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110 - A PRELIMINARY ECONOMIC BURDEN OF LONG COVID ESTIMATION IN THE SPANISH HEALTHCARE WORKFORCE

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Resumen

Background/Objectives: Long COVID, a multisystemic condition with symptom persistence of over 3 months after COVID-19, affects not only individual well-being but also has repercussions on healthcare systems and economies. Globally, an annual income loss exceeding US $50 billion has been estimated due to general workforce impairment. Healthcare workers (HCWs), who were on the frontline during the pandemic and may have higher risk of long COVID, are particularly critical, as reduced availability or impaired work capacity directly affects service delivery and healthcare quality. Despite this, the specific economic impact of long COVID related workforce shortages among HCWs has not yet been estimated.

Methods: A top-down economic estimation approach was applied to the Spanish healthcare workforce, drawing on conceptual frameworks from recent global burden and economic modelling studies. Direct and indirect costs were estimated using national workforce and salary data, long COVID prevalence derived from a previous study, and productivity loss assumptions based on the international literature. Direct costs were calculated by combining the number of affected HCWs, average annual labour costs, and estimated reductions in work capacity by severity. Indirect societal costs, such as reduced healthcare service capacity, delayed treatments, and downstream productivity losses, were incorporated using a conservative multiplier.

Results: Spain employs approximately 1.1 million healthcare workers. Applying a long COVID prevalence of 5% yields an estimated 55,000 affected HCWs. Assuming an average productivity loss of 42% and an average annual labour cost of €35,000, the

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estimated direct productivity and replacement cost to the healthcare system is approximately €1.05 billion per year. When accounting for broader societal impacts using a conservative multiplier, the total annual economic burden is estimated at €1.6 billion, equivalent to roughly 0.1-0.15% of Spain’s gross domestic product.

Conclusions/Recommendations: These findings indicate that long COVID represents a substantial and ongoing economic burden within the healthcare workforce. Incorporating long COVID into occupational health planning and workforce sustainability strategies may help mitigate productivity losses and represent a cost-saving strategy for the healthcare system.

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