A Budget Impact Analysis of single-inhaler extrafine Beclometasone dipropionate / Formoterol fumarate / Glycopyrronium (Trimbow®) in adult patients with uncontrolled asthma in Mexico

EE50

Hurtado-Vilchis, Angélica[1], Paladio-Hernández, José Ángel[2] [1] Chiesi México; [2] SOMER Health Economics CDMX, México

INTRODUCTION

Asthma is a major public health and economic challenge in Mexico due to its high prevalence and associated financial burden on healthcare systems.

Current therapeutic options for adults with uncontrolled asthma, including inhaled- corticosteroids (ICS), long-acting β2-agonists (LABA), and long-acting muscarinic antagonists (LAMA), show significant cost variability, with some therapies imposing considerable economic strain on public institutions like the Mexican Social Security Institute (IMSS).

Extrafine Beclometasone dipropionate / Formoterol fumarate / Glycopyrronium (BDP/FF/G, Trimbow®) has demonstrated superior efficacy by reducing exacerbations and lowering annual per-patient costs versus therapies prescribed at the IMSS.

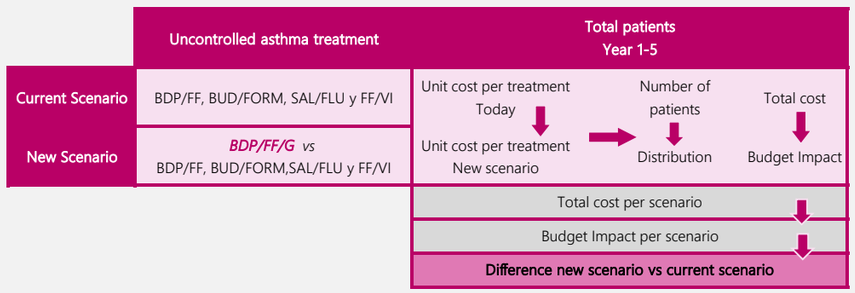
This study evaluates the budgetary impact of increasing BDP/FF/G prescription within IMSS through a Budget Impact Analysis (BIA).

METHODS

A BIA was conducted over a 5-year horizon to assess the economic implications of increasing BDP/FF/G use for uncontrolled asthma in adults at the IMSS.

The analysis incorporated disease prevalence, medication market share distribution, drug acquisition costs, and exacerbation management expenses.

Illustration 1. Budget Impact Model.



Medication costs were derived from IMSS consolidated procurement data for 2024, and exacerbation costs were estimated using the Diagnosis-Related Groups (DRGs) framework published by IMSS.

RESULTS

A baseline scenario with 20% BDP/FF/G market share in year one, increasing by 10% annually to 60% in year five, was compared against current treatment patterns. Results estimated the incremental BI for 1,000 adult patients. The Budget Impact Analysis demonstrates that increasing the prescription of extrafine BDP/FF/G (Trimbow®) for uncontrolled asthma in adults represents a cost-saving intervention for the IMSS.

Table 1. Current scenario at IMSS.

Distribution	Year 1	Year 2	Year 3	Year 4	Year 5
BDP/FF	30%	30%	30%	30%	30%
BUD/FORM	25%	25%	25%	25%	25%
SAL/FLU	28%	28%	28%	28%	28%
FF/VI	17%	17%	17%	17%	17%
Total	100%	100%	100%	100%	100%
Total cost per treatment	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
BDP/FF	$396,295	$402,240	$408,273	$414,398	$420,613
BUD/FORM	$368,351	$373,876	$379,484	$385,177	$390,954
SAL/FLU	$1,149,880	$1,167,129	$1,184,635	$1,202,405	$1,220,441
FF/VI	$395,352	$401,283	$407,302	$413,411	$419,613
Total	$2,309,879	$2,344,527	$2,379,695	$2,415,391	$2,451,622
Budget Impact	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
IMSS	0.074%	0.072%	0.070%	0.068%	0.066%

*For the new scenario, BIA assumptions include that BDP/FF/G would gradually gain market share until it reaches 60% of new or switching patients in the fifth year.

Table 2. New scenario at IMSS.

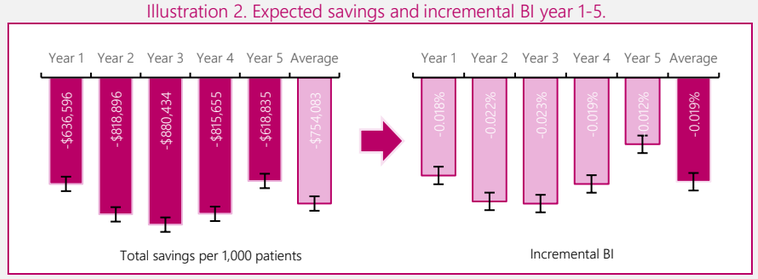
New Scenario	Year 1	Year 2	Year 3	Year 4	Year 5
*BDP/FF/G**	*20%*	*30%*	*40%*	*50%*	*60%*
BDP/FF	20%	18%	15%	13%	10%
BUD/FORM	20%	18%	15%	13%	10%
SAL/FLU	20%	18%	15%	13%	10%
FF/VI	20%	18%	15%	13%	10%
Total	100%	100%	100%	100%	100%
Total cost per treatment	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
BUD/FORM	*$149,543*	*$341,519*	*$616,252*	*$977,337*	*$1,428,476*
BDP/FF	$173,800	$135,062	$100,717	$70,992	$46,116
BUD/FORM	$234,520	$182,248	$135,905	$95,794	$62,228
SAL/FLU	$581,065	$451,551	$336,728	$237,347	$154,180
FF/VI	$534,354	$415,252	$309,659	$218,267	$141,786
Total	$1,673,283	$1,525,631	$1,499,261	$1,599,736	$1,832,786
Budget Impact	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
IMSS	0.056%	0.050%	0.047%	0.049%	0.054%

Over a five-year horizon, increasing BDP/FF/G market share to 60% demonstrates an average projected savings of $74,523 per 1,000-patient cohort, translating to significant reductions in both medication expenses and costs associated with asthma exacerbations.

Table 3. BI difference from 1-5 years (current vs new scenario) at IMSS.

Total cost	Year 1	Year 2	Year 3	Year 4	Year 5	Average
Current Scenario	$2,309,879	$2,344,527	$2,379,695	$2,415,391	$2,451,622	$2,380,223
New Scenario	$1,673,283	$1,525,631	$1,499,261	$1,599,736	$1,832,786	$1,626,140
Total	-$636,596	-$818,896	-$880,434	-$815,655	-$618,835	-$754,083
Difference BI	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Average**
Current Scenario	0.074%	0.072%	0.070%	0.068%	0.066%	0.070%
New Scenario	0.056%	0.050%	0.047%	0.049%	0.054%	0.051%
Total	-0.018%	-0.022%	-0.023%	-0.019%	-0.012%	-0.019%

Illustration 2. Expected savings and incremental BI year 1-5.



The minimal budgetary impact difference (0.019%) over this period underscores the economic sustainability of increasing BDP/FF/G prescription. BIA result also indicates that BDP/FF/G is a cost-saving intervention.

CONCLUSION

Results indicate that increasing BDP/FF/G prescription at the IMSS will lead to significant clinical and economic benefits.

CONTACT

Angelica Hurtado Vilchis
m.hurtado@chiesi.com

Presented at ISPOR 2025
May 13-16, 2025
Montreal QC, Canada.

REFERENCES

- Virchow JC, Kuna P, Paggiaro P, Papi A, Singh D, Corre S, Zuccaro F, Vele A, Kots M, Georges G, Petruzzelli S, Canonica GW. Single inhaler extrafine triple therapy in uncontrolled asthma (TRIMARAN and TRIGGER): two double-blind, parallel-group, randomized, controlled phase 3 trials. Lancet. 2019 Nov 9;394(10210):1737-1749.

This analysis was sponsored by Chiesi Mexico. The prices of BDP/FF/G (Trimbow®), used in this Budget Impact Analysis are not binding. The authors acknowledge the medical writing assistance of SOMER Health Economics, México.