**Health Expenditures and Child Mortality: Evidence from Kenya[[1]](#footnote-1)**

**Abstract**

**Aim**: The aim of this study was to analyze the effect of health expenditures on child health.

**Specific Objectives**: To analyze the: (i) impact of household and government health expenditures on child health outcomes; (ii) joint impacts of household and government health expenditure on child health; and (iii) impacts of demographic and human capital variables on child health.

**Methodology**: This study estimated own and joint effects of public and private health expenditures on child deaths in Kenya using household data. Structural-form linear probability models of neonatal, infant, and child mortality are estimated. The Control Function Approach was used to control for endogeneity using predicted residuals and at the same time, to control for heterogeneity by interacting the residuals with the endogenous variable, household health expenditure. To correct for heterogeneity, we interacted the predicted residuals with private health expenditure.

**Findings**: This study found that whereas independent government or household expenditure is expected to produce positive health outcomes, this can only happen if all other things (unobservables in the residuals) are held constant. This study found that holding these unobservables constant in terms of health is not practical. Thus, where we expected the government or household expenditure alone to contribute positively to health outcome, the unobservables cancels the effect out.

Secondly, this study takes government and household health expenditure as complementary goods i.e. both parties have to spend. To an extent, there is a minimum that the household and the government has to spend on health for a child to achieve an optimal health status. For instance, when a government offers free immunization, the household has to spend a minimum in terms of transport to where the free service is being offered.

The study also found that the effects of public and private health expenditures on child deaths depend critically on age at which child mortality is measured. For instance, public and private health expenditures have no effect on deaths of neonates, but significantly influence the mortality of infants and children below the age of five. However, only the health effects of the interaction between the two expenditures are statistically significant, suggesting that public and private health expenditures complement each other in reducing infant and under-five mortality. After accounting for the effect of the interaction between public and private health expenditures, the individual health impacts of the expenditures are statistically insignificant.

**Conclusions**: In their control of childhood diseases, health policy makers need to take cognizance of the fact that, whereas, the government should invest adequately in the provision of preventive health services, at the same time, households should similarly provide for treatment of non-immunizable diseases. More generally, the empirical findings of the study point to the need to design and implement policies that promote synergy between public and health expenditures in the control of diseases.

*David Muthaka, PhD.*

*Deputy Director, Policy and Planning,*

*Salaries & Remuneration Commission,*

*6th Floor, Williamson House, 4th Ngong Avenue,*

*P.O Box 43126-00100 Nairobi, Kenya*

*Tel: +254 (20) 2710071/73*

*Cell: +254-722609560*

*E-Mail:* [*dimuthaka@yahoo.com*](mailto:dimuthaka@yahoo.com)*;* [*dmuthaka@src.go.ke*](mailto:dmuthaka@src.go.ke)*;*

1. This paper is derived from my PhD Thesis under the same title. [↑](#footnote-ref-1)