UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF PUBLIC HEALTH

FACTORS ASSOCIATED WITH CO-TRIMOXAZOLE TABLET INVENTORY CONTROL – ASSESSMENT OF PRIMARY HEALTH FACILITIES IN LUSAKA, ZAMBIA.

M'SANIDE SAKALA

A dissertation submitted to the University of Zambia in partial fulfilment of the award of the degree of Master of Public Health

DECLARATION

I **M'sanide Sakala** do hereby declare that this dissertation represents my own work and that it has never been submitted before for the award of a degree or any other qualification at this university or any other university.

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CERTIFICATE OF COMPLETION OF DISSERTATION

I, **M'sanide Sakala**, do hereby certify that this dissertation is the product of my own work and in submitting it for my Master of Public Health programme, further attest that it has not been submitted to another university in part or whole for the award of any programme.

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I, **Dr Selestine Nzala,** having read this dissertation is satisfied that this is the original work of the author under whose name it is being presented. I confirm that the work has been completed satisfactorily and is hereby ready for presentation to the examiners.

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CERTIFICATE OF APPROVAL

This dissertation of **M'sanide Sakala** is approved as fulfilling the requirements for the award of the Degree of Master of Public Health of the University of Zambia.

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DEDICATIONS

This dissertation is dedicated to my wife **Carol M. Muloshi-Sakala** and our daughter **Cherani Sakala** who have been motivating, and patient. I also dedicate it to my parents, **Mr Josphat K. Sakala** and **Mrs Cecelia B. Musonda-**Sakala who facilitated my education at the expense of their own comfort. Last, but not the least, I also dedicate this desertation to my friend and relatives who showed support in many ways that one could appreciate.

ACKNOWLEDGEMENTS

My sincere gratitude goes to my supervisors, Dr Nzala Selestine and Dr. Mpundu Makasa for their invaluable guidance in the shaping through to completion of this dissertation.

I would also like to acknowledge the following, among many, for their invaluable assistance:

- Dr Musonda Patrick of CIDRZ for the service data that shed light on the findings in the health facilities.

- Mr Hangoma Peter for the analytical guidance I received in building up the proposal, during the research clinics; and

- Lastly, I would also like to acknowledge the patient assistance that the Health Facility Staff under the Lusaka District Community Health Office, particularly those under the Pharmacy Department, rendered in the collection of data.

ABSTRACT

The World Bank (1994) noted that over 80% of the original budget on health in most African countries is lost through inefficient practices at various levels, by various accountability failures in the supply chain for medical supplies. There have been reports of thefts, with no counter claims of losses, which could be inferred that facilities were not able to detect it due to failures in the accountability system or that there is rampant theft in the health facilities.

An analytical cross-sectional study was conducted on panel data of a census of 21 health facilities. Data was collected using a data collection tool with respect to Co-trimoxazole tablet from first quarters of 2011, 2012 and 2013, giving 63 observations.

The study revealed that 42 (66.7%) of all inventory record observations for Co-trimoxazole 480mg tablet had errors The facility observations with Inventory greater than 1% uncounted for, cumulatively translated to 1958 bottles by 1000 tablets of Co-trimoxazole tablets. By current MSL Dispatch Note (June 2014) pricing, this gave a monetary value of KR 84, 585.60, unaccounted for. In the analysis, Product density, Staff to Client Ratio, Indicator Product Turn-over and Proportion of Personnel Trained in Inventory Management, were found to be unrelated to Inventory record error. It, however, showed that increased use of inventory tools reduced the errors in inventory records (p-value = 0.015).

The finding of the study revealed accountability challenges in inventory management at this level of service delivery. With the results down-playing the contribution of factors analysed in this study, unknown causes, inclusive of theft, remain the dominant cause of Inventory Error in inventory management. It is therefore proposed that proportional allocation of human resource, reorganisation of record management, with establishment of regular financial and performance audits be made to help inventory management in health facilities.

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ACRONYMS

ART	Anti-retroviral Therapy
ARV	Anti-retroviral
CIDRZ	Centre for Infectious Disease Research in Zambia
CSO	Central Statistical Office
DAR	Daily Activity Register
ERES	Excellence in Research Ethics and Science
LDCMO	Lusaka District Community Medical Office
LMIS	Logistic Management Information System
MHS	Management Health Solutions
MSL	Medical Stores Limited
RFID	Radio Frequency Identification
SCC	Stock Control Card
WHO	World Health Organisation
ZNHSP	Zambia National Health Strategic Plan

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