DO WE NEED TO MEASURE SOCIAL IMPACT OF INNOVATIVE DRUGS?

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OBJECTIVES

The global market for innovative medicines is expected to expand substantially, from $254.21 billion in 2025 to $427.20 billion by 2032. These technologies not only deliver direct health benefits to patients but also generate positive economic effects by reducing productivity losses associated with disease[1].

According to the WiFOR Institute, the Social Impact of Medical Innovations measures the value that medical innovations bring to society through improvements in health and productivity[2].

The aim of this study was to examine whether healthcare systems are adequately equipped to assess the economic impact of innovative medicines and to determine whether a standardized methodology for such evaluation currently exists.

METHODS

We reviewed scientific publications, official documents, and HTA guidelines to determine the extent to which healthcare systems are equipped to assess the social impact of innovative health technologies. Our analysis focused on identifying evidence that healthcare systems should incorporate a broader perspective that includes the economic impact of medical innovations. Additionally, we evaluated the methodologies used in existing studies that assess the social value of these innovations.

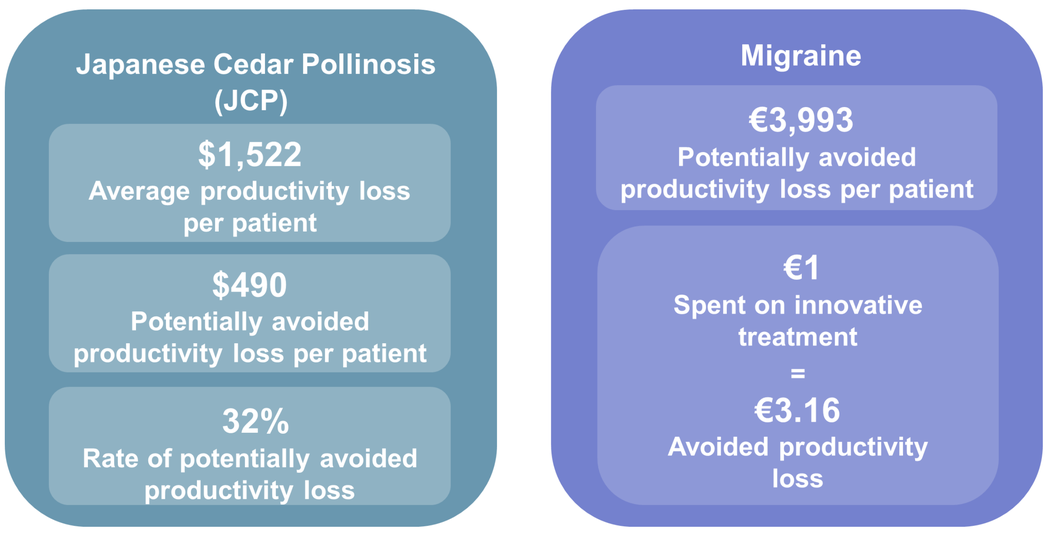

Figure 3. Results of case studies presented by WifOR[2,5]

CONCLUSION

Given the demographic challenges faced by developed countries, investing in innovative medical technologies goes beyond the health sector – it represents a multi-sectoral priority with significant economic implications. There is an urgent need to develop and standardize methods for measuring the social value of medical innovations. Integrating these findings into the HTA decision-making process is essential to ensure that healthcare policies reflect the full economic and societal impact of innovative treatments.

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RESULTS

According to Avşar et al., 30 out of 46 identified HTA guidelines allow for the inclusion of a societal perspective in economic evaluations, while only 13 of them make this perspective mandatory (Figure 1). However, there is still no uniform understanding of what constitutes the societal perspective or how it should be applied. The main challenge today lies in defining which outcomes should be included under this perspective. Some guidelines, such as those from Australia and Canada, recommend considering all health and non-health outcomes affecting patients, caregivers, communities, and dependents. In contrast, others – like those from England or Croatia – limit the societal perspective to health outcomes only[3].

Figure 1. Guidelines identified by Avşar et al.[3]

Differences also exist in the recommended approaches for measuring and valuing productivity losses, which represent one of the most important non-health outcomes. While most countries favour the Human Capital Approach (HCA), some guidelines (e.g. from Canada or Germany) recommend the Friction Cost Approach (FCA). Additionally, certain guidelines do not specify which methods should be applied to quantify productivity costs (Figure 2)[3].

Figure 2. Recommended methods for measuring and valuing productivity losses[3]

From an evidence perspective, the societal value of innovative therapies has been increasingly recognized. A study conducted by the World Health Organization (WHO) demonstrated that the introduction of new medicines has significantly reduced mortality rates, contributing to extended life expectancy. Similarly, a report by the European Federation of Pharmaceutical Industries and Associations (EFPIA) found that employees with access to effective treatments exhibit higher productivity and reduced absenteeism[4].

Complementing these findings, evidence from WifOR’s case studies highlights the measurable economic benefits of innovation. For instance, in Japanese Cedar Pollinosis (JCP), the average productivity loss per patient was estimated at $1,522, while innovative treatment could avoid productivity losses of up to $490 per patient, representing a 32% reduction[2]. Another WifOR analysis on prophylactic migraine treatment revealed avoided productivity losses of €3,993 per patient. From a societal and macroeconomic perspective, each euro spent on this therapy may prevent up to €3.16 in productivity losses (Figure 3)[5].

To better capture these broader effects, recent methodological advances propose the Generalized Cost-Effectiveness Analysis (GCEA) framework as a means of assessing value from a societal perspective. Earlier frameworks,such as the Second Panel’s “impact inventory” and ISPOR’s “value flower”, attempted to encompass a wide range of societal benefits and costs but saw limited practical use due to their methodological complexity. The GCEA value flower expands on these earlier concepts by incorporating 15 broader value elements grouped into four categories: (i) uncertainty (patient risk preferences), (ii) dynamics (evolution of real-world value and price trends), (iii) beneficiary (effects on others and equity considerations), and (iv) additional value components (community spillovers and productivity losses)[6].

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