

**DETERMINANTS OF AVAILABILITY OF TRACER ESSENTIAL
MEDICINES IN PUBLIC HEALTH FACILITIES IN NYERI
COUNTY, KENYA**

**MICHENI STELLA KAWIRA (B. PHARM)
HSM-3-2788-2/2013**

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

JULY, 2016



Abstract

The goal of the health system is to improve health and health equity in ways that are responsive, financially fair and make the most efficient use of the available resources. This is supported by six Health Systems Strengthening (HSS) pillars of medicines, vaccines and technologies, human resource, financing, leadership and governance, service delivery and health information systems. A well-functioning health care system ensures equitable access to medicines, vaccines and technologies which results in overall HSS. Tracer essential medicines are supposed to be 100% available at all times to treat the common ailments in a region. Despite the large number of patients that visit public health facilities, the inadequacy of trained pharmaceutical personnel, inefficiencies of the supply chain system and inadequate funding, no study has been carried out to ascertain the availability of tracer essential medicines in these facilities. The objectives of the study were to determine the stocking level of tracer essential medicines, to establish human resource factors affecting availability of tracer essential medicines, to find out the supply chain factors affecting availability of tracer essential medicines and to assess the organizational factors affecting availability of tracer essential medicines. A cross sectional study design with a mixed method approach was used. A questionnaire was used to collect data on the human resource factors and supply chain factors affecting availability of tracer essential medicines. A Focus Group Discussion (FGD) guide was also conducted with seven respondents comprising of six sub County public health nurses and the County pharmacist. The sample population comprised of 17 public health facilities and 30 pharmacy personnel. The response rate was 25 (83.3%). The average stocking level in tier three facilities was 94% while that in tier two facilities was 63.75%. The overall mean percentage stocking level of the 20 tracer essential medicines in all the facilities was 72.65%. Human resource factors that affected availability were unavailability of Standard Operating Procedures (SOPs), inadequate training of pharmacy personnel and pharmacy personnel not aware of tracer medicines. There was a significant relationship between availability of tracer essential medicines and pharmacy personnel awareness of tracer list ($r=0.850$), pharmacy personnel receiving training in commodity management ($r=0.834$), availability of SOPs ($r=0.817$) and designation of pharmacy personnel ($r=0.746$). The supply chain factors that affected availability of tracer essential medicines were long lead times, unavailability at Kenya Medical Supplies Agency (KEMSA), long ordering and delivery schedules and incorrect quantification. The organizational factors that affected availability were inadequate supportive supervision, inadequate financing and absence of Revolving Drug Funds (RDFs) within the facilities. The study concluded that the stocking level of tracer essential medicines in Nyeri County was below the World Health Organization recommendation of 100%. In addition, human resource factors, supply chain factors and organizational factors affected availability. The researcher recommends that a community pharmacy with subsidized medicines prices be introduced in the facilities; the County should facilitate training of all pharmacy personnel on commodity management, all facilities should have buffer stocks to cover at least two months as they await new stocks and the County should provide supportive supervision to the facilities.