**Assessing the Determinants of Cost Efficiency of Primary Health Care Facilities in Ghana: A Latent Class Stochastic Frontier Analysis**

**Abstract**

**Background:** Improving Universal Health Coverage (UHC) to accelerate the march towards the attainment of Goal 3 of the Sustainable Development Goals (SDGs) very much depends on enhancing the cost efficiency of primary healthcare (PHC) delivery in all developing countries including Ghana. Estimating the cost efficiency as well as analyzing the determinants of cost efficiency of PHC facilities is important in the management of PHC facilities.

**Objective:** The aim of this study is to estimate the cost efficiency of Ghanaian PHC facilities as well as to analyze the major drivers of cost efficiency.

**Methods:** The study was conducted using a panel data stochastic cost frontier with latent classes which allows the data to construct different frontiers for each group and evaluation of cost efficiency levels is carried out with respect to each group’s own frontier. The Cobb-Douglas cost function model was employed. The latent class membership analysis is based on the hypothesis that unobservable technological heterogeneity exists among Ghanaian PHC facilities.

**Results:** The study results reveal that there are three statistically significant classes in the sample and that the effects of the major determinants of cost efficiency of a PHC facility are influenced by the class structure of that facility.

**Conclusion:** PHC facilities could improve their efficiency levels substantially and that health policies fashioned to bring about improvement in efficiency must be guided by different classes identified to ensure more accurate and cost-effective management of resources.

**Keywords:** Primary Healthcare (PHC), stochastic frontier analysis, latent class, cost efficiency, Ghana.