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Short communication

Healthcare as an investment, not a cost: Unlocking societal value and economic growth through ophthalmology innovation

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Introduction

Healthcare systems worldwide are facing increasing demographic and epidemiological pressures driven by population ageing and the growing burden of chronic non-communicable diseases. Traditionally, healthcare expenditure has been viewed primarily as a budgetary cost. However, growing evidence demonstrates that healthcare represents a long-term investment capable of generating substantial economic and societal returns. Beyond improving health outcomes, investments in innovative healthcare preserve workforce participation, increase labour productivity, reduce informal caregiving, and contribute to national economic growth.

This perspective is particularly relevant for North Macedonia, where limited access to innovative therapies for chronic diseases continues to generate significant productivity losses and socioeconomic burden (WifOR Institute, 2026).

The aim is to demonstrate, through a case study of retinal diseases in North Macedonia, how investment in innovative ophthalmology care can generate long-term societal and economic value while reducing the socioeconomic burden of vision loss.

Societal value of innovative healthcare in North Macedonia

The societal value framework is particularly relevant for North Macedonia, where the increasing burden of chronic diseases, together with limited access to innovative diagnosis and treatment, contributes substantially to productivity losses and economic burden.

The forthcoming publication Socioeconomic Burden and Annual Social Impact of Roche Treatments for HER2+ Breast Cancer, Multiple Sclerosis and Retinal Disease in Balkan Countries applies the WifOR Institute health economics methodology to evaluate both the socioeconomic burden of disease and the broader societal value generated by innovative therapies across Albania, Bosnia and Herzegovina, North Macedonia, Serbia and Turkey during the period 2017–2027 (Numanoglu Tekin et al., 2026).

By incorporating productivity losses, workforce participation and other socioeconomic outcomes into health economic evaluation, this framework enables healthcare decision-makers to assess pharmaceutical innovation beyond acquisition costs. At the national level, maximizing societal value requires optimization of clinical pathways together with strategic investment in innovative treatments for diseases with substantial unmet healthcare needs.

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Retinal diseases as a case study

Retinal diseases, including neovascular age-related macular degeneration (nAMD), diabetic macular edema (DME) and retinal vein occlusion (RVO), represent a compelling example of the consequences of delayed access to innovative care in North Macedonia.

Approximately 23,000 people are estimated to be affected by retinal diseases, while fewer than 1,000 receive treatment through the public healthcare system. Among patients with DME, only around 5% of the estimated 7,000 eligible individuals receive appropriate treatment. Furthermore, North Macedonia utilizes only 79 units of innovative anti-VEGF therapies per one million inhabitants, compared with an average of 8,339 units across major European countries (EU4).

This considerable treatment gap has important clinical and socioeconomic consequences. Delayed treatment frequently results in irreversible vision loss, reduced quality of life, premature withdrawal from the labour market and increased dependence on informal caregivers. According to WifOR macroeconomic projections, the cumulative economic burden of nAMD and DME in North Macedonia is projected to reach approximately US$147 million between 2025 and 2032. In addition, blindness generates substantial public expenditures through disability allowances, third-party care subsidies and other social support measures.

Strategic opportunities for value-based investment

The inability to fully realize the societal value of innovative ophthalmology care is largely associated with a centralized and fragmented healthcare pathway. Innovative anti-VEGF therapies are currently financed through a restricted conditional budget and are available only at the University Clinic for Ophthalmology in Skopje, creating significant geographical barriers for patients from other regions.

Limited public capacity results in approximately 30–40% of patients seeking diagnostic and treatment services in the private sector, thereby increasing out-of-pocket expenditure and widening healthcare inequalities. Preventive screening also remains insufficiently implemented despite approximately 180,000 people living with diabetes who require regular retinal examinations.

Evidence indicates that timely diagnosis and treatment can prevent up to 90% of irreversible vision loss. Therefore, maximizing societal value requires regionalization of ophthalmology services, implementation of systematic diabetic retinal screening supported by digital health solutions, and expansion of financing for innovative long-acting anti-VEGF therapies.

Conclusion

This case study illustrates that viewing healthcare as an investment rather than a cost provides a broader framework for evaluating innovation by incorporating societal and economic value alongside clinical outcomes. Improving access to innovative ophthalmology care through earlier diagnosis, regionalized services and sustainable financing has the potential to preserve vision, reduce productivity losses and support a more value-based and economically sustainable healthcare system in North Macedonia.

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