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Estimating the Broader Societal Impact of Ocrelizumab for Multiple Sclerosis (MS) in Latin America (LATAM) Using a Social Impact Approach

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Introduction

Multiple sclerosis (MS) is a chronic, progressive neurological disease that imposes a substantial clinical, social, and economic burden on patients, families, and healthcare systems. It primarily affects individuals in their most productive years, leading to disability, reduced labor participation, and significant productivity losses[1,2].

Traditional assessments of therapeutic innovation focus on clinical efficacy and safety but often fail to capture their broader societal impact[3]. Evaluating benefits such as restored productivity and improved quality of life provides a more comprehensive measure of therapeutic value. Capturing these broader outcomes is key to understanding the comprehensive societal value of therapies for chronic and disabling diseases such as MS.

Ocrelizumab reduces disease activity and delays disability progression[4], helping preserve patients' functional capacity and productivity, which leads to economic and social benefits. These gains are particularly relevant in Latin American (LATAM) countries, where the societal burden of MS continues to grow and healthcare systems have limited resources.

Objective

To quantify the societal impact (SI) of ocrelizumab in LATAM using the Social Impact methodology developed by the WifOR Institute.

Methods

The Social Impact (SI) of ocrelizumab was estimated for Argentina, Colombia, Ecuador, Mexico, Panama, the Dominican Republic, and Uruguay. The analysis started from the year of market approval in each country, with projections through 2027. This approach extends the socioeconomic burden (SOB) methodology to comprehensively quantify the value of medical innovations by accounting for both health gains and economic contributions.

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.

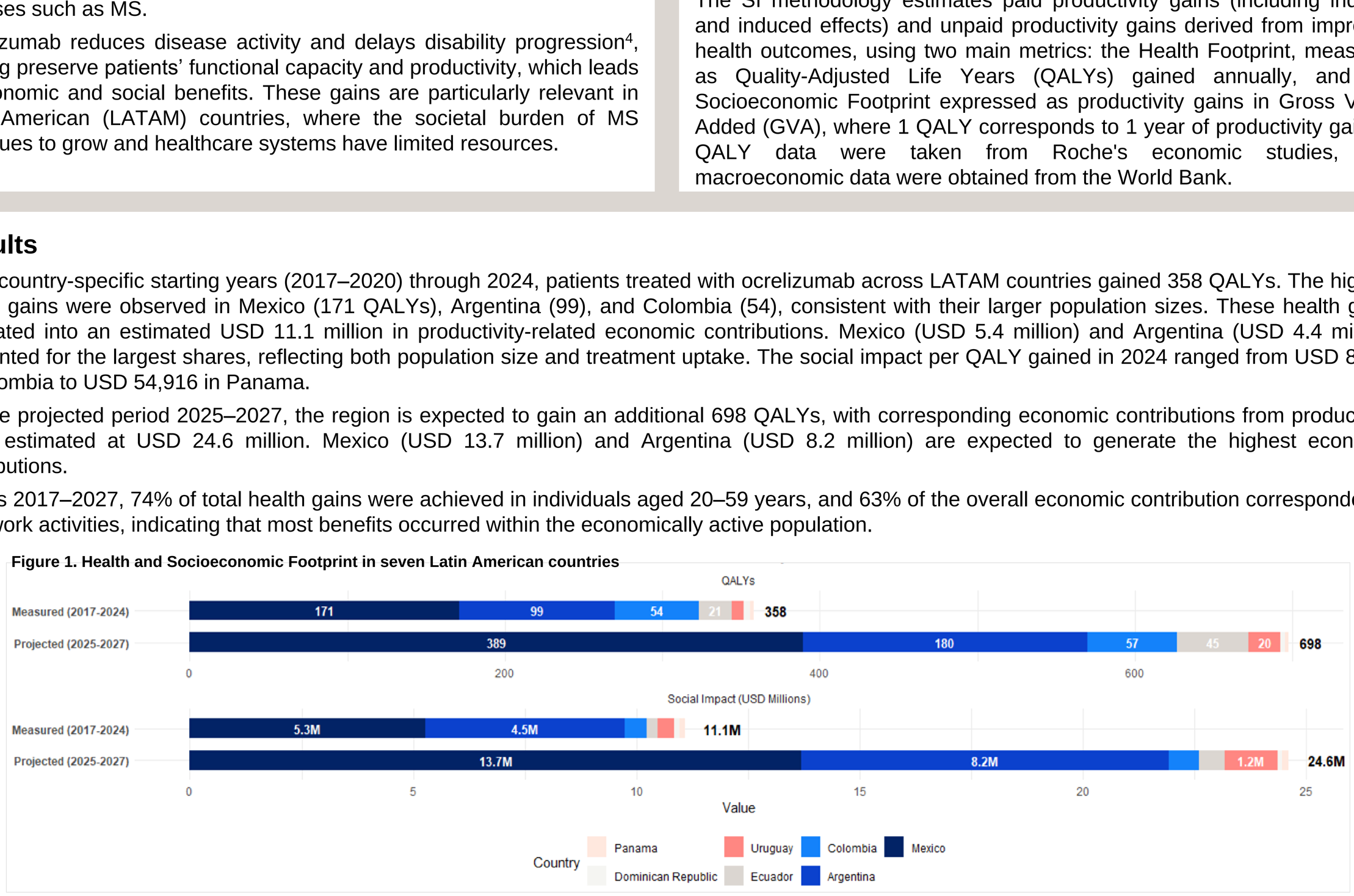
Results

From country-specific starting years (2017–2020) through 2024, patients treated with ocrelizumab across LATAM countries gained 358 QALYs. The highest health gains were observed in Mexico (171 QALYs), Argentina (99), and Colombia (54), consistent with their larger population sizes. These health gains translated into an estimated USD 11.1 million in productivity-related economic contributions. Mexico (USD 5.4 million) and Argentina (USD 4.4 million) accounted for the largest shares, reflecting both population size and treatment uptake. The social impact per QALY gained in 2024 ranged from USD 8,758 in Colombia to USD 54,916 in Panama.

For the projected period 2025–2027, the region is expected to gain an additional 698 QALYs, with corresponding economic contributions from productivity gains estimated at USD 24.6 million. Mexico (USD 13.7 million) and Argentina (USD 8.2 million) are expected to generate the highest economic contributions.

Across 2017–2027, 74% of total health gains were achieved in individuals aged 20–59 years, and 63% of the overall economic contribution corresponded to paid work activities, indicating that most benefits occurred within the economically active population.

Figure 1. Health and Socioeconomic Footprint in seven Latin American countries



Conclusions

While the full value of therapeutic innovation is multifaceted and extends beyond clinical outcomes (direct health benefits and cost reductions due to avoided relapses), this study's Social Impact approach demonstrates that Roche's innovation in MS generates substantial health and societal productivity gains across LATAM, with significant observed benefits through 2024 and continued value projected through 2027.

Results highlight that sustained investment in innovation, especially in middle-income countries, optimizes clinical results and alleviates pressure on healthcare systems by enabling working-age patients to regain productivity and, ultimately, contribute to the region's economic growth and social well-being.

References

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