

# Budget Impact Analysis of Subcutaneous Infliximab (CT-P13 SC) for treating Inflammatory Bowel Disease in Saudi Arabia: Analysis from Payer Perspective

Abumansour H.<sup>1</sup>; Alkhatib N.<sup>1,2</sup>; Almutairi A.<sup>3\*</sup>; Almadi M.<sup>4,5</sup>; Halloush S.<sup>6</sup>; Al-Ruthia Y.<sup>7</sup>; Rashdan O.<sup>8</sup>; Al-Shatnawi S.<sup>9</sup>; Azzam N.<sup>4</sup>; Mosli M.<sup>10</sup>; Badawoud A.<sup>11</sup>; Al Yami M.<sup>12</sup>; Alhossan A.<sup>7</sup>; AlHarbi I.<sup>13</sup>

<sup>1</sup>Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan. <sup>2</sup>Path Economics, LLC, Amman, Jordan. <sup>3</sup>Drug Sector, Saudi Food and Drug Authority, Riyadh, Saudi Arabia. <sup>4</sup>Gastroenterology Division, Department of Medicine, King Saud University Medical City, King Saud University, Riyadh, Saudi Arabia. <sup>5</sup>Division of Gastroenterology, The McGill University Health Center, Montreal General Hospital, McGill University, Montreal, Canada. <sup>6</sup>Faculty of Pharmacy, Applied Science Private University, Amman, Jordan. <sup>7</sup>Department of Clinical Pharmacy, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia. <sup>8</sup>College of Pharmacy, Middle East University, Amman, Jordan. <sup>9</sup>Faculty of Pharmacy, Jordan University of Science and Technology, Irbid, Jordan. <sup>10</sup>Department of Internal Medicine, Faculty of Medicine, King Abdulaziz University; Inflammatory Bowel Disease Unit, King Abdulaziz University Hospital, Jeddah, Saudi Arabia. <sup>11</sup>Department of Pharmacy Practice, College of Pharmacy, Princess Nourah bint Abdulrahman University, Riyadh, Saudi Arabia. <sup>12</sup>Department of Pharmacy Practice, College of Pharmacy, King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia. <sup>13</sup>Health Technology Assessment Unit, King Fahd Armed Forces Hospital, Jeddah, Saudi Arabia.

## Introduction

Inflammatory bowel disease (IBD), which includes Crohn's disease (CD) and Ulcerative Colitis (UC), is a relapsing and remitting condition characterized by an ongoing inflammation of the gastrointestinal tract, which results in diarrhea and abdominal pain.

The Saudi Food and Drug Authority (SFDA) has approved the subcutaneous (SC) administration of Infliximab for the treatment of IBD, presenting a more convenient alternative to its intravenous (IV) administration.

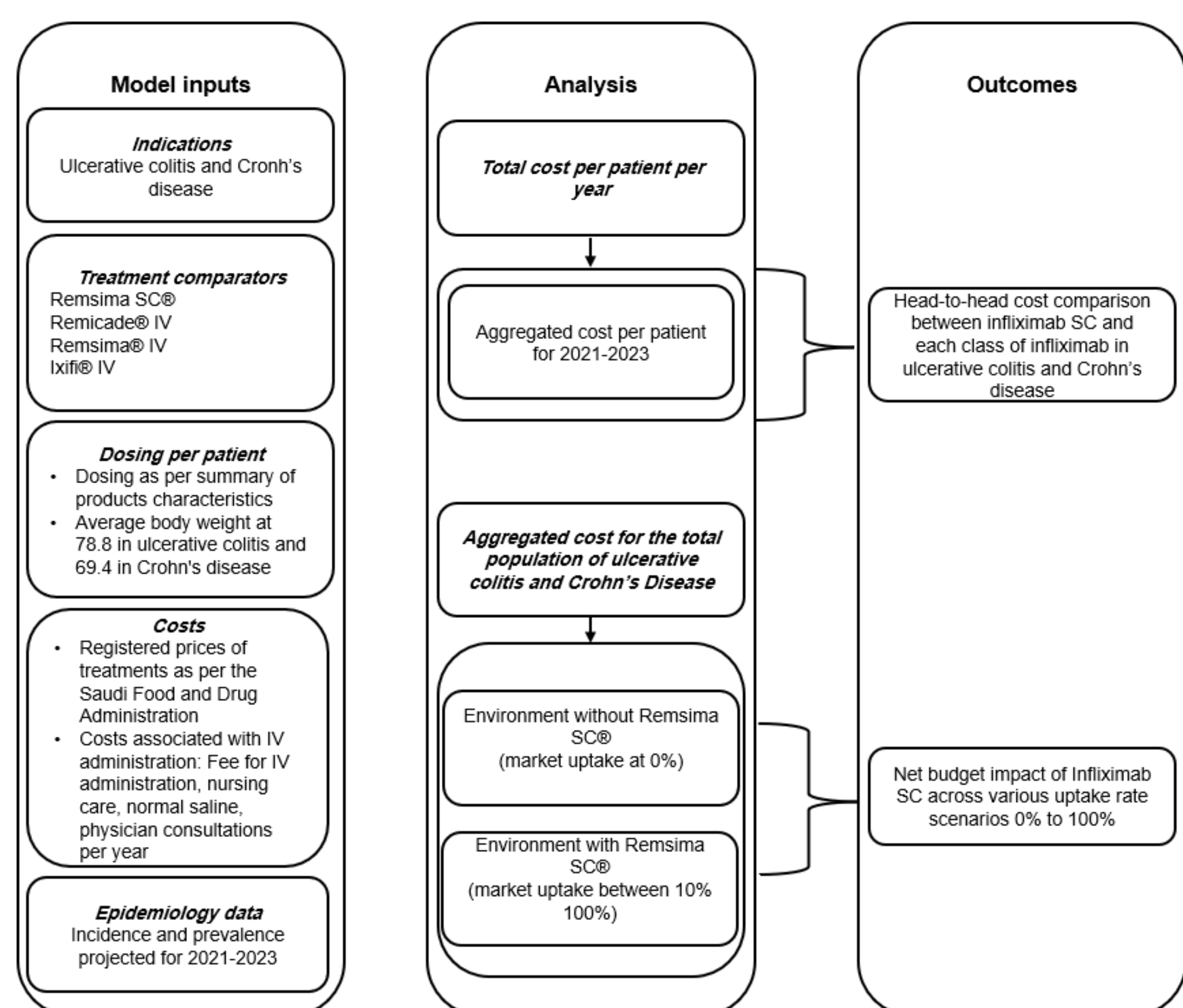
## Objective

We aim to assess the financial impact of introducing Infliximab SC to Saudi market for the treatment of CD and UC versus all available formulations of Infliximab IV using Budget Impact Model.

## Method

A prevalence-based budget impact model was developed to evaluate the financial effects of introducing "environment without" versus "with infliximab SC."

The model's time horizon spanned over 2 years (2021-2023), aligning with the biennial national pharmaceutical procurement cycle.



The comparison focused on infliximab SC versus all available formulations of infliximab IV in the Saudi market for two inflammatory bowel diseases (IBD): Ulcerative Colitis (UC) and Crohn's Disease (CD).

Molecule/Active ingredient	Formulation	Units per pack	mg per unit	mg per pack	Price per unit (SAR)*
Infliximab	Pre-filled syringe, or Needle, or Auto inject, SC	2	120	240	1,481.50
Infliximab (Originator)	Powder for concentrate for solution for infusion vials, IV	1	100	100	1,650.00
Infliximab (Biosimilar)	Powder for concentrate for solution for infusion vials, IV	1	100	100	1,357.25
Infliximab (Biosimilar)	Powder for concentrate for solution for infusion vials, IV	1	100	100	1,527.19

\*As published by Saudi Food and Drug Authority 2023

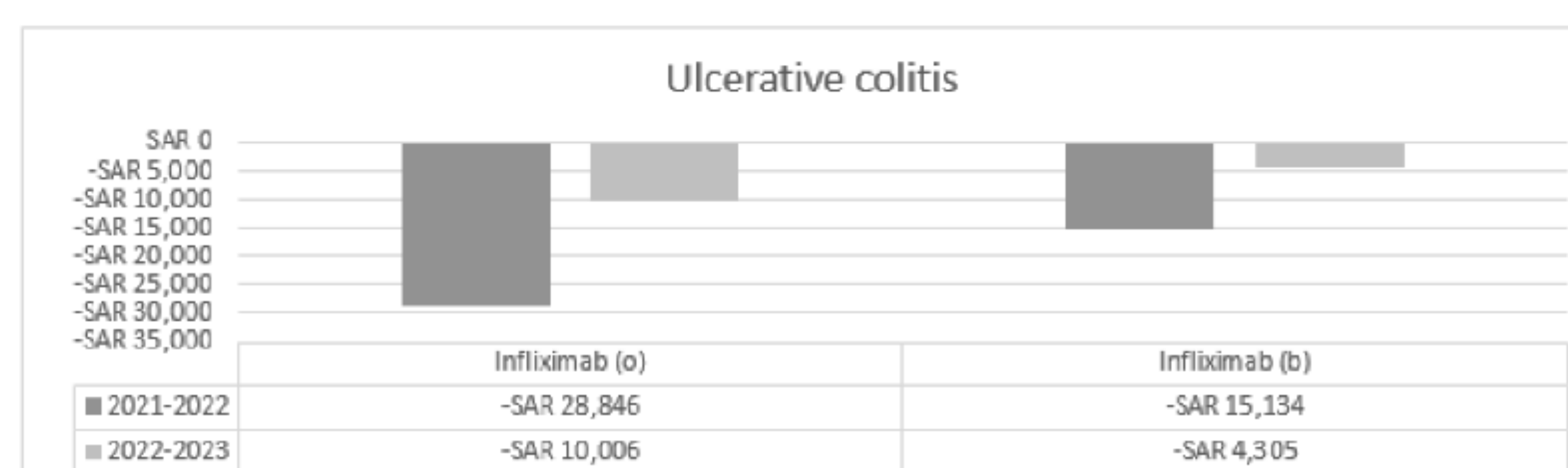
Services and costs	Unit cost (SAR)
<b>Costs associated with 1 IV administration</b>	
Fee for IV administration	SAR 200
Nursing care	SAR 50
Normal saline and other meds	SAR 13
Physician consultation at each visit	SAR 100
Total	SAR 363
<b>Costs associated with SC formulation per year</b>	
Number of annual visits	3
Total (SAR 100 per visit)	SAR 300

Epidemiology data	
Population in Saudi Arabia 2023	36,947,025
Prevalence of Ulcerative colitis	0.03%
Prevalence of Crohn's disease	0.02%
Patient eligibility for infliximab IV	Ulcerative colitis: 11.24%
	Crohn's disease: 36.82%

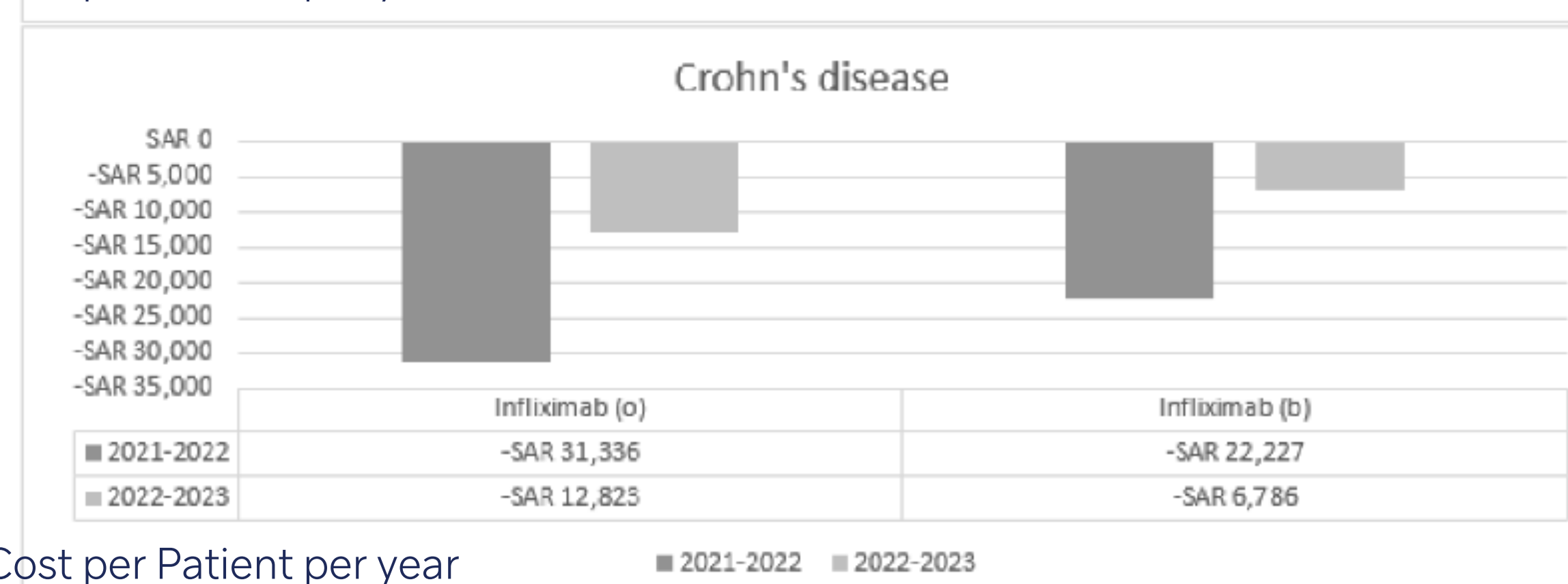
Scenario analysis assessed the budget impact of infliximab SC introduction at uptake rates ranging from 0% to 100% over 2 years.

## Result

Head-to-Head Cost Comparison between Infliximab SC and each class of Infliximab IV.



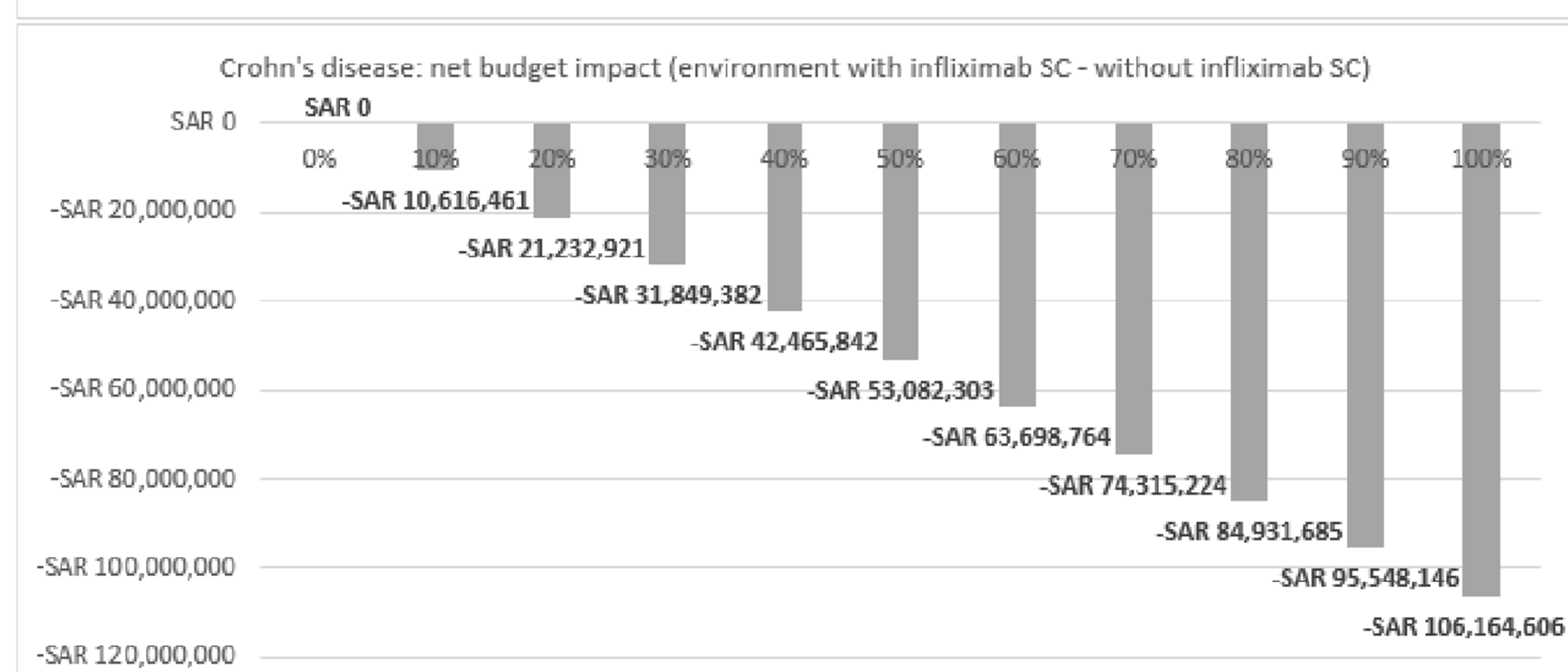
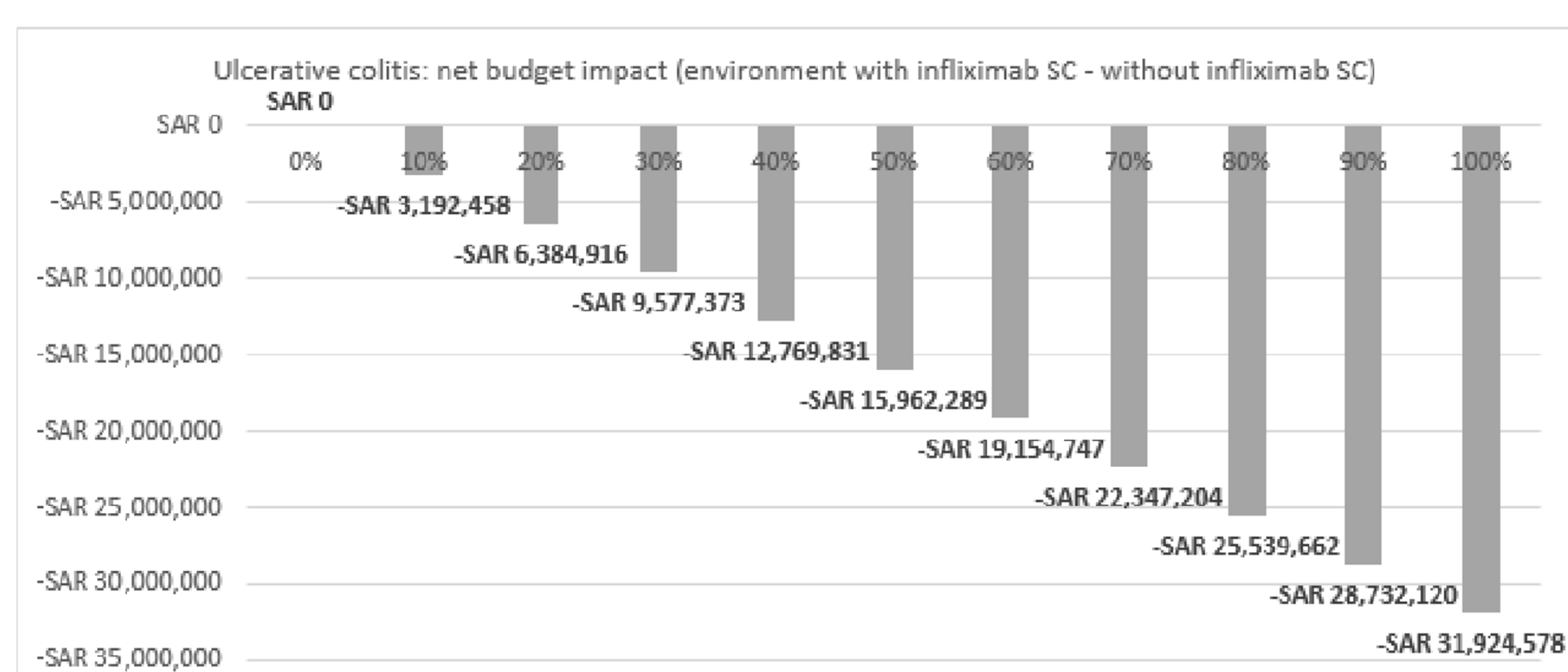
\*Total Cost per Patient per year



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\*Infliximab (o): Infliximab Originator ; Infliximab (b): Infliximab Biosimilars

Introducing infliximab SC demonstrated cost-saving potential in the treatment of IBD. At 100% uptake with UC patients for 2 years, infliximab SC resulted in savings of -SAR31.9 million (-SAR29,145 per patient). Similarly, for CD, introducing infliximab SC at 100% uptake over 2 years yielded savings of -SAR106.2 million (-SAR36,585 per patient).



## Conclusion

This study reveals that infliximab SC is associated with cost-saving potential when compared to infliximab IV formulations available in Saudi Arabia.

## References:

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- Institute for Health Metrics and Evaluation (IHME). GBD Results. Seattle, WA: IHME, University of Washington, 2020. [Cited 2023 Sep 14]. <https://vizhub.healthdata.org/gbd-results/>.