

## Patented Medicines Expenditure in Canada 1990–2020 7th Edition

### Description

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##### ATTRIBUTION

This legacy paper is corporately authored and edited based on proprietary template models and methods that are intended to facilitate regular updates. The design and content are a cumulative reflection of the diverse contributions collectively attributable to the CHPI affiliated researchers who may have variously participated in updating each edition. Data sources, methods and editorial presentation may evolve from previous editions.

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##### EDITION

This is the 7TH edition of this paper to be published as a CHPI research series. It builds on the concepts and methods from the original paper: Skinner BJ (2012). Drugs and the public cost of healthcare in Canada, 1974-1975 to 2011-2012. *Canadian Health Policy*, November 27, 2012. Toronto: Canadian Health Policy Institute.

##### VERSION

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##### CITATION

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##### EDITORIAL SUMMARY

Federal, provincial, and territorial governments claim to be committed to evidence-based policymaking. The reality is that government policies are often based on faulty evidence or unproven assumptions, which can lead to unnecessary, expensive and harmful policy choices.

Canadian pharmaceutical policy is built on the assumption that excessive prices for patented

medicines are a major cause of the growth in national health expenditures (NHEX).

As a result, the country has constructed a multi-layered bureaucracy to control the cost of patented medicines. Currently several government agencies are involved in price regulation, health technology assessment, monopsony bargaining, formulary gatekeeping, and centralized procurement, plus there are proposals for a new national drug agency, a single national formulary, and national public drug insurance (pharmacare).

But the public discussion of pharmaceutical policy is afflicted by a perennial information deficit regarding the magnitude of spending on patented medicines. Policymakers, experts and media routinely misinterpret drugs expenditures reported by the Canadian Institute for Health Information (CIHI), to be mostly attributable to patented medicines. This is problematic because CIHI does not report patented medicines costs. Accurate data are available from the Patented Medicine Prices Review Board (PMPRB), and the numbers differ significantly from those reported by CIHI.

This study reconciles the data differences and explains the implications for Canada's pharmaceutical policy logic. The analysis tests the empirical validity of the assumption that the prices of patented medicines are a major driver of national health expenditure growth. It uses publicly available data from government sources including CIHI, the PMPRB, and Statistics Canada. Patented medicines expenditures are examined in comparison to the rest of NHEX, and after accounting for changes in population, inflation, and economic growth. Estimates are provided before and after accounting for public sector rebates and exclude temporary expenditures on COVID-19 emergency response.

According to PMPRB, gross national sales of patented drugs were \$17.5 billion in 2020 before accounting for public sector rebates, representing only 40% of the \$44.0 billion combined total reported by CIHI for spending on retail and hospital drugs, and only 6.5% of the \$271 billion total national health expenditures in 2020. From 1990 to 2020 gross sales of patented medicines have never exceeded 8% of NHEX.

After accounting for public sector rebates, national expenditure on patented medicines totaled \$14.9 billion in 2020, representing only 33.8% of total drugs expenditures reported by CIHI, and 5.5% of total national health expenditures.

CHPI's analysis shows that, when the correct data are examined in a proper economic context, national expenditures on patented medicines are objectively affordable and sustainable.

So then, why do policymakers myopically focus on controlling the prices of patented medicines instead of other types of healthcare expenditures? The information deficit is one explanation. Governments also probably find it technically easier to regulate pharmaceutical products than to improve efficiency in hospitals and physician care. Moreover, imposing an economic loss on pharmaceutical companies has less political costs for governments than targeting hospitals and health professionals. The focus on the prices of patent medicines is also partly explained by industrial nationalism. The innovative pharmaceuticals industry is comprised mainly of foreign multinational companies. Canadian policymakers view public expenditure on patented medicines as a cost burden for Canadian taxpayers and an income transfer to American and European pharmaceutical companies.

The disproportionate focus on price controls raises the risk of serious unintended consequences. Evidence suggests that excessive price controls are a disincentive to launch new drugs and to invest in

research and development in markets. If governments want to ensure that Canadians have early access to new medicines, and want to attract foreign direct investment to Canada, the excessive focus on price controls is counterproductive.

Price controls are not costless. Administering the price control regime consumes significant public resources that could be saved or spent to improve access to under-funded therapies. A quick review of annual financial statements for three price control agencies shows the direct cost of price regulation and HTA was over \$82 million in 2020, excluding the health and economic costs of delays to launching new drugs and listing them on public formularies.

The paper concludes with a discussion of an alternative approach to price regulation of patented medicines using Germany as a model for Canada. Germany's approach to pharmaceutical pricing is based on structured negotiation instead of regulation and is designed to allow immediate interim public insurance coverage of new medicines following marketing authorization, with permanent insurance coverage pending the outcome of negotiations.

While it is important for governments to manage public finances responsibly, the incremental cost of providing insured access to patented drugs must be weighed against the benefits in a broader economic context. Pharmaceutical innovation improves patient health outcomes, reduces potential health system costs, and reduces indirect societal costs like economic productivity losses from untreated or under-treated illness. The impact of excessive price regulation on the availability of patented medicines jeopardizes the potential benefits to be gained from greater utilization of new drugs. Instead of focusing on controlling the prices of patented medicines, policymakers should be trying to capture the value of therapeutic innovation.

## HIGHLIGHTS

- Policymakers, experts and media routinely misinterpret drugs expenditures reported by the Canadian Institute for Health Information (CIHI), to be mostly attributable to patented medicines. This is problematic because CIHI does not report patented medicines costs. Accurate data are available from the Patented Medicine Prices Review Board (PMPRB), and the numbers differ significantly from those reported by CIHI which include non-patented drugs and ancillary costs like pharmacy dispensing fees, public drug plan administration, and even R&D spending by pharmaceutical companies.
- Importantly, both CIHI and PMPRB report drugs expenditures without accounting for rebates negotiated between manufacturers and public drug plans, which Ontario's Auditor General estimated to average 36% off manufacturers' list prices.
- According to PMPRB, gross national sales of patented drugs were \$17.5 billion in 2020 before accounting for public sector rebates. Net of rebates, national expenditure on patented medicines totaled \$14.9 billion in 2020.
- At \$17.5 billion, gross national expenditure on patented drugs represented 40% of the \$44.0 billion combined total reported by CIHI for spending on retail and hospital drugs. Net of rebates, national expenditure on patented medicines represented 33.8% of total drugs expenditures reported by CIHI.
- At \$17.5 billion, gross national sales of patented drugs accounted for 6.5% of the \$271 billion reported by CIHI for national health spending in Canada in 2020, excluding temporary expenditures on COVID-19 emergency response. After accounting for public sector rebates,

- patented medicines were only 5.5% of the \$271 billion total national health expenditures in 2020.
- Excluding rebates, over the 31 years from 1990 to 2020, gross expenditure on patented medicines never exceeded 8.0% of national health expenditure. Patented drugs' percentage of national health spending in 2020 was at almost the same level as in 2000 (6.4%).
  - Excluding rebates, gross national sales of patented drugs have accounted for less than 1% of GDP for the last 31 years and were approximately the same percentage of GDP in 2020 (0.8%) as in 2003 (0.8%).
  - According to PMPRB there were 189 patented medicines defined as high-cost drugs in 2020 accounting for \$9.1 billion in gross sales excluding rebates, which represented only 3.4% of national health expenditures and 0.4% of GDP.
  - According to PMPRB there were 105 patented oncology medicines in 2020 accounting for \$3.9 billion in gross sales excluding rebates, which represented only 1.5% of national health expenditures and 0.2% of GDP.
  - Excluding rebates and stated in current dollars, expenditure per capita on patented oncology medicines was \$104 in 2020. Stated in constant 2006 dollars, the real gross expenditure per capita on patented oncology drugs was \$59 in 2020. The cost of patented oncology medicines can be compared to the total societal and health system costs associated with the disease. A recent study estimated these costs were C\$26.2 billion in Canada in 2021. Stated in current dollars the economic burden of cancer in 2021 was equivalent to \$682 per capita. Stated in constant 2006 dollars the societal cost per capita was \$377.