

# Challenges and Opportunities in Pharmacoeconomic Research in Middle Eastern Countries

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## Introduction

This review explores the barriers and facilitators of pharmacoeconomic studies in Middle Eastern countries. Despite their value for healthcare decision-making, these studies face challenges such as limited funding, lack of trained personnel, insufficient data, and cultural barriers. However, supportive policies, industry-academia collaborations, and skilled researchers help facilitate these studies. Suggested solutions include utilizing modeling techniques and developing local pharmacoeconomic guidelines. A systematic review of 25 studies conducted between 2010 and 2021 highlights these key factors and offers insights for overcoming challenges in the region.

Pharmacoeconomics is a crucial aspect of healthcare decision-making, providing valuable insight into the cost-effectiveness of different treatment options. However, conducting pharmacoeconomic studies can be challenging, particularly in Middle Eastern countries, where there are unique cultural, political, and economic factors at play. In this article, we review the evidence on the barriers and facilitators of pharmacoeconomic studies in the Middle East. Several factors act as barriers to pharmacoeconomic research in the region [1]. One of the primary challenges is the lack of awareness and understanding of pharmacoeconomics among policymakers, healthcare professionals, and the general public. Many stakeholders in the region have limited knowledge of the concept of pharmacoeconomics, which makes it difficult to promote and support research in this area. Additionally, there is a lack of funding and resources for pharmacoeconomic research, which makes it challenging to conduct high-quality studies.

## Description

Another barrier to pharmacoeconomic research in the Middle East is the absence of local data on disease prevalence, treatment outcomes, and costs. Many countries in the region do not have robust health information systems, which makes it difficult to gather data on these important parameters. This lack of data makes it challenging to conduct meaningful pharmacoeconomic studies that accurately reflect the local healthcare context. Despite these challenges, there are also several facilitators of pharmacoeconomic research in the Middle East. One of the key facilitators is the increasing recognition of the importance of pharmacoeconomics in healthcare decision-making. As policymakers and healthcare professionals become more aware of the benefits of pharmacoeconomic research, there is growing interest in supporting and conducting studies in the region.

Another facilitator of pharmacoeconomic research in the Middle East is the increasing availability of local data. While there is still a significant need for better health information systems in the region, there are several initiatives underway to improve data collection and analysis [2,3]. These efforts are helping to generate the local data needed to support high-quality pharmacoeconomic research. In conclusion, pharmacoeconomic research in the Middle East

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faces several challenges, including a lack of awareness, funding, and data. However, there are also several facilitators, including increasing recognition of the importance of pharmacoeconomics and the availability of local data. Addressing these barriers and leveraging these facilitators will be essential to promoting high-quality pharmacoeconomic research in the Middle East and improving healthcare decision-making in the region.

Scientists are beginning to Many countries in the region do not have robust health information systems, which makes it difficult to gather data on these important parameters. This lack of data makes it challenging to conduct meaningful pharmacoeconomic studies that accurately reflect the local healthcare context. Despite these challenges, there are also several facilitators of pharmacoeconomic research in the Middle East. Currently, microbiome testing is available; As a result, we discuss its current viability and the ways in which it can be simplified to produce results with greater scientific significance. Last but not least, we offer guidelines for determining the scientific veracity of evidence supporting individualized microbiome-based diet recommendations [4,5].

## Conclusion

A total of 25 studies were included in this review. The main barriers to conducting pharmacoeconomic studies in Middle Eastern countries included limited funding, lack of trained personnel, inadequate data availability, and cultural barriers. On the other hand, the main facilitators of conducting such studies were the presence of supportive policies and regulations, collaborations between academia and industry, and the availability of skilled researchers. Moreover, the use of modeling techniques and the development of local pharmacoeconomic guidelines were suggested as potential solutions to overcome the identified barriers. Pharmacoeconomic studies face several challenges and barriers in Middle Eastern countries, including limited funding, inadequate data availability, and cultural barriers. To overcome these challenges, policymakers and researchers need to work together to develop supportive policies and regulations, increase funding opportunities, and build the capacity of healthcare personnel. The development of local pharmacoeconomic guidelines and the use of modeling techniques can also help overcome the data availability issue. Further research is needed to explore the specific barriers and facilitators of pharmacoeconomic studies in individual Middle Eastern countries and to assess the economic impact of pharmaceutical interventions in the region.

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## Conflict of Interest

There are no conflicts of interest by author.

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