



Medicine and Healthcare in Canada: A Cost-Benefit Analysis

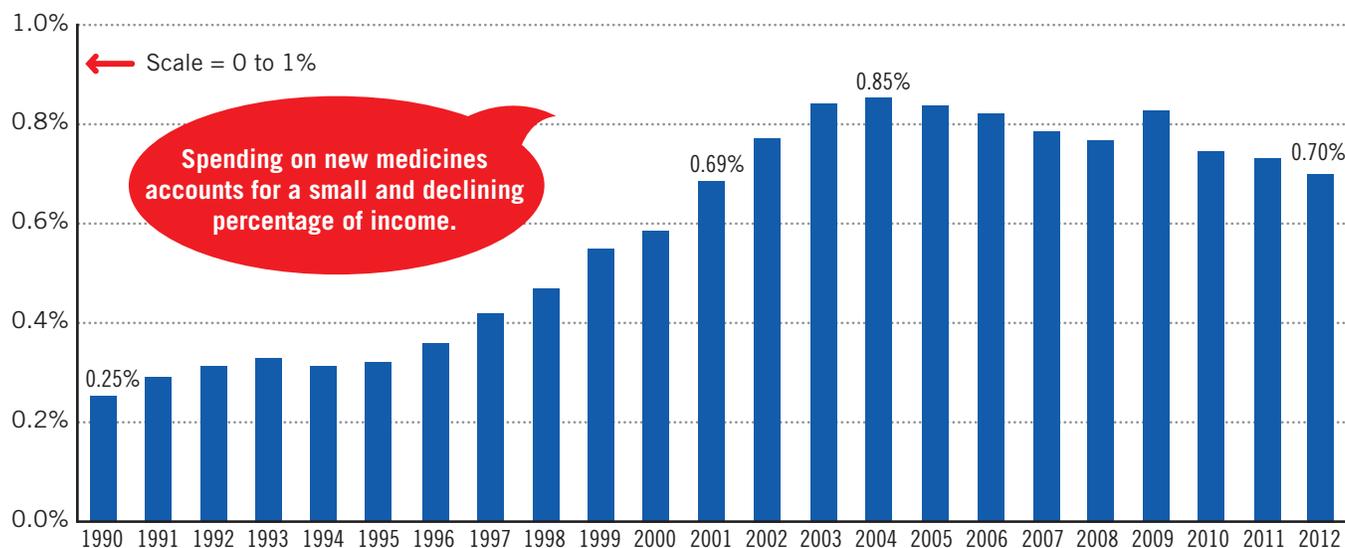
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The benefits that innovative medicines offer Canadians go well beyond their basic cost. Yet, innovative technologies, especially new (or patented) medicines, are nevertheless unduly targeted for cost-containment and rationing by policy makers. These efforts are short-sighted and have their own hidden costs. Aside from the underappreciated administrative costs, such policies create a cascade of unintended consequences. They limit potential health gains by reducing access to the best available treatments for Canadians. They also hinder the adoption of technologies that can more efficiently achieve desired health outcomes, and they discourage future pharmaceutical innovation, to the detriment of Canadian patients.

Canadian health policy should be informed by a long-term societal perspective when considering value for money spent. It should seek to maximize the net benefits from publicly funded health expenditures. Instead, health policy is often short-sighted. It focuses on containing immediate expenditures within compartmentalized budgets without much consideration for the societal return on investment from providing timely access to the best available treatment technologies. Perhaps we need a less static and more dynamic assessment of costs and benefits that takes account of the big picture.

Consider the almost singular focus of health policy makers on controlling the cost of prescription drug spending relative to other health system expen-

Chart 1: Spending on patented medicines is affordable and sustainable: per capita sales patented medicines as a % of per capita GDP in Canada



Source: Canadian Health Policy Institute (2013).

ditures. The relatively small direct budget impact from spending on new medicines and vaccines in particular, simply does not justify the substantial expenditure of resources that are devoted to regulating and managing their costs, particularly in comparison to their benefits for the rest of our health system.

More importantly, the benefits that innovative medicines offer Canadians go well beyond their basic cost. Yet, innovative technologies, especially new (*or* patented) medicines, are nevertheless unduly targeted for cost-containment and rationing by policy makers.

The cost of new medicines is the primary excuse driving interventionist policies and proposals, including:

- Increasing price regulation of patented medicines;
- Restricting insured coverage for new medicines;
- Overriding patient choice and health professional expertise in prescribing;
- Nationalizing private-sector drug insurance;
- Imposing a national monopsony over publicly-funded drug sales (e.g. the interprovincial government initiative known as the Pan-Canadian Pricing Alliance); and

- Not adhering to international trade treaty standards for the protection of life sciences intellectual property rights.

These cost-containment schemes are short-sighted and have their own hidden costs. Aside from the underappreciated administrative costs, such policies create a cascade of unintended consequences. They limit potential health gains by reducing access to the best available treatments for Canadians. They also hinder the adoption of technologies that can more efficiently achieve desired health outcomes, and they discourage future pharmaceutical innovation, to the detriment of Canadian patients.

By targeting new medicines for cost containment, policy-makers are incurring greater opportunity costs from lost health improvements and associated savings for the health system, as well as lost potential productivity gains. Canadian health policy is misinformed about the impact of new medicines on the cost of healthcare. Policy makers should base health spending decisions on an accurate accounting of the costs specifically attributable to innovative medicines. This includes how these costs compare to other types of healthcare, as well as a full accounting of the net health and economic

benefits from providing access to new medicines.

The policy confusion on drug costs is caused partly by media misinterpretation of the health spending statistics published annually by the Canadian Institute for Health Information (CIHI).

CIHI's numbers for total drug spending are commonly misunderstood to be equivalent to the specific costs of the narrower group of innovative or patented medicines.

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Most people are unaware that the CIHI numbers include costs that are not directly attributable to patented medicines.

CIHI reports "drugs" spending at the final retail cost level, which includes expenditures on patented and non-patented drugs, wholesale and retail markups, pharmacy dispensing fees, the administrative costs of drug plans and taxes.

That's a lot of stuff that shouldn't be blamed on the cost of innovative medicines.

Accurate statistics on the spending directly attributable to innovative medicines can be sourced to the federal drug price monitor, the Patented Medicine Prices Review Board (PMPRB). The PMPRB counts the direct sales of all patented medicines at \$12.8 billion in 2012.

A November 2013 report by the Canadian Health Policy Institute (CHPI) uses the most recent comparable data from the PMPRB and CIHI to calculate the specific impact of patented medicines on the cost of healthcare in Canada.

According to the CHPI analysis, total (national, public and private) direct spending on patented medicines (\$12.8 billion) accounted for only 6.2 percent of the \$205.9 billion spent in total on healthcare in 2012.

The CHPI study also compared relative growth rates between patented medicines and other health spending. The data show that direct spending on innovative medicines grew by only 4.1 percent from 2007 to 2012, while spending on all other healthcare (excluding patented medicines) grew by 30.5 percent.

Adjusting for population, the analysis showed that per capita spending on patented medicines actually declined -1.8 percent from 2007 to 2012, while per capita spending on all other healthcare grew by 23.2 percent.

Spending on innovative medicines is very affordable relative to income. Per capita spending on patented medicines was \$366.97 in 2012, accounting for less than one percent (0.70 percent) of per capita GDP (\$52,248.98).

The data also show that per capita spending on patented medicines has steadily declined as a percentage of per capita GDP for the last 8 years, falling from 0.85 percent in 2004 to 0.70 percent in 2012.

The CHPI report also separately examined government spending on innovative medicines. Provincial/Territorial (P/T) government spending on patented medicines (excluding drugs used in hospitals) was estimated at \$4.7 billion or only 3.5 percent of

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the \$134.7 billion total spent by P/T governments for healthcare in 2012.

Government spending on patented medicines has been declining, while other health spending has increased. Overall, total P/T government spending on patented medicines declined -2.8 percent from 2007 to 2012, while P/T government spending on all other healthcare increased by 31.7 percent.

The decline in government spending on patented medicines is even more pronounced when the data are adjusted for population growth. On a per capita basis, P/T government spending on patented medicines declined -8.2 percent from 2007 to 2012, while per capita P/T government spending on all other healthcare increased by 24.3 percent.

Slower spending on innovative medicines is partly explained by the fact that the patent status of several products has expired during the last several years. But Canadians should also be aware that slower spending growth is partly due to government decisions to restrict access to the newest medicines. This is evidenced by another CHPI study that compared public versus private insurance coverage for new medicines.

The CHPI study found that of the 39 new medicines approved by Health Canada in 2012, 36 (92 percent) were covered by at least one private drug plan compared to only 11 (28 percent) that were covered by at least one public plan—as of December 1st, 2013.

For the new medicines approved for sale by Health Canada in 2012 that were eventually covered under at least one private plan and at least one public plan, private drug plans took 143 days on average to approve coverage compared to 316 days for public drug plans.

Cost concerns are driving rationing, but policy-makers should not consider costs in isolation from the overall benefits received. Innovative medicines are an efficient means for treat-

ing illness and improving health—and this saves potential costs for the health system. Further, a healthy population is the basis for a more productive workforce. The socio-economic and health benefits generated from the use of innovative medicines are well established in research.

The seminal work on this subject has been led by Frank R. Lichtenberg of Columbia University, who has conducted dozens of studies empirically confirming the net benefits (benefits minus costs) from pharmaceutical innovation. In a famous 2002 study, Lichtenberg found that the use of innovative medicines reduced non-drug expenditures by 7.2 times as much as it increased drug spending.

More recently, the Conference Board of Canada published a study of the health and economic benefits associated with pharmaceutical spending in Ontario from 2007 to 2012. The research found that as of 2012, the \$1.22 billion spent on the six classes of pharmaceutical medicines studied generated offsetting health and societal benefits of nearly \$2.44 billion—a 2:1 benefit-to-cost ratio. The benefits included reduced demand for other healthcare resources (e.g. hospitalization, surgeries, and ER visits) and reduced productivity losses as people recovered and returned to work. This study also found that improving patient adherence to their prescribed medicines would further increase these benefits.

The evidence is clear. The small impact of innovative medicines on total health costs means that even the most extreme rationing of new medicines will not return significant overall savings for the health system. In fact, just the opposite is true: cost containment efforts that reduce access to new medicines are counter-productive. The societal health and economic benefits from providing access to innovative medicines far outweigh the upfront costs. **P**

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