



## Original article

## Development of unit cost for the health services offered at King FAHD Central hospital Jazan, Saudi Arabia



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## ABSTRACT

**Background:** Efficiency remains one of the most important drivers of decision making in health care system. Fund allocators need to receive structured information about the cost healthcare services from hospitals for better decisions related to resource allocation and budgeting. The objective of the study was to estimate the unit cost for health services offered to inpatients in King Fahd Central hospital (KFCH) Jazan during the financial year 2018.

**Methods:** We applied a retrospective approach using a top-down costing method to estimate the cost of health care services. Clinical and Administrative departments divided into cost centres, and the unit cost was calculated by dividing the total cost of final care cost centres into the total number of patients discharged in one year. The average cost of inpatient services was calculated based on the average cost of each ward and the number of patients treated.

**Results:** The average cost per patient stayed in KFCH was SAR 19,034, with the highest cost of SAR 108,561 for patients in the Orthopedic ward. The average cost of the patient in the Surgery ward, Plastic surgery, Neurosurgery, Medical ward, Pediatric ward and Gynecology ward was SAR 33,033, SAR 29,425, SAR 23,444, SAR 20,450, SAR 9579 and SAR 8636 respectively.

**Conclusion:** This study provides necessary information about the cost of health care services in a tertiary care setting. This information can be used as a primary tool and reference for further studies in other regions of the country. Hence, this data can help to provide a better understanding of tertiary hospital costing in the region to achieve the privatization objective.

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## 1. Introduction

## 1.1. Background

Healthcare systems all over the world are continuously trying to reduce the cost of health care services along with improvement in quality and efficiency. Policymakers are working closely with Healthcare managers to understand better and monitor the cost

of healthcare services at the hospital, department, and patient level (Than et al., 2017). The World Health Organization (WHO) has also paid attention to this critical issue by developing the manuals that can help in the assessment of hospital costs (Mathauer and Carrin, 2010).

Cost estimations contribute to the regulation of efficiency for healthcare service delivery, the performance of resource monitoring, standardisation of healthcare service, and determination of reimbursement rates (Adam et al., 2003; Aboagye et al., 2010; Green et al., 2000; Conteh and Walker, 2004). These factors are also crucial for the improvement of the quality of the healthcare system.

Many developed and developing countries have executed the exercise of cost by using different methodologies. They categorised the methodologies into two main approaches, namely the bottom-up and top-down approach (Zafar et al., 2005). The bottom-up approach is also known as micro-costing, covers all resources used

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