

# Time-Series Analysis of Recurrent Healthcare Expenditure and Economic Growth of the Health Sector in Kenya (1984-2024)

## Abstract

**Purpose:** Healthcare planning plays a pivotal role in shaping the socio-economic landscape of a nation. In Kenya, despite notable strides in healthcare provision, challenges persist, including inadequate funding, limited access to quality healthcare services, and disparities in healthcare outcomes across regions and socioeconomic groups. This study rigorously investigated the impact of recurrent healthcare expenditure on Kenya's economic growth of the health sector for a period of forty years (1984-2024).

**Design/Methodology/Approach:** The study adopted a correlational research design. Secondary data was collected from Ministry of Health reports, and World Bank indicators. Time series data was analyzed using E-Views software, both descriptively and inferentially. Pre and post diagnostic tests were conducted.

**Findings:** The Augmented Dickey Fuller and Phillips Perron tests for stationarity revealed a mixed output and the non-stationarity was resolved at first difference. F-Bounds test revealed no cointegration among the variables. The variance inflation factor test values were less than 10 showing no multicollinearity among the independent variables. Normality test revealed a 5% level of significance where the p-value was  $0.726147 > 0.05$ .

Breusch-Pagan-Godfrey test for heteroscedasticity had a probability  $0.1250 > 0.05$  showing that there was no problem of heteroscedasticity. From the regression analysis, the study revealed that recurrent health expenditure has a positive significant impact ( $\beta_1 = 17.2056$  ( $p = 0.0000 < 0.05$ )) on economic growth.

**Implications/Originality/Value:** The analysis report recommends that by fostering transparency and accountability in healthcare financing, Kenya can create a resilient health system that supports human capital development and consequently, economic growth. The findings contribute to policy justification, decision making and resource allocation within Kenya's healthcare sector.

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