

# Patently Absurd: The Mirage of Drug Pricing in Canada

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# Faculty/Presenter Disclosure

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- **Relationships with commercial interests:**
  - **No Conflicts to Declare**

- **Acknowledgement**

**Dr Hai Nguyen – Health Economist**

**School of Pharmacy, Memorial University**

- CIHR Research Chair (Tier 2) – Health Policy Evaluation
- CIHR Health Services and Policy Research Article of Year

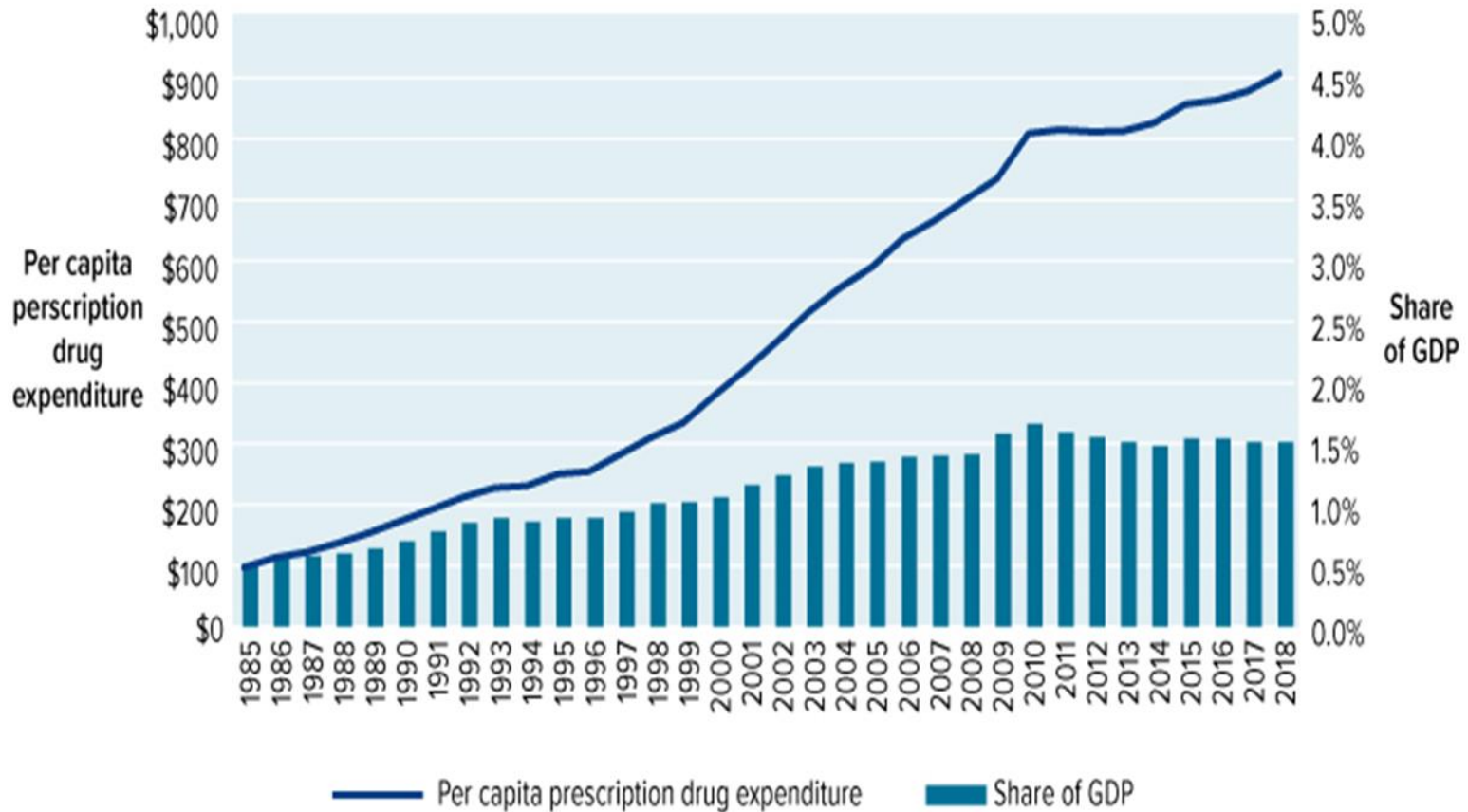
Nguyen HV. Association of Canada's Provincial Bans on Electronic Cigarette Sales to Minors With Electronic Cigarette Use Among Youths. *JAMA Pediatr.* 2020;174(1):e193912. doi:10.1001/jamapediatrics.2019.3912

# Objectives

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- To understand the drivers of drug cost in Canada
- To examine the relationship between drug price and payors (patients, government, insurance)
- To evaluate coming health policy pricing changes and their impact on patients

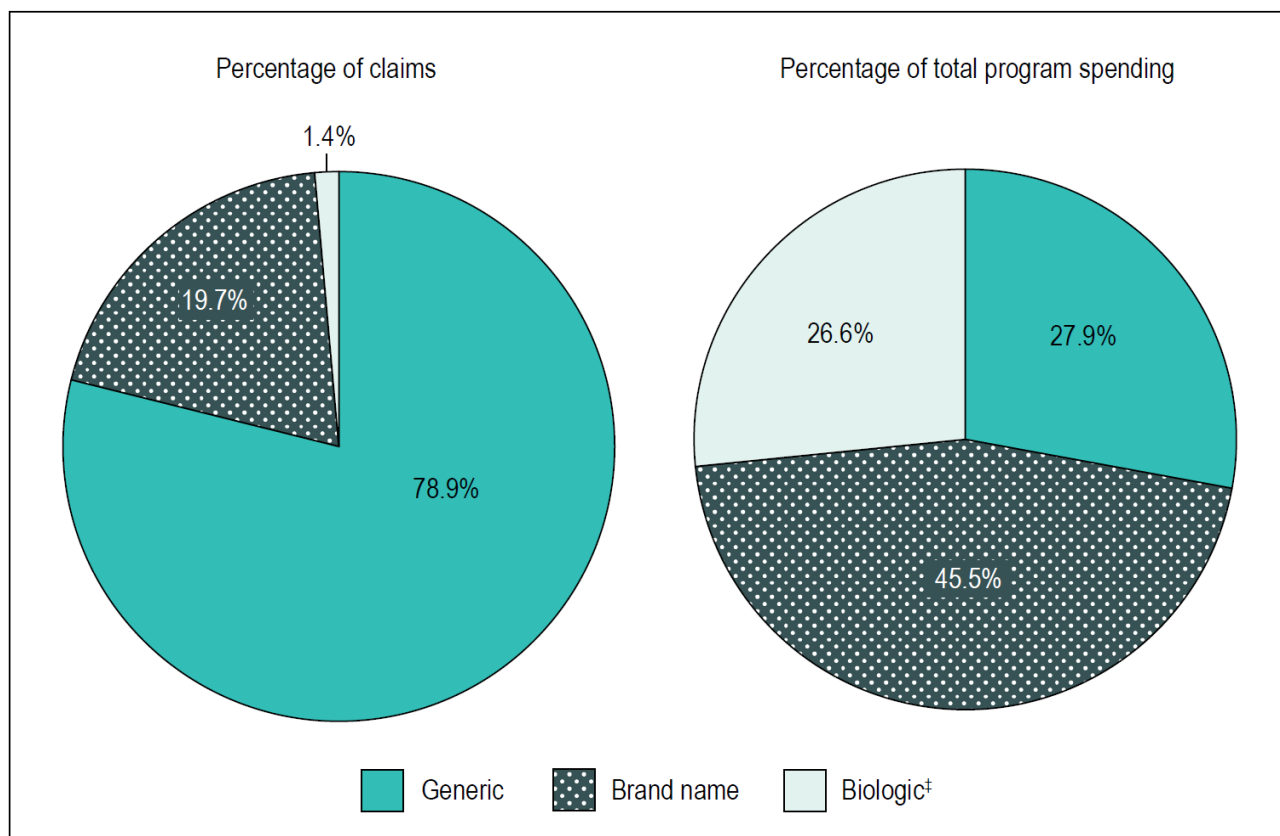
# Public Drug Spending



Source: <https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/implementation-national-pharmacare/final-report.html>

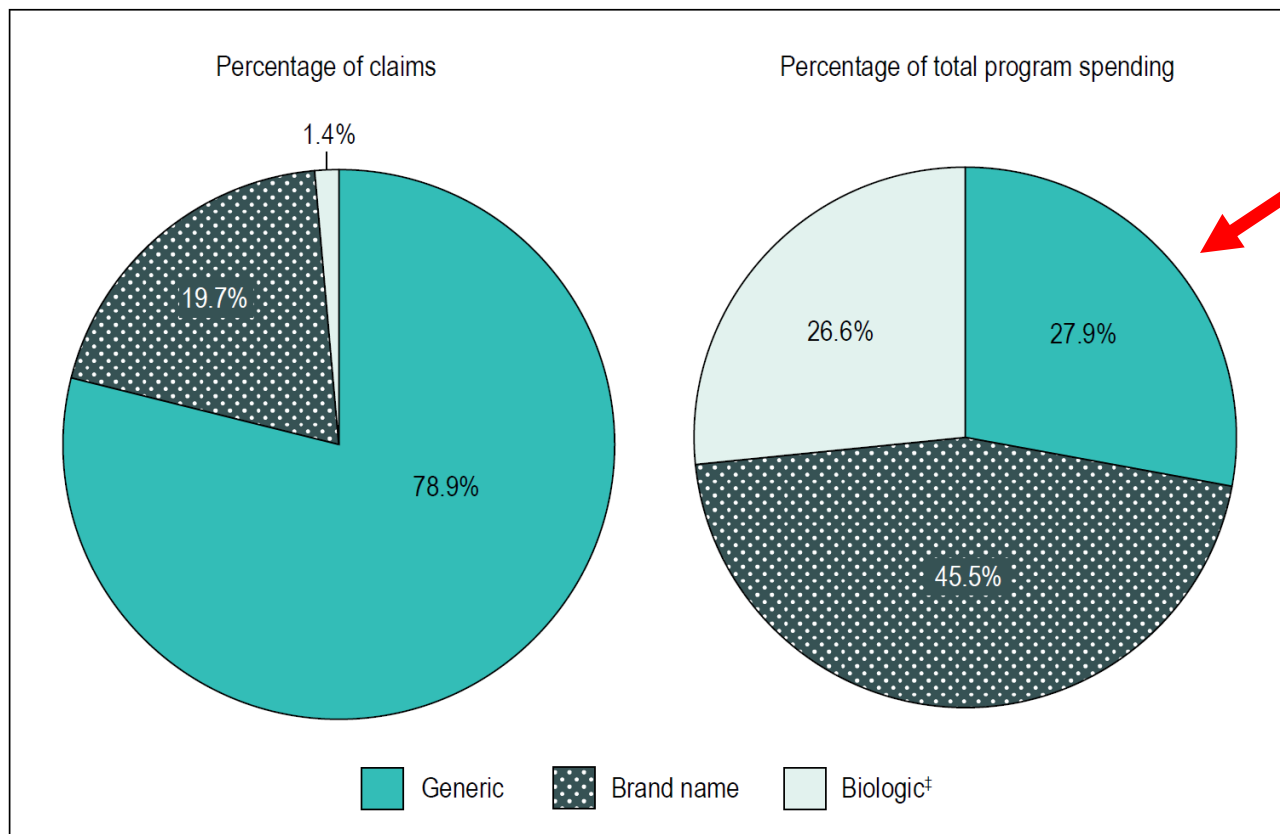
# Public Drug Spending

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



# Public Drug Spending

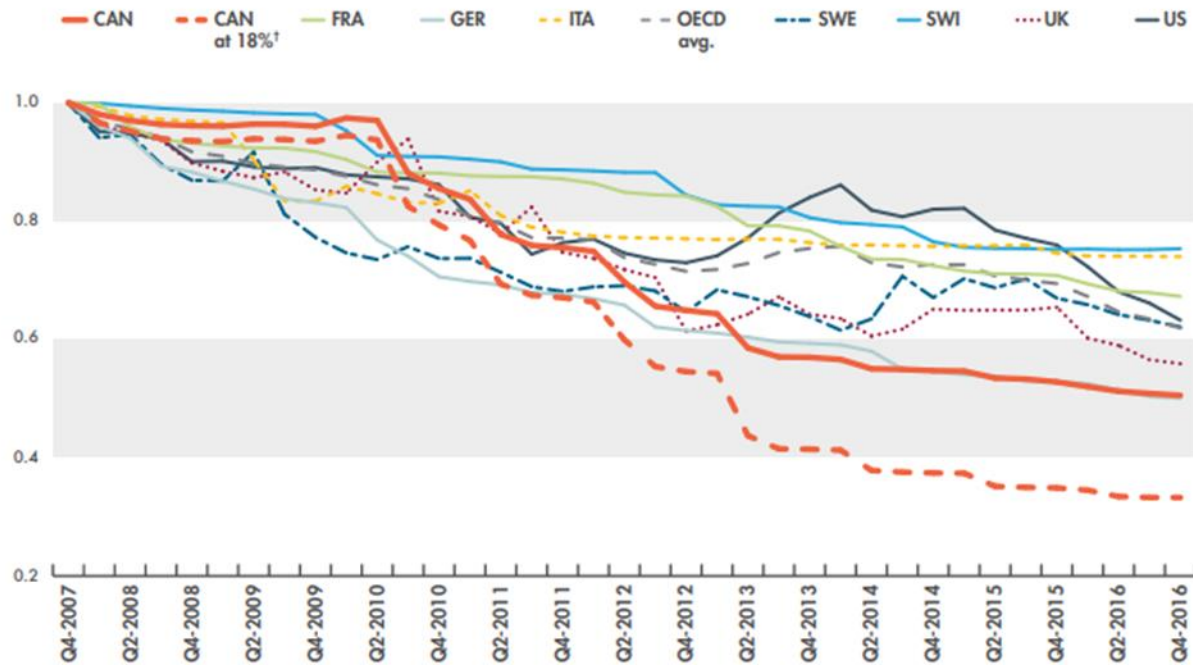
**Figure 6** Percentage share of public drug program spending and of accepted claims, by type of drug,\*, † 2019



# The Little Fish: Generic Drug Pricing



**FIGURE 2.1** Price indices for generic drugs, Canada and the PMPRB7\*, Q4-2007 to Q4-2016



Note: Results are based on manufacturer ex-factory list prices in the national retail markets.

The price index for each country was based on local currency using country-specific sale weights for the drugs.

\*France, Germany, Italy, Sweden, Switzerland, the United Kingdom and the United States.

†Includes eighteen of the most common generic drugs priced at 18% of their equivalent brand-name products through the efforts of the pCPA.

Source: QuintilesIMS MIDAS™ database, October–December 2007 to October–December 2016. All rights reserved.

# Other Fish

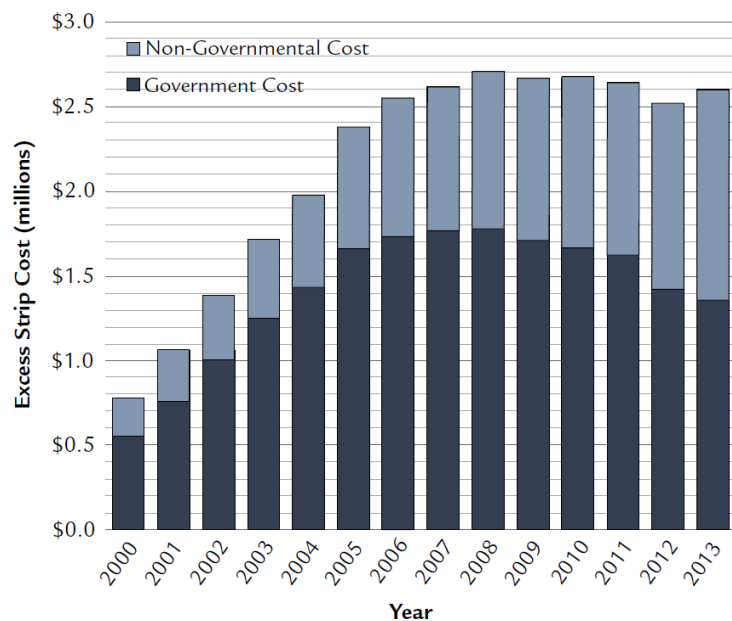
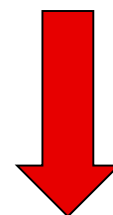


Figure 3. Excess cost of blood glucose test strips exceeding policy limits by payer if implemented in Manitoba: 2000 to 2013.

□ Test Strips \$240 million



1.2% in 2018



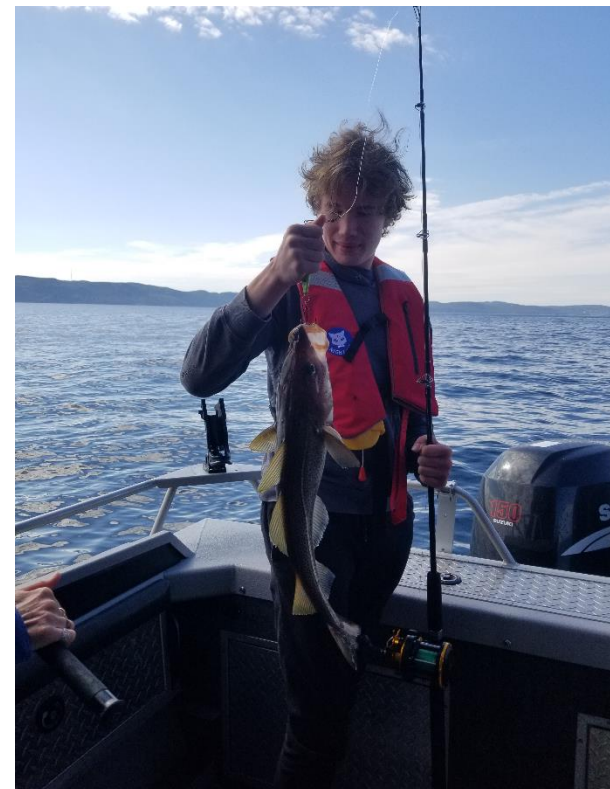
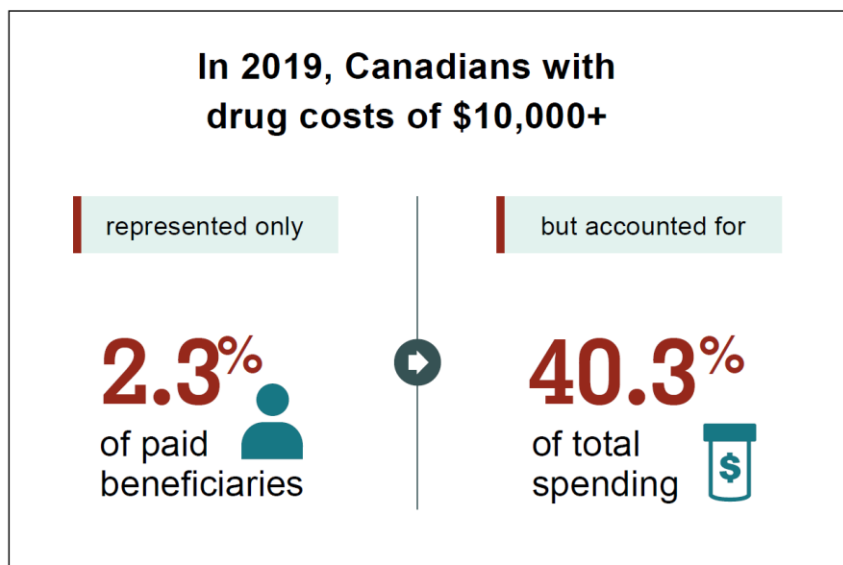
2.4% in 2019

Serwyl, O. Friesen K, Falk J.  
Bugden S. Clinical Therapeutics  
2016;38:929



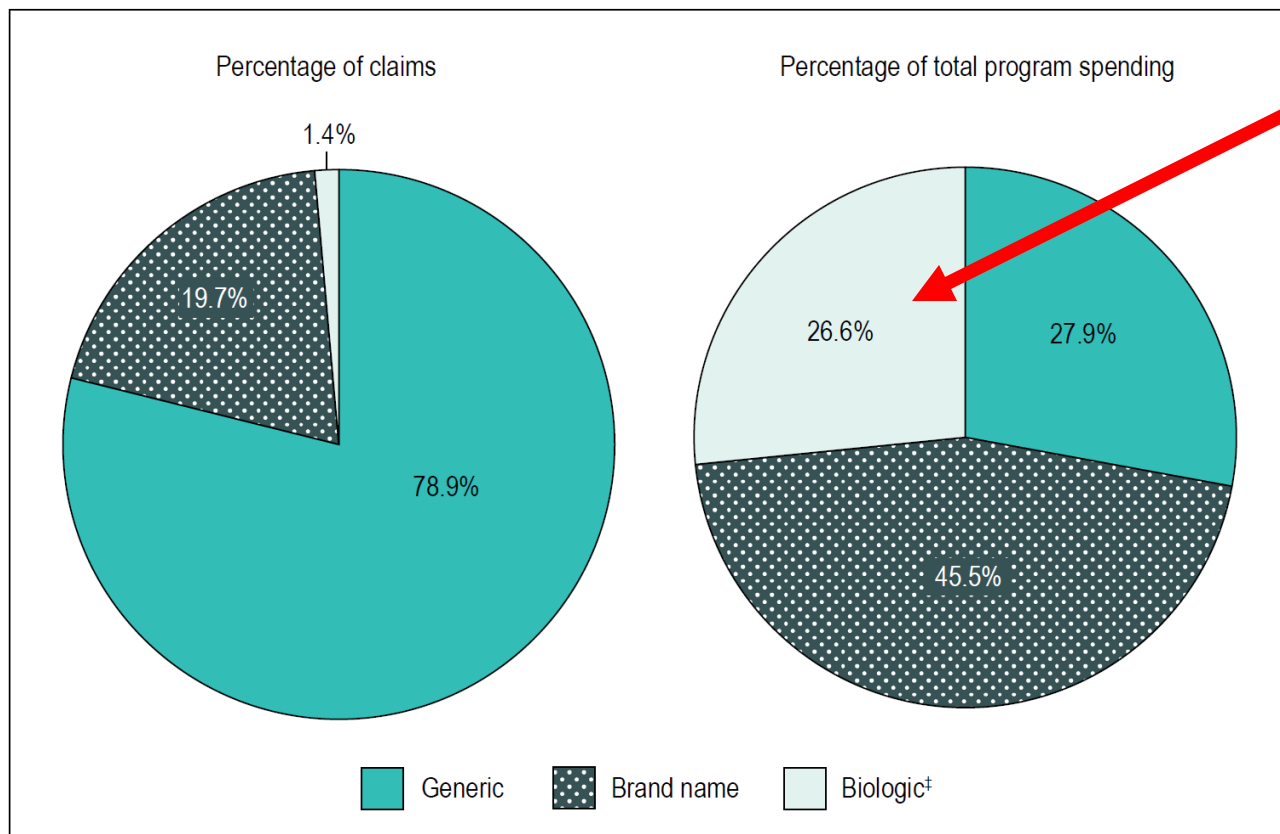
# The Big Fish

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



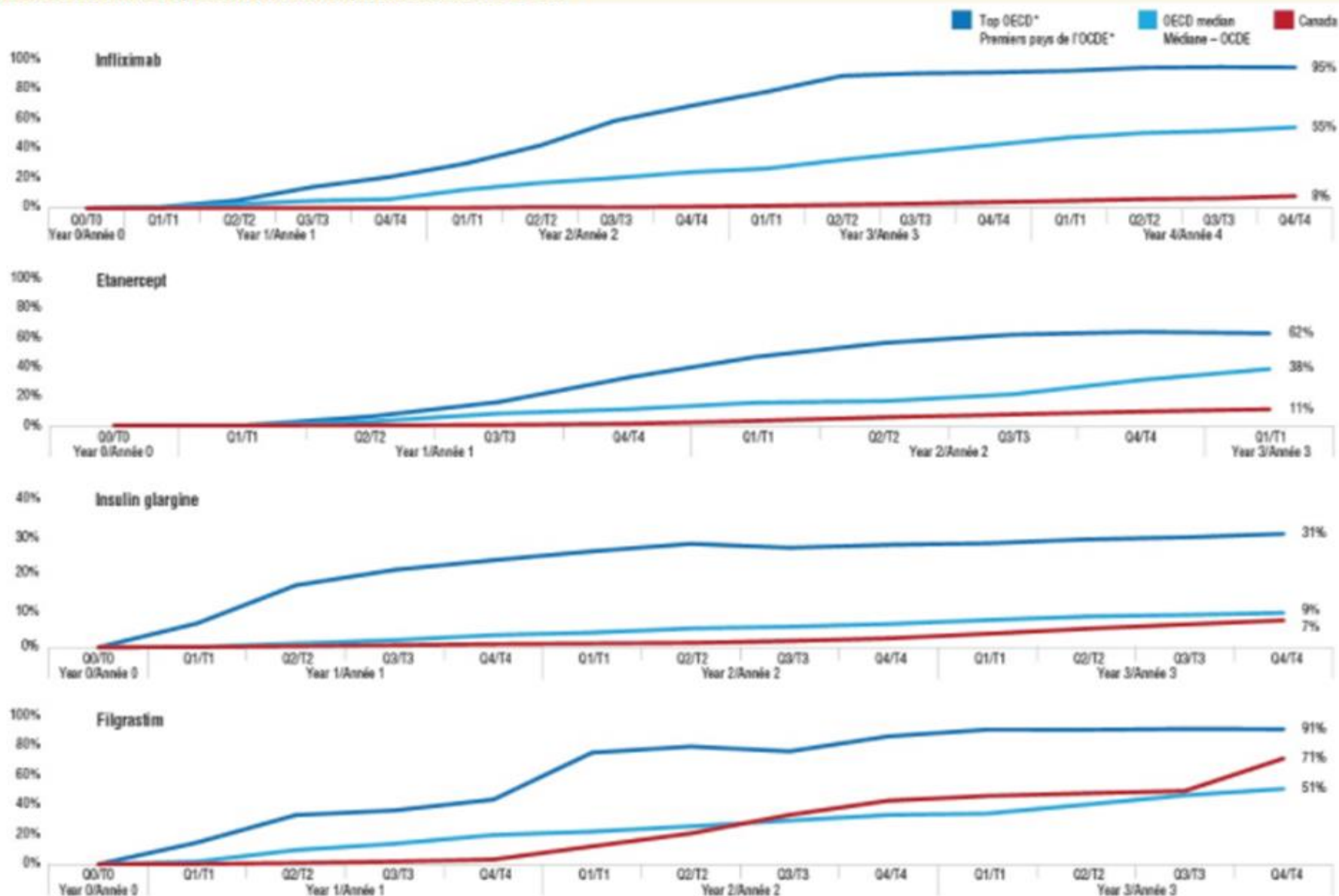
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**Biologics**

## Index of biosimilar uptake from launch, Canada and the OECD



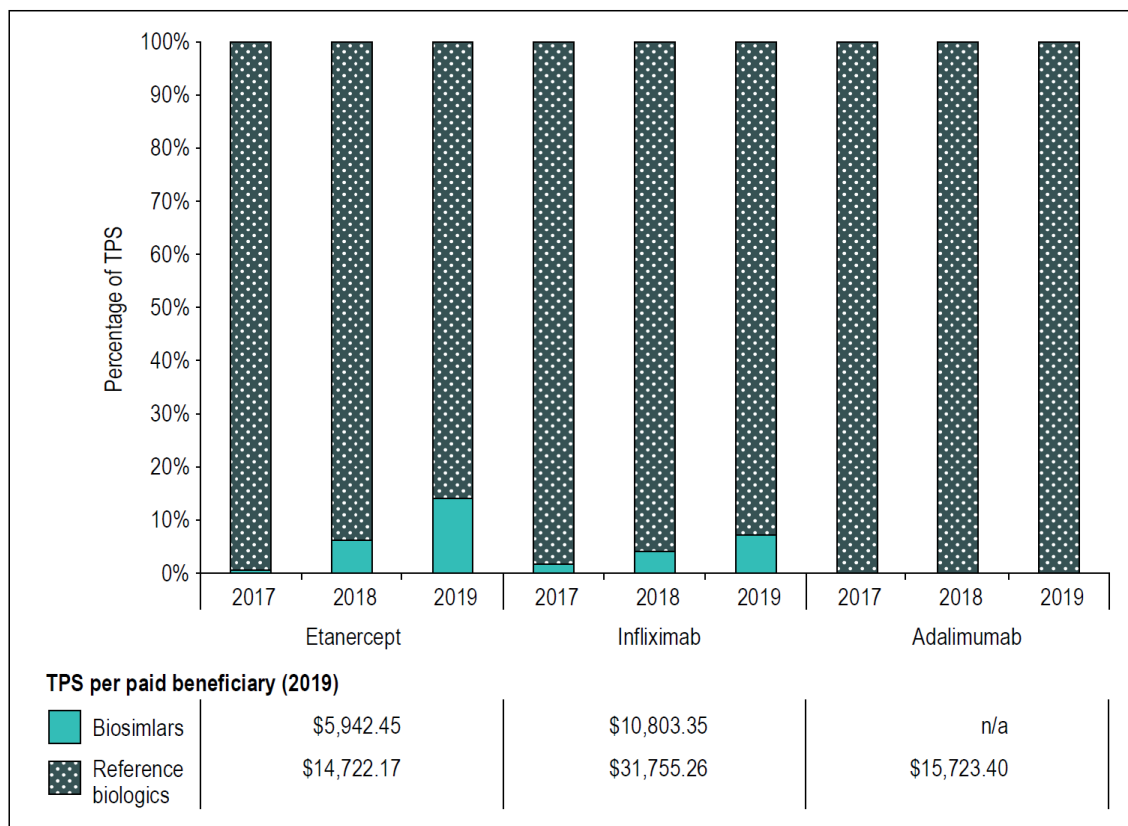
► **Figure description**

**Note:** The Canadian market includes both retail and hospital segments. Index begins at time of launch in each market. The period of analysis (years and quarters) is based on availability in Canada: the period from the time of launch until the time of this analysis (Q4-2018).

\* Based on the median value for the four countries with the highest uptake in the OECD after three years.

# Biosimilar Uptake

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



PRICE COMPARISON OF  
COMMONLY PRESCRIBED  
MEDICATIONS IN MANITOBA  
(2021)

## HYPOGLYCEMIC AGENTS

Generic Name	Brand Name	Strength	Cost per Unit of Insulin
Long-Acting	Lantus (Glargine)	100 units/mL	0.07
	Basaglar (Glargine)	100 units/mL	0.05
	Toujeo (Glargine)	300 units/mL	0.03



# Glargine Insulin

If all the Glargine insulin prescriptions in Manitoba were filled with Basaglar® instead of Lantus® – the province would save.

- a) About \$50
- b) About \$500
- c) About \$5000
- d) About \$50,000
- e) About \$500,0000

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- c) About \$5000
- d) About \$50,000
- e) About \$500,000
- f) About \$2,000,000



# How Big a Fish?

# How much Glargine Insulin are we using ?

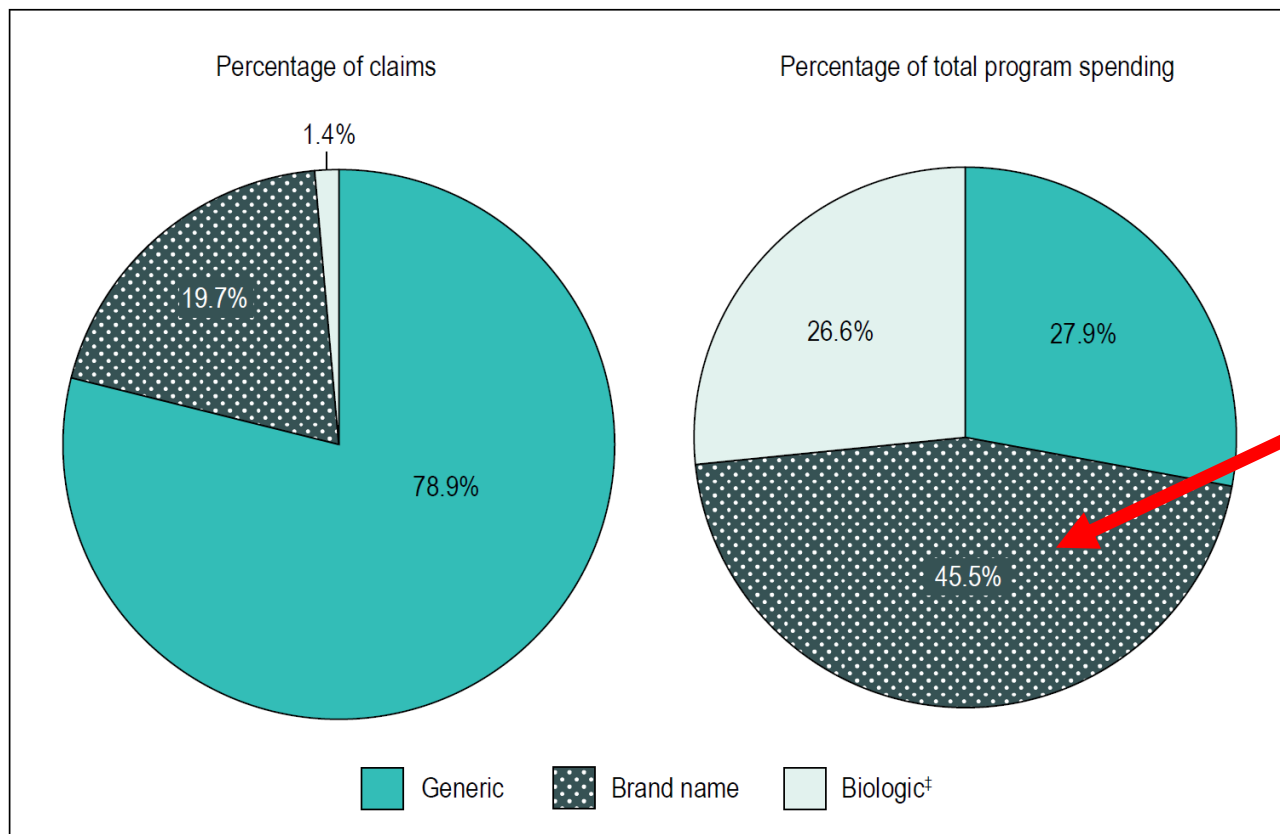
Basaglar < 5% of  
glargine insulin use in  
Manitoba.



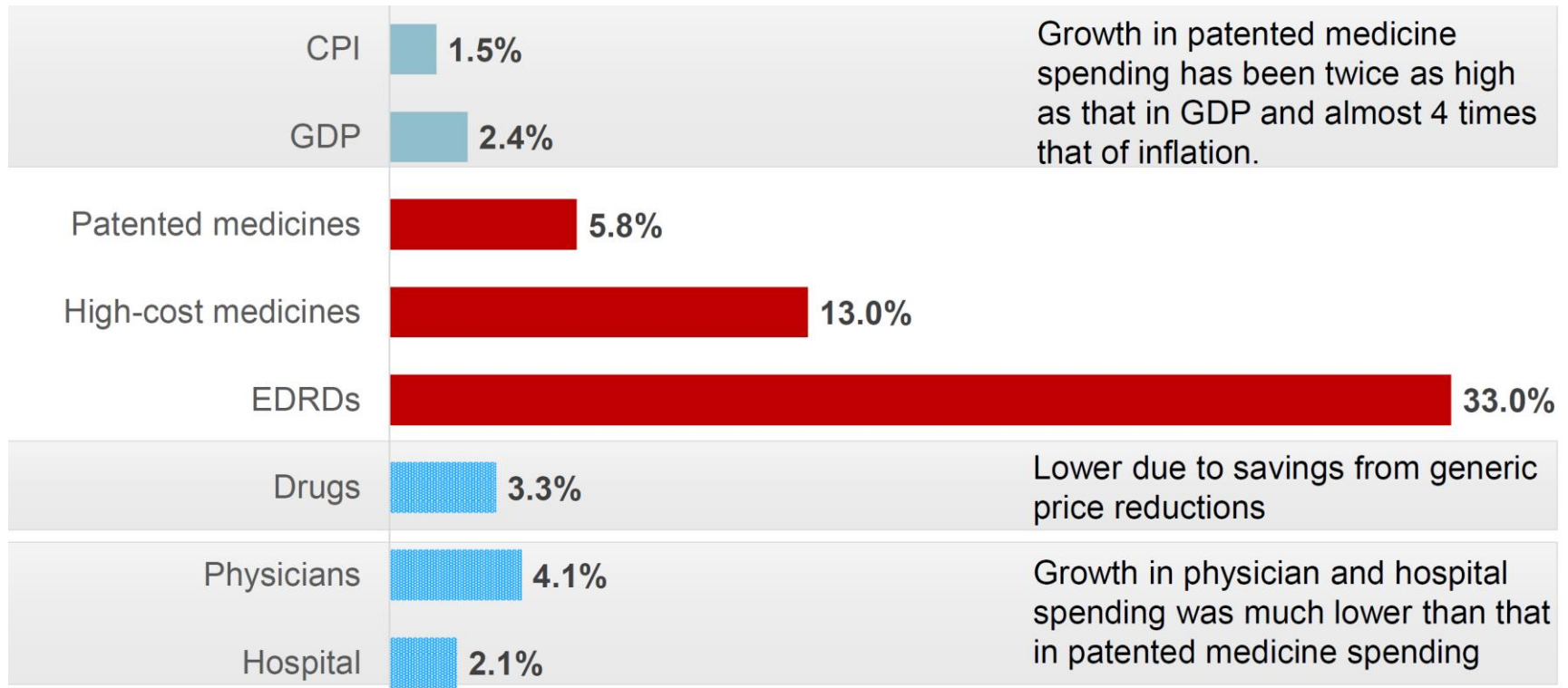


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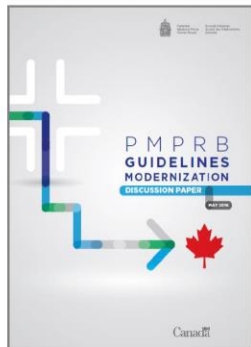
# Brand Name Drugs



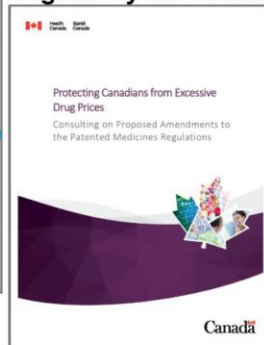
# Patented Medicine Prices Review Board

## The path to PMPRB reform so far ....

### PMPRB Discussion paper on Guideline reform



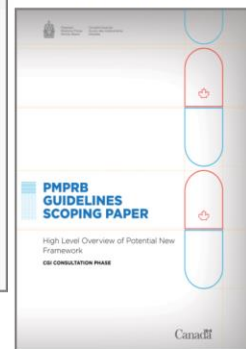
### Health Canada pre-consultation on regulatory amendments



### Health Canada Canada Gazette I



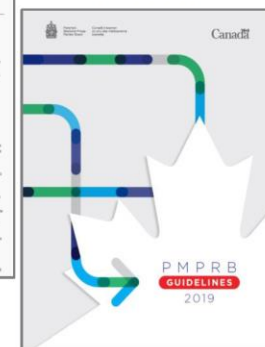
### PMPRB Guidelines scoping paper



### Health Canada Canada Gazette II



### PMPRB Draft Guidelines



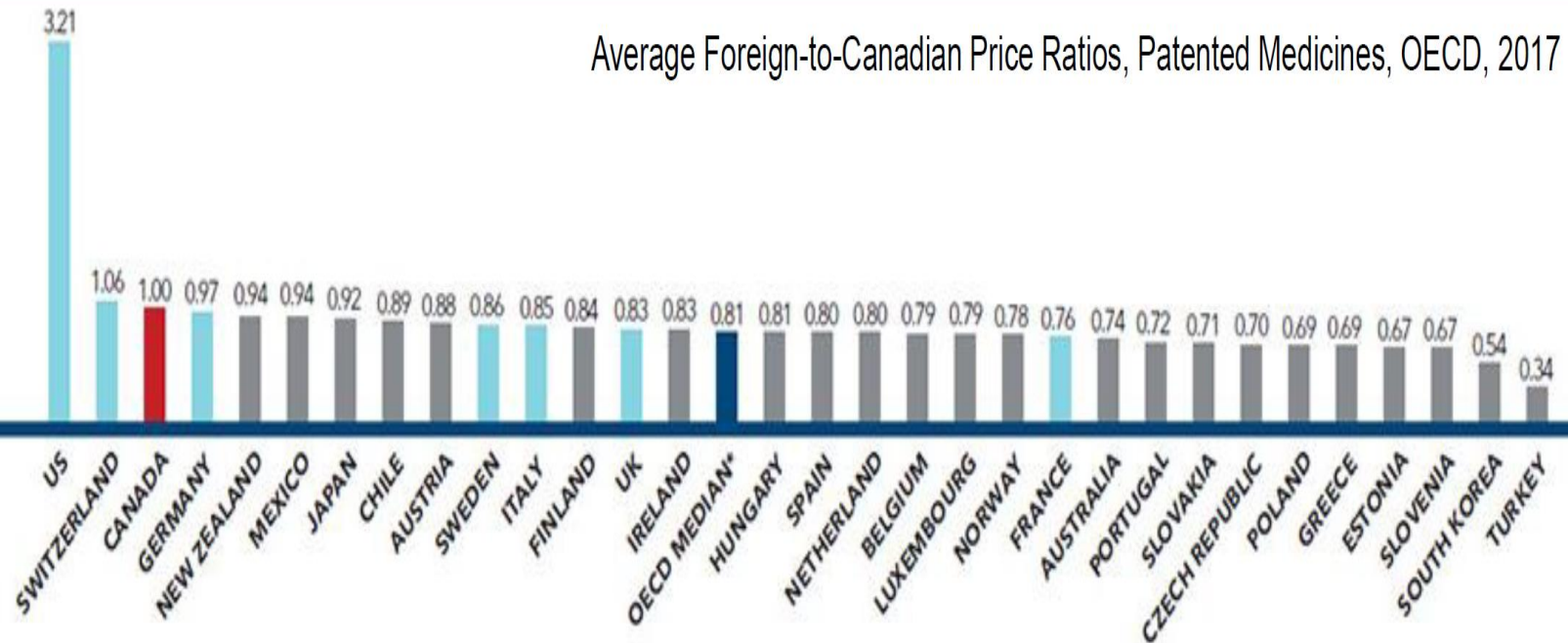
Revised PMPRB Guidelines: Overview of Changes July 8, 2020

# Canadian Drug Prices

Average patented medicine prices



Average Foreign-to-Canadian Price Ratios, Patented Medicines, OECD, 2017



Canadian prices are **3rd** highest

# PMPRB7



# PMPRB11



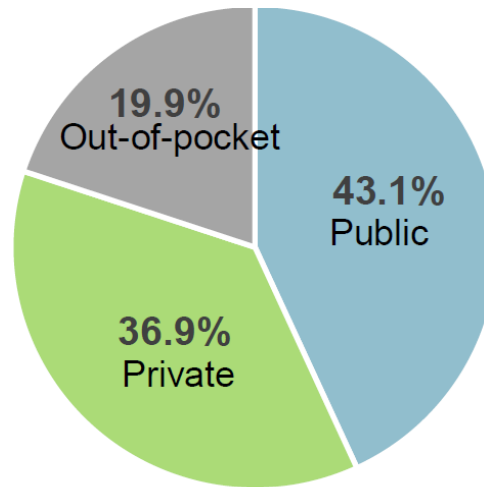
## New medicines

List prices cannot be higher than the median price of the new PMPRB basket of countries:

# Confidential

**pCPA** “remains very concerned that prices achieved through negotiation remain largely unfair, excessive and not cost-effective.”

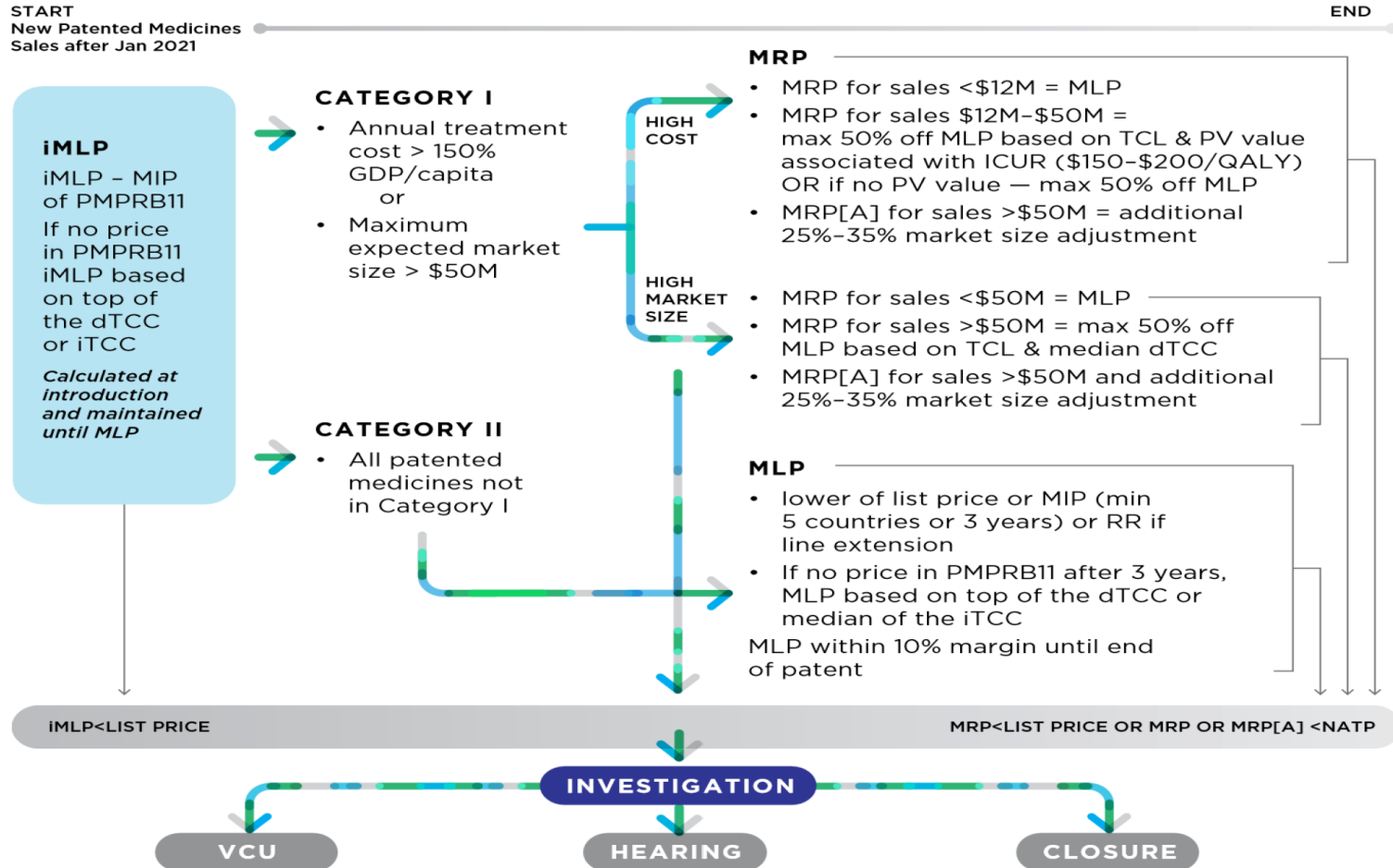
- Confidential rebates are offered to Canadian public payers who jointly negotiate the reimbursed prices through the pan-Canadian Pharmaceutical Alliance. However, this has now been an international practice for many years and other countries are also paying lower negotiated prices



- As a result, greater regulatory scrutiny is required to ensure that consumers and payers do not pay excessive prices



# PMPRB New Process





# Therapeutic Criteria Level I

Level	Definition
Therapeutic Criteria Level I:	The patented medicine is the first medicine to be sold in Canada that effectively treats a particular illness or effectively addresses a particular indication in a clinically impactful manner.
Therapeutic Criteria Level II:	The patented medicine provides a considerable improvement in therapeutic effect, relative to other medicines sold in Canada, in a clinically impactful manner.
Therapeutic Criteria Level III:	The patented medicine provides limited absolute improvement in therapeutic effect, relative to other medicines sold in Canada.
Therapeutic Criteria Level IV:	The patented medicine provides no or slight improvement relative to other medicines sold in Canada.

# Pharmacoeconomic Value Threshold

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Therapeutic Criteria Level	PVT
Level I	\$200K/ QALY
Level II	\$150K/ QALY
Level III	\$150K/ QALY
Level IV	\$150K/ QALY

Incremental CU ratio

$$= \frac{\text{Cost drug A} - \text{Cost drug B}}{\text{QALY drug A} - \text{QALY drug B}}$$

$$= \frac{\$20,000 - \$16,000}{2.6 \text{ QALYs} - 2.0 \text{ QALYs}}$$

$$= \$6,400 / \text{QALY}$$

# Market Adjustments for both HIGH Cost and HIGH Market

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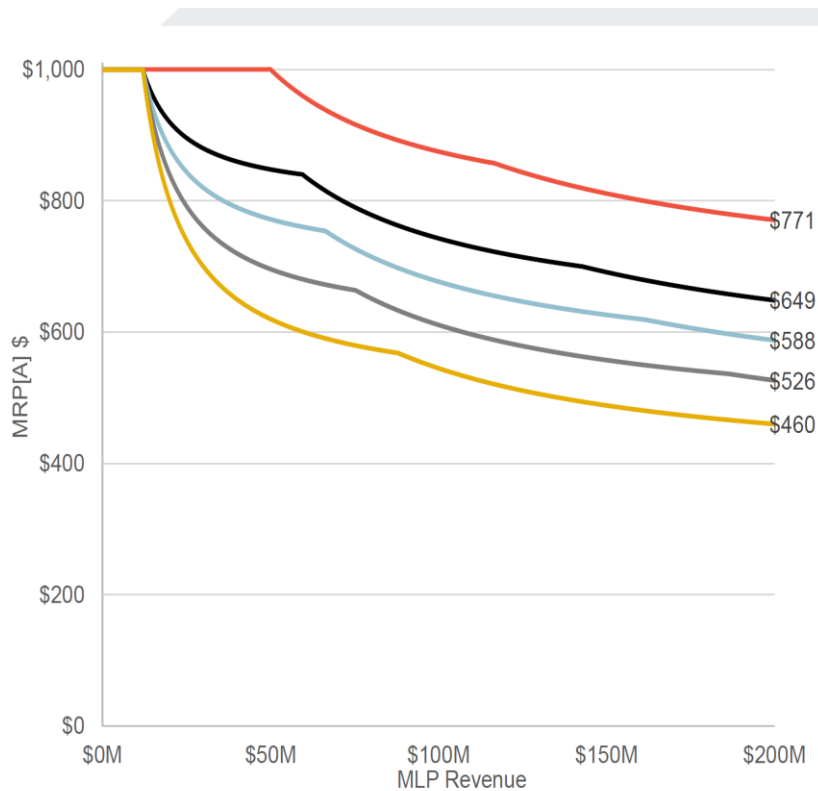
High Cost Patented Medicines

Annual Revenues	MRP	Incremental MLP adjustment factor
<\$12M	MLP	0%
\$12M-50M	Greater of PEP and Floor	
\$50M-\$100M		-25%
>\$100M		-35%

High Market Patented Medicines

Annual Revenues	MRP	Incremental MLP adjustment factor
<50M	MLP	0%
\$50M-\$100M	Lowest of the MLP and the median of the dTCC	-25%
>\$100M		-35%

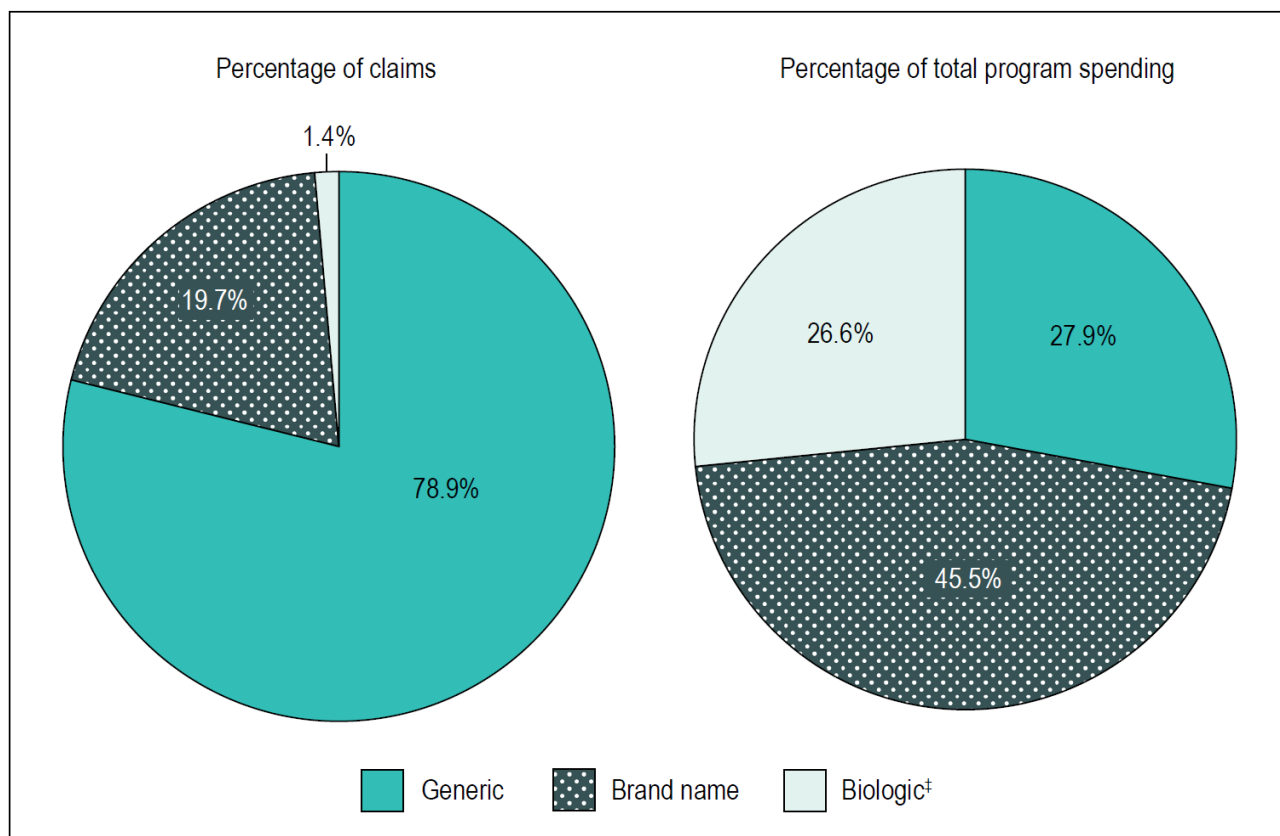
# Maximum Price Adjustments



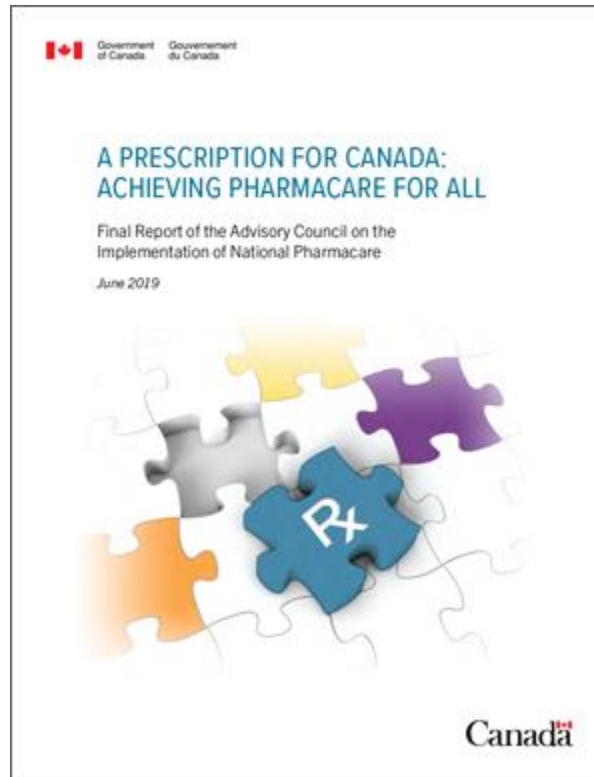
		Up to \$12M	\$50M	\$100M	\$200M	\$500M
High-cost medicine	Low-cost medicine					
	Cost effective (0%)	\$1,000	\$1,000	\$875	\$771	\$698
	Level I (20%)	\$1,000	\$848	\$743	\$649	\$571
	Level II (30%)	\$1,000	\$772	\$677	\$588	\$508
	Level III (40%)	\$1,000	\$696	\$611	\$526	\$445
	Level IV (50%)	\$1,000	\$620	\$545	\$460	\$381

# That's the Whole Pie

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



# “Times they are a changing”



Research Report

## International Prescription Drug Price Comparisons

Current Empirical Estimates and Comparisons with Previous Studies



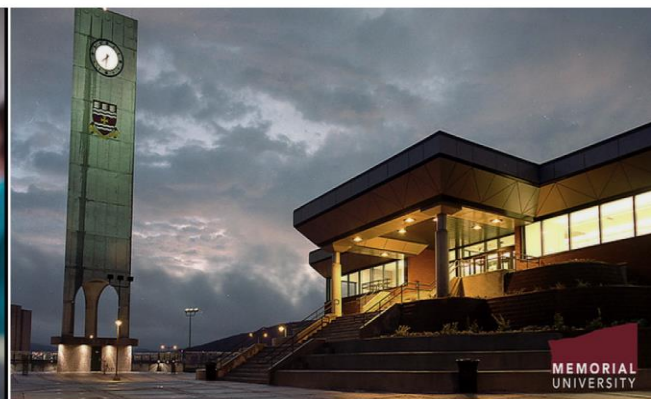
INNOVATIVE MEDICINES CANADA / MÉDICAMENTS NOUVEAUX CANADA



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- Part-time and flexible
- Completed between 3-5 years
- Incorporates applied learning activities

## PROGRAM STRUCTURE

- 11 online courses
- 2 short onsite courses
- 2 six-week clinical rotations

## APPLICATION DEADLINE DATE

- ~~February 1 (each year)~~

Feb 14, 2021

For more information, visit: [www.mun.ca/pharmacy](http://www.mun.ca/pharmacy)