



Private Drug Plan Drug Cost Forecast (2017-2019), 3rd edition

Based on analysis by IQVIA

Sarah Lussier Hoskyn¹; Joe Farago¹; Suzanne Lepage²

**INNOVATIVE
MEDICINES
CANADA**



**MÉDICAMENTS
NOVATEURS
CANADA**

REPORT OVERVIEW

1. Highlights
2. Why the forecast
3. Forecast Approach
4. Baseline
5. Building the forecast
6. Forecast Results
7. Summary
8. Discussion and Key Take-Aways

A WORD ABOUT WORDS

- This forecast tackles **private drug plan drug costs** at the overall private market level
- This is **NOT** the:
 - **Drug plan cost** – this is determined by the individual plan's claims experience and the premium required by the insurer
 - **Premium** or **trend factor** charged for private drug benefit plans – this is determined by the insurers
 - **Experience** of individual plans

HIGHLIGHTS

Forecast

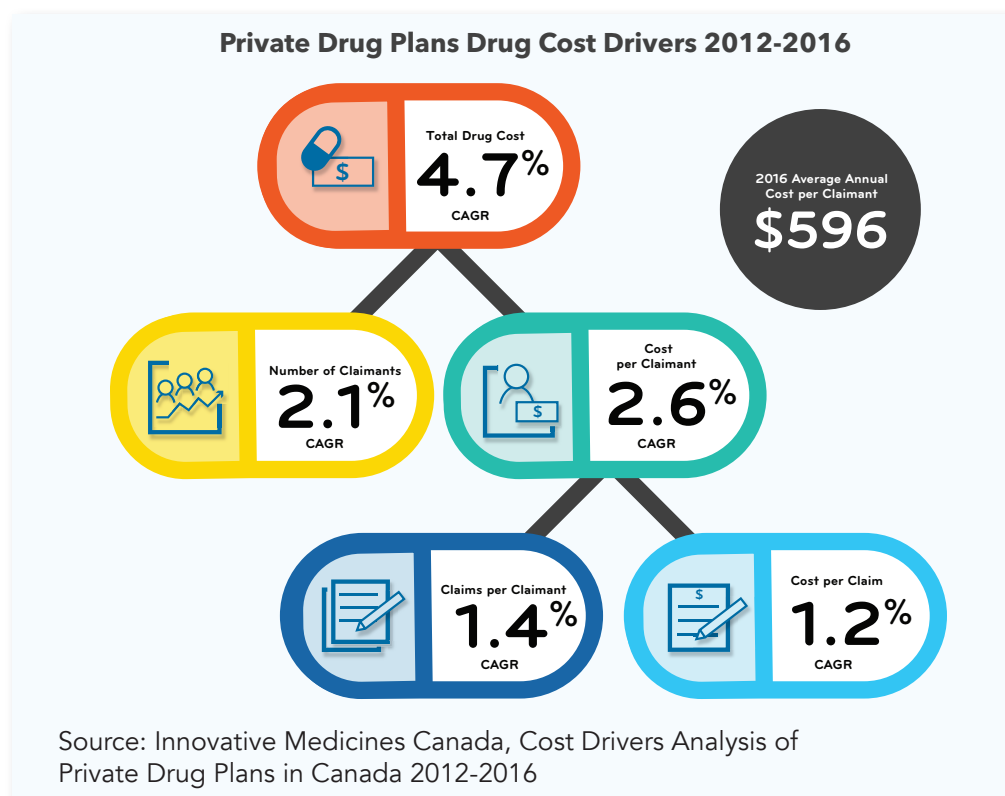
- As with prior forecasts¹, this report includes a baseline analysis that projects forward actual private drug plan drug costs from 2017 to 2019 based on the historical period referenced, 2012 to 2016. This baseline analysis assumes a status quo scenario with no changes in the market beyond a continuation of historical trends.
- The forecast then estimates the impact of four future market events over and above the baseline growth:
 1. New innovative drug entries
 2. Innovative drug cost per claim increases
 3. Generic drug entry
 4. Biosimilar drug entry
- The baseline growth predicted from 2017 to 2019 is 4.7% compound annual growth rate (CAGR).
- The four market events were estimated to add a combined net impact of +0.26% to the 4.7% CAGR from 2017 to 2019.
- When the baseline and market events are considered together, the overall private drug plan drug cost growth from 2017 to 2019 is expected to be 4.9% CAGR.

¹ "Private Drug Plan Drug Cost Forecast (2016-2018). Research Provided by QuintilesIMS for Innovative Medicines Canada". Available at: <http://innovativemedicines.ca/wp-content/uploads/2017/07/Private-Drug-Plan-Drug-Cost-Forecast-2016-2018.pdf>.



Key Factors Influencing Forecast

- The 4.9% forecasted growth for the 2017 to 2019 period is driven primarily by the 4.7% growth of baseline costs from 2012 to 2016. Therefore, existing products currently on the market will be responsible for the majority of the growth seen during the forecast period. Of the baseline growth, 3.8% of the 4.7% or 80% of this growth is driven by utilization growth (claimants and claims per claimant). In addition, for the baseline growth:
 - Baseline growth is net of the pCPA generic price reductions implemented on April 1, 2018, which reduced total baseline growth by 1.9% from 2017-2019.
 - New drugs introduced in the historical period (2012-2016) will drive just under half of the baseline growth (net of generic savings).
- The 2012-2016 Cost Drivers report² identified that 75% of the total cost growth was attributable to factors of increased utilization:
 - Of the total 4.7% CAGR from 2012 to 2016, 2.1% was attributed to claimant growth and 1.4% to claims per claimant growth, for a total of 3.5% growth due to utilization.
 - The last 1.2%, or 25% of the growth, was directly attributed to the growth in cost per claim (cost of drugs).



- Although future new drugs introduced during the forecast period will have an impact on private drug plan growth, generics and biosimilars will have a stronger offsetting impact.

² Joe Farago, Sarah Lussier, Suzanne Lepage. "Cost Drivers Analysis of Private Drug Plans in Canada, 2012-2016". Innovative Medicines Canada, August 2018. http://innovativemedicines.ca/wp-content/uploads/2018/08/20180809_Cost-Drivers-Analysis-Report_EN_Final.pdf.



Methodological Notes

- The IQVIA private drug plan claims database captures approximately 70% of all private drug plan claims (83% of pay-direct market), and is highly representative across all Canada.
- Absolute values are a portion of the total, while trends and growth rates are accurately represented
- Total cost is not projected for the ~30% of private spending not captured by IQVIA databases
- Drug cost:
 - Includes mark-ups but does not include dispensing fees, except in Quebec where dispensing fees cannot be separated from the drug costs.
 - Represents claim amount prior to plan design elements being applied, and a portion of this cost may be paid by the plan member after adjudication is completed. This means that depending on the plan design, actual cost to the private drug plan might be somewhat lower.
- Forecast does not consider:
 - Existing non-transparent Product Listing Agreements (PLA) and other discounts or rebates
 - OHIP+ impact and other future policies
 - Quebec generic price reductions
- Sensitivity analyses were completed with lower and higher market event impacts and are detailed in *Appendix 5*.

Why the forecast?

Private payers are concerned about the sustainability of their benefit plans, and their primary focus is growth in drug plan costs. Innovative Medicines Canada (IMC), the industry association representing the majority of innovative pharmaceutical companies in Canada, repeated their forecast to identify the market dynamics that could impact private drug plan drug cost growth. As part of their desire to bring strong research analytics to the private payer market they once again engaged IQVIA (formerly IMS Brogan), a global leader in healthcare market insights, to conduct a quantitative, transparent, and robust assumption-based forecast of private drug plan drug costs for the 2017-2019 period.

Forecast Approach

The forecast was built by creating a baseline forecast based on historical drug claims assuming no changes take place, and then predicting how future events could further influence growth. The objective of the forecast was to provide a tool which would assist insurers, benefits consultants, brokers and plan sponsors to more accurately predict drug cost growth trend factors for private drug plans. This forecast is for the overall market level and may not reflect the experience of individual plans.

Baseline Growth Assumptions

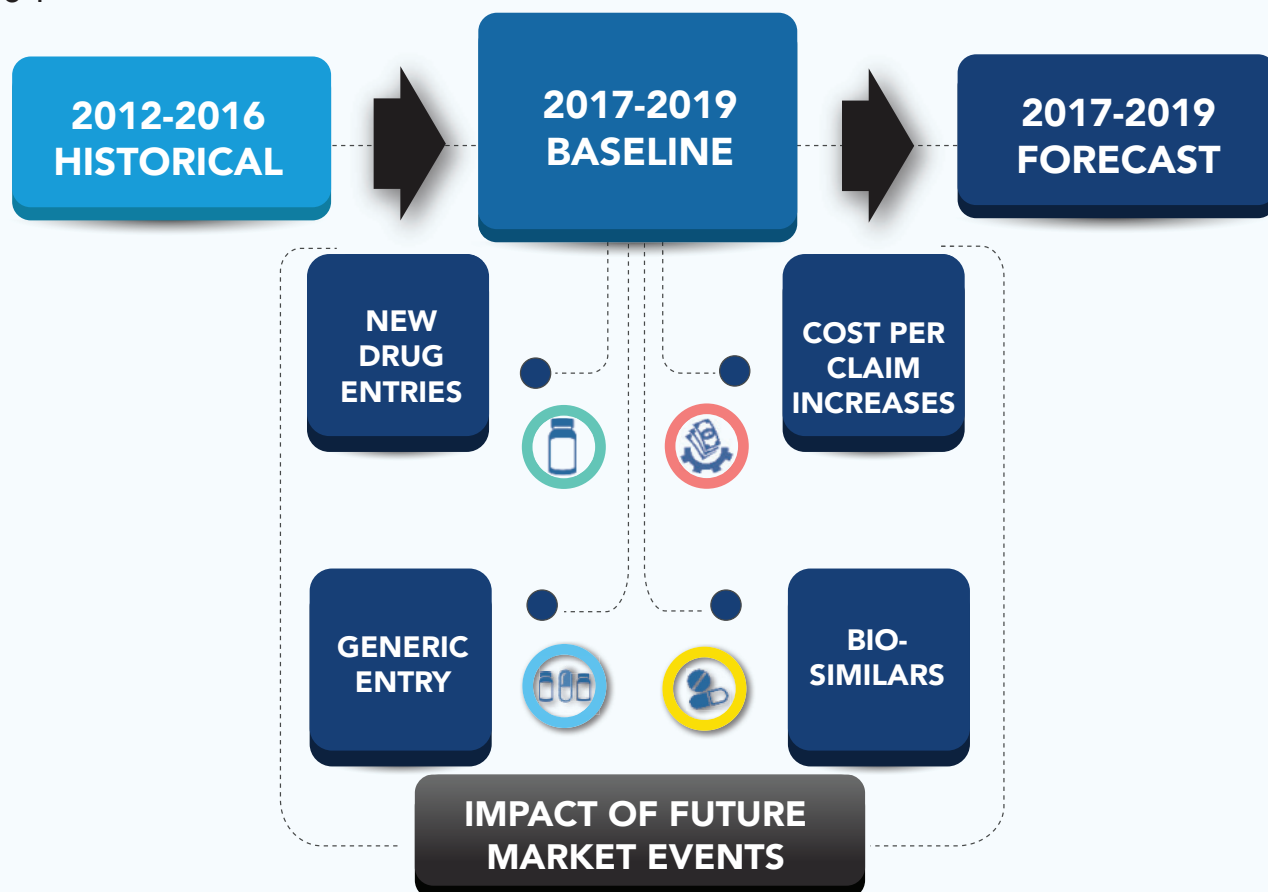
The forecast used actual private drug plan claims growth from 2012 to 2016 to develop a baseline forecast for 2017 to 2019. This captured actual historical claims growth, which was then projected forward to predict future utilization. This baseline analysis depicts a status quo scenario assuming no changes in the market beyond a continuation of historical utilization trends (*Appendix 1*).

- Forecasted at the chemical level, with innovative and existing generic versions of each chemical forecast separately, and then grouped at the therapeutic class level.



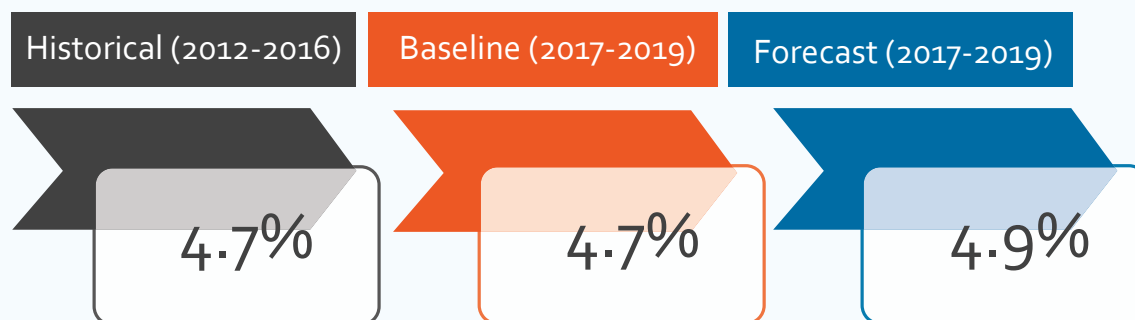
- Reflects a continued trend of a growing number of claimants and claims volume.
- Does not factor in the impact of future new innovative drugs, or of future generic or biosimilar drugs that may enter the market during the 2017 to 2019 period. These are captured in the market events that are added to the baseline forecast.
- Cost per claim was held constant at 2016 levels.
- The pan-Canadian Pharmaceutical Alliance (pCPA) new generic pricing framework for 58 of the 68 molecules implemented April 2018 were built into the baseline forecast and consequently the baseline forecast is net of those reductions³.

Figure 1



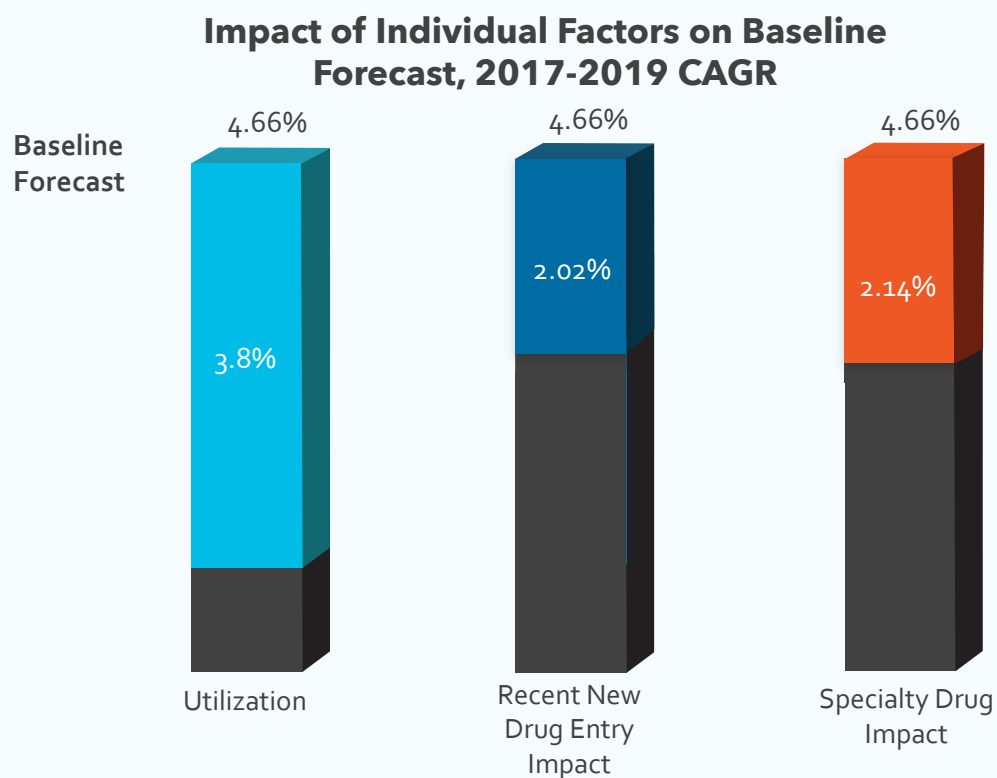
³ Only 58 of 68 molecules had individual forecasts, therefore the pCPA pricing update was only applied to 58 molecules.

Figure 2



Source: IQVIA 2017-2019 Private Drug Plan Drug Cost Forecast

Figure 3



Source: IQVIA 2017-2019 Private Drug Plan Drug Cost Forecast. Individual forecast factors can overlap and are not mutually exclusive



Baseline Results

- The ACTUAL historical total private drug plan drug cost CAGR from 2012 to 2016 was 4.7% annually, on average (*Figure 2*).
- When projected forward with no market changes (status quo) the baseline PREDICTED total private drug plan drug cost CAGR from 2017 to 2019 was 4.7% annually (*Figure 2*).
- The steady state of 4.7% in the baseline is driven by existing utilization, recent new drug launches in the 2012-2016 period (*Appendix 2*) as well as older and recent specialty drugs which are expected to impact baseline drug cost by +3.8%, 2.0%, and 2.1%, respectively (not mutually exclusive) (*Figure 3*).
- The price reductions implemented by the pan-Canadian Pharmaceutical Alliance (pCPA) new generic pricing framework for 68 generic molecules in April 2018 are expected to have a significant offsetting impact on private drug plan costs, estimated at a -3.5% one-time savings in the first 12 months. Over the period from 2017-2019, this will have an offsetting impact of -1.9% on baseline CAGR.
- Recent biosimilars were predicted to have negligible cost growth offsetting impact (-0.02%) on baseline growth.

Only events that we know have occurred in the past and that can be reasonably quantified are considered in this forecast. For example, changes in drug coverage (such as OHIP+ in Ontario) and pricing policies (pCPA expansion, PMPRB regulatory changes, etc.) are not included as future market events. Additionally, confidential discounts via product listing agreements (PLAs) are not included in this forecast.

The “Forecast”

The baseline seen above takes into consideration a continued historical growth based on the 2012 to 2016 trends and assumes that no market changes will take place in 2017 to 2019.

In the Canadian drug landscape there are a variety of market events that could impact future drug costs, and several were considered in this forecast to determine whether they could have a significant incremental impact on the baseline from 2017 to 2019.

Therefore, in order to build out the forecast, the impact of four key market change events was added to the baseline (*Appendix 1 for the assumptions under each market event*):

1. New Generic Entries
2. New Biosimilar Entries (*Appendix 4*)
3. New Drug Entries: New innovative drugs launched in the 2017-2019 period (*Appendix 2*)
4. Cost per claim increases: factors impacting increases in the cost per claim for innovative drugs in 2017-2019, including but not limited to price increases (*Appendix 3*)

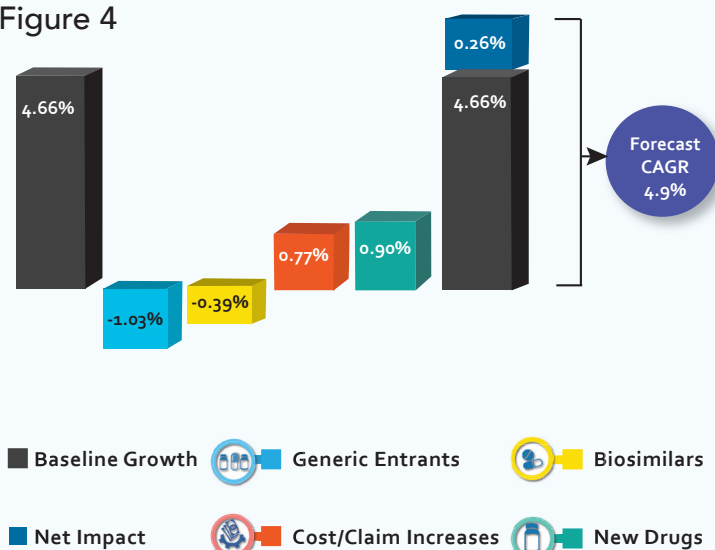
Market Event Results

The baseline predicted 4.7% of the market growth from 2017 to 2019 and the impact of the four market events contributed +0.26% of net additional growth, for a total CAGR of 4.9% from 2017 to 2019 (Figure 4). Positive growth effects are expected to be nearly all offset by negative growth effects.

The impact of each market event was evaluated separately to determine their respective impact on the forecast private drug plan average annual drug costs (Figure 4):

1. Generic entrants will generate savings of **-1.03%**
2. Biosimilar entrants will generate savings of **-0.39%**
3. New drugs will contribute **+0.90%**
4. Cost per claim increases will contribute **+0.77%**

Figure 4



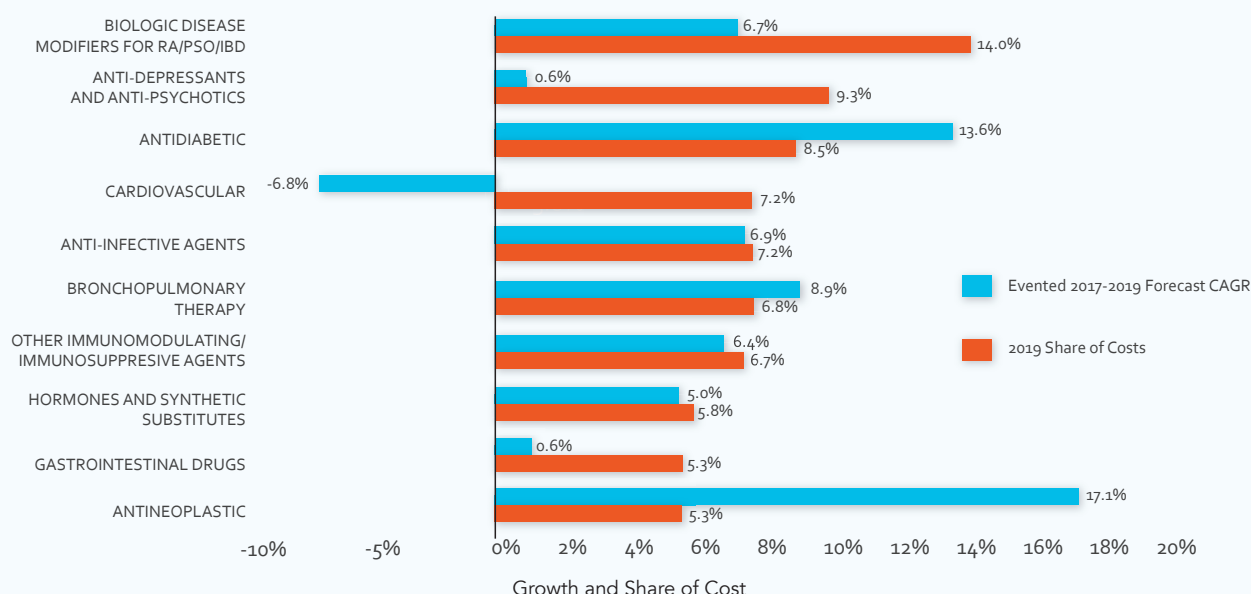
Source: IQVIA 2017-2019 Private Drug Plan Drug Cost Forecast. Individual market event factors may not add up to 0.26% due to rounding issues

Therapeutic Class Forecast

The forecast was also conducted for individual Top 10 therapeutic classes (Appendix 6). The top four classes are expected to remain the same, spanning the top chronic diseases: autoimmune, mental health, diabetes, and cardiovascular. Antineoplastic (cancer) drugs are expected to grow the most and will enter the top 10 classes.

Figure 5

2-yr Top 10 Therapeutic Class Forecast 2017-2019 CAGR



Source: IQVIA 2017-2019 Private Drug Plan Drug Cost Forecast. RA = Rheumatoid Arthritis; PSO = Psoriasis; IBD = Irritable Bowel Disease (including Crohn's and ulcerative colitis)



Sensitivity Analysis: Low and High Growth Forecast

The forecast also built a low and high growth scenario taking into account varying degrees of market event impacts in order to provide a range of possible growth rates. The default levels are deemed to be the most likely scenario (*Figure 6, Appendix 5*).

Figure 6

Low and High Growth Range of Market Event Impact on Baseline 2-yr Forecast Drug Cost CAGR, 2017-2019			
Market Event	Low Growth	Forecast	High Growth
1) New Drug Entries	+0.63% (\$0.1B)	+0.90% (\$0.2B)	+1.16% (\$0.3B)
2) Cost per claim increases	+0.44% (\$0.1B)	+0.77% (\$0.2B)	+1.04% (\$0.3B)
3) Generic Entry	-1.62% (-\$0.4B)	-1.03% (-\$0.2B)	-0.52% (-\$0.1B)
4) Biosimilars	-1.13% (-\$0.3B)	-0.39% (-\$0.1B)	-0.06% (-\$0.1B)
Sum of All Market Events	-1.67% (-\$0.5B)	+0.26% (\$0.1B)	+1.62% (\$0.4B)
Total PDP Drug Cost CAGR, 2017-2019			
Market Event	Low Growth	Forecast	High Growth
4.7%	3.0%	4.9%	6.3%

Source: IQVIA 2017-2019 Private Drug Plan Drug Cost Forecast; PDP = Private Drug Plan

Summary

- Drug cost growth is expected to remain moderate in the next two years and similar to growth rates during the 2012-2016 historical period.
- The 4.9% forecasted growth for the 2017 to 2019 period is driven primarily by the continued baseline growth of 4.7%, mainly stemming from utilization growth. As highlighted in the cost drivers report⁴, and the therapeutic class forecast section, most of this is occurring in the top chronic diseases. The low to high range of the forecast is 3.0 to 6.3% CAGR growth.
- The impact of the four market events considered in the forecast for the 2017 to 2019 forecast period contributed 0.26% net additional growth.
- Recent new drugs and future new drug entrants are expected to have a significant impact on overall 4.9% CAGR (2.0% for recent on baseline growth, and 0.90% as future market event). Existing specialty drugs are expected to have a continued impact on growth.
- The impact of generics will be considerable, having reduced baseline cost growth by -1.9% due to pCPA price reductions to existing generics, and new generic entrants offsetting -1.03% of drug cost growth.
- The impact of recent and future biosimilars will have a modest net offsetting impact of -0.02% from recent biosimilars on baseline growth, and -0.39% CAGR on the forecast from market events.

Discussion and Key Take-Aways:

The Private Drug Plan Drug Cost Forecast indicates the market will experience a 4.9% CAGR from 2017-2019, which is slightly lower than the estimated 5.9% growth over 2016-2018. This decrease is largely due to a larger than expected impact of generic price reductions and future generic entrants, as well as the growing impact of biosimilars.

This is a robust forecast that considers the impact of new drugs, cost per claim increases, new generics and biosimilars to arrive at a forecasted change to private drug plan costs over 2017 – 2019. This forecast provides a national view and employers' plans' experience may vary; however, this report provides a credible benchmark to compare against, and it allows employers to analyze their individual experience versus the national average and have meaningful discussions about the contribution of drug costs to the overall health benefits plan.

⁴ Joe Farago, Sarah Lussier, Suzanne Lepage. "Cost Drivers Analysis of Private Drug Plans in Canada, 2012-2016". Innovative Medicines Canada, August 2018. http://innovativemedicines.ca/wp-content/uploads/2018/08/20180809_Cost-Drivers-Analysis-Report_EN_Final.pdf



As innovative therapies continue to enter the market, plan sponsors will need to find creative ways to balance access with cost control measures in order to create space in their plans. This will be important in order to ensure their plan can continue to have timely and adequate access to needed therapies. Much of the growth in drug plan costs continues to be driven by increased utilization of chronic disease drugs by members. One strategy to create budget space is to address utilization through wellness and prevention programs, employee education, and smart benefit plans that take a holistic approach, combining wellness benefits, extended health benefits, and disability benefits to address the entire patient's care journey.

The research in this report provides clear data on drug cost trends which we hope will encourage plan sponsors to take a holistic view of their overall health benefits costs as they work to better understand their own plan costs and return on investments being made.



APPENDIX 1

BUILDING THE FORECAST: FUTURE MARKET EVENTS - DESCRIPTION AND ASSUMPTIONS AND HOW CONSIDERED IN THE BASELINE

In the baseline, existing trends were carried forward and no changes were modeled with respect to any of the future market events.

Assumptions for future market events are listed below, and the respective assumption (or non-assumption) in the baseline growth:

Table 1





MARKET EVENT	BASELINE (2017-2019)	FORECAST ASSUMPTIONS (2017-2019)
1. New Drug Entries 	<p>No new drugs entering market during the forecast period (2016 to 2018).</p> <p>Baseline includes growth of new drugs entries that entered the market in the baseline period, called "recent new drugs" (2012 to 2016), called "recent new drugs".</p> <p><i>(See Appendix 2 for more details)</i></p>	<p>The 2012 to 2016 historical average for the number and impact of new drug entries (excluding Hepatitis C products).</p> <p><i>(See Appendix 2 for more details)</i></p>
2. Cost per claim increases 	<p>No cost per claim increases for brand drugs.</p>	<p>Average annual growth in the cost per claim of 0.84%, based on the period of 2012 to 2016, to continue for the 2017 to 2019 period.</p> <p><i>(See Appendix 3 for more details)</i></p>


Table 1: continued

MARKET EVENT	BASELINE (2017-2019)	FORECAST ASSUMPTIONS (2017-2019)
3. Generic Entry 	<p>No new generic entries during the forecast period (2016 to 2018).</p> <p>The baseline includes pan-Canadian Pharmaceutical Alliance new generic pricing framework for 58 or the 68 molecules implemented April 2018.</p> <p>No further price reductions on existing generics during the forecast period (2017 to 2019).</p>	<p>150 brands are expected to undergo loss of exclusivity in the forecast period, excluding biologics.</p> <p>The expected number of generic entries due to Loss of Exclusivity (LOE) based on actual expected dates of loss of exclusivity for existing innovatives in the 2017-2019 period, and based on the average historical generic entry timing and market growth.</p> <p>The forecast assumed that there would be no further generic price reductions for 2017-2019 period beyond the pCPA price reductions in April 2018.</p>
4. Biosimilars 	<p>No new biosimilar drugs enter the market during the forecast period (2017-2019).</p> <p>Existing biosimilars in the 2012-2016 period are carried forward in the baseline forecast (2017-2019).</p>	<p>8 biologics are expected to lose market exclusivity in the forecast period.</p> <p>Biosimilar will be priced (transparent list price) at 60% of the biologic originator drug.</p> <p>When a new biosimilar enters the market, the share of new patients starting the biosimilar vs. the innovative biologic will be:</p> <ul style="list-style-type: none"> • 50% in 1st year of biosimilar launch • 75% in 2nd year • 90% in 3rd year and thereafter <p>The biologic originator manufacturer will enter into a product listing agreement to reduce the cost of the innovative to 75% of its former list price. This is assumed to begin in Q3 one year after biosimilar entry. (See Appendix 4 for more details)</p>

APPENDIX 2

NEW DRUGS ENTRY IN BASELINE VS FORECAST

The New Drug Entry impact was estimated by considering the growing influence of products in the five years following launch. Future new drug launch impact was applied to total forecast drug cost, and not any particular therapeutic area.

Two components were considered in the 2017 to 2019 forecast:

- impact of drugs actually launched between 2012 and 2016 (Recent New Drug Entry impact),
- AND**
- impact of new drugs that might launch between 2017 and 2019 (Future New Drug Entry impact) (*Table 2*).

Table 2: Assumptions of New Drug Entry in the Baseline and the Forecast

BASELINE FORECAST (2017-2019)	NEW DRUG ENTRY MARKET EVENT IN FORECAST (2017-2019)
<u>RECENT</u> NEW DRUG ENTRY IMPACT	<u>FUTURE</u> NEW DRUG ENTRY IMPACT
A. Impact in 2017 to 2019 of new drugs that were launched during the 2012 to 2016 period.	A. Impact of drugs launched in 2017 to 2019 on the 2017 to 2019 forecast period.
B. The true impact of new drugs is never really felt until a few years after launch, once prescribers are more comfortable with the products. The baseline forecast takes into consideration new drugs launched in 2012 to 2016 to ensure that the model includes the continued impact on drug costs in 2017 to 2019.	B. Impact of drugs which will be launched in 2017 to 2019 is estimated based on the observed impact of 2012-2016 new drug launches on that same period.
C. Includes Hepatitis C drugs.	C. The historical magnitude of impact of Hepatitis C drugs are not expected to be replicated in the 2017 to 2019 period, so they are excluded for purposes of forecasting expected numbers and cost impact of future new drugs in the forecast period.



APPENDIX 3

COST PER CLAIM IN BASELINE VS FORECAST

Cost per claim is impacted by many factors, including:

- Price per unit
- Prescription size (units, i.e., dosage, and duration) and claims frequency
 - E.g. every 3 months refill, or weekly refills, or once a year treatment, etc.
- Mark-ups – there is variability across provinces and even across pharmacies, and potentially even across type of drug
- Dispensing fees in Quebec only (see *Methodological Notes on side bar, page 4*)

Cost per claim increases could result from a change in any of these factors and are **not solely** a result of list price increases.

In the baseline growth, cost per claim for each innovative product was held constant, based on the 2016 average annual cost per claim.

For the forecast, average cost per claim increases seen in the 2012 to 2016 historical data were used to calculate the annual cost per claim increases for innovative products for 2017 to 2019 (Table 3).

The cost per claim was calculated and applied at the brand drug level. No changes in cost per claim were considered for generic products in the forecast period other than the pCPA generic price reductions (captured in the baseline).

Based on historical average annual cost per claim increases, the forecast applied a 0.84% annual cost per claim increase in the 2017-2019 period (Table 3).

Table 3 : Average Drug Claims Cost Growth, 2012-2016

	DRUG COST GROWTH				AVERAGE 2012-2016
	2013	2014	2015	2016	
Brand DINs	0.99%	0.93%	0.98%	0.48%	0.84%

Drug Cost-per-Std Unit growth, weighted by DIN yearly Drug cost

APPENDIX 4

BIOSIMILAR ENTRY

Although the Canadian biosimilar uptake curve is expected to be distinct, the IQVIA MIDAS data set was used to compare uptake/turnover for biosimilars that have launched in US, UK, Germany, Italy, and others. IQVIA RxDynamics was used to study Canada patient uptake and turnover for Inflectra versus Remicade by inferred indication starting in May 2016.

The derived Biosimilar uptake curve applied to biologics expected to face biosimilar competition in 2017 to 2019 based on IQVIA and IMC expert opinion and considering the above evidence sources.

The impact of biosimilars was broken down as follows:

Table 4

Forecast Component	Impact Considered	Description
Historical Baseline	Limited Biosimilar Impact	
Baseline Forecast	Recent Biosimilar Impact.	Impact on 2017-2019 of new biosimilars that launched in 2012 to 2016.
Forecast: Biosimilar Market Event	Future Biosimilar Impact.	Impact on 2017-2019 of new biosimilars expected to launch in 2017-2019.



APPENDIX 5

SENSITIVITY ANALYSIS

The forecast started with a realistic set of assumptions to drive the events, after which sensitivity analyses were performed using low and high impact trend assumptions.

There was a variance of -1.9% and +1.4% on the total annual drug cost growth using our low and high impact sensitivity scenarios.

Table 5: Sensitivity Analysis Assumptions of Market Events




MARKET EVENT	ASSUMPTIONS ADDED TO BASELINE FORECAST	SENSITIVITY ANALYSIS	
		LOW IMPACT	HIGH IMPACT
1. NEW DRUG ENTRIES 	The 2012 to 2016 historical average for number of new drug entries (excluding Hepatitis C new drugs).	70% of the 2012 to 2016 historical average for number of new drug entries.	130% of the 2012 to 2016 historical average for number of new drug entries.
2. COST PER CLAIM INCREASES 	The average annual 0.84% growth in the cost per claim for the period of 2012 to 2016, will continue for the 2017 to 2019 period.	0.48% cost per claim increase, based on the lowest seen in 2012 to 2016 historical period.	0.99% cost per claim increase, based on the highest seen in 2012 to 2016 historical period.
3. GENERIC ENTRY 	<p>The annual number of generic entries due to Loss of Exclusivity (LOE) for the period of 2012 to 2016 will remain constant for the 2017 to 2019 period. Assume that the generic will come to the market at 80% of the brand price.</p> <p>The baseline includes pan-Canadian Pharmaceutical Alliance new generic pricing framework for 58 of 68 molecules implemented April 2018, and the forecast assumes no further price reduction for the 2017 to 2019 period.</p>	<p>Faster generic entry: 3+ generics enter immediately at Loss of Exclusivity (LOE). Assume that the generic will come to the market at 25% of the brand price for oral solids, and 35% of the brand price for other forms.</p>	<p>Slower generic entry: 1 additional generic entrant after each year of Loss of Exclusivity (LOE). Assume that the generic will come to the market at 85% of the brand reference price in first year of entry (75% if the brand had a PLA), 50% in second year, and 25% in third year (35% if non-oral solids).</p>



Table 5: Sensitivity Analysis Assumptions of Market Events (continued)


MARKET EVENT	ASSUMPTIONS ADDED TO BASELINE FORECAST	SENSITIVITY ANALYSIS	
		LOW IMPACT	HIGH IMPACT
4. BIOSIMILARS 	<p>The biosimilar will be priced at 60% of the innovative biologic reference drug.</p> <p>The innovative biologic drug manufacturer will enter into a product listing agreement (PLA) 1 yr after biosimilar entry, and reduce the price to 75% of the former list price of the innovative biologic. The PLA is assumed to begin in Q3 one year after biosimilar entry.</p>	<p>The biosimilar will be priced at 60% of the innovative biologic reference drug.</p> <p>The innovative biologic drug manufacturer will enter into a product listing agreement (PLA) to reduce the price to 60% of the former list price of the reference innovative name drug. The PLA is assumed to begin immediately after biosimilar entry in Q1.</p>	<p>The biosimilar will be priced at 60% of the innovative biologic reference drug.</p> <p>The innovative biologic drug manufacturer WILL NOT enter into a product listing agreement.</p>

Table 6

OVERALL IMPACT TO PRIVATE DRUG PLAN DRUG COSTS (2017-2019)			
BASELINE (NO EVENTS)	FORECAST	LOW IMPACT	HIGH IMPACT
4.7%	4.9%	3.0%	6.3%



APPENDIX 6

THERAPEUTIC CLASS FORECAST

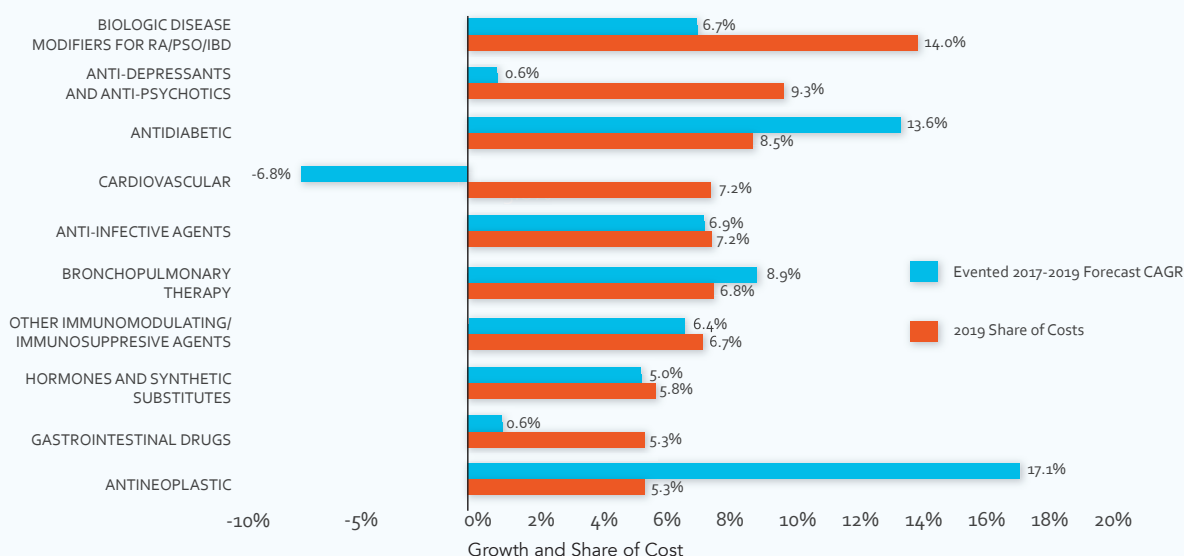
In this forecast, therapeutic class is based on an internal IQVIA Therapeutic Class and Sub-therapeutic class classification system. Chemicals are grouped into 17 main therapeutic classes (antidiabetic, cardiovascular, other CNS, etc.) accounting for the majority of Private drug plan cost, with the remainder captured under “Other therapy areas”.

The baseline forecast was conducted at the generic level, and market events were also applied at the aggregate level with the exception of future new generic entrants, which were also predicted at the chemical level. The evented forecast for the top 10 therapeutic classes is included below. Note that the new drug entrants in the forecast period are not specific to therapeutic classes, and as a result, these could change depending on the specific new drug entries in the 2017-2019 period.

Antineoplastics (cancer) and antidiabetics are expected to have the strongest growth from 2017-2019, however, antineoplastics will reach only 5% market share of drug costs, whereas antidiabetics are expected to reach 8.5% of market share. Biologics will continue to occupy top rank in terms of drug costs, but its growth rate is significantly moderated compared to the prior period (2012-2016)⁵. Anti-depressants and cardiovascular will continue to occupy the top 4 classes.

Figure 7

2-yr Top 10 Therapeutic Class Forecast 2017-2019 CAGR



Source: IQVIA 2017-2019 Private Drug Plan Drug Cost Forecast. RA = Rheumatoid Arthritis; PSO = Psoriasis; IBD = Irritable Bowel Disease (including Crohn's and ulcerative colitis)

⁵ Joe Farago, Sarah Lussier, Suzanne Lepage. “Cost Drivers Analysis of Private Drug Plans in Canada, 2012-2016”. Innovative Medicines Canada, August 2018. http://innovativemedicines.ca/wp-content/uploads/2018/08/20180809_Cost-Drivers-Analysis-Report_EN_Final.pdf

References

Joe Farago, Sarah Lussier, Suzanne Lepage. "Cost Drivers Analysis of Private Drug Plans in Canada, 2012-2016". Innovative Medicines Canada, August 2018: <http://innovativemedicines.ca/wp-content/uploads/2017/07/Private-Drug-Plan-Drug-Cost-Forecast-2016-2018.pdf>.

"Private Drug Plan Drug Cost Forecast (2016-2018). Research Provided by QuintilesIMS for Innovative Medicines Canada". Innovative Medicines Canada, <http://innovativemedicines.ca/wp-content/uploads/2017/07/Private-Drug-Plan-Drug-Cost-Forecast-2016-2018.pdf>.

"Rx&D-IMS Brogan 2013-2017 Private Drug Plan Drug Cost Forecast". Innovative Medicines Canada, http://innovativemedicines.ca/wp-content/uploads/2015/05/20131125_Report_IMS_Brogan_PDP_Forecast_EN_Final.pdf.

Acknowledgements

The authors would like to thank IQVIA for their data and analysis support: Brad Millson, Sarah Iqbal-Khan, Callahan LaForty and Deepi Minhas.

Disclaimer

Although this analysis is based on data and analysis from IQVIA, the views expressed herein are those of the authors and not necessarily of IQVIA.



INNOVATIVE
MEDICINES
CANADA