AN INVESTIGATION OF THE HUMAN FACTOR IN THE EFFECTIVE MANAGEMENT OF THE REVOLVING DRUG FUND:
A CASE STUDY OF NYAMIRA DISTRICT

BY KASAYA BERENICE NASIMIYU
REG. NO. D53/H/M/1668/02

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT FOR THE DEGREE OF MASTERS IN BUSINESS ADMINISTRATION (HUMAN RESOURCES MANAGEMENT), KENYATTA UNIVERSITY

AUGUST 2005
Kasaya, Berenice
An investigation of the human factor in
DECLARATION

This project is my original work and has not been presented for a degree in Kenyatta University or any other University.

Signature .................................. Date 30/4/05
KASAYA BERENICE N.

This research project has been submitted for examination with my approval as University Supervisor.

Signature .................................. Date
DR MAURICE KHAYOTA
DEPARTMENT OF BUSINESS ADMINISTRATION

This is work has been submitted for examination with my approval as chairman of Department.

Signature .................................. Date
DR GEORGE GONGERA
DEPARTMENT OF BUSINESS ADMINISTRATION.
ACKNOWLEDGEMENT

It would not have been possible for me to write this project without the support, encouragement and guidance of many people though it is not possible to mention all their names.

However, I would like to thank the Nyamira Revolving Drug Fund Manager, Dr Otieno for allowing me to study the project and Dr Elizabeth Okaja – the RDF National Coordinator as an initial resource person on RDF study. My regards too go to Wycliffe Manyulu the district Disease Surveillance Coordinator for coordinating the actual field work

My special appreciation goes to my supervisor, Dr Maurice Khayota, who tireless worked with me throughout all the stages of project.

Last but not least, I would also like to appreciate my professional colleagues and other friends for helping me achieve my dream.
ABSTRACT

Drugs form the essential component of preventive and curative health services. Significant demand against limited funds and high prices contribute to frequent shortages of drugs in many public health facilities. One way of financing drugs and other pharmaceuticals supplies has been through the establishment of Revolving Drug Funds (RDF) in which, after initial investment of funds, drug supplies are replenished with monies collected from the sale of drugs.

In Kenya, the Ministry of Health has such a fund which operates on the following principles; firstly, the RDF sales of drugs are directly to the patients and collects its revenue through its cash collection system. Secondly the system does not promote drug sales for co-financing purposes but aims at supporting the Prescribers and to provide better medical care, and patients’ access to the essential drugs at reasonable prices. Thirdly, the project guarantees equal drug prices throughout the district regardless of the health facility status. Lastly the project operates on sound business management principles with commitment to the public health goals.

The context of this project is to carry out an analysis of the management of the Nyamira Revolving Drug Fund and evaluate its effectiveness in addressing issues of access, availability and affordability of drugs as envisioned in its implementation plan.

It was concluded that the management of Nyamira RDF effectively set up management structures that aided in achieving its objective of ensuring that drugs were available, accessible and affordable to its intended target group.
LIST OF ACRONYMS

HCF  Health Facilities
KS   Khartoum State
PHC  Primary Health Care
RDF  revolving Drug Fund
SCF – UK  Save the Children Fund – United Kingdom
WHO  World Health Organization
UNICEF  United Children’s Educational Fund
FGD  Focused Group Discussion
GK   Government of Kenya
NG   Non-governmental
MoH - KS  Ministry of health – Khartoum State
PCU  Project Co-coordinating Unit
SSC  Sectoral Steering committee
PMC  Project Management Committee
PMT  Project Management team
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration and Recommendation</td>
<td>i</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>iii</td>
</tr>
<tr>
<td>Table of contents</td>
<td>iv</td>
</tr>
<tr>
<td>Acronyms</td>
<td>v</td>
</tr>
<tr>
<td>References</td>
<td>vii</td>
</tr>
<tr>
<td>Definition of terms</td>
<td>ix</td>
</tr>
</tbody>
</table>

## CHAPTER ONE INTRODUCTION

1.1 Drug Financing Situation in Kenya                                   1
1.2 Historical Developments of RDF                                      2
1.3 Definition of Revolving Drug Fund                                   3
1.4 The Health Care System in Kenya                                     4
1.5 Health Care Financing in Kenya                                      4
1.6 Revolving Drug Fund in Nyamira                                       5
1.7 Health Facilities in Nyamira                                        6
1.8 Staffing Patterns in Nyamira District                               8

## CHAPTER TWO LITERATURE REVIEW

2.1 Brief overview of experiences of RDF in Africa                      8
2.1.2 Specific Literature review – Khartoum State – Sudan               9
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration and Recommendation</td>
<td>i</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>iii</td>
</tr>
<tr>
<td>Table of contents</td>
<td>iv</td>
</tr>
<tr>
<td>Acronyms</td>
<td>v</td>
</tr>
<tr>
<td>References</td>
<td>vii</td>
</tr>
<tr>
<td>Definition of terms</td>
<td>ix</td>
</tr>
</tbody>
</table>

## CHAPTER ONE  INTRODUCTION

1.1 Drug Financing Situation in Kenya                                  1
1.2 Historical Developments of RDF                                     2
1.3 Definition of Revolving Drug Fund                                  3
1.4 The Health Care System in Kenya                                    4
1.5 Health Care Financing in Kenya                                     4
1.6 Revolving Drug Fund in Nyamira                                      5
1.7 Health Facilities in Nyamira                                       6
1.8 Staffing Patterns in Nyamira District                               8

## CHAPTER TWO  LITERATURE REVIEW

2.1 Brief overview of experiences of RDF in Africa                      8
2.1.2 Specific Literature review – Khartoum State – Sudan               9
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.3</td>
<td>Aims of Khartoum State RDF</td>
<td>11</td>
</tr>
<tr>
<td>2.1.4</td>
<td>Objectives of Khartoum State RDF</td>
<td>11</td>
</tr>
<tr>
<td>2.1.5</td>
<td>Achievements and Shortcomings</td>
<td>12</td>
</tr>
</tbody>
</table>

**CHAPTER THREE**  
**METHODOLOGY**

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Problem statement</td>
<td>14</td>
</tr>
<tr>
<td>3.2</td>
<td>Main objective of the Study</td>
<td>14</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Specific Objectives</td>
<td>14</td>
</tr>
<tr>
<td>3.3</td>
<td>Research questions</td>
<td>15</td>
</tr>
<tr>
<td>3.4</td>
<td>Justification for the Research</td>
<td>15</td>
</tr>
<tr>
<td>3.5</td>
<td>Target population</td>
<td>16</td>
</tr>
<tr>
<td>3.6</td>
<td>Demographic profile and Distribution</td>
<td>16</td>
</tr>
<tr>
<td>3.7</td>
<td>Topography and climate</td>
<td>16</td>
</tr>
<tr>
<td>3.8</td>
<td>Economic Development</td>
<td>17</td>
</tr>
<tr>
<td>3.9</td>
<td>Socio cultural Aspects</td>
<td>17</td>
</tr>
<tr>
<td>3.9</td>
<td>Sample description</td>
<td>18</td>
</tr>
<tr>
<td>3.10</td>
<td>Data analysis methodology</td>
<td>18</td>
</tr>
</tbody>
</table>

**CHAPTER FOUR**  
**DATA ANALYSIS AND INTERPRETATION**

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Organizational Structure</td>
<td>19</td>
</tr>
<tr>
<td>4.2</td>
<td>Capacity building</td>
<td>22</td>
</tr>
<tr>
<td>4.3</td>
<td>Management of RDF</td>
<td>18</td>
</tr>
<tr>
<td>4.4</td>
<td>Financial Management</td>
<td>26</td>
</tr>
</tbody>
</table>
4.5 Drug Supply Management 27
4.6 Overall Evaluation of RDF by Health workers 33
4.7 Community Perspective of Nyamira RDF 33
4.7.1 Utilization of Services at RDF facilities 34
4.7.2 Right Treatment Practice 36
4.7.3 Attitude of Health Workers 37
4.7.4 Community evaluation of RDF 37

CHAPTER FIVE RECOMMENDATIONS AND CONCLUSIONS 39
5.1 Achievements 39
5.1.2 Factors contributing to the achievements 40
5.2 Limitations 41
5.3 Recommendations 41
5.4 Conclusions 42

Appendices:
1 Research Instrument
2 References
3 District Map
DEFINITION OF TERMS

1. ‘Per item refers’ to payment made for each specified treatment e.g. payment of a single injection given.

2. ‘Two Counter System’ refers to a system where drugs are dispensed at different counters at the same time within the same facility: patients receive at one counter drugs (distributed by the MoH through kits) for free and the other counter have to pay for drugs (obtained from RDF).

3. In a ‘single – counter system’, all patients receive drugs at one counter, where everybody pays for drugs or where everybody receives drugs for free.

4. ‘Prescriber’ refers to the term used by health professional to refer to the person who examines patients and writes or prescribes the drugs for the ailments detected.

5. Drug List refers to the approved list of medicines to be prescribed for patients.

6. ‘QRS – Nudist’ is a package used to analyze qualitative data. Similar respondents from different respondents are classified into one category (Nodes). They are then coded to generate frequencies for analysis.
CHAPTER ONE

1.0 INTRODUCTION

1.1 Drug financing Situation in Kenya.

Shortage of drugs in Government health facilities, mainly due to financial and managerial problems are still a major constraint for the health care services in Kenya.

In 1989, the financial situation prompted the Government of Kenya to launch cost sharing initiatives. Most revenue comes from "a per item fee" for drugs which is defined in an arbitrary way. As such the cost sharing system is to be considered as a drug sales programme. However, it is not yet a genuine Revolving Drug Fund, as the fees are not on full cost recovery.

Despite these initiatives, the supply at health facility levels is not satisfactory, and many health facility committees are seeking ways to raise additional funds to improve their drug supplies. This brings the risk that the health system ends up with an endless number of different ways "to get revenue". Therefore, the time is crucial for the ministry of health to test out ways of consistently procuring, managing and providing drugs at the local level.

The Health Policy Framework Paper of the Government acknowledges the importance of adequate supply of drugs and medical supplies to public health institutions. Experience in the public health facilities shows that attendance and appreciation of services increases as soon as drugs and related medical supplies are available.
1.2 Historical Development of RDF

In June 1994, the Belgian Administration for Development Cooperation received a proposal for establishing facility-based Revolving Drug Fund (RDF) as a pilot Project in Western Kenya.

A Preliminary Investigation Consultancy, carried out in December 1997, presented an RDF pilot proposal targeting all in and outpatients in public health facilities within Nyamira District of Nyanza Province, Western Kenya. One district Pharmacy, under the direct supervision of the district Health Management Board (DHMB), would act as a wholesaler, procuring its own supplies from a national source. The RDF would operate under a “two-counter” system, the waiver/exemptions relying on further Ministry of Health (MoH) Essential Drug Kits supply.

In December 1998, the Project was formulated as a proposal for the Nyamira District Revolving Drug Fund.” During the Project Proposal development, relevant reports and documents were reviewed and key policy makers at Ministry of Health interviewed. During a stakeholders’ workshop in Kisii, participants discussed the health care problems in Nyamira and the strategies to be undertaken in order reach consensus on the project as well as its ownership. According to this project Proposal, the main strategy focuses on the establishment of an autonomous RDF, to be operational in public health facilities in Nyamira District for all in and outpatients through a ‘a single counter’ system. A district Pharmacy to be established which would act as the wholesaler. Additional measures involve the development of management tools and financial systems as well as enhancing the rational use of drugs both on supply and demand sides.
The specific Agreement between the Government of Kenya and the Belgian Government was signed on May 11th 2000. It entailed Belgian Technical Cooperation (BTC), as the executive body of the Belgian Government.

The Project started on the 1st of February 2001, with a planned duration of 3 years.

The project forms a reference project: experiences and lessons learnt are to be used in the introduction of RDF programmes in other districts in Kenya. This is in line with the current restructuring of the public sector drugs and medical supply systems.

1.3 Definition of Revolving Drug Fund

The World Bank (1994) defines the term Revolving Drug Fund as community financing for the availability of essential drugs at full cost prices. RDFs, which are one type of drugs sales or cost recovery schemes, attempt to mobilize financial resources based on a domestic willingness of people to pay for health services. RDFs are attractive, because they are theoretically self-financing after a one-time capital investment by the community, the Government, outside donors or loans. The one-time initial investment could be either in medicines or in cash. In the latter case, cash is spent to purchase for initial drug stock. Thus a Revolving Drug Fund is a cost recovery system, which differs from the cost-sharing system currently in other all government health institutions. It supports a drug supply programme where initial starting capital is provided by the community, the Government, or an outside donor as first seed stock of drugs, which are then sold and continually used to replenish the original stock to operate the system.
1.4 The Health care system in Kenya

The structure of the health services delivery system is hierarchical in nature. The dispensaries and health centers provide the bulk of services and form the first level of contact with the communities. The provincial and district hospitals provide both referral and outpatient services. Kenyatta National Hospital and Moi Teaching Hospital are at the apex as key referral and teaching hospitals.

In terms of management, the district is governed by the District Health management Team. The medical officer of health is the team leader who chairs the meetings. The provincial medical officer and his team supervise activities at the district level.

In addition, health matters in the district are brought to the attention of the District Health Management Board. The function of the board is to represent community interests in health planning and co-ordinate and monitor the implementation of projects at the district level. The chairman of the Board is a member of the community.

The board is important especially in financial matters. Similarly the hospital, the health centers and dispensaries have health management committees in place.

1.5 Health care finance in Kenya

Under health care financing the government had been providing health services free to the population but down the line it was no longer able to provide this unlimited free health care due to insufficient budgetary allocation and population growth. Health care financing was introduced in 1990 in all government health institutions to supplement
government financing. This was by the introduction of user fees at Hospitals and Health Centers. The dispensaries were to offer free services but have opted to introduce the fee through local community management committees managing the facilities. Maternal and Child Health Services are still provided free. Exemption and waiver was also put in place to ensure that poor people access the services.

The funds collected are used to improve quality of services in the facilities and to support district level primary health care. 75% of the funds collected are allocated for improvement of the facility while 25% go for the primary health care activities.

The funds are planned for and used at the local collection point through health management boards and are not subject to national treasury budgetary procedures of fund allocations.

Apart from the Government health services, private and Mission/Church based health facilities contribute up to 40% of health care. In these facilities patients pay for services. As a result the services are faster and attract the well to do people.

Traditional healers are common in the villages. Some diseases are thought to have beliefs attached and hence patients may seek traditional healers first.

1.6 Revolving Drug Fund in Nyamira

Unlike other districts, Nyamira is piloting a revolving drug system. Seed money for the fund came from the Government of Belgium in collaboration with the Ministry of Health. With this project the district has essential drugs in all public health facilities. Patients pay money for the drugs and the money generated is put back to buy more drugs. Since the
onset of this programme, shortage of drugs has not hit the district. The prices are highly
subsidized and hence affordable to the community.

1.7 Health Facilities in Nyamira

There are 61 health facilities in the District. Both the Government and non-governmental
bodies manage these health facilities. There is only one major hospital, which is the
district hospital. The hospital is managed by the Government and is the main referral unit
in the District. The hospital has laboratory and operating theater facilities.

Apart from the hospital where doctors are available, other medical staff below the grade
of doctors manages other health facilities. Health centers are equipped with laboratory
facilities and also offer in-patient facilities. Dispensaries do not have laboratory services.
They operate outpatient services only.

The referral system is from dispensary-health center – hospital. The hospital is the main
referral centre in the District. More difficult cases are referred to the provincial General
hospital, 100 kilometers away. There is an ambulance, which is used for referral cases.

Health facilities are well distributed in district shared among the seven divisions as
shown below:
### Health Facilities Per Division And Type

<table>
<thead>
<tr>
<th>Division</th>
<th>Nyamira</th>
<th>Nyamaiya</th>
<th>Ekerenyo</th>
<th>Nyamusi</th>
<th>Manga</th>
<th>Rigoma</th>
<th>Borabu</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>H./Centers</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Dispensary</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nurs. Homes</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Clinics</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>6</td>
<td>10</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>64</td>
</tr>
</tbody>
</table>

### Nyamira District Beds Capacity For 2003

<table>
<thead>
<tr>
<th>Type of facility</th>
<th>Beds</th>
<th>Cots</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYAMIRA district hospital</td>
<td>202</td>
<td>43</td>
<td>235</td>
</tr>
<tr>
<td>GOK health centers</td>
<td>92</td>
<td>10</td>
<td>102</td>
</tr>
<tr>
<td>Mission health centers</td>
<td>118</td>
<td>15</td>
<td>133</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>177</td>
<td>23</td>
<td>200</td>
</tr>
<tr>
<td>Dispensaries and private clinics</td>
<td>112</td>
<td>04</td>
<td>116</td>
</tr>
<tr>
<td>Grand total</td>
<td>702</td>
<td>95</td>
<td>797</td>
</tr>
</tbody>
</table>
1.8 Staffing Pattern

The staff in the District is grouped in two major groups, those working in the District hospital and those in the rural facilities. The table below shows the total number of staff in the district.

<table>
<thead>
<tr>
<th>Staff Establishment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical Officers</td>
<td>3</td>
</tr>
<tr>
<td>2. Clinical Officers</td>
<td>23</td>
</tr>
<tr>
<td>3. Registered Nurses</td>
<td>15</td>
</tr>
<tr>
<td>4. Enrolled Nurses</td>
<td>148</td>
</tr>
<tr>
<td>5. Public Health Officers</td>
<td>5</td>
</tr>
<tr>
<td>6. Public Health Technicians</td>
<td>46</td>
</tr>
<tr>
<td>7. Health Administrative Officers</td>
<td>2</td>
</tr>
<tr>
<td>8. Occupational Therapists</td>
<td>1</td>
</tr>
<tr>
<td>9. Physiotherapists</td>
<td>2</td>
</tr>
<tr>
<td>10. Comm. Oral Health Officers</td>
<td>1</td>
</tr>
<tr>
<td>11. Medical Laboratory Technologists</td>
<td>3</td>
</tr>
<tr>
<td>12. Medical Laboratory Technicians</td>
<td>14</td>
</tr>
<tr>
<td>13. Store men</td>
<td>4</td>
</tr>
<tr>
<td>14. Clerical Officers</td>
<td>16</td>
</tr>
<tr>
<td>15. Procurement Assistants</td>
<td>1</td>
</tr>
<tr>
<td>16. Nutrition Officers</td>
<td>3</td>
</tr>
<tr>
<td>17. Radiographers</td>
<td>2</td>
</tr>
<tr>
<td>18. Health Records, Information Technicians</td>
<td>4</td>
</tr>
<tr>
<td>19. Medical Engineering Technologists</td>
<td>1</td>
</tr>
<tr>
<td>20. Medical Engineering Technicians</td>
<td>1</td>
</tr>
<tr>
<td>21. Health Education Officers</td>
<td>1</td>
</tr>
<tr>
<td>22. Copy Typists</td>
<td>4</td>
</tr>
<tr>
<td>23. Telephone Operators</td>
<td>1</td>
</tr>
<tr>
<td>24. Cooks</td>
<td>4</td>
</tr>
<tr>
<td>25. Pharmaceutical Technologists</td>
<td>2</td>
</tr>
<tr>
<td>26. Mortuary Attendants</td>
<td>1</td>
</tr>
<tr>
<td>27. Subordinate staffs</td>
<td>122</td>
</tr>
</tbody>
</table>
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Brief Overview of experiences with Revolving Drug Funds in Africa

“Based on the experience with implementing revolving drug funds at district level in Sub-Saharan Africa focus is put on the manageability of such schemes. The community itself should have ownership over drugs, materials and money. People’s representatives must be able to have the scheme in a safe and sustainable way. A well functioning community financing scheme has many positive effects besides health. It contributes to education, independence, self-assertiveness, commitment, motivation, and it diminishes poverty.” (Zugang zu Medikamenten, 84, April 2002)

Many governments, non-governmental organizations (NGOs), and community health programs have implemented user fees to fund or partially fund the cost of drugs and other health services. Many different forms of drug funds (RDFs) exist. Their common element is that fees are charged for drugs dispensed. In the context of the Bamako Initiative, community drug schemes often have cost recovery objectives and include the financing of health education, immunization, and other aspects of primary health care.

Revolving drug funds are difficult to implement. Examples of successful large scale public RDFs are limited. Revenues are often much less than expected. Utilization of health services and therefore, equity of access often decrease. Accountability, management reliable drug supply, and rational drug use are challenges.

At the same time many countries providing “free” health services have found that public resources are insufficient to meet rising costs and increasing demand. When funds are limited, provision of essential drugs is among the first components of health care to
suffer: drug shortages become common even when selection, procurement, distribution, and use are efficient and rational.

Supporters assert that RDFs can raise substantial revenue; improve drug availability and quality of care; promote equality by making drugs more accessible to the poor, while charging those who can afford to pay; reinforce decentralization though local control of resources; and encourage efficiency in drug management and drug abuse. Others caution that collection costs may exceed revenue collected; there may be no improvement in drug availability and other quality measures; user charges are a form of “sick tax” that substitutes for public spending; people are dissuaded from seeking essential health care; and incentives are created for over prescribing.

2.1.2 Specific Literature Review: Revolving Drug Fund – Khartoum State – Sudan

In the Sub-Saharan Africa, Sudan happens to be one of the countries where a successful Revolving Drug Fund has been established. Sudan like in most of the African countries drugs and pharmaceuticals are distributed through the three systems: public sector, private and commercial and private non-for-profit sector (NGOs). The availability of medicines in Sudan is controlled on the basis of their safety, quality and efficacy. The primary objective of both federal and Khartoum State departments of pharmacy is to safeguard public health by ensuring that all medicines and pharmaceuticals is to safeguard public health by ensuring that all medicines and pharmaceuticals on the Sudan market meet appropriate standards of safety, quality and efficacy. The safeguarding of public health is achieved though a system of medicines’ registration and licensing of pharmacy premises. (Gamaliel Khalafalla M Ali 2000)

The Khartoum Revolving Drug Fund was a joint initiative between the Ministry of Health Khartoum State and Save the Children Fund – United Kingdom (SCF-UK) Sudan
office, under the Essential drug programme for displaced people in Khartoum State. The launching of Revolving Drug Fund started in Khartoum in 1989 with just 13 health centers mainly located in urban and per urban areas of Khartoum State. According to its obligation in the agreement, the SCF (UK) provided the capital seed stock of drugs (UK pounds 1.8 million) for RDF, in separate lots of drug consignments that were completed in 1992. Since then, RDF uses its own drug sales revenues for the purchase of further drug supplies and pay for operating expenses.

2.1.3 Aims of Khartoum RDF

The overall goal of RDF was to establish a reliable supply of safe, and affordable essential drugs to the community (Mothers and Children, to those who can least afford them or those who have to travel to great distances, that is, the poor and those in rural areas) with full area coverage and cost recovery within the PHC. The project was in line with the KS interpretation of Alma Ata Declaration. (Gamaliel 2000)

2.1.4 Objectives of Khartoum RDF

a) To provide the essential drugs to the KS population, especially in rural and peri-urban areas, at affordable price which is less than that at alternative sources, so patients are willing to pay for drugs;

b) To use revenues collected from the drug sales to replenish the stock by purchasing more drugs;

c) To put into place an effective drug supply at affordable cost to the ministry of health:
d) To put into place a financially self-sustaining system of drug supply to the KS population and;

e) Capacity building and management development at all levels of the system.

2.1.5 Achievements of Khartoum state RDF

Drug availability: as a result of a good operating system, the RDF ensures a continuous supply of good essential drugs at affordable prices in MoH KS health facilities. Drug availability is improved, and essential and other drugs have been continuously available to the participating health facilities since the launching of the project.

a) Geographical coverage: most of the population of Khartoum State have an RDF facility reasonably close and within walking distance. Before the RDF, travel and time cost involved in seeking alternative sources of care were high. When drugs became available at Local HFs, the fees paid represented an effective reduction in the price of care.

b) Health services utilization: use of health facilities increased significantly for people in RDF areas compared with those in which the RDF had not been implemented. The provision of good quality essential drugs at reasonable prices through RDF, as well as other contributions have resulted in the availability of the PHC services directed to improve children’s health to variable degrees (Awadalkarim, et al 1996)

c) Low income households: since the poor and the most responsive to price changes they appear to be benefiting more than others from availability of affordable high quality drugs. This is particularly true if the next best care alternative involves significant time and travel costs.
d) Confidence in the public health facilities: the RDF continuous supply of drugs has had a profound effect in regaining the confidence of population served in their health facilities. This in turn helped in increasing the utilization rates for promotive and preventive services (Awadalkarim, et al 1996)

2.1.6 Shortcomings:

a) Those who are unable to pay for drugs are discouraged from Primary Health Care. This will increase the problem of the poor rather than welfare.

b) The evaluation of the RDF has shown that the 8% of the prescriptions were not dispensed to the fact that the patients were not able to pay for the prescriptions.

c) The programme was unable to organize community participation and involvement of the facility health committees in its activities.

d) It was also unable to recruit enough pharmacy staff of the required quality for service delivery at health facilities.
CHAPTER THREE

3.1 Problem Statement

The lack of a reliable feedback from stakeholders on the functioning of the Revolving Drug Fund since inception to date to evaluate its effectiveness shows that there is a gap in understanding whether the programme has addressed the issues of access, availability and affordability of drugs as envisioned in the implementation plan.

3.2 Study Objectives

3.2.1 Main objective

The objective of this study is to carry out an analysis of the management of the Revolving Drug Fund introduced in Nyamira District by the Kenya – Belgium Technical Cooperation and evaluate its effectiveness in health care delivery.

3.2.2 Specific objectives

a) To trace the historical developments of the Revolving Drug Fund and to assess the progress made towards the sustainability of the project.

b) To describe the current situation, to build upon the problems encountered and to set up recommendations / best practices and how they can be replicated in other districts in Kenya.
3.3 Research Questions

1. What factors led to the establishment of the Nyamira Revolving Drug Fund and how does this scheme affect health care delivery?

2. What key factors aid the progress and sustainability of the Nyamira Revolving Drug Fund?

3. What contribution has the Revolving Drug Fund made to the health sector since its inception and implementation in Nyamira?

3.4 Justification for the research.

Essential drugs are a critical component of effective curative and preventive health care and the increased availability is perceived as a real improvement in quality of health care. Drugs also serve to establish the credibility of health professionals who need them to promote their services and contribute to national development through having a health population.

The purpose of this study is therefore to find out the effectiveness of the Nyamira Revolving Drug Fund and how it affects the access, availability and affordability of drugs and whether it has met its objectives and how lessons learned can be used in setting up other Revolving Drug Funds within the country.

Similarly the findings would be of significant interest to health care policy planners and Economists as key advisors to the Ministry of Health towards coming up with similar programmes as envisaged in the ministry of health’s reform policy strategies.
3.5 Target Population

Nyamira District is one of the 12 districts that make up Nyanza Province of Kenya. It was curved out of Kisii district in 1989. It shares boundaries with Rachuonyo District to the North, Transmara District to the South, Buret District to the East, Kisii Central to the West and Bomet District to the South East.

It lies between Latitude $0^\circ 30"$ and $0^\circ 45"$and South and Longitudes $34^\circ 45"$ and $35^\circ$ East. The area of the district is 896.4 square kilometers. The District is divided into seven administrative Divisions as follows: Manga, Rigoma, Nyamaiya, Borabu, Ekerenyo, and Nyamusi.

The actual study will be carried out in the seven (7) divisions where we will use a sampling frame to study the revolving drug fund.

3.6 Demographic Profile and Distribution

The population of Nyamira District was projected to be 547,638 in the year 2003. The growth rate is 2.4% per year. Females are more than males by ratio of 1:1.07. About 51.1% of the population belongs to the (0-14) year’s age group. 15% of the population belongs to the under 5 years’ age group. 15% of the population belongs to the under 5 years’ age group. The district is densely populated with average density of 626 persons per square kilometer.

3.7 Topography and Climate

The district has two topographical zones. The first one lies between 1,500m and 1,800m high above sea level. This covers the Northern part of the district. The second zone covers areas lying above altitude 1,800m above sea level and is mostly in the Southern
part of the District. Due to highland terrain of the District, soil erosion is high and construction and maintenance of roads is quite expensive. There are two major rivers, Sondu and Gucha. There are several depressions and valleys and this has been implicated in the malaria problem.

The climate of the district is of the Highland Equatorial type. This leads to reliable rainfall that is distributed throughout the year. The long rainy season occurs between March and June, while the short rainy season is from October to December. The highest amount of rainfall is received in the months of January and August. On average, the District receives an annual rainfall of 2000mm.

The district generally experiences maximum mean monthly temperatures of between 24.7°C and minimum mean monthly temperatures of between 9.9°C.

3.8 Economic Development

Seventy five percent of the people are small-scale farmers. They grow cash crops. Tea being the main cash crop. There is five KTDA (Kenya Tea Development Authority) and two private tea factories in the district. Coffee is grown mainly in the lower parts of the District covering Nyamaiya, Nyamaiya, Nyamusi and Manga divisions. Pyrethrum is also grown as a cash crop. Food crops include maize, beans, sorghum and millet. Borabu has a lot of farmers with high quality grade cows.

3.9 Socio Cultural Aspects

The Abagusi tribe inhabits the district. The community is made up of both Christians and Muslims. The people are mostly farmers and very industrious. Education levels are high with both boys and girls attending school almost on equal basis. There is very good
health seeking behaviour with communities’ willingness to contribute to health care through cost sharing efforts.

3.9 Sample Description

A purposive stratified random sampling procedure was used to select the study sample for Nyamira RDF. A total of 33 health facilities were visited. The target was to interview at least one health worker and one community member at each facility. A total of 50 questionnaires were developed and sent out to the district for the study. The questionnaire was developed in two parts; first part consisted of 33 questions targeting health workers and second part consisting of 13 question targeting community members (clients seeking treatment). 72% of questionnaires were completed for interviews conducted with health workers as compared to 96% completed by community. A total of 17 questionnaires were returned incomplete for health workers as compared to 2 questionnaires returned incomplete for the community.

Besides the specified interviews, focused group discussions (FGDs) with the top management team of Nyamira District Health Management Team (DHMT) and Nyamira RDF on the form of management structures and actual operations.

3.10 Data analysis

Statistical package for Social Sciences (SPSS) version 12 was used to analyze quantitative data while Q R S Nudist was used to analyze the qualitative data.
CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION

The data collected targeted two sets of informants; the health workers and the Community. Data analysis and presentation has been done separately for the two groups. The first part targets the health worker respondents while the second targets the community respondents. This was important so as to get different views for comprehensive data collection for analysis.

4.1 Organizational structure of Nyamira RDF

In preparation for starting the Revolving drug fund, a number of issues had to be put in place namely, the organization structure, training of health personnel and general infrastructure:

The RDF project is an independent entity within the Ministry of Health. Before inauguration, the ministry of Health headquarters and Representatives from the Belgian cooperation jointly set up management structure that was to propel the operations. This was an autonomous structure that was established to achieve the efficiency and effectiveness of the RDF in providing essential drugs at affordable prices with adequate control of quality. (Belgian Technical Cooperation & Ministry of Health: Revolving Drug Fund – Nyamira District Brief August 2003)

- Various committees were involved in the implementation of the Revolving Drug Fund Project at various levels of management: project Co-ordination Unit (PCU); based in Nairobi, as the link between the ministry of health and the project.
- **Sector Steering committee (SSC)**; based in Nairobi, which was a major decision maker regarding the budget and orientation of the project. The SSC comprised ten (10) members, originating from the ministry of Health, ministry of Finance, Belgian Embassy and Belgian Technical Cooperation;

- **Project Management Committee (PMC)**; based in Nyamira, was to ensure the overall and local co-ordination of the project. The PMC meets once every two months and comprises 15 members;

- **Project Management Team (PMT)**; based in Nyamira, ensures the day-to-day activities of the project. The Project Manager, Adviser and coordinator were responsible for the implementation of all components in the project area. They are assisted by the RDF project team, whose members were seconded from the Ministry of Health. Through the PMC, the PMT is answerable to the District Management Board (DHMB)

At the District level management, the district is governed by the District Health management Team. The medical officer of health is the team leader and chairs the meetings. The provincial medical officer and his team supervise activities at the district level.
According to Michael Armstrong 2003, the structure of an organization can be regarded as a framework for getting things done. It consists of units, functions, divisions, departments and formally constituted work teams into which activities related to particular processes, projects, products, markets, customers, geographical areas or professional disciplines are grouped together. The structure indicates who is accountable for directing, coordinating and carrying out activities and defines management hierarchies – ‘the chain of command’ – thus spelling out, broadly, who is responsible to whom for what at each level in the organization.
4.2 Capacity building:

Trainings and sensitization were conducted among health workers to enhance operations of the RDF. From the interviews conducted, 80% said they received training to strengthen their overall performance, 17.1% said no, while 2.9% gave no response.

<table>
<thead>
<tr>
<th>Received Training To Strengthen Their Overall Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>80.0%</td>
</tr>
<tr>
<td>17.1%</td>
</tr>
<tr>
<td>2.9%</td>
</tr>
</tbody>
</table>

Specific areas of sensitization included: Drug dispensing, financial management, Drug stocking, and proper usage of Drugs. 96.6% said they were trained / sensitized on Drug dispensing, 96.6% were inducted on financial management while 2.9% said that they were sensitized on proper usage of drugs.

Studies indicate that Training and sensitization are prioritized activities when setting up new systems and “over the last 20 years countries have acquired considerable experience in managing drug supply. Although many important lessons have emerged from this experience, five broad terms still capture the most important insights (MSH 1997 PP.9):

a) National drug policy provides a sound foundation for managing drug supply

b) Wise drug selection underlies all improvements

c) Effective management saves money and improves performance

d) Rational drug use requires more than drug information and,
c) Effective management saves money and improves performance

d) Rational drug use requires more than drug information and,

e) Systematic assessment and monitoring are essential.

Studies done (MSH 1997 PP.5) also indicate that ministers of health, directors of health programs, donors, and other involved in the health sector should be concerned with drugs. Accessible health services and qualified staff are necessary components of any health care system, but drugs have special importance for at least five reasons:

a. Drugs save lives and improve health

b. Drugs promote trust and participation in health services

c. Drugs are costly

d. Drugs are different from other consumer products, and

e. Substantive improvements in the use of supply and use of drugs are possible.

These are the reasons that motivate planners and managers to put up systems that motivate planners and managers to inaugurate systems that are sustainable for effective and efficient delivery of services.

From human resource perceptive, “every organization needs to have well-trained and experienced people to perform the activities that have to be done. If current or potential job occupants can meet this requirement, training is not important. When this is not the case, it is necessary to raise the skills levels and increase the versatility and adaptability of employees” Lucy Mugwere 2004

When asked what are their roles and responsibilities, the responses were as follows; 100% of the respondents said their duties were receiving and dispensing drugs, and
Studies on organizational management indicate that people work and perform their duties effectively when they know what is expected out of them and the purpose of an organization structure is acknowledging a group's need to allocate tasks and responsibilities between members; it may also identify and clarify particular roles and levels of responsibility; secondly it is a recognition of the need to coordinate activities and roles once they have been allocated; and it is also an attempt to facilitate and regulate (a) the flow of information in the group and (b) the decision making processes; and finally it is likely to serve in some measure as a means of resolving differences or problems between members.

4.3 Management of RDF

When asked what their views were regarding the management of RDF; 25.7% said it was very good, 54.3% said it was good, 11.4% said it was fair while 5.7% said it was poor.

Of those who found management was excellent, 26% said drug supply was adequate, 26% found that there was efficient drug supply, 24% said drugs under the system were
Of those who found management was excellent, 26% said drug supply was adequate, 26% found that there was efficient drug supply, 24% said drugs under the system were affordable, 20% said that supervision had been enhanced while 4% noted that community had access to the RDF drug supply.

<table>
<thead>
<tr>
<th>Why management is good</th>
<th>(n=28)</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability drugs</td>
<td>12</td>
<td>26%</td>
</tr>
<tr>
<td>Efficient drug supply</td>
<td>12</td>
<td>26%</td>
</tr>
<tr>
<td>Affordability of drugs</td>
<td>11</td>
<td>24%</td>
</tr>
<tr>
<td>Regular Supervision</td>
<td>9</td>
<td>20%</td>
</tr>
<tr>
<td>Community accessibility</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Though 54.3% found management as good, the effects of good management in relation to service delivery was insignificant as seen from the percentage of respondents on evaluating the system. This indicates that management structures. On asked whether any of the above factors or any specific ones had contributed to the success of RDF;

- 65% said drug availability was a contributory factor to success of RDF,
- 20% alluded the success to management routine visits,
- 8.6% attributed the success to good working communications,
- 8.6% noted that acceptability and accessibility by community
- 5.7% indicated that good accounting system had attributed to success

Consumers of services usually rate a service as being successfully if it meets their needs as desired. Looking at the percentages above, the health workers rate the RDF
4.4 Financial Management

All the respondents were aware and familiar with the operations of the financial system put in place. 77.1% of the health workers interviewed said that financial system put in place was very effective, 14.3% said the system was effective, while 8.6% said it was fairly effective. Nobody found the system bad or inappropriate.

Since the health workers understood and appreciated operations of the system, 85.7% of the respondents confirmed that they banked all collected revenue fortnightly as stipulated
Since the health workers understood and appreciated operations of the system, 85.7% of the respondents confirmed that they banked all collected revenue fortnightly as stipulated in the operational manual. 5.7% said they bank the collected money monthly and not fortnightly due work overload, while 8.6% gave no response.

MSH, in their second edition; “Managing Drug Supply pg 608” note that “Drugs save lives and improve health, but they are costly, and they are necessary to make effective use of staff and other health resources. Financial sustainability requires a balance among the demand for drugs, the cost of meeting this demand, and available resources. Otherwise shortages result and quality care declines. A drug financing strategy should therefore begin with making better use of available funds”

The survival of any organization depends on its economic viability to cover its operating cost and to make a surplus. Hence the effective management of the finance function is crucial to success. In view of the study the program is sustainable due to sound financial management systems put in place.

4.5 Drug supply management

Management of the drug supply system is a key component to the success of the Nyamira RDF. Among the health workers interviewed, 97.1% said that they get drug supplies from the RDF stores, while 2.9% did not respond. The percent of respondents who know the source of drugs indicate that staff / health workers know the source of drug supply and thus the foundation to smooth operations.

Regarding the system of drug supply, 97.1% know with certainty that RDF operates on a “pull system” (where users or consumers of drugs initiate orders as per anticipated demand where drugs are pushed from central store to health facilities basing on
what is required and these guards against irregular drug supplies. To confirm that health workers initiate drug orders, 94.3% of the respondents said that they are the ones who place orders for drugs as compared to 5.7% who did not respond.

The respondents were also aware of some form of drug storage system in place as follows; 31.4% - storage is done on pallets in the store.

2.9% - storage done on the floor in the store.

62.9% - storage done on the shelves.

2.9% - storage done in cupboards

57.2% said that it was not different from the storage system under the central ministry of

28.6% said that it was different since drugs are arranged according to FIFO,

17.2% did not respond.

The storage of drugs under RDF is not uniquely done as alluded by the health workers. It follows other systems in use in other health set ups. Its is therefore conclusive that the RDF drug management system is good and sustainable if it is improved upon.

Storage of drugs as per studies done, follows laid down rules and procedures (MSH 1997 Pg 344). “After incoming stock has been checked and approved, it is formally released
Storage of drugs as per studies done, follows laid down rules and procedures (MSH 1997 Pg 344). “After incoming stock has been checked and approved, it is formally released from the receiving area and moved to the warehouse to be stored in the appropriate zones. New stock may be stored on floor pallets, pallet racks, or shelves. If a fluid or semi fluid location system is used, the exact location of each may be recorded. If a bin system is in use, each receipt should be entered on the **bin card** when the items are transferred to the storage area.”

Studies show that in a pull system, “each level of the system determines what types and quantities of drugs are needed and places orders with the supply source (which may be a warehouse in the system or a commercial supplier). This type of system is sometimes called an independent demand or requisition system. (MSH 1997 Pg323) Good planning is also needed so that each facility receives supplies regularly and on time. Conditions that favour Pull system include:

- Lower-level staff are competent in assessing the needs and managing inventory,
- Sufficient supplies are available at supply source to meet all program needs,
- A large range of products being handled,

Field staffs are regularly supervised and performance is monitored. (MSH 1997 Pg323)

From the respondents it was learned that the following drugs are dispensed from the RDF stores/pharmacies; antibiotics, steroids, family planning pills, Analgesics, Haemantinic, Antihistamines, Anti-flamatory and Antifungal creams.

On drug administration 100% respondents noted that they prescribe all the drugs on the drug list although not all patients purchase all drugs from the RDF stores. On asked whether they purchase from chemists, shops, or other sources the responses were as follows; 85.7% purchase from the RDF stores, 14.3% don’t,
- 40% from Chemists while 60% do not
- 20.0% from shops while 80% do not
- 60% buy from other sources

### Respondents Who Buy Drugs Elsewhere

![Bar Chart: Respondents Who Buy Drugs Elsewhere](image)

- Buy from chemist
- Buy from shops
- *Other

* Lack Money to Purchase Drugs

On asked about the cost of drugs, 82.9% of the health workers noted that the drugs sold under Nyamira RDF were cheap, 2.9% said they were expensive, while 14.3% noted that the drugs were affordable. This is a positive impact of the Revolving Drug Fund that if maintained will ensure health status of the district since population is able to access drugs when they are prescribed for.

### Response on Cost of RDF Drugs

- Expensive
- Cheap
- Affordable

Regarding cases of under-doses being administered, 45.7% confirmed the practice while 54.3% said no. Among the 45.7% who said there were cases of under doses, 42.9% said
the practice was due to lack of finances, 2.9% said it was due to lack of drugs at the facility. Problem of under doses seems not to be a major problem and this can be attributed to the cost of drugs which are affordable to the majority of the population. However there is need to address the plight of the minority group who are unable to purchase all the drugs prescribed for them.

Problem of under doses are influenced by the following factors (MSH 1997 Pg425);

- Unreliable drug supply, drug shortages, expired drugs, and availability of inappropriate drugs; these inefficiencies in the system lead to lack of confidence in the prescribers and the patient. The patient demands treatment and the prescriber feels obliged to give what is available even if the drug is not the correct one to treat the condition.

- The prescriber may be affected by internal and external factors; he or she may have received inadequate training, or prescribing practices may have become outdated due to a lack of continuing education, lack of objective drug information, and information provided by drug representatives may be unreliable;

- The quality of dispensing may be affected by the training and supervision the dispenser has received and the drug information available to the dispenser;

- The individual’s (patient and community) is influenced by many factors including cultural beliefs, the communication skills and attitudes of the prescriber and dispenser, the limited time available for consulting, the shortage of printed information, and community beliefs about the efficacy of certain drugs or routes of administration. For example there may be beliefs that injections are more powerful than capsules, or that capsules are more effective than tablets.
It was also established from the respondents that patients have preferences over certain drugs or medications with 62.9% confirming while 37.1% saying no. The various reasons given were as follows;

- 31.8% alluded it to psychological belief that some drugs respond faster than others,
- 31.8% noted that some drugs respond faster than others,
- 4.5% lacked money
- 18.2% preferred single doses which were not cumbersome to swallow,
- 13.7% preferred injections to oral medications.

This phenomenon was again expounded when the respondents were asked whether their clients used drugs as prescribed, only 25.7% confirmed the right practice, while 74.3% said no. These could be correlated to the quality of drugs which only 22.9% confirmed it was of good quality while 77.1% noted that the quality was not good. However it was noted that majority (85.7%) of the clients do not complain about the cost of drugs, only 14.3% complained. This points to the need for management to reconsider revising the drug list to be able to cater for client needs as per the current treatment convention.

According to the Management of Health sciences, “the aim of drugs is to deliver the correct drug to the patient who needs that medicine. The steps of selection, procurement, and distribution are necessary precursors to the rational use of drugs”. The conference of Experts on rational Use of Drugs (WHO) in Nairobi in 1985, defined rational drug use as follows: the rational use of drugs requires that patients receive medications appropriate to their clinical needs, in doses that meet their own requirements, for adequate period of time, the lowest cost to them and their community. Depending on the context, however, many factors influence what is rational or irrational drug usage!
4.6 Overall evaluation of Nyamira RDF by health workers

91.4% of the health workers rated the NRDF as Successful while 5.7% rated the system as unsuccessful as compared to only 2.9% who evaluated the system as poor.

This confirms that the project has met its objective of ensuring that drugs are available, accessible and affordable and that the health workers were happy with the whole system. This in a way justifies the assertion that drugs are a critical component of effective, curative and preventive health care and the increased availability is perceived as a real improvement in quality of health care. Drugs also serve to establish the credibility of Health professionals who need them to promote their services and contribute to national development through having a healthy population.

4.7 Community Perspective of Nyamira RDF

This is the second part of data analysis that targeted the community respondents. This was necessary to find out whether the community was aware of the existence and operations of the RDF and whether it has been beneficial to them as the intended target / beneficiaries.
4.7.1 Utilization of Services at Health Facilities Operating on RDF

100% of the community members interviewed confirmed that they seek treatment at the GOK facilities operating on RDF. This confirms that the community is aware of the operations of the RDF project and that services are accessible to them.

To confirm whether they had knowledge of RDF operations, 89.6% said they had knowledge on the system, while 10.4% said no. In confirming why a fraction had no knowledge of RDF, the respondents were asked whether they were sensitized at all before the project started. 59.6% said they were sensitized, while 40.6% said they were not sensitized.

The respondents went further to specify the areas which were explained to them during the sensitization period.

Area of drug dispensing;

- 46.4% said they were sensitized on how drugs were to be dispensed.
- 53.6% said no sensitization was done.
Area of financial management;
- 39.3% on how finances would be managed,
- 60.7% were not sensitized on how the project was to manage their finances’

Drug stocking;
- 35.7% confirmed that they were sensitized on drug stocking,
- 64.3% said no.

Why to purchase drugs from RDF stores;
- 82.1% were on why they should purchase drugs from RDF
- 17.9% said they were not sensitized.

Whether they were sensitized to mobilize other community members;
- 21.4% on how to sensitize other community members on the operations and benefits of RDF.
- 78.6% did not receive sensitization on how to mobilize other community members in supporting RDF operations.

The above percentages indicate that community mobilization and sensitization are key to successful implementation of any social program.

The failure of traditional top-down development approaches to eradicate poverty and improve the living conditions of the poor has led to increased interest in popular participation in development. Since 1978 Alma Ata World Conference on Primary Health Care, many governments in developing countries have taken initiatives to expand community participation in the promotion and delivery of basic health services. This expansion represents both a response to the increasing trend toward decentralization and recognition of the value of locally tailored approaches, and acknowledgement of the need for increasing levels of community participation and financing. (MSH 1997 Pg 570)
Community participation do support and enhance improvements in drug management and use in a number of ways;- promotion of appropriate drug use; promotion of preventive health services; improvement of drug availability; management of outreach services; and management of facility-based health services. This is summed up by the Alma Ata declaration which states that people have the right and duty to participate individually and collectively in the planning and implementation of their health care. (MSH 1997 Pg 497)

When the respondents were asked whether they purchased drugs from the facility where they got the prescription, 91.7% affirmed while 8.3% did not. This percentage said that they bought their drugs from private clinic, chemist, or from shop

4.7.2 Right Treatment Practice

When the community respondents were asked they purchased all the prescribed drugs from the facility where they seek treatment, 91.7% confirmed this as compared to 6.3% who do not purchase all the prescribed drugs at the RDF facility while 2.1% gave no response.

Studies done on drug use indicate that “although the Prescribers role in promoting rational drug use is important, the patient and the cultural context in which therapy is selected cannot be ignored. The knowledge, attitudes, and education of the public in relation to disease etiology and treatment are critical determinants in the decision to seek health care, the choice of the provider, the use of medicines, and the success of treatment. Without public education in the appropriate use of drugs, people lack the skills and knowledge either to make informed decisions about how to drugs (including when not to use them) or understand the role of drugs in health care. Public health education provides
individuals and the communities with information that enables them to use medicines in an appropriate, safe and judicious way” (MSH 1997 Pg 497)

4.7.3 **Attitude of Health Workers**

When asked to evaluate the attitude of health workers who treat them at the RDF facilities, 74.5% said the health workers had positive attitude and served them well, 14.9% found their attitudes negative while 10.6% said their attitudes need improvement. This shows that the community has faith in services being offered and that the health workers who serve them have good public image or have established good rapport with community.

4.7.4 **Community Evaluation of NRDF**

The community members evaluated the RDF system as follows; 85.1% found the system effective; 12.8% did not find it effective; whereas 2.1% respondents did not have any comment.

![Evaluation on RDF by the community](image)
The above percentage represents positive views of the community regarding their evaluation of the RDF project. By stating that the project is effective it means that the community is satisfied with the services being provided under the RDF.

The respondent had different views to say about the RDF as compared to the Cost Sharing system they were used to before the inception of the RDF;

- 33.3% said RDF is not different from Cost sharing
- 16.4% said in RDF drugs are available,
- 33.2% found RDF drugs affordable than the other system,
- 8.3% were non-committal on anything.

The above views indicate that the community understand the RDF system of drug management and can compare it with the cost sharing system that was initially in place. This gives them the ability in deciding where to seek treatment.
CHAPTER FIVE

5.0 RECOMMENDATIONS AND CONCLUSIONS

5.1 Achievements

1. Drug availability in Nyamira district has been aided and shortage of drugs is a thing of the past. RDF ensures continuous supply of Drugs that are affordable, and of good quality. This was confirmed by the 97.8% respondents (health workers 82.9% and community 91.7%) who seek treatment and purchase drugs from the GOK health facilities. Due to this the staff morale has been improved because staffs have essential drugs to work with. (Tools of trade).

2. Confidence in public health institutions has been created. More people are currently seeking treatment at public health institutions unlike in the past before the RDF was inaugurated. This helps in increasing utilization coverage of other health facilities like Reproductive and preventive services. (Awadalkarim 1996).

3. Geographical coverage of health services too has been widened. The district is evenly distributed with health centers and dispensaries which have been equipped with drugs as per the RDF drug listing and dispensing procedures.

4. Utilization of health services has increased. Initially many of the health facilities were on the brick of closure but RDF has salvaged the situation through availability of good quality essential drugs at reasonable prices as confirmed by 82.9% health workers and 91.7% community members / clients. Utilization of health services too contributed to improved primary health care.
5.1.2 Factors that contributed to the above achievements

The political, economic and social factors have contributed to the success of the RDF in the following ways;

1. The political environment in the country and in the district aided the initial negotiations and subsequent signing of the bilateral agreement between Kenya and Belgian Governments to set up the RDF in Nyamira district. The availability of donor funds from Belgian Technical cooperation and the Kenya Government through the Ministry of health to complete the Revolving Drug Fund kit.

2. The Revolving Drug Fund management structures with clearly laid down power structures and distinct job allocations from the top management to tertiary levels. This ensured that chain of command was followed in lieu of decision making regarding drug selection, drug transportation, drug storage and drug dispensing. The role of the following advisory bodies; Project Coordinating Unit, based at Nairobi, as the link between ministry of Health and Belgian; Sector Steering Committee, which was to make major decisions regarding the budget and orientation of the project, Project Management Committee based in Nyamira, which ensures that overall and local coordination of the project; and the Project Management Team based in Nyamira, which ensures the day to day activities of the project.

3. Capacity building of health workers operating the Nyamira Revolving Drug Fund contributed to the success story. A total number of 240 staff members were familiarized with the operations of an RDF during six (6) consecutive one-week workshops that were held in October and November 2004. The training targeted Medical doctors, Clinical Officers, nurses and Administrative personnel. The
training addressed issues like rational drug prescribing, rational use of drugs, ordering according to need (pull system), delivering drugs, stores and drug management, dispensing practices, pricing and financial management procedures.

4. Community support in continuing to utilize the services at RDF health facilities played a key role in the success of the RDF operations. As seen from the analysis, 85.1% community members noted that the RDF was effective meaning that they understood and appreciated the services being offered.

5.2 Limitations

1. The system discourages those who are unable to pay and this is what leads to improper drug usage / under doses.

2. Though inter community advocacy and sensitization are key to acceptability and sustainability of any project, it appears that this aspect was not seriously handled well. Only 21.4% of the community members noted that they were sensitized to create awareness amongst themselves. This was similarly echoed by 94.3% of the health worker respondents who thought that the system was not accessible to the community.

3. The system has not been able to put in place a strong supportive supervision team to continuously monitor and improve quality of services delivery.

5.3 Recommendations

1. The project managers should look in to the plight of poor clients or patients who are unable to pay for all the drugs prescribed. This is one way of alleviating
problems of improper drug usages that emanate from cases of under doses or poor health community status due inability to afford treatment.

2. Medical monitoring and supervision that emphasizes identification and filing of gaps between the actual practice and the established standards should be enhanced to ensure rational use of drugs.

3. The scope of community participation at both management and PHC levels should be widened to improve coverage and ensure sustainability.

5.4 Conclusions

The Nyamira Drug Revolving fund is a success story of what the cooperation between donors and the Ministry of Health can achieve through joint collaborative efforts. The RDF has so far fulfilled its objectives of ensuring availability and accessibility of drugs that are affordable and of high quality to the Nyamira population. It has ensured constant supply of drugs which has in turn led to better utilization of primary health care services within the District. This success story is attributed to the effective management structures that were put in place to aid implementation and day to day operation management of the program.

Essential drugs being a critical component of effective curative and preventive health care and their increased availability was perceived as a real improvement in quality of health care delivery in Nyamira district where both the health workers and the community confirmed that drugs were available, affordable and of good quality. Drugs also serve to establish the credibility of health professionals who need them to promote their services and contribute to national development through having a health population and this has been a really positive impact on the service provider in Nyamira District.
Despite the successes or achievements made, it is imperative that modalities be put in place to guard against disintegration of the project through inauguration of systems that would provide incentives for the vulnerable groups not to shun away from seeking treatment at the health facilities operating RDF. The management could check this through exemption and waiver system for those who are unable to pay for drugs.

Continuous on the job training to enhance proper and current medical prescribing practices should go along way in improving service delivery and client confidence among the health workers.

It is however likely that other economic factors emanating from treasury funding may constrain the procurement of drugs and maintenance of other operations though this can be avoided if innovative use of funds is put in place.

It is therefore possible for the RDF / Ministry of health to enhance its achievement and improve on shortcomings for the sustainability of the programme and even scale up inauguration of similar systems in other districts.
Appendix 1

PART 1: MANAGEMENT TOOL:

1. What are your roles in the RDF at this health facility?
   a) Receiving and dispensing drugs
   b) Banking the money collected
   c) Advising RDF on drug needs of the facility
   d) Any other (specify)

2. Did you receive any training to strengthen your performance in RDF?
   a) a) YES        a) NO

3. What topics were covered in the training?
   a) Drug dispensing
   b) Financial management
   c) Drug stocking
   d) Any other (specify)

4. What problems do you encounter in this facility in relation to RDF?
   a) Work overload
   b) Delay of drugs delivery from main store at Nyamira
   c) Regular surrender of funds
   d) Any other (specify)

5. How do you overcome the problems? ------------------------------------------------------

6. How would you describe the RDF management?
   a) very good
   b) good
   c) fairly good
   d) fair
   e) poor

7. How has it contributed to the success or failure of implementation and operations of RDF? Please explain.---------------------------------------------------------------
8. What kind of financial system is being used to manage the RDF operations?

9. How effective is it?

REVOLVING DRUG SYSTEM

10. What is the source of drugs?

11. How frequent do you receive your drug supplies?
   a) Daily
   b) Weekly
   c) On order
   d) Any other (specify)

12. Who starts the process of acquiring drugs?
   a) In-charge
   b) Store man
   c) RDF main office Nyamira
   d) Any other specify

13. Is it a pull or push system?

14. How effective is this system of procurement?

15. How is the storage system?
   a) On Pallets in store
b) In refrigerator
c) On the floor in the store
d) Any other (specify)

16. How different is it from any other available system?

17. Who places orders for drug requirements?
   a) in-charge
   b) store man
   c) RDF main office Nyamira
   d) any other specify

18. What factors do you think have contributed to the success of the RDF?

19. What other comments would you like to make about the Revolving Drug Fund?

20. Do you prescribe all the drugs that are on your list?   a) YES   b) NO

21. Do patients purchase all the prescribed drugs?
   a) YES   b) NO

22. If No, state reasons why
   a) buy from chemist
   b) buy from shops
   c) buy form RDF store
   d) any other (specify)

PERCEPTIONS ABOUT THE REVOLVING DRUG FUND

23. What are the main diseases in this area?
   a) Malaria
b) URTI

c) Diarrhoeal diseases

d) any other (specify)----------------------

24. What proportion of patients you treat on an average (daily) buy drugs from your pharmacies?
   a) 1-5
   b) 6-10
   c) 11 and over

25. What kind of drugs do you dispense in your stores / pharmacies?

26. What do you think are the advantages of the revolving fund
   a) accessibility of drugs
   b) affordability of drugs
   c) acceptability to the community
   d) any other (specify)

27. How is the cost of the prescriptions in comparison to prescriptions dispensed in private chemists?
   a) Cheap
   b) Expensive
   c) Affordable
   d) Any other (specify)

28. In your view how would you rate / describe the RDF operations?
   a) Successful
   b) Unsuccessful
   c) Poor
   d) Any other (specify)

**KNOWLEDGE OF DRUG USAGE**

29. Are there specific cases where patients purchase less drugs / under dose than the prescribed dosage?
30. What could be the causes of such cases?

31. Do patients have preferences for certain drugs over others? If so explain

32. What would you say to be the view of patients over drugs that you dispense in your hospital pharmacies?

33. Do patients / clients complain about the prices you sell your drugs?
   a) Yes  b) No
   If yes, how is the management solving the problem?
PART II: COMMUNITY TOOL

1) Do you go for treatment at G.O.K health facilities? a) YES  b) NO
2) Do you have knowledge of RDF? a) YES  b) NO
3) Did you receive any sensitization before inception of RDF?
   a) a) YES  a) NO
4) What topics were covered in the sensitization?
   a) Drug dispensing
   b) Financial management
   c) Drug stocking
   d) Purchase of drugs from GOK facilities
   e) Any other (specify)
5) How is RDF different from the cost sharing programme / services?
6) Do you purchase drugs from the health facility pharmacy where you get the prescription? a) YES  b) NO
7) If NO where do you purchase your drugs?
   a) Buy from chemist
   b) Buy from shops
   a) Any other (specify)
8) Buy from RDF store
9) Do you buy all the drugs that are prescribed for you when you go for treatment a) YES  b) NO
10) How is the attitude of the health workers?
11) In your opinion, what would you say about the attitude of the health workers who serve when you go for treatment?
12) In comparison to Cost Sharing program, what would you say about the
management of the RDF?

13) What other comments would you like to make?
APPENDICES

Appendix 2:

References


