

November 8, 2017

Context

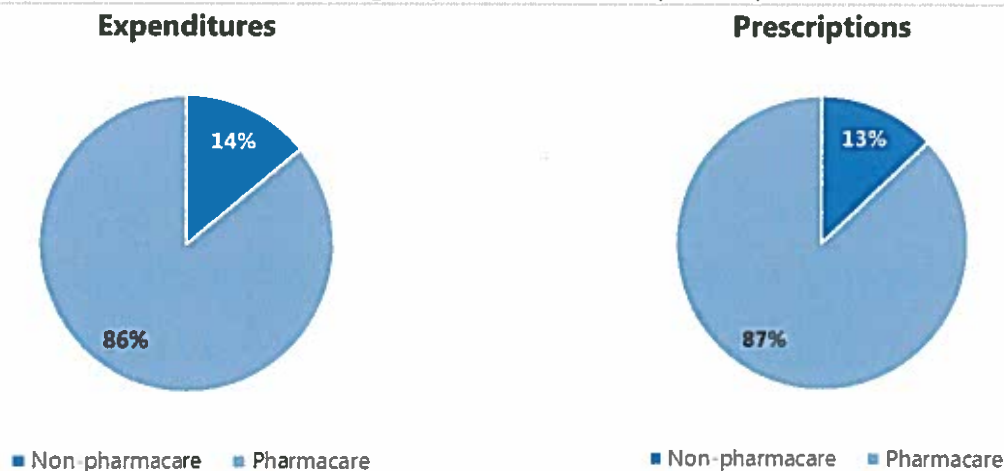
The House of Commons Standing Committee on Health requested that the PBO provide a more detailed breakdown of the approximately \$3.9 billion spent on drugs not listed on Quebec's formulary. The analysis provided includes an overview of the representativeness of these drugs by anatomical therapeutic chemical classification (ATC) at the first level, patent status, and payer.

Analysis

The PBO estimated in its report "Federal Cost of a National Pharmacare Program" the Pharmacare formulary – the list of drugs to be covered by the program – represented \$24.6 billion, or 86 per cent, of the total \$28.5 billion of prescription drug expenditures in 2015/16.¹ The remaining \$3.9 billion, or 14 per cent of the total \$28.5 billion, would not be covered.

This \$3.9 billion expenditure represents roughly 13 per cent of total prescriptions purchased in pharmacies outside of hospitals in Canada in 2015/16.

Chart 1 Non-hospital drug expenditures and prescriptions, 2015/16



Source: PBO calculations using data from QuintilesIMS

Roughly 30 per cent of the \$3.9 billion is paid for primarily by public insurance, with the remaining 70 per cent paid for primarily by private insurers or by the patient (that is, out-of-pocket). These proportions were different than the \$24.6 billion spent on drugs listed on the Pharmacare formulary. For example, the proportion of expenditures paid for by the patient was

greater for the drugs not listed on the formulary (28%) compared to the proportion of drugs on the formulary (15%).

The results are similar when looking at the volume (that is, number of prescriptions) of drugs paid for by each primary payer. Public drug plans were the primary payer for 30 percent of drugs not listed on the formulary and the remaining 70 percent was paid for by private insurers or by the patient. Public plans were the majority payer for the prescriptions listed on the Pharmacare formulary (59%).

Table 1 Non-hospital drug expenditures by primary payer*, 2015/16

	Non-Pharmacare				Pharmacare			
	Total	Out-of-pocket	Private	Public	Total	Out-of-pocket	Private	Public
Expenditures (billions)	4.0	28%	42%	30%	24.6	15%	37%	49%
Prescriptions (millions)	84.8	40%	30%	30%	571.3	17%	24%	59%

Source: PBO calculations using data from QuintilesIMS

Note: Totals may not sum due to rounding

*'Primary Payer' refers to the payer – public insurance, private insurance, or individual out-of-pocket – that paid for the largest portion of the prescription. The entirety of the transaction value is attributed to the primary payer, even though a portion of this out-of-pocket amount may be reimbursed by an insurer as a coordination of benefits.

The market composition of the \$3.9 billion was similar to that of drugs listed on the formulary, with the exception of prescribed over-the-counter (OTC) drugs. Of the \$3.9 billion spent on drugs not listed on the formulary, roughly 15 per cent was for OTC drugs compared to only 2 per cent of the \$24.6 billion spent on drugs covered by the formulary.ⁱⁱ This varied across the provinces.

Table 2 Non-hospital drug expenditures by patent status, 2015/16

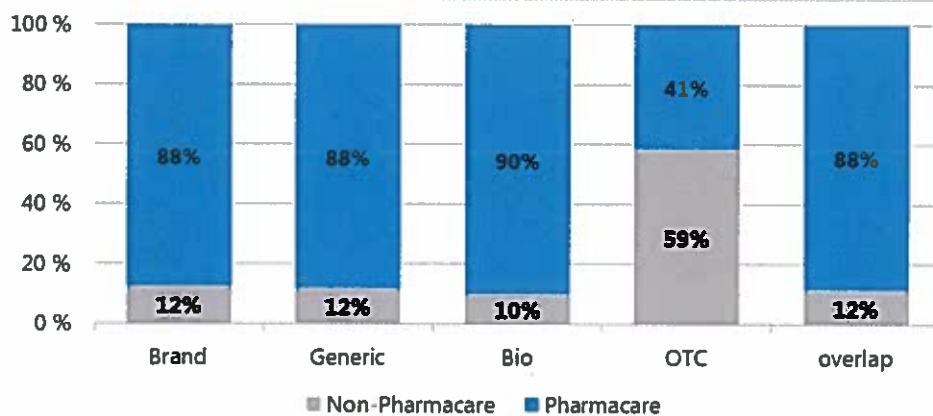
	Non-Pharmacare					Pharmacare				
	Brand	Generic	Bio	OTC	overlap	Brand	Generic	Bio	OTC	overlap
Alberta	41%	38%	17%	4%	0%	45%	34%	21%	1%	0%
British Columbia	43%	39%	13%	4%	0%	45%	34%	19%	1%	0%
Manitoba	49%	32%	12%	7%	0%	38%	41%	20%	1%	1%
New Brunswick	38%	38%	17%	7%	0%	39%	35%	25%	1%	0%
Newfoundland	37%	42%	11%	9%	1%	34%	40%	24%	1%	1%
Nova Scotia	42%	36%	16%	6%	0%	40%	36%	23%	1%	0%
Ontario	40%	24%	12%	23%	0%	49%	30%	20%	1%	1%
Prince Edward Island	38%	47%	9%	5%	1%	35%	41%	23%	1%	1%
Quebec	44%	29%	17%	9%	0%	43%	35%	18%	4%	0%
Saskatchewan	46%	35%	8%	10%	0%	42%	38%	18%	1%	1%
Canada	42%	29%	14%	15%	0%	45%	33%	19%	2%	0%

Source: PBO calculations using data from QuintilesIMS

Note: Totals may not sum due to rounding
Bio – Biological drugs

Looking at the same expenditures in a different way, Chart 2 shows that of the total spending for brand, generic and biological drugs, the majority are for drugs listed on the formulary.

Chart 2 Non-hospital drug expenditures by patent status, 2015/16



Source: PBO calculations using data from QuintilesIMS

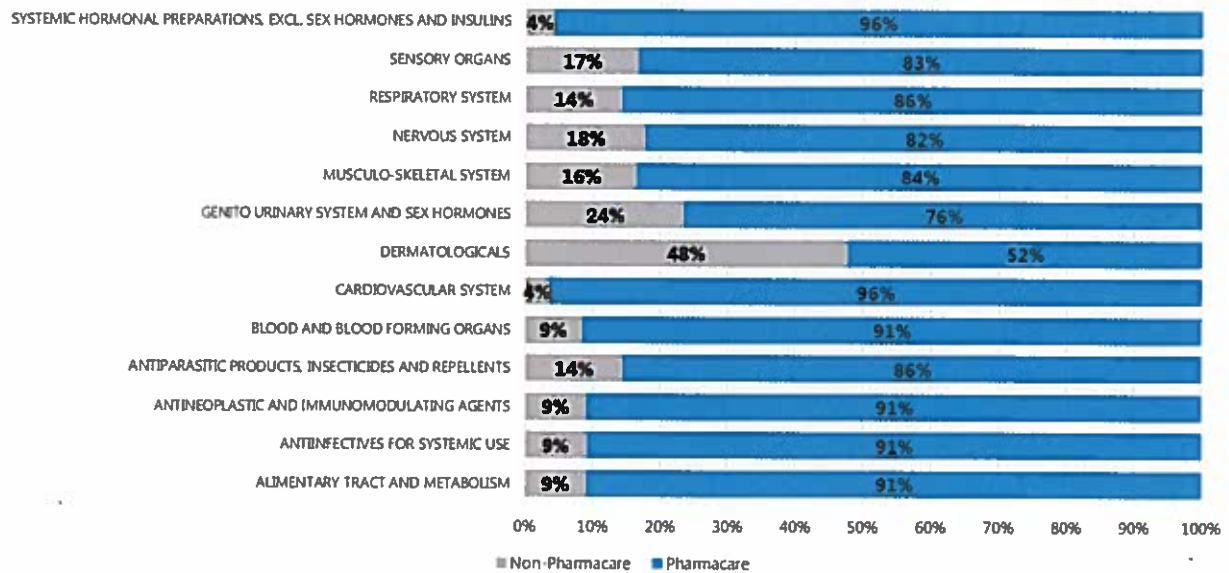
Note: Totals may not sum due to rounding
Overlap - observations that could not be distinctly identified as brand, generic, biological, or over-the-counter.

PBO also examined drug (defined as each drug identification number (DIN)) expenditures grouped by their anatomical therapeutic chemical classification at the highest level (ATC-1). The ATC groups divides drugs into different groups according to the organ or system on which they act and their therapeutic, pharmacological and chemical properties.ⁱⁱⁱ

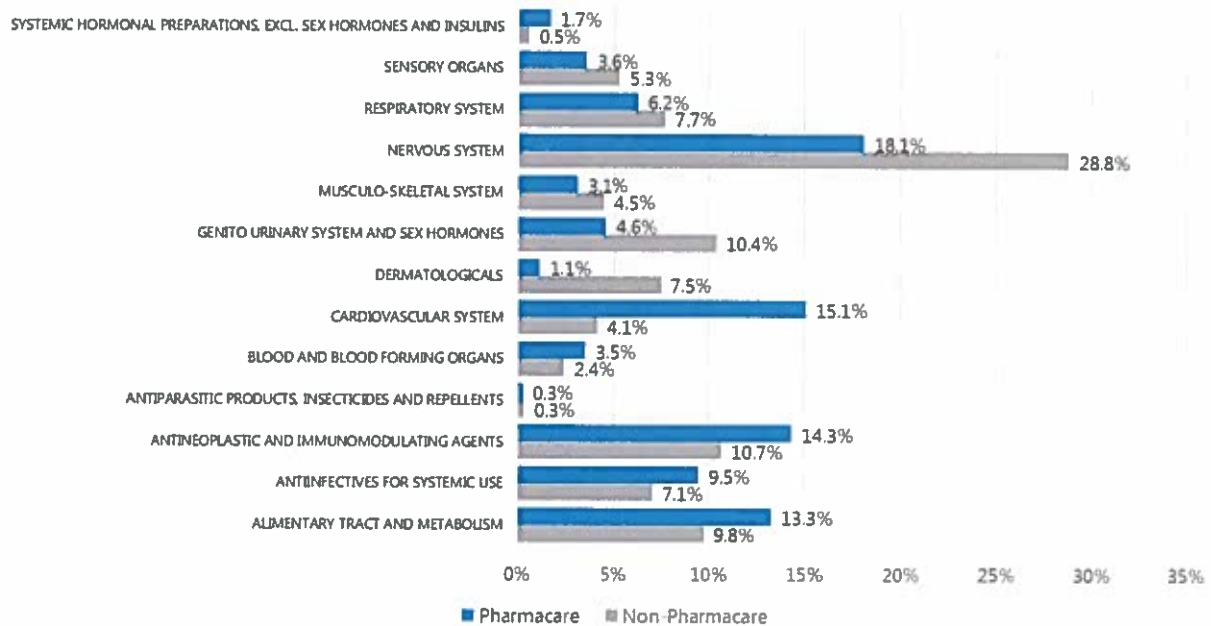
Comparing the \$3.9 billion in expenditures for drugs not listed on the formulary to that of the \$24.6 billion suggests slight differences in the proportional representation of drug classes. For example, of all \$521 million in expenditures for dermatologicals (drugs that treat conditions/diseases of the skin, hair and nails) only 52 per cent are represented on the formulary and the remaining 48 per cent are not. That 48 per cent (\$249 million) represented 7.5 per cent of the total \$3.9 billion. The largest portion of the \$3.9 billion was for drugs treating conditions/diseases of the nervous system, which represented nearly 29 per cent (\$958 million). Even so, the formulary represents roughly 82 per cent of total expenditures for drugs treating conditions/diseases of the nervous system.

Chart 3 Non-hospital drug expenditures, ATC-1, 2015/16

Drug expenditure as a percent of total national expenditures



Drug expenditure as a percent of non-Pharmicare or Pharmicare expenditures



Source: PBO calculations using data from QuintilesIMS and CIHITM

Discussion

In a scenario where the Pharmacare program exists, many questions that were outside the scope of the PBO's "Federal Cost of a National Pharmacare Program" report are likely to become more prominent. Questions such as whether private or public plans would continue to reimburse the drugs not listed on the formulary, or questions on eligibility, insurance premiums, co-payments and deductibles for those plans. Some patients may find they are able to safely substitute their drug that is currently not on the Pharmacare formulary, for one that is, while others may not.

The analysis presented above attempts to shed some light on this group of drugs. Roughly \$3.9 billion of total prescription drug expenditures in Canada are for drugs not listed on the Pharmacare formulary. Some of these drugs are currently paid for by public and private plans, and by patients. The proportions of these drug expenditures are similar to those listed on the Pharmacare formulary when estimated by patent status. The exception is the proportion of over-the-counter drugs which is larger among those not listed on the Pharmacare formulary compared to those that are listed. Drug expenditures for some drug categories (grouped by the ATC-1 level) are more represented on the Pharmacare formulary than others. However, the Pharmacare formulary would still cover the majority of expenditures.

Notes

PBO identified drugs either listed on the formulary or not using the DIN. As a result, analysis presenting the difference in number of drugs either covered by the Pharmacare plan or not would be exaggerated. This is because DINs on the formulary may be substitutes for drugs not listed on the formulary. For example, a specific medicinal ingredient available in a 10mg tablet may be listed on the formulary, but not the same medicinal ingredient available in 20mg may not. A patient could still generally be considered to have access to and coverage for this drug – he or she could take two of the version covered by Pharmacare.

PBO calculated this analysis using data from QuintilesIMS and information from the Canadian Institute for Health Information. Any analysis of QuintilesIMS data is independently arrived at by PBO on the basis of the data and other information and QuintilesIMS is not responsible for any reliance by recipients of the data or any analysis thereof. Parts of this report are based on data and information provided by the Canadian Institute for Health Information. However, the analyses, conclusions, opinions and statements expressed herein are those of the author and not necessarily those of the Canadian Institute for Health Information.

¹ PBO, Federal Cost of a National Pharmacare Program, 2017. <http://www.pbo-dpb.gc.ca/en/blog/news/Pharmacare>

² PBO was not able to match all DINs to a patent status. Roughly \$3.8 billion of the \$3.9 billion was associated to either a brand, generic, biologic or over-the-counter status.

³ World Health Organization, web site. "ATC – Structure and principles". Last updated March 25, 2011. Accessed October 24, 2017. https://www.whooc.no/atc/structure_and_principles/

⁴ National Prescription Drug Utilization Information System Database, Canadian Institute for Health Information. See PBO, Federal Cost of a National Pharmacare Program, 2017. <http://www.pbo-dpb.gc.ca/en/blog/news/Pharmacare> for more information on the data acquired from QuintilesIMS.