Prescribed Drug Spending in Canada

2020

A Focus on Public Drug Programs

Canadian Institute for Health Information
Institut canadien d'information sur la santé

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- Ontario Drugs and Devices Division, Ministry of Health
- Manitoba Provincial Drug Programs, Department of Health
- Saskatchewan Drug Plan and Extended Benefits Branch, Ministry of Health
- Alberta Pharmaceutical and Health Benefits, Ministry of Health
- British Columbia Health and Drug Coverage, Ministry of Health
- Yukon Pharmacare, Health and Social Services
- First Nations and Inuit Health Branch, Indigenous Services Canada

Please note that the analyses and conclusions in this document do not necessarily reflect those of the organizations mentioned above.

About CIHI

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization dedicated to providing essential health information to all Canadians.

We provide comparable and actionable data and information that are used to accelerate improvements in health care, health system performance and population health across Canada. Our stakeholders use our broad range of health system databases, measurements and standards, together with our evidence-based reports and analyses, in their decision-making processes. We protect the privacy of Canadians by ensuring the confidentiality and integrity of the health care information we provide.

Highlights

Public drug program spending accounted for 43.6% of prescribed drug spending in Canada in 2019. This report provides an in-depth look at public drug program spending in Canada, using CIHI's National Prescription Drug Utilization Information System (NPDUIS). Public drug program spending does not include spending on drugs dispensed in hospitals or on those funded through cancer agencies and other special programs.

Public drug program spending increased by 3.2% between 2018 and 2019.

- Public drug programs spent $15.0 billion in 2019, an increase of 3.2%, compared with 6.8% in 2018.
- Drug program redesign in Ontario has significantly impacted trends in public drug program spending over the past 2 years.
- Excluding the influence of the redesign, drug program spending in all jurisdictions increased by 4.8% in 2019 and 3.5% in 2018.

Diabetes drug classes contributed significantly to spending growth in 2019.

- 3 of the top 10 contributors to the growth were diabetes drug classes in 2019; only 1 diabetes drug class was among the top 10 contributors in 2018.
- The 3 diabetes drug classes contributed 25.7% of spending growth in 2019.

Spending on hepatitis C drugs decreased by 18.1% in 2019.

- Hepatitis C drugs were the second-highest contributor to growth in 2018.
- The decrease in spending in 2019 is primarily due to fewer people using drugs in this class.

Uptake of biosimilars continued to increase, which contributed to slower growth in spending on anti-TNF drugs.

- When biosimilars were available, they accounted for 16.8% of biologic spending in 2019, up from 9.0% in 2018.
- Growth in spending on tumour necrosis factor alpha inhibitors (anti-TNF drugs) slowed to 3.0% in 2019, compared with 8.2% in 2018.
- Spending on biosimilars for the anti-TNFs Enbrel (etanercept) and Remicade (infliximab) almost doubled in 2019, accounting for 9.0% of spending on these products in 2019, up from 4.7% in 2018.

About this report

Prescribed Drug Spending in Canada, 2020 provides an in-depth look at public drug program spending in Canada in 2019. It looks at the types of drugs accounting for the majority of spending, broken down by sex, age and neighbourhood income. It also examines how different drug classes contribute to observed trends in public drug program spending. For more detailed methodological notes and for information on the terms used in this report, see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes*.

Supplementary data tables, including the top drug classes in terms of spending and use, are available on CIHI's website: *Prescribed Drug Spending in Canada, 2020: A Focus on Public Drug Programs — Top 100 Drug Classes, 2019 Data Tables*.

Please note that, throughout the report (including data tables and figures), numbers may not add up to the total due to rounding.

Please send feedback and questions to the NPDUIS team at drugs@cihi.ca.

Introduction

Spending on prescribed drugs is forecast to reach $34.3 billion in 2019, an increase of 2.7% over the previous year.[1] Multiple payers are involved in the financing of prescribed drugs. In the public sector, these payers include provincial, territorial and federal drug subsidy programs and social security funds (such as workers' compensation boards). In the private sector, payers include private insurers and households or individuals paying out of pocket.

Public drug program spending accounted for 43.6% of the $34.3 billion of prescribed drug spending in 2019, as reported in CIHI's *National Health Expenditure Trends, 1975 to 2019*.[1] The public share of prescribed drug spending varied among provinces, ranging from 31.7% in New Brunswick and 34.0% in Newfoundland and Labrador to 47.4% in Manitoba and 48.6% in Saskatchewan. Outside of the public sector, prescribed drug spending financed by private insurers was $12.7 billion (36.9%), with the remaining $6.8 billion (19.9%) financed by Canadian households.[1] Public drug program spending does not include spending on drugs dispensed in hospitals or on those funded outside public drug programs (e.g., through cancer agencies).

This report provides an in-depth look at public drug program spending in 2019 using drug claims data submitted to CIHI's NPDUIS by all provinces and Yukon, plus 1 federal program administered by the First Nations and Inuit Health Branch (FNIHB) at Indigenous Services Canada.

Growth in public drug program spending: A comparison of 2018 and 2019

Public drug programs spent $15.0 billion in 2019, an annual increase of 3.2%, compared with 6.8% in 2018[i] (Table A1). OHIP+, which covers Ontario residents age 24 and younger who do not have coverage from a private plan, has impacted growth significantly since its inception in January 2018 (see Influence of OHIP+ below for more details). Excluding spending on OHIP+ beneficiaries who were not previously covered by an Ontario drug program,[ii] spending in all jurisdictions increased by 4.8% in 2019, compared with 3.5% in 2018.

Influence of OHIP+

OHIP+ was introduced in January 2018 as a new eligibility stream that extended the Ontario Drug Benefit Program to cover Ontario residents age 24 and younger. On April 1, 2019, the program was redesigned to cover only those who are not covered by a private plan. This change in program design contributed to a 28.1% reduction in individuals making at least one claim under OHIP+ in 2019 (from 2.3 million individuals in 2018 to 1.6 million in 2019); likewise, spending on OHIP+ decreased by 50.7%, from $640.1 million in 2018 to $315.6 million in 2019. This had a significant impact on the growth in public drug program spending in Canada — spending across all jurisdictions grew by 3.2% in 2019; however, when excluding spending on OHIP+ beneficiaries who were not previously covered by an Ontario drug program, spending increased by 4.8%.

i. This amount may not reflect the impact of all product listing agreements with drug manufacturers.
ii. 91.6% of OHIP+ beneficiaries were not previously covered by an Ontario drug program (i.e., did not have any accepted claim in Ontario in 2017).

Public drug program spending by broad therapeutic category

Spending by broad therapeutic category provides a high-level overview of the types of conditions that account for the majority of drug spending. Broad therapeutic categories are regarded as groups of different chemicals that act on the same organ or system (see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes*).

Among 14 broad therapeutic categories, antineoplastic and immunomodulating agents accounted for the highest proportion of public drug program spending (22.9%). Although cancer agencies and hospitals fund a large proportion of the total spending on some of these drugs (Table 1), other non-cancer drug classes, such as anti-TNF drugs and selective immunosuppressants, are in the top 10 in public drug program spending and contributed significantly to the spending in this broad therapeutic category (Table A3).

The largest decreases in spending were on antiinfectives for systemic use and nervous system drugs (decreased by $162.9 million and $72.5 million, respectively), offsetting some of the growth in spending seen in other categories. The significant decrease in spending for antiinfectives for systemic use was largely due to the decrease in spending on hepatitis C drugs (see Hepatitis C drugs: Largest decrease in spending for more details).

Table 1 Percentage of public drug program spending and rate of use, by broad therapeutic category,* 2019

Broad therapeutic category	TPS ($ millions)	Annual rate of growth (%)	Proportion of TPS (%)	Rate of use (%)
Antineoplastic and immunomodulating agents	$3,434.7	11.5	22.9	3.5
Nervous system	$2,260.5	-3.1	15.1	44.1
Alimentary tract and metabolism	$2,013.8	9.4	13.4	37.1
Cardiovascular system	$1,433.6	-3.0	9.6	44.8
Antiinfectives for systemic use	$1,172.4	-12.2	7.8	46.6
Sensory organs	$960.2	8.4	6.4	11.6
Respiratory system	$895.4	2.1	6.0	22.5
Blood and blood-forming organs	$808.0	8.3	5.4	13.1
Musculoskeletal system	$419.8	10.1	2.8	21.8
Genitourinary system and sex hormones	$337.1	-2.1	2.3	16.4
Systemic hormonal preparations	$248.9	0.4	1.7	18.6
Dermatologicals	$150.3	-5.2	1.0	21.0
Various	$139.8	5.5	0.9	1.2
Antiparasitic products, insecticides and repellents	$24.1	1.5	0.2	3.9
Unassigned†	$201.5	27.5	1.3	2.9
Non-drug products‡	$478.8	-2.2	3.2	20.6
Total	**$14,978.8**	**3.2**	**100.0**	**n/a**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† This category includes products without an assigned Anatomical Therapeutic Chemical (ATC) code.

‡ Non-drug products include, but are not limited to, diabetic supplies, wound care, ostomy supplies and pharmaceutical services. (See *Prescribed Drug Spending in Canada, 2020 — Methodology Notes* for more details.)

TPS: Total program spending.

n/a: Not applicable.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Spending on non-drug products (e.g., diabetic supplies, wound care, pharmaceutical services including vaccine administration and medication reviews) totaled $478.8 million and accounted for 3.2% of public drug program spending. Although diabetic supplies accounted for 61.8% of non-drug spending, spending on these products decreased by 1.2% in 2018 and by 2.4% in 2019. This decrease is largely due to decreases in spending on blood glucose test strips, which accounted for 81.0% of diabetic supply spending in 2019. Changes in formulary coverage that limit the number of blood glucose test strips that could be claimed per person in a given year may be contributing to this decrease in spending.[2, 3]

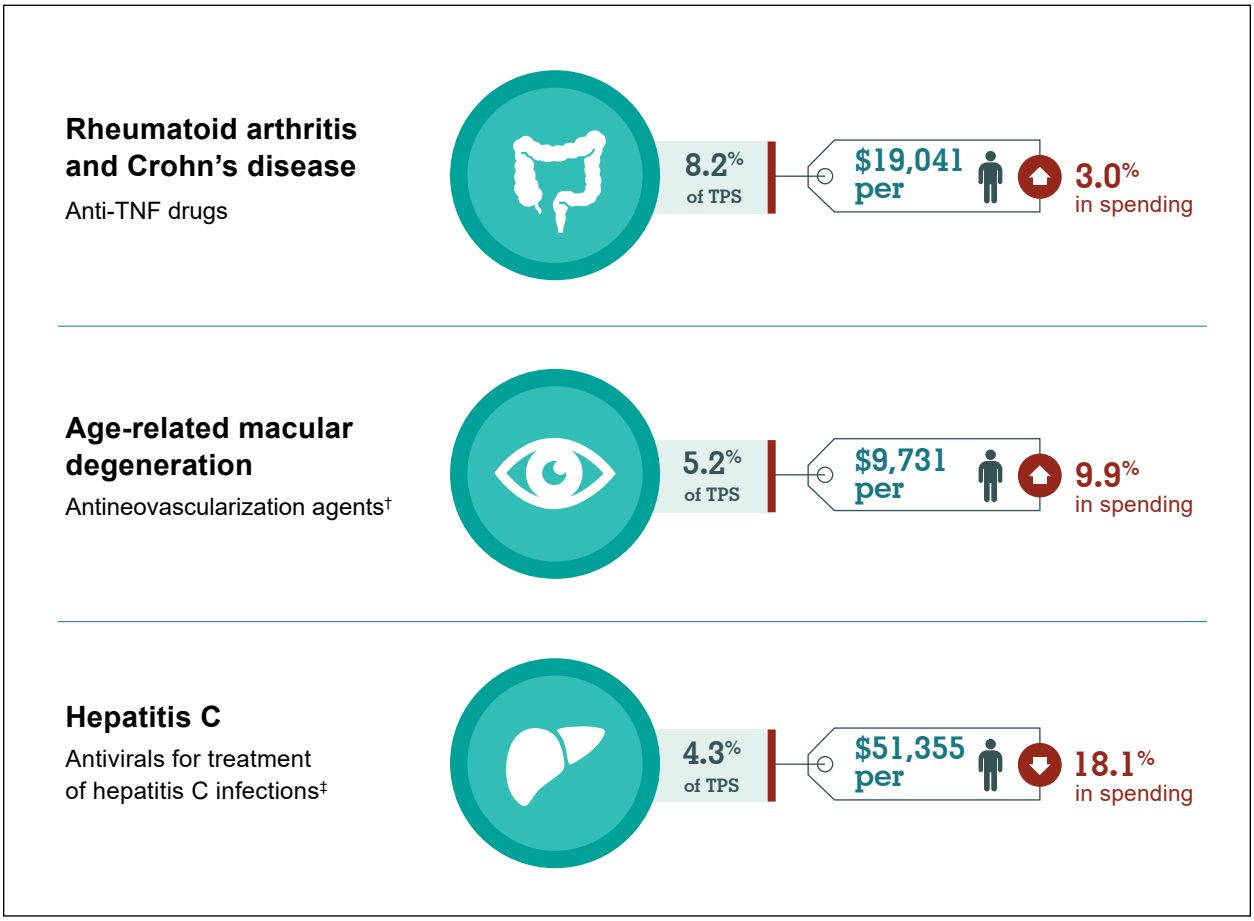
The distribution of spending across broad therapeutic categories was similar across jurisdictions, with antineoplastic and immunomodulating agents and nervous system drugs accounting for the 2 highest proportions of spending in 7 of the 12 jurisdictions and appearing in the top 4 broad therapeutic categories in all jurisdictions (Table A2). Many factors can influence the distribution of spending, including the drug program design, the health and demographics of the population covered, formulary coverage and prescribing patterns. For a more comprehensive list of factors, see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes*.

Public drug program spending by drug class

This section looks at drug classes that accounted for the highest proportion of public drug program spending (Table A3 and Table A4), as well as those that were the largest contributors to growth in public drug program spending (Table A5 and Table A6). Spending by drug class provides more detail on the conditions being treated. Drug classes are regarded as groups of different chemicals that act in the same way to treat similar medical conditions. Contribution to growth was calculated as the change in spending for the specific drug class between 2018 and 2019, divided by the change in overall spending (see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes*).

The top 10 drug classes accounted for one-third of drug program spending. For the eighth consecutive year, anti-TNF drugs (used to treat conditions such as rheumatoid arthritis and Crohn's disease) accounted for the highest proportion of spending. They were followed by antineovascularization agents (used to treat age-related macular degeneration, ranked third in 2018) and hepatitis C drugs (ranked second in 2018) (Figure 1).

Figure 1 Top 3 drug classes by percentage of public drug program spending,* 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Spending on ranibizumab and aflibercept (which accounted for 99.9% of spending on antineovascularization agents) in Nova Scotia, Manitoba and British Columbia, and the majority of this spending in Alberta, is funded through special programs and is not included in NPDUIS.

‡ Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

TPS: Total program spending.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

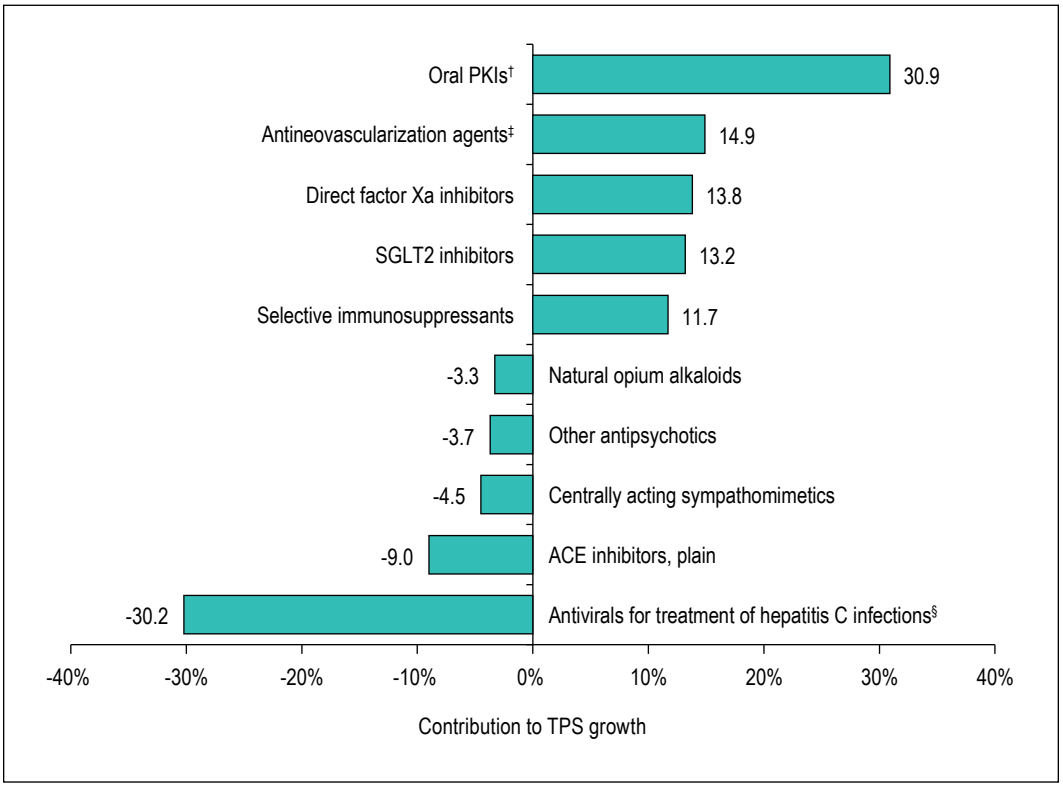
Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Hepatitis C drugs experienced the largest decrease in spending in 2019, from $779.6 million in 2018 to $638.7 million (Figure 2). Oral protein kinase inhibitors (PKIs) (used to treat various types of cancer) were the largest contributor to growth, followed by antineovascularization agents and direct factor Xa inhibitors (used to treat conditions such as venous thromboembolism). 3 of the top 10 classes in terms of contribution to growth — sodium–glucose co-transporter 2 (SGLT2) inhibitors, combinations of oral blood glucose–lowering drugs, and long-acting insulins and

analogues for injection — were used to treat type 2 diabetes. The latter 2 drug classes were new to the top 10 contributors to growth (Table A5). Centrally acting sympathomimetics (used to treat attention deficit/hyperactivity disorder [ADHD]) and hepatitis C drugs dropped out of the top 10.

Figure 2 Top 5 drug classes by largest (positive and negative) contribution to growth in public drug program spending,* 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† The majority of spending on PKIs in Saskatchewan, Alberta and British Columbia is funded through cancer agencies and is not included in NPDUIS.

‡ Spending on ranibizumab and aflibercept (which accounted for 99.9% of spending on antineovascularization agents) in Nova Scotia, Manitoba and British Columbia, and the majority of this spending in Alberta, is funded through special programs and is not included in NPDUIS.

§ Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

TPS: Total program spending.

PKI: Protein kinase inhibitor.

SGLT2: Sodium–glucose co-transporter 2.

ACE: Angiotensin-converting enzyme.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Single-ingredient angiotensin-converting enzyme (ACE) inhibitors, used to treat high blood pressure and heart failure, experienced the second-largest decrease in spending, from $187.4 million in 2018 to $145.4 million in 2019. The decrease in ACE inhibitors is likely due, in part, to price reductions negotiated through the pan-Canadian Pharmaceutical Alliance (pCPA).[4] The negotiated generic prices for 20 of the most commonly prescribed chemicals — including statins, PPIs and ACE inhibitors — were further reduced from 15% to 10% of their brand-name counterparts as of April 1, 2018.[4] Overall, public drug program spending on the 67 pCPA-negotiated chemicals decreased by $53.5 million, representing 0.4% of overall public drug program spending in 2019.

Hepatitis C drugs: Largest decrease in spending

Hepatitis C drugs accounted for the third-highest proportion (4.3%) of drug program spending. Unlike the previous 2 years, when they were among the largest contributors to spending growth, hepatitis C drugs experienced the largest decrease in spending (18.1%) in 2019.

Given that hepatitis C drugs are typically taken as a defined course of treatment (e.g., 12 weeks) and have demonstrated high cure rates (i.e., over 90% for hepatitis C virus genotypes 1 to 6),[5, 6] it is not surprising that the majority (74.2%) of people with a claim for hepatitis C drugs in 2019 were new users. As a result of the high cure rate of treatment along with the recent pan-Canadian and international efforts to reduce new infections of hepatitis C,[7–9] the number of hepatitis C drug users decreased by 13.4% in 2019.

Another reason for the decrease is that the mix of chemicals contributing to spending within the class changed significantly. In 2019, spending on Maviret (glecaprevir and pibrentasvir) accounted for 14.9% of drug program spending on this drug class (up from 0.1% in 2018), while there was a decrease in the share of spending on Zepatier (elbasvir and grazoprevir) and Epclusa (sofosbuvir and velpatasvir) — the top 2 chemicals for treatment of hepatitis C in 2018. The average cost per paid beneficiary for Maviret in 2019 was $41,088, compared with $51,075 and $53,900 for Zepatier and Epclusa, respectively.

Like other high-cost drug classes, hepatitis C drugs have a low rate of use (0.1% of beneficiaries). However, these drugs had the highest average cost of any class in the top 10, at $51,355 per paid beneficiary. They appeared in the top 5 in terms of public drug program spending in 2019 in all jurisdictions except Quebec, where it was ranked 12th (see *Prescribed Drug Spending in Canada, 2020: A Focus on Public Drug Programs — Top 100 Drug Classes, 2019 Data Tables*).[iii]

iii. Spending on antivirals for treatment of hepatitis C infections in P.E.I. is not included in NPDUIS. P.E.I. spent $1.8 million on its hepatitis C program in the fiscal year 2019–2020; if this spending had been included, antivirals for treatment of hepatitis C infections would have ranked second among drug classes in terms of program spending.

Drugs for diabetes: 3 of the top 10 highest contributors to growth

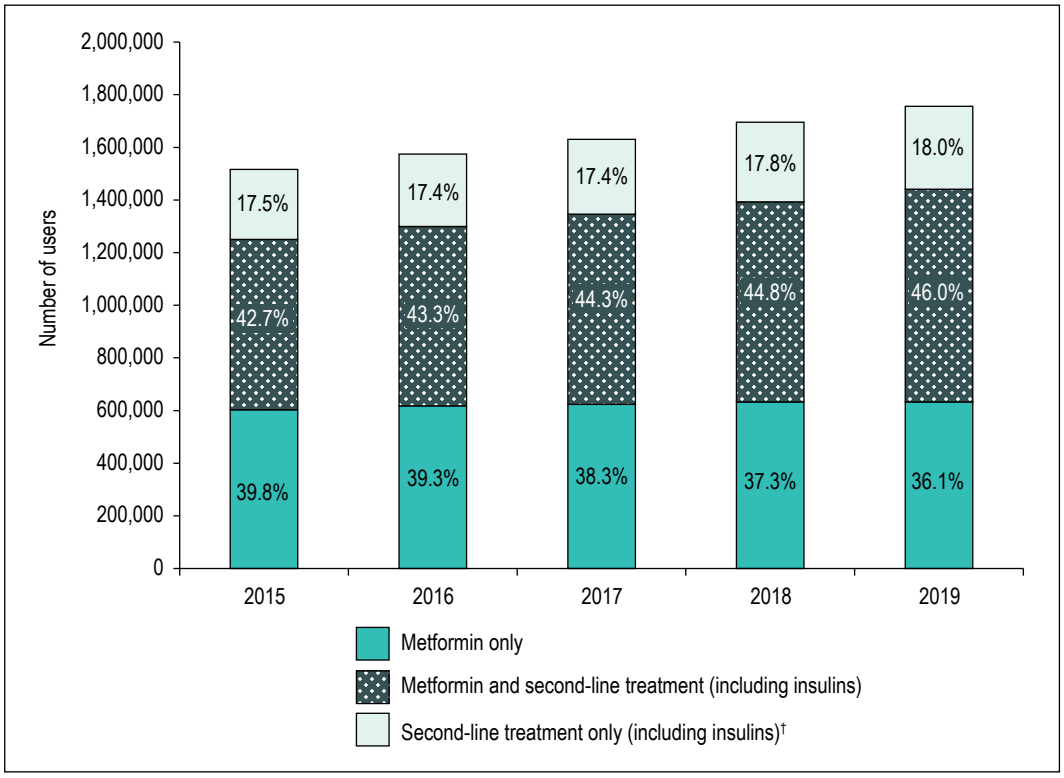
In 2019, 3 newer drug classes[iv] used to treat diabetes — SGLT2 inhibitors, combinations of oral blood glucose–lowering drugs, and long-acting insulins and analogues for injection — were among the 10 drug classes with the largest contribution to growth (combined, these 3 drug classes contributed 25.7%) in public drug program spending (Table A5). Only SGLT2 inhibitors were among the 10 classes with the largest contribution to growth in 2018. This is likely due in part to an increase in the prevalence of diabetes. Between 2015 and 2019, the prevalence of diabetes in Canada increased from 3.4 million to 3.7 million,[10, 11] while the number of users of diabetes drugs[v] increased by 15.8%. Another factor may have been the release of an updated version of the Diabetes Canada Clinical Practice Guidelines[vi] in 2018, which recommends adding second-line agents with preference given to DPP-4 inhibitors, GLP-1 receptor agonists or SGLT2 inhibitors when glycemic targets are not adequately controlled by metformin, the first-line therapeutic agent of choice.[10] From 2018 to 2019, there was an increase in users of second-line treatment only (4.3% increase, Figure 3). Among those who used at least one second-line agent, 60.9% were using at least one of the 3 newer drug classes mentioned above.

iv. These 3 drug classes accounted for 55.5% of spending in drugs for diabetes and 4.7% of overall public drug program spending in 2019.

v. The diabetes drugs included in this analysis were identified using the drug identification numbers assigned by Health Canada and using the World Health Organization's Anatomical Therapeutic Chemical (ATC) code A10 — Drugs used in diabetes (see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes* for more details).

vi. According to the clinical practice guidelines, metformin is the first-line glucose-lowering medication for type 2 diabetes; second-line treatments include dipeptidyl peptidase-4 (DPP-4) inhibitors, glucagon-like peptide-1 (GLP-1 receptor) agonists, SGLT2 inhibitors, insulin secretagogues (meglitinides, sulfonylureas), thiazolidinediones, alpha-glucosidase inhibitors and insulin therapy.

Figure 3 Number and percentage of users of diabetes drugs, by type of treatment,*,† 2015 to 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† According to the clinical practice guidelines, metformin is the first-line glucose-lowering medication for type 2 diabetes; second-line treatments include DPP-4 inhibitors, GLP-1 receptor agonists, SGLT2 inhibitors, insulin secretagogues (meglitinides, sulfonylureas), thiazolidinediones, alpha-glucosidase inhibitors and insulin therapy.

Sources

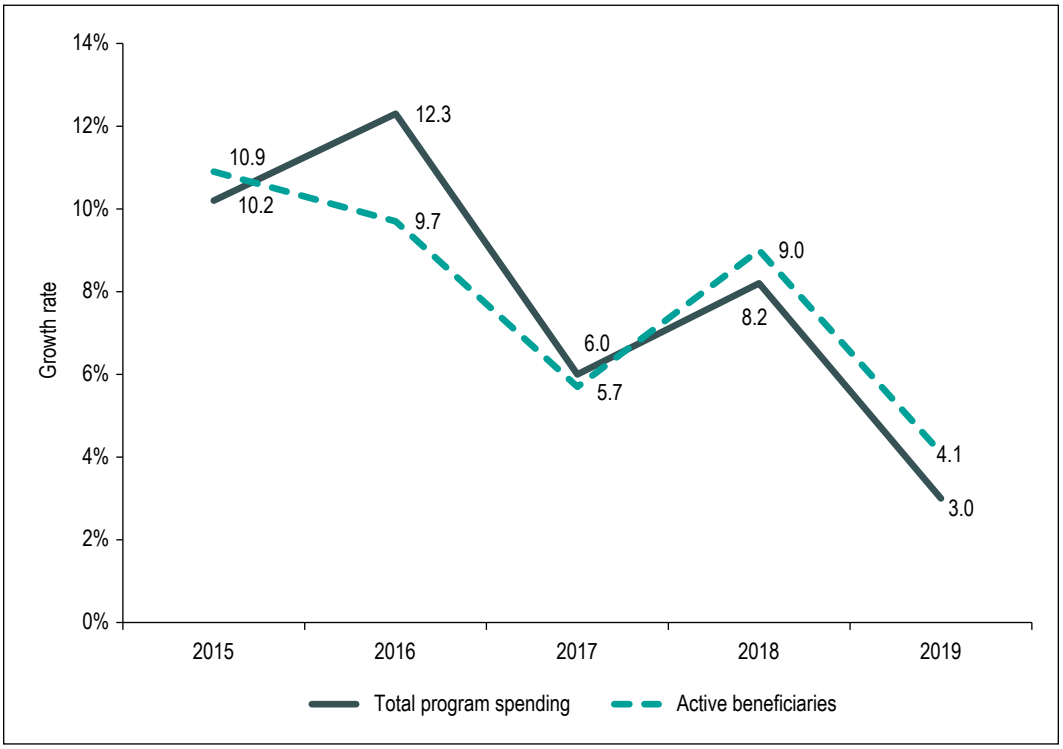
National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Anti-TNF drugs: Changes in spending and growth

Anti-TNF drugs, a biologic drug class, accounted for the largest proportion of public drug program spending, at 8.2% (Table A3).They accounted for the largest share of drug program spending in every province except Ontario, where they accounted for the second-largest share, after antineovascularization agents (see *Prescribed Drug Spending in Canada, 2020: A Focus on Public Drug Programs — Top 100 Drug Classes, 2019 Data Tables*). Anti-TNF drugs are used by a small proportion of beneficiaries (about 0.5%) but have a high cost per patient (roughly $19,041 per paid beneficiary).

Unlike 2018, where they were the third-largest contributor to growth, anti-TNF drugs ranked eighth in terms of contribution to growth in spending in 2019 (Table A5). Although the number of anti-TNF users continued to increase (4.1%), it grew at the lowest rate in the past 5 years (Figure 4).

Figure 4 Annual growth rate of public drug program spending and number of active beneficiaries for anti-TNF drugs,* 2015 to 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

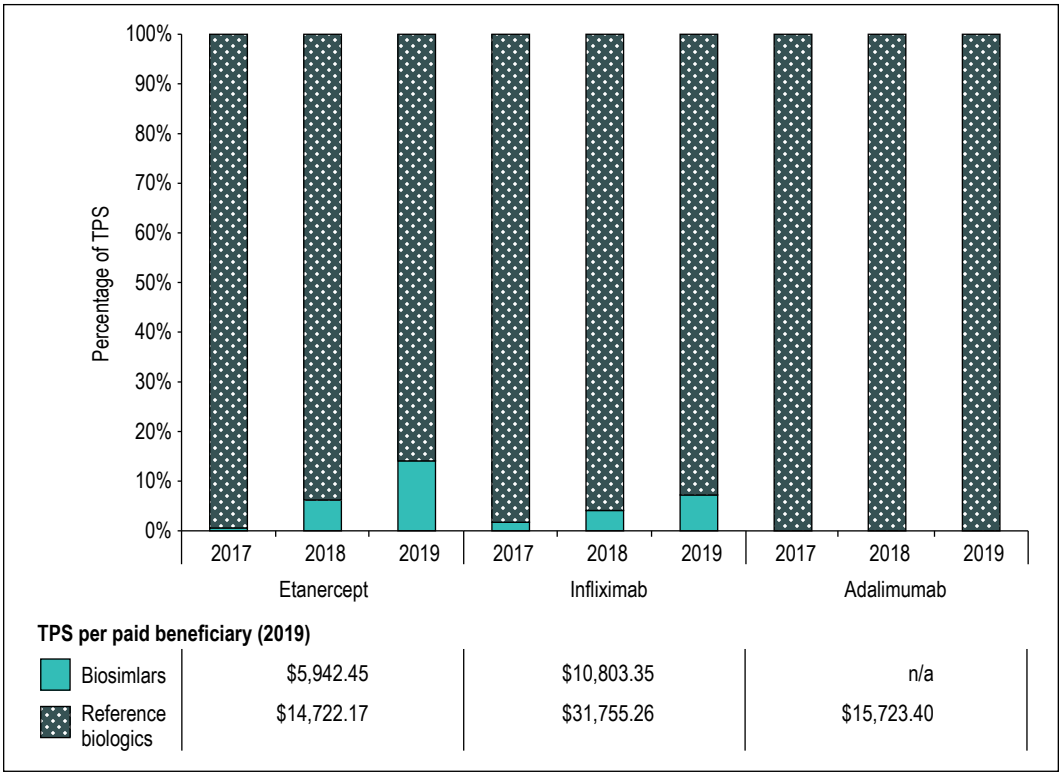
Anti-TNF: Tumour necrosis factor alpha inhibitor.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Within this drug class, 3 chemicals — etanercept, infliximab and adalimumab — accounted for more than 91.2% of spending in 2019. Among these 3 chemicals, spending on adalimumab increased by $27.2 million (7.0%) and on infliximab by $3.8 million (0.7%); these increases were partially offset by the $7.7 million (4.1%) decrease in spending on etanercept. The increased uptake of biosimilars, which have a lower cost per paid beneficiary, may in part account for the decrease in spending for etanercept, where biosimilars were available (Figure 5).

Figure 5 Proportion of total program spending on selected anti-TNF chemicals, biosimilars versus reference biologics,* 2017 to 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

TPS: Total program spending.

n/a: Not applicable.

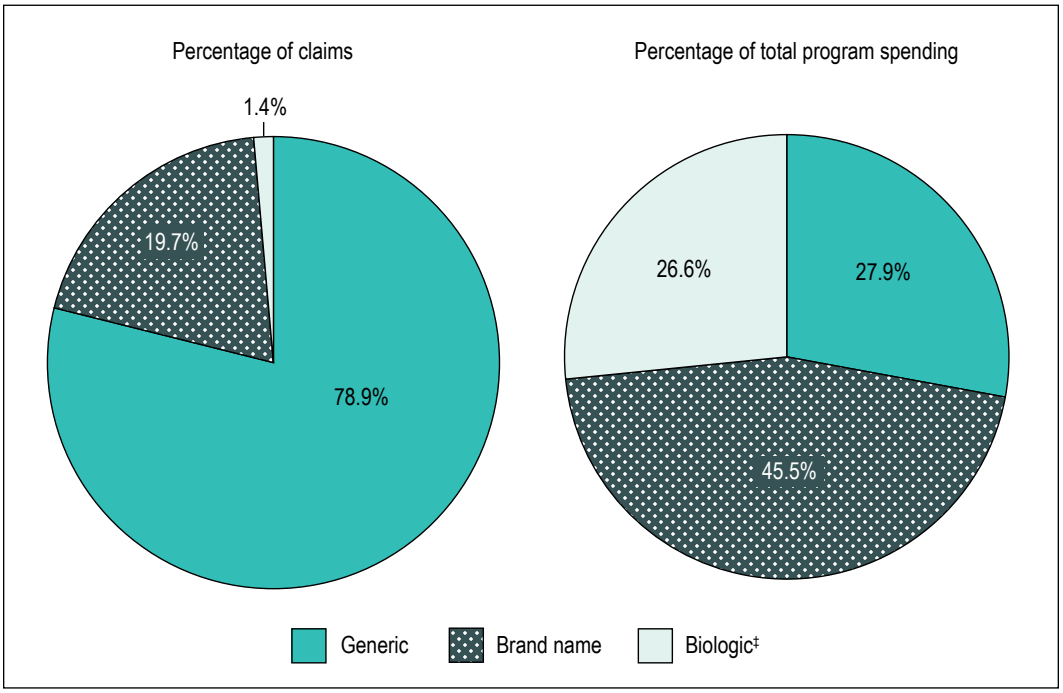
Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Generic drugs and biosimilars

In 2019, generic products accounted for 27.9% of public drug program spending (Figure 6) — down from 29.0% in 2018 and 31.1% in 2017 (Table A7). Although the share of generic spending varies by jurisdiction, spending on generic products decreased as a proportion of drug program spending over the past 5 years in all jurisdictions (Table A7). Generic products' share of utilization during this time period was relatively stable, accounting for 78.9% of accepted claims in 2019, up from 78.1% in 2018 and 77.2% in 2017.

Figure 6 Percentage share of public drug program spending and of accepted claims, by type of drug,*,† 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Over-the-counter and non-drug products were excluded from this analysis.

‡ Biologic products include reference biologic products and biosimilars.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

The share of spending on generic products does not necessarily reflect the extent of use of generic products in place of brand-name products, as generic alternatives are not available in all cases (most often when the brand-name product is still under patent). For cases where generic products were available, generics accounted for 80.7% of spending and 91.7% of claims in 2019.

Biosimilars are a highly similar version of a biologic drug that comes to market after the patent for the reference biologic product has expired.[12] In 2019, biosimilars accounted for 4.4% of spending on biologics, and 4.1% of biologic users took at least one biosimilar.

When biosimilars were available, they accounted for 16.8% of biologic spending (22.9% of biologic users) in 2019, up from 9.0% (11.9% of biologic users) in 2018. Filgrastim (used to treat low white blood cell counts in patients receiving chemotherapy) contributed significantly (33.6%) to this increase. Spending on Grastofil, the biosimilar product of filgrastim, accounted for 91.6% of spending on filgrastim in 2019, up from 57.7% in 2018.

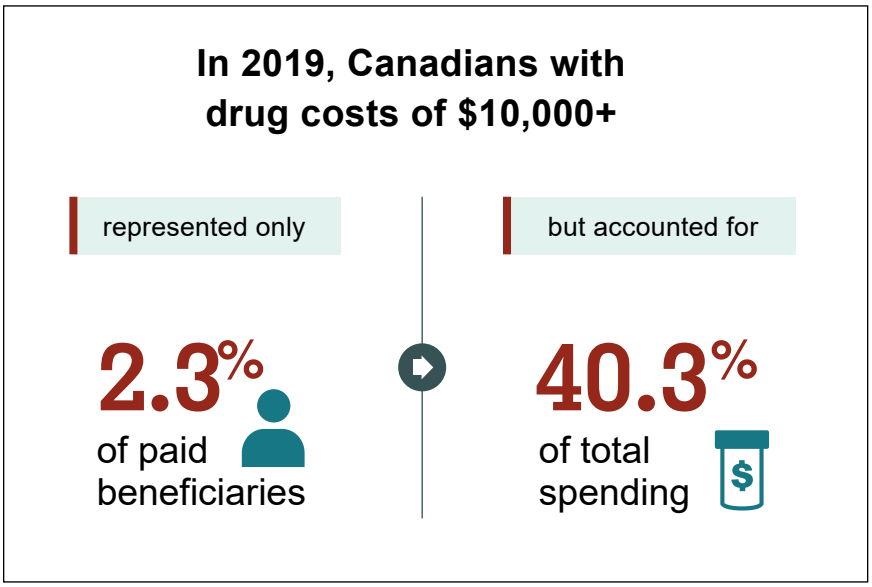
Similarly, biosimilars for the anti-TNFs Enbrel (etanercept) and Remicade (infliximab), which have been available since 2016, saw significant increases in 2019, accounting for 9.0% of spending on these products (25.2% of users) in 2019, up from 4.7% (12.2% of users) in 2018. They also contributed 42.0% to the overall increase of biosimilar spending in 2019. Despite this significant increase in 2019, biosimilar users for anti-TNFs accounted for a relatively small proportion of overall anti-TNF users.

Recently, multiple provinces (e.g., Ontario, Manitoba, Alberta, British Columbia) have promoted the use of biosimilars via biosimilar switching and biosimilar tiering policies. For example, the first biosimilar switching initiative, the B.C. Biosimilars Initiative for Patients, was implemented in May 2019. In 2019, spending for the reference biologics Enbrel and Remicade decreased by 22.0% in B.C., more than doubling the decrease in 2018 (10.7%). Furthermore, the proportion of spending on biosimilars for these anti-TNFs increased from 6.0% in 2018 to 19.6% in 2019. Going forward, it will be important to monitor the impact of these initiatives on the uptake of biosimilars.

High-cost individuals

The majority of public drug spending in 2019 was for a relatively small number of individuals (Figure 7). The proportion of public drug program spending on beneficiaries for whom the drug program paid $10,000 or more (referred to as high-cost individuals) increased from 38.8% in 2018 to 40.3% in 2019, while the proportion of beneficiaries accounted for increased from 2.1% to 2.3%. Conversely, the programs paid less than $500 toward drug costs for almost two-thirds (61.6%) of beneficiaries, accounting for only 6.0% of program spending (Table A8).

Figure 7 Percentage of paid beneficiaries and public drug program spending, by program spending per paid beneficiary,* 2019

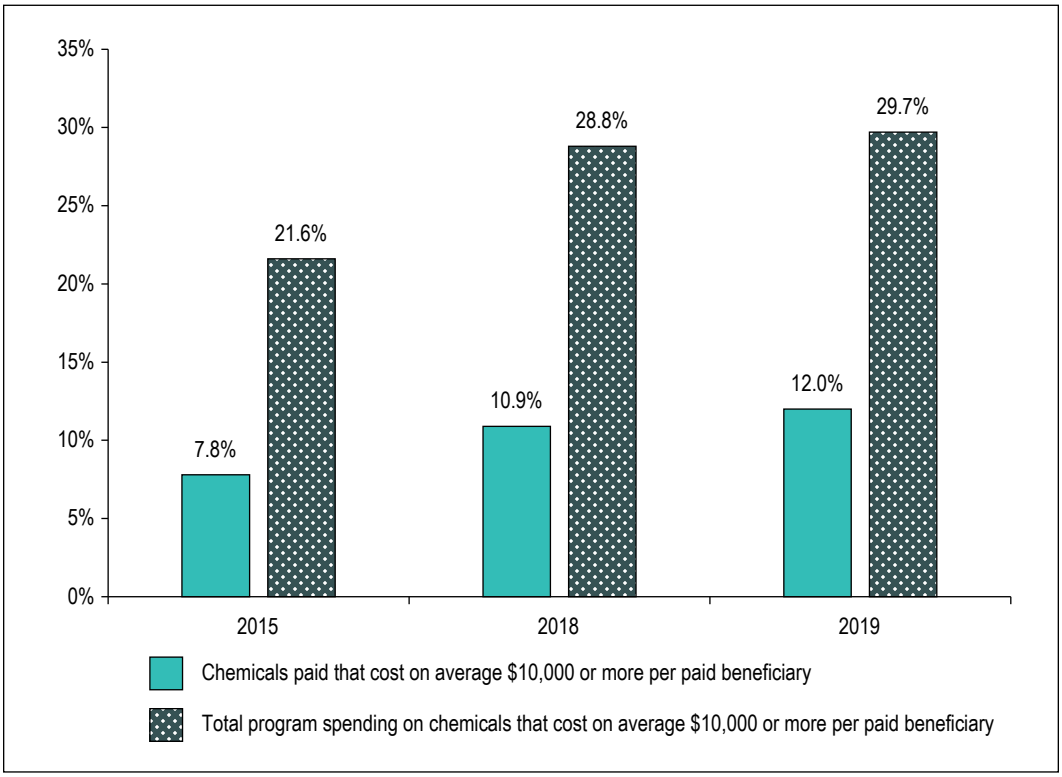


Note
* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.
Sources
National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

The distribution of costs varied across jurisdictions (Table A8). Variation in spending across jurisdictions can be influenced by many factors, such as drug program design, formulary coverage and the health and demographics of the population covered (Appendix B).
It should also be noted that claims for certain high-cost drugs, such as expensive drugs for rare diseases, may be funded through special programs or through a different claim adjudication process and therefore not be submitted to NPDUIS.

The proportion of spending on high-cost drugs also continued to rise. In 2019, 12.0% of chemicals had an average cost of $10,000 or more per paid beneficiary (referred to as high-cost drugs) and they accounted for 29.7% of spending, compared with 28.8% in 2018 (Figure 8) and 21.6% in 2015 (Table A9). Anti-TNFs and hepatitis C drugs accounted for 44.1% of this spending. In 2019, 60.4% of high-cost individuals had a claim for at least one high-cost drug, compared with 0.3% of all other beneficiaries.

Figure 8 Proportion of public drug program spending on chemicals that cost on average $10,000 or more per paid beneficiary, and the proportion of total chemicals paid,* 2015, 2018 and 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

Drug products without an Anatomical Therapeutic Chemical (ATC) code assigned by Health Canada and products assigned as pseudo–drug identification numbers are excluded.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Among high-cost drugs, anti-TNFs and hepatitis C drugs accounted for 4 of the top 5 chemicals; infliximab, an anti-TNF drug used to treat rheumatoid arthritis and Crohn's disease, accounted for the largest proportion (3.5%) of public drug program spending (Table A10).

Cancer drug spending in hospitals and by public drug programs

There are differences in the way cancer drugs are funded and administered across jurisdictions. Public drug program spending does not include spending on drugs dispensed in hospitals or on those funded through cancer agencies and other special programs. However, some public drug programs cover cancer medications used in outpatient settings (i.e., outside of the hospital). Claims paid through public drug programs submitting to NPDUIS are included in this analysis, while claims from the Saskatchewan Cancer Agency, Alberta Outpatient Cancer Drug Program and BC Cancer Agency, which fund outpatient cancer drugs in their respective provinces, are not submitted to NPDUIS (see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes* for more details).[vii]

Spending on cancer drugs accounted for 7.8% of public drug program spending in the 7 provinces where data was available in 2019, and grew by 19.2% from the previous year. The majority of this growth was due to a rise in spending on oral PKIs and other immunosuppressants, drug classes used to treat various cancers including leukemia, non–small cell lung cancer, breast cancer and multiple myeloma. These drugs accounted for more than two-thirds of spending and 83.4% of the growth in cancer drug spending in 2019. Several chemicals within these 2 drug classes — ibrutinib, palbociclib and lenalidomide — saw significant growth in spending in 2019, growing by $47.0, $44.7 and $26.9 million, respectively. These chemicals all received new or expanded public formulary coverage in recent years.

In 2018, the most recent year for which hospital spending data was available, $2.5 billion was spent on drugs dispensed in hospitals (excluding Quebec), an increase of 9.1% over the previous year. In provinces that report hospital drug spending by type of drug, over one-third (36.3%) of hospital drug spending was on cancer drugs (Table 2).

vii. It should be noted that some of these drugs are used to treat other diseases as well as cancer, and because diagnosis information is not available in NPDUIS it is uncertain whether a given claim was for cancer or another indication. As a result, spending on cancer drugs is likely overestimated using this approach.

Table 2 Hospital and public drug program spending on cancer drugs, by province, 2018 and 2019

Province	2018			2019	
	Drug spending in hospitals* ($ millions)	Drugs as a share of total hospital spending (%)	Cancer drug spending† in hospitals ($ millions)	Cancer drug‡ spending by public drug program ($ millions)	Cancer drug‡ spending as a share of public drug program spending§ (%)
N.L.	52.3	3.9	18.3	15.6	10.3
P.E.I.	10.3	3.5	4.0	3.3	9.5
N.S.	116.4	5.1	45.9	33.0	14.4
N.B.	84.2	5.1	42.0	26.5	10.0
Que.	n/a	n/a	n/a	383.5	9.4
Ont.	1,473.6	6.1	518.8	656.8	9.9
Man.	77.4	2.8	n/a	49.4	13.6
Sask.	60.0	2.9	n/a	n/a	n/a
Alta.	259.6	3.2	97.3	n/a	n/a
B.C.	350.5	4.2	174.9	n/a	n/a
Total	**2,484.2**	**4.9**	**901.2**	**1,168.1**	**7.8**

Notes

* Includes only drug spending borne by hospitals. Spending on drugs used in hospitals but funded through other agencies, such as provincial cancer agencies, is excluded. As a result, Manitoba and Saskatchewan cancer drug spending data is not available. Quebec cancer drug spending data is not available.

† Drugs classified as antineoplastics according to the MIS Standards in Canadian MIS Database data are considered to be cancer drugs in this analysis.

‡ Drugs identified by their Anatomical Therapeutic Chemical (ATC) code as antineoplastics and immunomodulating agents with an approved indication of cancer (see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes* for more detail).

§ Spending on cancer drugs in Saskatchewan, Alberta and British Columbia is funded through cancer agencies and is not included in NPDUIS.

n/a: Not available.

Sources

Canadian MIS Database and National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Conclusion

This report examined public drug program spending in 2019 in all provinces and Yukon and 1 federal program administered by Indigenous Services Canada. Public drug program spending in these jurisdictions reached $15.0 billion in 2019. Anti-TNF drugs continued to account for the highest proportion of spending (8.2%) in 2019, followed by antineovascularization agents (5.2%) and hepatitis C drugs (4.3%).

Public drug program spending increased by 3.2% in 2019, compared with 6.8% in 2018. Drug program redesign in Ontario has significantly impacted trends in public drug program spending over the past 2 years. Excluding the influence of the redesign, drug program spending in all jurisdictions increased by 4.8% in 2019 and 3.5% in 2018.

Spending on hepatitis C drugs experienced the largest decrease in 2019, declining by 18.1%. This is a significant change from previous years, where they were among the largest contributors to spending growth. The number of hepatitis C drug users declined by 13.4% in 2019. The high cure rate of treatment along with the recent pan-Canadian and international efforts to reduce new infections of hepatitis C contributed to these decreases.

Diabetes drug classes contributed significantly to spending growth. In 2019, 3 newer drug classes used to treat diabetes — SGLT2 inhibitors, combinations of oral blood glucose–lowering drugs, and long-acting insulins and analogues for injection — were among the 10 drug classes with the largest contribution to growth in public drug program spending, compared with 1 drug class (SGLT2 inhibitors) in 2018. Between 2015 and 2019, the number of users of diabetes drugs increased by 15.8%.

While anti-TNF drugs continued to account for the largest proportion of public drug program spending, spending on these drugs exhibited the lowest rate of growth (3.0%) seen in the last 5 years.

The uptake of biosimilars continues to increase; however, reference biologic drugs continue to account for the majority of the total program spending. When biosimilars were available, they accounted for 16.8% of biologic spending (22.9% of biologic users) in 2019, up from 9.0% (11.9% of biologic users) in 2018. Recently multiple provinces (e.g., Ontario, Manitoba, Alberta, B.C.) have promoted the use of biosimilars via biosimilar switching and biosimilar tiering policies. Going forward, it will be important to monitor the impact of these initiatives and policies on the uptake of biosimilars.

In 2018, $2.5 billion was spent on drugs dispensed in hospitals (excluding Quebec), an increase of 9.1% over the previous year. In provinces that report hospital drug spending by type of drug, over one-third (36.3%) of hospital drug spending was on cancer drugs. Spending on cancer drugs accounted for 7.8% of public drug program spending in the 7 provinces where data was available in 2019, and grew by 19.2% from the previous year.

Appendix A: Data tables

Table A1 Annual growth rate of active beneficiaries and public drug program spending, by jurisdiction,* 2016 to 2019

	Annual growth rate (%)							
	Active beneficiaries				Total program spending			
Jurisdiction†	2016	2017	2018	2019	2016	2017	2018	2019
N.L.	-0.6	-1.0	-0.2	2.8	3.7	-1.7	1.7	3.5
P.E.I.	13.5	5.5	5.0	4.1	15.4	5.3	8.1	7.6
N.S.	2.2	2.4	2.0	1.9	3.2	6.2	2.2	7.8
N.B.	1.2	2.1	1.1	1.0	5.7	5.5	3.5	7.1
Que.	2.0	1.4	0.8	0.5	3.9	4.6	2.4	3.2
Ont.‡	2.7	2.8	66.0	-9.9	5.0	6.4	11.7	2.2
Man.	1.0	0.6	0.7	0.2	5.4	1.3	0.8	2.5
Sask.	2.8	1.4	3.2	1.8	2.9	7.1	12.9	5.5
Alta.	3.5	3.5	3.7	4.0	0.8	6.8	4.6	7.9
B.C.	1.9	1.1	0.6	1.4	3.1	1.5	6.7	1.5
Y.T.	5.1	5.2	4.5	-2.1	-6.4	7.3	2.3	-13.0
FNIHB§	2.2	0.5	-9.7	1.5	10.0	7.2	-3.3	6.4
Total	**2.2**	**1.7**	**17.4**	**-2.8**	**4.4**	**5.3**	**6.8**	**3.2**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Differences in jurisdictional growth rates should be interpreted with caution as they can be influenced by data limitations. For example, spending on hepatitis C drugs is not included in NPDUIS in all jurisdictions.

‡ The change in public drug program spending and number of active beneficiaries is largely due to OHIP+, which was introduced in January 2018 and extended the Ontario Drug Benefit Program to cover residents age 24 and younger. On April 1, 2019, the program was redesigned to cover only those who are not covered by a private plan.

§ As of October 2017, claims processed on behalf of the First Nations Health Authority in British Columbia are not included in NPDUIS.

FNIHB: First Nations and Inuit Health Branch.

Sources

National Prescription Drug Utilization Information System Database, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A2 Percentage of public drug program spending, by broad therapeutic category and jurisdiction,* 2019

Broad therapeutic category	Public drug program spending by jurisdiction (%)											
	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	FNIHB
Antineoplastic and immunomodulating agents	23.9	31.3	32.4	27.4	22.1	20.6	43.9	33.2	31.3	26.4	28.7	8.7
Nervous system	20.1	18.9	10.7	19.7	15.4	13.4	15.5	13.4	8.5	24.1	8.7	22.1
Alimentary tract and metabolism	12.0	12.6	12.1	11.1	14.8	14.2	9.2	9.7	13.6	7.4	7.5	15.1
Cardiovascular system	13.0	9.8	13.7	9.1	11.3	8.7	6.7	7.5	11.6	8.6	8.1	7.4
Antiinfectives for systemic use	6.3	1.4	4.3	8.5	5.4	7.7	7.2	10.4	5.5	14.2	19.2	15.4
Sensory organs	3.1	5.1	1.9	6.1	6.7	9.1	0.6	2.3	2.7	0.9	3.2	1.6
Respiratory system	6.5	6.3	7.4	6.9	6.4	5.9	4.4	5.3	7.7	4.0	9.3	5.3
Blood and blood-forming organs	2.5	2.8	4.2	4.5	6.1	5.5	3.2	5.1	7.0	4.4	3.0	3.1
Musculoskeletal system	1.8	0.9	2.0	2.0	2.5	3.4	1.6	1.4	3.7	1.6	1.7	1.9
Genitourinary system and sex hormones	2.1	1.8	1.9	1.8	2.4	2.4	1.3	1.4	2.6	1.2	1.3	2.3
Systemic hormonal preparations, excluding sex hormones and insulins	1.9	1.1	2.3	1.5	2.0	1.5	2.2	0.9	2.1	1.5	1.3	1.0
Dermatologicals	1.2	0.9	1.0	0.7	0.8	1.2	0.5	1.0	0.8	0.6	0.7	1.9
Various	0.2	0.2	0.2	0.2	0.9	1.3	0.1	0.4	0.3	0.5	0.1	1.1
Antiparasitic products, insecticides and repellents	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.6
Unassigned†	0.3	0.0	0.0	0.0	0.1	2.4	1.1	1.3	0.9	0.1	5.0	3.2
Non-drug products‡	5.0	7.0	5.9	0.3	3.0	2.6	2.2	6.5	1.4	4.5	2.2	9.3

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† This category includes products without an assigned Anatomical Therapeutic Chemical (ATC) code.

‡ Non-drug products include, but are not limited to, diabetes supplies, wound care, ostomy supplies and pharmaceutical services. (See *Prescribed Drug Spending in Canada, 2020 — Methodology Notes* for more details.)

FNIHB: First Nations and Inuit Health Branch.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A3 Top 10 drug classes by public drug program spending,* 2019

Drug class	Common uses	TPS ($ millions)	Proportion of TPS (%)	Rate of use (%)	TPS per paid beneficiary ($)
Anti-TNF drugs	Rheumatoid arthritis, inflammatory bowel disease, Crohn's disease	1,233.9	8.2	0.5	19,041.1
Antineovascularization agents†	Age-related macular degeneration, secondary and diabetic macular edema	774.5	5.2	0.6	9,731.2
Antivirals for treatment of hepatitis C infections‡	Hepatitis C	638.7	4.3	0.1	51,355.1
Oral PKIs§	Various types of cancer	566.2	3.8	0.1	37,022.5
Selective immunosuppressants	Various forms of arthritis, organ transplant, various other conditions	428.4	2.9	0.4	7,722.5
Direct factor Xa inhibitors	Venous thromboembolism, stroke prevention, deep vein thrombosis prevention	402.2	2.7	3.7	820.2
Other immunosuppressants	Rheumatoid arthritis, renal transplant, multiple myeloma	400.0	2.7	0.3	11,078.8
Other antipsychotics	Schizophrenia, bipolar disorder	332.6	2.2	2.2	1,156.8
Adrenergics in combination with corticosteroids or other drugs, excluding anticholinergics	Asthma, emphysema, chronic bronchitis	324.1	2.2	4.2	604.1
HMG-CoA reductase inhibitors (statins)	High cholesterol	307.0	2.0	26.4	97.9
Combined top 10		**5,407.5**	**36.1**	**n/a**	**n/a**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Spending on ranibizumab and aflibercept (which accounted for 99.9% of spending on antineovascularization agents) in Nova Scotia, Manitoba and British Columbia, and the majority of this spending in Alberta, is funded through special programs and is not included in NPDUIS.

‡ Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

§ The majority of spending on PKIs in Saskatchewan, Alberta and British Columbia is funded through cancer agencies and is not included in NPDUIS.

TPS: Total program spending.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

PKI: Protein kinase inhibitor.

n/a: Not applicable.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A4 Annual growth rate of public drug program spending for top 10 drug classes (in total program spending),* 2016 to 2019

Top 10 drug classes (in TPS)	Annual growth rate of public drug program spending (%)			
	2016	2017	2018	2019
Anti-TNF drugs	12.3	6.0	8.2	3.0
Antineovascularization agents†	-1.6	14.1	14.3	9.9
Antivirals for treatment of hepatitis C infections‡	6.8	16.6	15.1	-18.1
Oral PKIs§	36.7	29.4	37.2	34.2
Selective immunosuppressants	30.1	27.3	24.8	14.7
Direct factor Xa inhibitors	39.4	28.0	23.0	19.1
Other immunosuppressants	22.0	24.6	21.1	10.6
Other antipsychotics	15.9	9.3	5.9	-5.0
Adrenergics in combination with corticosteroids or other drugs, excluding anticholinergics	0.1	-0.1	3.7	-0.3
HMG-CoA reductase inhibitors (statins)	0.4	-2.5	-16.8	-3.6
All drug classes	**4.4**	**5.3**	**6.8**	**3.2**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Spending on ranibizumab and aflibercept (which accounted for 99.9% of spending on antineovascularization agents) in Nova Scotia, Manitoba and British Columbia, and the majority of this spending in Alberta (starting in October 2015), is funded through special programs and is not included in NPDUIS.

‡ Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

§ The majority of spending on PKIs in Saskatchewan, Alberta and British Columbia is funded through cancer agencies and is not included in NPDUIS.

TPS: Total program spending.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

PKI: Protein kinase inhibitor.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A5 Top 10 drug classes by largest contribution to growth in public drug program spending,* 2019

Drug class	Common uses	Increase in TPS ($ millions)	Contribution to TPS growth (%)	Annual rate of growth (%)
Oral PKIs†	Various types of cancer	144.4	30.9	34.2
Antineovascularization agents‡	Age-related macular degeneration, secondary and diabetic macular edema	69.7	14.9	9.9
Direct factor Xa inhibitors	Venous thromboembolism, stroke prevention, deep vein thrombosis prevention	64.6	13.8	19.1
Sodium–glucose co-transporter 2 inhibitors	Type 2 diabetes mellitus	61.5	13.2	40.0
Selective immunosuppressants	Various forms of arthritis, organ transplant, various other conditions	54.8	11.7	14.7
Interleukin inhibitors	Various forms of arthritis, psoriasis	42.6	9.1	26.9
Other immunosuppressants	Rheumatoid arthritis, renal transplant, multiple myeloma	38.4	8.2	10.6
Anti-TNF drugs	Rheumatoid arthritis, inflammatory bowel disease, Crohn's disease	36.3	7.8	3.0
Combinations of oral blood glucose–lowering drugs	Type 2 diabetes mellitus	32.5	7.0	15.3
Insulins and analogues for injection, long-acting	Diabetes mellitus	26.0	5.5	11.9
All drug classes		**466.7**	**100.0**	**3.2**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† The majority of spending on PKIs in Saskatchewan, Alberta and British Columbia is funded through cancer agencies and is not included in NPDUIS.

‡ Spending on ranibizumab and aflibercept (which accounted for 99.9% of spending on antineovascularization agents) in Nova Scotia, Manitoba and British Columbia, and the majority of this spending in Alberta, is funded through special programs and is not included in NPDUIS.

TPS: Total program spending.

PKI: Protein kinase inhibitor.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A6 Top 10 drug classes by largest negative contribution to growth in public drug program spending,* 2019

Drug class	Common uses	Change in TPS ($ millions)	Contribution to TPS growth (%)	Annual rate of growth (%)
Antivirals for treatment of hepatitis C infections†	Hepatitis C	-141.0	-30.2	-18.1
ACE inhibitors, plain	High blood pressure, heart failure	-42.0	-9.0	-22.4
Centrally acting sympathomimetics	ADHD	-20.8	-4.5	-12.1
Other antipsychotics	Schizophrenia, bipolar disorder	-17.5	-3.7	-5.0
Natural opium alkaloids	Chronic pain	-15.6	-3.3	-8.6
Adrenergic and dopaminergic agents	Hypotension	-13.9	-3.0	-34.4
Diazepines, oxazepines, thiazepines and oxepines	Schizophrenia, bipolar disorder	-13.8	-3.0	-7.1
Penicillins with extended spectrum	Bacterial infections	-12.9	-2.8	-33.0
Progestogens and estrogens, fixed combinations	Contraception	-12.8	-2.7	-31.6
HMG-CoA reductase inhibitors (statins)	High cholesterol	-11.5	-2.5	-3.6
Combined top 10		**-301.8**	**-64.6**	**n/a**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

TPS: Total program spending.

ADHD: Attention deficit hyperactivity disorder.

n/a: Not applicable.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A7 Generic drugs as a percentage of public drug program spending and of accepted claims, by jurisdiction,* 2015 to 2019

	Percentage of TPS					Percentage of accepted claims				
Jurisdiction	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
N.L.	49.3	47.2	47.2	44.8	42.6	82.1	83.3	83.8	85.3	85.4
P.E.I.	45.6	43.1	43.1	37.2	33.1	78.7	80.0	82.1	80.6	76.7
N.S.	40.6	40.5	38.4	35.6	33.8	75.8	77.2	77.2	79.1	79.4
N.B.	36.3	37.6	36.7	34.2	29.7	77.7	82.6	82.8	82.4	74.8
Que.	35.7	35.5	34.0	31.5	30.7	75.6	76.6	76.3	77.7	78.7
Ont.	30.3	29.4	27.8	26.7	25.1	75.6	77.5	77.0	77.6	78.9
Man.	32.8	31.1	30.1	28.4	27.6	80.0	80.6	80.4	81.7	83.1
Sask.	29.6	28.4	25.8	23.4	22.2	73.1	75.9	76.2	78.6	79.6
Alta.	29.9	31.8	30.0	27.8	26.0	74.7	76.2	76.5	77.5	77.7
B.C.	32.6	32.4	31.7	27.9	29.8	74.7	77.8	78.4	79.2	80.0
Y.T.	27.9	32.4	31.6	28.1	25.3	79.8	80.7	80.7	80.6	80.4
FNIHB	44.6	43.6	40.6	38.4	37.5	77.3	78.1	77.2	77.1	75.8
Total	**33.1**	**32.7**	**31.1**	**29.0**	**27.9**	**75.6**	**77.2**	**77.2**	**78.1**	**78.9**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

TPS: Total program spending.

FNIHB: First Nations and Inuit Health Branch.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A8 Program spending per paid beneficiary, by percentage of paid beneficiaries and of public drug program spending, and by jurisdiction,* 2015 and 2019

Jurisdiction		Program spending per paid beneficiary											
		<$500		$500–$1,499		$1,500–$2,499		$2,500–$4,999		$5,000–$9,999		$10,000+	
		2015	2019	2015	2019	2015	2019	2015	2019	2015	2019	2015	2019
N.L.	PB (%)	45.6	50.4	30.8	28.3	10.7	8.8	8.6	7.6	2.9	3.0	1.4	1.9
	TPS (%)	6.6	6.7	20.2	17.1	15.0	11.6	21.7	18.2	13.9	13.4	22.6	33.1
P.E.I.	PB (%)	70.9	76.0	19.2	14.6	4.6	4.2	3.4	3.0	1.2	1.1	0.7	1.1
	TPS (%)	14.7	12.7	24.1	16.7	12.9	10.8	17.1	13.5	11.4	10.4	19.7	35.8
N.S.	PB (%)	43.8	49.2	33.6	29.2	10.5	9.3	8.4	7.9	2.2	2.3	1.4	2.1
	TPS (%)	7.3	7.1	20.7	16.2	14.4	11.5	20.4	17.3	10.3	9.6	27.0	38.2
N.B.	PB (%)	40.7	45.4	32.0	26.9	11.7	11.3	9.6	9.0	3.5	3.8	2.4	3.6
	TPS (%)	4.7	4.5	16.5	11.8	12.9	10.6	18.8	15.0	13.4	12.5	33.6	45.6
Que.	PB (%)	58.0	59.2	21.9	20.2	7.6	7.3	7.5	7.6	3.2	3.4	1.8	2.3
	TPS (%)	6.5	5.8	14.9	12.3	11.3	9.7	20.2	18.0	16.4	15.9	30.8	38.2
Ont.	PB (%)	44.8	62.8	26.5	16.8	11.6	7.8	10.7	7.4	4.1	3.0	2.4	2.2
	TPS (%)	4.4	5.6	13.8	10.9	13.0	10.8	21.1	18.4	15.7	14.6	32.0	39.6
Man.	PB (%)	48.0	49.3	25.2	23.8	9.8	9.1	9.0	8.3	4.0	4.2	4.0	5.2
	TPS (%)	3.8	3.4	10.2	8.4	8.5	7.0	14.0	11.5	12.2	11.6	51.3	58.0
Sask.	PB (%)	74.0	79.5	14.1	10.0	5.1	4.1	4.1	3.4	1.4	1.3	1.2	1.7
	TPS (%)	8.1	6.3	15.6	10.8	12.3	9.4	17.6	13.7	11.8	10.6	34.7	49.2
Alta.	PB (%)	50.0	53.4	30.1	26.0	9.6	10.2	6.1	6.6	2.0	1.6	2.2	2.3
	TPS (%)	7.7	7.5	19.1	16.0	13.4	13.5	14.9	15.4	10.0	7.4	34.9	40.2
B.C.	PB (%)	58.9	62.5	21.0	18.5	7.5	6.6	7.2	6.3	2.9	2.8	2.4	3.2
	TPS (%)	6.5	6.5	12.2	10.5	9.6	8.3	16.5	14.1	13.1	12.6	42.1	47.9
Y.T.	PB (%)	34.2	51.6	33.0	26.3	13.9	8.7	10.4	7.0	5.3	3.1	3.2	3.4
	TPS (%)	3.1	5.1	11.8	11.4	10.3	8.3	14.0	11.7	14.4	10.1	46.4	53.4
FNIHB	PB (%)	70.0	67.9	16.4	16.0	5.7	5.8	5.2	6.1	1.8	2.7	0.9	1.4
	TPS (%)	11.7	8.8	17.1	12.8	13.1	10.5	21.2	19.4	14.2	17.0	22.8	31.6
Total	PB (%)	**53.8**	**61.6**	**23.7**	**18.5**	**9.0**	**7.5**	**8.2**	**7.1**	**3.2**	**2.9**	**2.0**	**2.3**
	TPS (%)	**5.9**	**6.0**	**14.6**	**11.8**	**12.1**	**10.3**	**19.7**	**17.4**	**14.9**	**14.1**	**32.8**	**40.3**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

PB: Paid beneficiaries.

TPS: Total program spending.

FNIHB: First Nations and Inuit Health Branch.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A9 Proportion of public drug program spending per paid beneficiary per chemical,* 2015, 2018 and 2019

Program spending per paid beneficiary per chemical	2015		2018		2019	
	Proportion of TPS (%)	Proportion of number of chemicals (%)	Proportion of TPS (%)	Proportion of number of chemicals (%)	Proportion of TPS (%)	Proportion of number of chemicals (%)
<$500	46.5	69.1	40.8	66.5	38.7	65.1
$500–$1,499	17.7	12.6	16.8	12.0	17.2	12.8
$1,500–$4,999	6.1	6.7	6.3	7.3	6.5	7.3
$5,000–$9,999	8.1	3.7	7.3	3.4	7.9	2.8
$10,000+	21.6	7.8	28.8	10.9	29.7	12.0

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

TPS: Total program spending.

Drug products without an Anatomical Therapeutic Chemical (ATC) code assigned by Health Canada and products assigned as pseudo–drug identification numbers are excluded.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Table A10 Top 10 chemicals that cost on average $10,000 or more per paid beneficiary, by public drug program spending,* 2019

Chemical	Common uses	TPS ($ millions)	Proportion of TPS (%)	TPS per paid beneficiary ($)
Infliximab	Rheumatoid arthritis, Crohn's disease	531.3	3.5	29,122.8
Sofosbuvir and velpatasvir†	Hepatitis C	417.5	2.8	53,900.1
Adalimumab	Rheumatoid arthritis, Crohn's disease	415.6	2.8	15,723.4
Lenalidomide	Various blood cancers	271.3	1.8	66,456.9
Etanercept	Rheumatoid arthritis, ankylosing spondylitis	178.3	1.2	13,547.5
Ibrutinib‡	Chronic lymphocytic leukemia	167.4	1.1	67,836.9
Glecaprevir and pibrentasvir†	Hepatitis C	95.1	0.6	41,088.4
Ustekinumab	Plaque psoriasis, Crohn's disease, psoriatic arthritis	86.4	0.6	18,864.7
Palbociclib	Breast cancer	84.3	0.6	40,158.7
Golimumab	Rheumatoid arthritis, psoriatic arthritis, ulcerative colitis, ankylosing spondylitis	80.9	0.5	14,085.2
Combined top 10		**2,328.1**	**15.5**	**n/a**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

‡ The majority of spending on PKIs in Saskatchewan, Alberta and British Columbia is funded through cancer agencies and is not included in NPDUIS.

TPS: Total program spending.

PKI: Protein kinase inhibitor.

n/a: Not applicable.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Appendix B: Overview of drug program design and formulary

Overview of drug plan design

Although public drug coverage is available in the 12 jurisdictions included in this analysis, the design of public drug programs varies widely across jurisdictions. One major difference is that drug programs in Manitoba and B.C., as well as FNIHB's drug program, offer similar coverage to people of all ages, while the other jurisdictions have a separate plan designed specifically for seniors.

There is less consistency in the coverage of non-seniors across jurisdictions. In Manitoba, Saskatchewan and B.C., drug costs are reimbursed if they exceed a certain percentage of an individual's income. In most other jurisdictions, similar plans are available but generally only to those without private insurance. In all jurisdictions, coverage is available to individuals receiving income assistance. Coverage is also available for selected drugs to treat particular conditions in all provinces, though the drugs and conditions vary.

The differences in coverage of non-seniors across jurisdictions, along with population demographics, greatly impact the age distribution of the active beneficiary population, and in turn how drug program spending is distributed across age groups. In jurisdictions offering similar coverage to both non-seniors and seniors, non-seniors account for the vast majority of active beneficiaries, and the majority, albeit a lower proportion, of total drug program spending (Table B1). In these jurisdictions, the proportion of non-senior beneficiaries ranges from 72.1% in B.C. to 90.3% for FNIHB beneficiaries, where the large proportion is due to both plan design and the relatively lower average age of the population it covers. Non-seniors accounted for a proportion of drug program spending ranging from 64.2% in B.C. to 82.1% for FNIHB.

Table B1 Public drug program spending on seniors and non-seniors, by jurisdiction,* 2019

Jurisdiction	Non-seniors (<65)		Seniors (65+)	
	Percentage of active beneficiaries (%)	Percentage of TPS (%)	Percentage of active beneficiaries (%)	Percentage of TPS (%)
N.L.	46.8	48.7	53.2	51.3
P.E.I.	40.9	47.1	59.1	52.9
N.S.†	16.8	21.2	83.2	78.8
N.B.	35.7	46.7	64.3	53.3
Que.	51.5	36.5	48.5	63.5
Ont.	49.4	35.6	50.6	64.4
Man.	76.0	62.7	24.0	37.3
Sask.	77.1	62.6	22.9	37.4
Alta.†	16.6	34.1	83.4	65.9
B.C.	72.1	64.2	27.9	35.8
Y.T.	26.2	51.6	73.8	48.4
FNIHB	90.3	82.1	9.7	17.9
Total	**57.5**	**41.6**	**42.5**	**58.4**

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Claims data for community services drug programs in Nova Scotia and Alberta is not submitted to NPDUIS, so beneficiaries younger than 65 are underrepresented in those provinces.

TPS: Total program spending.

FNIHB: First Nations and Inuit Health Branch.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

In Saskatchewan, the proportion of non-senior beneficiaries (77.1%) is similar to the proportion in Manitoba and B.C.; however, the proportion of total program spending for non-seniors (62.6%) is slightly lower due to differences in cost sharing. In 2019, Ontario redesigned the OHIP+ program and started covering costs of certain medications for people age 24 and younger who have a valid Ontario Health Insurance Plan (OHIP) card and are not covered by a private drug plan. Due to this change, the proportion of non-senior beneficiaries decreased from 55.8% in 2018 to 49.4% in 2019; also the proportion of total program spending for non-seniors decreased from 39.1% in 2018 to 35.6% in 2019.

Among the remaining provinces, the seniors' proportion of beneficiaries ranged from 48.5% in Quebec to 83.4% in Alberta, and the proportion of program spending for seniors ranged from 51.3% in Newfoundland and Labrador to 78.8% in Nova Scotia. It should be noted that drug claims from drug programs for income assistance recipients in Nova Scotia and Alberta are not submitted to NPDUIS. This results in a lower proportion of non-seniors appearing in the data for these provinces, as these programs provide coverage to non-seniors only.

Another important difference between drug programs is the cost-sharing mechanism employed, such as a deductible or copayment (or a combination of the 2), which will affect the amount that individuals and drug programs pay for each drug claim. For example, even for consistently covered populations like seniors, cost-sharing mechanisms vary. In Nova Scotia and New Brunswick, some seniors must pay premiums to enrol in the program, and then there are copayments for each claim. Newfoundland and Labrador, P.E.I., Ontario and Alberta also have copayments for each claim but do not charge premiums. In Manitoba, deductibles are used whereby seniors pay for their drug costs up to a certain percentage of their income and the drug program pays for their drug costs once the deductible has been reached. In Saskatchewan, some seniors have copayments, while others have deductibles, depending on income level; in B.C., deductibles are used, but there are also copayments for each claim once the deductible has been reached. FNIHB covers all eligible costs for those enrolled in its drug program, regardless of age or income.

Common to all provinces included in the analysis, individuals covered by provincial workers' compensation boards or federal drug programs are not eligible for coverage under provincial drug programs. Federal drug programs include those delivered by

- Correctional Service of Canada;
- FNIHB;[viii] and
- Veterans Affairs Canada.

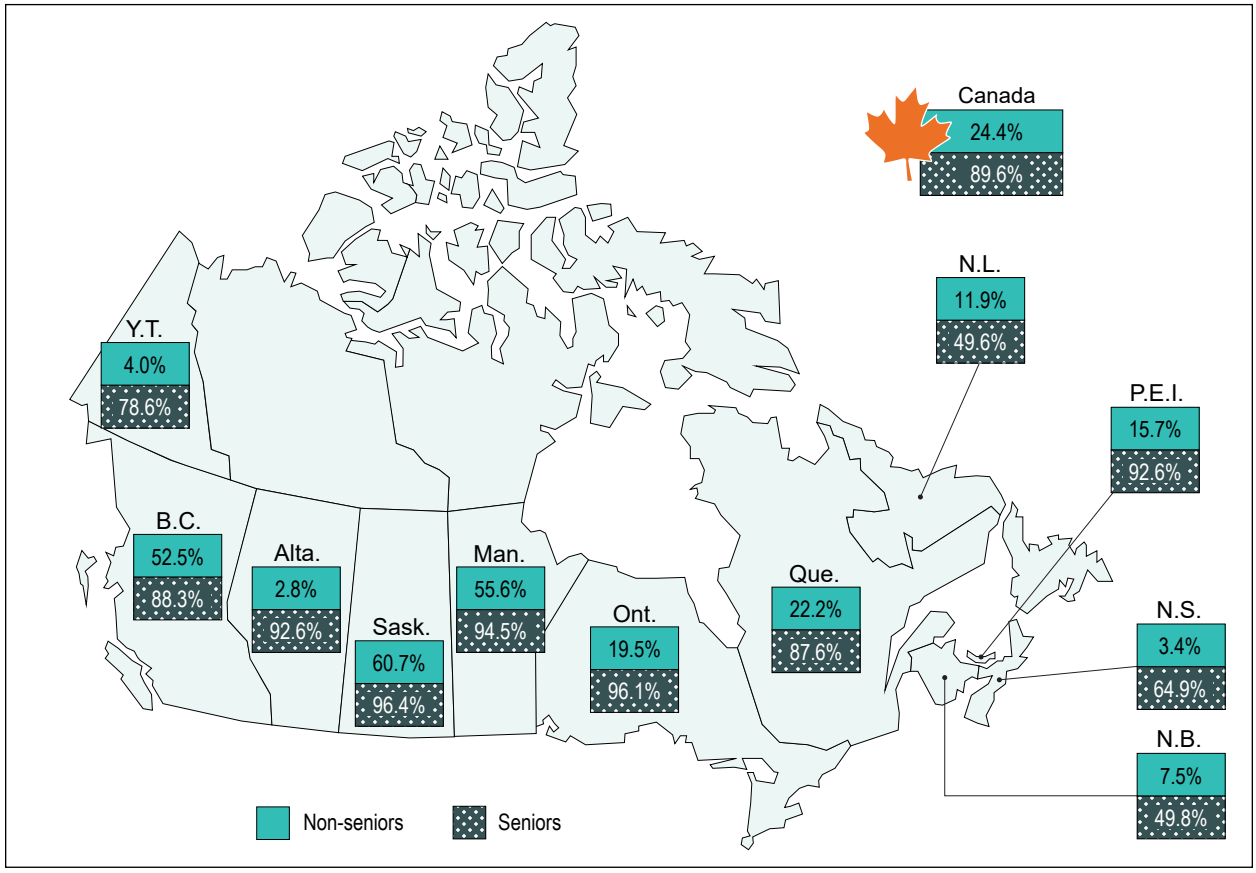
In addition to the overview presented here, further information about public drug programs in Canada can be found in the *NPDUIS Plan Information Document*,[13] available at cihi.ca, or on the websites of the public drug programs (see *Prescribed Drug Spending in Canada, 2020 — Methodology Notes*).

viii. This excludes seniors living in Ontario who also have coverage through FNIHB. These seniors first have their drug claims covered by the Ontario Drug Benefit Program; any remaining drug costs are covered by FNIHB.

Differences in public drug program coverage

Public drug coverage for the senior population is fairly similar across most jurisdictions; however, there is less consistency in coverage for non-seniors. Owing to the more comprehensive public coverage, and the fact that seniors use more drugs than younger age groups, it is not surprising that, in 2019, 89.6% of seniors had at least one claim accepted by a public drug program, either for reimbursement or toward a deductible; the corresponding percentage for non-seniors was 24.4%. The proportion of the population receiving benefits from a public drug program was much smaller, with 78.9% of seniors and 15.6% of non-seniors — about one-quarter (26.7%) of the population overall — receiving benefits in 2019. The proportion of seniors who made at least one claim varied from 96.4% in Saskatchewan to 49.6% in Newfoundland and Labrador (Figure B1). The smaller proportions of seniors in Newfoundland and Labrador, Nova Scotia and New Brunswick are likely due, in part, to the larger role of private insurance among seniors in those provinces. For non-seniors, the proportion of the population with public claims ranged from 60.7% in Saskatchewan to 2.8% in Alberta (Figure B1). It should be noted that the lower proportion of non-seniors in Nova Scotia and Alberta is due, in large part, to the fact that drug claims for programs for income assistance recipients younger than 65 in those provinces are not submitted to NPDUIS.

Figure B1 Active beneficiaries as a percentage of population, seniors and non-seniors, by jurisdiction,* 2019



Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS. The First Nations and Inuit Health Branch is not included in this analysis as the population is unknown.

Drug claims for income assistance recipients younger than 65 in Nova Scotia and Alberta are not submitted to NPDUIS. Therefore, the proportion of the non-senior population with claims is underestimated in those provinces.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; Banque médicaments, Régie de l'assurance maladie du Québec; and Statistics Canada, Table 17-10-0005-01: Population estimates on July 1st, by age and sex.

Individuals living in the lowest-income neighbourhoods were the most likely to have received benefits from a public drug program in 2019, with 29.4% of people having at least one paid claim (i.e., a claim where the cost was at least partially reimbursed), compared with 22.5% of people living in the highest-income neighbourhoods.

Table B2 Public drug program spending, by neighbourhood income quintile,* 2019

Income quintile	Percentage of population with accepted claims (%)	Percentage of population with paid claims (%)	Proportion of TPS (%)	TPS per paid beneficiary ($)
1: Lowest income	38.8	29.4	26.7	$1,597
2	37.7	26.3	21.7	$1,462
3	36.7	24.5	19.1	$1,371
4	35.5	22.9	16.8	$1,295
5: Highest income	35.7	22.5	15.8	$1,233
Urban	36.9	25.2	85.6	$1,408
Rural/remote	38.3	25.7	14.4	$1,389

Notes

* As of July 2020, there were 8 jurisdictions submitting claims data to NPDUIS where patient postal code could be identified: Newfoundland and Labrador, Prince Edward Island, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and Yukon.

TPS: Total program spending.

Drug claims for income assistance recipients younger than 65 in Alberta are not submitted to NPDUIS. Therefore, the proportion of the population with claims may be underestimated, particularly in lower-income neighbourhoods.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; Population estimates and Postal Code Conversion File Plus, Statistics Canada; and customized data, Demography Division, Statistics Canada.

A similar proportion of individuals living in rural/remote and urban neighbourhoods received benefits from a public drug program (25.7% and 25.2%, respectively). There was also little difference in the amount paid per beneficiary by public drug programs between those in rural/remote neighbourhoods ($1,389) and those in urban neighbourhoods ($1,408).

Formulary overview

Variation in the number and types of drugs covered by jurisdictional formularies is one of many factors that can lead to differences in drug utilization and expenditure. Other factors include the health, age and sex of the population, prescribing trends and the availability of non-drug therapies.

In 2019, drug classes common in all 12 public drug programs made up 91.0% of drug claims and 78.8% of drug program spending on seniors. For drug classes covered in at least 11 jurisdictions, the rates increased to 94.4% of drug claims and 84.6% of total program payments on seniors.[ix] Because such a large portion of program expenditures relates to drug classes that are listed in most jurisdictions, differences in formulary coverage are not expected to play a large role in any jurisdictional differences in overall utilization and expenditure. However, differences in formulary coverage may have a significant impact on the utilization of specific drugs or drug classes across jurisdictions. Given this potential impact, it is important to consider differences in formulary listings when comparing jurisdictional drug utilization or expenditure for specific drugs or drug classes.

ix. Drug products without an Anatomical Therapeutic Chemical (ATC) code assigned by Health Canada and products assigned as pseudo–drug identification numbers are excluded.

Appendix C: Text alternative for images

Figure 1: Top 3 drug classes by percentage of public drug program spending,* 2019

Rank	Drug class	Common uses	Proportion of TPS	Growth in 2019	TPS per person
1	**Anti-TNF drugs**	Rheumatoid arthritis, Crohn's disease	8.2	3.0	19,041
2	**Antineovascularization agents**†	Age-related macular degeneration	5.2	9.9	9,731
3	**Antivirals for treatment of hepatitis C infections**‡	Hepatitis C	4.3	-18.1	51,355

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Spending on ranibizumab and aflibercept (which accounted for 99.9% of spending on antineovascularization agents) in Nova Scotia, Manitoba and British Columbia, and the majority of this spending in Alberta, is funded through special programs and is not included in NPDUIS.

‡ Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

TPS: Total program spending.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Figure 2: Top 5 drug classes by largest (positive and negative) contribution to growth in public drug program spending,* 2019

Drug class	Contribution to TPS growth
Oral PKIs†	30.9
Antineovascularization agents‡	14.9
Direct factor Xa inhibitors	13.8
SGLT2 inhibitors	13.2
Selective immunosuppressants	11.7
Natural opium alkaloids	-3.3
Other antipsychotics	-3.7
Centrally acting sympathomimetics	-4.5
ACE inhibitors, plain	-9.0
Antivirals for treatment of hepatitis C infections§	-30.2

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† The majority of spending on PKIs in Saskatchewan, Alberta and British Columbia is funded through cancer agencies and is not included in NPDUIS.

‡ Spending on ranibizumab and aflibercept (which accounted for 99.9% of spending on antineovascularization agents) in Nova Scotia, Manitoba and British Columbia, and the majority of this spending in Alberta, is funded through special programs and is not included in NPDUIS.

§ Spending on antivirals for treatment of hepatitis C infections in Prince Edward Island is not included in NPDUIS.

TPS: Total program spending.

PKI: Protein kinase inhibitor.

SGLT2: Sodium–glucose co-transporter 2.

ACE: Angiotensin-converting enzyme.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Figure 3: Number and percentage of users of diabetes drugs, by type of treatment,*, † 2015 to 2019

Number of users . . .	2015	2016	2017	2018	2019
Metformin only	602,802 (39.8%)	617,891 (39.3%)	624,131 (38.3%)	633,018 (37.3%)	633,096 (36.1%)
Metformin and second-line treatment (including insulins)	647,642 (42.7%)	681,587 (43.3%)	722,249 (44.3%)	760,319 (44.8%)	807,363 (46.0%)
Second-line treatment only (including insulins)†	265,615 (17.5%)	274,520 (17.4%)	283,928 (17.4%)	302,479 (17.8%)	315,370 (18.0%)

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† According to the clinical practice guidelines, metformin is the first-line glucose-lowering medication for type 2 diabetes; second-line treatments include DPP-4 inhibitors, GLP-1 receptor agonists, SGLT2 inhibitors, insulin secretagogues (meglitinides, sulfonylureas), thiazolidinediones, alpha-glucosidase inhibitors and insulin therapy.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Figure 4: Annual growth rate of public drug program spending and number of active beneficiaries for anti-TNF drugs,* 2015 to 2019

Growth rate	2015	2016	2017	2018	2019
Total program spending	10.2	12.3	6.0	8.2	3.0
Active beneficiaries	10.9	9.7	5.7	9.0	4.1

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Figure 5: Proportion of total program spending on selected anti-TNF chemicals, biosimilars versus reference biologics,* 2017 to 2019

Proportion of total program spending for biosimilars	2017	2018	2019
Etanercept	0.6%	6.2%	14.1%
Infliximab	1.7%	4.1%	7.2%
Adalimumab	0%	0%	0%

Total program spending per paid beneficiary	2019
Etanercept: biosimilars	$5,942.45
Etanercept: reference biologics	$14,722.17
Infliximab: biosimilars	$10,803.35
Infliximab: reference biologics	$31,755.26
Adalimumab: biosimilars	n/a
Adalimumab: reference biologics	$15,723.40

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

Anti-TNF: Tumour necrosis factor alpha inhibitor.

n/a: Not applicable.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Figure 6: Percentage share of public drug program spending and of accepted claims, by type of drug,*, † 2019

Type of drug	Percentage of total program spending
Generic	27.9%
Brand name	45.5%
Biologic‡	26.6%

Type of drug	Percentage of claims
Generic	78.9%
Brand name	19.7%
Biologic‡	1.4%

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

† Over-the-counter and non-drug products were excluded from this analysis.

‡ Biologic products include reference biologic products and biosimilars.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Figure 8: Proportion of public drug program spending on chemicals that cost on average $10,000 or more per paid beneficiary, and the proportion of total chemicals paid,* 2015, 2018 and 2019

Proportion of . . .	2015	2018	2019
Total program spending on chemicals that cost on average $10,000 or more per paid beneficiary	21.6%	28.8%	29.7%
Chemicals paid that cost on average $10,000 or more per paid beneficiary	7.8%	10.9%	12.0%

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS.

Drug products without an Anatomical Therapeutic Chemical (ATC) code assigned by Health Canada and products assigned as pseudo–drug identification numbers are excluded.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; and Banque médicaments, Régie de l'assurance maladie du Québec.

Figure B1: Active beneficiaries as a percentage of population, seniors and non-seniors, by jurisdiction,* 2019

Jurisdiction	Proportion of non-senior active beneficiaries as a percentage of population	Proportion of senior active beneficiaries as a percentage of population
N.L.	11.9	49.6
P.E.I.	15.7	92.6
N.S.	3.4	64.9
N.B.	7.5	49.8
Que.	22.2	87.6
Ont.	19.5	96.1
Man.	55.6	94.5
Sask.	60.7	96.4
Alta.	2.8	92.6
B.C.	52.5	88.3
Y.T.	4.0	78.6
Can.	24.4	89.6

Notes

* Currently, the Northwest Territories and Nunavut do not submit data to NPDUIS. The First Nations and Inuit Health Branch is not included in this analysis as the population is unknown.

Drug claims for income assistance recipients younger than 65 in Nova Scotia and Alberta are not submitted to NPDUIS. Therefore, the proportion of the non-senior population with claims is underestimated in those provinces.

Sources

National Prescription Drug Utilization Information System, Canadian Institute for Health Information; Banque médicaments, Régie de l'assurance maladie du Québec; and Statistics Canada, Table 17-10-0005-01: Population estimates on July 1st, by age and sex.

References

1. Canadian Institute for Health Information. *National Health Expenditure Trends, 1975 to 2019*. 2019.
2. ICES. Limiting reimbursement for blood glucose test strips does not harm patients and reduces costs. Accessed November 19, 2020.
3. Ontario Drug Policy Research Network. *Blood Glucose Test Strip Quantity Limits Across Canada*. 2017.
4. The Council of the Federation Secretariat. The pan-Canadian Pharmaceutical Alliance. Accessed November 19, 2020.
5. World Health Organization. Hepatitis C key facts. Accessed November 19, 2020.
6. Wang LS, D'Souza LS, Jacobson IM. Hepatitis C — A clinical review. *Journal of Medical Virology*. 2016.
7. Public Health Agency of Canada. *A Pan-Canadian Sexually Transmitted and Blood-Borne Infections Framework for Action*. 2016.
8. BC Centre for Disease Control. Roadmap to eliminate hepatitis C revealed. Accessed September 15, 2020.
9. World Health Organization. *Global Health Sector Strategy on Viral Hepatitis 2016–2021*. 2016
10. Diabetes Canada Clinical Practice Guidelines Expert Committee. Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. *Canadian Journal of Diabetes*. 2018.
11. Diabetes Canada. *Diabetes in Canada: Estimated Prevalence and Cost*. 2019.
12. Health Canada. *Biosimilar Biologic Drugs in Canada: Fact Sheet*. 2019.
13. Canadian Institute for Health Information. *National Prescription Drug Utilization Information System — Plan Information Document, September 2020*. 2020.

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