

**DESIGN, IMPLEMENTATION AND OPERATION OF HEALTH  
MANAGEMENT INFORMATION SYSTEM AT KENYATTA NATIONAL  
HOSPITAL, NAIROBI COUNTY, KENYA.**

**SALIM MATAGI OMAMBIA**

**HSM-3-2135-1/2009**

**A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE CONFERMENT OF MASTER OF SCIENCE IN  
HEALTH SYSTEMS MANAGEMENT OF THE KENYA METHODIST  
UNIVERSITY**

**JULY 2016**



## ABSTRACT

Embracing modern technology is one among very many ways of improving efficiency and reducing costs within Health care organizations. While the integration of information and health services potential benefits cannot be disputed, there are many challenges which affect its adoption, in fact, majority of organizations have abandoned their newly acquired system only to go back to their old manual system. This study sought to review the design, implementation and operation of Health Management Information System (HMIS) in Kenyatta National Hospital (KNH) Nairobi County. Specific objectives were a) to determine the design criteria phase of HMIS at KNH, b) to assess the implementation of HMIS at KNH, and c) to evaluate the operation of HMIS at KNH. This was a descriptive cross-sectional study. The study sample was 263 respondents who filled a structured questionnaire and 40 key informant interviewees. Data collected from the field was analyzed through the use of univariate and bivariate statistics. The study revealed that in the design phase, there was significant stakeholder involvement and this manifested through definition and identification of the KNH's HMIS, clear understanding of the purpose and process in the design requirements and thus an indication that the design criteria was observed during the HMIS implementation. In the implementation phase, the findings indicated that while the other attributes had a significance, gender did not have a significant association with HMIS implementation  $p=0.901$ . The findings indicated that the level of management and duration of employment were significantly associated with HMIS implementation at KNH. In the operation phase, respondents said the benefits of electronic HMIS were improved efficiency and reduced workload. More than half (53.1%) of health workers felt that the electronic HMIS in KNH had achieved its objectives which will lead to effective utilization of HMIS and better healthcare service delivery. Overall KNH had successfully implemented HMIS. In recommendation KNH in collaboration with the MOH need to come up with a standardized policy for implementing interventions, improve the current infrastructure, and develop a plan for monitoring and evaluation of the HMIS.