EVALUATION OF TB/HIV INTEGRATED SERVICES THROUGH INTERNAL REFERAL LINKAGES IN TERMS OF EFFECTIVENESS AND EFFICIENCY:

EVALUATION STUDY OF BABATI TOWN HOSPITAL
EVALUATION OF TB/HIV INTEGRATED SERVICES THROUGH INTERNAL REFERRAL LINKAGES IN TERMS OF EFFECTIVENESS AND EFFICIENCY:

EVALUATION STUDY OF BABATI TOWN HOSPITAL

By
Redemptha Mathew Lubuva

Evaluation research report submitted to the school of Public Administration, Department of Health Systems Management in Partial Fulfillment of requirements for the award of Masters’ of Science degree in Health Monitoring and Evaluation 2015
CERTIFICATION

We, the undersigned, certify that we have read and here by recommend for acceptance by the Mzumbe University, a dissertation entitled-“Evaluation of TB/HIV integrated services through internal referral linkages in terms of effectiveness and efficiency” in partial/fulfillment for the award of the Masters’ of science-Health Monitoring and Evaluation Mzumbe University.

Signature _____________________
Major Supervisor

Signature _____________________
Internal Examiner

Signature _____________________
External Examiner

Accepted for the Board of School of Public Administration and Management

Signature

_________________________________________
DEAN/ CHAPPERSON
DECLARATION

I, Redemptha Mathew Lubuva declare that this report is my own original work and that has not been presented and will not be presented to any other university for a similar or any other degree award.

Signature_____________________

Date_________________________
COPYRIGHT

© 2015

This dissertation is a copyright material protected under the Berne Convention, the Copyright Act 1999 and other international and national enactments, in that behalf, on intellectual property. It may not be reproduced by any means in full or in part, except for short extracts in fair dealings, for research or private study, critical scholarly review or discourse with an acknowledgement, without the written permission of Mzumbe University, on behalf of the author.
AKNOWLEDGEMENT

I would like to take this opportunity to thank God for granting me good health to complete this evaluation research report safely.

I thank very much all my colleagues, the first cohort 2013/2015 masters’ of science course in Health monitoring and Evaluation for their Endeavors’ support during different stages of the course and especially in accomplishing this evaluation research work and reporting.

Special gratitude is obliged to my supervisor Mr John Fusi a senior lecturer of Mzumbe University for his consultations, directives and support which led me to success. I also take this opportunity to acknowledge the help I got from other SOPAM staff for mentoring and coaching throughout this course.

Special appreciation goes to my family who provided me with time, moral support and endless prayers, for without their support the advancement of my study would not have been possible.

I would also like to express my sincere appreciation to the Manyara Regional secretariat and Health department for giving me permission to pursue this masters’ course. Much appreciation also goes to Babati town hospital administration, TMO, MO I/C. of the hospital, town hospital staff and especially those who worked in TB/HIV components: Tb unit, VCT unit, CTC unit, Lab. Unit, ANC-PMTCT unit, in the wards both IPD and OPD. All District coordinators for TBLP, HIV/AIDS and TB/HIV of Babati town council for their time donated filling these questionnaires.

Lastly and very important: I would like to extend my gratitude to the Ministry of Health and Social Welfare (MOHSW) who funded me with the tuition fee. I thank Centre for Disease Control (CDC) and University of California San Francisco (UCSF) who also assisted me with part of tuition fee. The course will be of beneficial to my region, my country Tanzania and worldwide knowledge and information sharing. Thank you.

“MAY OUR ALMIGHT GOD BLESSS YOU ALL”.
DEDICATION

I dedicate this work to my beloved family: My husband DR. Mosses Panga, my son Deogratius M. Panga, my daughters, Graceana M. Panga, Laurencia M. Panga and Maryloema M. Panga for their moral, spiritual and physical support that is everlasting to me. Their support means a lot in my life. May the Almighty God protect them, bless them, give them peace, wisdom, and Faith in God for prosperous life in Earth and Heaven AMEN.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>CTC</td>
<td>Care and Treatment Clinic</td>
</tr>
<tr>
<td>CDC</td>
<td>Centre for the Disease Control.</td>
</tr>
<tr>
<td>CHMT</td>
<td>Council Health Management Team</td>
</tr>
<tr>
<td>DTLC</td>
<td>District Tuberculosis and Leprosy Control</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Syndrome.</td>
</tr>
<tr>
<td>HBC</td>
<td>Home Based Care</td>
</tr>
<tr>
<td>IPT</td>
<td>Isoniazid Prophylactic Treatment</td>
</tr>
<tr>
<td>MDR</td>
<td>Multiple Drug Resistance.</td>
</tr>
<tr>
<td>EX-MDRT</td>
<td>Extended Multiple Drug Resistance Treatment</td>
</tr>
<tr>
<td>OPD</td>
<td>Outpatient Department</td>
</tr>
<tr>
<td>NACP</td>
<td>National AIDS Control Program.</td>
</tr>
<tr>
<td>NTLP</td>
<td>National Tuberculosis and Leprosy Program me.</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-Governmental Organization.</td>
</tr>
<tr>
<td>PLHIV</td>
<td>People Living with HIV.</td>
</tr>
<tr>
<td>RHMT</td>
<td>Regional Health Management Team.</td>
</tr>
<tr>
<td>TMO</td>
<td>Town Medical Officer.</td>
</tr>
<tr>
<td>RCHC</td>
<td>Reproductive Child Health care.</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis.</td>
</tr>
<tr>
<td>TB/HIV</td>
<td>Tuberculosis and Human Immune Virus</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Mother to Child Transmission.</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization.</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TB(MDR_TB)</td>
<td>Tb Multiple Drug Resistance Tuberculosis</td>
</tr>
<tr>
<td>(XDR)TB</td>
<td>Extensively Drug Resistance.</td>
</tr>
<tr>
<td>SOPAM</td>
<td>School of Public Administration</td>
</tr>
<tr>
<td>VCT</td>
<td>Voluntary Care and Treatment.</td>
</tr>
<tr>
<td>URT</td>
<td>United Republic of Tanzania</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>THIS</td>
<td>Tanzania Health Indicator Survey.</td>
</tr>
<tr>
<td>MOHSW</td>
<td>Ministry of Health and Social Welfare</td>
</tr>
<tr>
<td>MO I/C</td>
<td>Medical Officer in Charge</td>
</tr>
<tr>
<td>UCSF</td>
<td>University of California San Francisco</td>
</tr>
<tr>
<td>PLWHIV</td>
<td>People living with Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HCW</td>
<td>Health Care Workers</td>
</tr>
<tr>
<td>HBC</td>
<td>Home Based Care</td>
</tr>
<tr>
<td>MO I/C</td>
<td>Medical Officer In Charge</td>
</tr>
<tr>
<td>IPD</td>
<td>In Patients Department</td>
</tr>
<tr>
<td>PITC</td>
<td>Provider Initiation Testing and Counseling</td>
</tr>
</tbody>
</table>
OPERATIONAL DEFINITIONS OF TERMS

TUBERCULOSIS
- This is the infectious diseases caused by the bacteria called mycobacterium tuberculosis Bacilli.

HIV
- This is the abbreviation for the virus known as Human immunodeficiency Virus

AIDS
- This is the abbreviation for Acquired Immunodeficiency Syndrome

HIV/AIDS
- This is the infection with Human Immune deficiency virus (HIV) which results to the illness of the Acquired immunodeficiency syndrome.

TB/HIV co-infection
- This is the condition where by two diseases affect one person at the same time.

Service integration
- This is the unique method of service delivery that gives persons with the advantage of acquiring services from multiple programs.

Collaboration
- This is the mechanism for organizing and joining together all interrelated health issues, activities and prevention strategies to facilitate comprehensive service delivering towards maximizing the health benefits that person gets in one unit.
Efficiency

- Program me implementation justifies the cost incurred

Effectiveness

- Is whether program me implementation reached the intended results

Stakeholders

- Stakeholders are individuals, groups or organization sharing a significant interest in how well the program functions, those with decision making, authority over the program, funders and sponsors, administrators, personnel and clients or intended beneficiaries. (By ROSSI-H pg.30).
ABSTRACT

The study intended to evaluate how the internal referral linkages or systems facilitate in TB/HIV integrated services in terms of efficiency and effectiveness in Babati town hospital. The study also aimed at identifying major elements or components which are responsible to make TB/HIV services integrated. The study expounded the health providers’ perception towards these internal referral linkages and also intended to find out challenges encountered in the process of delivering TB/HIV integrated services through internal referral linkages and make suggestions on how to overcome or minimize these challenges.

The design of the study was descriptive study to evaluate the processes in the implementation of TB/HIV integrated services through internal referral linkages/referrals. In the data collection process, the study employed mainly primary data. The tools which were used to collect data were highly structured self administered questionnaire in multiple choice format and closed short answers.

The study objective was to evaluate the implementation of TB/HIV integrated services through internal referral linkages in terms of efficiency and effectiveness in Babati town hospital. The purpose of the study was to find out how internal referral linkages facilitate the implementation of TB/HIV integrated services in line with National and International policy, guidelines and standards towards reducing the burden of both TB and HIV infections in the community.

The study was conducted in Babati town hospital and comprised of 51 respondents who were from different departments of the hospital and mainly from TB/HIV Components.

Evaluation tools which were used to collect data were structured questionnaire self administered and filling of short answers questions.

From the study, it is revealed that, in order for internal referral linkages to be efficient and effective, they need to be facilitated by almost all health providers who have the training, knowledge and skills in TB/HIV diseases and services.
Other factors which are instrumental in the facilitation include quality rooms, adequate infrastructures, use of guidelines and protocols while performing procedures, filling of referral forms and escorting of patients to other referral centers.

However the study has found that, inadequate infrastructures (79.41%), no quality rooms for TB services (72.55%) inadequate human resource (58.82%) to deliver services jeopardize overall performance of the internal referral linkages to TB/HIV services.

The study recommends the hospital to recruit and employ more staff who can provide TB/HIV integrated services to meet staff, clients and patients satisfactions.

The study also recommends more initiatives to be taken by the hospital to provide necessary materials, equipments medicine etc so as to facilitate TB/HIV integrated services.

Having said so, I hereby call upon other researchers to find out how internal referral linkages facilitate scaling up of TB and HIV infections in the community.
# TABLE OF CONTENTS

CERTIFICATION ................................................................................................................... i  
DECLARATION ...................................................................................................................... ii  
COPYRIGHT ........................................................................................................................ iii  
AKNOWLEDGEMENT .......................................................................................................... iv  
DEDICATION ......................................................................................................................... v  
ABBREVIATION AND ACRONYMS ................................................................................... vi  
OPERATIONAL DEFINITIONS OF TERMS ......................................................................... viii  
ABSTRACT ............................................................................................................................. x  
LIST OF TABLES .................................................................................................................. xvi  
LIST OF FIGURES ............................................................................................................... xvii  

CHAPTER ONE .................................................................................................................... 1  
INTRODUCTION AND BACKGROUND ............................................................................. 1  
1.1 Introduction /Problem Setting....................................................................................... 1  
1.2 Background Information................................................................................................. 1  
1.2.1 TB/HIV in Tanzania ................................................................................................... 3  
1.2.2 TB/HIV Status in Manyara Region ............................................................................ 4  
1.2.3 Description of the Programme to be evaluated ....................................................... 5  
1.2.4 Expected programme effects/objectives ................................................................. 5  
1.2.5 Objective .................................................................................................................. 5  
1.2.6 Major Strategies of TB/HIV Programme ................................................................. 6  
1.2.7 Programme Activities and Resources .................................................................... 7  
1.2.8 Statement of the Problem ....................................................................................... 8  
1.2.9 Evaluation Questions/Objectives .......................................................................... 10  
1.2.10 Objectives ......................................................................................................... 10  
1.2.11 General Objective ............................................................................................... 10  
1.2.12 Specific Objectives ............................................................................................ 10  
1.2.13 Significance/Justification of the Evaluation ...................................................... 11
CHAPTER TWO ................................................................................................................. 12
LITERATURE REVIEW ...................................................................................................... 12
  2.1 Introduction ................................................................................................................ 12
  2.2 Theoretical Literature Review .................................................................................. 12
  2.3 Empirical literature review (citation of findings from other studies) ...................... 15
  2.4 The Research Gap ..................................................................................................... 16
  2.5 Conceptual Framework ............................................................................................. 16

CHAPTER THREE ............................................................................................................ 21
EVALUATION METHODOLOGY ....................................................................................... 21
  3.1 Introduction ................................................................................................................ 21
  3.2 Evaluation Approach/Methodology .......................................................................... 21
  3.3 Evaluation Design ...................................................................................................... 21
  3.4 Evaluation Period ..................................................................................................... 21
  3.5 Study Area and Reason for Selection ...................................................................... 22
  3.6 Study Population ...................................................................................................... 22
  3.7 Units of Analysis (Study Units and Sampling Units) ................................................. 22
  3.8 Variables Measurement .......................................................................................... 22
  3.9 The study Sample Size ............................................................................................ 23
  3.10 Sampling Procedure/ Techniques .......................................................................... 24
  3.11 Types and Sources of Data ...................................................................................... 25
  3.12 Data Collection Methods ......................................................................................... 26
  3.13 Validity Issues .......................................................................................................... 26
  3.14 Data Management and Analysis Methods ............................................................... 26
  3.15 Ethical Issues /Ethical Considerations ................................................................... 27

CHAPTER FOUR ................................................................................................................ 28
PRESENTATION OF EVALUATION FINDINGS ................................................................. 28
  4.1 Introduction ................................................................................................................ 28
  4.2 Demographic and Socio-Economic Characteristics of Respondents .................... 29
  4.2.1 Respondents by sex .............................................................................................. 29
4.2.2 Respondents by age group ................................................................. 29
4.2.3 Respondents by occupation/professionals ........................................ 30
4.2.4 Respondents by education level .......................................................... 30
4.3 Elements/Components of TB/HIV Integrated Services .......................... 32
4.3.1 Well ventilated rooms with enough light .......................................... 32
4.3.2 Availability of infrastructures ............................................................ 33
4.3.3 Effectiveness and Efficiency of TB/HIV units ................................. 34
4.4 Health Facility Referral System/Linkages ............................................ 36
4.4.1 Referral forms and escort of patients .............................................. 36
4.4.2 Other linkages facilitating TB/HIV integrated services ...................... 37
4.4.3 Health providers (HRH) ................................................................. 38
4.4.4 Role of TB/HIV components in strengthening linkage ....................... 38
4.5 Providers’ Perception ............................................................................. 40
4.6 Challenges ............................................................................................. 41

CHAPTER FIVE .......................................................................................... 43
DISCUSSION OF THE FINDINGS .............................................................. 43
5.1 Introduction .......................................................................................... 43
5.2.1 Elements/components that make TB/HIV services integrated ................ 43
5.2.2. How internal referral linkages facilitate implementation of TB/HIV integrated services .......................................................... 44
5.2.3. Health providers’ Positive perception versus negative perception towards TB/HIV integrated services through internal referral linkages ....................... 46
5.2.4 Challenges encountered while implementing TB/HIV integrated services towards effectiveness and efficiency .......................................................... 46
5.3 Evaluation Dissemination Plan ............................................................. 47
5.4 Dissemination of Evaluation Results ................................................... 47
CHAPTER SIX ......................................................................................................................... 51
SUMMARY CONCLUSIONS AND IMPLICATIONS ............................................................ 51
6.1 Introduction ..................................................................................................................... 51
6.2 Summary of the Study ................................................................................................. 51
6.3 Conclusions ................................................................................................................... 54
6.5. Policy Implication ....................................................................................................... 56
6.6. Programmatic Implications and use of Findings for Strategic Planning ............ 57
6.7. Limitations .................................................................................................................. 59
6.7.1. Language barrier: ................................................................................................. 59
6.7.2. Programme ............................................................................................................ 59
6.7.3. Un- willingness ...................................................................................................... 59
6.7.4. Time constraints .................................................................................................. 60
6.7.5. Financial constraints ........................................................................................... 60
6.8 Areas for Further Research/Evaluation ....................................................................... 60
REFERENCES ..................................................................................................................... 62
APPENDICES ....................................................................................................................... 64
LIST OF TABLES

Table 2.1 Description of Variables.................................................................20
Table 3.1: Variables measurement..................................................................23
Table 3.2: Evaluation sample size ....................................................................25
Table 4.1: Demographic and Socio-economic information of respondents .......31
Table 4.2: Availability and quality of rooms....................................................33
Table 4.3: Infrastructures, status of rooms for TB/HIV.................................34
Table 4.4: Responses on effectiveness and efficiency......................................35
Table 4.5: Response on linkages.....................................................................36
Table 4.6: Types of HCWs who fill referral forms..........................................38
Table 4.7: TB/HIV components as major means of linkages .........................40
Table 4.8: Response on providers’ perception................................................41
Table 5.1: The matrix for stakeholders’ information needed to be disseminated...48
LIST OF FIGURES

Figure 2.1: Conceptual framework .................................................................16
Figure 4.1: Response on linkages .................................................................37
CHAPTER ONE
INTRODUCTION AND BACKGROUND

1.1 Introduction /Problem Setting

This chapter covers the following: Background Information, description of the program to be evaluated, statement of the problem, evaluation questions, and objectives of the study, scope, significance of the study, rationale, and justification of the evaluation.

1.2 Background Information

Tuberculosis and HIV are the major problems Worldwide which are causing high morbidity and mortality to the World population as reported by UNAIDS (2005). Worldwide TB prevalence is 8.7 million populations per year. These people develop TB yearly and approximately 2 billion people in the World are infected with TB. The major cause for this has been discovered to be Human Immunodeficiency Virus (HIV) epidemic which is leading to re-emergence of TB Worldwide and more marked in countries with high HIV prevalence especially in developing countries.

The human immunodeficiency virus (HIV) epidemic has led to the re-emergence of tuberculosis (TB) worldwide and more particularly in countries with high HIV prevalence. The HIV infection increases the risk of TB reactivation, causes rapid converting to active TB disease, and increases the risk of dying during a TB episode. TB remains the most common opportunistic infection for people living with HIV, including those using antiretroviral therapy, and a leading cause of death for people living with HIV, especially in low and middle income countries. In 2009 globally, approximately 24% of patients who died from TB were HIV co-infected (2009global report.)

The impact of the TB/HIV cohabitation in the epidemiology and the clinical outcome of both diseases are of important observation to TB and HIV programs implications and facility for policies include the need to promote TB and HIV/AIDS program collaboration both at strategic level.
The strong relation between HIV and TB morbidity in high prevalence countries had accelerated the need of debates and finally formulated policy about integration of TB and HIV services. The integration of these programs faces challenges all the way from policy making to integration at facility level especially Primary health facilities. In 2005, For example some HIV activities were integrated only in 58% of TB clinics surveyed. This is according to the survey by Marti not report in Democratic Republic of Congo. Mart, survey (2005).

In response to this need of integrating TB/HIV activities, the World Health Organization (WHO) in 2004 mapped out 12 key activities to be implemented by countries to ensure effective collaboration between TB and HIV programs. From these key activities a set of core indicators was defined for monitoring and evaluating collaborative TB/HIV activities.

Due to rapid growth of the human immunodeficiency virus (HIV) epidemic in many countries has resulted in an equally dramatic rise in the estimated number of new tuberculosis (TB) cases. HIV-related TB continues to increase even in countries with well-organized national TB control programmes (NTPs) that are implementing DOTS strategy. Full DOTS implementation is clearly insufficient to control TB where HIV is fuelling the TB epidemic, and control of HIV infection should become the important concern for NTPs. In recognition of this, TB/HIV collaborative activities have been incorporated as major components of the Stop TB Strategy and the Global Plan to Stop TB. (Global report 2009). The high morbidity and mortality from TB among people living with HIV make TB case detection, treatment and prevention a priority for national AIDS control programmes (NACPs). TB and HIV infection coexist in many people worldwide, and HIV and TB control programmes need to collaborate to prevent and relieve the resultant suffering.

Regional and Local Contents have shown a significant Epidemiological paten and trend of these two diseases as seen in (TB/HIV collaboration manual (National policy guidelines for collaborative activities) that the estimate of 2 billion people one third of
the global population are infected with tuberculosis (TB) and each year 8.7 million People develop TB disease.

TB kills more than 1.4 million people each year disrupting economy of many individuals, families and communities worldwide. TB has the peculiar geographical disproportionate as it shows about 95% of TB, all TB cases and about 98% of TB deaths occur in developing countries.

The global reappearance of TB has been fueled by a combination of factors including increasing rates of HIV/AIDs and multidrug resistance. Inadequate investments in public health infrastructure, Insufficient political commitment, limited awareness of TB, Poor access to quality health care services and inadequate investments in new tools, including drugs, diagnostics facilities and vaccines. The disease threatens the poorest in middle and lower economic societies and slows or under mines gains in economic development.

1.2.1 TB/HIV in Tanzania

The number of TB cases in Tanzania is rising primarily as a result of the increase in the prevalence of HIV. About 50% of TB patients in the country Tanzania are co-infected with HIV accounting to 60-70% of the increase in the number of TB patient in the country. (THIS) 2003-2004.

The first Tanzania HIV/AIDs Indicator Survey (THIS) conducted in 2003-2004 showed that 7% of the adult population in Tanzania is infected with HIV and TB is the most common opportunistic infection among PLHA. Reports from the Nation Tuberculosis and Leprosy (NTLP) showed that reported TB cases of all forms increased six fold from 11,843 in 1983 to 65,465 in 2004 the situation showing HIV pandemic in numbers of AIDs cases as increased from 3 in 1983 to an estimated 1,840,000 in 2004.

It is not known exactly how many people are living with HIV/AIDs in Tanzania, but the number of PLHA in 2005 was estimated to be almost 1.9 million. The pandemic shows strong regional, sex, socioeconomic, rural and urban setting variation.
1.2.2 TB/HIV Status in Manyara Region

Epidemiological HIV infection profile in Manyara

Manyara Region has the total population of 1,425,131; Female 708,046 and Male was 717,085. This is according to the sensor 2012. The most recent Tanzania HIV indicator survey (THIS) of 2011-2012 described the HIV prevalence in Manyara as 1.5% marked more in 15-49 age group. This trend has shown a decrease from 2.0% in 2003-2004 which reflect to show no change from 2007-2008 survey. The survey also showed a large proportion of women (2.7%) are affected with HIV infection than men (0.3%) in the region.

TB/HIV status in Manyara region was taken to be of serious public health importance as far as towards preventing the population against these serious fatal diseases in the region. Babati district is the headquarter for Manyara region and Babati town hospital was the first center in the region which started implementing TB/HIV integrated services since 2008. The Hospital has seen the importance of working with this strategy of collaborating and integrating TB/HIV activities due to the fact that, integration of these health services is the key and crucial concept in helping the clients and the patients in improving their health status as regards to these two infections. The provision and improvement of health service delivery towards preventing, treating and health promotion in the region will also be easily facilitated.

Scaling up of the HIV related TB Epidemic prevention activities, demands urgent effectiveness and coordination of activities to improve diagnostic services, care treatment and prevention to the community and to people living with HIV and TB. This does not need the development of an independent programme for TB and HIV, but one to collaborate between existing TB and HIV programmes to enhance synergetic efforts and avoid overlaps, duplicates and fill the gaps in service provision.
1.2.3 Description of the Programme to be evaluated

Along with the statement of the problem stated/mentioned above that Babati Town Hospital is implementing TB/HIV integrated services through internal referral linkage. The area for improvement will be observed after doing evaluation study on the implementation of TB/HIV integrated services based on effectiveness and efficiency of the integrated services provided in different components of the programmes operating. These being the VCT units, are the main entry for TB/HIV clients and patients to these programs. Most of the clients for TB/HIV are first received by Clinicians in OPD and VCT units and then referred to other units as to Laboratory for investigation, detection and confirmation of either TB or HIV or both TB/HIV cases. Evaluation study should also be done to other components like TB unit, VCT, CTC and ANC-for PMTCT using available guidelines, standards and protocols.

1.2.4 Expected programme effects/objectives

1.2.5 Objective

The overall Objective of the programmes is to provide a frame work for ensuring transparency and consistent processes in developing comprehensive collaborative TB/HIV activities and emphasizes the need for joint decision-making processes that are advantageous to both NTLP, NACP and other stakeholders.

Specific objectives of programmes TB/HIV collaboration being

i) To provide a framework for all stakeholders in implementing collaborative TB/HIV activities.

ii) To provide guidance in establishing mechanisms for collaboration among the National TB and HIV programmers and other stakeholders.

iii) To guide and support the design and implementation of effective collaborative TB/HIV. To ensure there are regular joint working sessions to inform implementing partners and stakeholders about collaborative TB/HIV activities.
iv) To provide a framework that will facilitate integrated capacity building in care provision prevention research, monitoring and evaluation of collaborative TB/HIV activities.

**Programme objectives of TB/HIV integration**

i) Reducing TB and HIV transmission, morbidity and mortality through comprehensive collaborative TB/HIV activities.

ii) Establishing mechanisms for collaboration between TB and HIV/AIDS programmes and strengthen mechanism for delivering TB/HIV integrated services.

iii) Setting up effective coordinating bodies for TB/HIV activities at all levels

iv) Reduce the burden of TB in PLWHIV and initiate early ARVs therapy. Use the 3 is for reducing TB/HIV in the Health facilities and the community.

v) Reduce burden of HIV in patients with presumptive and diagnosed TB

vi) Decrease morbidity and mortality from other TB/HIV related illnesses

vii) Create a patient centered approach for management of co-infected patients.

**Specific TB/HIV service delivery objectives**

i) Intensified (ICF) case finding.

ii) Improved access to care and treatment of TB and HIV.

iii) Improved outcome related to TB treatment and ART including PMTCT.

iv) Prevention of new cases of active TB and prevention of new cases of HIV.

**1.2.6 Major Strategies of TB/HIV Programme**

i. Strong political commitment of the government through MOHSW to support the collaborative TB/HIV

ii. All stakeholders in the health care delivery system to implement the collaborative TB/HIV activities.

iii. Recourse sharing in implementing collaborative TB/HIV activities at all levels.
iv. Sharing of comprehensive and up to date information on TB/HIV co infection and collaborative TB/HIV activities, HIV/AIDS, Viral hepatitis, STD and TB screening, diagnosis, treatment services and referral to specialized services. Provision of primary care together with comprehensive services to Reproductive health services, pregnancy testing contraceptive and social services. (National police guidelines for collaborative TB/HIV)

1.2.7 Programme Activities and Resources

Activities

i. Training of different HRH,

ii. Procuring of different medical supplies medicines and equipments necessary in the program,

iii. Performing Pre- test and post-test counseling, testing and referring sero-positive clients for care and support to the respective sites.

iv. Conducting counseling and testing to all individuals and couples coming to VCT who are intended to know their HIV status.

v. Referring those tested HIV positive to different support groups and ART room for ARV, prophylaxis and subsequent treatment, care and support.

vi. Giving an appointment for three months to be extra sure those tested for HIV negative results especially on their first visit.

vii. Conducting regular supervision and reporting system within the Hospital/program.

viii. Counseling HIV positive patients for TB infection testing using TB screening tool and those found positive soon to start TB treatment

ix. Likewise counseling Positive TB patients for HIV testing and when positive soon to start ARVs

x. Provision of Co-trimoxazole prophylaxis to positive HIV/AIDS patients as to prevent them from other opportunistic infections.

xi. To provide TB/Preventive Isoniazid therapy to HIV positive patients who are on early ARTs/ARVs.
xii. To Continue training through coaching, and mentoring, supervision and supportive supervision,

xiii. Preparation of monthly, quarterly reports and regular meeting with different stakeholders for coordination communication and other activities

xiv. Soliciting Fund for Programs activities being from different sources and different stakeholders so as to enhance and empower service provision and different activities in the programs. The sources can be Global fund, MOHSW, NGOs, individuals and communities.

Programme resources

i. Funds, which are mainly financial resources,

ii. Human resources mainly HRH: Physicians, laboratory technicians, Pharmacists Nurses: Triage nurse, TB nurse for [DOT], VCT counselors, Pharmacists.

iii. Other resources required include: Medical equipments and medical supplies,

iv. Laboratory reagents and other diagnostic services from X-ray unit, different items for use in different TB/HIV components, TB unit, CTC unit, ANC-PMTCT unit, VCT unit

v. VCT guidelines and protocols, TB screening tools, Telephone, Registration books record

vi. Computer

vii. IEC/BCC materials,

viii. Well defined internal referral linkage or referral system.

1.2.8 Statement of the Problem

The impacts of the TB/HIV cohabitation are important for epidemiology of clinical outcome of both two diseases. Therefore the two programs TB and HIV/AIDS have to collaborate and integrate services in order to be able to capture both diseases at the same time (WHO2004)
Since 2002 several dispensaries and several TB posts in Babati district had been operating to give basic minor health services as an OPD cases and Ant-TB Medicines supply to positive diagnosed TB patients respectively. There was no special unit for HIV/AIDS patients.

In 2004 when Babati Health centre was up graded and became Babati district hospital, it was time when it started providing HIV services to the patients and clients and ARVs to positive HIV/AIDS patients. Still then all general health services, TB services, HIV services were done separately using same few building infrastructures and few health providers. Babati town hospital in Manyara region headquarter had the advantage/opportunity of receiving all the directives, guidelines and protocols from MOHSW, NTLP and NACP for TB and HIV services provision once they are launched from higher level direct to the district.

Babati Town hospital started implementing TB/HIV integrated services through internal referral linkage in 2008. The services were gradually developing and expanding using the same few building infrastructures together with other health service delivering mentioned above.

The standard TB/HIV integrated services unit is required to have enough privacy facilitated by having enough building infrastructures, with about 10 rooms: 3 for consultations, 2 for counselling, 1 TB DOT room, 1 dispensing room for ARVs, 1 CTC with multiple activities including laboratory services, and Data clerk room: Needs to have enough health providers well trained and skilled to provide TB/HIV integrated services about 12 of them: Needs special trained clinicians and counselors to deal with co-infected patients: Needs TB nurses, VCT nurses, Trained Laboratory technicians, Pharmacists, well equipped with different resources for diagnostic measures, in laboratory unit diagnostic kits, in X-ray unit diagnostic equipments, enough medicines, Programmes guidelines, standards and protocols should exist. Be followed/adhered to in order to provide quality services which are efficiency and effective. Babati town hospital has got only one room as TB unit where all TB services are done and only one big room with different partitions to facilitate all HIV/AIDS services.
However in the absence of these requirements, it is likely that standard TB/HIV integrated services through internal referral linkage/system in Babati hospital will be a problem and its measurement in terms of efficiency and effectiveness is difficult.

Therefore, there is a great need to conduct process evaluation in order to establish how does the implementation of this TB/HIV integrated services through internal referral linkage operate in Babati town Hospital.

1.2.9 Evaluation Questions/Objectives

Evaluation Questions

Q1. What are the main elements/components of TB/HIV integrated services

Q2. How does TB/HIV referral linkage facilitates implementation of TB/HIV integrated services

Q3. What are the providers perception on TB/HIV integrated services through internal referral system or referral linkage.

Q4. What are the challenges encountered while running TB/HIV integrated services through internal referral linkage.

1.2.10 Objectives

1.2.11 General Objective

To evaluate implementation of TB/HIV integrated services through internal referral linkage in Babati Town Hospital.

1.2.12 Specific Objectives

i. To identify elements/components that make TB/HIV services integrated.

ii. To study how TB/HIV Referral linkage facilitate implementation of TB/HIV integrated services.
iii. To establish providers perception of TB/HIV integrated services through internal referral system or Referral linkage.

iv. To identify challenges in the process of delivering integrated TB/HIV services through internal referral linkage.

1.2.13 Significance/Justification of the Evaluation

Firstly, the study is significant in addressing the efficiency and effectiveness issues regarding to TB/HIV integrated services. It will also increase the knowledge to the existing literature regarding delivery of integrated services particularly through internal referral system or through referral linkage. Secondly, the study is academic requirement for award of Masters in Health Monitoring and Evaluation. Lastly the findings of the study will form the basis for improved service delivery.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is to enable the researcher to understand and refers to what other researchers have done thus revealing the gap in knowledge regarding the subject; consequently the chapter will expose the rationale for doing this study.

2.2 Theoretical Literature Review

AIDS was first detected in the United States in 1981 when the Center for Disease control and prevention (CDC) reported unexplained occurrences of pneumocystis jiroveci (p.carinii) pneumonia in previously homosexual men in Los Angeles.

In 1983 Human Immunodeficiency virus was isolated from a patient with lymphadenopathy (enlarged lymph nodes). In 1984 it was demonstrated clearly to be the causative agent of AIDS.

The most common cause of HIV disease throughout the world is HIV-1 which comprises several sub-types with different geographic distributions. HIV-2 was first identified in 1986 in West Africa patients and was originally confined to West Africa. This type is the one found mainly to sexual contacts throughout the world (Faucil eti el.2008).

HIV is the main reason for failure to meet tuberculosis TB-control targets in high HIV settings. This is because HIV lowers the immunity of individual one: The state which progresses one to get TB disease in people living with TB/HIV is the major cause of death among people living with HIV in sub –Saharan, Africa and worldwide. Globally TB control is facing major challenges today despite of all major efforts done to make quality care accessible without barriers of gender, age, type of disease, social setting and ability to pay.
Co-infected with mycobacterium Tb-and HIV (TB/HIV) especially in Africa, malt drug resistance (MDR) and extensively drug resistance (XDR) TB in all regions make control activities more complex especially to these linked groups on surveillance of drug resistance.

i) Theory literature review shows that: TB (MDR-TB) includes:
ii) XDR-TB
iii) Tuberculosis and HIV (TB/HIV)
iiv) TB and children,
v) TB and poverty,
v) TB and air travel
vii) TB and gender,
viii) TB and prisons,
ix) TB and refugees.

WHO (2012, 2013)

Tb/HIV policy guidelines were launched in June 2011. These guidelines were aiming at all relevant stake holders Health and non health, government and non Government(NGOs) together in raising awareness on the policy insisting more collaborative approaches to prevent HIV –Related TB. The enhanced coordination and collaboration to all program stake holders and partners in National TB/HIV response were strengthened and objectives were put forward as the guidelines.

i) Creating Collaborative coordination to TB/HIV activities all levels,
ii) HIV, Surveillance among TB patients.
iii) TB/HIV planning and monitoring and evaluation to decrease the burden of TB in PLHIV through, TB intensified case finding.
iv) Isoniazid Preventive therapy,(IPT),
v) Infection control in health facilities
vi) Decrease the HIV in TB patients through HIV testing and counseling, and introduce interventions that decrease morbidity and mortality in TB/HIV patient,
vii) CO-trimoxazole preventive therapy (CPT) and Ant retroviral early provision to positive HIV patients.

As countries are expanding HIV/AIDS treatment and care programmes; Tb remains a major public Health threat for people living with HIV and the community. Among people living with HIV, TB is the most frequent life threatening opportunistic disease even in patients receiving Ant retroviral. This has shown to be leading course of death due to (TB/HIV cases) worldwide.

World Health Organization (WHO) has tried a lot to work on TB/HIV collaborative activities and stipulated out with the context of showing the way through guidelines that there should be activities those under Stop TB strategies and those under HIV/AIDS

**TB/HIV Collaborative activities those under Stop TB strategies are**

i) Reduce the burden of TB in people living with HIV and initiate early Ant Retroviral therapy.

ii) Use of (WHO: 2012, Three I’S) for HIV/TB).-Intensify TB case findings and ensure high quality Ant TB therapy.

iii) Initiate TB/prevention with Isoniazid, preventive therapy and early ant retroviral therapy.

iv) Ensure control of TB infection in health care facilities and congregate settings.

v) TB Diagnostics and laboratories.

vi) TB/HIV MDR/XDR-TB and TB research.

**TB/HIV collaborative services those under HIV/AIDS include**

i) Reduce the burden of HIV in patients with Presumptive and diagnosed TB

ii) Provide HIV/ testing and counseling to patients with presumptive and diagnosed TB.

iii) Introduce HIV prevention interventions for patients with presumptive and diagnosed TB
iv) Provide co-trimoxazole preventive therapy for TB patients living with HIV.

v) Ensure-HIV prevention interventions treatment and care for TB patients living with HIV;

vi) Provide antiretroviral therapy for TB patients living with HIV. (WHO 2014)

2.3 Empirical literature review (citation of findings from other studies)

In the study conducted by Eliud Wandwalo, Brigig Corrigan et al (August 2004) in Temeke Pastoral activities and services for people with AIDS in Dar-es-salaam archidioces (PASADA) which is one of the NGO as Faith based organization in Tanzania, On Collaborative between the National tuberculosis programme and Nongovernmental organization in TB care at district level experience from Tanzania: The study results have shown that:

It is possible for National Tuberculosis programme and non government organization to collaborate in TB/HIV activities so as to integrate and comprehend the care to the TB/HIV patients. The greater results in collaborating services were seen through potential referral system, good follow up, good communication, short distance between TB unit and HIV unit, Timeliness service delivery, free from stigma, increased knowledge and skills among health staff

In another study done by Helena Legido-Quigley, Catherine Mongomey et al (2012) which was published in the Tropical Medicine and International Health journey, the findings indicate that there should be well identified models for linking the TB/HIV activities in the single health facility and these have to be well coordinated with special referral forms under escort. In the study they identified five models which helped them in integrating the TB/HIV services, these are:

i. Entry via TB service, with referral for HIV testing and care;

ii. Entry via TB service, on-site HIV testing, and referral for HIV care;

iii. Entry via HIV service with referral for TB screening and treatment;
iv. Entry via HIV service, on-site TB screening, and referral for TB diagnosis and treatment;

v. TB and HIV services provided at a single facility. Referral-based models are most easily implemented, but when the referral is not well done is a high risk to failure in integrating TB/HIV referral linkage.

vi. Closer integration requires more staff training and additional infrastructure (e.g. private space for HIV counseling; integrated records). Infection control is a major concern. More integrated models hold potential efficiencies from both provider and user perspective.

Findings from other studies done on assessing integrated services show internal linkages/referrals from different specific clinics like Eye care services for patients with HIV ocular manifestations like Herpes zoster infections, Cytomegalovirus infections to HIV clinics, Diabetic clinics for (Diabetic Retinopathy) patients to Eye clinics, Hypertension and cardiovascular diseases patients in Medical/Cardiology departments do exist as well.

2.4 The Research Gap

Despite the fact that, much is known about TB/HIV and evidence from other studies, it seems the issue of integrating all aspect of TB/HIV services is difficult to implement. This is for various reasons which this evaluation study wants to explore particularly within the framework of internal referral linkages.

2.5 Conceptual Framework

Figure 2.1 presents the conceptual framework of this study. It shows the relationship of

Variables in the specific objectives as related to the dependent variable. It actually depicts a brief presentation of how the whole study concentrates and tries to show how the variables will be analyzed to bring about compelling results of the study.
Figure 2.1: Conceptual framework

Integrated services
- Efficiency
- Effectiveness

Dependent variable

Independent variables

Integrated components/services
TB, VCT, CTC, Lab and ANC-PMTCT
Human resources, infrastructures and referral tools

Linkages: TB, VCT, CTC, Lab, ANC-PMTCT. Referral systems, referral forms, escort of patient.

Providers’ perceptions
Attitude, Knowledge and practices

The absence of these challenges:
Inadequate HRH, medicines, diagnostic equipments, diagnostic kits, reagents, funds, inadequate knowledge of TB/HIV integrated to HRH, Clients and patients could help in facilitation to better performing.

Source: Evaluation research findings
Explanation of the Variables

- **Elements/components that make TB/HIV services integrated.**

  Clients or patients in need of TB or HIV services should at first enter these units either from OPD, TB unit or CTC unit and likewise. Patients in need of both TB and HIV (TB/HIV) services at one time would have the maximum benefit or advantage of acquiring or getting services from one unit or within one programme without repeated registration procedures, waiting period or other administrative barriers. In the situation where these components are scattered, the well mechanized internal referral linkage should be set clearly and forward to be able to facilitate these services in terms of efficiency and effectiveness.

- **Internal referral linkages**

  Internal referral linkage facilitated implementation of TB/HIV integrated services through using well trained health care workers in TB/HIV unit, TB unit, VCT unit, and CTC unit, Diagnostic unit like Laboratory /X-Ray unit andANC-PMTCT unit

  Filling of referral forms and escorting of those who are diagnosed positive TB, HIV, or TB/HIV patients to other respected TB/HIV centers are important factors that facilitate the system to operate in integrative manner.

- **Providers’ perception towards TB/HIV integrated services.**

  Positive perception versus negative perception towards TB/HIV integrated services through internal referral linkage are the ones which make the system to be accepted and get applied or not. When the referral system mechanism is not well aggregated, it could leads to poor acceptance by the health providers themselves and clients and patients. This could lead to Lost to follow ups, stigma and discrimination: Thus this should be observed closely as health providers perception may dictate positive or negative the efficiency of integrated services.
• Challenges observed while operating TB/HIV integrated services.

Inadequate funds which could be used for procuring enough medicine and medical supplies, diagnostic kits and X-ray films, pay for salaries, pay for overtime and incentives to health providers. In this study funds were inadequate

Others very essential were availability of skilled staff adequately trained. From the study findings, health providers were few in number with, inadequate knowledge in TB/HIV integrated services in terms of efficiency and effectiveness. Patients not adhering to medication, TB/HIV knowledge and aim of integration of services inadequate to clients and patients help integrated services operate effectively.

When these services are not coordinated well, can lead to late diagnosing, patients late or not accepting their sero status in time and none diagnosed TB patients infecting others.

Transport is very essential resource. Lack of reliable transport can contribute to failure of supportive supervision; Home based care and referral of Multiple Drug resistance patients to Kibong’oto hospital, The National TB hospital for advanced management and fear of infecting other people in the hospital and community.
## Table 2.1 Description of Variables

<table>
<thead>
<tr>
<th>SN</th>
<th>Type of Variable</th>
<th>Description of Variable</th>
<th>Measurement of Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Elements /components that make TB/HIV integrated</td>
<td>TB, VCT, CTC, Lab and ANC-PMTCT Human resources, infrastructures and referral tools</td>
<td>Availability of variables</td>
</tr>
<tr>
<td>2.</td>
<td>Internal referral linkages</td>
<td>Units for TB, VCT, CTC, Lab, ANC-PMTCT present. Referral systems, referral forms, escort of patient.</td>
<td>Existence of these TB/HIV components and availability of other variables</td>
</tr>
<tr>
<td>3.</td>
<td>Providers’ perceptions towards TB/HIV integrated services</td>
<td>Attitude, Knowledge and practices</td>
<td>Health workers with positive or negative perception</td>
</tr>
<tr>
<td>4.</td>
<td>Challenges encountered by health workers while implementing TB/HIV integrated services</td>
<td>Inadequate HRH, medicines, diagnostic equipments, diagnostic kits, reagents, funds, inadequate knowledge of TB/HIV integrated services to HRH, Clients and patients. Inadequate infrastructure and standard rooms for Tb clinic</td>
<td>HRH available only by (58.82%), infrastructure available only by (20.59%), TB/HIV integrated services knowledge to health workers available only by (58.82%)</td>
</tr>
</tbody>
</table>
CHAPTER THREE

EVALUATION METHODOLOGY

3.1 Introduction

In this chapter, the researcher provides a brief explanation on how the study was conducted. The chapter therefore includes the evaluation approach, evaluation design, evaluation period, study area, study population, unit of analysis, variables and their measurements, sample size, sampling techniques, types and sources of data, data collection methods, validity issues, data management, analysis methods and ethical issues.

3.2 Evaluation Approach/Methodology

Formative/process evaluation was used as it is a continuous type of an activity which was done in the hospital. It targeted health facility staff: administrators, and health workers at specific TB/HIV components. TB unit, VCT, CTC, ANC-PMTCT unit and in Laboratory unit, IPD and OPD

3.3 Evaluation Design

Descriptive cross sectional design was used for evaluation. In this approach, a highly structured questionnaire and short answered questions for all respondents targeted to be involved in the study were distributed to them. In total 51 questionnaires were distributed to respondents to fill.

3.4 Evaluation Period

Data collection took place from April 2015 to 30th May 2015. The whole process started by meeting with Babati Town hospital management team who gave me permission for the evaluation of the TB/HIV integrated services through internal referral linkage in their hospital organization. This was be followed by report writing ready for submission as per time frames provided.
3.5 Study Area and Reason for Selection

Babati district is the Headquarter for Manyara region and Babati town hospital in Babati town council was the first one to start implementing TB/HIV integrated services in 2008.

To conduct evaluation process on TB/HIV integrated services through referral linkage in Babati hospital, was an ideal choice as it is going to act as the benchmark or reference point for other districts in the region to implement likewise.

3.6 Study Population

The study was conducted in Babati town hospital and comprised of 51 respondents who included Medical officers, environmental officers, Nursing officers, Administrative officers, Pharmaceutical technicians, Clinical officers, Laboratory technicians, ANC-PMTCT Nurses, CTC Nurses and clinicians, Others like Radiographers and Medical recorders. Town council/district Coordinators for TBLP, HIV/AIDS, and TB/HIV responded to these questionnaires.

3.7 Units of Analysis (Study Units and Sampling Units)

This is the smallest unit on which data was collected. The smallest unit on which data was collected, was from those who worked in TB clinic VCT unit, CTC ANC-PMTCT, Laboratory unit and the district coordinators for TBLP, HIV, TB/HIV, and ANC_PMTCT

3.8 Variables Measurement

Table 3.1 provides details of methodology of measuring variables to the evaluation. In the table each variable has specific indicators and measurement criteria. These variables in the evaluation study include; Components of TB/HIV integrated services, internal referral linkages, Health providers’ perception, Polices, guidelines and Resources.
Table 3.1: Variables measurement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicators</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components of TB/HIV integrated services</td>
<td>-Availability of units for TB/HIV Integrated services</td>
<td>Respondents agreed to have TB unit, VCT and CTC units, ANC-PMTCT unit and Laboratory unit.</td>
</tr>
<tr>
<td>Internal referral linkages</td>
<td>Availability and use of referral form and escort of patients</td>
<td>Respondents agreed referral forms used and escort of patients to other respective TB/HIV units done</td>
</tr>
<tr>
<td>Health providers’ perception</td>
<td>Number/Percentage of those who responded</td>
<td>Agreed to be positive or negative</td>
</tr>
<tr>
<td>Polices and guidelines</td>
<td>Availability of Polices and guidelines</td>
<td>Providers using polices and guidelines</td>
</tr>
<tr>
<td>Resources.</td>
<td>Number of HRH, availability of equipments funds</td>
<td>Budget implementation and reports</td>
</tr>
</tbody>
</table>

Source .Evaluation research findings

3.9 The study Sample Size

- Single proportion of sample size determination was used due to finite population
  
i.e. <10,000
  
\[ n = N \left( \frac{Z_{\alpha/2}}{2} \right)^2 pq \]

\[ d^2 (N-1) + \left( \frac{Z_{\alpha/2}}{2} \right)^2 pq \]

N=number of VCT clients in the last 6 months=800

CI=95%, d=5%, \( Z_{\alpha/2} =1.96 \)
We took the proportion of variable under study as 50% since there is no similar study in the area and at the same time to get maximum sample size⇒ p=50%=0.5, p+q=100% ⇒ q=50% ⇒ q=0.5

\[ n = N \left( Z_{\alpha/2} \right)^2 pq \]
\[ d^2 (N-1) + (Z_{\alpha/2})^2 pq \]
\[ n = 200(1.96)^2 * 0.5 * 0.5 \]
\[ (0.05)^2(200-1) + (1.96)^2 * 0.5 * 0.5 \]

n= 51 . The study sample size will be comprised of 51 participants as follows:

3.10 Sampling Procedure/ Techniques

The study used three sampling procedures. Convenient sampling, purposive and stratification sampling. Convenient sampling was used for both staff that entered in the study especially those who worked in TB/HIV integrated units. In purposive sampling personal experience of the respondent in the hospital organization was considered to be the key element derived from the position one held or the role or he/she played in the hospital. Stratification sampling method used was focusing gender (males and females) and age distribution as to obtain view regarding the topic. The reason according to Carmines and Zeller (1979) is that, stratification serves the distribution among heterogeneous population which needs to be incorporated for the purpose of gaining insight information. Data collected were then entered in Excel and finally imported into the STATA computer assisted soft ware to give out descriptive statistic analysis.
### Table 3.2: Evaluation sample size

<table>
<thead>
<tr>
<th>SN.</th>
<th>Professionals</th>
<th>Frequency/numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Medical officers</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Environmental health officers</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>Nursing Officers in OPD, IPD, TB unit and VCT unit</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td>Pharmaceutical technicians</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>Town Hosp management team (CHMT)</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>Clinical officers</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>Laboratory technicians</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>ANC-PMTCT</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>CTC nurses and clinicians</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>District coordinators for TBLP, HIV/TB/HIV</td>
<td>3</td>
</tr>
<tr>
<td>11.</td>
<td>Others in the hospital. eg. Radiographers, Health recorders</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total number</strong></td>
<td><strong>51</strong></td>
</tr>
</tbody>
</table>

**Source:** Evaluation research findings, 2015

### 3.11 Types and Sources of Data

The data in this evaluation study were from hospital health workers mainly from TB/HIV components namely: The TB unit, VCT and CTC units, ANC-PMTCT unit and Laboratory unit. The town council coordinators for TBLP, HIV/AIDS, TB/HIV, the administrative officers and others in the hospital.
3.12 Data Collection Methods

Data collection method and procedures that were used were mainly well structured self administered questionnaires and short answers to both participants. The information of the same categories was gathered. Collected data were related; the views or ideas and the report are developed/ compiled to ensure validity of the data.

3.13 Validity Issues

Data Collection

Research instrument were pre –tested to increase the validity and reliability of the responses. The data collection tools were numbered instead of respondents names. Every data after collection was handled to one of the administrative officer and stored in his office. Arranged in sequences and checked if they were completed and accurately filled and kept them in the safe place. Data were then handled to the researcher for analysis.

3.14 Data Management and Analysis Methods

This mainly describes what happened to the data collected in the field. Primary data were obtained using well structured self administered questionnaires and short answers.

Then Data were managed by first being entered in excel, imported in STATA for more processes and output of numbers, frequency and cumulated frequency of the data entered. The raw data were examined for outlier, missing, errors and corrected as necessary.

Content analysis was done to data collected as the results/findings from despondence to challenges encountered by health workers while implementing TB/HIV integrated services.

Only Quantitative method was used in presentation of numerical format that are in forms of tabulations, figures, percentage, charts, and circles.
3.15 Ethical Issues /Ethical Considerations

Ethical clearance was obtained from Mzumbe University and permission was also obtained from Babati town Hospital Administration office under the Town Medical Officer (TMO). The permission letter was written to the TMO as regards to Evaluation process going to take place in their health facility on TB/HIV integrated services through internal referral linkage.

Verbal and signed consent was obtained before the start of responding to questionnaires. The purpose and use of the study was explained to others as well. Again verbal and signed consent was obtained from health workers going to participate in study. Informed consent was obtained from the respondent’s prior administration of the assessment tools (questionnaires) the confidentiality was maintained throughout data collection period.
CHAPTER FOUR

PRESENTATION OF EVALUATION FINDINGS

4.1 Introduction

In this chapter, data for each specific objective from various sources are presented after analysis which was done by the use of computer software Excel and STATA. These scientific computer assisted software helped a lot in dealing with massive raw data and in a very short time in providing information which were collected and entered in these programs. The findings which are obtained are the basis for discussion in the next chapter.

The findings to be discussed in this chapter are from the evaluation study done at Babati Town hospital in the Unit for TB/HIV integrated services through internal referral linkage in terms of efficiency and effectiveness.

This chapter also shows the demographic characteristics of respondents which are sex, age, educational level and occupation in the form of professional level in the hospital which is the area of the field study.

As shown in the methodology chapter, the data were collected using highly structured questionnaires self administered and filling up of short answer questions. These questionnaires were administered to the Medical officers, Environmental health officers, Nursing officers, Administrative officers, Pharmaceutical technicians, clinical officers, Laboratory technicians, CTC Nurses/clinicians, ANC-PMTCT Nurses, DTBLP, HIV/AIDS-DACC, and DTB/HIV Town council coordinators and others e.g. Health recorders and Radiographers
4.2 Demographic and Socio-Economic Characteristics of Respondents

Introduction

Sex is defined as the biological differences between men and women. It is an important variable that will be used to analyze the outcome of different variables in the study during discussion. In the hospital organization; number of female health care givers and nurses is higher than the number of males who are more clinicians than Nurses.

4.2.1 Respondents by sex

The study involved 30 (58.82%) females and 21 (41.18%) males

4.2.2 Respondents by age group

Age is the fundamental measure of population group. It is an important variable in the study due to the fact that it determines the understanding of the person, the division of labor and the entry in school. Age structure also contributes to the social relationship in the community. From the evaluation, age categories were between 25-30 years were 8 (15.69%), between 31-35 years were 6 (11.76%), 36-40 years were 10 (19.61%), 41-45 years were 7 (13.73%), 46-50 years were 13 (25.49%), 51-55 years were 6 (11.76%) and 56+ was 1 (1.96%) in each category. The age groups with higher number of respondents in this study were 46-50 years (25.49%) and 36-40 years (19.61%) who were mainly adults.

Age group with fewer number of respondents were 51-55 years and above 56+ were (11.76%), these were mainly older ones which reflects to have less responsibilities.

Age group 25-30 years (15.69%) had a reasonable good number of respondents and was mainly youth ones, recently recruited/employed, with short time of work experience ready to take positions from those about to retire and retiring. This also shows that more consideration for adults working in TB/HIV integrated services was observed in terms of long term experience; long time knowledge and skills, sense of responsibility, accountability and confidentiality were mainly considered.
4.2.3 Respondents by occupation/professionals

Different health workers in the hospital have different professionals as the hospital has different departments and different job allocations required for the operation of different health services in the hospital. These professionals work interdependently as without one efficiency and effectiveness of health service delivery could not be obtained. The professional with higher number of respondents was Nursing officers while the professional with fewer respondents were Environmental health officers, pharmaceutical technicians and others.

Generally all professional groups participated in this study from the evaluation study professional categories were Medical officers who were 5 which is (9.80%) 3 (5.88%) were Environment Officers, 15 (33.33%) were Nursing Officers, 3 (5.88%) were Pharmaceutical technicians, 4 (7.84%) were Administrative Officers, 5 (9.80%) were Clinical Officers, 4 (7.84%) were Laboratory Technicians, 4 (7.84%) were ANC-PMTCT nurses, 5 (9.80%) were CTC Nurses an clinicians and 3 (5.88%) were from the Other group which comprised of Radiographers and Health recorders.

4.2.4 Respondents by education level

Education level entails the instructions one has undergone in his/her life. Tells about learning categories or different schools one has attended which categorizes him/her as of lower learning level or higher learning level. The evaluation study revealed that, among respondents those with primary school education level were 5 which is (9.80%) Secondary school education categories were 35 (68.63%) and the Bachelor degree were 11 (21.57%). Most of the respondent had education level more than secondary school education by 90% and it was obvious that they understood the questions thoroughly. The very few primary school education respondents about 10% had also having additional education and knowledge from their certificate training courses as their primary professional education level such as Assistant Laboratory Technicians and Nurse midwives in Antenatal clinics.
This knowledge assisted them in answering the questions very well. The table below shows the details of demographic and socio-economic information:

**Table 4.1: Demographic and Socio-economic information of respondents**

<table>
<thead>
<tr>
<th>Category</th>
<th>Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Males</td>
<td>21</td>
<td>41.18</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>30</td>
<td>58.82</td>
</tr>
<tr>
<td>Age</td>
<td>25-30</td>
<td>8</td>
<td>15.69</td>
</tr>
<tr>
<td></td>
<td>31-35</td>
<td>6</td>
<td>11.76</td>
</tr>
<tr>
<td></td>
<td>36-40</td>
<td>10</td>
<td>19.61</td>
</tr>
<tr>
<td></td>
<td>41-45</td>
<td>7</td>
<td>13.73</td>
</tr>
<tr>
<td></td>
<td>46-50</td>
<td>13</td>
<td>25.49</td>
</tr>
<tr>
<td></td>
<td>51-55</td>
<td>6</td>
<td>11.76</td>
</tr>
<tr>
<td></td>
<td>56+</td>
<td>1</td>
<td>1.96</td>
</tr>
<tr>
<td>Professional</td>
<td>Medical Officer</td>
<td>5</td>
<td>9.80</td>
</tr>
<tr>
<td></td>
<td>Environmental Officer</td>
<td>3</td>
<td>5.88</td>
</tr>
<tr>
<td></td>
<td>Nursing Officer</td>
<td>15</td>
<td>33.33</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical technician</td>
<td>3</td>
<td>5.88</td>
</tr>
<tr>
<td></td>
<td>Administrative Officer</td>
<td>4</td>
<td>7.84</td>
</tr>
<tr>
<td></td>
<td>Clinical Officer</td>
<td>5</td>
<td>9.80</td>
</tr>
<tr>
<td></td>
<td>Laboratory Technician</td>
<td>4</td>
<td>7.84</td>
</tr>
<tr>
<td></td>
<td>ANC/PMTCT NURSE/CLINICIANS</td>
<td>4</td>
<td>7.84</td>
</tr>
<tr>
<td></td>
<td>CTC Nurse</td>
<td>5</td>
<td>9.80</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>3</td>
<td>5.88</td>
</tr>
<tr>
<td>Education</td>
<td>Primary</td>
<td>5</td>
<td>9.80</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>35</td>
<td>68.63</td>
</tr>
<tr>
<td></td>
<td>Bachelor Degree</td>
<td>11</td>
<td>21.57</td>
</tr>
</tbody>
</table>

**Source:** Evaluation study findings, 2015
4.3 Elements/Components of TB/HIV Integrated Services

Introduction

Elements/components that make TB/HIV integrated services are of the major importance for the existence of TB/HIV unit or department towards functioning. These components are Tb unit, VCT unity, CTC unit, Lab unit and ANC-PMTCT unit. The existence of these units depends very much on the availability of adequate quality infrastructures which facilitate operation of different services with the precaution of infections prevention and control, efficiency and effectiveness. TB/HIV components form the integral part of integration and linkage between one unit to the other units within TB/HIV units and other units in the hospital like the OPD, IPD and special departments like EYE department, Dental department, hypertension, cardiovascular and diabetes clinics. These clinics in the hospital do link with TB/HIV unit after using Provider Initiating counseling and treatment (PITC) to their clients and patients who were at the first time or routinely attending these clinics to get health services for their primary diseases like Eye diseases, dental problems, hypertension, heart diseases and diabetes. Patients who are diagnosed positive for either TB or HIV are then referred or linked to respective TB/HIV components for further management.

During evaluation study, the elements/components that make TB/HIV services integrated for the quality, efficiency and effectiveness of TB/HIV services were critically assessed. The information on the availability, condition of rooms for the quality TB/HIV services provision was also assessed.

4.3.1 Well ventilated rooms with enough light

Table 4.2: Details conditions for TB rooms to provide quality TB services supported by respondents responses. From the table 72.55% acknowledged that the rooms for TB services were not well ventilated and no well illuminated.
Table 4.2: Availability and quality of rooms

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>14</td>
<td>27.45</td>
</tr>
<tr>
<td>NO</td>
<td>37</td>
<td>72.55</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Evaluation research findings, 2015

The results from the table above show that, respondents who said there are enough, ventilated and well illuminated rooms for services were 14 only which was (27.45%). Among 51 respondent 37 (72.55%) said there are no enough rooms for effectively and efficiently provision of TB/HIV services.

From these evaluation findings, rooms for TB services were not of quality/standard to render TB services in efficiency and effectiveness taking into consideration that TB is an Air borne diseases with TB organisms which favor poor ventilation environments and inadequate light.

4.3.2 Availability of infrastructures

Availability of enough Infrastructures had the high value in supporting the provision of quality and efficiently TB/HIV services. The available infrastructures determine the accessibility and linkage of TB/HIV Components to operate as integrated services. During the evaluation study, the question of availability of enough infrastructure and association between adequate infrastructure for TB/HIV components to deliver integrated services and the enough ventilated and well illuminated rooms for TB services was assessed. The table below show results from the respondents;

Table 4.3: Reflects association between infrastructure adequate for TB/HIV components to deliver integrated services and enough ventilated and well illuminated rooms for TB services.
Table 4.3: Infrastructures, status of rooms for TB/HIV

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>YES</th>
<th>NO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOMS</td>
<td>7(41.18)</td>
<td>10(58.82)</td>
<td>17</td>
</tr>
<tr>
<td>INFRASTRUCTURES</td>
<td>7(20.59)</td>
<td>27(79.41)</td>
<td>34</td>
</tr>
</tbody>
</table>

**Source. Evaluation research findings**

Evaluation findings above show inadequate infrastructures for TB/HIV components to deliver integrated service, as shown in Table 4.3 by 27 (79.41%) and no enough, ventilated and well illuminated room for TB services by 10 (58.82%). However those who agreed that rooms and infrastructures well ventilated were only 7(41.18%) and 7 (20.59%) respectively.

Table 4.3 above shows responses of participants on the availability of enough infrastructures for TB/HIV components and ventilation and illumination of rooms for TB/HIV services. Evaluation findings above show inadequate infrastructures for TB/HIV components to deliver integrated services. Among respondents 7 said rooms are enough and are well ventilated and illuminated while other 7 said the infrastructures are not enough but those which are available are well ventilated and illuminated. Also 10 respondents said room are enough but had no enough ventilation and light. The total of 27 respondents said rooms are not enough and not ventilated and had inadequate light.

**4.3.3 Effectiveness and Efficiency of TB/HIV units**

It is observed from the respondents’ responses as reflected in Table 4.3, the programme is reaching its intentions effectively and efficiently in provision of TB/HIV services. In assessing the effectiveness and efficiency different units of TB/HIV integration were assessed and the overall performance indicates that VCT unit has problem since respondents said the services are provided well were only 58.82% compared to others 41.18% who disapproved.
Table 4.4: Responses on effectiveness and efficiency

<table>
<thead>
<tr>
<th>Responses</th>
<th>VCT UNIT</th>
<th>TB UNIT</th>
<th>CTC UNIT</th>
<th>ANC/PMTCT UNIT</th>
<th>LABORATORY UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>30</td>
<td>44</td>
<td>44</td>
<td>44</td>
<td>43</td>
</tr>
<tr>
<td>NO</td>
<td>21</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Frequency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td>58.82</td>
<td>86.27</td>
<td>86.27</td>
<td>86.27</td>
<td>86</td>
</tr>
</tbody>
</table>

Source: Evaluation research findings, 2015

In the TB unit the number of respondents who said the services are provided effectively and efficiently were 86.27%, the reasons for the result were that information about TB/HIV infections and services were provided to patients in TB/HIV components. Other units such as CTC unit Laboratory unit and ANC-PMTCT in the health facility in terms of efficiency and effectiveness they had 86.27% of respondent said services are provided effectively and efficiently and clients were given enough information. Those whose said the services in provision of eservices were not effectively and efficiently 7 (13.73%) in CTC unit Laboratory unit and ANC-PMT units and 58.82% in VCT unit said, information enough information were not provided to clients.

From the evaluation study above the findings showed that, the facility has the units for TB/HIV integrated services and the TB/HIV components are active providing integrated services through internal referral linkage and the information for treatment and prevention of diseases are given to clients hence the TB/HIV integrated services are provided efficiently and effectively. The table below shows the retails on the responses of participants on the effectiveness and efficiency on the services provision:
4.4 Health Facility Referral System/Linkages

From the study, several linkages were observed facilitating TB/HIV integrated services. These were referral systems which link services from one TB/HIV component to other referral centre like TB unit, VCT unit CTC unit, Lab unit, and ANC-PMTCT. The availability of referral forms, escorting patients from one unit to other unit or referral centre and the ability of health providers themselves enabling the whole process of referral linkages to be assessed.

4.4.1 Referral forms and escort of patients

From the evaluation study results, 32 (62.75%) patients who were referred had the referral forms written and escorted by health providers to other referral units or centers. Also 19 (37.25%) of the respondents who said patients were referred had no referral form and not were not escorted.

Referrals and escort were not always possible due to the fact that, the health facility had low number of staff to escort clients as seen from the results; only about half of the patients were referred under escort.

The evaluation research findings also show that TB/HIV components do operate under serious Human resource for health crisis especially in this sensitive area of TB/HIV unit in Babati town hospital. Table 4.5 and Figure 4.1 show patients who were escorted by health providers to other units.

Table 4.5: Response on linkages

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>32</td>
<td>62.75</td>
</tr>
<tr>
<td>NO</td>
<td>19</td>
<td>37.25</td>
</tr>
</tbody>
</table>

Source: Evaluation research findings, 2015
Results from figure 4.1 shows that referral forms and escort of patients were done to about 62.75% and 37.25% of patients were not escorted. These findings indicate that much more are needed to be done to strengthen the referral system as almost all health providers in the hospital are trained about TB and HIV infections. Since the linkages are mainly from OPD to VCT unit and from different departments of the hospital, especially OPD, IPD using (PITC) then it was expected the number of health providers who fill the referral forms and escorting of patients would be higher than 62.75%. This could have helped both health workers, clients and patients get satisfaction, avoid lost to follow ups, stigma and discrimination. Figure: 4.1: Shows referral linkage by use of referral forms filled and patients escorted by health providers. Number and percentage of respondents who said YES and NO to Patients escorted to other units by health providers are indicated.

**Figure 4.1: Response on linkages**

```
YES 62.75
NO 37.25
```

**Source: Evaluation research findings, 2015**

**4.4.2 Other linkages facilitating TB/HIV integrated services**

The findings from the evaluation study revealed that, all health care providers in the hospital are taught how to deal with TB and HIV infections and not only Health care workers in TB/HIV components. This is very good, but it should be considered that, health care workers in these TB/HIV components need more training in counseling and confidentiality than others in the hospital, as they deal with these TB and HIV patients
very closely than other health care workers. They are more obliged and responsible to this group than other health care providers in the same hospital.

**4.4.3 Health providers (HRH)**

The results in the Table 4.6 below shows type of health care providers who fill the referral forms. These were those who were trained and have the knowledge and skills on TB/HIV infections. Health care workers who fill the referral forms; those who were well trained and skilled were about 21 which are 41.18% and the other type of group was of all trained health care workers who were 30 which are 58.82%.

Also TB/HIV knowledge was given to all health care providers in the hospital and not only to those who work in TB/HIV components. The great observation from the findings is that only 58.82% of health providers are involved in filling referral forms and escorting of patients to other referral centers of TB/HIV components/units. Since the hospital has trained all health care providers about TB and HIV diseases and since all health care providers can give Provider initiating testing and counseling (PITC) it was expected this number to be high and give more opportunity of capturing more clients and patients in need of these services through various referral linkages.

**Table 4.6: Types of HCWs who fill referral forms**

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Trained and skilled TB/HIV providers</td>
<td>21</td>
<td>41.18</td>
</tr>
<tr>
<td>All trained health care workers</td>
<td>30</td>
<td>58.82</td>
</tr>
</tbody>
</table>

*Source: Evaluation research findings, 2015*

**4.4.4 Role of TB/HIV components in strengthening linkage**

The TB/HIV components had the great role in facilitating linkage and implementation of TB/HIV integrated services. The components involved in the integration are TB unit, VCT unit, CTC unit Lab unit and ANC-PMTCT. These are the core elements for
integrated services and are the ones which determine the major channels for referral linkages.

From the evaluation findings the results in the table show that, the main internal linkage for TB/HIV services are from general outpatient department (OPD) of the health facility to TB unit were 17 which is 33.33%. Those who visited ANC-PMTCT to CTC were 11 which are 21.57%. Those who said, there is no straight channel for referral linkage were 10 which is 19.61%. Those clients from TB unit to CTC were 7 (13.73%) which is the least referral linkage were from VCT unit to TB/HIV unit together with those from VCT unit to TB unit and CTC who were 3 which is 5.88%.

The order of referral linkage really represents the pattern of the clients and patients the way they attend health facility seeking for health services in the hospital. Majority of patients of all age groups do attend OPD daily, followed by antenatal mothers attending ANC clinic for the health of their pregnancies. For those diagnosed positive TB case go first straight to TB unit then to CTC unit or undergo process for HIV infection screening.

For those who are diagnosed positive HIV cases, they first attend CTC unit then followed by attending TB unit or undergo screening for TB infections. This pattern is maintained that way in order that TB patients having HIV infections are captured as early as possible when screened for HIV infections; and those diagnosed positive HIV cases are as early as possible screened for TB infections and if positive these patients are soon initiated with both TB and HIV medications. Table 4.7 below show the details of these results:
Table 4.7: TB/HIV components as major means of linkages

<table>
<thead>
<tr>
<th>Components</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General out patients of the health facility to TB/HIV unit</td>
<td>17</td>
<td>33.33</td>
</tr>
<tr>
<td>VCT unit to TB/HIV unit</td>
<td>3</td>
<td>5.88</td>
</tr>
<tr>
<td>VCT unit to TB unit/CTC</td>
<td>3</td>
<td>5.88</td>
</tr>
<tr>
<td>TB unit to CTC and likewise</td>
<td>7</td>
<td>13.73</td>
</tr>
<tr>
<td>ANC/PMTCT to CTC and likewise</td>
<td>11</td>
<td>21.57</td>
</tr>
<tr>
<td>There is no straight channel of referral linkage</td>
<td>10</td>
<td>19.61</td>
</tr>
</tbody>
</table>

Source: Evaluation study findings, 2015

4.5 Providers’ Perception

Health providers’ perceptions/attitude towards TB/HIV integrated services through internal referral system form an important part in facilitation of integrated services. The evaluation results revealed the program accommodates all necessary integrated services as responded about 16 which is 31.37%. Number and percentage of respondents who said all of the above factors were necessary for implementing of TB/HIV components in the efficiency and effectiveness was 16 which are 31.37%. Other big group had the opinion of making strong changes, mechanism which will set good take up of client and patients and reduce stigma and discrimination were 6 which is 11.76%.

From the findings, respondents who responded by saying the system is good but needs additional factors and changes to accommodate necessary elements to make it efficiency and effective were (68.63%). From the findings, these were (5.9+9.8+9.8+11.76+31.37) of health workers had positive attitude to the internal referral linkage and responded with the perception of aiming to improve the system operating by now.
Table 4.8: Response on providers’ perception

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good as it accommodates all TB/HIV services through internal referral linkage</td>
<td>16</td>
<td>31.37</td>
</tr>
<tr>
<td>TB/HIV integration and referral system are not the same as collaboration</td>
<td>3</td>
<td>5.9</td>
</tr>
<tr>
<td>Patients can easily get lost on the way while looking for other TB/HIV units</td>
<td>5</td>
<td>9.8</td>
</tr>
<tr>
<td>TB/HIV services needs to follow guidelines for effectiveness and efficiency</td>
<td>5</td>
<td>9.8</td>
</tr>
<tr>
<td>Strong mechanism should be set for good taking up of clients and patients so as to reduce stigma and discrimination</td>
<td>6</td>
<td>11.76</td>
</tr>
<tr>
<td>All of the above</td>
<td>16</td>
<td>31.37</td>
</tr>
</tbody>
</table>

Source: Evaluation research findings, 2015

4.6 Challenges

Challenges identified in the process of delivering TB/HIV integrated services were mentioned as essential resources for implementation of TB/HIV services were, shortage of staff, shortage of medicine and medical supplies, Shortage of diagnostic reagents and X-Ray films, inadequate infrastructure for TB/HIV components to operate integrated services. Other challenges were, inadequate fund for buying diagnostic machines like in laboratory, Liver function test machine, CD4 count machine and X-Ray machine as it was mentioned to be out of order/ function regularly and lack of fund for other necessary renovation in the hospital.

Lack of transport was also mentioned to be big challenge. Regular Supportive supervision, Home based care and referrals to multiple drug resistance patients to higher centers like Kibongo’ to hospital which is the National Tuberculosis unit in the country,
becomes very difficulty. Transfer of this group of TB patients is of emergency due to the fact that patients with multiple drug resistance (MDR) are dangerous of infecting other people in the community with TB bacilli/organisms which are already resistant to multiple drugs and of which the treatment for this type of patients would then be very difficult and very expensive.

Polices and guidelines are other essential recourses for the internal referral linkage to facilitate implementation of TB/HIV integrated services, especially towards reducing the burden of TB and HIV infections in the community. The internal referral linkage has to operate under the national and international policies, guidelines, standards and protocols. It is through these frame works where by efficient integrations, collaborations and coordination of different integrated services are achieved. The effectiveness is there and achieved when clients and patients are served within minimal time of waiting, getting services in one unit without duplication of registrations, getting medicines, materials and adequate information about the diseases, Privacy and confidentiality contained and accommodated by health providers and lastly being able to cast out stigma and discrimination.
CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Introduction

This chapter discusses the findings from the evaluation study based on the main objective of the study: Evaluation of implementation of TB/HIV integrated service through internal referral linkages in terms of efficiency and effectiveness in Babati town hospital. To identify elements or components that make TH/HIV services integrated, to study how referral linkage facilitate implementation of TB/HIV integrated services. To establish providers perception to TB/HIV integrated services through internal referral linkages and finally be able to identify challenges encountered during the process of delivering integrated services. The results for all these different objectives were obtained after displaying questionnaires to different health providers in the hospital and to health providers specifically in TB/HIV integrated units.

The study was designated to capture the appropriate information through questionnaires, and filling up of short answers. The results were obtained after entering raw data in the Excel and then computed out after importing them into the STATA computer assisted software for obtaining frequencies and percentages. Therefore this chapter presents a discussion of the findings that were presented in chapter four for every specific objective.

5.2.1 Elements/components that make TB/HIV services integrated.

Clients and patients in need of TB or HIV services should at first enter these units either from OPD, TB unit or CTC unit and likewise. Patients in need of both TB and HIV (TB/HIV) services at one time would have the maximum benefit or advantage of acquiring or getting services from one unit or within one programme without repeated registration procedures, waiting period or other administrative barriers. In the situation where these components are scattered, the well mechanized internal referral linkage should be set clearly and forward to be able to facilitate these services in terms of efficiency and effectiveness. In the evaluation study, about 86% of respondents agreed to
have the Health facility with TB/HIV components in place which deliver integrated services and that information about TB/HIV integrated services in terms of efficiency and effectiveness were given to health workers, clients and patients.

Also from the findings the main internal linkage for TB/HIV services are from general outpatient department (OPD) of the health facility to TB unit responded by 17 which is 33.33% followed by ANC-PMTCT and likewise responded by 11 which is 21.57% and again followed by there is no straight channel for referral linkage by 10 which is 19.61% TB unit to CTC and likewise 7 which is 13.73%

From the findings: The channel of referral linkages really represents the pattern of the clients and patients the way they attend health facility seeking for health services. Majority of patients of all age group do attend OPD daily, followed by antenatal mothers attending ANC clinic for the health of their pregnancies. For those diagnosed positive TB cases to TB unit and positive HIV patients to CTC unit and likewise. For no straight channel for referrals: This means that in other times patients were referred by clinicians from the wards and OPD using provider initiating counseling and testing (PICT).

5.2.2. How internal referral linkages facilitate implementation of TB/HIV integrated services.

Internal referral linkages facilitate implementation of TB/HIV integrated services through using well trained health care workers in TB/HIV components, in TB unit, VCT unit, CTC unit, Diagnostic unit like Laboratory/X-Ray unit and ANC-PMTCT unit by 58.82%

To support these facts; the study done by Helena Legido-Quigley, Catherine Mongomey et al (2012) which were published in the Tropical Medicine and International Health journey, the findings indicate that there should be well identified models for linking the TB/HIV activities in the single health facility and these have to be well coordinated with special referral forms under escort. In the study they identified five models which helped them in integrating the TB/HIV services, these are:
i. Entry via TB service, with referral for HIV testing and care;

ii. Entry via TB service, on-site HIV testing, and referral for HIV care;

iii. Entry via HIV service with referral for TB screening and treatment;

iv. Entry via HIV service, on-site TB screening, and referral for TB diagnosis and treatment;

v. TB and HIV services provided at a single facility. Referral-based models are most easily implemented, but when the referral is not well done is a high risk to failure in integrating TB/HIV referral linkage.

vi. Closer integration requires more staff training and additional infrastructure (e.g. private space for HIV counseling; integrated records). Infection control is a major concern. More integrated models hold potential efficiencies from both provider and user perspective.

Filling of referral forms and escorting diagnosed positive TB, HIV or TB/HIV patients to other respected TB/HIV components were other factors facilitated the system to operate well. In the evaluation study about 62.75 % responded to have forms and escort to positive TB/HIV patients to other respective units were done.

From the general findings, It seems the hospital organization have given Health education on TB/HIV infections to all health providers though more training is needed on efficiency and effectiveness especially to health providers in TB/HIV integrated units.

The type of health providers reported conducting referrals and escorting patients were about 58.82% .This is not a big number and it is an evidence that the hospital has few number of staff especially for TB/HIV integrated services which can lead to provide TB/HIV services in un efficiency and un–effective way.
5.2.3. Health providers’ Positive perception versus negative perception towards TB/HIV integrated services through internal referral linkages.

Health providers’ perception are the ones which can make the system to be accepted or refuted and get applied or not. When the referral system mechanism is not well aggregated, it can lead to poor acceptance by the health providers themselves, clients and patients. Negative perception towards internal linkages can cause loosing clients and patients in the system (lost of follow ups), stigma and discrimination: Thus this should be observed closely as health providers more than (68.63%) responded to like the system, but again wanted to make additional and corrections to the system in place.

Quality rooms for TB services including DOT unit, infection prevention and control, health education to individual clients and patients were available by 41.18% and not available for quality rooms by 58.82% Inadequate infrastructure for TB/HIV components were reported to be 79.41% and adequate by 20.59% only.

5.2.4 Challenges encountered while implementing TB/HIV integrated services towards effectiveness and efficiency

Challenges were mainly missing of essential resources for TB/HIV integrated services. These were inadequate fund which could be used for procuring enough medicine and medical supplies, diagnostic kits and X-ray films, pay for salaries, pay for overtimes and incentives to health providers.

Others challenges were few number of staff, inadequate knowledge to health workers in TB/HIV integrated services in terms of efficiency and effectiveness. Non adherence to drugs, lack of TB/HIV knowledge and integration of services to clients and patients leading to late diagnosing, late or none acceptance to their health status and none diagnosed TB patients infecting others.
5.3 Evaluation Dissemination Plan

Evaluation findings or results are the information or knowledge to be disseminated or communicated.

During data analysis, data are transformed into useful information, reaches the right users at right time. Information is what we know. Knowledge is what happens when an individual has learnt through it and is able to apply it to specific situation. Reporting and dissemination involves documenting evidence in a written format and dissemination is the sharing reports with others. Communicating evaluation findings or evaluation findings dissemination is very important stage of all the work done. It is in this stage where different stakeholders are informed of the results or findings from different task done like workshops, training, seminars, rapid assessment surveys, community survey, research work or from any studies to justify different findings obtained about the matter.

In this evaluation research:”Evaluation of implementation of TB/HIV integrated services through internal referral linkage in terms of efficiency and effectiveness Babati Town hospital:”The findings /results obtained are targeted to be disseminated to the following stakeholders. Ministry of Health and Social welfare,(MOHSW),Nation Aids Control program (NACP),National Tuberculosis and leprosy program (NTLP),Regional Health management team(RHMT),Council Health management team (CHMT) to coordinators for DTBLP, HIV and TB/HIV .Mzumbe university examination panel and Beneficiaries who are community people receiving the services.

All these target groups or audiences will have different information need and thus different means of disseminating these evaluation research results will be considered differently. Information dissemination need to look for what format is good to each stakeholder as they rank from high to low or low to high.

5.4 Dissemination of Evaluation Results

TB/HIV integrated services through internal referral linkage in terms of efficiency and effectiveness Babati town hospital Manyara region needs to be disseminated to different
stakeholders. For the purpose of this Evaluation, the findings will be disseminated to different internal and external stakeholders.

**Table 5.1: The matrix for stakeholders’ information needed to be disseminated.**

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Information Needed</th>
<th>Dissemination Format</th>
<th>Way of Communication</th>
<th>Level of Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health and social welfare (MOHSW)</td>
<td>Evaluation findings and recommendations, Complete reports, Summary of Reports, On what the program is performing, Regional HIV/AIDS prevalence, TB prevalence, TB/HIV prevalence, HIV on treatment TB on Treatment, both TB/HIV on treatment morbidity and mortality due to TB/HIV infections Policy and guideline developed.</td>
<td>Workshop and meetings periodically, Written Reports, illustrations with figures and graphs, electronically, Oral presentations, Physical handling of Reports, policy and guidelines dissemination</td>
<td>Physical handling submission, Face to face, Periodic meetings, Written reports E-mails, web-based tools, scientific conference</td>
<td>HIGH</td>
</tr>
<tr>
<td>National Aids control program (NACP)</td>
<td>Evaluation findings and recommendations, Complete reports, Summary of Reports, On what the program is performing, Regional HIV/AIDS prevalence, TB/HIV prevalence, TB prevalence, HIV on treatment TB on Treatment both TB/HIV cases on ART and TB on treatment morbidity and mortality due to TB/HIV infections.</td>
<td>Workshop and meetings periodically, Written Reports, illustrations with figures and graphs, electronically Oral presentations, Physical handling of Reports, Logically organized both oral and written.</td>
<td>Physical handling submission Periodic meetings devoted to discussing M&amp;E results, Face to face, Written reports, E-mail, web-based tools, scientific conference</td>
<td>HIGH</td>
</tr>
<tr>
<td>Organization</td>
<td>Evaluation findings and recommendations, Complete reports, Summary of Reports, On what the program is performing</td>
<td>Workshop and meetings Periodically, Written reports, illustrations with figures and graphs, electronically Oral presentations, Physical handling of Reports, both oral and written</td>
<td>Physical handling submission Periodic meetings devoted to discussing M&amp;E results, Face to face Written reports, E-mail, web-based tools, scientific conference</td>
<td>HIGH</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>National Tuberculosis and Leprosy (NTLP)</td>
<td>Regional TB prevalence HIV prevalence Regional TB/HIV prevalence TB/HIV on Treatment both cases on ART, and TB treatment, morbidity and mortality due to TB/HIV infections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional Health Management Team (RHMT)</td>
<td>Evaluation findings and recommendations, Complete reports, Summary of Reports, On what the program is performing Regional TB prevalence HIV prevalence Regional TB/HIV prevalence TB/HIV on Treatment both cases on ART, and TB treatment, morbidity and mortality due to TB/HIV infections Supportive supervision and technical SS to different councils,</td>
<td>Workshop and meetings Periodically, Oral presentation, Written reports, illustrations with figures and graphs, electronically Physical handling of Reports, both oral and written quarterly, semiannual and annually</td>
<td>M&amp;E results dissemination Periodic meetings, Physical handling submission, E-mails Workshops, seminars, E-mails.</td>
<td>HIGH</td>
</tr>
<tr>
<td>Comprehensive Council Health Management (CC HP)</td>
<td>Evaluation findings and recommendations, Complete reports, Summary of Reports, On what the program is performing, district TB prevalence, HIV prevalence TB/HIV prevalence TB/HIV on Treatment both cases on ART and TB treatment, morbidity and mortality due to TB/HIV infections Supportive supervision and technical SS to different Health facilities Implementation report from different Health facilities.</td>
<td>Oral presentation, Written reports, illustrations with figures and graphs, electronically Physical handling of Reports, both oral and written quarterly, semiannual and annually</td>
<td>M&amp;E results dissemination Periodic meetings, Physical handling submission, E-mails, workshops</td>
<td>HIGH</td>
</tr>
<tr>
<td>Community people</td>
<td>Information needed on TB/HIV knowledge and Aim of TB/HIV integrated services, Obstacles to scaling up of TB/HIV integrated services in the Hospital and community.</td>
<td>Dissemination Reports, Posters, Leaflets and booklets.</td>
<td>Face to face meetings, Radio, different shows, TV.</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Mzumbe university examination panel</td>
<td>Evaluation findings and recommendations, Complete reports, Summary of Reports, On what the program is performing, regional and district TB prevalence, HIV prevalence TB/HIV prevalence, TB/HIV on Treatment both cases on ART and TB treatment, morbidity and mortality due to TB/HIV infections</td>
<td>Oral presentation, Written reports, illustrations with figures and graphs, electronically Physical handling of Reports, both oral and written</td>
<td>M&amp;E results dissemination, Periodic meetings, Physical handling submission, E-mails Communication Level</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

**Source:** Evaluation research findings/own construction
CHAPTER SIX
SUMMARY CONCLUSIONS AND IMPLICATIONS

6.1 Introduction

This chapter presents the summary of the study focusing on the purpose of the study, the conceptual framework, literature review and the research methodology. It further provides summary of the findings, conclusions and recommendations for action and for further research.

6.2 Summary of the Study

The evaluation study was done at Babati town hospital in Manyara region from April to June 2015. The main objective of the study was to conduct process/formative evaluation on the implementation of TB/HIV integrated services through internal referral linkage Babati town hospital.

Four evaluation questions/specific objectives were set to guide the study. They firstly, aimed at identifying the elements or components that make TB/HIV services integrated. Secondly was to study how TB/HIV referral linkages facilitated implementation of TB/HIV integrated services. Thirdly, the study evaluation also aimed to establish providers’ perception towards TB/HIV integrated services through internal referral linkages and in the fourth objective, tried very much to identify challenges encountered health providers during the process of implementing TB/HIV integrated services through these systems.

The review of related literature dealt with identification of AIDS for the first time. AIDS was first detected in United State in 1981 and in 1983 it was the time when the HIV was isolated from the patients with lymphadenopathy (LDN) and confirmed to be the causative agent of AIDS in 1984. (Fauci eti el.2008)
In empirical reviews different studies done showed that it was possible to collaborate and integrate TB/HIV services aiming at increasing efforts and work in synergetic efforts and come out with potential or great results.

This is mainly achieved through potential referral systems; good follow ups, good communication, near distance between TB unit and HIV units, timeliness service delivery, free from stigma and discrimination, increased knowledge and skills among health staff.

Closer integration requires more staff training and additional infrastructures (e.g. private space for HIV counseling, integrated records) infection control as the major concern as in these; more integrated models hold potential efficiencies from both providers and users perspectives (Wandwalo E, et al (2004)

The study comprised of 51 respondents who included Medical officers, environmental officers, Nursing officers, Administrative officers Pharmaceutical technicians, Clinical officers, Laboratory technicians, ANC-PMTCT Nurses, CTC Nurses and clinicians. Others like Radiographers and Medical recorders, Town council/district Coordinators for TBLP, HIV/AIDS, and TB/HIV responded to these questionnaires. All these helped a lot in giving support to the researcher through providing sufficient and reliable information for the evaluation study purpose.

The tools used were highly structured self administered questionnaires that needed short answers. Both purposeful and conveniently sampling procedures were used to the respondents.

Data collected were analyzed and presented using tables and figures for quantitative results. Language used was English as both main objective of the study was to establish the efficiency and effectiveness level of health providers towards implementing TB/HIV services through internal referral linkage. Also it was through using the evaluation research questions mentioned above to capture all reality.
The findings for objective one revealed that Elements/components that make TB/HIV services integrated are TB unit, VCT unit, CTC unit, Laboratory unit and ANC_PMTCT unit.

From the study, it was revealed that the hospital has the unit for TB/HIV integrated services and all these components do operate well through internal referral linkages and that information and knowledge were given to health providers in these components by 86.27% and not given by 7%-20% only.

Secondly, responding to how the internal referral linkage facilitates internal referral linkage. It was revealed that almost all health providers who had the training, knowledge and skills for TB/HIV diseases had the mandate of filling referral forms and escort patients to respected TB/HIV components by 58.82% as presented in table 4.6 This also gave credit that efficiency and effectiveness to be doughty full as the services need enough staff highly trained and skilled health personnel in those components so as to bring the intended results.

Quality rooms for TB services and adequate infrastructures for TB/HIV components to deliver integrated services in effectiveness and efficiency were available only by 27% and adequate infrastructure were not available by 79.41%. These reflected and justified the great need for making rectification for betterment of the future.

As regards to objective four; it was found that several challenges were encountered while on the process of implementing TB/HIV integrated services in internal linkages. Shortage of staff, medicine, diagnostic kits, X-Ray films and regular break down of X-Ray machine. Inadequate fund for overtime allowances, night call allowances, hard dock situations and lack of incentives were internal threats. Others were, patients late reporting to hospital, late acceptance and late in starting medication. Patients loss to follow ups, none adherence to drugs and un- diagnosed TB patients infecting others.

Lack of reliable transport also contributed to failure of supportive supervision, Home based care and referral of Multiple Drug resistance patients to Kibong’oto hospital; The
National TB hospital for advanced management and fear of infecting other people in the hospital and community.

The aim of the government is to reduce both Tb and HIV infections (prevalence) by use of different interventions which are all the time addressed: Provision of adequate health education on TB and HIV infections to the community, education about the diseases means of prevention treatment and control through information, education and communication strategies (IEC), insisting faithfulness among sexual partners to adhere to one sexual partner, insist on constant condoms use which prevent both sexual transmitted infections including HIV infection, use of sterile instruments in both minor and major surgical procedures for infection prevention and control, Prevention of mother to child transmission (PMTCT), avoid unnecessary blood transfusions and early initiation of ant TB for TB treatment and ARVS for Prolonging life in case of HIV infections. All these interventions should as well be proper gated while providing integrated services in TB/HIV components.

6.3 Conclusions

As said from the begging, the objective of the evaluation study was to evaluate implementation of TB/HIV integrated services through internal referral linkages in terms of efficiency and effectiveness Babati town hospital. Other objectives were to identify elements/components that make TB/HIV services integrated. Others were to study how TB/HIV referral linkages facilitate implementation of TB/HIV integrated services, to establish providers’ perception towards TB/HIV integrated services through internal linkage and lastly was to identify challenges encountered by providers while on the process of implementing TB/HIV integrated services.

In the era where HIV infection is increasing, there is also dramatic increase of TB infection, due to the fact that the immune system is lowered by HIV infection. Hence leads to rise of both TB and HIV infections/prevalence. TB/HIV integrated services is the only strategy to help patients with TB, HIV or both TB/HIV infections as one stop shop, where by all services regarding these infections will be captured in one
programme. To mention few of the integrated services are registration of patients in register books, voluntary and counseling (VCT) of clients to know there sero status, early initiation of ant TB or Ant Retrovirus, to positive TB and positive HIV patients respectively. Early referral of patients with positive TB infections to CTC unit and positive HIV patients to TB unit. ANC-PMTCT positive HIV mothers to CTC to TB units and likewise. Health education for prevention of TB infection to individuals, their families and their communities by use of (WHO’s Three I’S). Intensified case finding, Isoniazid preventive therapy and infection control in the community.

Other activity being to reduce the burden of HIV in people with presumptive and diagnosed TB In integrated services. There will be time serving, reducing burden to patients, reducing duplication for registration, reducing stigma and discrimination and providing satisfaction to clients, patients and health providers all together. Thus the aim of internal referral linkages are in the facilitation of these integrated services to operate with the intention of helping clients and patients in the environment where there is scarcity of infrastructures to capture all the required services at one place and where TB/HIV components are scattered as observed now in Babati town hospital. For example TB/HIV unit is far from general hospital laboratory and TB unit and CTC units.

Therefore in this juncture, the government has the great task to support the community through its different health facilities in the provision of enough Health staff who will work deliberately, delivering quality efficiency and effective health services.

The government should support in construction of standard / quality infrastructures which will support in all aspect of quality service delivery including TB/HIV integrated services under one roof or through internal referral linkages, or through Mobile integrated TB/HIV clinics/services as those seen in camps etc.

Government to help supporting with enough medicine and medical supplies including buying of diagnostic machines like X-Ray machine, CD4 count machine and Liver function test machine to health facilities with none.
The government through the MOHSW, NGO, different donor agencies and through other stakeholders like public Private partnership (PPP), Faith based organization, Private for profit to insist them working in collaboration so as to support different regional health facilities in the country in all aspects. To support districts and councils in their health strategic plans, health providers capacity building towards reducing the burden of TB and HIV infections in the community. These will improve quality of life and prolong life of the individual ones in the community.

6.4. Recommendations

i) The hospital as an organization could recruit and employ more staff who can assist in TB/HIV integrated services to meet clients/patients satisfaction and other necessary requirements for TB/HIV integrated services.

ii) Introducing other means of fund raising like NHIF to other people in the community like businessmen, peasants and self employees and not only the government employees alone.CHF, TIKA, AAR insurance, JUBILEE insurance and pay from the pocket.

iii) The government, MOHSW, NGO and other donor Agencies to support buying of new X-Ray machine, new diagnostic Laboratory machines like CD4 count and liver function test machines

6.5. Policy Implication

The study was aiming at evaluating implementation of TB/HIV integrated services through internal referral linkage in terms of efficiency and effectiveness in Babati town hospital. The policy implication to this study reminded that; Ministry of health on behalf of Tanzania government has different dimensions towards reducing the burden of TB and HIV infections. One of these dimensions is the use of national and international standards for policy guidelines to combat the epidemics of the two diseases, TB and HIV. Other dimensions considered by the government are to increase the availability of resources to implement the policy, support the organization structure to practice policy guidelines, to have the overall management system of collaborative TB/HIV activities, support policy implementation in service delivery, and Policy to guide stakeholders in
scaling up collaborative Tb/HIV activities, (National policy guidelines for collaborative TB/HIV activities), 2008.

The policy stated the objectives of collaborative TB/HIV as

i) To establish mechanism for collaboration between TB and HIV/AIDS programmes,

ii) To reduce the burden of TB in people living with HIV/AIDS their families, and their communities by use of intensified case findings, Isoniazid preventive therapy and infection control (WHO S’ Three I’S) (2012) and

iii) To reduce the Burden of HIV in TB-infected patients

In the linkage and close interaction between the two epidemics, there is the greater need for the NTLP, NACP and other stakeholders to closely work together at national, regional, district and community level in the health system. In all these; policy and guidelines are intended to give guidance, directives for the implementation of the collaborative TB/HIV activities. These objectives have laid the basis for development of policy guidelines on collaborative TB/HIV activities in Tanzania (MOHSW, 2008)

6.6. Programmatic Implications and use of Findings for Strategic Planning

As regards to the main objective of the study which is” evaluation of implementation of TB/HIV integrated services/activities through internal referral linkages in terms of efficiency and effectiveness”, the target was to find out or see whether the internal referral linkage / system is facilitating in the operation and implementation of the integrated services as intended or not. Strengthening referral system through making full registration to the patients, filling of referral forms and making escort of patients to respective TB/HIV components which are the TB unit, VCT unit, the CTC unit, Lab unit and ANC-PMTCT unit are examples of means of facilitation towards integrating services. Also the study was aiming at identifying challenges, obstacles or problems which hinder the system not to perform well. In this study several challenges were observed which contributed to the system not to operate in the efficiency and effectiveness.
These challenges were shortage of staff, lack of quality rooms for TB services, few infrastructures for TB/HIV components to deliver integrated services, inadequate health education and skills to health providers on TB/HIV integrated services through internal referral linkage in terms of efficiency and effectiveness, drug stock out, limited diagnostic facilities and inadequate fund to support various activities in the programme. Other challenges observed were lack of reliable transport for Home based care services, supportive supervision and referral of multiple drug resistance patients to higher centre Kibong’oto hospital which is the national TB hospital for advanced management and fear of infecting other innocent people in the community with already resistant TB bacilli/bacteria.

As regards to programmatic implications and use of findings for strategic planning; these challenges will act as the base of foundation towards formulation of strategies and activities in district or council strategic management applied by Council Health Management Team (CCHP) on how to solve problems. OR the challenges are like problems, information results for strategic planning as through solving these problems will also be solving the poor linkage areas identified towards integration and thus will be easier to support, scaling up activities and for early TB/HIV case detection either through VCT or PITC. Use of quality and adequate infrastructures with enough space, ventilation, enough light and Privacy are factors toward increasing case detections for both diseases. Provision of more knowledge and skills to health providers on TB/HIV services in terms of efficiency and effectiveness will help to change the attitude of health providers and will assist in performing more good.

TB/HIV integrated services through internal referral linkage are the program under NTLP, and NACP. It is operating following the objective of National TB/HIV policy and guidelines aiming at reducing the burden of these two infections by the use of various strategies like VTC, PITC PMTCT and actively use of (WHO’S three I’S) to individuals, families and community simultaneously.
Thus all the findings from this study should as well be disseminated to these two programmes for approval, corrections, additional, sharing and for future use in the programme to maintain or improve the organization.

6.7. Limitations

Possible Limitations of the evaluation Study. Since the study is case study design the findings of the evaluation will not be generalized to all TB/HIV components. The VCT unit, CTC unit TB unit, Laboratory unit and ANC-PMTCT.

The evaluation study used structured questionnaires self administered and filling of short answers questions which were both in English version.

6.7.1. Language barrier:

This was observed to some of health providers especially those who had primary school level education of which the problem was solved by the researcher who assisted them in translating the meaning of the question to get the content.

6.7.2. Programme

It was the process evaluation and should be continued as to bring about intended results of having TB/HIV integrated services through internal referral linkage in the health facility which is aiming at reducing burden to patients who seek both TB and HIV services at the same time. It will reduce burden of work to service providers, reduce duplication of work to health workers, serving time to both health providers, clients, patients and Increasing effectiveness and efficiency during health service delivery.

6.7.3. Un- willingness

Un- willingness of respondent to provide information intentionally for fear of losing their time
6.7.4. Time constraints

Two months of data collection from April to May 2015 was short to some of respondents especially those from administration team due to the fact that, they were tight with many hospital responsibilities. They delayed in submission of filled questionnaires and the researcher had to make many visits for follow-ups in the hospital in order to capture those questionnaires.

6.7.5. Financial constraints

The amount of money that was allocated for carrying out the study was scarce especially for transport due to many visits made in the hospital for questionnaires collection. Many funds were used for stationeries in data collection and processing; but later this was solved by the use of friends who supported the researcher with extra money as they are from the same organization.

6.8 Areas for Further Research/Evaluation

The objective of the study was; Evaluation of TB/HIV integrated services through internal referral linkage in terms of efficiency and effectiveness Babati town hospital. The study done have come with different findings as per specific objectives. Babati hospital as other health facility in the country does have the unit for TB/HIV integrated services. Also the unit has several elements/components which operate these services. The big issue here was that the integrated services was not under one roof or in one big separate area. The services were done through internal referral linkages from one component of TB/HIV to the other unit following required standard: Filling of referral forms, escorting of patients and integration of all TB/HIV services in one unit.

In Babati hospital these were not possible due to few infrastructures which were available. There were no quality rooms for TB services and enough rooms with privacy for VCT services.
The TB/HIV units was scattered and far from each other. For example general laboratory was very far from other components like TB unit and CTC unit which can create poor satisfaction to both health providers and patients, un acceptance to clients and patients, loss of follow ups, stigma and discrimination.

The study also revealed that, there are still a lot to be explored on how really Babati town hospital is able to implement TB/HIV integrated services through internal referral linkages in terms of efficiency and effectiveness despite of all deficiencies observed and challenges encountered.

In these situations efficiency and effectiveness through internal referral linkages for TB/HIV integrated services are un-attainable.

Having said so, I hereby call upon other researchers to undergo further studies on:
Health providers’ perception towards internal referral linkage for TB/HIV integrated services in terms of efficiency and effectiveness,

Study more on how internal referral linkage for TB/HIV integrated services facilitate in scaling up TB and HIV infections in the community hence reducing the burden of TB and HIV in the community
REFERENCES

(TB/HIV Care, SANAC TB/HIV Working Group, Univ. Western Cape). A practical guideline for TB and HIV service integration at Primary Health facilities Republic of South Africa.


K McCarthy (RHRU), E Goemaere (MSF/SANAC TCS), L Wilkinson (MSF), V Tihon (BTC/NDOH), K Vilakazi-Nhlapo (NDOH), H Hausler


WHO. Policy on Collaborative TB/HIV activities. Guidelines for National programmes and other stakeholders
APPENDICES

Appendix I: INDEPENDENT VARIABLES

Independent variable is the variable that can influence another variables which can be manipulated, symbolized as x, can be list of the programme users, Health facility, clients and TB/HIV patients, health providers in the health facility with the consideration of other following multiple factors:

Social Demographic characteristic
Age
Sex
Marital status
Education
Occupation

Staff
Number of staff
Cadre
Educational level
Training attended in past two years and duration
Motivation
Supportive supervision

Economics
Family economic status
Time spent
Cost

Social culture

Traditional practice

**Geographical distribution**

Roads

Distance from the health facility

Transportation

**Dependent variable**

Dependent variable is the variable that is caused or influenced by another variable (outcome) and which can measure the achievement of expected programme outcome. These outcomes are like:

- Reduction of TB/HIV infections prevalence and morbidity in the community

- Increased utilization to TB/HIV integrated services by patients with TB, HIV or both TB/HIV infections

- Increased awareness to TB/HIV infection prevention and control by the community people and increased VCT rate to clients.

- Reduced burden to patients with both TB/HIV infections

- Reduced time wastage to both clients and health provider during service delivery

- Reduced stigma and discrimination

- Improved quality of life
Appendix II: QUESTIONNAIRE WITH QUESTIONS.

Dear Sir / Madam,

My name is Redemptha Mathew Lubuva a student pursuing Master in Health Monitoring & Evaluation in Mzumbe University. This study is part of requirements for the fulfillment of the award of Master in Health Monitoring & Evaluation. You are kindly requested to respond to these questionnaires. The information will be treated confidentially and only for academic purpose and not otherwise. I thank you in advance for your good cooperation, assistance, time and effort spent to complete these questionnaires.

1. Please answer all questions to the best of your knowledge. Your participation is entirely voluntary

2. Don’t write your name. Indicate your response by ticking in appropriate box or filling in the blanks

**A. Number of Respondent**

**PART 1. Demographic Information**

1). Sex/ Gender of Respondent

   (1) Male

   (2) Female

2). Your age in years

3). what is your current professional?

   1). Medical Officer

   2) Environmental Officer

   3). Nursing Officer
4) Pharmaceutical technician

5) Administrative Officer

6) Clinical officer

7) Laboratory technician

8) PMTCT nurse

9) CTC nurse

10) Others in the hospital eg. Health recoder and Radiographers

Q. 4) Education level
   1. Primary school
   2. Secondary school
   3. Bachelor degree

B. Observation checklist for TB/HIV integrated services
These will be observed by health providers from different health units in the hospital

INSTRUCTIONS
YES FOR [1] NO FOR [2]

Q. 5) Does the facility have the unit for TB/HIV integrated services?

[YES] [NO]
Q.6) Are there guidelines on information for staff to cover while performing TB/HIV integration procedures?

[YES] [NO] [ ]

Q.7) If available are they adhered to? [YES] [NO] [ ]

Q.8) Does the provider ask what she/he can do for a client? [YES] [NO] [ ]

Q.9) Was the client satisfied by the services provided by provider? [YES] [NO]

Q.10) Are the infrastructure adequate for TB/HIV components to deliver integrated services?

[YES] [NO] [ ]

Q.11) Are there enough, ventilated and well illuminated rooms for TB services?

[YES] [NO] [ ]

Q.12) Did the provider give information about all TB/HIV components and services provided in the health facility in terms of their effectiveness and efficiency in

- VCT UNIT? [YES] [NO] [ ]
- TB unit? [YES] [NO] [ ]
- CTC unit? [YES] [NO] [ ]
- ANC-PMCTC? [YES] [NO] [ ]
- LABORATORY unit? [YES] [NO] [ ]

Q.13) Does the provider explain in detail about the medicine and directives given to patients at different TB/HIV components? [YES] [NO] [ ]

Q.14) Does the provider ask if the client has any questions or concern on TB/HIV integration services? [YES] [NO] [ ]
Q.15) Are the patients escorted to other units by health providers so as to avoid loss to follow up, stigma and discrimination? [YES] [NO] [   ]

Q.16) Does the clients and providers time management adhered to? [YES] [NO] [   ]

Q.17) Are there on job training, seminars, continuing education/training done to providers? [YES] [NO] [   ]

C. Service delivery in TB/HIV integrated unit for internal referral linkage in the health facility

Q.18) Does the internal referral linkage facilitate TB/HIV integrated services in the health facility?

Yes   (1)
No    (2) [   ]

a) If Yes specify-----------------------------------------------

b) If No state the reason.................................................................................................................................

Q.19) Who is involved in conducting TB/HIV services referral linkage?

1). Well Trained and skilled TB/HIV providers

2) All trained health care workers?

Q.20) What is your working experience with this health facility and TB/HIV unit?

1. Experience 3 years and above

2. Not Experience 3 years and below [   ]
Q 21) Do you have any training/classes for increasing the knowledge and skills for giving effective TB/HIV integrated services?

1. 1st grade/Class
2. 2nd grade/Class
3. 3rd grade/Class
4. Unknown grades/class
5. No grade/class

Q 22) How do you acquire Customer care skills/knowledge?

1. Training (Institution)
2. On job training
3. Experience
4. No skills

Q 23) How do you get feedback of the service you provide to your Customers/Client

1. Suggestion Box
2. Direct from client
3. No feedback
4. Supervisors

Q 24) Are there any challenges facing your daily activities in the TB/HIV system and health facility?

1. Yes
2. No
3. Not known

Q 25) Where are you supposed to report challenges from your working station?

1. Nurse in-charge on duty
2. Health facility In-charge
3. District medical officer
4. Doctors on duty
5. Mentions examples of challenges...1,......... 2,......... 3,.........

Q.26) How are TB/HIV service integration linked?

6. Internal referral system
7. From general out patients of the health facility to TB/HIV unit
8. VCT unit to TB/HIV unit
9. VCT unit to TB unit/CTC
10. TB unit to CTC and likewise.
11. ANC-PMTCT to CTC and likewise
12. There is no straight channel of referral linkage

Q.27) what are the health providers’ perception/attitude towards TB/HIV integrated services through internal referral system?

1. Good as it accommodates all TB/HIV services through internal referral linkage
2. TB/HIV integration and referral system are not the same as collaboration
3. Patients can easily get lost on the way while looking for other TB/HIV units
4. TB/HIV services needs to follow guidelines for effectiveness and efficiency
5. Strong mechanisms should be set for good taking up of clients and patients so as to reduce stigma and discrimination as the services are integrated through internal referral linkage and not under one roof.
6. All of the above. [ ]