POLICY STATEMENT

Attaining Universal Access to Necessary Prescription Medications in Canada:

Improving outcomes in heart disease and stroke

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Facts

- Optimal access and use of prescription drugs can shorten time spent in hospitals and reduce demand for physician services, potentially leading to decreased costs for the healthcare system.[1,2]
- Approximately half of adults in Canada take at least one prescription medication regularly, while 15% take four or more.[3]
- As many as one-third of seniors take five or more prescription medications.[3]
- In 2017, Canadian pharmacies dispensed roughly 94 million prescriptions for medications to treat cardiovascular disease, up 3.2% over the previous year, representing more than any other category of prescription drugs.[4]
- While innovation in pharmaceuticals has led to medical breakthroughs and improved health status for many Canadians, our reliance on medications has become greater and many fear the rising costs will be unsustainable for the system.[5–7]

Cost and pricing

- Prescription drug costs account for almost 16% of all healthcare expenditures and are the second largest category of spending following hospitals.[8] In 1975, prescriptions accounted for less than 10% of healthcare costs.[8]
- In 2018, Canadian spending on prescription medications was estimated to have reached $33.7 billion, representing an increase of 4.2% from the prior year.[9]
- Canada's patchwork of coverage, consisting of more than 100 public and 100,000 private plans, is among the most expensive in the world, largely because of the lack of purchasing power for payers with the pharmaceutical industry.[10–12]
- Canadians pay more for drugs than other industrialized countries. International prices for generics are 30% lower than Canadian prices.[13] The same trends hold true for brand-name drugs, which are on average 19% lower in comparable countries (excluding Switzerland and the United States).[14]
- Brand name drugs can cost thousands of dollars. As a result of the high cost of drugs, in 2014, the average per capita drug expenditure was $955.[12,15] Per capita drug expenditure was projected to reach $1,074 in 2018.[8]
- Approximately 22% ($7.4 billion) of prescription drug spending was paid for out of pocket.[6] One-third of people in Canada reported spending $501 or more on prescription drugs in the past year and almost half reported spending $201 or more.[16]
- Slightly more than 2% of Canadians require prescriptions that total over $10,000. This makes up more than one-third of public spending on drugs.[9]

Access and inequities

- An analysis of the Canadian Community Health Survey (CCHS) data by the Advisory Council on the Implementation of National Pharmacare found that approximately 20% of people in Canada (7.5 million individuals) have no or inadequate prescription drug coverage.[12]
- People in Canada face challenges accessing necessary medications, regardless of their insurance coverage.[17] More than one in five Canadian households report having difficulty paying for prescription medications without insurance and one out of every 10 individuals living in Canada has difficulty accessing medications even with insurance coverage.[18,19]
- Most private insurance benefit plans do not cover the entire cost of medications, requiring some level of co-insurance payments, typically between 11% and 20%.[20] This means that it is still sometimes difficult for people with insurance coverage to afford medications.[10]
- The overall share of private health insurance premiums (including those for prescriptions) paid by employees have risen rapidly, from 26% in 2010 to 40% in 2016.[21]
- Access problems in Canada are a function of the lack of universal coverage and gaps in coverage even for those with insurance.[16] Insurance coverage is more important than income: a person living on a low income who has public or private insurance is less likely to report access barriers than a person with a high-income who does not have coverage.[16]
- Indigenous people face numerous challenges accessing prescription medicines, as well as limited access to healthcare professionals and a lack of Indigenous-oriented services. Some clients experience racism when services are accessed and many face huge delays or denials when trying to access drugs through the Non-Insured Health Benefits (NIHB) Program administered by the Federal Government.[22]
- Utilization rates for pharmacy services from the NIHB Program among registered First Nations and Inuit peoples continues to drop due to a complicated and outdated system.[22]
- A report assessing employer-provided health benefits revealed that one-third of people working in Canada do not receive health benefits from their employer.[23] Of those working full-time, 73% have drug coverage, while only 27% of part-time workers have drug coverage.[23] Those who are least likely to receive access to benefits include women, those under 25 years of age, low earners, and part-time workers.[23]
- 61% of working women have employer health benefits compared to 67% of men.[23]

Cost-related non-adherence

- In 2016, Commonwealth Fund data reported 10.2% of Canadian adults (aged 18+) faced cost-related access barriers (i.e., not filling, skipping doses, reducing dosage, and delaying refilling).[24] That is nearly five times as high as the rate in the UK, and ranks second worst among 11 high-income countries surveyed – second only to the US.[24]
- Experts cited in numerous studies state that approximately 8.2% to 10.2% of people in Canada experience prescription non-adherence due to cost.[16,19,24]
- Non-adherence to drug prescriptions (failure to fill prescriptions or to follow instructions) has been associated with significant increases in mortality, hospitalizations, and costs.[25,26]
- An analysis of the Canadian Community Health Survey (CCHS) data found that approximately one million Canadians had to choose between purchasing food and heat or purchasing necessary medications.[16]
- A 2018 study found that about 15.8% of people in Canada went without their prescription medication for heart disease, high cholesterol or hypertension because of the cost.[16]
- More than one in five households in Canada indicated that within the past year they or someone in their household did not take their prescription medicines because of cost.[18]
- Women are more likely to report non-adherence to prescription medications because of costs.[16]

Systems issues

- Canada is the only country in the world with a universal healthcare system that does not provide universal prescription medicines coverage outside of hospitals.[27]
- Studies estimate that between $4 billion and $9.4 billion per year could be saved on public spending with a national pharmacare program.[7]
- The 2017 Parliamentary Budget Officer report notes that a national pharmacare program would result in savings of roughly $4.2 billion annually.[17]
- Catastrophic drug coverage or public-payer income-based pharmacare support of some form has been implemented in all provinces and territories to support people who face major financial challenges in accessing their medications. However, the standards for eligibility vary between provinces and many recipients still report barriers in accessing necessary medications.[28]
- While catastrophic drug coverage helps with extraordinarily high costs, it does not address access problems. Despite catastrophic (or equivalent) policies in all provinces, Canada has higher access barriers than other countries with universal, comprehensive drug coverage (see Table 1).[24]
- Health systems indicators including cost of medicines, spending on pharmaceuticals, use of electronic prescribing and investment in innovation to improve health outcomes are less favourable in Canada than comparator countries.[10,19]
- Access to medicines remains an area of inequity, fragmentation and systems failure, with millions of people in Canada being left behind.[16]

Background

People in Canada are proud of our world-class system of health care and its defining principle of universality that ensures all people are able to access health care regardless of ability to pay. We value this system because it represents fairness and equity but, unfortunately, the principles underpinning Canadian health care do not extend to medically necessary drugs outside the hospital setting. Access to prescription medication remains an area of inequity, fragmentation and system failure, with millions of people left behind struggling to cover the costs of their medications.[16] Without a national pharmacare program, we truly do not have universal health coverage. Pharmacare is defined as policy and program options that are aimed at improving the way pharmaceutical care is governed, managed and delivered in Canada.[29]

Prescription drugs represent a critical component of treatment for a wide range of cardio and cerebrovascular conditions. When they are used appropriately, they help to save lives, prevent or slow down diseases from progressing and improve quality of life. Prescription drugs also shorten, and in some cases prevent time spent in hospitals.[1,2] This is not only good for patients, but also results in more manageable workloads for healthcare providers, and potentially, decreased costs for healthcare facilities and other aspects of health care.[1,2]

Recognizing the importance of drug access, the World Health Organization has declared that all countries are obliged to ensure equitable access to necessary medicines through universal health coverage.[30] Access to medicines/medications refers to the reasonable ability for people to get needed drugs/pharmaceuticals/medications required to achieve health.[30] Such access is deemed to be part of the *Universal Declaration of Human Rights* (1948). Canada is the only developed country with a universal healthcare system that does not fully cover prescription drugs.[27] In 2012, the United Nations unanimously endorsed a resolution advising governments to ensure universal access to quality health care without financial hardship, yet many people in Canada continue to experience such hardship around access to medications.[31]

Medications in Canada

In Canada, approximately two-thirds of available drugs are generics while one-quarter are brand name. Generic drugs are replications of brand names drugs for which the patents have expired.[1] The remaining prescription medicines are divided between biologics (2%) and over-the-counter drugs.[17]

In recent years, a variety of new prescription drug treatments have been developed.[5,6] While they can be very effective, they can also be very costly.[5,6] The *Canada Health Act* stipulates that prescription drugs administered in a hospital setting are paid for by provinces and territories, but this does not apply to prescription drugs taken outside hospitals.[32] These drugs are paid for by either public or private insurance providers, or directly by patients.[32] Paying for increasingly expensive medications has become a major challenge for some patients, and also for both public and private medical insurance providers.[5,6]

Innovation in pharmaceuticals has led to medical breakthroughs and improved health status for many Canadians. It has also created a reliance on medicines whose rising costs will be unsustainable for the system.[5–7] Roughly half of adults in Canada report taking at least one prescription drug, and about 15% say they take four or more.[3] A little under one-third of those aged 65 and over take five or more each day.[3] Over 90% of people in Canada with three or more chronic conditions – including but not limited to heart disease and stroke – take at least one prescription drug.[3] With innovation in pharmaceuticals and new medications tailored to individual needs along with an aging population and increasing rates of chronic disease, our reliance on prescription drugs and the cost of such are expected to increase.[5–7] In 2018, Canadian spending on prescription medications was forecasted to have reached $33.7 billion, representing an increase of 4.2% from the prior year.[9]

Drug approval and listing processes

Governments evaluate and approve drugs, negotiate pricing and assess cost effectiveness in an effort to ensure safety, contain costs and keep drug expenses manageable for Canadians. Governments strive to achieve a balance between providing incentives for innovation and sustainability in the pharmaceutical sector, and affordability of treatment. With respect to approval for sale, drugs are reviewed by the Therapeutic Products Directorate of Health Canada for safety and efficacy.[33] Health Canada has committed to a 300-day average approval period for new drug submissions.[34] A review of drug approval data from 2017-18 found that, on average, Health Canada approved new drug submissions in 269 days.[34] Following the approval process, new drugs are required to be introduced on the market within 90 days and can be obtained privately.[35] Across 20 OECD countries, Canada ranks second after Japan, in time-to-market after approval.[35]

Before a newly approved drug can be covered on a public insurance plan, it must be subject to the Common Drug Review, managed by the Canadian Agency for Drugs and Technologies in Health (CADTH), which makes recommendations about which drugs should be covered publicly and to what extent.[17] There is no set of national standards or consistency around what is covered or available to people in different parts of the country. Provinces and territories decide which drugs will be listed on their respective formularies.[17] The federal government determines which drugs are listed on the federal formulary for the various population groups for which it provides drug insurance benefits.[17] Certain prescription medications can be available and/or covered by public plans in one part of Canada but not in others, or removed from a provincial or territorial formulary, leading to inconsistencies in availability across the country.[17]

The average time to obtain public reimbursement for at least 80% of public drug plans across Canada is 449 days.[35] This is 96 days longer than the OECD average, placing Canada 15th out of 20th for time to public reimbursement.[35] The entire market and public reimbursement process of new drug submissions can take several years, and can be a significant barrier to access of necessary medications for people in Canada.

Drug pricing and spending

Canada's multi-payer system, consisting of over 100 public plans and over 100,000 private plans, is among the most expensive in the world, largely because it diminishes our overall purchasing power.[10,12] While drugs constitute a large portion of health expenditures across all OECD countries, in 2014, Canada spent $955 on drugs per capita, which is more than most other OECD countries.[15] This per capita expenditure was projected to reach $1,074 in 2018.[8] Canadians pay more for drugs than other industrialized countries. International prices for generics are 30% lower than Canadian prices.[13] The same trends hold true for brand-name drugs, which are on average 19% lower in comparable countries (excluding Switzerland and the United States).[14] This is not sustainable. The Patented Medicine Prices Review Board, an arm's length agency of the federal government, sets maximum prices for patented drugs.[13,14] For generic drugs, prices are influenced primarily by provincial/territorial insurance plans, which set maximum amounts for reimbursement based on a percentage of the patented brand name drug price.[17] The specific policies under which these plans operate differ significantly among provinces/territories.[17] Some jurisdictions (notably, British Columbia) have implemented reference-based pricing, which typically means that drugs are grouped into therapeutic classes and reimbursement is provided at the level of the most affordable (or reference) drug.[17] In this case, if patients choose to use another drug they will frequently have to pay the difference in costs.[36] Where reference-based pricing has been implemented, it is common for private insurance plans to also emulate the practice.[36] Reference-based pricing has been criticized, chiefly,

for failing patients who require particular drugs within a certain class for treatment, but who are only reimbursed at the level of the given reference drug.[36] Special authority may apply if a drug is not tolerated but it can be time consuming to receive approval.[36]

In the past, each payer of prescription drugs – whether an insurance company, province, federal government or hospital – negotiated prices with pharmaceutical companies separately.[17] This meant there was very little consistency between priciing and reduced purchasing power from each buyer.[17] A smaller province would have reduced ability to negotiate pricing options.[17] Hospitals may pay more or less for any drugs also listed on the provincial or territorial formulary due to silo-like purchasing and negotiations.[17] In addition, there has been closed pricing policies meaning that as buyers, information about costs cannot be shared with other buyers, often making negotiations less informed and difficult.[17] Fortunately, we have seen an increase in joint negotiation efforts such as the pan-Canadian Pharmaceutical Alliance spearheaded by the provinces which now includes the federal government.[17]

The Parliamentary Budget Officer estimates that in 2015, $28.5 billion was spent on prescription medicines in Canada.[17] Over the prior decade, spending had risen at 5.1% annually. When assessing 2015 total prescription drug expenditure in Canada, governments fund 46% of prescription drug costs, with the remaining 54% being paid privately.[17] Private payment can be further broken down through insurance which accounts for 37% or out-of-pocket spending representing 17% of costs.[6] Based on these figures, it's evident that almost one-quarter of total prescription drug costs are being paid by people who have no insurance coverage or have limits on their coverage such as exclusions, deductibles, or plan limits.[17]

Certain classes of drugs account for a greater portion of overall prescription drug spending.[17] Although generic drugs account for two-thirds of all prescription drugs in Canada, they represent less than one-third of total spending on prescription drugs.[9] In comparison, brand drugs represent one-quarter of all prescriptions but cost almost half of all prescription drug costs.[17] Biologics make up only 2% of all prescription medicines but account for almost 19% of all prescription drug spending due to the complexity of the manufacturing process.[17] This is understandable because of development costs, but at the same time pose a concern for governments as they try to control drug spending.

Prescription medications and the healthcare system

Access to prescription medicines can be thought of as an integral part of any healthcare system with most Canadian prescriptions coming through physicians and surgeons. In some provinces, other health providers like pharmacists and nurse practitioners have been granted rights to diagnose and treat a limited range of health conditions,[33] although scope of practice can vary from province to province.[37] This approach takes pressure off the healthcare system by making it easier for patients to access prescribing healthcare providers, and also reduces overall costs.[33] In 2014, almost 15% of Canadians aged 12 years and older – approximately 4.5 million people – indicated that they did not have a regular medical doctor.[38] The rates of Canadians without a regular physician were highest in the territories.[38] Of those who reported not having a regular medical doctor, the majority reported accessibility issues such as lack of doctor in area, retiring of doctor or doctors not accepting new patients.[38]

Many Indigenous peoples do not have access to basic physician services because they are non-existent in many communities, and they subsequently report more unmet healthcare needs.[22] When healthcare professionals are available, Indigenous people often report racism and inferior services.[22] Biases and stereotypes are applied and health-related conditions are often missed due to incorrect assumptions.[39] The proportion of Inuit who have seen a physician or other health professional in the past year is the lowest among all Canadians.[40] A substantial number of the Indigenous peoples/communities may only be able to access care when they are close to death, thereby missing any health benefits of regular monitoring and management.[41] Nursing stations may be the only healthcare option and many are under-staffed, under-resourced and overwhelmed by the health needs of the community.[42] Poor access to healthcare services results in delayed treatment and rehabilitation.[42]

Concerns also relate to the framework in which medicines are prescribed. In the current healthcare system, the fragmented and redundant setup "isolates the management of medicines from the management of health care [with] particularly negative consequences in terms of under-investment in, and divided responsibility for, safe and appropriate use of medicines."[10] Canada lags behind many countries related to electronic prescribing and systems monitoring. Fewer than one in three doctors in Canada, compared to nine in 10 in New Zealand or the U.K., use electronic prescribing tools to assist in identifying issues with drug doses or interactions.[10] Databases and monitoring systems to assess outcomes are fragmented and uncoordinated with little interaction between governments, private insurance companies and pharmacy retailers.[10]

Heart disease, stroke and medications

Diseases of the circulatory system are the leading causes of death for people in Canada, claiming almost 70,000 lives per annum in recent years.[43] Heart disease is the leading cause of preventable premature death – deaths which are avoidable with appropriate prevention and timely health care.[44] Furthermore, heart disease and stroke are also leading drivers of disability

and lost productivity.[45] Such impacts indicate a need for better treatment and management of cardiovascular disease which can be addressed through improvements in access to medications.

In 2017, Canadian pharmacies dispensed roughly 94 million prescriptions for medications to treat cardiovascular disease, up 3.2% from the prior year, and more than any other category of prescription drugs.[4] This includes popular prescriptions including statins, diuretics and ACE inhibitors. Between 1996 and 2006 expenditures for cardiovascular drugs increased by 200%, surpassing $5 billion in 2006.[46] The mean cost per individual cardiovascular prescription increased from $41.85 in 1996 to $47.79 in 2006.[46] A recent study found that about 15.8% of people in Canada went without their prescription medication for heart disease, high cholesterol or hypertension because of the cost.[16] While recent patent expirations and collaborative pricing negotiations have brought down some prices, overall spending on medications in Canada continues to grow[5,6] Spending on prescription medications for heart disease and stroke follows this trend,[4,5] underscoring a need to contain costs for the health conditions that are most common in our population.

Insurance coverage

It is estimated that between 60% and 75% of Canadians are covered by private insurance plans (sponsored by an employer or purchased independently).[17] Up to 43% qualify for some type of government-provided insurance.[17] However most private plans do not cover the entire cost of medications, requiring co-insurance payments, typically between 11% and 20%.[20] In addition, the cost of insurance premiums (including those for prescriptions) has risen rapidly, from 26% in 2010 to 40% in 2016.[21]

Most Canadians are protected by some form of medical insurance that covers all or a portion of the cost of prescription medications. There is a patchwork of coverage, consisting of more than 100 public and 100,000 private plans, and a wide spectrum of plans that are applicable to different groups of Canadians. Provinces and territories have their own plans which cover different groups of people and drugs and the federal government offers insurance for prescription drugs to Indigenous people, members of the Armed Forces, the RCMP, and inmates of correctional facilities and federal government employees.

An additional area of cost-related concern is medication for people with rare disorders.[23] Given the relatively small size of these populations, treatments involving these drugs can be extremely expensive.

In some cases, Canadians find themselves having to pay large amounts of money for medications. This situation has resulted in provinces and territories establishing "catastrophic" drug coverage plans, which ensure that citizens do not have to pay for necessary drugs beyond a certain percentage of income – usually set at a threshold of between 3% and 5%.[28] The catastrophic drug coverage plans or public-payer income-based pharmacare supports that are in place in most provinces and territories vary considerably between regions with respect to eligibility, who is covered and breadth of coverage.[28] Ensuring that all provinces and territories implement catastrophic drug coverage plans was the minimum recommendation from various expert reports aimed to improve access to medications in Canada.[47] However, many recipients still report barriers in accessing necessary medications and difficulty paying the upfront costs associated with their medications.[28] Reliance on catastrophic drug plans has increased over time and research highlights the burden of high drug costs plaguing many people which is expected to put further pressure on these programs.[48] An Ontario study found a threefold increase in the rate of people utilizing the drug benefit program over a 16-year time frame.[48] There was an increase in recipients under the age of 35 years and those facing medium to high deductibles.[48] While catastrophic drug coverage is a worthwhile measure in order to begin to address the challenge of providing access to prescription drugs for all Canadians, it is not thought to be a sustainable or long-term solution to address rising drug costs or address systemic barriers to access.[10,48]

Uninsured or under-insured

An analysis of the Canadian Community Health Survey (CCHS) data by the Advisory Council on the Implementation of National Pharmacare found that approximately 20% of people in Canada (7.5 million individuals) have no or inadequate prescription drug coverage.[12] When surveyed, more than one in five households in Canada indicated that within the past year they or someone in their household reported difficulty in paying for their prescription medicines because of cost.[18] Among Canadians with co-morbidities, 14% reported having no insurance for necessary medicines.[18] Similarly, a study of people in western Canada found that 14.1% of people aged 40 or older with cardiovascular-related conditions had no drug insurance in 2012.[49] Those with co-morbidities and/or cardiovascular-related conditions need better access to prescription medications the most. They have complex conditions that are highly treatable with medication, but instead are unable to properly manage their condition.

Many do not have insurance because they are self-employed, are working on contract or are working part-time.[23] Three quarters of part-time employees have no insurance for prescription medications.[23] A report assessing employer-provided health benefits revealed that one-third of people working in Canada do not receive health benefits from their employer.[23] Those who are least likely to receive access to benefits include women, those under 25 years of age, low earners, and part-time workers.[23] Sixty-one percent of working women have employer health benefits compared to 67% of men.[23] While some women may receive health benefits through their partner's employer-provided plan, this is not viewed as a sustainable or

equitable solution as it places women in a vulnerable position if a woman's relationship status changes or if their spouse's employment situation changes, such that their health benefits are ended.[23]

In a study looking at cardiovascular care in Western provinces, living in a rural location was significantly associated with not having drug insurance which may be related to a greater tendency for people in these areas to be self-employed or to work for small businesses that do not provide extended health benefits.[49]

Accessing medications among Indigenous peoples

The Non-Insured Health Benefits (NIHB) Program provides access to certain medically necessary services for registered First Nations and Inuit individuals including prescription and over-the-counter medications. However, less than half of Indigenous people in Canada qualify for the program.[50,51] Since 2013, the number of eligible individuals has decreased by 7.9% from 926,044 to 853,088 in 2017.

The main reason for poor utilization is the challenge among clients and healthcare providers of trying to navigate the approvals process.[22,51] Healthcare providers must submit cases to Health Canada for review and prior approval.[22,52] Stakeholders cite the NIHB processes to be "time consuming, financially draining, and often the ultimate result will be a denial [meaning that] providers are often unwilling to work with the burdensome NIHB process."[22]

According to the Assembly of First Nations the "NIHB program is perhaps the most frequently-cited grievance related to Health Canada-FNIHB programming due to many factors including inadequate coverage, lack of timely access, inconsistent adjudication of claims and burdensome administrative processes [and] the fact that the NIHB program is virtually uniformly disliked by First Nations clients and leadership speaks to the need for fundamental changes."[22] It is reported that while the NIHB program aims to align with the provincial and territorial drug formulary, there are often discrepancies and barriers creating further inequities in access and health outcomes among Indigenous people.[22] Expenditure on pharmaceuticals has increased annually and accounts for 41% of the NIHB budget, the largest portion of spending for any category.[53]

Areas for improvement in accessing and complying with prescription medications among Indigenous peoples include better communication between non-Indigenous healthcare providers and Indigenous patients.[54,55] There is also an opportunity for providers to gain a deeper understanding about the challenges Indigenous people face in accessing and adhering to prescription medications.[56]

Financial barriers

The most recent figures suggest that approximately 22% ($7.4 billion) of prescription drug spending was paid for out of pocket.[6] In 2011, households in Canada on average spent $476 out of pocket on prescription medications.[57] In 2010, one in five households spent more than 1% of their after-tax income on prescription medications, and 3% of households spent more than 5%.[57] This translates into an average household expenditure of $539 for those spending less than 5% of income after tax, and $3,021 for households spending more than 5% of income after tax.[57]

With 22% of prescription drugs costs in Canada paid out of pocket, those on lower-incomes and those in certain provinces are disproportionately burdened by the cost of medicines and are more likely to have accessibility challenges.[16,58,59] In 2009, households in the second lowest income quintile spent the most on prescription drugs ($388 on average). In comparison, drug spending in the highest income quintile was only $268 on average. The lowest income quintile spent more on prescription medications ($296) than on either dental care or insurance premiums.

Cost-related non-adherence

Cost-related non-adherence is defined as not filling a prescription or not complying with medication dosing as prescribed – including skipping doses, reducing dosage, and delaying refilling due to financial barriers.[16] Analysis of Canadian Community Health Survey (CCHS) data found that approximately one million Canadians had to choose between purchasing food and heat or purchasing necessary medications.[16] Experts cited in numerous studies state that approximately 8.2% to 10.2% of people in Canada experience prescription non-adherence due to cost.[16,19,24] The Commonwealth Fund International Health Policy Survey data estimates cost-related non-adherence among Canadian adults to be as high as 10.2% as shown in Table 1. Cost-related non–adherence in Canada is two to five times worse than in most other comparator countries.[24]

Table 1: Prevalence of cost-related non-adherence (CRNA) in Canada and comparable countries with universal health and pharmaceutical coverage			
	All adults aged 18+ (2016 data)	Adults aged 55+ (2014 data)	Adults aged 65+ (2014 data)
Australia	6.3%	6.8%	4.4%
Canada	**10.2%**	**8.3%**	**5.3%**
France	3.9%	1.6%	1.5%
Germany	2.2%	3.7%	4.2%
Netherlands	4.4%	4.0%	2.9%
New Zealand	5.7%	4.8%	3.4%
Norway	3.4%	2.4%	1.9%
Sweden	5.7%	2.4%	1.5%
Switzerland	8.9%	2.9%	2.5%
UK	2.1%	3.1%	2.4%

Source: 2014 and 2016 Commonwealth Fund International Health Policy Surveys as summarized by Lopert R, Docteur E, and Morgan S. in Body count: The human cost of financial barriers to prescription medications, 2018.[24]

Twenty percent of Canadians living in a household with annual income less than $20,000 reported not filling a prescription due to cost, whereas 5% of those in households with more than $80,000 in annual income reported cost-related non-adherence.[19] The rate of cost-related non-adherence in Canada varies between provinces.[16,19] Multiple studies have found that the lowest prevalence of cost-related non-adherence was found in Quebec.[16,19] This is due to the province's unique drug insurance policy which requires all its citizens to purchase prescription drug insurance coverage.[16,19]

In 2016, of those who reported cost-related non-adherence, the out-of-pocket cost of the most recent skipped prescription medication varied.[16] Half reported a cost $51–$200 per medication and almost one-third indicated that their most recent forgone prescription cost less than $5.[16]

While cost-related non-adherence was most pronounced in lower income groups, it was reported in all household income levels.[16] Furthermore, while it was most common in those without insurance coverage (11.3%), even people with government drug insurance plans (7.1%) and association plans (3.95%) or employer-sponsored plans (3.4%) did not adhere to their physician's prescribed treatment due to cost.[16]

Cost-related non-adherence to prescription medication in Canada was more common among women, Indigenous people, those age 18–44 years, those with poorer health status, people with lower incomes and those without prescription drug insurance.[16]

In 2016, Indigenous people in Canada had 1.92 times higher odds of reporting cost-related non-adherence to prescription medication.[16] Reasons include lack of coverage, poor utilization of NIHB, barriers within the NIHB program such as a limited number of pharmacies offering direct NIHB billing and structural racism against Indigenous patients in the primary healthcare setting.[16,52] As a result of the latter, Indigenous patients may avoid consultations with healthcare providers or may cut visits short without getting prescriptions.[60]

Research shows that even low costs can dissuade some people from filling a prescription.[16,61,62] Pharmacare delivery models and their associated user charges to fill prescriptions can create barriers to access.[63] Charges as low as a few dollars per prescription are reported to prevent low-income people from accessing their medications.[62] Models which are income-based with deductibles have been seen as problematic, as they often fail to promote access to necessary medications.[63] Small but significant user fees could be beneficial in reducing prescription misuse and waste. However, a balance between preventing waste and ensuring that vulnerable people do not face financial barriers in accessing medicines will be necessary.

Impacts of non-adherence

Non-adherence to drug prescriptions is problematic and has been associated with significant increases in mortality, hospitalizations and healthcare costs.[25,26] It is estimated that underuse of medicines costs Canada up to $9 billion annually.[64] These financial barriers mean many patients do not "directly and immediately feel the benefits of preventive therapies – such as medicines to reduce the risk of heart attacks and strokes [such as anti-hypertensives or cholesterol lowering drugs] – they often choose to stop taking these medicines when faced with associated costs [and] this results in predictable increases in the use of other healthcare services, which are often more expensive than the medicines would have cost in the first place."[10]

Twenty-four percent of Canadians who reported cost-related non-adherence used healthcare resources in excess.[16] This represents almost 375,000 people in Canada who used healthcare services (physician visit, hospital stay or emergency department visit) they would not have needed if they had taken a medication as prescribed.[16] Another study estimated that 12,000 people in Canada with cardiovascular disease aged 40+ required overnight hospitalization as a result of shortfalls in prescription drug coverage and related non-adherence.[24] For example, the gaps in prescription drug coverage in Canada are estimated to be responsible for 370 – 640 premature deaths due to ischemic heart disease every year.[24]

Quality of life is also impacted by poor access to prescription medications. Due to shortfalls in prescription coverage, as many as 70,000 older Canadians (55+) are thought to suffer avoidable deterioration in their health status every year.[24] Much of these avoidable healthcare costs, premature deaths and decreases in productivity or quality of life could be prevented with a national universal pharmacare program.[24]

Benefits of a Universal Pharmacare Program

Recent Canadian research explored the impact of various pharmacare models on cost savings and systems efficiencies, studying options such as a single national formulary or an essential medicines list as base coverage for all people in Canada. In 2017 the Parliamentary Budget Officer modeled a scenario in which everyone was covered under a Quebec-like pharmacare program.[17] It found that of the approximate $28.5 billion in overall 2015-16 drug expenses, the majority ($24.6 billion) would be eligible for inclusion in a national publicly-funded pharmacare program.[17] It was estimated that total pharmaceutical spending under a national pharmacare program to cover that $24.6 billion worth of drugs, would only be $20.4 billion due to newly found systems efficiencies, resulting in an overall cost savings of $4.2 billion.[17] Payers would shift from various insurance companies and individual out-of-pocket expenditures to the federal government. In this scenario the federal government would be required to spend an additional $7.3 billion on drugs each year.[17]

Other models predict that with a national pharmacare program, more than two million people in Canada now unable to access necessary medicines would be able to fill their prescriptions.[27] Experts estimate that a national pharmacare program could reduce up to 50% of the existing problems of drug underuse, overuse and misuse while improving patient health outcomes and reducing costs within the healthcare system by almost $5 billion per year.[27]

A Comprehensive solution

Approximately $5 billion extra per year is spent by employer insurance plans because such plans are not connected to the regulation and oversight of prescriptions trends, and as such "are not well positioned to manage prescribing and dispensing decisions of Canadian health professionals."[27] Additional studies estimate that between $4 billion and $9.4 billion per year could be saved with a Canadian national pharmacare program.[7] When assessing the Canadian healthcare system in contrast to similar systems, the United Kingdom was found to have better overall outcomes including higher access to medicines, lower patient burden, greater use of electronic prescribing, 45% lower drugs costs and five times greater per capita pharmaceutical research and development.[7] There is much room for improvement in Canada.

Strong public support

Public opinion is favourable towards a universal pharmacare program. In a 2015 poll, 91% of respondents supported the idea of "pharmacare", enabling universal access to necessary medicines.[18] Also, 88% of respondents feel that medicines should be part of Medicare and 80% believe that a single-payer system would be more efficient.[18] The voices of people in Canada echo growing international pressure from the United Nations and World Health Organization calling on all countries to provide universal access to essential medicines. Many health NGOs and coalitions such as the Health Charities Coalition of Canada are also calling for action on improved access to medicines in Canada. Numerous public interest groups, patient organizations, health professional associations, student groups, business leaders, academics, labour groups, health system managers, economists and health policy experts have called for change in how Canadians access necessary medicines with focus on universality and equity.

Advisory council on the implementation of national pharmacare

The Advisory Council on the Implementation of National Pharmacare released its final report in June 2019. This report made recommendations for a national pharmacare plan to be set up in the same way as universal health care.[65] This would require the federal government to cover all incremental costs, and the creation of a Canadian drug agency governed collaboratively by federal, provincial and territorial governments.[65] Based on estimates by the Advisory Council, a national pharmacare plan would lead to annual savings of over $350 for the average family and $750 annually per employee for business owners.[65] For patients with cardiovascular disease, it is estimated that national pharmacare could save an estimated $780 million in direct healthcare costs per year.[66] This includes emergency department costs, hospital costs and costs attributable to cost-related non-adherence of medication. Full implementation of a national pharmacare plan (by 2027) would save $5 billion per year thereafter.[65]

Heart & Stroke Vision for a Pharmacare Program

Heart & Stroke is committed to the values of universality and equity in Canadian health care and strongly encourages their application to provide universal access to medications. It is time for Canada to fill this critical gap in our healthcare system and truly provide universal health care for all. The pharmacare solution needs to be made in Canada, addressing our specific context and needs, while learning from the success of universal pharmacare programs elsewhere in the world. Building a pharmacare plan will ultimately improve drug adherence, reduce the burden on the health system and create a healthier, more productive population.

Heart & Stroke recommends the development and implementation of an equitable and universal pharmacare program, designed to improve access to cost-effective medicines for all people in Canada regardless of geography, age, or ability to pay. This program should include a robust common formulary for which the public payer is the first payer. This hybrid model would allow private payers to supplement the common formulary with brand name or other medications not available on the public plan. The public payer should always be the first payer to ensure cost efficiencies by containing drug costs, increasing buying and negotiating power and reducing administration.

The guiding principles underpinning the Heart & Stroke vision for access to medicines in Canada are:

Equity: All people in Canada should have equitable access to a comprehensive range of evidence-based proven medications to help meet their health needs regardless of who they are, the setting they are in, or where they live.

Timeliness of access: All people in Canada should be able to access the medications they need in a timely manner.

Quality: All people in Canada deserve high-quality medications that are appropriate for patient needs, respect an individual's choice and are delivered in a manner that is timely, safe and effective according to the most current scientific knowledge available.

Affordability: All people in Canada should be able to afford their medications at the point of care.

Sustainability: All people in Canada should benefit from a pharmacare system that ensures the ongoing sustainability of federal and provincial/territorial health systems. The implementation of comprehensive, evidence-based, pan-Canadian pharmacare standards must be adequately resourced, cost effective for individuals and a sustainable element of the healthcare system that is continuously reviewed, evaluated and improved.

Patient partnerships: National pharmacare program design and implementation are developed and monitored in partnership with Indigenous communities, healthcare providers, patients, people with lived experience including caregivers, and health organizations to ensure the right medication gets to the right patient at the right time in a cost-effective manner.

Policy Options

To realize Heart & Stroke's vision for pharmacare, we recognize that many actors must take a leadership role and raise their voices to create sustainable, equitable access to prescription medications for all people in Canada. Below are a series of policy options for various sectors:

Federal government

1. Take a leadership role in the development of an equitable and universal national pharmacare program as part of an overarching access to medications strategy. Involve provinces, territories, Indigenous communities, patients, healthcare professionals, health charities and industry in the development process. Adopt and implement a universal and equitable pharmacare program for Canada whereby:
   - All people in Canada are covered under universal pharmacare, including convention-status refugees, regardless of domestic geography, socioeconomic status, age, ethnicity or sex/gender, and should have equitable and timely access to proven and safe medically-necessary prescription drugs, without undue financial hardship or excessive waits.
   - Public insurance is the main mode of delivery and the first payer, as seen with coverage for hospital and physician services but also allow for a mix of public and private insurance to supplement public-base coverage.
   - A universal base of public insurance covers everyone in Canada for a formulary of comprehensive and necessary medicines. Safe and effective prescription drugs for which there is good evidence of value for money should be covered as part of a national pharmacare plan. This list must be more extensive than the WHO list of essential medicines which is most suitable for developing countries.

- The national pharmacare plan could include multiple provincial/territorial drug plans that have consistent base standards and principles. There should be a certain level of base coverage across the various publicly-funded universal drug plans with the allowance for some variability across provincial/territorial plans.
- The provinces/territories deliver the pharmacare program through a joint F/P/T effort. The federal government should develop formulary standards that would be used across the country and should also provide funding to the provinces/territories for the implementation of the national pharmacare plan.
- There is a cost sharing plan for the implementation of pharmacare standards with the provinces and territories.
- Patients pay a portion of the cost of prescription drugs at the pharmacy based on their income. However, cost should not be a barrier for people with low incomes. Co-payments should be based on income with small to no fees in place for people with low incomes. Graduated pricing of co-payments based on income and caps on co-payments are also options. Private insurance plans could also be leveraged to pick up the cost of these co-payments.
- People are able to pay out of pocket or through private insurance for the cost difference for brand name drugs or those that are not covered on a public-insurance plan.
- The federal government capitalizes on the purchasing power of a national pharmacare program and drug formulary to negotiate the best possible prices for patients and payers.
- Maintain incentive for the pharmaceutical industry to develop new, innovative and beneficial medications that improve health outcomes and quality of life. Establish incentive programs to enable the pharmaceutical industry to research and manufacture their products in Canada.

2. In partnership with provincial, territorial and Indigenous governments, come together for collective negotiations to reduce costs to the healthcare system and increase access to needed prescription medications regardless of whether a national pharmacare plan is established.
3. Work to ensure that drug negotiations secure the best possible prices for patients and payers, while maintaining incentive for the pharmaceutical industry to develop new, innovative and beneficial medications regardless of the implementation of a national universal pharmacare program.
4. Revisit the Common Drug Review process and ensure that it is transparent, objective, efficient, meets the needs of the provinces/territories, removes redundancy, and includes representatives from different groups including patients and caregivers with a range of backgrounds and life experiences, and healthcare providers.
5. Establish a publicly accountable management body with an aim to integrate and leverage data and evidence into decisions concerning drug cost effectiveness and efficiency, coverage, prescribing and patient follow-up.
6. Encourage more uniform and broaden (as appropriate) scope of practice for healthcare professionals across the country in order to effectively and efficiently utilize resources.
7. In collaboration with Indigenous communities and organizations, governments should work to ensure equitable access to prescription medication for Indigenous people. This would include addressing barriers to access within the NIHB program. A universal pharmacare program means that Indigenous people have access to the same formulary as non-Indigenous people in Canada. Indigenous communities must be involved in the development of a national pharmacare program to ensure the needs and desires of communities are addressed accordingly.
8. The healthcare system should recognize and assess the value of Indigenous traditional medicine practices as well as other culturally sensitive complementary and alternative forms of medicine.
9. It is also recommended that the government implement the health recommendations from the Truth and Reconciliation Commission to improve overall healthcare access and outcomes among Indigenous people in Canada.

Provincial/territorial governments

1. In collaboration with the federal government, design, adopt and implement a universal national pharmacare program which:
    - Ensures that people in Canada have equitable access to cost-effective, evidence-based necessary prescription medications regardless of ability to pay, geography, age, sex/gender or ethnicity.
    - Establishes a universal, defined minimum level of prescription drug coverage.
    - Involves the perspective of patients, caregivers and the health charities that serve them.
    - Leverages the standards and funding provided by the federal government.
    - Addresses regional variations in population health by including additional therapeutics (medications and devices) in the universal provincial pharmacare plan if financially so able.

- Includes coverage of clinical services such as the MedChecks program to support people in taking their medications safely.

2. Ensure that people in Canada do not suffer undue financial hardship as a result of the expense of medications. Prior to the national pharmacare program being available, begin by improving access to catastrophic drug costs.
3. Improve access to medications among patients in rural, remote, underserved and Indigenous communities by granting non-physician healthcare professionals (e.g. pharmacists and nurse practitioners) the authority to prescribe and dispense certain medications.
4. Implement innovative solutions such as telepharmacy.
5. Create policies and strategies to better integrate medications in the healthcare system, including the use of electronic prescribing and systems monitoring.
6. In collaboration with Indigenous communities and organizations, work to improve healthcare delivery and access to medications for Indigenous people.
7. The healthcare system should recognize and assess the value of Indigenous traditional medicine practices as well as other culturally sensitive complementary and alternative forms of medicine.
8. Develop public awareness and education programs about the efficient and effective use of prescription medications.

Health professionals

1. Advocate for a universal and equitable national pharmacare program.
2. As part of treatment and routine medical check-ups, ask patients whether cost or insurance coverage limits are barriers to getting drug prescriptions filled in order to make informed prescribing decisions and to provide patients with information about programs that might help them with prescription expenses.
3. Inform patients about the variety of available options and costs for prescription drug coverage.
4. Ensure appropriate use of medication through prescribing, dispensing and monitoring.
5. Inform patients about the importance of following prescription instructions in order to both ensure safety and to derive maximum benefits from medications.
6. Stay informed about the range of available treatment options, including generic drugs, and consider both effectiveness and cost when making prescribing decisions.
7. Where possible, recommend behaviour and lifestyle modifications in order to reduce both long- and short-term reliance on prescription drugs and provide patients with up-to-date resources, programs and tools to assist them in reaching their goals.
8. Engage in interprofessional collaboration.

Researchers and funders

1. Explore and fund research on the following topics:
    - The demographics of prescription drug use, access to medication, cost-related non-adherence, barriers and insurance coverage across different population segments including ages, geographies, incomes, sex/gender, racialized group, insured, non-insured and under-insured.
    - The comparative effectiveness and costs of frequently prescribed medications including which drugs are most effective within certain populations.
    - The relationships between access to prescription drugs, health outcomes and overall costs for the healthcare system.
    - Policy and program options aimed at providing the most effective and efficient universal and equitable access to necessary prescription drugs for all people in Canada.
    - Comparisons on healthcare quality and efficiency compared to other healthcare systems.
    - How to respectfully and effectively complement Western medicine and pharmaceutical use with other cultural forms of medicine. Recognize the value of Indigenous healing practices and use them in the treatment of Indigenous patients in collaboration with Indigenous healers and Elders where requested.

Pharmaceutical and insurance companies

1. Maintain ethical practices with respect to the development, manufacturing, marketing and sale of pharmaceutical products.
2. Ensure that healthcare providers and patients receive the best, unbiased information required to make informed treatment decisions.
3. Work with governments to foster innovation in development of medicines.
4. Support the development of government plans to develop universal and equitable access to medications in publicly-funded pharmacare programs.
5. Continue to invest in and drive innovation that benefits health outcomes and quality of life.

6. Work with the government to supplement the common formulary with brand name or other medications not available on the public plan.

Employers

1. Where possible, provide employees regardless of full-time, part-time or contract status with comprehensive insurance for prescription drug costs. If this is not possible, provide information about where/how to purchase private insurance.
2. Support the development of a national universal pharmacare program recognizing the key roles played as both purchasers of health insurance plans and economic contributors.
3. In healthcare settings support practitioners to work their full scope of practice to alleviate strains on the healthcare system and provide the highest quality of care.

People in Canada

1. Inform themselves about their medical insurance coverage to understand how they are covered and how their coverage protects them.
2. Speak with their healthcare providers to ensure prescriptions are the most appropriate and effective for their individual needs while also considering cost constraints, and to identify resources and services available to help meet individual needs and goals.
3. Advocate for improved and equitable access to prescription medications for all people in Canada and the development of a national universal pharmacare program. Visit www.heartandstroke.ca to learn more.
4. Learn more about which risk factors that they can control and how to live a healthier lifestyle.
5. Commit to understanding what the medications being taken are for, utilize prescription medications efficiently and effectively, and take as prescribed.
6. Raise their voices. Advocate for patients' rights including patient ownership of their own health records and having access to digital portals.

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