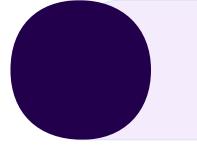
Economic Burden of Type 2 Diabetes in Peru: A Cost-of-Illness Study Valuing Cost Differences Associated With the Level of Glycemic Control

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Seinfeld J¹, Sobrevilla A¹, Rosales ML¹, Ibañez M¹, Ruiz D¹, Penny E¹, Londono S²

¹Videnza Consultores, Lima, Peru, ²Sanofi, Bogotá, Colombia

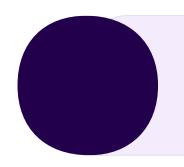


INTRODUCTION

Type 2 diabetes mellitus (T2DM) represents a public health problem with a great impact in middle-income countries such as Peru.

OBJECTIVE

To estimate the national economic burden of this disease for the public sector (SIS), social insurance (Essalud), and private sector (HMOs).

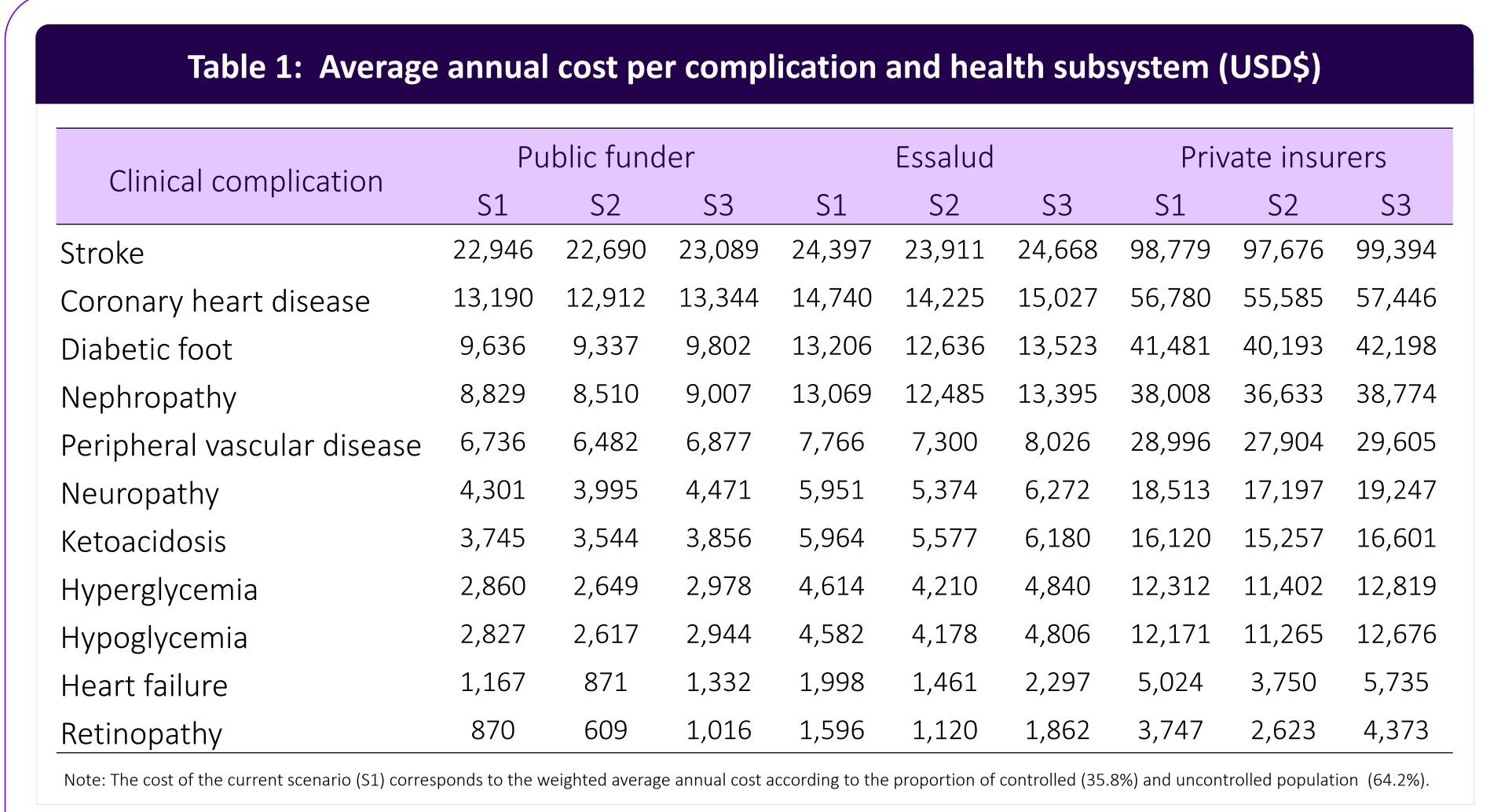


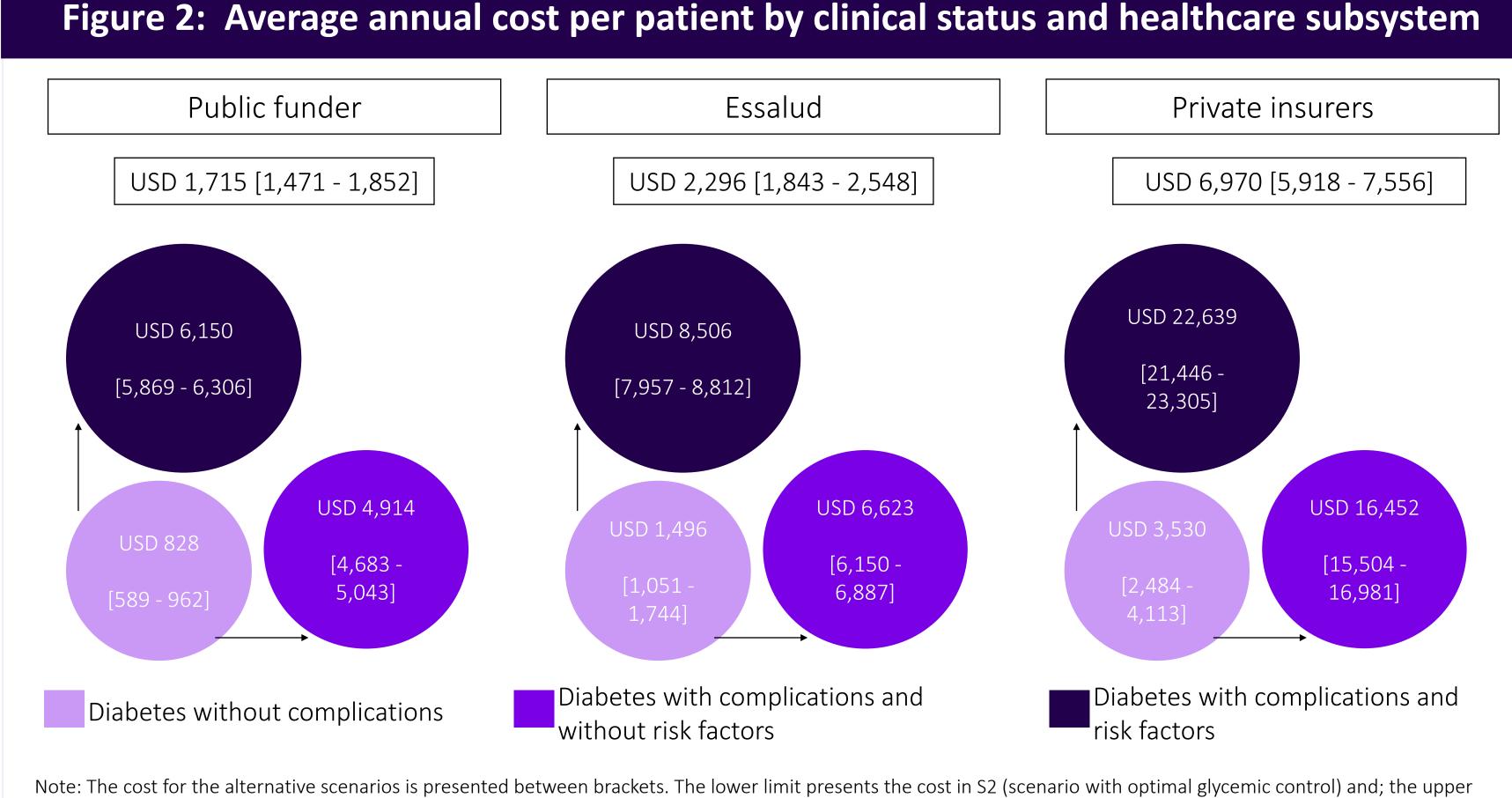
METHODS

- Direct healthcare costs were estimated for a cohort of 443,683 adults between 45 and 75 years old diagnosed with T2DM in 2019 (5.9% prevalence registered in national databases).
- Disease progression over a 20-year period was modeled using the PROSIT tool and published sources, including acute and chronic (macrovascular and microvascular) complications associated with T2DM.
- Costs were estimated considering the current level of glycemic control (S1), with 35.8% of the population under optimal control (HbA1C<7%); and under two additional hypothetic scenarios (100% HbA1C<7% (S2) and 100% HbA1C>7% (S3)).
- Sensitivity analysis was performed for diabetes prevalence considering values reported for the Latin American region by the International Diabetes Federation.

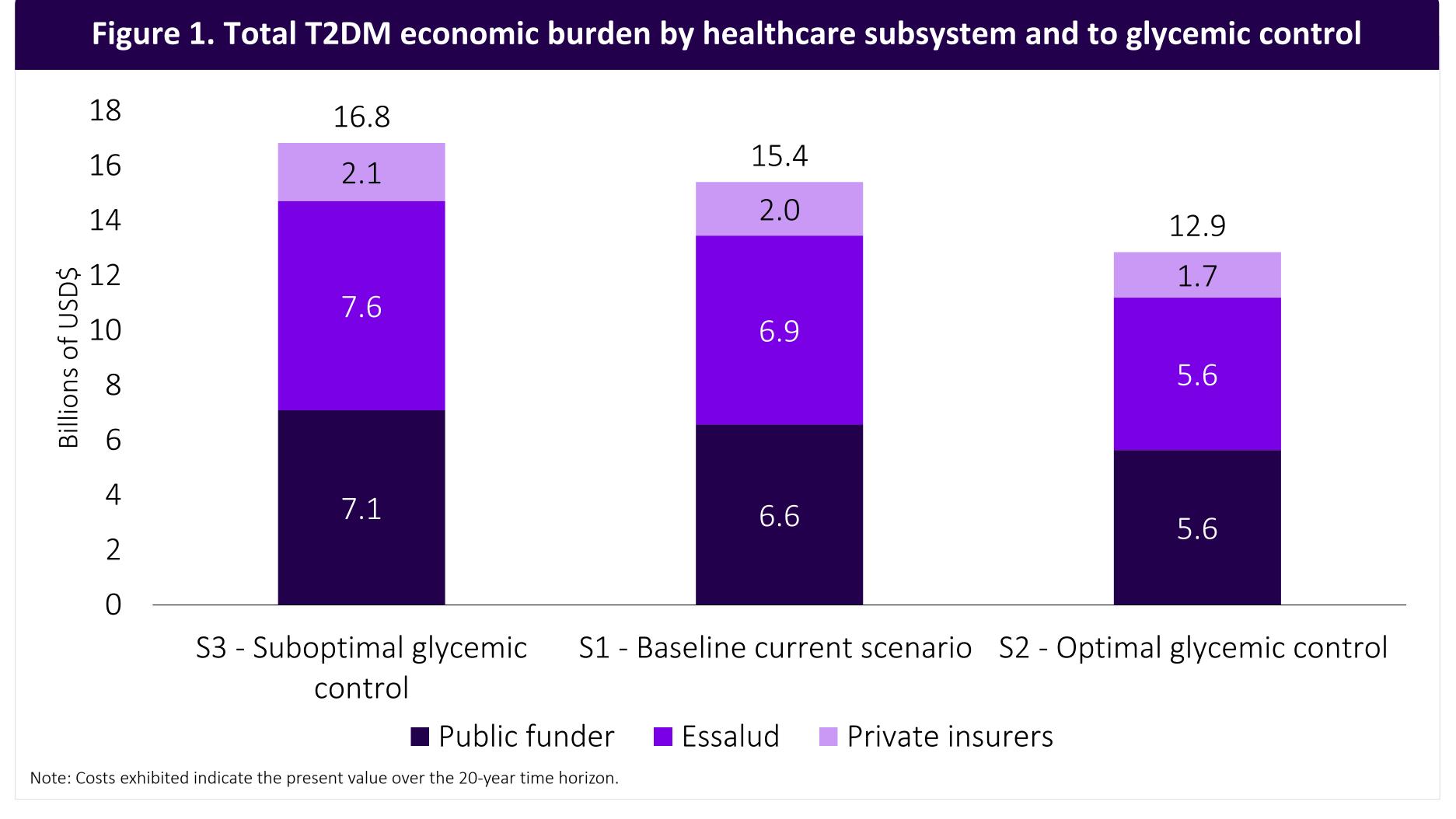


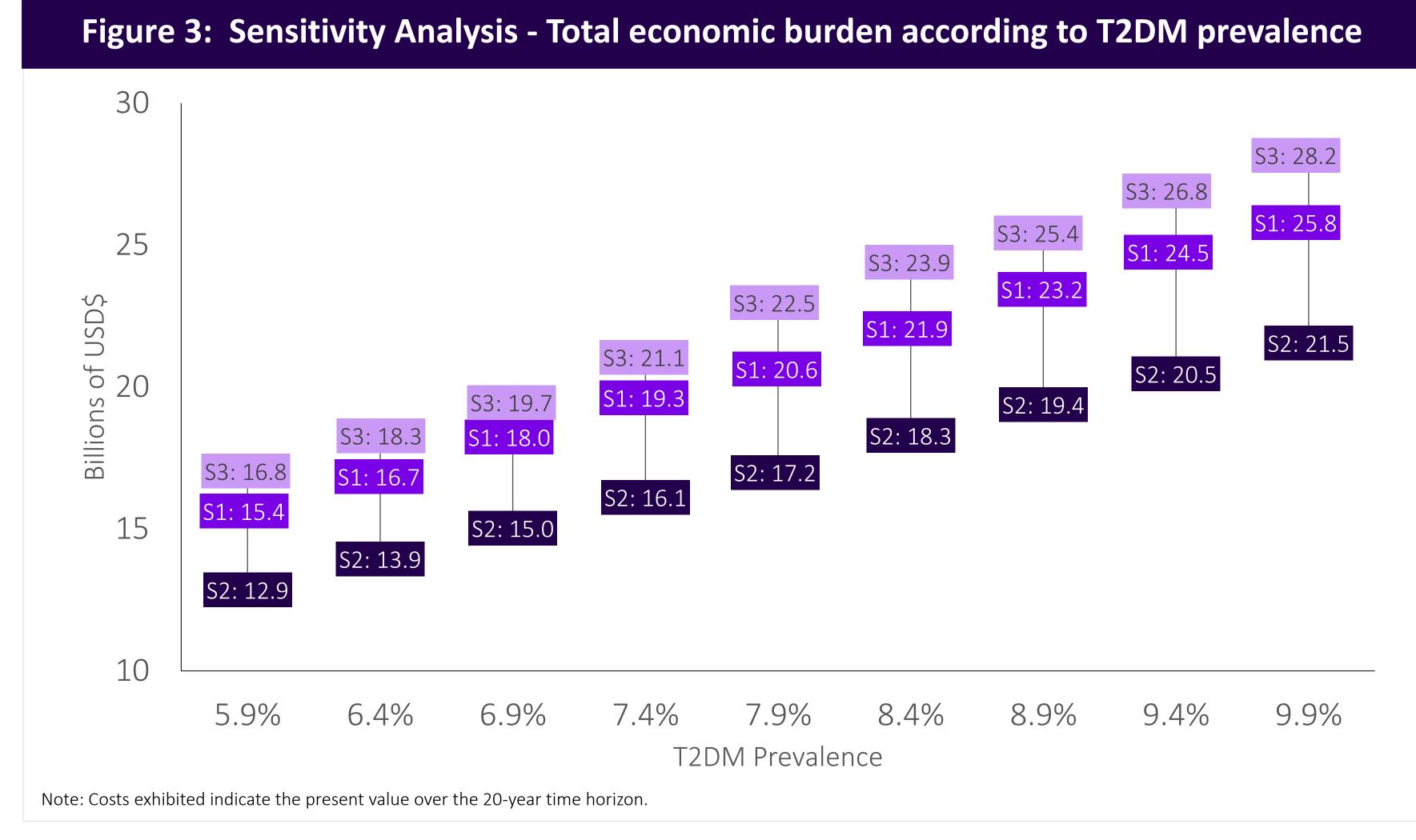
POSTER HIGHLIGHT: Type-2 diabetes mellitus has a significant impact on the Peruvian healthcare budget. Therefore, addressing the disease at early stages should be a paramount concern for the healthcare subsystems.





Note: The cost for the alternative scenarios is presented between brackets. The lower limit presents the cost in S2 (scenario with optimal glycemic control) and; the upper limit, the cost of S3 (scenario with suboptimal glycemic control).





RESULTS

- The total national economic burden was estimated at USD\$ 15,405,448,731; cost that would oscillate between USD\$ 12,853,113,596 and USD\$ 16,828,713,495, depending on the level of glycemic control.
- The average annual cost of treating a T2DM patient was USD\$ 2,158, which would decrease to USD\$ 1,797 if patients are controlled and increase to USD\$ 2,360 if they are not.
- Costs for patients with complications and risk factors (dyslipidemia, hypertension and obesity) were around 6.5 times greater compared to those without them, being stroke the complication that contributed the most to the economic burden.
- Sensitivity analysis showed an increase of 67.6% in total costs with a 9.9% prevalence.

CONCLUSIONS

- T2DM places a heavy burden on the Peruvian healthcare budget and will represent a higher cost impact if poor glycemic control is maintained.
- Addressing this disease at early stages could alleviate the economic burden and improve the quality of life of individuals.



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