

June 28, 2017

SUBMISSION

CONSULTATION DOCUMENT, PROTECTING CANADIANS FROM EXCESSIVE DRUG
PRICES

PATENTED MEDICINE PRICES REVIEW BOARD (PMPRB) AND THE PATENTED
MEDICINES REGULATIONS

TABLE OF CONTENTS

Table of Contents.....	2
THE VALUE OF INNOVATIVE MEDICINES	6
POLICY INTENTIONS AND CONSEQUENCES.....	6
THE OPPORTUNITY: TIME FOR A DIFFERENT APPROACH	9
PMPRB’s R&D REPORTING MANDATE	10
THE PMPRB’s EXCESSIVE PRICING MANDATE.....	12
RISK-BASED REGULATION	15
CONSULTATION PROPOSALS	18
Amending the List of Comparator Countries	19
SELECTION CRITERIA.....	19
United States as a Comparator.....	20
The OECD Median as a Policy Objective	21
Modified List of Comparator Countries.....	22
New Proposed Factor: Pharmacoeconomic Evaluations	23
New Proposed Factor: Market Size.....	26
New Proposed Factor: Gross Domestic Product	27
Proposal for Regulating ANDS Approved Drugs.....	28
Proposal to Modernize Reporting Requirements.....	30
Proposal to Require the Reporting of all Indirect Price Reductions	31
CONCLUSION.....	32
List of Recommendations	34

EXECUTIVE SUMMARY

Innovative Medicines Canada is the national voice of Canada's innovative pharmaceutical industry. We advocate for policies that enable the discovery, development and commercialization of innovative medicines and vaccines that improve the lives of all Canadians. We support our members' commitment to being valued partners in the Canadian health and regulatory system.

The patented prescription medicines regulated by the PMPRB are a vital part of our health systems, helping to prevent and cure disease as well as save lives. Developing and introducing new innovative treatments into Canadian health systems is critical. There is a demonstrable link between appropriate access to innovative medications and key health outcomes. Canada needs to establish clear policy objectives to set a pharmaceutical price ceiling mechanism that protects consumers while rewarding companies for introducing innovations. PMPRB's processes could evolve to apply a proportional, risk-based approach to patented medicines in Canada.

The greatest challenge is to recognize the common objectives of all parties — payers, administrators, policy makers, healthcare professionals, patients, and industry. Health Canada has proposed significant regulatory changes but has not forecasted how the prices of patented medicines might change, how patients might be affected, how these price changes will affect the Canadian pharmaceutical market, or how it intends to measure and evaluate the outcomes of the proposals.

The Canadian pharmaceutical market is not homogeneous, and the impact of the proposed regulatory changes will be variable among products, classes, and patentees. The existing framework has encouraged companies to enter the Canadian marketplace, allowed companies to launch new products, and provided incentives for manufacturers to launch competing products within the same therapeutic classes. This has benefited Canadian patients, health systems, and the economy.

The Consultation Document Proposals will add significant complexity to the already complicated and lengthy process in Canada prior to a drug reimbursement decision. A more straightforward approach is attainable. We recommend a broader, more positive policy focus grounded on the overarching objectives of facilitating access for Canadian patients to new innovative medicines, while also addressing the affordability concerns of Canadian governments. We have an unprecedented opportunity to materially enhance the health and wellbeing of all Canadians, and position the country as a leader in the knowledge economy. We are ready to engage in a new, collaborative, and mutually beneficial partnership.

Patients should have access to needed medicines without affordability as a barrier. At the same time, stakeholders should agree that competition and new product launches add value. This inclusive agenda would also help to support world-class clinical research infrastructure in Canada that would benefit patients while growing our dynamic life sciences ecosystem.

In the 30 years since PMPRB's creation, many other agencies and processes have been established to support and improve the public-sector drug reimbursement decision process. These processes are thorough and intended to improve payer decisions and are often mandatory.

The PMPRB presently has substantial authority under the *Patent Act* and the *Patented Medicines Regulations*, including the ability to compel various types of information from market participants. These powers and the successful compliance record of industry over time need to be acknowledged. No specific examples have been cited where the current Regulations, Guidelines, and/or processes have been unable to address an excessively priced patented medicine.

With respect to the specific Proposals, there are significant questions about how they will be applied, how they link to each other, and how the modernized PMPRB would interact with other agencies and processes within the Canadian pharmaceutical policy system. As set out in the Consultation Document, the Proposals lack important details to allow robust analysis, and are potentially duplicative of existing aspects of the Canadian drug price regulation system. It is unclear whether the Proposals are proportionate to the degree and type of risk presented in the marketplace, or how costs or benefits of the Proposals will be allocated.

The potential for any patentee to price excessively is largely determined by the characteristics of the market for each individual drug, including the availability of comparator products and the size of the drug's patient population. Other than one proposed change to the regulation of certain generic products, the Proposals apply universally across the PMPRB's entire jurisdiction. This 'one size fits all' approach does not reflect important market nuances which are relevant to a risk-based approach to regulation. Many products under PMPRB jurisdiction are subject to direct or indirect competition and/or clear external price signals, and should be subject to less regulatory oversight.

The Proposals represent an expansion of the regulatory tools to be employed by PMPRB to actively lower the price ceiling in Canada, but there is no indication as to how the new factors will be applied in a risk-based manner. The application of the current factors together with the new factors will increase the overall level of complexity, and will likely result in greater uncertainty for both the PMPRB and its stakeholders. The new factors may also result in additional investigations and hearings. This would be an unnecessary and detrimental outcome, and one which appears inconsistent with creating a more risk-based system.

The Consultation Document asserts that a modification to the list of comparator countries is required. If a modification is necessary, Innovative Medicines Canada recommends that Canada benchmark against leading global economies and health systems, which accurately reflect our international status. For any comparator country selected, the selection criteria and method of application should be coherent and transparent, and there are compelling reasons to retain the United States as a comparator country.

Innovative Medicines Canada supports an evolution of PMPRB to apply a proportional, risk-based approach to all products within its jurisdiction. Innovative Medicines Canada is supportive of moving towards the greater use of Alternative Dispute Resolution type approaches as a tool available to the Board beyond the application of the Guidelines.

The tracking of the industry's economic footprint should be updated to reflect its 21st century investments and contributions, and should be transitioned to a federal government department or agency that has both an interest and the policy tools to advance the sector.

A price ceiling establishes the maximum price that can be charged for a regulated product. It does not prevent a supplier from pricing the product below this ceiling. However, the Consultation Document proposes amending the Regulations to require patentees to report all forms of indirect price reductions. The ability to negotiate confidential reduced prices has benefited Canadians. The systematic reporting of discounts risks undermining the system which has evolved for public plans to help manage their drug expenditures. Such reporting will result in an increased burden for both patentees and for the PMPRB.

Should Health Canada proceed with these proposals, the new regulatory powers should be applied prospectively and only to new products. This would avoid significant uncertainty with respect to the compliance status of currently regulated products. The introduction of new regulatory requirements should also be accompanied by adequate notice and transition time.

INTRODUCTION

Innovative Medicines Canada appreciates the opportunity to provide feedback on the Consultation Document, *Protecting Canadians from Excessive Drug Prices* (the Consultation Document). While our industry is the primarily affected stakeholder directly impacted by any contemplated changes to the Patented Medicine Prices Review Board (PMPRB) and the *Patented Medicines Regulations* (the Regulations), the impact of the changes on Canadian patients should be the foremost consideration.

The Consultation Document states that “prescription drugs are an increasingly important part of our healthcare system, helping prevent and cure disease as well as save lives.”¹ We agree. Developing, commercializing and integrating new innovative treatments into the Canadian healthcare system is critical. There is a demonstrable link between appropriate access to innovative medications and key health outcomes, including overall life expectancy. Investments in innovative pharmaceuticals are also important in that they can support system sustainability by reducing or avoiding other, more costly interventions.

CONCERNS ABOUT HEALTHCARE SUSTAINABILITY ARE LEGITIMATE, BUT EXPENDITURES ON PATENTED MEDICINES ARE NOT DISPROPORTIONATELY CONTRIBUTING TO THE GROWTH IN HEALTH SYSTEM SPENDING.

This reinforces the importance of having clear public policy objectives form the basis of this consultation. The Consultation Document suggests a PMPRB regulatory framework that “reverses” perceived trends of rising pharmaceutical prices and high spending per capita by moving to a “modern, risk-based approach to drug price regulation.” While concerns about healthcare sustainability are legitimate and shared by the members of Innovative Medicines Canada, expenditures on patented medicines are not disproportionately contributing to the growth in health system spending.

We propose that broader discussion of the current role that innovative pharmaceuticals play in the Canadian healthcare system should also be integral to this consultation, including the other forms of reviews that support value determination, affordability, and payer decision-making.

In our response, we will first address certain overarching policy considerations that should guide the proposed changes to Regulations. The second part of the response addresses the specific questions and issues that were set out in the Consultation Document.

¹ *Protecting Canadians From Excessive Drug Prices*, p. 3.

THE VALUE OF INNOVATIVE MEDICINES

Access to medicines is a key component to sustaining a quality health system. Innovation in medicines has made a significant contribution to improving health outcomes in Canada and around the world. For this reason, most stakeholders agree that Canada should strive for the best possible access to innovative medicines.

Innovative Medicines Canada's members play an integral role in the health of Canadians by advancing new and innovative therapies. Innovative medicines are one of the most cost effective means to deliver quality healthcare to Canadians. There is substantial evidence that pharmaceutical innovation improves individual and population health outcomes, reduces potential health system costs and reduces indirect societal costs like economic productivity losses from untreated or under-treated illness.

For example, with a \$1.2 billion expenditure on six classes of innovative medicines in 2012, there was a return of \$2.4 billion in healthcare savings and productivity gains.² Recent analysis also demonstrates the societal and economic benefits of specialty medicines³ as well as the reduction in hospital stays with the introduction of innovative cancer medicines.⁴

Today, the challenge is to recognize the common objectives of all parties — payers, administrators, policy makers, healthcare professionals, patients, and industry — in order to build solutions that reflect the unique properties of the Canadian system and provide the best possible access to new medicines for Canadians.

POLICY INTENTIONS AND CONSEQUENCES

It is critical to understand how the prices of patented medicines may change due to the Consultation Document regulatory proposals (the Proposals) and how these changes will affect patients, the Canadian pharmaceutical market and our healthcare system. To date, no information has been provided on the implications of the Proposals. This makes any impact assessment very difficult. The Minister has stated that these changes could deliver a specific level of savings: "We can save \$3.5 billion by bringing down prices."⁵

The PMPRB reported \$15.2 billion in sales of patented medicines in 2015.⁶ A reduction of \$3.5 billion would represent a 23% decrease in industry revenue. No economic sector can absorb such a reduction in revenue without a corresponding impact on its future decisions about investment, employment, or product launches.

Any savings brought about by a lower price ceiling would be apportioned to the different types of payers in the Canadian market: public drug plans, private drug insurance plans, and out-of-pocket cash payers. The degree to which these "savings" might be offset by rebates and discounts achieved by the public drug plans is unknown. Innovative Medicines Canada anticipates that this offsetting for public drug plans and cash

² Hermus, G. et al. *Reducing the Health Care and Societal Costs of Disease: The Role of Pharmaceuticals*. Conference Board of Canada 2013. <http://www.conferenceboard.ca/e-library/abstract.aspx?did=5598>

³ Conference Board of Canada 2016. *The Value of Specialty Medications: An Employer Perspective*.

http://www.conferenceboard.ca/temp/93c4d2c3-6647-42ec-a55a-f7677e647253/8157_specialty-medications__rpt.pdf


⁴ Lichtenberg 2016

⁵ <https://www.periscope.tv/HealthCanada/1djGXAwxmEJZ>

⁶ PMPRB Annual Report 2015.

purchases would be substantial. The net effect of the Proposals may be to transfer resources from patentees to private insurance companies.

International product sequence decisions are central to the commercialization phase of any new medicine. This phase is also important to health systems and regulators. Companies seek early access and the best



THE CURRENT FRAMEWORK HAS PERMITTED COMPANIES TO ENTER THE CANADIAN MARKETPLACE AND TO LAUNCH NEW PRODUCTS AND COMPETING PRODUCTS WITHIN THE SAME THERAPEUTIC CLASSES.

price mix across jurisdictions, while health systems seek to limit expenditures while also providing valuable new medicines to their populations. There is evidence of a relationship between launch timing and price across jurisdictions.⁷ There is also evidence that government price regulation policies can have a powerful impact on the speed at which new drugs become available in different countries⁸.

The current framework has permitted companies to enter the Canadian marketplace.⁹ It has allowed some manufacturers to launch new products, and others to launch competing products within the same therapeutic classes. The PMPRB has analyzed Canada's performance in attracting new product launches in an international context (see Figure 1).

A relatively small number of countries represent the principle markets for new drugs. Nearly half (45%) of all new drugs are launched in 10 or fewer countries within a decade of global introduction. Canada is presently one of these countries. The earlier introduction of products and competition provides valuable therapeutic choices for payers, clinicians, and their patients. It also greatly reduces the risk of excessive prices due to market-based competitive forces. The Consultation Document recognizes that: "...a balance must be struck. There is a need to encourage pharmaceutical innovation by providing patentees with a period of market exclusivity to recoup their investment and turn a profit. At the same time, it is important to ensure that prices charged during that exclusivity period are not so high as to result in limited access to needed medicines. The PMPRB's role in that balance is to identify and remedy instances of excessive pricing that might otherwise have that effect."¹⁰

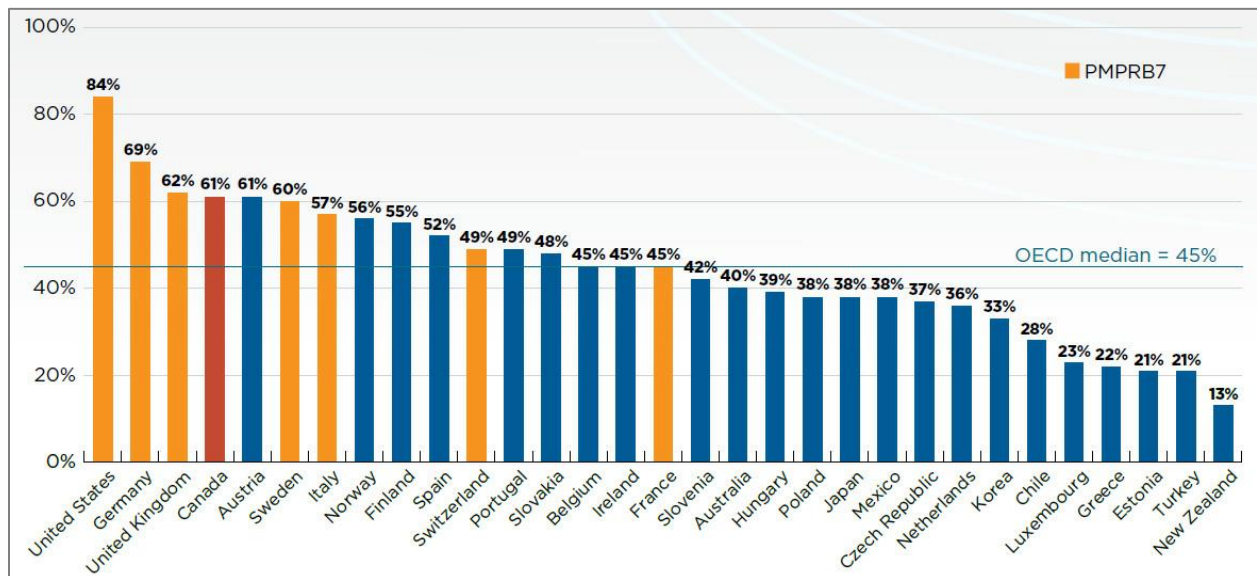
⁷ Verniers, I. and Stremersch, S. and Croux, Christophe, *The Global Entry of New Pharmaceuticals: A Joint Investigation of Launch Window and Price* (May 3, 2011). ERIM Report Series Reference No. ERS-2011-010-MKT.

⁸ Iain M. Cockburn & Jean O. Lanjouw & Mark Schankerman, 2016. "Patents and the Global Diffusion of New Drugs," *American Economic Review*, American Economic Association, vol. 106(1), pages 136-64, January

⁹ See http://www.pmprb-cepmb.gc.ca/CMFiles/Consultations/Rethinking_the_Guidelines_2016/Submission_Otsuka_Oct_2016.pdf.

¹⁰ *Protecting Canadians From Excessive Drug Prices*, p. 6.

Figure 1. Share of NASs launched by OECD country, Q4-2015.



Notes: Percentage of pharmaceuticals launched that were New Active Substances (NAS), by Organization for Economic Co-operation and Development (OECD) country, Q4-2015. Canada ranks fourth among OECD countries in this regard, with 61% of products launched in the quarter under review being new active substances – well above the 45% median across countries in this group. Current PMPRB7 countries are depicted in yellow.

Source: Source: MIDAS™ Database, October–December 2015, IMS AG., as cited by NPDUIS Meds Entry Watch 2015 (April 2017)

Innovative Medicines Canada believes that the Proposals do not achieve this policy balance. As set out in the Consultation Document, the Proposals lack detail and are potentially duplicative of other mechanisms and processes in the drug regulation and reimbursement system. To date, no information has been provided regarding how a PMPRB with the powers described in the Proposals would align with the high-level outcome areas for the Government of Canada.¹¹

The decisions when PMPRB was created have been beneficial for Canadians. Our industry is proud of our record of investment over the past thirty years. We continue to strongly advocate for additional investment and growth in the Canadian life sciences ecosystem. We also strongly believe that Canadians should have the best possible access to new innovative medicines, and that a stable, predictable and future-oriented pharmaceutical environment benefits all parties.


¹¹ See <https://www.canada.ca/en/treasury-board-secretariat/services/reporting-government-spending/whole-government-framework.html>.

THE OPPORTUNITY: TIME FOR A DIFFERENT APPROACH

All Canadians should have access to the medicines they need while acknowledging the system sustainability concerns that have emerged. Innovative medicines are valuable for the health of Canadians. We are committed to working as a strategic partner with governments and other stakeholders to reach this objective and bring forward solutions to address funding challenges and/or coverage gaps that exist in the system, many of which are wholly independent of the price of medicines.

The Consultation Document makes specific reference to the federal, provincial and territorial Ministers having agreed to pursue a broader policy agenda to improve the affordability, accessibility and appropriate use of prescription medications. The members of Innovative Medicines Canada are aligned with the elements of this comprehensive pharmaceutical policy agenda, and welcome any opportunity to engage with governments and other stakeholders on policy development.

Accordingly, Innovative Medicines Canada recommends that a broader, more positive policy focus grounded on the objective of facilitating access for Canadian patients to new innovative medicines, while addressing the sustainability imperative of Canadian governments be undertaken. Patients and their healthcare professionals should have access to the most current therapeutic options at affordable prices. At the same time, stakeholders should agree that competition and new product launches add value. This inclusive agenda would also help to support world-class clinical research infrastructure in Canada that would benefit patients while growing our dynamic life sciences ecosystem.



THERE IS A SIGNIFICANT OPPORTUNITY FOR THE GOVERNMENTS OF CANADA TO CREATE A NEW FRAMEWORK AGREEMENT WITH THE INDUSTRY.

Innovative Medicines Canada believes there is a different, more cohesive approach to modernizing the PMPRB while avoiding a narrow focus on price to the exclusion of other important policy goals.

There is a significant opportunity for the governments of Canada to create a new framework agreement with the industry, which would:

- 1. Provide Canadians with timely access to new, innovative treatments;**
- 2. Address health system sustainability for governments;**
- 3. Provide price and market predictability for the industry; and**
- 4. Contribute to Canada's life sciences sector.**

Innovative Medicines Canada is eager to work with governments in Canada to build such an agreement. We are keen to engage with public and private payers, Health Canada, PMPRB, the Canadian Agency for Drugs and Technologies in Health (CADTH) and the *Institut national d'excellence en santé et en services sociaux* (INESSS) to help evolve and align the various drug review mechanisms to address clinical value and value for money, while improving timely and affordable access to innovative medicines for Canadians.

Rather than adding to the existing layers of complexity in a system spread across multiple layers of jurisdiction, where each agency performs different but related and sometimes overlapping functions, we believe that a different model is required. A new model can address the needs of Canadian governments, while ensuring predictability for manufacturers and other stakeholders through the creation of a more focused and efficient reimbursement system.

PMPRB'S R&D REPORTING MANDATE

The Consultation Document discusses the PMPRB's mandate to collect and report information about certain industry research and development investments in Canada. It also canvasses the historical objectives of the intellectual property changes that led to the establishment of the PMPRB, and makes the following statement: "The policy intent [to encourage greater investment in pharmaceutical research and development (R&D) in Canada] of the original Schedule selection has not materialized."¹²

PMPRB statistics demonstrate that the policy changes introduced thirty years ago were a success for many years, with substantial expansion of both the economic footprint of innovative companies and the health research enterprise in Canada. Prior to 1987, little pharmaceutical R&D activity occurred in Canada, but this grew substantially thereafter. By 1998,¹³ the situation had changed, prompting the Auditor General to note that "the [PMPRB] reported that the brand name pharmaceutical industry had met its commitment" and recommended a review of "whether the reporting of pharmaceutical R&D expenditures continues to be relevant."

When measured using the 1987 tax definition set out in the Regulations, it is true that R&D spending as a percentage when compared to patentee sales has declined in recent years. However, the PMPRB R&D reporting definition does not capture all research activities, and over time has become an imprecise measure of the actual R&D spending given the evolution of the industry's investments and economic footprint in Canada.

In 2011, a committee chaired by Industry Canada (now Innovation, Science and Economic Development Canada) and composed of the Canadian Institutes of Health Research (CIHR), PMPRB, and Innovative Medicines Canada, was formed in order to gain a better understanding of pharmaceutical R&D spending in Canada.

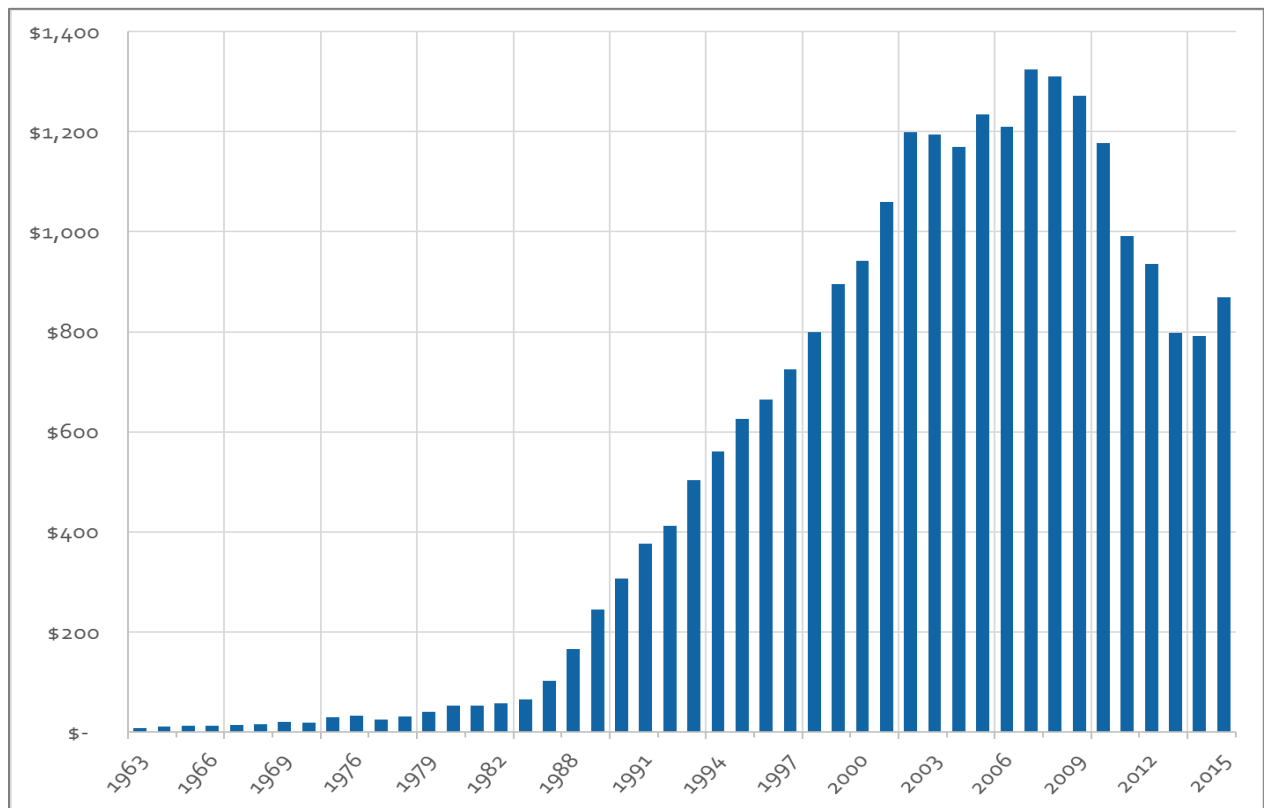
Using criteria set by this committee to capture R&D not reported by the PMPRB, KPMG concluded that over \$1 billion in R&D expenditures since 2010 had not been captured by the PMPRB methodology.¹⁴ The unaccounted R&D expenditures included: investments made via Canadian venture capital, direct investments by foreign affiliates, contributions to university endowments, and costs associated within the drug development phase by companies without products on the market. Additionally, none of the research activities conducted by pre-commercial companies within the life sciences ecosystem has ever been measured by PMPRB, since these companies are not "patentees" within the PMPRB's jurisdiction.

¹² Consulting on Proposed Amendments to the Patented Medicines Regulations, May 2017

¹³ 1998 September Report of the Auditor General of Canada, Chapter 17 – PMPRB

¹⁴ *Summary of 2013 R&D Spending and Investments by Rx&D Members.*

Figure 2. Annual pharmaceutical R&D investment, 1963-2015.



Source: 1963-83: Science Statistics Centre, Standard Industrial R&D tables 1963-1983, Cat. 13-201, March 1983; Cat. 88/202, June 1984; and Cat. 13/203; Annual. 1982-1987: as compiled by Peat Marwick; 1988 – 2015: as reported by the Patented Medicines Prices Review Board Annual Reports.

The PMPRB has asserted that pricing is not determinative for the location of R&D activity. However Innovative Medicines Canada maintains that the robustness of the domestic market, including time to listing (regulatory approval and adoption), potential duration on the market (intellectual property) and profitability (including price) does in fact influence the geographic distribution of business investments. This link is highlighted by the Advisory Council on Economic Growth.¹⁵ The PMPRB has no analytical capacity related to R&D or the necessary policy levers to influence R&D activities. It has also been acknowledged that patentee R&D reporting is of minimal utility for consumer protection purposes.

Innovative Medicines Canada remains committed to exploring ways with governments, health research institutes, biotechnology companies and researchers to expand our R&D and investment footprint in Canada and to contribute to the Government of Canada’s innovation agenda. Our sector should be recognized for its substantial investments. But it no longer makes sense for PMPRB to continue to collect and report this information on a status quo basis.

¹⁵ *Unleashing the Growth Potential of Key Sectors; Advisory Council on Economic Growth, February 6, 2017*

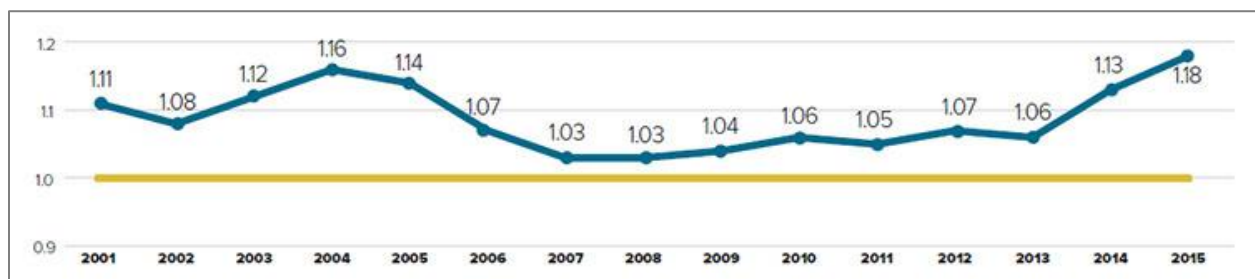
Innovative Medicines Canada questions the reasonableness of continuing to require patentees to report on R&D in accordance with an outdated definition. The tracking of the industry’s economic footprint should be updated to reflect its 21st century investments and contributions, and should be transitioned to a federal government department or agency that has both an interest and the policy tools to advance the sector.

THE PMPRB’S EXCESSIVE PRICING MANDATE

The *Patent Act* (the Act) grounds the mandate of the PMPRB in the concept of non-excessive pricing. The Act is the source of authority for the Government of Canada, through the Regulations, to regulate the prices of patented medicines in Canada in order to ensure that prices are not excessive. To date, determinations of excessive price have been applied against a standard that measures the value of a medicine in terms of its therapeutic benefit – a marker that is directly tied to one of the Act’s policy objectives: encouraging innovation.

The PMPRB has generally been effective in fulfilling its statutory mandate. Canadian prices have been below the international median on a consistent basis, falling to 18% below the median in 2015 (see Figure 3).

Figure 3. Average Ratio of Median International Price (MIP) to Canadian Price, at Market Exchange Rates, 2001–2015.



Notes: This graph depicts the history of the average MIP-to-Canadian price ratios, where the most recent data (2015) indicates that the average ratio of MIP to Canadian average transaction price, at market exchange rates, 1.18.

Source: PMPRB 2015 Annual Report.

There are substantial powers available to the PMPRB under both the Act and the current Regulations, including the ability to compel various types of information from market participants. These existing powers and industry’s strong historical compliance record are not addressed or acknowledged by the Consultation Document.

While important from a consumer protection standpoint, PMPRB’s work is distinct in both mandate and application from the value, affordability and reimbursement decision-making that is determined by those responsible for allocating health resources including pharmaceuticals expenditures (typically either public

plans or private plans on behalf of employer sponsors). Since the PMPRB's creation, many other agencies and processes have been established to support those considerations, particularly the greater integration of Health Technology Assessments, and the use of reimbursement negotiations at the pan-Canadian, jurisdictional and individual payer levels. Those processes are robust and are often mandatory prerequisites for eventual product reimbursement. This system is also subject to continued evolution and adaptation in support of the requirements and objectives of those responsible for managing pharmaceutical expenditures. The Consultation Document references many of these tools being utilized in other jurisdictions, and it is therefore important to highlight the existing reality in Canada.

The Consultation Document further notes that stakeholders have expressed that the PMPRB has a relevant role to play in Canada's pharmaceutical ecosystem. However, this role should not overlap or duplicate with the role of parties in the Canadian public pharmaceutical system (see Table 1).

Private drug plans have also introduced several tools to assess value, negotiate reimbursement terms and ensure drug plan sustainability. Various industry groups, such as pharmacy benefit managers and insurance carriers, conduct their own health technology assessment to determine, based on their own plan sponsors client profile, the value of a particular medicine (e.g. TELUS Health and ReVue, Manulife and DrugWatch, Medavie and its Medication Advisory Panel). Like public drug plans, they negotiate drug prices with manufacturers to get the best value for their members. They also offer a variety of formularies and plan design features not seen in the public sector to manage the cost of their drug plans and overall health benefits plans. This includes multi-tiered formularies, prescribing appropriateness and cost-sharing mechanisms, case management programs, adherence programs, preferred provider networks, and industry level pooling.

Table 1. Public Pharmaceutical System Organizations, Roles, Actions, Measurements

Role	Organization	Action	Standard of measure
Market Approval	Health Canada	Evaluates, Decides	Safety, Effectiveness, Quality
Price Review	PMPRB	Reviews	<p>Non-excessive prices</p> <p>New factors:</p> <ul style="list-style-type: none"> *Assess budget impact *Assess willingness to pay *Assess ability to pay *Assess cost effectiveness
HTA	CDR	Evaluates, Recommends	Clinical & Cost Effectiveness
HTA	pCODR	Evaluates, Recommends	Clinical & Cost Effectiveness
HTA	INESSS	Evaluates, Recommends	Clinical & Cost Effectiveness Population & system impacts
Negotiation	pCPA	Negotiates	<p>Cost per unit</p> <p>Affordability</p> <p>Budget impact (3-5 year horizon)</p> <p>Predictability of expenditure</p> <p>Willingness to pay</p>
Listing decision	Drug Plan	Decides	<p>Access to new medicines</p> <p>Manage expenditures</p> <p>Affordability</p> <p>Predictability of expenditure</p> <p>Ability to pay</p>

RISK-BASED REGULATION

An evaluation of the Consultation Document's Proposals should be grounded in appropriate first principles¹⁶ for good regulatory practices, such as: proportionality, accountability, consistency, transparency, and a targeted focus.

This approach will require carefully defining the target market for the regulation in addition to selecting the appropriate regulatory tools that respect these principles. Each of these principles is aligned with the notion of moving towards a "risk-based" regulatory approach that incorporates best practices appropriate to the Canadian context.

The Treasury Board Secretariat has established policies on good regulatory practices which are relevant to the PMPRB and other federal Government departments and agencies:

In order to minimize the negative impacts of the proposed regulatory changes, and to enhance their effectiveness, it is important that all relevant information about how they will affect Canadians is obtained before they are implemented. This will require an extensive consultation process with all Canadian stakeholders that will be impacted by the proposed Regulations.¹⁷

The Treasury Board has also noted that "command and control" regulatory actions may not be as cost-effective as more market-oriented policy tools, including performance standards and other alternative tools. This is a critical consideration for a complex, multi-stakeholder market such as the pharmaceutical sector.

ARE THE REGULATORY PROPOSALS PROPORTIONATE TO THE DEGREE AND TYPE OF RISK PRESENTED IN THE MARKETPLACE?

To date, Health Canada has not disclosed how the Proposals will affect the ceiling prices of individual patented medicines, groups or classes of patented medicines, or patentees. While the Consultation Document refers to a more risk-based approach, it is unclear whether the Proposals are proportionate to the degree and type of risk presented in the marketplace, or how costs or benefits of the Proposals will be allocated.

When announcing the Proposals, the Minister said the changes will "lower unacceptably high drug costs; it will help stop excessive pricing practices."¹⁸ However, of the 1,359 human patented drugs under its jurisdiction in 2015, we are unaware of any specific examples where the current Regulations, Guidelines, hearing processes, and the resulting Board decisions, have been unable to address an excessively priced

¹⁶ Adapted from *Principles of Good Regulation, Better Regulation Task Force, Cabinet Office, Government of the United Kingdom (2003)*. Accessed at: <http://webarchive.nationalarchives.gov.uk/20100407162704/http://archive.cabinetoffice.gov.uk/brc/upload/assets/www.brc.gov.uk/principlesleaflet.pdf>

¹⁷ *Canadian Cost-Benefit Analysis Guide, Treasury Board Secretariat, 2007* <https://www.tbs-sct.gc.ca/rtrap-parfa/analys/analys-eng.pdf>

¹⁸ *Remarks from the Honourable Jane Philpott, Minister of Health, to the Economic Club of Canada – May 16, 2017.*

patented medicine. There are circumstances where the Guidelines are not as efficient as possible, but this warrants a more targeted discussion than that covered by the Consultation Document.

The Consultation Document has carried forward a theme from the 2016 PMPRB Guidelines consultation by proposing a regulatory model based on applying resources to those products with the greatest potential to exert market power and charge excessive prices, and that this principle has guided the development of the Proposals.

The Consultation Document explains that the potential to exploit a market is largely shaped by the characteristics of the market for each drug, such as the availability of comparator products and the size of the patient population the drug is used to treat. However, it does not describe any of the potential distinctions for regulating the medicines under PMPRB jurisdiction. Other than the proposed change to the regulation of certain generic products, the Proposals will apply across all the PMPRB's jurisdiction. This 'one size fits all' approach does not reflect important market nuances which are relevant to a risk-based approach to regulation.

Many products under PMPRB jurisdiction are subject to direct or indirect competition and/or very clear external price signals, including, among others, those acquired through tendering, those with generic competition, and therapeutic class competitors (see Table 2).

Table 2. Pharmaceutical Product Levels of Risk, Competition, Oversight

Level of Risk	Level of Competition	Type of Competition	Description	Level of oversight
High Risk	No Competition		Products that: <ul style="list-style-type: none"> • have no direct or indirect competition • meet an unmet medical need • have few external price signals 	Highest
Medium Risk		External Price Referencing	External (international) price referencing may provide an external signal about the reasonableness of a price. It provides evidence about the willingness to pay of other payers and/or health systems. The utility of these signals is tempered by the transparency of prices, and differences in health systems and practice of medicine.	Medium
		Indirect Competition	Out of class, non-pharmaceutical substitutes	
Low Risk	Direct Competition	Therapeutic Class Competition	<ul style="list-style-type: none"> • In-class competition provides choice for clinicians, patients, payers • Manufacturers compete on: product benefit, product differentiation, price 	Minimal
		Loss of exclusivity	When novel medicines lose exclusivity in Canada, competitors quickly enter the market and bring about rapid decreases in effective price in the marketplace. Generic drugs were used to fill 68.6% of all prescriptions. Approximately 30% of products under PMPRB Jurisdiction have lost market exclusivity	
		Tendered / RFP	When products are procured through competitive tender process, manufacturers have an incentive to compete thereby limiting possibility of monopolistic pricing.	

In addition to risk based on product characteristics, it is possible to consider risk based on product cycles, i.e. at product launch or later in the life cycle. For new launch products, the evidence suggests that Canadian prices are competitive with those in the current European PMPRB⁷ comparator countries. When comparing only the prices of patented drugs for which there is no generic equivalent (i.e., true market exclusivity), Canadian prices are even lower (43% below the PMPRB⁷ median prices), and Canada's ranking among comparator countries drops to sixth (behind the United States, Germany, Switzerland, the United Kingdom and Sweden).¹⁹ Canadian prices are exactly in the middle of the range of European countries from a price differential perspective.²⁰ Similarly, PMPRB stated in the recent *Meds Entry Watch, 2015* that: "Canadian prices for new drugs are generally in line with those observed in the European markets analyzed, and considerably below those in the US market."

MANY PRODUCTS UNDER PMPRB JURISDICTION ARE SUBJECT TO DIRECT OR INDIRECT COMPETITION AND/OR CLEAR EXTERNAL PRICE SIGNALS.

List prices for older patented medicines in Canada are relatively higher than comparator countries, but it is unclear how these higher list prices affect overall spending due to the dynamics of the market. This suggests that current PMPRB regulation of the introduction of new patented medicines has been and continues to be effective. These market findings warrant additional discussion and analysis, and should be considered when assessing the value and utility of the Proposals.

CONSULTATION PROPOSALS

Innovative Medicines Canada has significant questions about how the five Proposals for regulatory changes will be applied, how they link to each other, and how the modernized PMPRB would interact with other agencies and processes within the Canadian pharmaceutical policy system. As set out in the Consultation Document, the Proposals are vague and potentially duplicative of existing aspects of the Canadian drug price regulation system.

The Consultation Document highlights a desire to move towards more risk-based regulation. While many key details are missing, the Proposals appear to represent a significant expansion of the regulatory tools available to the PMPRB, and will create uncertainty and unpredictability in the marketplace. There is no indication as to how the new factors will be applied in a risk-based manner. However, the application of the existing factors together with the new factors will increase the overall level of complexity and result in greater uncertainty for patentees. The introduction of multiple additional factors that are intended to lower Canadian price ceilings may also result in additional investigations and hearings. This would be an unnecessary and detrimental outcome, and one which appears inconsistent with the intent to create a more risk-based system.

The removal of proactive reporting of one class of generic products does not offset what appears to be additional regulatory burden for all of the other products under the PMPRB's jurisdiction. In the absence of

¹⁹ Source: Form 2 Block 5 data submitted to PMPRB, July-December 2015, Innovative Medicines Canada members.

²⁰ Source: Form 2 Block 5 data submitted to PMPRB, July-December 2015, Innovative Medicines Canada members.

information regarding the application of the Proposals, Innovative Medicines Canada is concerned that they may collectively result in an increase in overall regulatory burden, unpredictability, and greater demands on patentees to manage compliance risks for their businesses.

Amending the List of Comparator Countries

The Consultation Document proposes changing the Schedule of countries for the purposes of international price comparisons to a list of countries “more aligned with Canada economically and from a consumer protection standpoint.” Health Canada has identified the following “main” criteria for the new proposed list:

- (1) **Consumer protection:** whether the country has national pricing containment measures in place to protect consumers from high prices;
- (2) **Economic Standing:** whether the country has similar economic standing to Canada as measured by GDP per capita; and
- (3) **Pharmaceutical market characteristics:** e.g. population, consumption, revenues and market entry of new products.

Without explaining what other criteria were used, or how the considerations above warranted the exclusion or inclusion of individual nations, the Consultation Document proposes removing the United States and Switzerland and adding Australia, Belgium, Japan, Netherlands, Norway, South Korea and Spain. From the current list of seven (7) countries, the proposed list would include twelve (12) countries.

SELECTION CRITERIA

Benchmarking is a common regulatory approach when cost models are not readily available and can provide an efficient, less onerous approach for setting regulated prices. PMPRB has applied this approach successfully for 30 years.

The most important aspect of any benchmarking process is the selection of the sample of benchmark countries. Appropriate country selection criteria are important to ensure a high degree of comparability between the home country and the benchmark countries. A larger benchmark sample size may be preferred to minimize the effect of any one sample observation, but that must be balanced against the burden of collecting data from all of the sample jurisdictions.

International price comparisons assume that the included countries are sufficiently comparable and/or that consumers in different countries have the same preferences in regard to pharmaceuticals. Actual consumption patterns and needs can vary considerably, even among relatively homogeneous country samples. These differences reflect, among other things, demographic and epidemiologic characteristics, traditions in clinical management, and issues of reimbursement and distribution. They can also include the country’s general economic power and its willingness to pay. Identifying countries that are comparable across all these factors is difficult to achieve. In many cases, it has been generally assumed that countries in geographical proximity or those with similar economic profiles also demonstrate comparable health parameters.

No information is provided in the Consultation Document regarding how Health Canada has applied or weighted the identified criteria, or which of the criteria must be met to include a country in the sample. In addition, no explanation has been provided regarding how the 12 countries included in the new proposed benchmark sample were selected based on the three criteria.

The precise issues that may arise from this proposed sample cannot be assessed without knowing which prices the PMPRB would require, and how the revised Schedule would be applied through the Guidelines. However, it is reasonable to assume that this will represent a significant additional regulatory burden for patentees due to the corresponding increase in filing requirements due to the larger sample size.

The issue of international price comparisons must be grounded in appropriate selection criteria. Comparators should reflect both the economic power of named countries in addition to their public policy objectives for market launches and patient access. In addition, the economic ties between Canada and the comparator countries should also be considered as an important part of the “Economic Standing” consideration.

Another important criterion for the basket of comparator countries is the value placed on healthcare as measured by investment across the entire system. In other words, pharmaceutical spending should be aligned with spending on hospitals, healthcare professionals, and other significant spending factors. Canada should be compared to nations which place a similar value on healthcare for their citizens.

With respect to administering the basket, the PMPRB currently uses a standard approach to determining whether price sources are acceptable. Price sources must be in the public domain and include comparable prices. This implies that countries included in the list should have such lists available.

United States as a Comparator

The Consultation Document has not provided any analysis or assessment regarding the removal of United States. Pricing in the United States market is a complex matter with multiple price sources, and some United States list prices are high relative to other countries. It is unclear whether other options, including different United States price sources and/or methodological adjustments in the Guidelines, were analyzed as alternatives to removing the United States.

The current Guidelines contain multiple tools to minimize the impact of any ‘outlier’ prices within the current Schedule of countries. In applying other key points of comparison, including those captured under the Consultation Document’s “market characteristics” category – geography, market structure, prescribing patterns, economic integration – the removal of the United States seems incongruous.

There are many similarities between the markets in the United States and Canada: both are mixed private/publicly funded systems with multiple payers, and utilization and prescribing patterns are comparable. Geographic proximity and an extensive economic relationship (e.g. 70% of Canadian exports are to the United States, making it by far our most important trading partner) support a high degree of scientific and clinical integration and patient movement. In addition, approximately 10% of the products under current PMPRB jurisdiction are only available in Canada and the United States and are not sold in other countries, making the United States a relevant comparator for these products.²¹

²¹ Source: Form 2 Block 5 data submitted to PMPRB, July-December 2015, Innovative Medicines Canada members.

The OECD Median as a Policy Objective

The proposed modified list of comparator countries is explicitly designed to link Canadian prices to the median price level of the OECD.²² It is reasonable to ask how the new list of comparator countries can at the same time be both “criteria based” and designed to achieve a desired outcome. Innovative Medicines Canada believes that the OECD median became does not appropriately reflect Canada’s global leadership position.

The Organization for Economic Co-operation and Development (OECD) is an intergovernmental economic organization with 35 member countries, founded to stimulate economic progress and world trade. It is a forum of countries describing themselves as committed to democracy and the market economy. Most OECD members are considered to be developed countries. The OECD grew out of the organization established in 1948 to administer aid from the United States and Canada in the framework of the Marshall Plan for the reconstruction of Europe after World War II.

Canada was a leading country in the establishment of the OECD and is among the leading economies in the OECD. Innovative Medicines Canada is aware of no other economic sector where Canadian prices or other regulatory objectives are linked to middle or average of the OECD. In recent months, the federal government has set aspirational goals seeking to place Canada in a global leadership position, frequently comparing Canada favourably to the world’s largest and most powerful economies.

The 2017 federal Budget emphasized Canada’s global strengths relative to the world’s top economies in fostering innovation and a knowledge-based economy:

- 1st in the OECD with the most highly educated workforce;
- 1st in the Group of Seven (G7) for overall business cost competitiveness;
- 2nd in the G7 for openness to trade and investment;
- Top 5 in the OECD as an environment conducive to entrepreneurship;
- 3rd in the Global Entrepreneurship and Development Institute’s Global Entrepreneurship Index;
- 6th in the world when it comes to highly cited research; and
- 1st in G7 and 8th in OECD in research investment at post-secondary institutions.

Recent speeches by the Ministers of Global Affairs²³ and National Defense²⁴ have outlined a policy that places Canada in a position of global leadership, and which sets ambitious objectives for Canada as a model for the rest of the world.

Acceptance of any new technology is dependent upon its adoption by the most affluent purchasers. It is unclear if the objective of linking Canada’s pharmaceutical price ceiling to the OECD median is consistent with the Government of Canada’s objectives to play a leadership role in the global context, and seems

²² *Protecting Canadians From Excessive Drug Prices*, p. 4

²³ https://www.canada.ca/en/global-affairs/news/2017/06/address_by_ministerfreelandoncanadasforeignpolicypriorities.html

²⁴ <http://dgpaapp.forces.gc.ca/en/canada-defence-policy/index.asp>, <http://www.macleans.ca/politics/ottawa/harjit-sajjan-announces-a-new-defence-policy-full-speech>

inconsistent with Health Canada’s recently announced policy objective to accelerate the introduction of new innovative medicines into the Canadian market²⁵.

Modified List of Comparator Countries

The choice of comparator countries is complex. Even when the exercise is grounded on principles, it can be a subjective process given the many variables to be considered. The Consultation Document suggests that a modification to the list of comparator countries is needed, although it is unclear why certain specific countries in the current basket should be removed, or why certain specific new countries have been proposed for inclusion in the new basket. Innovative Medicines Canada is amenable to discussing potential changes to the comparator countries, but first needs to understand why individual countries have been retained, excluded or introduced into the new proposed grouping of 12 nations. In addition, any new grouping must acknowledge that, on many socio-economic levels, Canada is not at the median but rather at the forefront of the 35 OECD member countries.

Recommendation: Innovative Medicines Canada believes that Canada should seek to benchmark internationally against leading global economies and health systems, as opposed to the OECD median. For any comparator country, the selection criteria and method of application should be coherent and transparent, and there are compelling reasons to retain the United States as a comparator country.

IF THE LIST OF COMPARATOR COUNTRIES IS CHANGED TO REFLECT CONSUMER PROTECTION AND WILLINGNESS OR ABILITY TO PAY, THEN THE NEED FOR FURTHER EVALUATION WITH OTHER FACTORS WOULD BE UNNECESSARY.

Proposed New Factors

It is difficult to assess the individual components of the Proposals since there is little information provided regarding how the new factors would be used in practice to set a price ceiling for a drug under review. The new factors set out in the Consultation Document are conceptual notions that require far more development and explanation prior to implementation.

The current regulatory framework is based largely on a benchmarking analysis to set a price ceiling for a drug under review. This benchmarking approach is proposed to be modified with a new list of comparator countries. Key considerations in selecting countries for the new list included "Consumer Protection" and "Pharmaceutical Market Characteristic" considerations. Introducing additional new factors to the PMPRB's regulatory framework may well be redundant when adequate benchmarking data is available.

To the extent that regulatory measures or market mechanisms are in place in the benchmark countries to capture both demand-side (willingness or ability to pay) as well as supply-side cost considerations, then the

²⁵ Remarks from the Honourable Jane Philpott, Minister of Health, to the Economic Club of Canada – May 16, 2017.

need for further evaluation with other factors would be unnecessary and any adjustment to a price ceiling derived from a benchmarking analysis based on such an evaluation would be inappropriate.

New Proposed Factor: Pharmacoeconomic Evaluations

We have serious concerns regarding the proposal to use pharmacoeconomic analyses (PE) to regulate prices of pharmaceutical agents in Canada. The *Patent Act* grounds the mandate of the PMPRB on the concept of non-excessive pricing. The use of pharmacoeconomic analyses to regulate prices would extend the role of the PMPRB well beyond what is envisioned in the *Patent Act*.

According to the Canadian Agency for Drugs and Technologies in Health (CADTH), the purpose of pharmacoeconomic analysis is to perform an “assessment of the cost and effect trade-offs of any interventions, programs, or policies that impact health outcomes.” Unit prices for drug interventions are one of the many inputs that factors into pharmacoeconomic analysis. A PE analysis compares the cost and benefits of one pharmaceutical intervention to alternative treatment options. Pharmacoeconomic analyses are not mechanisms that should be used to regulate excessive drug prices.

In Canada, pharmacoeconomic analyses represent one among many considerations in value assessments that inform drug funding decisions. For example, CADTH assesses the comparative clinical effectiveness, cost-effectiveness and patient perspectives on drugs and uses this information to make recommendations to the jurisdictions to guide their drug funding decisions. In addition to a pharmacoeconomic assessment, CADTH’s deliberative and recommendation frameworks consider clinical effectiveness, safety, burden of illness, unmet need, patient values, and feasibility of adoption into the healthcare system.

These frameworks provide an outline of all the elements that should be considered by expert review committees during the review process, and reinforce that no single element overrides another. The sum of all elements must formulate a funding recommendation.²⁶ In keeping with this perspective, one study of CADTH reviews found that incremental cost-effectiveness thresholds were not predictive of expert committee recommendations.²⁷ Similarly in Quebec, cost-effectiveness is one consideration among five that INESSS considers when making drug funding recommendations to the Minister.²⁸

It is evident that value assessments in Canada extend beyond pharmacoeconomic analyses and that Incremental Cost Effectiveness Ratios (ICERs) fail to integrate other important considerations critical to determining value for informing funding decisions. Table 3 presents the array of factors that are considered when drug funding decisions are made across many countries, including Canadian public drug plans.

²⁶ pERC Deliberative Framework:

https://www.cadth.ca/sites/default/files/pcodr/The%20pCODR%20Expert%20Review%20Committee%20%28pERC%29/pcodr_perc_deliberative_frame.pdf; CADTH Recommendation Framework:

https://www.cadth.ca/media/cdr/templates/pre-sub-phase/pCODR_CDR_recommendations_framework.pdf

²⁷ Rocchi A, Miller E, Hopkins R, Goeree R, “Common Drug Review Recommendations,” *PharmacoEconomics* 20(3), 2012, <https://rd.springer.com/article/10.2165%2F11593030-000000000-00000>

²⁸ INESSS Evaluation Process, <https://www.inesss.qc.ca/en/activities/drug-products/evaluation-process-and-criteria.html>

Table 3. Factors considered in drug funding decision-making across jurisdictions.²⁹

	England	Scotland	Ireland	Germany	France	Italy	The Netherlands	Portugal	Sweden	Canada	Australia	New Zealand	South Korea	Taiwan
Cost-effectiveness	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ICER threshold	✓	✓	✓					✓	✓	✓	✓	✓	✓	
Indirect costs*							✓		✓	✓				✓
Unmet need	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rarity of disease/low budget impact	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
Severity of disease/end of life	✓	✓	✓	✓		✓	✓		✓	✓	✓		✓	
Burden of illness	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	
Equity of access											✓	✓	✓	
Level of innovation	✓	✓	✓	✓	✓	✓							✓	
Ethical considerations	✓	✓					✓		✓	✓				

Notes: *Canada: Quebec province only; Taiwan: Consider indirect costs, although little weight is attributed.

We do not believe that PE is an appropriate tool for price regulation, particularly in the Canadian context where it is already used downstream in HTA evaluations and reimbursement decision-making.

Limitations inherent to QALY

Health Canada's stated goal of introducing an economics-based price regulation factor is to ensure drug prices reflect Canadians' willingness and ability-to-pay. However, pharmacoeconomics in the form of cost-per-QALY does not address either willingness-to-pay or ability-to-pay.

²⁹ Kerr A, Todd C, Ulyate K, Hebborn A. "A Comparison of International Health Technology Assessment Systems—Does the Perfect System Exist?" https://www.ispor.org/research_pdfs/48/pdffiles/PHP221.pdf

Willingness-to-pay relates to the absolute value of an intervention to preferences. QALYs do not fully represent an individual's preferences³⁰. Patient preferences are not incorporated into pharmacoeconomic analyses and a narrow public drug plan perspective should not be applied to determine a non-excessive price for all Canadian patients.

QALYs have been shown not to capture all dimensions of health benefits³¹. QALYs do not appropriately measure interventions that reduce short term-disabilities and many undesirable health states and difficult conditions for patients (e.g. nausea, vomiting, pain associated with use of contrast agents, postoperative recovery, etc.).

A QALY framework has been demonstrated to present risks that the clinical benefits of interventions for a pediatric population will be underestimated, will result in artificially high ICERs, and could adversely impact innovation and the number of products to come to market for these populations.³²

Similarly, ICERs are not a relevant metric for drugs for palliative care and rare diseases. Most of the orphan drugs appraised to date have QALYs well above the generally 'accepted' thresholds and would not be reimbursed according to conventional criteria.³³ QALYs cannot recognize that society values 'the rule of rescue,' meaning there is significant importance placed on rescuing people that need help. This is especially true for serious conditions, where breakthrough medications may be costly but burden of illness is high and there are limited treatment alternatives.

Furthermore, ICERs are greatly impacted by the methods used, such as the time horizon and clinical *comparators* selected. Although there are guidelines on conducting economic analyses, there can be high variability in assumptions between individuals and this may have serious consequences to the final analysis.

Very few countries use fixed QALY thresholds, and do so only downstream in the public payer context. Such thresholds would put Canada out of step with the same countries it is proposing the PMPRB use for international comparisons.

A single equitable QALY threshold for Canadians is unattainable

The Canadian healthcare system is highly decentralized, with pharmaceuticals largely funded through numerous employer sponsored benefit plans (i.e. private insurance) and nineteen public drug benefit plans. In Canada, the federal government operates six separate public drug plans covering about one million people; the provinces and territories separately operate their own public drug plans for eligible residents covering about 10.3 million people in total. More than 23 million Canadians have private drug insurance. The

³⁰ Gafni A. "The quality of QALYs (quality-adjusted-life-years): do QALYs measure what they at least intend to measure?" *Health Policy*. 1989 Oct;13(1):81-3. <https://www.ncbi.nlm.nih.gov/pubmed/10296157?dopt=Abstract>

³¹ Knapp M. "Economic outcomes and levers: impacts for individuals and society" *Int Psychogeriatr*. 2007 Jun;19(3):483-95. <https://www.ncbi.nlm.nih.gov/pubmed/17391570>.

³² Quality-adjusted life-years lack quality in pediatric care: a critical review of published cost-utility studies in child health. *Pediatrics* 115(5): e600-614.

³³ Drummond M, Barbieri M, Cook J, Glick HA, Lis J, Malik F, Reed SD, Rutten F, Sculpher M, Severens J: "Transferability of economic evaluations across jurisdictions: ISPOR good research practices task force report." *Value in Health*. 2009, 12 (4): 409-418.

number of Canadians with private coverage therefore represents twice the number of Canadians with public coverage.

The assessment of value in the public market does not reflect value assessments within the private market because patients, families, and employers have different tolerance levels for uncertainty, and willingness-to-pay. For example, employers are interested in promoting a healthy and productive workforce and reducing absenteeism. Public payers are more narrowly focused on quality-adjusted life years (QALY) gained due to the nature of the population (primarily older and poorer) under coverage.

Given that the population covered by public plans and private plans differ, their value assessments will also differ. A single representative QALY should not therefore be used to assess value for all Canadians. Should CADTH's approach be adopted, it would represent a narrow public payer perspective and represent value assessments for a minority of Canadians.

Lack of clarity and challenges with comparing to "other countries"

Many countries use pharmacoeconomic considerations downstream at the payer level where ability-to-pay is more appropriately determined. The proposed amendments lack clarity on how the pharmacoeconomic evaluations for an individual medicine and other medicines in the same therapeutic class in Canada and countries other than Canada will be used to determine excessive price. Results of HTAs always have generalizability and transferability restrictions across different populations and settings. It should be noted that CADTH and INESSS do not transfer HTA results from other jurisdictions in their review. International HTAs should not be used for Canada.

Potential access impacts

Fixed QALY thresholds for determination of non-excessive prices could have impacts on the availability of some drugs and create equity issues for patients with more rare conditions. For example, cost-utility analysis is poorly suited to drugs for rare disease where there are often evidence gaps due to small patient populations.

Use of strict cost-per-QALY thresholds could ultimately impact the number of products available to patients. We recommend that the function of assessment and use of pharmacoeconomics remain with CADTH and INESSS, which makes recommendations to payers based on a variety of factors.

Recommendation: Health Canada should not incorporate pharmacoeconomic analysis in regulation as an additional price determination factor for PMPRB.

New Proposed Factor: Market Size

The Consultation Document also proposes amending the Regulations to include "the size of the market for the medicine in Canada and in countries other than Canada" as a factor for consideration with respect to non-excessive pricing. This is a challenging concept which must be approached with care, particularly given there is no available information at present regarding how the PMPRB would assess or integrate this information into its activities.

Collecting and analyzing market size information from other nations is an inherently complicated process. There may be challenges in obtaining reliable, accurate market information from foreign jurisdictions, making comparisons difficult. This process would be further complicated by the almost inevitable differences in product approvals, sequence and number of indications, monograph content, labelling and

other relevant factors which will vary across markets. The systematic use of this factor for all products, in all contexts, may result in a significantly increased administrative burden for both PMPRB and patentees.

At a practical level, it is unclear how this information would be applied in support of regulating non-excessive prices. At product launch, market size can be estimated based on modelling but may evolve differently over time as the product is used and integrated into the healthcare system. There are multiple explanations as to why estimated and actual markets differ. This is why various forms of risk-sharing occur at other stages in the Canadian price regulation system – at the level of payers managing expenditures and system requirements – instead of being subject to broader regulation. As one example, the use of overall limits/caps may render overall market size or growth irrelevant from a payer expenditure perspective.

Market size is an issue more appropriate to payer evaluations rather than a price regulator. If PMPRB intends to consider “market size” as a factor for benchmarking purposes, we recommend it should be used only on a secondary basis in very exceptional circumstances, for example where there is a complaint, the product has no comparator, and the market size has grown exponentially and/or unexpectedly.

Recommendation: PMPRB should not use market size as a factor given the inherent challenges with the widespread application of market size factors for the purposes of assessing whether a given price may or may not be excessive. If this factor is adopted nonetheless, Innovative Medicines Canada recommends that it should only be used in a secondary capacity, in the context of hearings or specific investigations, for products with no comparators and a high cost burden where the existing factors are insufficient to make a determination.

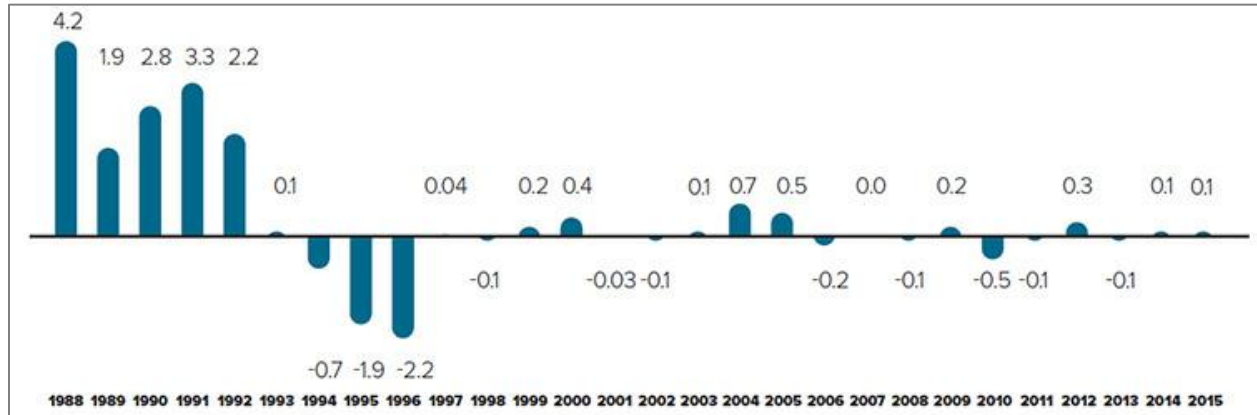
New Proposed Factor: Gross Domestic Product

The Consultation Document proposes the inclusion of a third new factor, Gross Domestic Product (GDP), for the purposes of determining whether a given product is being sold at an excessive price. GDP typically measures the monetary value of final goods and services which may be both market and non-market based (e.g. government-provided services). It is often used as a surrogate measure for the general health of an economy. However, GDP does not capture or reflect either quality or distribution factors.³⁴ These are both critical considerations for the regulation of pharmaceuticals.

PMPRB already places strict limits on permissible price increases of patented pharmaceuticals over time through the application of CPI-based price adjustment factors. In many respects this limitation already addresses issues of “ability to pay” on an annual basis. The historical record demonstrates that Canadian patented drug prices have increased far less than inflation (as measured by CPI) in almost every year since the creation of PMPRB (see Figure 4).

Figure 4. Annual Rates of Change (%), Patented Medicines Price Index (PMPI), 1988–2015

³⁴ Source: IMF. See <http://www.imf.org/external/pubs/ft/fandd/basics/gdp.htm>



Source: PMPRB 2015 Annual Report

This performance suggests that the PMPRB would look to apply GDP to the scrutiny of prices in other ways, but no specifics are provided in the Proposals. The document suggests that such a method would be “analytically sound” and we therefore expect that issues of adjustments, regional variability and other complicating issues have been anticipated and would be clearly explained for all stakeholders.

We are unsure how to reconcile this proposed new factor with the proposed changes to the PMPRB7 basket of comparator countries, which includes some countries with GDP levels below that of Canada. It is also unclear when and how this factor would be applied against the other factors employed by PMPRB. Finally, it is unclear whether and how this factor would impact price changes over time, for example, in cases where GDP increases or decreases by larger amounts.

Recommendation: Given the outstanding questions related to how this factor may be applied by PMPRB, Innovative Medicines Canada recommends against its adoption. If this factor is adopted nonetheless, Innovative Medicines Canada recommends that it should be used only in a secondary capacity, for example for the purposes of hearings or specific investigations, for products with no comparators and a high cost burden, and where the existing factors are insufficient to make a determination with respect to a specific product.

Proposal for Regulating ANDS Approved Drugs

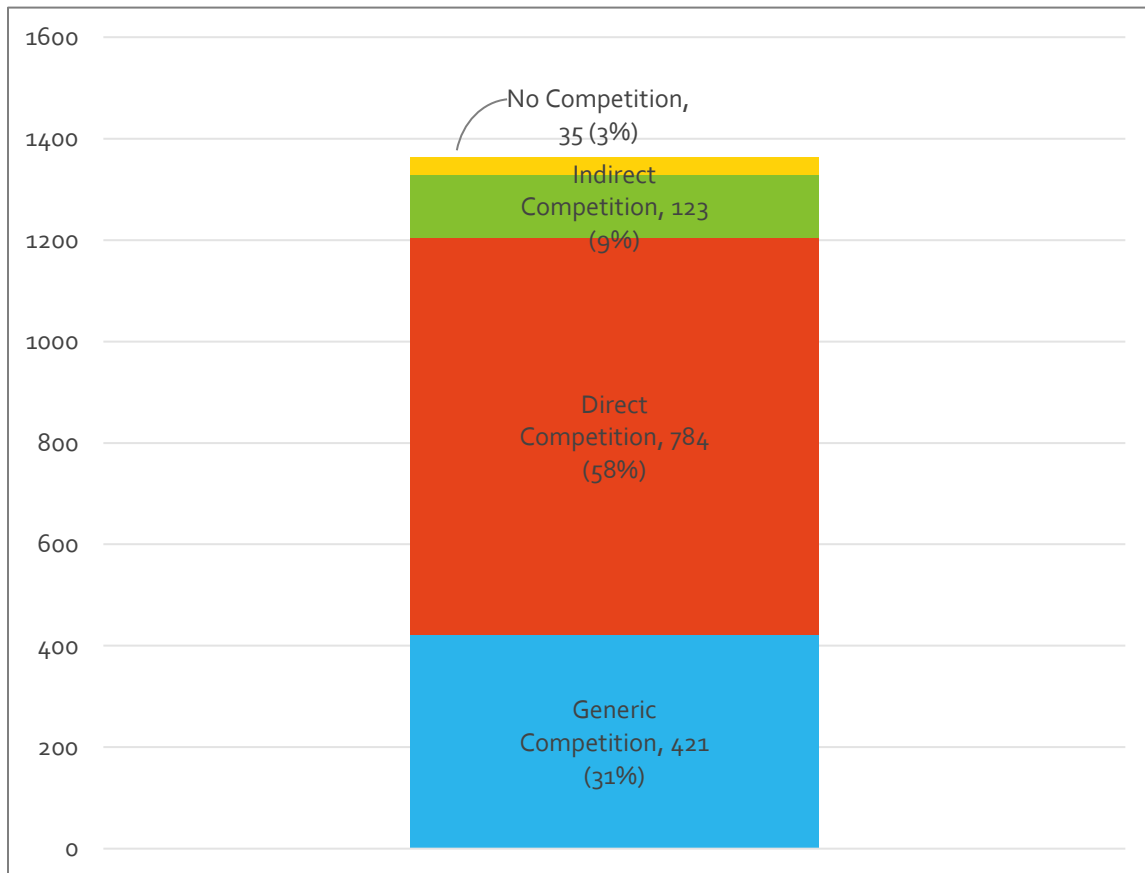
The Consultation Document proposes to remove the requirement for patentees of generic drugs approved through Alternative New Drug Submissions (ANDS) from reporting certain information to PMPRB, instead moving to a complaint-driven process employed on an as-required basis. Manufacturers impacted by this change will presumably welcome the reduced regulatory burden, which represents a good illustration of how PMPRB could evolve its approach for lower-risk products. But the net impact for companies needs to be put in context, since manufacturers will still need to allocate resources to ensure that their products remain compliant with the Regulations and Guidelines.

We would encourage Health Canada and PMPRB to build on this approach and apply a similar proportional, risk-based approach to other categories of products. For example, patented branded medicines that have lost market exclusivity and face multisource competition should also be treated in an equivalent manner to patented generic drugs (i.e. complaints-based only). This would be proportional to the level or risk carried by this category of products.

We would also encourage the assessment of related categories of products within a class or those employing a similar mechanism of action as good candidates for this approach. Vaccines and blood products, typically subject to aggressive market competition and tightly managed public procurements, also represent a significantly lower risk to consumers from an affordability perspective.

Innovative Medicines Canada has analyzed the complete set of products which fall within PMPRB jurisdiction (see Figure 5).

Figure 5. Distribution of All Patented DINs, by Level of Competition (Risk of Abuse of Market Power)



Source: Innovative Medicines Canada

Based on this analysis, a descending hierarchy of categories of products is generated which carry declining levels of risk of market dominance.

Innovative Medicines Canada also notes that competition policy principles are informative with respect to this issue. The Competition Bureau (the Bureau) has strongly and consistently advocated against uneven, disproportionate and/or excessive regulation. The Bureau has long advocated that existing regulatory restrictions should be reviewed and, if appropriate, relaxed to avoid excessive or unnecessary regulation (*i.e.*, regulation that is not the minimum necessary to achieve stated objectives and therefore unnecessarily

restricts competition). In the Bureau's view, regulations should be limited to those required to meeting legitimate policy objectives.³⁵

Similarly, in a recent advocacy document the Bureau urged governments and decision-makers to consider the effects that regulations have on competition:

"We believe that regulation should be used only where market forces will not achieve policy objectives and, even then, only to the extent necessary to address those objectives. Our perspective is based on decades of economic research, and is consistent with international best practices."

More particularly, the Bureau argued that regulation should always be proportionate to the associated harm:

"[r]egulation should be cast narrowly to preserve the greatest amount of market-based competition. Regulation that goes too far can have negative and unexpected results on the industry. Minimal regulation allows policy objectives to be fulfilled, and provides maximum scope for market forces in regulated markets."³⁶

Recommendation: Moving to a complaint-driven process for ANDS generic drugs should be extended to other comparably low-risk products, including patented branded medicines without market exclusivity, vaccines, blood products, and products within a competitive class or sharing a similar mechanism of action.

Proposal to Modernize Reporting Requirements

The Consultation Document proposes to update the Regulations to account for the additional information reporting requirements flowing from the proposed regulatory changes. Specific language is proposed on filing requirements with respect to PE evaluations and market information. In general, we support filing requirements which are proportional to PMPRB's requirements and the level of risk.

As we have highlighted above, the reporting requirements associated with the new factors are inappropriate for use for regulatory purposes for the entire pharmaceutical market, and it follows that the associated new reporting requirements are unnecessary. Also, since there is no longer any link between R&D reporting and PMPRB's price setting, and given that the PMPRB lacks other policy tools to influence R&D activities, the reasonableness of continuing to require patentees to report on R&D to the PMPRB in accordance with an outdated definition is unclear, and should be altered to a reporting system administered by another department or agency that takes into account the 21st century economic footprint of the industry.

Recommendations: Information associated with the proposed new factors should not be required to be submitted to PMPRB.

³⁵ For example: "Don't Ban Ride-Sharing. Rethink Regulation", November 26, 2015; *Self-Regulated Professions – Post-Study Assessment*, 2015; *Self-Regulated Professions – Balancing Competition and Regulation*, 2007; *Submission to the Competition Policy Review Panel*, January 11, 2008; *Canadian Generic Drug Sector Study*, 2007; and *Benefitting from Generic Drug Competition in Canada: They Way Forward*, 2008)

³⁶ Competition Bureau of Canada, *Balancing Regulation and Competition*, 2016

Proposal to Require the Reporting of all Indirect Price Reductions

The Consultation Document proposes amending the Regulations to require patentees to report all forms of indirect price reductions, including rebates, discounts, and free goods and services. This broad proposal is challenging to respond to in the absence of clear information as to the purpose for collecting this information and how it may be used by the PMPRB in the future.

A regulated price ceiling establishes the maximum price that can be charged for a regulated product. It does not prevent a supplier from pricing the product below the price ceiling. Pricing below the ceiling would normally be encouraged. Indeed, it is long established policy that rebates and discounts should be part of the Canadian pharmaceutical marketplace: "...the Board's intention in these circumstances is that its policies and procedures not discourage a patentee from offering an incentive program or entering into an agreement which would benefit patients³⁷."

Manufacturers may currently provide rebates to private and public payers through agreements as a condition of product reimbursement. These agreements address affordability, among other factors, such as eligible population and utilization criteria. In the case of public plans, we also note that entering these confidential agreements is a matter of established jurisdiction of the parties involved.



LONG ESTABLISHED POLICY HAS SUPPORTED AND ENCOURAGED REBATES AND DISCOUNTS AS PART OF THE CANADIAN PHARMACEUTICAL MARKETPLACE.

For their part, private drug plans have also introduced several tools to determine value, negotiate reimbursement terms and ensure drug plan sustainability for their insured populations. Private market participants increasingly conduct their own health technology assessments to determine the value of a medication against various plan requirements (e.g. TELUS Health and ReVue, Manulife and DrugWatch, Medavie and its Medication Advisory Panel). Like public drug plans, private plans may negotiate drug prices to achieve the best value for their members. A variety of formularies and plan designs are available including multi-tiered formularies, prescribing appropriateness and cost-sharing mechanisms, case management programs, adherence programs, preferred provider networks, and industry-level pooling mechanisms.

There is a real risk of undermining the system which has evolved for public plans to manage their drug expenditures. Disclosure of non-transparent pricing could result in a transfer of benefit from public payers to private insurers, who in turn would be under no obligation to pass along those benefits to the plan sponsors they serve.

The current system of differential pricing supports the preferential targeting of resources to protect against an inability to pay. It is a key tool in supporting overall affordability of innovative medicines. Compromising the ability of manufacturers to offer these types of arrangements may negatively impact the ability of public

³⁷ PMPRB NEWSletter (vol. 4, issue no. 2, April 2000)

plans to reimburse certain medications. This information also does not relate to non-excessive pricing as, by definition, it is related to marketplace activities which occur below those thresholds.

Practically, this proposed change would risk adding complexity in calculating non-excessive prices due to the nature of types of agreements currently in use. Certain reimbursement models may become less attractive for either manufacturers or payers. For example, any pay-for-performance arrangement is designed to reflect value which may change over time. Lowering a price ceiling in a given year may be inappropriate due to the performance of the agreement being measured over a longer duration. In addition, smaller drug plans may have wider variability due to population demographics or other factors. This makes lowering Average Transaction Prices (ATPs) based on regional net pricing a challenge. Patentees should not be discouraged from providing benefits to payers which would have the result of linking future price tests to a lower ATP.

In addition, there are also potential legal considerations with respect to whether the mandatory reporting of the information set out in this proposal could be ultra vires PMPRB's jurisdiction under the Act, and/or the federal Government's jurisdiction with respect to intellectual property under the *Constitution Act, 1867*.

Innovative Medicines Canada is also not assured by the statement in the Consultation Document that the indirect price reduction information provided by patentees will be privileged under Section 87 of the Act, given the highly sensitive nature of this information, the potential difficulty in determining whether a breach has occurred, and the challenge of obtaining a rapid and effective judicial remedy in the event of an unlawful disclosure.

Finally, at the level of implementation, we would also note the technical challenge of managing delays in invoicing. For the manufacturer, this often requires making accrual estimates of rebates which can be vastly different from actuals due to realized sales across different markets.

Recommendations: Given the lack of information on purpose and use of the information, potential legal concerns and the risk of significant and negative consequences for public payers and other market participants, Innovative Medicines Canada recommends against the mandatory submission of patentee indirect price reduction information to the PMPRB.

CONCLUSION

We have never been better equipped to harness the potential of science, technology and data to improve Canadians' quality of life and, at the same time, generate wealth for Canada through a vibrant, innovative life sciences industry. This Consultation Document offers stakeholders the opportunity to contribute to a modernized, simplified PMPRB that contributes to predictable consumer protection. Such a system can and should offer clear rules for patentees while avoiding unnecessary uncertainty, regulatory burden and duplication with other publicly funded review activities.

Our association is concerned that the Consultation Document's Proposals may fall short of these objectives and result in negative consequences for Canadian patients, the healthcare system, and the economy. A truly risk-based system should allow PMPRB to exercise its statutory role while reducing uncertainty and overall risk. Significant additional work remains to be completed if PMPRB is to avoid causing policy misalignments and other sources of confusion within the larger pricing and reimbursement system in Canada. The implications for patient access must be clearly identified and assessed.

Innovative Medicines Canada strongly recommends that additional consultations are required to ensure that these policy concerns and implications are adequately assessed in an open and inclusive manner, certainly well in advance of proceeding further with any draft regulatory proposals.

Should Health Canada proceed with these proposals, the new regulatory powers should be applied prospectively and only to new products. This would avoid significant uncertainty with respect to the compliance status of currently regulated products. The introduction of new regulatory requirements should also be accompanied by adequate notice and transition time.

Innovative Medicines Canada welcomes the opportunity to contribute to this important process and is keen to engage collaboratively to meet the needs of Canadians. The federal Finance Minister's Advisory Council on Economic Growth, headed up by Mr. Dominic Barton of McKinsey & Company, recommended Ottawa, among other things, pursue a deliberate strategy to "unlock the untapped potential" of the health and life sciences sector through "carefully selected policy actions...to remove obstacles and seize opportunities."

The innovative pharmaceutical industry would welcome the opportunity to partner with the provinces and the territories, as well as the federal government and other stakeholders, to create a new pan-Canadian framework that would:

- Provide Canadians with timely access to new, innovative treatments;
- Address health system sustainability for governments;
- Provide price and market predictability for the industry; and;
- Contribute to the country's life sciences sector.

We have an unprecedented opportunity to materially enhance the health and wellbeing of all Canadians, and position the country as a leader in the knowledge economy. We are ready to engage in a new, collaborative, and mutually beneficial partnership.

LIST OF RECOMMENDATIONS

- (1) The tracking of the industry's economic footprint should be updated to reflect its 21st century investments and contributions, and should be transitioned to a federal government department or agency that has both an interest and the policy tools to advance the sector.
- (2) Canada should seek to benchmark internationally against leading global economies and health systems, as opposed to the OECD median. For any comparator country, the selection criteria and method of application should be coherent and transparent, and there are compelling reasons to retain the United States as a comparator country.
- (3) If the list of comparator countries is modified to capture both demand-side (willingness or ability to pay) as well as supply-side cost considerations, then the need for further evaluation with other factors would be unnecessary.
- (4) Health Canada should not incorporate pharmacoeconomic analysis in regulation as an additional price determination factor for PMPRB.
- (5) PMPRB should not use market size as a factor given the inherent challenges with the widespread application of market size factors for the purposes of assessing whether a given price may or may not be excessive. If this factor is adopted nonetheless, Innovative Medicines Canada recommends that it should only be used in a secondary capacity, in the context of hearings or specific investigations, for products with no comparators and a high cost burden where the existing factors are insufficient to make a determination.
- (6) Regarding GDP, given the outstanding questions related to how this factor may be applied by PMPRB, Innovative Medicines Canada recommends against its adoption. If this factor is adopted nonetheless, Innovative Medicines Canada recommends that it should this factor be used only in a secondary capacity, for example for the purposes of hearings or specific investigations, for products with no comparators and a high cost burden, and where the existing factors are insufficient to make a determination with respect to a specific product.
- (7) Moving to a complaint-driven process for generic drugs should be extended to other comparably low-risk products, including patented branded medicines without market exclusivity, vaccines, blood products, and products within a competitive class or sharing a similar mechanism of action.
- (8) Information associated with the proposed new factors should not be required to be submitted to PMPRB.
- (9) Given the lack of information on purpose and use of the information, potential legal concerns and the risk of significant and negative consequences for public payers and other market participants, Innovative Medicines Canada recommends against the mandatory submission of patentee indirect price reduction information to the PMPRB.