ISPOR CODE: 4793

Preserving Vision and Productivity: The Social Impact of Innovative DME Therapy in Chile

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Introduction

Diabetic Macular Edema (DME) is the leading cause of irreversible blindness among the working-age population, posing a direct threat to national productivity. Traditionally, a high treatment frequency for retinal diseases places a heavy burden on society, resulting in increased staffing costs for hospitals, high transport costs, and significant lost productivity for both patients and the relatives who accompany them. Innovative therapies like faricimab extend treatment intervals and prevent vision loss, enabling patients to remain in the workforce while optimizing healthcare resources. Therefore, quantifying this Social Impact (SI) is essential to demonstrate that preserving vision is a strategy to safeguard Chile's labor force and economic growth.

Objective

This study quantifies and projects the health and socioeconomic benefits (social impact) of faricimab for DME in Chile, started from the year of market approval in Chile (2024), with projections through 2027. By employing the WifOR Institute methodology, we aim to evidence that a well-treated patient with innovative therapies, creates greater overall value for society

Methods

The SI of innovative DME therapy in Chile (2024–2027) was quantified using the WifOR Institute's methodology, defined as the monetary value equivalent of Gross Value Added (GVA) generated by medical innovation to the national economy and society. The model integrates health economics with macroeconomic value chain analysis to translate clinical outcomes into socioeconomic value.

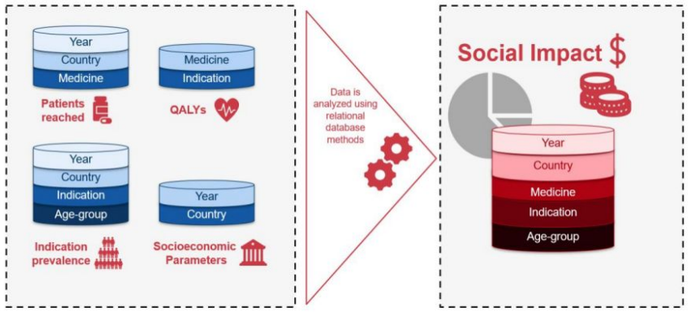

Figure 1: WifOR approach for SI, completing steps to evaluate the health and socioeconomic footprint of medicines.

The SI methodology estimates paid productivity gains (including indirect and induced effects) and unpaid productivity gains derived from improved health outcomes, using two main metrics:
the Health Footprint, measured as Quality-Adjusted Life Years (QALYs) gained annually, and the Socioeconomic Footprint expressed as productivity gains in Gross Value Added (GVA), where 1 QALY corresponds to 1 year of productivity gained. QALY data were taken from Roche's economic studies, and macroeconomic data were obtained from the World Bank.

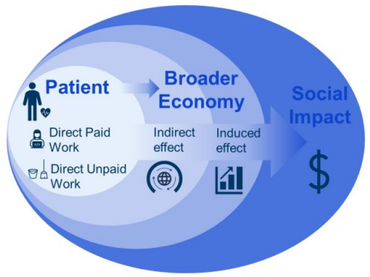

Figure 2: WifOR illustration of the social impact effects captured in the study.

Results

Prospective analysis is anchored in 2024, coinciding with the market approval and clinical introduction of faricimab in Chile (figure 3).

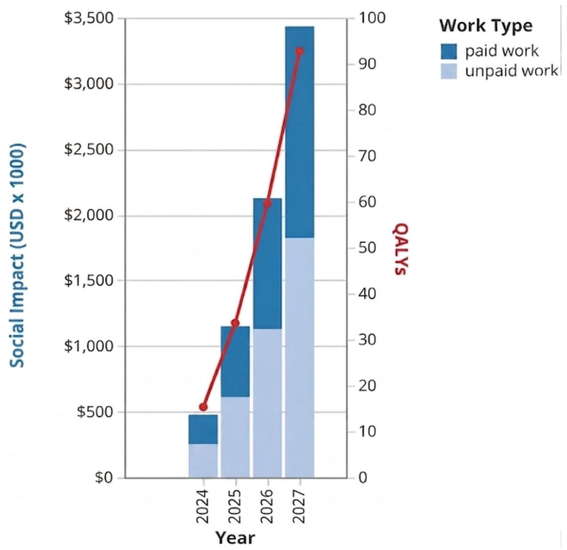

Figure 3: Composition of Social Impact (USD) and QALYs gained from innovative DME Therapy in Chile

Projections for the 2024–2027 period indicate a gain of 201 QALYs, associated with an economic contribution of USD $7,189,085. Crucially, the social impact analysis reveals that the majority of this monetary value (66%) is driven by preventing productivity loss in the working-age population (20–59 years).
When categorized by work type, this overall economic contribution is composed of two key components: paid work (~47%), which secures the continued participation of the working-age population in the formal labor market; and unpaid work (~53%), which accounts for the largest overall share of the gain by preserving vital societal activities, such as household management and caregiving, across all adult age groups.

Conclusion

The findings from this social impact analysis underscore a critical paradigm shift: treating DME appropriately must be viewed as a strategic societal investment. The data proves that healthcare spending is a driver of economic growth, generating significant socioeconomic value for Chile by protecting its human capital.
By providing timely access to innovative therapies, the healthcare system can prevent irreversible blindness, preserve patient autonomy, and mitigate the long-term burden on social care networks.
However, maximizing this impact requires strengthening public policies to ensure access to innovation, thereby avoiding premature retirement and sustaining the full economic potential of its diabetic population.

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