

**Factors Affecting Healthcare Utilization in Managed Healthcare Organisations – A Case  
Study of Pembe Flour Mills Medical Cover at Avenue Healthcare**

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## ABSTRACT

Managed Healthcare is a concept of healthcare delivery and financing where an enrolled population pays a fixed annual fee (capitation) to a medical provider for access to health services as needed. In healthcare financing, the moral hazard refers to the risk that individuals will be more likely to seek *more* health care services when costs are distributed evenly across the population covered within a particular insurance plan.

Access to healthcare in private hospitals in Kenya is out of reach for most Kenyans. The main reason for this is cost. Health insurance and Managed Healthcare organizations allow individuals, when healthy, to pay predictable amounts to cover unpredictable costs when sick. The moral hazard is one of the reasons for the high cost of medical covers.

Avenue Healthcare is a Managed Healthcare Organization and provides medical cover to employees of Pembe Flour Mills, a flour milling company. Since inception of the medical scheme for Pembe Flour Mills at Avenue Healthcare, renewal premiums have increased by over 200%. In the belief that Hidden Action Moral Hazard played a role in this increase in costs, Avenue Healthcare introduced a co-payment charge of Kshs. 30 for all visits to the clinic from May 2005. In view of these developments there was a need for data to establish healthcare utilization patterns before and after introduction of co-payment thereby aiding in policy development for Managed Healthcare organizations and insurance companies.

This study aimed at assessing the factors that influence healthcare utilization patterns of patients from Pembe Flour Mills at Avenue Healthcare. Specifically, the study examined the factors that

influence utilization patterns, compared the moral hazard with observed healthcare utilization patterns and established morbidity levels and patterns.

Ninety Eight eligible staff of Pembe Flour Mills who met the inclusion criteria were recruited for the study . Data was collected through a retrospective comprehensive review of medical records held by Avenue Healthcare for the period May 2004 – April 2005 (before Co-payment) and for the period May 2005 – April 2006 (After Co-payment). In addition all the respondents were also individually interviewed at Pembe Flour Mills factories using a structured questionnaire.

The results showed that there was a positive correlation between the age of the patient and healthcare utilization. Patients with chronic illnesses also tended to have a significantly higher mean number of visits. Boiling or treating drinking water influenced healthcare utilization patterns especially the number of visits for gastro-intestinal infections.

The most common medical conditions among Pembe Flour mills employees include upper respiratory tract infections and allergic respiratory tract ailments, their combined total accounting for 49 % of the visits in 2004/5 and 22 % of the visits in 2005/6. This was in keeping with the Flour milling activity of the factory which predisposes the employees to excessive dust. Other common conditions include gastro intestinal infections and chronic pain conditions.

There was a 42 % reduction in the mean number of visits from 6.3 to 3.63 after introduction of co-payment. Visits for minor ailments such as allergic respiratory tract ailments and upper respiratory tract infections significantly reduced (Mean of 1.48 to 0.37 and 1.81 to 0.45

respectively) while visits for major ailments such as lower respiratory tract infections, peptic ulcer disease and chronic pain conditions remained unaffected. The moral hazard was therefore found to be a significant problem associated with utilization of health services for Pembe Flour Mills employees. Minor ailments were noted to contribute most to the level of the moral hazard. Introduction of co-payment played a significant role in reducing the moral hazard. Because the co-payment was affordable, it did not adversely affect access to health services.

The study concludes that co-payment should be advocated for medical schemes where a population has easy access to health services resulting in the misuse of these services. The amount of co-payment has to be carefully decided depending on the socio-economic factors of the particular population so as not to adversely affect access to healthcare.