



**KERMAN UNIVERSITY
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Faculty of management and medical information

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Title

**The estimation of the Economic Burden of Resource Wastage in
Managing the COVID-19 Epidemic in the Healthcare Sector: A Case
Study of Kerman University of Medical Sciences**

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Abstract

Background and Objectives:

In 2019, the world faced significant challenges, including the COVID-19 pandemic, which had profound impacts on public health and the economy. Resource management in the healthcare sector, especially during crises, gained particular importance. Inefficiencies in service delivery and equipment distribution led to resource wastage. This wastage not only squandered financial resources but also adversely affected the quality of healthcare services. To prevent such issues, economic and financial analyses must be prioritized to improve resource management.

Methods: The present study is a sequential exploratory mixed-methods research (quantitative-qualitative) aimed at estimating the economic burden of resource wastage in managing the COVID-19 epidemic in the healthcare sector. It was conducted based on data from 2021-2022 at Kerman University of Medical Sciences. The stages of this research included a scoping review, qualitative content analysis, a quantitative study using data collection forms, and data analysis with a bottom-up cost estimation approach. Additionally, an expert panel was held to provide solutions and recommendations for resource management during epidemics.

Results: The results from the steps of this research indicate that the highest economic burden of resource wastage was related to vaccines, diagnostic and laboratory kits, medications, and reduced workforce productivity. Specifically, the wastage included approximately 432,279 doses of vaccines, 2,342 diagnostic and laboratory kits, 53,800 rapid diagnostic test, 25,780 blisters of Hydroxychloroquine, 10,800 blisters of Lopinavir/Ritonavir, 1,800 blisters of

Atazanavir/Ritonavir, and 660 blisters of Dolutegravir. Additionally, the total cost of workforce absenteeism (lost productivity) was estimated at approximately 53,559,622,274 Rials.

Conclusion: In times of budget constraints and rising healthcare costs, preparation and readiness for unexpected events are of great importance. Making rational decisions and proper planning can help optimize costs and reduce resource waste. Particularly in managing the COVID-19 epidemic, paying attention to these points can prevent unnecessary expenses and enhance the efficiency of the healthcare system.

Keyword: Resource wastage, COVID-19 vaccines, diagnostic kits, drugs, workforce, productivity, epidemic management