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INNOVATIVE MEDICINES CANADA / MÉDICAMENTS NOVATEURS CANADA

From Health Outcomes to Economic Growth: The Value of the Innovative Pharmaceutical Industry

Innovative Medicines Canada

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Scope and Analytical Approach

This study combines a traditional economic impact analysis with targeted assessments of health system impacts of patient support programs (PSPs) and clinical trials as well as productivity effects associated with the innovative pharmaceutical industry. **An important distinction is that the annual operating spending on PSPs, clinical trials and R&D are measured in the footprint analysis**. What the targeted assessments aim to do is look at the further impacts accruing to the economy through improved health outcomes and productivity. Therefore, **the results for PSPs, clinical trials and R&D should not be interpreted as the impact that spending on these areas has on the economy but rather the additional benefits that accrue to the economy over and above their economic footprint**.

The **economic footprint** of IMC members and the broader innovative pharmaceutical sector, including direct, indirect, and induced impacts

The **health system and economic impacts of patient support programs (PSPs)** delivered by IMC members

The economic impacts from **increased labour market activity for participants in IMC member clinic trials**

The **longer-term contribution of the innovative pharmaceutical sector to multifactor productivity (MFP)** through the diffusion of medical innovation and knowledge

Economic footprint and productivity effects are measured for both IMC members and the broader innovative pharmaceutical sector, while PSP and clinical trial impacts are assessed for IMC member firms. Together, these components provide a more complete picture of the sector's economic contribution than a traditional footprint analysis alone.

The impacts presented in this study vary by therapeutic area, patient population, and time horizon. Results are intended to illustrate system-level dynamics, rather than to assess the merits of individual medicines or specific coverage decisions.

This analysis is designed to complement existing official statistics and economic impact studies by providing additional insight into forms of value that are not typically captured in traditional footprint analysis.

The Economic Impacts of the Innovative Pharmaceutical Industry Benefit Patients and Governments

The economic contributions of the innovative pharmaceutical industry benefit stakeholders in different ways. Patients benefit from the GDP impacts estimated for PSPs and clinical trials, while the government benefits from the direct health system cost savings tied to PSPs, and the government revenues estimated in the economic footprint analysis.

GDP Benefits to the Economy

In 2023: Economic footprint of the innovative pharmaceutical industry	In 2024: Health system and economic impacts of PSPs	In 2025: Productivity impacts of clinical trials	Between 2018 and 2023: Longer-term productivity effects through R&D and knowledge diffusion
In 2023, the innovative pharmaceutical sector supported **$22.2B** in GDP. In 2025, IMC member firms foregone profits through drugs provided through PSP programs add **an additional $1.4B to the total**.	IMC member PSPs **supported annual GDP impacts of $1.0B** in 2024 across all PSP patients. Over a lifetime, GDP impacts rise to $8.0B (2024$) across all patients.	In 2025, **$285.3M** in GDP was supported through improved health outcomes for patients in IMC member clinical trials.	The innovative pharmaceutical industry's R&D spending resulted in a boost to productivity, which supported **GDP gains of $241-$295M (2017-chained) between 2018 and 2023**. In 2023, the sector had up to $3.5B in R&D spending.[1]

Annualizing the benefits and converting everything to 2025$, **GDP impacts for are valued at a total of $26.2B (2025 CA$).**[2,3]

Benefits to Different Stakeholders

Benefits to patients

1. The annual and lifetime indirect GDP impacts tied to IMC member PSPs, which translated to **$1.0B and $8.0B (2024$) and supported 6,800 jobs and 53,900 person years of employment, respectively,** leading to extra earned income across all patients supported.
2. The **$285.3 million in GDP and 1,849 jobs** tied to improved health outcomes from IMC member clinical trials in **2025** from additional income earned.

Benefits to government

1. The innovative pharmaceutical sector supported **$6.8B ($3.2B from IMC member firms) in government revenues in 2023**, as estimated through the economic footprint analysis.
2. IMC member funded PSPs supported annual and **lifetime direct system cost savings of $0.7B and $9.3B (2024$)**, respectively, through avoided hospital and physician visits, and drug savings related to a healthier population.

Notes: 1. Deloitte analysis and Statistics Canada data on R&D. For more details on the methodology and data sources, please refer to appendices A-D. 2. We used the implicit GDP price deflator to convert the economic footprint from 2023 to 2025 dollars, and the PSP outputs from 2024 to 2025 dollars. The productivity benefits over 5 years were annualized and then converted from 2023 to 2025 dollars using the same implicit GDP price deflator. 3. The PSP and clinical trial analysis was only conducted for IMC members.

Total Economic Footprint of the Innovative Pharmaceutical Sector

IMC members represent the largest and most R&D-intensive firms within the Canadian innovative pharmaceutical sector, but the total footprint of the sector extends beyond the IMC membership. In this part of the analysis, we extend the footprint to capture the impact of the entire innovative pharmaceutical sector.

As with IMC members' impacts, the sector's economic contribution operates through three channels. Direct impacts reflect the sector's own activities, including production, employment, and value added generated within pharmaceutical firms themselves. In 2023, the sector directly contributed $9.4 billion in GDP and supported 51,789 jobs across the country. To support these activities, pharmaceutical companies purchase large volumes of goods and services from Canadian suppliers. This creates indirect impacts, as supplier firms expand their own production and employment. In 2023, the sector spent $32.5 billion on goods and services, generating supply-chain activity that supported an estimated $8.2 billion in GDP, and 61,962 jobs. Beyond this, workers employed by the sector and its suppliers spend their earnings on everyday goods and services, such as housing, food, and transportation. This household spending generates induced impacts, further supporting economic activity across the economy. Including these effects brings the sector's total economic footprint to $22.2 billion in GDP. In total, the sector supports 149,182 jobs, $11.4 billion in labour income, and $6.8 billion in government revenues across federal, provincial, and municipal levels.[1]

The sector's strong focus on innovation further reinforces these economic linkages. In 2023, pharmaceutical companies undertook $2.0 billion in in-house R&D expenditures and up to $1.5B in outsourced R&D expenditures, and supported 9,267 R&D personnel,[2] driving sustained demand for specialized inputs, professional services, and other upstream activities throughout the economy.

Variable	Total Direct Impact ($M)	Total Indirect Impact ($M)	Total Induced Impact ($M)	Total Impact ($M)
Gross Domestic Product at basic prices (GDP) measured by Gross Value Added (GVA)	$9,421	$8,211	$4,563	$22,195
Employment	51,789	61,962	35,432	149,182
Labour Income	$5,176	$4,663	$1,555	$11,394
Government Revenue	$2,099	$2,001	$2,675	$6,776

Note: GDP impacts are measured on a gross value added (GVA) basis, which captures the value of production net of intermediate inputs. GVA is one of three approaches to measuring GDP; the others are the income approach (summing wages, profits, and taxes less subsidies) and the expenditure approach (summing consumption, investment, government spending, and net exports). Government revenue includes federal, provincial, and municipal impacts. Impacts are derived from purchases of goods and services using Statistics Canada Financial and Taxation Statistics for Enterprises, removing estimated cost of goods sold for wholesalers and converted to basic prices with imports removed. Estimates are reported in 2023 Canadian dollars. See Appendix A for more details.

Sources:

1. Analysis by Deloitte based on data provided by Statistics Canada.
2. Data sourced from Statistics Canada Research and Development in Canadian Industry survey; the figure corresponds to full-time equivalent jobs (FTEs).

Health System Impacts of Patient Support Programs | Lifetime GDP and Employment Impacts

Lifetime Impacts of IMC Member PSPs

As highlighted previously, IMC members support a broader population of patients through PSPs than the five representative health conditions studied.

To appropriately capture the economic impacts for the full universe of IMC member PSPs, like with the annual estimates, we scale up the lifetime impacts of PSPs for the five representative health conditions to all patients enrolled in PSPs in IMC member firms. To do so, the weighted average lifetime costs and benefits associated with the five representative health conditions are applied to the remaining patients enrolled in IMC member PSPs. The results of this analysis are highlighted below.

Variable	Per-Patient Impacts	Total Lifetime Impacts
Total Lifetime Costs (A)	$14,197	$12.8 billion
Lifetime Direct Costs Savings (hospital, physician and drug costs) **(B)**	$10,248	$9.3 billion
Lifetime Indirect Costs Savings (mortality, morbidity and caregiving costs) **(C)**	$11,483	$8.0 billion
Total Lifetime Benefits (D = B+C)	$21,730	$17.3 billion

Lifetime GDP and Employment Impacts

Like with the annual impacts highlighted previously, the indirect impact of PSPs can be translated into GDP impacts given they represent the wages gained over a lifetime with the help of PSPs.

With the help of PSPs, patients experience improved health outcomes; this reduces their risk of mortality, allowing them and their caregivers to work more. This allows PSP patients and their caregivers to be more productive and earn more over their lifetime. This additional labour supply and income can be viewed as additional GDP.

Using a productivity measure (nominal GDP per employee), these GDP gains can be translated into employment impacts.

Variable	Total Lifetime Impacts
Total Lifetime Indirect Cost Savings (C) = GDP Gains Attributable to PSPs	$8.0 billion
Productivity (nominal GDP/employment) **(E)**	$149,978
Employment Gains Attributable to PSPs (C/E), (person-years of employment)	Approximately 53,900

Notes:

1. The impacts presented here are exclusive to PSPs managed by IMC member firms. Non-IMC member firms also run PSPs and therefore the full impact of PSPs operating in Canada is larger than what is shown in this analysis.
2. For more details on the methodology, please refer to the Appendix.

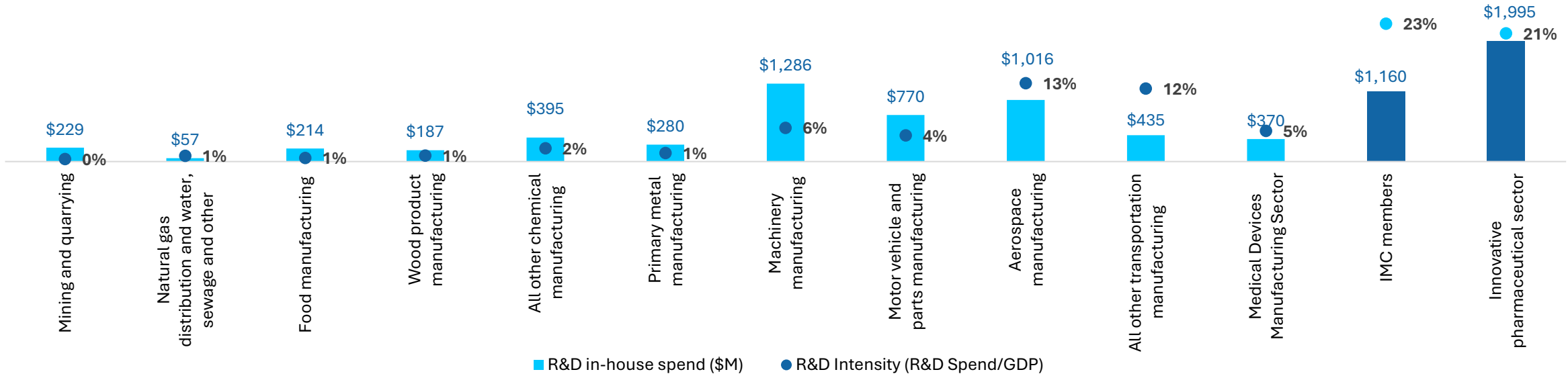
The Sector Spent the Most on R&D and Had the Highest R&D Intensity of the Industries Studied

The innovative pharmaceutical sector stands apart from other comparable Canadian industries, both in the scale of in-house R&D spending and in R&D intensity.[1] In 2023, the innovative pharmaceutical sector invested $2.0B in in-house R&D, representing an R&D intensity of 21% of GDP, the highest among the industries shown. IMC members alone accounted for over $1.2B of this R&D spending, with an even higher intensity of 23%, underscoring the sector's strong focus on innovation.

By comparison, other advanced manufacturing industries such as machinery manufacturing ($1.3B, 6% intensity), medical devices manufacturing ($0.4B, 5%), motor vehicle and parts manufacturing ($0.8B, 4%), and aerospace manufacturing ($1.0B, 13%) exhibit substantially lower R&D intensity. Resource-based and traditional manufacturing sectors, including mining, food manufacturing, and primary metal manufacturing, show R&D intensities of 0%-2%, despite their economic scale. Overall, the sector's contribution to Canada's R&D activity relative to its size reinforces its role as a key driver of innovation and long-term productivity growth.

Comparison of Innovative Pharmaceutical Sector to Other Industries[1]

R&D in-house spend in $M, R&D intensity as a share of direct GDP, 2023



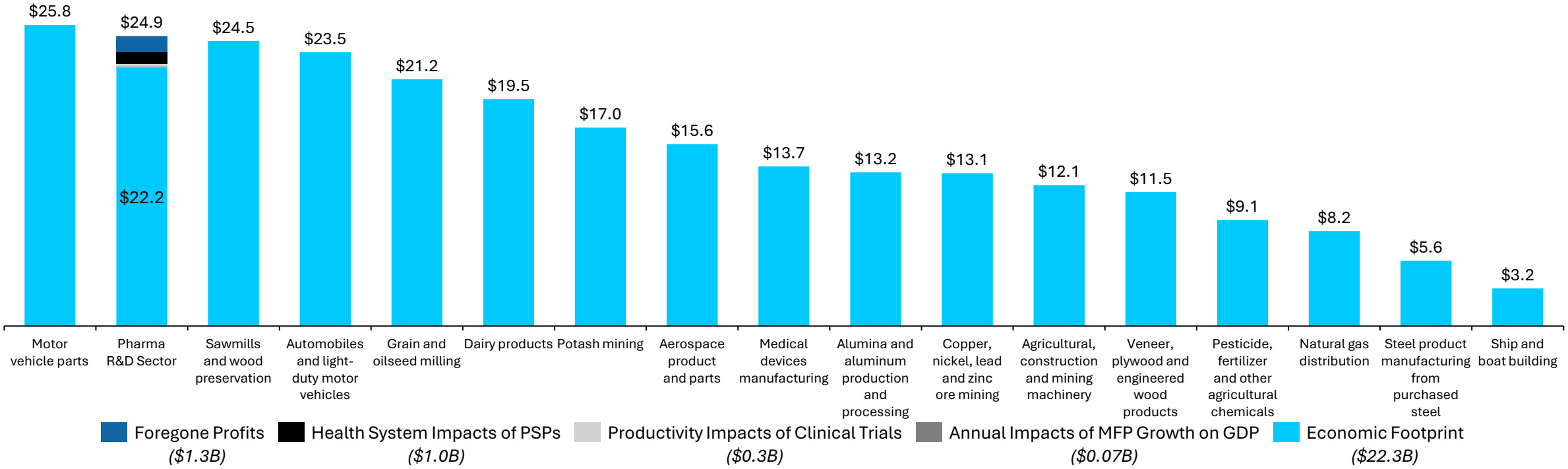
1. To place the sector's R&D activity in context, we compare the same set of prominent industries used in the economic footprint comparison, aggregated to a higher level to align with available R&D statistics. Data used for the analysis is sourced from Statistics Canada Business enterprise in-house research and development expenditures, by industry and Gross domestic product (GDP) at basic prices, by industry. Figures for IMC members and the innovative pharmaceutical sector are calculated using data from Statistics Canada 2023 R&D Pharmaceutical Sector report. For the comparisons, GDP was brought to 2023 using real growth rates for the industry and the nominal GDP deflator. Medical devices manufacturing R&D spend data and direct GDP impact are sourced from Statistics Canada. The OECD defines R&D intensity as the ratio of R&D expenditure to value added (GDP) within an industry.

Combining the Impacts Across the Four Channels, the Sector's Impacts Grow Larger

Pulling together the impacts across all channels considered in this analysis shows that the sector contributes an estimated $24.9 billion, in 2023$. This research focused only on quantifying the additional benefits stemming from the innovative pharmaceutical sector and therefore, the results for the comparator industries only reflect their traditional economic footprint.

Comparison of Pharmaceutical R&D Economic Footprint to Other Industries[1]

GDP, billions 2023$



1. The economic footprints for the comparator industries are measured using an I-O multiplier approach, with data sourced from Statistics Canada's Supply and Use tables,2022 and I-O Multipliers, detail level. This footprint reflects total GDP impacts (direct + indirect + induced) for the selected industries. For the Pharmaceutical R&D sector, however, represents the sum of the traditional footprint plus foregone profits, the economic impacts associated with improved health outcomes related to PSPs and clinical trials, and the value of the productivity gains estimated to be associated with the sector's R&D spending. For the comparisons, GDP for the industries were brought to 2023 using real growth rates for the industry and the nominal GDP deflator. Medical devices manufacturing impacts are sourced from Statistics Canada.

Canada's Innovative Pharmaceutical Industry is Struggling to Stay Competitive

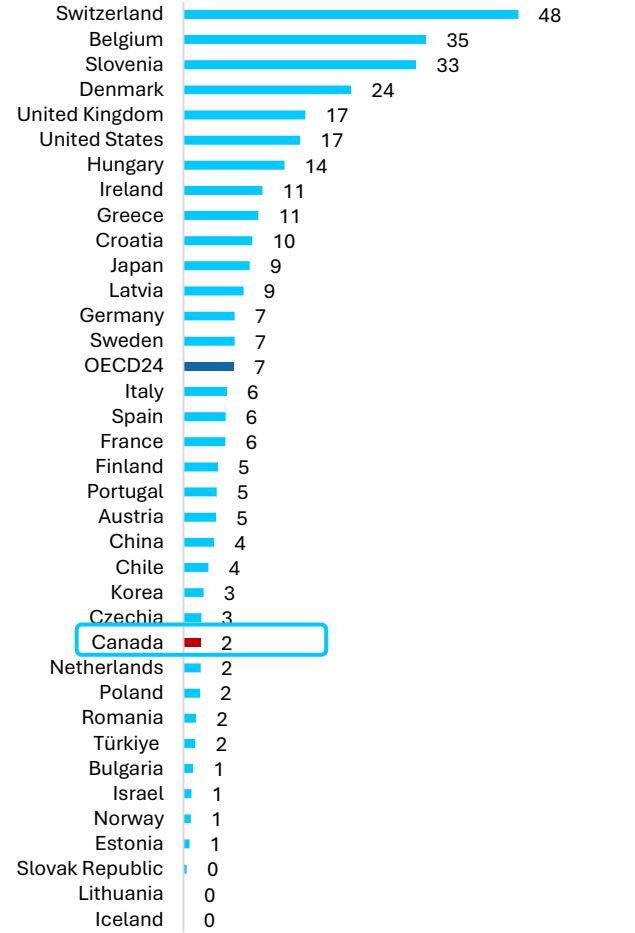
Through the four channels highlighted in the previous sections, we have shown how the innovative pharmaceutical industry contributes to Canada's economy today and how it supports growth, productivity, and system sustainability over the long-term. Data also shows that Canada is relatively competitive upstream with the highest share of adults with a tertiary education among all OECD countries.[1] Further, Canada is the G7 leader in clinical trial productivity (trials per population).[2]

Despite its highly educated population, Canada's pharmaceutical R&D spending lags its international peers. Across OECD countries, the pharmaceutical sector accounts for about 8% of total Business Enterprise Expenditure on R&D (BERD) while in Canada, that share is just 2%.[3] It is possible that some countries may have a higher share of pharmaceutical R&D spending because their overall spending on R&D is weak. However, when looking at R&D as a share of the economy, we see many of the same countries in the upper half of both charts and Canada again within the lower half.[4]

The clearest evidence of Canada trailing on the innovative medicines front is when it comes to our population's ability to access innovative medicines. On average, 29% of drugs launched globally are available through public reimbursement plans among OECD countries: for Canada, that number is 21%.[5] For decades, Canadians have benefited from access to innovative medicines. Lichtenberg's 2025 study suggests that without drug approvals between 1974 and 1995, life-years lost in Canada before age 75 in 2022 would have been 49% higher.[6] With a smaller share of drugs being approved for public reimbursement in Canada, these benefits are potentially at risk.

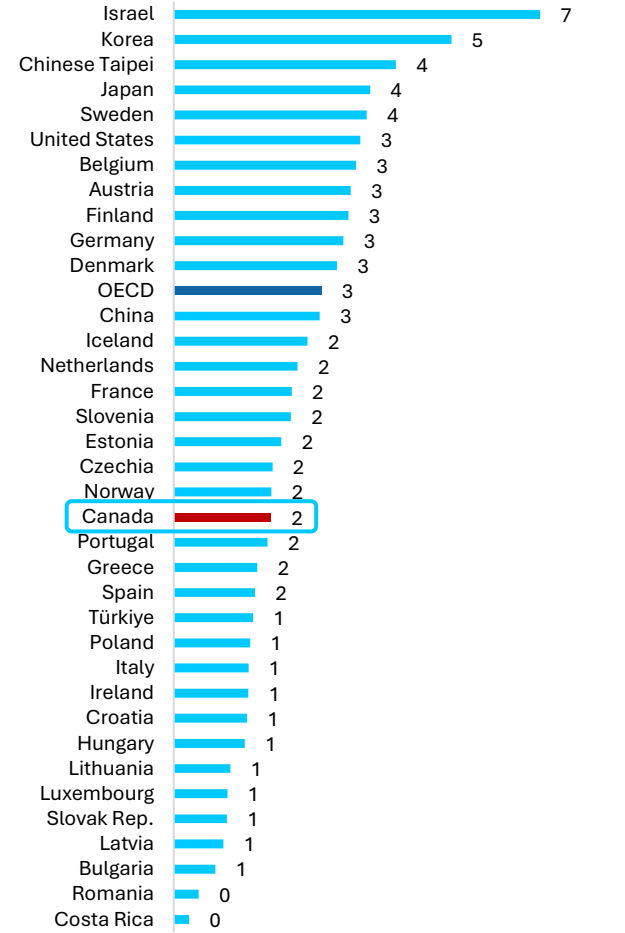
OECD Pharmaceutical R&D as a Share of Total Business Enterprise Expenditure on R&D, 2022[3]

Percentage



OECD R&D Expenditure as a Share of GDP, 2024[4]

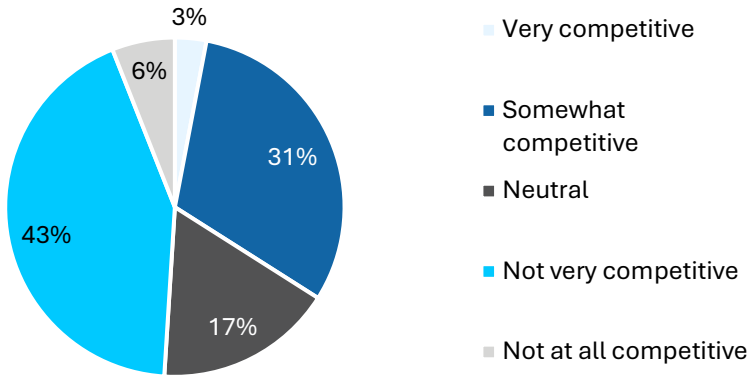
Percentage



1. OECD. Adults' educational attainment distribution, by country of birth, age group and gender. Accessed April 10, 2026.
2. Government of Canada. Clinical trials environment in Canada. August 2025.
3. OECD. Pharmaceutical knowledge and innovation: Health at a Glance 2025 | OECD. November 2025. These shares only include the manufacture of basic pharmaceutical products and pharmaceutical preparations industry.
4. OECD. Gross domestic spending on R&D. Accessed April 10, 2026.
5. PhRMA. Global Access to New Medicines Report. April 2023.
6. Lichtenberg, F. The impact of pharmaceutical innovation on mortality and hospital utilization in Canada, 2000–2022. August 2025.

There are Barriers Holding Back Competitiveness in Canada's Innovative Pharmaceutical Industry

IMC members' view on the competitiveness of Canada's innovative pharmaceutical industry relative to other countries



Proportion (%) of IMC members who identified the following barriers as significant barriers to the competitiveness of Canada's innovative pharmaceutical industry

Reimbursement Timelines	94.3%
Health Technology Assessment Limitations	85.7%
Funding Predictability	82.9%
Interprovincial Variation	54.3%
Regulatory Timelines	28.6%
IP environment	20.0%
Talent Availability	2.9%

This trailing performance was emphasized by a survey of IMC member firms where almost half of respondents stated that Canada's innovative pharmaceutical industry is either not at all competitive, or not very competitive relative to other countries.

When asked to rank among the seven barriers listed in the table to the left, IMC members ranked reimbursement timelines, health technology assessment (HTA) limitations, and funding predictability as the top barriers to the sector's competitiveness. Some additional barriers highlighted were weak commercialization and market access, despite being strong in science and having the right talent, long timelines, restrictive pricing, and fragmented processes. A troubling insight from the survey was that firms are deprioritizing Canada for launches and investment.

In interviews with IMC members, two key suggestions were made on how to improve the sector's competitiveness:

1. **Reduce timelines between Health Canada approval and reimbursement by public health plans**. Based on data from IQVIA MIDAS®, PhRMA reports that it takes approximately two years once a medicine is approved by Health Canada for these drugs to be reimbursed by public programs.[1] This is longer than in the US, where it takes approximately 4 months.[1] Uncertainty around timelines and approval processes dissuades global pharmaceutical companies from investing and launching products in Canada, further limiting health benefits and GDP growth.
2. **Evaluate both costs and benefits of innovative medicines**. Today, when negotiation occurs to decide whether to reimburse a product, only the cost of the product is considered. However, having access to innovative medicines can improve long-term health outcomes and lead to economic growth. To best maximize the scarce resources in Canada's health care system, stakeholders suggest a more comprehensive approach that weighs the benefits of having access to innovative medicines along with the cost.

1. PhRMA. Global Access to New Medicines Report. April 2023.