

The Economics of Health: Value, Equity, Solutions

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Introduction

This article explores global trends and challenges in economic evaluations of health technologies, highlighting the crucial role these assessments play in informing healthcare decision-making worldwide. It discusses methodological variations, data requirements, and the evolving landscape of health technology assessment bodies, emphasizing the need for robust evidence to ensure efficient resource allocation and equitable access to innovations [1].

This systematic review and meta-analysis quantifies the significant economic burden imposed by antimicrobial resistance (AMR), revealing substantial costs associated with prolonged hospital stays, increased treatment failures, and higher healthcare expenditures globally. The findings underscore the urgent need for investment in new antimicrobials, infection prevention strategies, and robust surveillance systems to mitigate future economic impact [2].

This systematic review examines the intersection of health economics and climate change, identifying key economic impacts of climate change on health systems and population well-being. It highlights the direct and indirect costs, from increased disease burden and healthcare demands to productivity losses, advocating for economic analyses to guide climate adaptation and mitigation strategies in the health sector [3].

This article proposes a comprehensive framework for understanding the economic value of health and well-being, moving beyond traditional cost-of-illness approaches. It integrates broader societal and individual benefits, including improvements in quality of life, productivity, and reduced reliance on social services, providing a more holistic perspective for health economic assessments and policy decisions [4].

This paper reviews the current practices and future directions for incorporating real-world data (RWD) into health economic evaluations. It high-

lights RWD's potential to provide more pragmatic and generalizable evidence compared to traditional clinical trial data, while also discussing the methodological challenges and validation needs for its effective and reliable use in health technology assessment [5].

This systematic review explores the economics of personalized medicine, examining its cost-effectiveness, budget impact, and value proposition across various therapeutic areas. It identifies key challenges, such as the high upfront costs of genetic testing and targeted therapies, and proposes a research agenda to better evaluate the economic benefits and appropriate implementation of personalized healthcare approaches [6].

This article provides a health economic perspective on digital health technologies, outlining their potential to enhance efficiency, accessibility, and quality of care while also discussing the challenges related to their economic evaluation, scalability, and integration into existing healthcare systems. It emphasizes the need for robust economic evidence to inform investment and regulatory decisions for digital innovations [7].

This systematic review explores the economic impacts of global health security initiatives, assessing the costs and benefits of investments in pandemic preparedness, surveillance, and response mechanisms. It reveals that proactive investments in health security yield substantial economic returns by preventing widespread disease outbreaks, reducing economic disruption, and protecting global trade and travel [8].

This article discusses the crucial role of health economics in pandemic preparedness and response, emphasizing how economic principles can guide resource allocation, vaccine distribution, and non-pharmaceutical interventions during public health crises. It highlights the importance of economic modeling to forecast disease burden, assess the cost-effectiveness of interventions, and minimize societal impact [9].

This systematic review investigates frameworks and applications related to equity in health economics, exploring how economic evaluations can account for and promote fairness in healthcare resource allocation. It identifies various approaches to integrate equity considerations into cost-effectiveness analyses, aiming to ensure that health policies not only maximize health outcomes but also reduce health disparities [10].

Description

Economic evaluations play a vital role in informing healthcare decision-making, particularly concerning health technologies [1]. These assessments consider methodological variations and data requirements, continuously adapting to the evolving landscape of health technology assessment bodies. They emphasize the need for robust evidence to ensure efficient resource allocation and equitable access to innovations [1]. Moreover, the integration of real-world data (RWD) is becoming increasingly important. RWD offers more pragmatic and generalizable evidence compared to tradi-

tional clinical trials, though it presents methodological challenges and validation needs for effective use in health technology assessments [5]. Current practices and future directions for incorporating RWD are under constant review to enhance reliability [5].

The field of health economics also addresses significant global health challenges and their related economic burdens. Antimicrobial resistance (AMR) imposes substantial costs due to prolonged hospital stays, increased treatment failures, and higher healthcare expenditures globally [2]. This highlights an urgent call for investments in new antimicrobials, infection prevention, and robust surveillance systems to mitigate future economic impact [2]. Similarly, climate change presents direct and indirect economic impacts on health systems and population well-being, from increased disease burden and healthcare demands to productivity losses. Economic analyses are essential to guide climate adaptation and mitigation strategies in the health sector [3].

Understanding the economic value of health extends beyond traditional cost-of-illness approaches. A comprehensive framework integrates broader societal and individual benefits, including improvements in quality of life, productivity, and reduced reliance on social services, offering a more holistic perspective for health economic assessments and policy decisions [4]. Personalized medicine also demands thorough economic evaluation, examining its cost-effectiveness, budget impact, and value proposition. While genetic testing and targeted therapies often involve high upfront costs, research aims to better evaluate their economic benefits and guide appropriate implementation of personalized healthcare [6].

Digital health technologies offer immense potential to enhance efficiency, accessibility, and quality of care [7]. However, their economic evaluation, scalability, and integration into existing healthcare systems pose challenges, underscoring the need for strong economic evidence to inform investment and regulatory decisions for these innovations [7]. Another critical area is global health security. Investments in pandemic preparedness, surveillance, and response mechanisms yield substantial economic returns by preventing widespread disease outbreaks, reducing economic disruption, and protecting global trade and travel [8]. Proactive measures in health security are demonstrably beneficial [8].

Health economics is crucial during public health crises, guiding resource allocation, vaccine distribution, and non-pharmaceutical interventions during pandemics [9]. Economic modeling helps forecast disease burden, assess cost-effectiveness of interventions, and minimize societal impact [9]. Furthermore, equity in health economics explores how evaluations can promote fairness in healthcare resource allocation. Various approaches integrate equity considerations into cost-effectiveness analyses, ensuring health policies maximize outcomes while also reducing health disparities [10]. These frameworks aim for both efficiency and fairness in healthcare provision [10].

Conclusion

This collection of articles offers a deep dive into various facets of health economics and its crucial role in modern healthcare. The discussions highlight the importance of economic evaluations for health technologies, em-

phasizing efficient resource allocation and equitable access to innovations, and how real-world data enhances these assessments [C001, C005]. Here's the thing, economic analyses are indispensable for tackling major global health challenges. We see this with the significant economic burden of antimicrobial resistance, which demands urgent investment in prevention and new treatments, and the identified economic impacts of climate change on health systems, calling for strategic adaptation [C002, C003]. What this really means is that the value of health and well-being needs a comprehensive framework that goes beyond simple cost-of-illness, integrating quality of life and productivity benefits for more holistic policy decisions [C004]. The economics of personalized medicine are explored, noting the challenges of high upfront costs versus long-term benefits, and digital health technologies are presented as opportunities to improve care efficiency, albeit with their own evaluation challenges [C006, C007]. Finally, the papers stress the substantial economic returns from global health security investments in pandemic preparedness, underscoring the vital role of economic principles in guiding crisis response and resource allocation [C008, C009]. Also, frameworks for integrating equity into health economic evaluations are discussed, aiming to reduce health disparities alongside maximizing outcomes [C010]. These insights collectively paint a picture of health economics as an adaptable and essential tool for navigating complex health landscapes.

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