

Real-World Budget Impact Analysis of Biosimilar Adoption in a Medium-Sized Brazilian Health Maintenance Organization (HMO)

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INTRODUCTION

The faster adoption of innovative therapies has significantly improved patient outcomes but has also intensified financial burden on healthcare systems, challenging their long-term sustainability. In this scenario, biosimilars emerge as a critical strategy to balance access and affordability. By delivering comparable clinical outcomes at lower costs, they enable more efficient resource allocation and support sustainable healthcare delivery.

OBJECTIVE

To assess the real-world financial impact and resource utilization of adopting biosimilar immunobiological therapies in a medium-sized Brazilian private payer.

METHODS

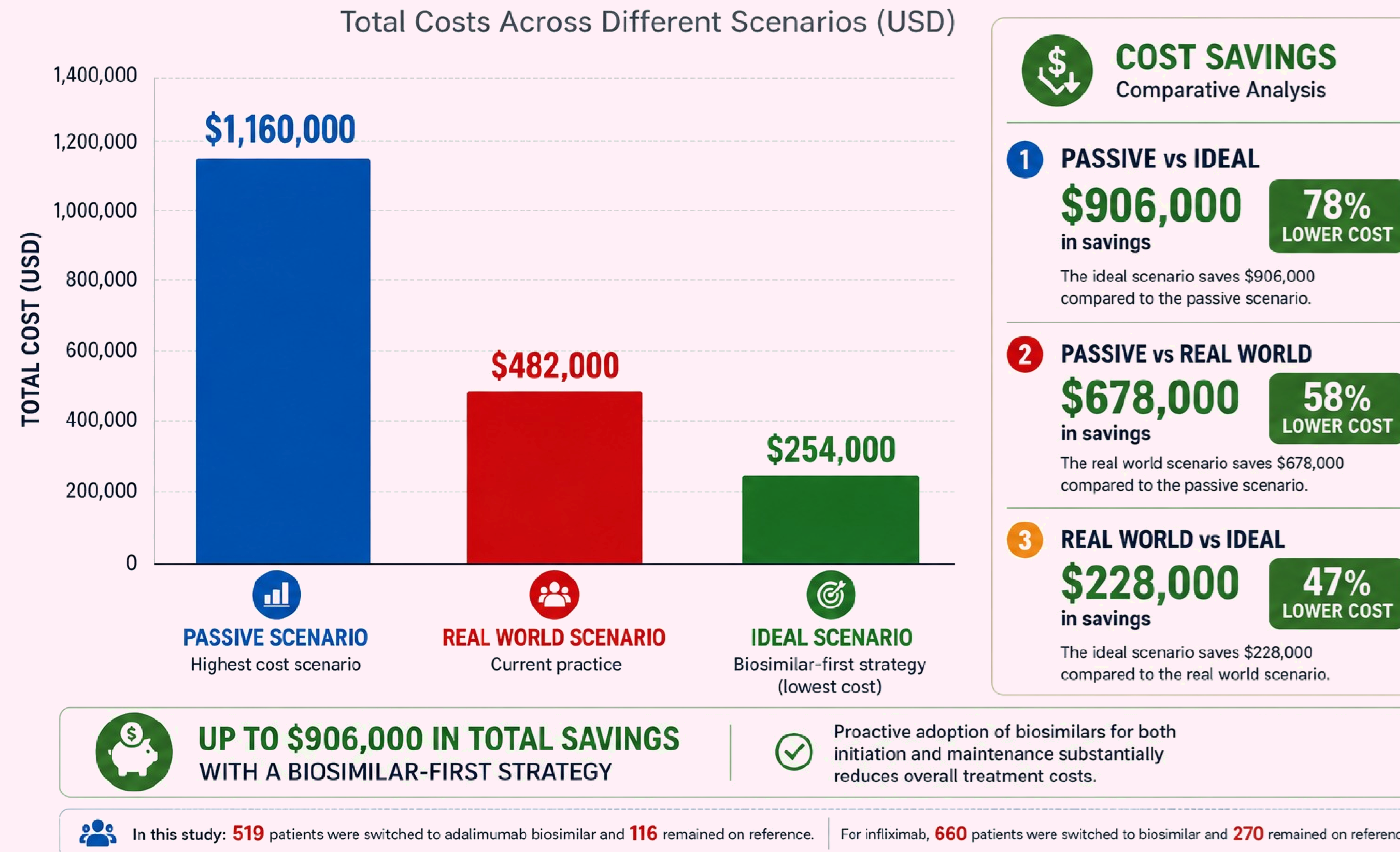
This retrospective budget impact analysis (BIA) was conducted based upon on ISPOR guidelines. Use of resources and costs were collected from claims database from a private payer covering 110,000 beneficiaries in a 30-month analytic horizon (Jan/2022-Jun/2025). Medicine costs were sourced from the Brazilian Market Regulation Chamber (CMED), and dosing information was supplemented by official product labeling when unavailable. Patients with chronic inflammatory diseases receiving immunobiologic therapies, including adalimumab and infliximab, were eligible for inclusion. The HMO audit department contacted treating physicians to authorize switching patients already on therapy to biosimilars, while all new treatment initiations during the study period preferentially used biosimilar products. Three comparative scenarios were modeled: Real-World (observed biosimilar uptake), Ideal (full prioritization of biosimilars for initiation and maintenance), and Passive (minimal or delayed biosimilar adoption).

RESULTS

Over the 30-month analysis period, 519 adalimumab injections and 660 infliximab vials were dispensed, reflecting the weight-based dosing required for infliximab infusions. Biosimilars accounted for 78% of adalimumab and 59% of infliximab utilization, indicating substantial real-world adoption. Total expenditures were approximately US\$482,000 in the Real-World Scenario. In the Ideal Scenario, prioritizing biosimilars for both treatment initiation and maintenance reduced total costs to US\$254,000. In contrast, the Passive Scenario resulted in the highest expenditure, totaling US\$1.16 million. Overall, proactive biosimilar adoption generated estimated savings of US\$678,000 (~BRL 4 million).

BIOSIMILAR-FIRST STRATEGY DELIVERS SUBSTANTIAL COST SAVINGS

Figure 1. Biosimilar-First Strategy Delivers Substantial Cost Savings



CONCLUSION

This real-world BIA demonstrates that proactive biosimilar adoption within a medium-sized Brazilian HMO results in substantial cost-savings and improved financial sustainability. Compared with a passive adoption approach, prioritizing biosimilars achieved meaningful budget reductions without altering clinical practice patterns. These findings support evidence-based biosimilar policies as an effective strategy to optimize resource allocation, enhance affordability, and promote long-term sustainability.

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