

Socioeconomic burden (SOB) of Multiple Sclerosis (MS) in Latin America (LATAM): Trends and Projections (2017-2032)

Hidalgo J¹, Altuna J², Muller M³, Lovera D³, Díaz-Puentes M⁴, Samacá-Samacá D⁴

¹Roche, San José, Costa Rica. ²Roche, Buenos Aires, Argentina. ³WifOR GmbH, Darmstadt, Germany. ⁴Roche, Bogotá, Colombia

Introduction

Multiple sclerosis (MS) is a chronic neurological disease that significantly affects quality of life and functional independence. Typically diagnosed in young adults of working age, it results in reduced labor participation, income loss, and long-term socioeconomic consequences. In Latin America and the Caribbean, the age-standardized prevalence of MS increased by 30–40% between 1990 and 2016. As this trend continues, the clinical and socioeconomic burden on individuals, families, and health systems is expected to intensify, underscoring the need for a better understanding of its regional impact to guide effective health policies.

Objective

This study quantifies the Socioeconomic Burden (SoB) of MS across nine Latin American (LATAM) countries, Argentina, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama, Peru, and Uruguay, over the period from 2017 to 2032, employing the methodology developed by the WifOR Institute.

Methods

We measured the health burden of MS in LATAM through the disability-adjusted life years (DALYs) attributable to the disease as reported by the Global Burden of Disease database (2021).

Following the methodology developed by the WifOR Institute, one DALY attributed to MS was equated to one year of lost productivity. Productivity losses were estimated for each country based on gross value added, obtained from the World Bank and adjusted for the economically active population, and included both paid (direct, indirect and induced) and unpaid work losses associated with MS-related disability.

Two periods were analyzed: the historical trend from 2017 to 2024, and a projection from 2025 to 2032, allowing for the assessment of both current and future socioeconomic burden across countries.

Results

Health Burden (DALYs) and SoB from 2017 – 2024

In 2017, the countries with the highest number of DALYs attributable to MS were Mexico (15,526), Argentina (6,357), and Colombia (3,271). In contrast, Uruguay (714), Costa Rica (506), and Panama (263) had the lowest disease burden (Figure 1). The majority of the disease burden (74%) was concentrated in adults aged 20–59. By 2024, the total SoB across the nine countries analyzed reached approximately USD 1.22 billion (65% of paid activities) (Figure 2). The countries demonstrating the highest increases in productivity losses from 2017 to 2024 were Mexico (74.3%), Costa Rica (77.2%), and Colombia (52.3%), reaching SoB values of USD 643.4 million, USD 31.9 million, and USD 42.1 million in 2024, respectively.

Health Burden (DALYs) and SoB from 2025 - 2032

By 2032, Mexico is projected to have the highest burden of MS, reaching 21,735 DALYs, followed by Argentina (7,374) and Colombia (4,261), for a total of 41,623 DALYs across the region (Figure 1). These projections are associated with an 88% increase in productivity losses across the region, rising from USD 917 million in 2017 to USD 1.72 billion in 2032, with 89% occurring in adults aged 20–59 and 64% attributable to paid work activities. The countries with the highest expected relative increases in productivity loss associated with MS from 2024 to 2032 are Panama (66.10%) and Costa Rica (61.10%) (Figure 2).

Figure 1. Health Burden (DALYs) in nine LATAM countries 2017-2032

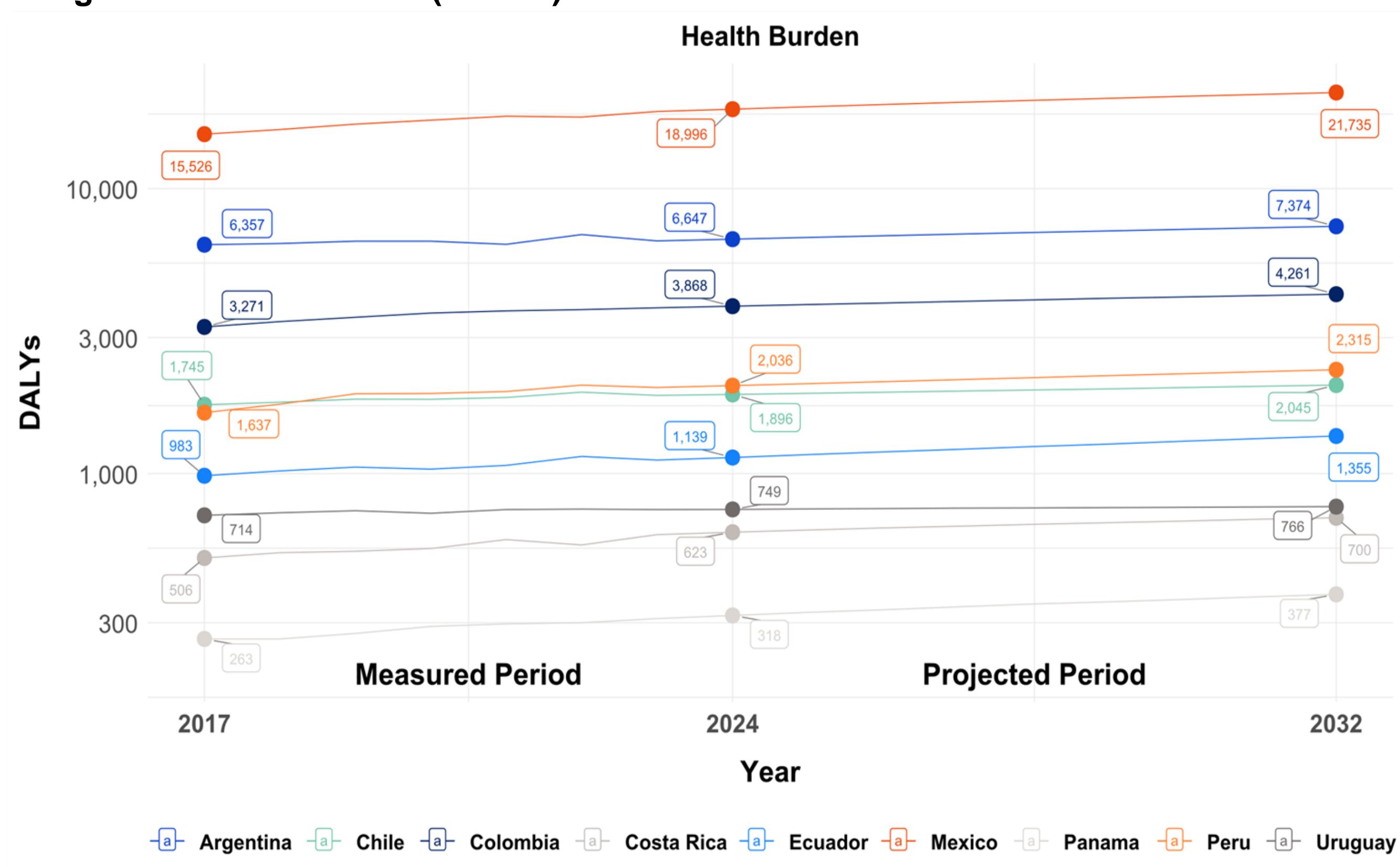
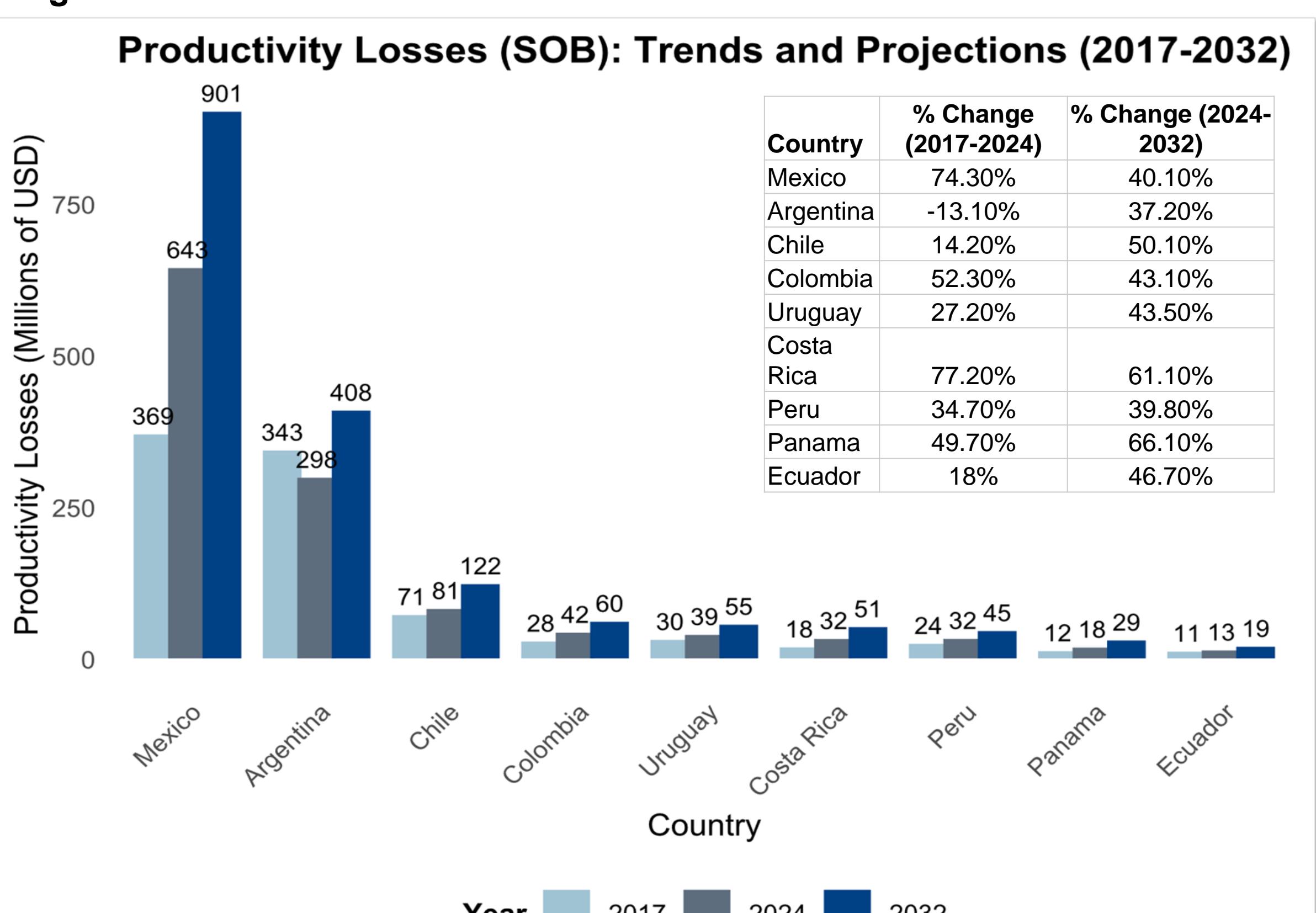


Figure 2. Socioeconomic Burden in nine LATAM countries 2017-2024



Conclusion

The rising socioeconomic burden of multiple sclerosis (MS) represents a growing concern for Latin American countries, adding financial pressure to already constrained healthcare systems. This substantial impact is primarily driven by disability among individuals of working age, leading to productivity losses and slower economic growth across the region.

These findings underscore the pressing need for evidence-based policies and comprehensive care strategies that promote early diagnosis, access to effective treatments, and social support mechanisms to mitigate the long-term economic and societal consequences of MS.

References

1. Kobelt, G., Thompson, A., Berg, J., Gannenahl, M., Eriksson, J., MSICOI Study Group, & European Multiple Sclerosis Platform. (2017). New insights into the burden and costs of multiple sclerosis in Europe. *Multiple Sclerosis Journal*, 23(8), 1123-1136.
2. Avila M & Thakolwiboon S. Multiple Sclerosis in the Hispanic/Latinx Population. *Practical Neurology* (2021).
3. WifOR Institute. Global Social Impact of Medicines (2024)

Contact Information

Josué Hidalgo
josue.hidalgo@roche.com