public Policy, 2014. Accessed October 10, 2018.

<http://irpp.org/research-studies/are-income-based-public-drug-benefit-programs-fit-for-an-aging-population/>.

—. *Rethinking Pharmacare in Canada*. Toronto: C.D. Howe Institute, 2013. Accessed October 10, 2018. https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_384_0.pdf.

Morgan, S. G., M.-A. Gagnon, M. Charbonneau, and A. Vadeboncoeur. “Evaluating the Effects of Quebec’s Private–Public Drug Insurance System.” *CMAJ* 189, no. 40 (October 2017): E1259–63.

Morgan, S. G., W. Li, B. Yau, and N. Persaud. “Estimated Effects of Adding Universal Public Coverage of an Essential Medicines List to Existing Public Drug Plans in Canada.” *CMAJ* 189, no. 8 (February 27, 2017): E295–302.

Ontario New Democratic Party. *Pharmacare for Everyone*. Toronto: Ontario New Democratic Party, 2018. Accessed October 10, 2018. <https://www.ontariondp.ca/sites/default/files/pharmacare-for-everyone-web.pdf>.

Patented Medicine Prices Review Board. *Alignment Among Public Formularies in Canada—Part 1: General Overview*. Ottawa: Patented Medicine Prices Review Board, 2017. Accessed July 19, 2018. http://www.pmprb-cepmb.gc.ca/CMFiles/NPDUIS/NPDUIS_formulary_report_part_1_en.pdf.

Parliamentary Budget Officer. *Federal Cost of a National Pharmacare Program*. Ottawa: Office of the Parliamentary Budget Officer, 2017. Accessed July 30, 2018. www.pbo-dpb.gc.ca/en/blog/news/Pharmacare.

Pilote, L., C. Beck, H. Richard, and M. J. Eisenberg. “The Effects of Cost-Sharing on Essential Drug Prescriptions, Utilization of Medical Care and Outcomes After Acute Myocardial Infarction in Elderly Patients.” *CMAJ* 167 no. 3 (2002): 246–52.

Pollara Strategic Insights. *Results of the 2018 Health Care in Canada Survey: A National Survey of Health Care Providers, Managers and the Public*. Montréal: Health Care in Canada Knowledge Translation Committee, McGill University, 2018. Accessed October 10, 2018. https://www.mcgill.ca/hcic-sssc/files/hcic-sssc/hcic_2018_master_slide_deck.pptx.

Romanow, R. *Building on Values: The Future of Health Care in Canada*. Saskatoon: Privy Council, 2002. Accessed August 13, 2018. <http://dsp-psd.pwgsc.gc.ca/Collection/CP32-85-2002E.pdf>.

Schneeweiss, S., A. R. Patrick, M. Maclure, C. R. Dormuth, and R. J. Glynn. "Adherence to Statin Therapy Under Drug Cost Sharing in Patients With and Without Acute Myocardial Infarction: A Population-Based Natural Experiment." *Circulation* 115, no. 16 (2007): 2128–35.

—. "Adherence to β -Blocker Therapy Under Drug Cost-Sharing in Patients With and Without Acute Myocardial Infarction." *The American Journal of Managed Care* 13, no. 8 (2007): 445.

Schneeweiss, Sebastian, Alexander M. Walker, Robert J. Glynn, Malcolm Maclure, Colin Dormuth, and Stephen B. Soumerai. "Outcomes of Reference Pricing for Angiotensin-Converting–Enzyme Inhibitors." *New England Journal of Medicine* 346, no. 11 (March 2002): 822–29. <https://doi.org/10.1056/NEJMsa003087>.

Silvester, B., E. Jeyaratnam, and F. Jackson-Webb. "Private Health Insurance Premium Increases Explained in 14 Charts." *The Conversation*, March 27, 2018. www.theconversation.com/private-health-insurance-premium-increases-explained-in-14-charts-92825.

Skinner, B. "Canadians Are Being Fooled Into Thinking We'll Like Pharmacare. We Really, Really Won't." *Financial Post*, February 15, 2018. <https://business.financialpost.com/opinion/canadians-are-being-fooled-into-thinking-well-like-pharmacare-we-really-really-wont>.

Standing Committee on Health. *Pharmacare Now: Prescription Medicine Coverage for All Canadians*. Ottawa: Canadian House of Commons, April 18, 2018.

Standing Senate Committee on Social Affairs, Science and Technology. *The Health of Canadians—The Federal Role*. Ottawa: Standing Senate Committee on Social Affairs, Science and Technology, 2002. Accessed August 12, 2018. www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/soci-e/rep-e/repoct02vol6-e.htm.

Sutherland, G., and T. Dinh. *Understanding the Gap: A Pan-Canadian Analysis of Prescription Drug Insurance Coverage*. Ottawa: The Conference Board of Canada, 2017. Accessed August 1, 2018. www.conferenceboard.ca/e-library/abstract.aspx?did=9326.

Taglione, M. S., H. Ahmad, M. Slater, B. Aliarzadeh, R. H. Glazier, A. Laupacis, and N. Persaud. “Development of a Preliminary Essential Medicines List for Canada.” *CMAJ Open* 5, no. 1 (February 2017): E137–43.

Tamblyn, R., and others. “Adverse Events Associated With Prescription Drug Cost-Sharing Among Poor and Elderly Persons.” *JAMA* 285, no. 4 (January 2001): 421–29.

Telus Health. *2018 TELUS Health Drug Data Trends & National Benchmarks Report*. Montréal: Telus Health, 2018. Accessed October 10, 2018. <http://plus.telushealth.co/hub/2018-drug-data-trends/>.

Welds, K. “Youth Drug Claims Cut in Half Since Launch of OHIP+.” *Benefits Canada*, April 12, 2018. Accessed October 10, 2018. <https://www.benefitscanada.com/benefits/health-benefits/youth-drug-claims-cut-in-half-since-launch-of-ohip-113187>.

Zafar, A. “Generic Drug Industry Agrees to Cut Prices up to 40% in 5-Year Deal With Provinces.” *CBC News*, January 29, 2018. Accessed October 10, 2018. www.cbc.ca/news/health/generic-drug-prices-1.4509073.

Zhang, Y., J. R. Lave, J. M. Donohue, M. A. Fischer, M. E. Chernew, and J. P. Newhouse. “The Impact of Medicare Part D on Medication Adherence Among Older Adults Enrolled in Medicare-Advantage Products.” *Medical Care* 48, no. 5 (2010): 409–17.



About The Conference Board of Canada

We are:

- The foremost independent, not-for-profit, applied research organization in Canada.
- Objective and non-partisan. We do not lobby for specific interests.
- Funded exclusively through the fees we charge for services to the private and public sectors.
- Experts in running conferences but also at conducting, publishing, and disseminating research; helping people network; developing individual leadership skills; and building organizational capacity.
- Specialists in economic trends, as well as organizational performance and public policy issues.
- Not a government department or agency, although we are often hired to provide services for all levels of government.
- Independent from, but affiliated with, The Conference Board, Inc. of New York, which serves nearly 2,000 companies in 60 nations and has offices in Brussels and Hong Kong.

Insights. Understanding. Impact.



255 Smyth Road, Ottawa ON
K1H 8M7 Canada
Tel. 613-526-3280
Fax 613-526-4857
Inquiries 1-866-711-2262
conferenceboard.ca



PUBLICATION 9970 | 9975
PRICE: Complimentary