

## ABSTRACT

The Public Health landscape is changing rapidly throughout the developing world with the increase in major devastating health problems such as HIV/AIDS, malaria, cancer and tuberculosis among others and the infusion of resource constraints to combat these problems have increased the complexity and the burden on public health supply chains. Most public health institutions have scarce resources for the procurement of health commodities which are crucial for quality service delivery to clients. The supplier of HIV Rapid Test Kits (HIV RTKs) NASCOP usually ensures that all registered healthcare facilities are supplied with adequate HIV RTKs every quarter but most healthcare facilities in Kisumu County experience frequent stock-out of HIV RTKs thus interrupts quality service delivery to clients. The purpose of this study was to establish the influence of inventory management practices amongst healthcare workers, on stock-out of HIV RTKs in healthcare facilities within Kisumu County, Kenya. The objectives of the study were to determine the relationship between demand forecasting, requisition processes, lead time, inventory control procedures and storage mechanisms and stock-out of HIV RTKs in healthcare facilities. Theories used in the study were Constraints and lean theories. Descriptive survey design was used with target population of 112 GOK and Faith Based Organizations healthcare facilities and 1,088 healthcare workers of different cadres offering HIV counseling and testing services. Stratified random sampling technique was used to calculate sample size of 88 healthcare facilities and 293 respondents. Data was collected using structured questionnaires and observation checklists whose reliability and validity were tested appropriately. The data was analyzed by descriptive and inferential statistics using correlation and regression analyses tested by Pearson chi-square test of independence at p value of 0.05 and Binary logistic regression model to assess and determine the associations and relationship between the variables in the study. The findings indicated that there was a significant relationship between inventory management practices tested and stock-out of HIV RTKs except lead time which did not have any relationship with stock-out in healthcare facilities. The study concluded that ineffective inventory management practices due to lack of relevant SOPs, knowledge and skills among HIV RTKs users, inadequate inventory control tools and poor storage practices or conditions lead to frequent stock out of HIV RTKs in the healthcare facilities. Therefore there is need to train HIV RTKs users on good inventory management practices, develop relevant SOPs, avail adequate inventory control tools and designate storage space for HIV RTKs in the healthcare facilities. This study contributed to effective HIV RTKs stock control through dissemination and distribution of the National policy guidelines on HIV RTKs management to all the healthcare facilities within the County by the County health management team.