UNIVERSITY OF NAIROBI
SCHOOL OF ECONOMICS

XEA 402: RESEARCH PAPER

EFFICIENCY IN LEVEL TWO AND LEVEL THREE
HEALTH FACILITIES IN KENYA

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ABSTRACT

Introduction: Health systems in developing countries including Kenya face extreme resource constraints in their pursuit to improve the health status of the population. This inability to meet health care needs is further enhanced by inefficiency in the health care systems, especially within public health centers. Inefficiency in producing health care undermines the service coverage potential of the health system. This paper estimates the technical and scale efficiency of a sample of level 2 and 3 health facilities in Kenya.

Method: The study used Data Envelopment Analysis (DEA) method, to calculate the technical and scale efficiency of 51 randomly sampled health facilities; 27 level 2 health facilities and 24 level 3 health facilities. This was done using input and output data for 2008. The technical efficiency is also decomposed into pure technical efficiency and scale efficiency.

Findings: The findings showed that in level 2 facilities, 8 (29.6%) of these DMU’s, were technically efficient whereas the remaining 19 (70.4%) where technically inefficient. The inefficient ones had an average TE score of 61.3%. This implies that on average they could reduce their utilization of all inputs by about 38.7% without reducing output. 10 (37%) of these DMU’s were scale efficient meaning that they had the most productive size for that particular input-output mix. However, the remaining 17 (63%) where scale inefficient. The inefficient dispensaries had an average scale efficiency score of 83.8%. This implies that using the existing capacity/size there is a potential for increasing total outputs by about 16.2%.

In the level 3 facilities, 9 (37.5%) were technically efficient whereas the remaining 15 (62.5%) where technically inefficient. The inefficient facilities had an average TE score of 79.6%. This implies that on average they could reduce their utilization of all inputs by about 20.4% without reducing output. 9 (37.5%) of these DMU’s were scale efficient meaning that they had the most productive size for that particular input-output mix. However, the remaining 15 (62.5%) where scale inefficient. The inefficient health centres had an average scale efficiency score of 98.8%.