THE EFFECT OF ENGAGING THE LAYWORKERS IN REDUCTION OF LOST TO FOLLOW UP AMONG PATIENTS WITH ADVANCED HIV/AIDS STARTING ART:

THE CASE OF REMSTART PROJECT IN DAR ES SALAAM REGION
THE EFFECT OF ENGAGING THE LAYWORKERS IN REDUCTION OF LOST TO FOLLOW UP AMONG PATIENTS WITH ADVANCED HIV/AIDS STARTING ART:

THE CASE OF REMSTART PROJECT IN DAR ES SALAAM REGION

By

Ramdhani Shemtandulo

A Project Report (Thesis) to be Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Science in Health Monitoring and Evaluation (Msc. HME) of Mzumbe University 2015
CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation/thesis entitled “The effect of engaging the lay workers in reduction of lost to follow up among patients with advanced HIV/AIDS starting ART”: The Case of Mbagala, Buguruni and Tandale in Daresaalm, in partial/fulfillment of the requirements for award of the degree of Master of Science in Health Monitoring and Evaluation (MSc HME).

Name and Signature

__________________________________________
Major Supervisor

__________________________________________
Internal Examiner

__________________________________________
External Examiner

Accepted for the Board of school of Public Administration and Management

__________________________________________
DEAN/CHARPERSON
DECLARATION

I, Mr. Ramadhani Shemtandulo, declare that this dissertation 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 Berne Convention, the copyright act of 1999 and other international and national enactments, that in behalf, on intellectual property. It may not be reproduced by any means, in full or in part, except for the short extracts in fair dealing, for research or private study, critical scholarly review or discourse of Acknowledgement, without the written permission of, Mzumbe University, on behalf of the author
ACKNOWLEDGEMENT

My sincerely thanks to Mr. Deogratias Mpenzi from Mzumbe University in the department of Health systems management (HSM) for his inputs and tieless supervision throughout the time, despite of having so many tasks but he never get tired with me. I also acknowledge my site supervisor Dr Bernad Ngowi from Muhimbili Medical Research Center for his contributions towards my career development in research

I will be selfish if I will not acknowledge My Center Director Dr. S G.Mfinanga, and Research scientists Dr Sokoine Kivuyo , Dr Esther Ngadaya and other Muhimbili Medical Research Center staffs for their time, inputs and cooperation they give me at any stage of my filed work.

Also I would like to I acknowledge London School of Hygiene and Tropical Medicine (LSHTM) and National TB and Leprosy Program (NTLP) for their great idea of looking the alternative way of improving management of patients with advanced HIV/AIDS starting ART through REMSTART PROJECT
DEDICATION

I dedicate this work of my hand to my mother Salima MMOLE, my father Isihaka Shemtandulo and my young brother for they’re moral and material support they throughout production of this work. May the Almighty God protect them, bless them, give them prolonged love and wisdom. Amen
ABBREVIATIONS AND ACRONYMS

AIDS Acquired Immune Deficiency Syndrome
ART Antiretroviral Therapy
CHW Community Health Worker
CTC Care and Treatment Clinic
GCLP Good Clinical and Laboratory Practice
HAART Highly Active Antiretroviral Therapy
HIV Human Immunodeficiency Virus
LSHTM London School of Hygiene and Tropical Medicine
MOHSW Ministry of Health and Social Welfare
NIMR National Institute For medical Research
NTLP National Tuberculosis and Leprosy Program
RCT Randomized Control Trial
REMSTART Reduction of Mortality among patients with Advanced HIV/AIDS Starting ARV’s
SOP’s Standard Operating Procedure
TB Tuberculosis
US United States
USA United States of America
VCT Voluntary Counseling and Testing
WHO World Health Organization
The evaluation was looking into effect of engaging the lay workers in reduction of lost follow up among patients with advanced HIV/AIDS starting ARV’s. Specifically the evaluation was assessing the effect of intervention that reduce lost to follow up among patients with advanced HIV/AIDS starting ARVs and examine the factors that contributes to lost follow up.

The assessment was retrospective cohort design conducted in three hospitals with HIV/AIDS care and treatment clinics in Dar es Salaam. Data of patients who were enrolled into project through study sites i.e Mbagala, Buguruni and Tandale for the period of February 2012 to September 2014 and followed up by lay workers for at least four visits was extracted from project database. The data was cleaned and analyzed by using statistical software Stata version 13. Descriptive and analytical Z-test was performed to compare lost to follow up of those clients followed up by the study team and the government CTC follow up.

A total of 435 patients information extracted from the database, 97 (22.3%) were from Buguruni, 141(32.4%) from Tandale and 197(45.3%) from Mbagala hospital. Out of 435 clients 383 (88.0%) were visited at least once and 52(12.0%) clients were reported of being lost to follow up, 11(11.3%) from Buguruni, 18(12.8%) from Tandale and 23(11.68%) from Mbagala. And the factors that contributed to it were clients education level of which those who did not attended school had higher chance (13/68) of being lost to follow up as compared to those with Secondary/University and this was statistical significant OR (4.1; 95%CI:1.1-15.2).Other reasons where:10(24.4%) client change of physical address and phone number, 4(9.8%) clients provided wrong map cue and 14(34.2%) they just move away to another area outside the study catchment area for business or medication.

**Conclusion and Recommendations:** Engaging the lay workers in fighting for lost follow up of HIV/AIDS starting ARVS especially in low and middle income countries like Tanzania which facing the problem of poor health staffs had shown a
significant effect. Though issues of clients move away for business and others like, change physical address and phone number and wrong mapque location have been observed as the challenges during the follow up.
TABLE OF CONTENT
CERTIFICATION .................................................................................................i
DECLARATION ..................................................................................................ii
COPYRIGHT ....................................................................................................iii
ACKNOWLEDGEMENT ......................................................................................iv
DEDICATION ...................................................................................................v
ABBREVIATIONS AND ACRONYMS ..............................................................vi
ABSTRACT ......................................................................................................vii
TABLE OF CONTENT ......................................................................................ix
LIST OF TABLE ...............................................................................................xii
LIST OF FIGURE ............................................................................................xiii

CHAPTER ONE .................................................................................................1
INTRODUCTION OR PROBLEM SETTING .......................................................1
1.1 Background ..............................................................................................1
1.2 Statement of the Problem ..........................................................................2
1.3 Evaluation Questions and Objectives ......................................................3
1.3.1 Specific Evaluation Question ..............................................................3
1.3.2 Specific Objectives ..............................................................................3
1.4 Significance of the Evaluation ..................................................................3
1.5 Limitation of Evaluation ..........................................................................4

CHAPTER TWO .................................................................................................5
LITERATURE REVIEW .....................................................................................5
2.1 Introduction ..............................................................................................5
2.2 Theoretical Review ..................................................................................5
2.2.1 Program Description ........................................................................5
2.3 Empirical Review ....................................................................................7
2.3.1 Role of Community Health Workers in Services Delivery ...............7
2.3.2 Role of Community Health Care in HIV/AIDS Care .............................................. 7
2.4 Research GAP ........................................................................................................... 9
2.5 Conceptual Frame Work .......................................................................................... 10

CHAPTER THREE ........................................................................................................ 11
METHODOLOGY ........................................................................................................... 11
3.1 Introduction ............................................................................................................... 11
3.2 Evaluation Type and Approach ............................................................................... 11
3.3 Evaluation Design .................................................................................................... 11
3.4 Study Area ............................................................................................................... 11
3.5 Study Population ...................................................................................................... 12
3.6 Units of Analysis ...................................................................................................... 12
3.7 Variables and Their Measurements ......................................................................... 12
3.8 Sample Size and Sampling Techniques .................................................................. 12
3.9 Types and Sources of Data ..................................................................................... 12
3.10 Data Collection Methods ....................................................................................... 12
3.11 Inclusion Criteria ................................................................................................... 13
3.12 Validity Issues ......................................................................................................... 13
3.13 Data Management and Analysis ........................................................................... 13
3.13.1 Data Cleaning and Coding .............................................................................. 13
3.13.2 Data Analysis .................................................................................................... 14
3.14 Ethical Consideration ............................................................................................. 14

CHAPTER FOUR ........................................................................................................... 15
PRESENTATION OF FINDINGS ....................................................................................... 15
4.1 Introduction ............................................................................................................... 15
4.2 Evaluation Results .................................................................................................... 15
4.2.1 Magnitude of lost to follow up among patients with advanced HIV/AIDS started on ARVs ................................................................. 15
4.2.2 Factors contributed to lost to follow up among patients with advanced
HIV/AIDS started on ARVs ........................................................................................................16
4.2.2.1 Demographic Characteristics of factors ....................................................................16
4.2.2.2 Baseline clinical characteristic Factors ....................................................................19
4.2.2.3 Descriptive factors ....................................................................................................21

CHAPTER FIVE .........................................................................................................................22
DISCUSSION OF FINDINGS ....................................................................................................22
5.1 Introduction .........................................................................................................................22
5.2 Magnitude of lost to follow up among patients with advanced HIV/AIDS started
on ARVs ...................................................................................................................................22
5.3 Factors contributed to lost to follow up among patients with advanced HIV/AIDS
started on ARVs .......................................................................................................................23
5.3.1 Demographic Factor ........................................................................................................23
5.3.3 Descriptive Factors (Individual information) .................................................................26

CHAPTER SIX ..........................................................................................................................28
SUMMARY, CONCLUSION, RECOMMENDATION AND POLICY
IMPLICATIONS ..............................................................................................................................28
6.1 Introductions .........................................................................................................................28
6.2 Summary ...............................................................................................................................28
6.3 Conclusion ............................................................................................................................28
6.4 Recommendations ...............................................................................................................29
6.5 Policy Implications ..............................................................................................................30
6.6 Areas for Further Research .................................................................................................30

REFERENCES .........................................................................................................................31
LIST OF TABLE

Table 1. Characteristics of the Respondents .......................................................... 17
Table 2: The association between baseline clinical information and lost follow........... 19
Table 3: Showing the reasons for lost follow among the clients................................. 21
LIST OF FIGURE

Figure 1: Program/Project Logic Model ................................................................. 6
Figure 2: Showing the Logical Flow of Independent Variable and Dependent Variable 10
Figure 3: Bar Graph .................................................................................................. 16
CHAPTER ONE

INTRODUCTION OR PROBLEM SETTING

1.1 Background

Scarcity of Health workers is one of the major challenges in fighting against HIV/AIDS in the world (THE WORLD HEALTH REPORT, 2006), the alternative approaches that can help to reduce the burden or workload to health care workers is highly demanded for this time where there is a rise of burden of disease worldwide such as HIV/AIDS. It is estimated that since the beginning of the HIV/AIDS epidemic, almost 70 million people have been infected with the HIV virus of which was an adult age 15-49 years and about 35 million people have died of AIDS (WHO, 2013). Despite of the fact that the effects and magnitude of the epidemic vary significantly between countries and regions, still Sub-Saharan Africa remains most severely affected, with nearly 1 in every 20 adults (4.9%) living with HIV and contributing for 69% of the people living with HIV worldwide. (UNDP REPORT, 2012)

Prevalence of HIV/AIDS in Tanzania mainland continuously decline since the beginning 2004 to 2012, 7% to 5.1%(THMIS REPORT, 2012) respectively, and still it is one among the most killing chronic disease which contribute to about 84,000 deaths in the country, and the most affected people are young aged 14 and above, 5.0% [4.6% - 5.3%](WHO, 2011). The decrease in HIV prevalence in the country is the result of Government initiative in year 2004 of establishing HIV Care and Treatment Clinics (CTC) for HIV/AIDS patients and massive campaign up to the remote areas of Tanzania. Lost to follow up has been identified as major challenges in fighting against the epidemic and this is highly concomitant with the shortage of skilled and competent health worker (http://www.un.org; 11/5/2015).
Integrating community health care worker in fighting against disease burden has been suggested as alternative approaches that have a significant impact particularly in low-income country like Tanzania (S Lewin, 2010). Therefore the intervention that will provide evidence based in the context of Tanzania on the usefulness of the community lay worker in fighting against HIV/AIDS by reducing lost to follow up among the patients is highly required

1.2 Statement of the Problem

Lay worker or community health workers had shown a significant effect on the reduction and prevention of number of disease like malaria, TB and other related health problems. A study conducted in Kenya aimed to investigate the factors associated with utilization of community health workers in improving access to malaria treatment among children in Kenya, revealed the use of community health worker will not only enhance access to treatment by the poorest households but also will provide early and appropriate treatment of malaria among the vulnerable group. Likewise a study conducted in sub Saharan Africa aimed to investigate the role of community health workers in HIV care and treatment has resulted to significant impact on the reduction of HIV/AIDS spread as well as death among HIV/AIDS patients and recommended on the need of integrating and strengthen them so that to overcome the burden of HIV/AIDS prevention strategies. These findings are supported by the assessment of the effect of involving community health workers in prevention of mother to child conducted in Zambia, Lusaka which suggested community has great impact on reducing transmission of HIV/AIDS to child before and after delivered by reducing lost to follow up among the patients.

REMSTART study was conducted in Tanzania between February 2012 to September 2014 to assess if the use of lay workers has more advantageous in fighting against massive death and lost follow up among the HIV/AIDS patients with advanced stage. The fact that the intervention has reached its goal of reducing massive lost follow up
among patients with advanced HIV/AIDS and the contributing factors is not known, so this call for the need of outcome evaluation.

1.3 Evaluation Questions and Objectives

To assess if the intervention has attained its goal of reducing the lost to follow up among people with advanced HIV/AIDS or not

1.3.1 Specific Evaluation Question

i. Is the intervention managed to reduce lost to follow up among patients with advanced HIV/AIDS started on ARVs to less than 10%?

ii. What are factors that contributed to lost to follow up among patients with advanced HIV/AIDS started on ARVs?

1.3.2 Specific Objectives

i. To determine if the intervention succeeded to reduce the lost to follow up among patients with advanced HIV/AIDS started on ARVs to less than 10%.

ii. To examine the factors contributed to lost to follow up among patients with advanced HIV/AIDS started on ARVs.

1.4 Significance of the Evaluation

The results from the evaluation have implications to project implementers and other potential stakeholders as it will contribute to establishment of baseline data that significantly evidencing the impact or outcome of intervening lay workers on reducing lost to follow up and understand the factors contributing to loss to follow up and so that to improve patients’ retention to HIV care and treatment. Also the evaluation study will help me toward awarded a master degree in health monitoring and evaluation.
1.5 Limitation of Evaluation

The evaluation based on review of data collected from REMSART project completed by 2014, so its findings could be affected by time duration since people keep interacting day to day in such a way the possibility emerging new themes related to study objectives is very high.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Community health workers could result into improvement of health care and overcome the problem of shortage of health worker. Many studies nationally and globally have been conducted to provide statistical evidence on the impact of engaging the staff especially in HIV/AIDS care where majority of staffs or skilled personnel have been died due to this. Through this chapter will going to show theoretical perspectives of the study including programme theory, also empirical studies related to the evaluation topic and lastly the conceptual flow of the study ideas

2.2 Theoretical Review

2.2.1 Program Description

The study is a two-arm individually randomized trial comparing intervention with control. On intervention arm the clients was visited at their home by trained lay workers and screen for any disease symptoms like TB, meningitis, ART adherence and providing ART medication and if there will be any menace symptoms they refer the patients to the hospital for more treatments and followed for four consecutive visits in one year. Lay workers have given a mobile phone for tracing the patients wherever they didn’t found at their home place.
Figure 1: Program/Project Logic Model

Diagrammatic showing how resources available, activities implemented, how the activities will lead to output, outcome and led to improve population health.

- **Inputs**
  - Money/funds
  - Human resources

- **Process/activities**
  - Screening the patients for CD4 count
  - Purchasing lab requirement and site specimen
  - Testing patients for gene expert
  - Home visiting and screening for HIV/AIDS symptoms
  - Training health care providers on GCP

- **Output**
  - # of patients Screened for CD4 count
  - # of lab facilities (reagents, specimen etc.) purchased CD4 count
  - # of patients tested for gene expert
  - # of patients visited home and screened for HIV/AIDS symptoms
  - # of health care providers trained on GCP

- **Outcome**
  - % Increase on ART adherence
  - % Decrease on lost to follow up
  - % of patients tested for gene expert

- **Impact**
  - Reduced mortality among HIV/AIDS patients

Legend:
- Arrows indicate cause and effect relationships.
- The logic model illustrates the flow of resources and activities leading to improved population health.
2.3 Empirical Review

2.3.1 Role of Community Health Workers in Services Delivery

Community health workers has shown to be a significant alternative strategies to deal with severe shortage of health staffs in low and middle income countries A study conducted to assess the usefulness of community health on improving the health outcome among the community and what can be done to improve or strengthen their contribution or morale and was a desktop review, The study revealed community health workers contribute a great effect on community development more specifically improve coverage and access community with basic health needs. It also revealed though community health workers they can make an effective contribution on health services delivery. The assessment provided a precaution of being carefully and smart when selecting community health workers since they can completely distort the quality of health care and coverage if not well selected and trained. Institutionalizing and mainstreaming community participation in the study observe the remaining challenge in community involvement in health care delivery and community improvement or development. The study provides light to my evaluation since it provides prior information regarding the usefulness of community health workers in HIV/AIDS service. Viswanathan M at el. 2009

2.3.2 Role of Community Health Care in HIV/AIDS Care

An evaluation on the roles and outcome of community health workers in HIV care was conducted by GW Mwai, 2013 through a systemic review of number of study conducted in sub-saharan Africa and latina America which employed qualitative and quantitative research technique. The authors worked on the articles that related with roles and outcome of community based practices to HIV/AIDS care and treatment from PubMed, PsychINFO, Embase, Web of Science, JSTOR, WHOLIS, Google Scholar and SAGE journals online that publish. Of which finally only 21 studies meet inclusion criteria of assessment, the review revealed that the use of community health
A community health worker could not only improve HIV/AIDS care but also strengthen human resource capacity. The weakness of this evaluation is failure to use primary data which led to have challenging in establishing power of the findings, it only use data from a number of studies that investigate the use of community health worker in strengthen HIV/AIDS services, though the study has great interested feature of incorporating both qualitative and quantitative approach which is the lesson to my evaluation.

A similar study conducted in USA by Kenya S, 2011 to assess as to whether community health workers can improve adherence to highly active antiretroviral therapy. The assessment involves the critically review of related articles conducted between May 2010 and November 2010, where by study being written in English, reported biological HIV outcomes (either viral load or CD4 cell count) were the criteria and assessed the use of CHWs, outreach workers or peer educators to support improved adherence to HAART medications in HIV infected populations. The assessment findings most of the study lasted at least 24 weeks, provided frequent contact with the participants and focused on medical management were associated with highly improved HAART adherence. The assessment conclude that community health workers program provide attainable and cost-effective alternative way of improving HAART adherence, which may lead to reduced HIV viral load and increased CD4 cell counts among HIV-positive populations in the USA. The only difference is that the assessment based on reviewing previous related articles but my evaluation will base on data collected from the study.

Another study conducted rural districts in Malawi, aimed to assess the contribution of community health workers in fighting against HIV/AIDS and tuberculosis (TB). A total of 21,358 (41%) of 52,510 HIV tests performed at HIV voluntary counseling and testing (VCT) sites in the district were conducted by lay community counselors. The intervention constitute a total of 465 community volunteers, 1,362 trained family caregivers of which were added to support health care among the patients.
The community had shown a significant effect on HIV/AIDS treatment where by 2006 (39%) of patients who were at WHO stage III or IV initiated on co-trimoxazole prophylaxis and 895 (45%) of these were also on antiretroviral treatment. A total of 2714 TB patients, of whom 1627 (60%) were HIV-positive, also received care and support. Therefore the assessment concludes that communities can play an important contributory role in reducing the burden of HIV/AIDS and TB and in mitigating its impact. (Wouter E, 2012)

2.4 Research GAP

Regardless of what have been done so far, worldwide, still it is unknown as to whether the intervention that involved the use of community health worker to strengthen and improve HIV/AIDS care delivery by reducing lost to follow up among HIV/AIDS patients with advanced stage implemented by National Institute for Medical Research has met its intended objective. This formed the basis of conducting an outcome evaluation of the project so that to establish benchmark/baseline information about the effectiveness of the project on reducing lost to follow.
2.5 Conceptual Frame Work

The evaluation want to explore as whether client’s demographic information and clinical baseline has contributed to lost follow among the client.

**Figure 2: Showing the Logical Flow of Independent Variable and Dependent Variable**

<table>
<thead>
<tr>
<th>Analytical factors</th>
<th>Descriptive factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic characteristics</strong></td>
<td>Individual information</td>
</tr>
<tr>
<td>o Age</td>
<td></td>
</tr>
<tr>
<td>o Sex</td>
<td></td>
</tr>
<tr>
<td>o Marital status</td>
<td></td>
</tr>
<tr>
<td>o Occupation</td>
<td></td>
</tr>
<tr>
<td>o Educational level</td>
<td></td>
</tr>
<tr>
<td><strong>Baseline clinical characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>o CD4 count</td>
<td></td>
</tr>
<tr>
<td>o WHO stage</td>
<td></td>
</tr>
<tr>
<td>o TB status</td>
<td></td>
</tr>
<tr>
<td>o BMI etc</td>
<td></td>
</tr>
</tbody>
</table>

Lost follow up among HIV/AIDS patients with advanced stage
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This part shows a set or system of methods, principles, and rules for regulating a given discipline, which have been used in the art of evaluation. It also explains in detail how data have managed and analyzed and reach to the findings generation.

3.2 Evaluation Type and Approach

It is an outcome evaluation, which employed quantitative approach through document review to enrich the findings.

3.3 Evaluation Design

The evaluation employed a retrospective cohort study design, which involved review of interventional client’s files from enrollment to the end of project follow up duration.

3.4 Study Area

The REMSTART study was done at Mbagala rangi tatu health centre in Temeke municipality, Buguruni Health centre in Ilala Municipality and Tandale health centre in kinondoni municipality in Dar es Salaam region. Dar es Salaam has three municipality namely Kinondoni, Ilala and Temeke. And it is the region with vast hospitals, health center and dispensaries and has 67 Health facilities approved for CTC, It is estimated that 32019 HIV/AIDS patients were enrolled into care and 20950 patients were on ART since 2009, which is higher as compared to any other region in Tanzania.
3.5 Study Population

Patients with advanced HIV/AIDS starting on ARVS and living in Dar es Salaam, who have 18 years and above enrolled into this evaluation.

3.6 Units of Analysis

Individual Participants or clients who met inclusion criteria and were followed up for the period of one year by the lay workers were used during analysis.

3.7 Variables and Their Measurements

Lost to follow up status were the dependent variable of which those who reported lost to follow up within follow up period excluding death and withdraw coded as 1 and those who retained coded as 0 and analyzed. Independent variables; were those factors that contribute to lost to follow i.e. demographic and clinical characteristics.

3.8 Sample Size and Sampling Techniques

A total of 435 clients who had a home visit by lay workers have been purposeful taken for analysis with confidence level of 95% and the margin of error of 5%.

3.9 Types and Sources of Data

Quantitative data from client’s files was used as a source of data, the information have been extracted from the project data base and then analysed according to evaluation objectives.

3.10 Data Collection Methods

The evaluation employed the review of secondary data sources only did not supplement any other external or field data due to time limit and financial.
3.11 Inclusion Criteria

Clients who met the following criteria are enrolled into this evaluation

- He/she should have 18 year and above at the time of enrolment
- He/she should be planned to live within study area for the period of six month
- He/she should anti retroviral naïve at the time of enrolment
- He/she should be able to communicate

3.12 Validity Issues

Since an evaluation used of secondary data, incomplete or missing information had been very challenging in ensuring validity of research findings since it was very difficult to get the information from the clients.

3.13 Data Management and Analysis

This part shows how data are managed, including how missing information have been treated, dummy variables, coding process and analysis used in the evaluation.

3.13.1 Data Cleaning and Coding

The researcher extracted data from the project database and transferred them into another statistical data base, then checked for its consistency and validity through validation process. For any Missing information was coded 9999 and 8888 for not applicable. Then researcher checked for outliers and extremity values for any continuous variable and for categorical variable focus were on unusual codes, which then verified by the hard copy.
3.13.2 Data Analysis

The analysis had two parts, the first part involved the analytical statistical testing as whether the lost follow up has been statistical lowered by the intervention as compared to standard CTC system. I coded 1 and 0 for patients lost followed and those who were not lost followed respectively, proportional Z-test was used to compare level of lost followed against the lost followed under standard proportional i.e. 0.17. Then I assessed the factors that associated with lost followed HIV/AIDS patients i.e. demographic and as well as baseline clinical factors by using chi2 and for those factors associated with lost followed, I performed logistic regression for assess for the magnitude of association.

The second was descriptive part, which included summary statistics such as frequency and percentage for demographic information, baseline clinical information and reasons of lost followed as responded by clients who were lost followed.

3.14 Ethical Consideration

Since the evaluation used secondary data source, I wrote a letter to main project stakeholders request for data accessibility authorization, which I then signed an agreement form of data sharing that ensured a sense of confidentiality and privacy of client’s information maintained.
CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction

This part of evaluation presenting the result from analyzed information of the study participants collected during the study implementation, Descriptive statistics with frequency and summary statistics have been used to present evaluation findings. The presentations of the findings have been organized according to general baseline information including demographic and clinical of the study participants, and the evaluation objectives.

4.2 Evaluation Results

4.2.1 Magnitude of lost to follow up among patients with advanced HIV/AIDS started on ARVs

A total of 435 were followed up to their home by lay workers for screening on ART adherence and other clinical symptoms for the period of one year of which each client needed to complete a total of four visits depending on the clients medical status. And the other clients recruited were set up to follow the government CTC clinic. And for each home visit by lay workers made, documented the client’s status and filled in the study questionnaire and if the client not found during the visit was termed as missed appointment. And if not found he/she filled in the lost follow up questionnaire. In overall total number of visits made by lay workers to patients was 1238, out of 383 found during the home visits 207 patients were visited four times visits, 95 patients three times, 45 patients two times and 36 patients had only one visit. Also 52(12.0%) lost followed up which is lower compared to 73(16.8%) lost to follow up under standard CTC practices and 383(88.0) did not lost during home visits which is higher compared to 363(83.2%). Out of 453 clients who were followed by lay workers 52 clients got lost, therefore proportional of clients who got lost during follow up through
home visits were 0.12; 95% CI; 0.1-0.2, which is significantly lower as compared to allowable standard of lost follow under practice 0.17; 95% CI; 0.1-0.2, with p<0.01.

Figure 3: Graph comparing magnitude of lost follow among HIV patients with advanced stage

Source: Project data

4.2.2 Factors contributed to lost to follow up among patients with advanced HIV/AIDS started on ARVs

4.2.2.1 Demographic Characteristics of factors

Results in Table 1 present the demographic factors, which are likely to have direct/or indirect association with lost follow up in the study settings. The demographic factors that presented in this chapter are Gender, Gender, Age of the respondent, marital status, education level and employment status of the study participants.
Table 1. Characteristics of the Respondents (N=435)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Not Lost</th>
<th>lost follow</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=383; n (%)</td>
<td>N=52; n (%)</td>
<td></td>
</tr>
<tr>
<td>Sites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buguruni</td>
<td>86 (88.7)</td>
<td>11 (11.3)</td>
<td>0.93</td>
</tr>
<tr>
<td>Tandale</td>
<td>123 (87.2)</td>
<td>18 (12.8)</td>
<td></td>
</tr>
<tr>
<td>Mbagala</td>
<td>172 (88.3)</td>
<td>23 (11.68)</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>138 (85.2)</td>
<td>24 (14.8)</td>
<td>0.15</td>
</tr>
<tr>
<td>Female</td>
<td>245 (89.7)</td>
<td>28 (10.3)</td>
<td></td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-27</td>
<td>30 (88.2)</td>
<td>4 (11.8)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>28-37</td>
<td>127 (79.4)</td>
<td>33 (20.6)</td>
<td></td>
</tr>
<tr>
<td>38-47</td>
<td>152 (95.0)</td>
<td>8 (5.0)</td>
<td></td>
</tr>
<tr>
<td>48-57</td>
<td>59 (92.2)</td>
<td>5 (7.8)</td>
<td></td>
</tr>
<tr>
<td>&gt;=58</td>
<td>15 (88.2)</td>
<td>2 (11.8)</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>45 (81.8)</td>
<td>10 (18.2)</td>
<td>0.28</td>
</tr>
<tr>
<td>Married/cohabing</td>
<td>167 (89.8)</td>
<td>19 (10.2)</td>
<td></td>
</tr>
<tr>
<td>Separated/Widowed/divorced</td>
<td>171 (88.1)</td>
<td>23 (11.9)</td>
<td></td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>55 (80.9)</td>
<td>13 (19.1)</td>
<td>0.06</td>
</tr>
<tr>
<td>Primary education</td>
<td>276 (88.5)</td>
<td>36 (11.5)</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>52 (94.6)</td>
<td>3 (5.5)</td>
<td></td>
</tr>
<tr>
<td>Occupation status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No employment</td>
<td>83 (84.7)</td>
<td>15 (15.3)</td>
<td>0.5</td>
</tr>
<tr>
<td>Employed</td>
<td>61 (89.7)</td>
<td>7 (10.3)</td>
<td></td>
</tr>
<tr>
<td>Self-employed</td>
<td>239 (88.9)</td>
<td>30 (11.2)</td>
<td></td>
</tr>
</tbody>
</table>

a) Sex

The study showed total number of clients enrolled for home visit were 435, of which 162 (37.2%) were male and 273 (62.8%) were female. Majority of the clients 24 (14.8%) lost followed were male as compared to female 28 (10.3%) and those no lost followed female 245 (89.7%) were higher as compared to male 138 (85.2%) though was not statistical significant (p=0.15). So this suggests the chance for male lost followed during home visits is higher as compared to female.

b) Age of the participants

The results show minimum age of the participants was 18 years and the maximum age was 74 years with mean and standard deviation of 39 (SD=9.5). Results show there was
some variation between age group and the magnitude of lost follow up in which participants whose age group was 28-37 years 33(20.6%) lost followed as compared to age groups 18-27,38-47, 48-57 and >=58 which were 4(11.8%),8(5.0%), 5(7.8%) and 2(11.8) respectively. Meanwhile those did not lost followed majority 152(95.0%) were at age group 38-47 years, 59(92.2%) for age group 48-57 years, 127(79.4%) age group 28-37 which had and the difference was statistical significant with p<0.01.

c) Marital status
Out of 435 study participants 52(12.6) were single, 186(42.8%) married/cohabiting and 194(44.6%) separated/widow/divorced. Magnitude of lost follow up among study participants tend to vary in relation to marital status of participants of which majority of the participants 10 (18.2%) were single as compared to married/cohabiting and separated/widow, with 19(10.2%) and 23 (11.9%) respectively. And out of 383 who did not lost 45(81.8%) single, 45(81.8%) and 171(88.1%) were married/cohabiting and widow respectively. Though the difference was not statistical significant (p-0.28)

d) Education level
Results show out of 435 participants 68(44.6%) not attended school, 312(71.7%) attended primary school, 47(10.8%) attended secondary school and very few 8(1.8%) attended post secondary school. The results shows the magnitude of lost follow up tend to vary in relation to educational level of the study participants. Lost follow was higher 13(19.1%) among not attended school as compared to those attended primary and those with secondary and higher 36(11.5%) and 3(5.5%) respectively

e) Employment status
Results have shown magnitude of lost follow among the study participants tend to vary in relation to employment status of the participants. About 98(22.5%) of the study participants neither employed nor self employed of these 15(15.3%) lost followed and 83(84.7%) did not lost, likewise 68(15.6%) employed of which 7(10.3)
lost followed and 61(89.7) did not lost, lastly 269(61.8%) were employed and out of these self employed respectively.

4.2.2.2 Baseline clinical characteristic Factors

This study focused also on several clinical information collected during participants enrollment, which are likely to contribute the proportional of lost, followed among the HIV/AIDS patients in the study areas.

Table 2: Showing an association between baseline clinical information and lost follow

<table>
<thead>
<tr>
<th>Variable</th>
<th>Not Lost</th>
<th>lost follow</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=383; n (%)</td>
<td>N=52; n (%)</td>
<td></td>
</tr>
<tr>
<td>WHO clinical stage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage I</td>
<td>31 (93.9)</td>
<td>2 (6.06)</td>
<td>0.7</td>
</tr>
<tr>
<td>Stage II</td>
<td>42 (89.4)</td>
<td>5 (10.6)</td>
<td></td>
</tr>
<tr>
<td>Stage III</td>
<td>219(86.9)</td>
<td>33 (13.1)</td>
<td></td>
</tr>
<tr>
<td>Stage IV</td>
<td>219(88.4)</td>
<td>12(11.7)</td>
<td></td>
</tr>
<tr>
<td>CD4 count, cells per μL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;50</td>
<td>179 (88.2)</td>
<td>24 (11.8)</td>
<td>0.4</td>
</tr>
<tr>
<td>50-99</td>
<td>137(90.1)</td>
<td>15(9.9)</td>
<td></td>
</tr>
<tr>
<td>100-200</td>
<td>67 (83.75)</td>
<td>13 (16.3)</td>
<td></td>
</tr>
<tr>
<td>BMI (Kg/M^2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;18.5</td>
<td>139(86.27)</td>
<td>21(13.7)</td>
<td>0.2</td>
</tr>
<tr>
<td>18.5-24.99</td>
<td>197(87.2)</td>
<td>29(12.8)</td>
<td></td>
</tr>
<tr>
<td>25.0-29.99</td>
<td>42(97.7)</td>
<td>1(2.3)</td>
<td></td>
</tr>
<tr>
<td>&gt;30.0</td>
<td>12(92.3)</td>
<td>1(7.7)</td>
<td></td>
</tr>
<tr>
<td>TB Smear result</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>157 (87.2)</td>
<td>23 (12.8)</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>226 (88.6)</td>
<td>29 (11.4)</td>
<td></td>
</tr>
<tr>
<td>Weight loss</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>279 (88.0)</td>
<td>38 (11.9)</td>
<td>0.9</td>
</tr>
<tr>
<td>No</td>
<td>104(88.1)</td>
<td>14 (11.9)</td>
<td></td>
</tr>
<tr>
<td>Fever</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>122(87.8)</td>
<td>17(12.2)</td>
<td>0.9</td>
</tr>
<tr>
<td>No</td>
<td>261(88.2)</td>
<td>35(11.8)</td>
<td></td>
</tr>
<tr>
<td>Cough</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>157 (87.2)</td>
<td>23 (12.8)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>226 (88.6)</td>
<td>29 (11.4)</td>
<td></td>
</tr>
<tr>
<td>Sweat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>69(86.3)</td>
<td>11(13.8)</td>
<td>0.6</td>
</tr>
<tr>
<td>No</td>
<td>314(88.5)</td>
<td>41(11.6)</td>
<td></td>
</tr>
</tbody>
</table>
a. HIV clinical stage

WHO classified HIV growth into four stages, stage I which characterized by primary HIV infection, stage II characterized by Clinically asymptomatic, stage III which characterized by Symptomatic HIV infection and stage IV which characterized by Progression from HIV to AIDS. The evaluation findings show majority 33(13.1%) of the patients who lost were at HIV stage III, followed by stage IV 12(11.7%), stage II and stage I, 5 (10.6%) and 2 (6.1%) respectively. While majority who did not lost were at stage I and II, 31 (93.9%) and 42 (89.4%) respectively, though the different was not statistically significant, (Table 2).

b. CD4 count

The evaluation findings shows patients with CD4 Cells range 100-200 cells/μL, 13(16.3%) were more lost to followed up as compared to those with CD4 <50 cells/μL and 51-99 cells/μL, 24 (11.8%) and 15(9.9%) respectively. Meanwhile majority 137(90.1%) of those who did not lost had CD4 count 50-99, 179(88.2%) CD4 count <50 and 67(83.75%) CD4 100-200. The different in CD4 between lost and none lost was not statistically significant. (Table 2).

c. BMI (Kg/M²)

The evaluation findings shows the body mass index among study participants were slightly different between patients lost followed and those who did not lost. Of which majority 29(12.8%) of the patients lost had BMI 18.5-24.99, and 21(13.7%),1(2.3%) and 1(7.7%) had BMI <18.5, 25.0-29.99 and >30.0 respectively. Meanwhile those clients who did not lost 42(97.7%) had BMI 25.0-29.99, 197(87.2%) had BMI 18.5-24.99, 139(86.3%) had BMI <18.5 and 12(92.3%) had BMI >30. The difference was not statistically significant (p=0.2), (Table 2).

d. TB status

The evaluation findings show 23(12.8%) of the patients who lost were Tb positive while only 29(11.4%) were TB negative likewise 38(11.9%) experienced weight loss,
17(12.2) experienced fever, 23 (12.8%) cough and 11(13.8%) had a night sweat. Meanwhile 157(87.2%) who did not lost were TB positive and 226(88.6%) were negative, 279(88.0%) weight loss, 122(87.8%) had a fever, 157(87.2%) cough and 69(86.3%) experienced night sweat. Though the differences was not significant (Table 2).

4.2.2.3 Descriptive factors

a) Individual Information

This part presenting the factors that lead to lost follow up among the clients resulted from participants behaviour toward lay workers, It’s a descriptive analysis involved coding the reason from individual participants as collected by the lay workers during the clients home visits .(Table 5)

Table 3: Showing the reasons for lost follow among the clients (N=52)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Lost followed; N=52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change of address and phone number</td>
<td>10(24.4)</td>
</tr>
<tr>
<td>Refusal to be visited by lay workers</td>
<td>12(29.3)</td>
</tr>
<tr>
<td>Clients moved away far from study area</td>
<td>14(34.2)</td>
</tr>
<tr>
<td>Clients provide wrong mapque</td>
<td>4(9.8)</td>
</tr>
<tr>
<td>He/she stopped taking ART</td>
<td>1(2.4)</td>
</tr>
<tr>
<td>Death</td>
<td>11(21.2)</td>
</tr>
</tbody>
</table>

The analysis show out of 52 clients who were lost followed throughout study period 10 (24.4%) were due to change of address and phone number in such a way that lay workers did not manage to reach them, 12(29.3%) reported being lost to follow due to the fact that they did not show up or responded to lay workers call despite of several reminders, 14(34.2) they just move away to another area outside the study catchment area for business or medication, 4(9.8%) were lost due to wrong mapque and 1(2.4) client just stopped taking ART because he was taking tuberculosis medication and 11(21.2) were died during the follow up.(Table 5)
CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

This study intended to reveal the magnitude of lost follow up among HIV/AIDS patients as well as its associated factors contributed for it.

5.2 Magnitude of lost to follow up among patients with advanced HIV/AIDS started on ARVs

This study suggest engaging community health workers reduce the magnitude of lost to follow up among patients with advanced HIV/AIDS. The study reported the magnitude of lost follow up resulted by the intervention was 12% which is statistically lower as compared to that of 17% under standard practice. A similar result reveled by the study conducted in Jimma Ethiopia, which show the magnitude of lost follow was 13.6%. Deribe et al, 2008. Another similar study conducted by Grace Mwai, 2013 in Uganda which reported the difference in magnitude of lost to follow up among the HIV/AIDS patients who were followed up by community health workers and non-community health workers(2.2% vs. 4.1% respectively) and the differences was significant.

In contact with this study, similar study compared antiretroviral treatment outcomes between a prospective community-based and hospital-based cohort of HIV patients conducted by Walter et al, 2012 in rural Uganda, reported that the rate of lost to follow up among intervention was higher as compared to that of control (24.9% Vs 15.5) though the differences was not statistical significant. Also another study conducted by Grace Mwai, 2013 in Rwanda through a systematic review on the role and outcome of community health workers in HIV/AIDS setting in sub-saharan Africa has shown involvement of community health workers in HIV/AIDS care had not only impact on lost to follow up but also had an impact on improving knowledge and
literary of HIV/AIDS, behavior change, uptake to HIV care and treatment and other services and improving ARV adherence, also the study had shown involving community health workers has high impact on improve retention among HIV/AIDS patients.

5.3 Factors contributed to lost to follow up among patients with advanced HIV/AIDS started on ARVs

5.3.1 Demographic Factor

Despite of variation on magnitude of lost follow in respect to gender, still this study did not revealed a statistical association between them though the result show male has higher chance of being lost followed as compared to female. This findings correspond with that of Tezera Moshago, 2014, which show there was no statistical association between lost follow up and gender. But this is contrast against Elvin et al, 2010 his study revealed men had higher chance lost follow as compared to female, and this given the higher likelihood due to men travel for work especially truck drivers and migrant agricultural works, therefore the existence association may be due migratory labour pattern Lagarde E, 2003.

This evaluation reveled participants age group 27-38 years (20.6%) had a higher chance of lost to follow up when compared to of age group 18-27 (11.8%), and this was statistical significant, p=0.01, this could be linked to the fact that this is busy working group for both male and female so it is very difficult for them staying on the same area for longer period of time. Tezera M, 2014 from his study that investigate the factors of lost follow among people living with HIV revealed an adolescent and adult (>20 years) has higher change of being lost followed as compared to children. The findings supported by the study conducted in Ethiopia by Berheto et al, 2014, which show that HIV/AIDS clients age greater than 20 years, have higher chance of being lost to follow up from HIV/AIDS services as compared to younger age group.
Likewise education level of the clients play a great role on lost to follow up. The evaluation has shown HIV/AIDS clients who had only primary education have high possibility of being lost to follow up as compared with those who attended secondary and higher education, this can be due to most of them didn’t know well the importance of attending HIV/AIDS care and also can be these people are more likely to have no a permanent employment they are cheap daily labor moving from one place to another searching for a job.

The evaluation findings did not show that marital status have association with lost follow among the patients but still the study has shown majority who were single lost followed compared to married. Similar study conducted in Ethiopia by Ismail A (2012) had shown that there is statistical significant association between marital status and lost follow, He reported married patients have less chance of being lost followed as compared to un married or single, and this can be due to the fact that married patients has to take care of him/her and the responsibilities he has in his family,

5.3.2 Clinical factors

The evaluation findings shows that the majority of the patient 33(13.1%) who lost during follow up were at WHO stageIII and very few on stageI and stageII though was not statistical significant. This evaluation findings contrasted by a similar study conducted by Rituparna P, 2013, the study revealed HIV patients who had advanced WHO clinical stage lower risk of lost followed during follow up as compared to stage one. And this was because at this WHO clinical stage patient are more likely to experience Unexplained persistent diarrhea, Oral candidiasis, Oral hairy leukoplakia, Pulmonary TB and other clinical complications like tuberculosis and severe anemia. WHO HIV REPORT, 2005 which may led to bed ridden or ambulatory. This implied clients with clinical stage 1 or two are more likely lost followed due to the fact that he/she did not yet started experience medical complications.
CD4 count play a great role on improved medical condition for an HIV/Patient, HIV guidelines recommending HIV patients should started taking ART when CD4 level reached below 350cell/ μL among adult people and for children and pregnant women the guidelines recommending immediately starting taking ART regardless of the CD4 count level.

The evaluation included patients with very low CD4 count (<200 cell/ μL), and yet not started taking ART so that to look for alternative way of reducing death that associated with low CD4. The evaluation findings has shown HIV patients with improved CD4 count has higher chance of being lost followed about 13(16.3) with CD4 count 100-200 were lost followed compared to those with 50-99 and <50 CD4 count, 24(11.8%) and 15(9.9%) respectively. A study by Maskew at el.2007 has shown HIV patients who reported lost followed more than fifty percentage had improved CD4 count. Lost follow have been observed of lowest at CD4 i.e <50 cell/ μL, this because most of them were likely to die due to experience complicated medical condition like cryproccocol meningitis, Sokoin at el, 2015. Therefore Low and higher CD4 counts have both been associated with worse retention Elvin G, 2011.

Despite of the evaluation not reveling significant association between CD4 count and magnitude of lost follow, still there are some similar study conducted in Zambia and switzerland by Schöni-Affolter .(2011) shown there is a significant association between CD4 and then magnitude of lost follow up among HIV/AIDS patients. The study reveal the risk of lost follow as well death is significantly increasing as CD4 count decreasing, they are inversely related. Likewise a cohort study conducted in China National Treatment by Zhang Y, 2010,has shown low baseline CD4 was highly associated with low rate of missed visit among ART patients which then in turn to increase lost follow up

Body mass index (BMI), was used to evaluate the nutritional status of patients and possible changes in the deposition of fat in specific areas of the body by Lismeia
SOARES. 2015. Weight loss and wasting among HIV patients is more associated with CD4 count and its independent predictor of mortality due to HIV/AIDS by A. Mangili et al. 2006. BMI calculated by calculated as the ratio of the current weight (kg) by height (m) squared. Study show BMI change with the level of CD4 though the relationship was not linear but has shown BIM at both extremes diminished CD4 cell gain Michael Carter, 2011. Anjali Sharma.2014 revealed that there is highly impact on BMI as a result of HAART in which HIV patients with normal BMI range pre-ART. Their BMI increasingly significant after starting taking ART and those with overweight at pre ART remained over weight after initiating ART. Thus why WHO HIV guidelines recommend on nutritional assessment and education to patients before and after starting taking ART

The evaluation revealed HIV patients with low BMI <24.99 has higher chance of lost followed as compared to those with higher, despite of not showing statistical significant. HIV patients with low baseline BMI (<17.5 km/m²) and higher above normal range are more likely to lost follow in HIV services and care as compared to those with normal BMI (18.5-24.99), by matthew Fox.(2010). Highest risk of death and lost follow up reached when the patients had an history of tuberculosis ,low BMI(<17.5 kg/m²),low CD4 count(<100 cell/µ), hemoglobin <10 and on <6 months of treatment.

5.3.3 Descriptive Factors ( Individual information)

In general these are the factors resulted from individual lost followed patients as document by lay workers during home visits.

Employing lay workers in improving HIV/AIDS care including reducing lost to follow up could be slowed down by tendency of clients to change physical address and phone number. The finding show 10(24.4%) of clients changed their physical address and this could be due to HIV disclosure status as majority of them they did not disclose their HIV status to their relative or partners so they end up with fear of being known
their status when followed by lay workers or the absence of confidentiality during home visits. Also the evaluation revealed that 12(29.3%) clients they did not show up to lay workers during home visit despite of several remainders made. This could be contributed by the issue of stigma and discrimination because the WHO cites fear of stigma and discrimination as the main reasons of why people are unwilling to get tested, disclose their HIV status and take antiretroviral drugs, DFID REPORT. 2007.

At the enrollment client were asked to provide physical address including the location of where they came from by mapping it and other information like his/her phone number, name of ten cell leader as well as a very closest person physical information, and this information were used by lay workers during home visit. The study had shown 4(9.8%) of clients were lost followed due to provision of wrong location which could be a results of poor counseling at enrollment. This brought difficulties when lay workers arranged for home visit.

Another reason was the tendency of clients moving away from the facility catchment area, the study had shown 14(34.2%) clients out 52 who reported of being lost to follow up were due to mowing away from catchment area. Some travelled to another area for business and others just to seek alternative health services other than from health facilities. This could be more anticipated due to the fact that majority 320(73.0%) of the clients were at age group 28-47, which is the most working age group. The evaluation findings aligned with a similar research conducted in Uganda which had shown the barrier for continuity in care among the HIV/AIDS patients was the need of confidentiality and busy work schedules, also the study mentioned stigma as the reason of lost to follow up though only 6% were found in this reason. Carole Leach-Lemens, (2012)
CHAPTER SIX
SUMMARY, CONCLUSION, RECOMMMENTATION AND POLICY IMPLICATIONS

6.1 Introductions

This chapter tells about the evaluation findings in summary, what is the overall knowledge gained from this evaluation, areas needed to be strengthened for better performance in the future and the implication of evaluation findings to general policy makers.

6.2 Summary

The evaluation findings show involvement of lay worker has significant effect in reducing the lost to follow up, since the magnitude of lost follow up have been significantly reduced from 17% to 12%. However, factors like sex, marital status and occupation level showed up a very weak association with lost follow up with exception of age of the participants, in which those with age group 28-37 years were significantly higher 33(20.6%) lost followed as compared to other age groups. None of the clinical factors like WHO stage, BMI, CD4 count and TB status showed any significant association with lost follow up. Issues like patients changing physical address and location to fear of being known as HIV infected by other people, patient’s migration or movement, clients refusal from being visited and wrong map que location among HIV/AIDS clients have shown to have much effect in fighting or reducing the lost follow up.

6.3 Conclusion

Generally, involvement of lay workers in fighting against lost follow up among HIV/AIDS patients with advanced stage has shown to have an impact of about 5% higher as compared to that of government practice.
6.4 Recommendations

Despite of showing the significant effect in reducing lost follow in HIV setting, the researcher has the following recommendations:-

i. The study use lay workers of who were not belonging to the patients in anyhow in terms of HIV status, Education level and even financial status, they were just trained on study practice and making follow to the HIV/AIDS patients of which this itself contribute to an increase lost follow as the study shows majority of the patients were lost followed just because they denied of being followed. The researcher recommend on the use of peer group for follow in the next time as this could have much bigger impact on reducing the lost follow up. And this also supported by WHO report 2004, which has recommended on the use of peer support groups which are community centered base in reducing the lost follow up among the patients.

ii. The researcher recommend on increasing training duration and number, lay workers were trained for study practice including counseling for just 2 to three days and started dealing with HIV/AIDS patients. And this lay workers did not have an experience on medical issues including dealing with HIV patients who need very special attention and care. So training lay workers for two days this was not enough

iii. The researcher also recommend on transport allowance to lay workers that should be given one to two days before the visiting schedule, the study practice show lay workers were given a transport allowance for visiting patients same date of visiting, this created some delay on appointment time with patients

iv. The researcher has observed regular recruitment of study staffs including lay new lay worker after they have been employed sometimes they quit or get dismissed. This has much an affect to the project since such workers had a patients who were follow up. A patients to be followed up by a new lay worker this may create a mistrust which may encourage a patient to withdraw from research. So the researcher recommend that recruitment process should take in
consideration of workers commitment to work and as well as guarantee their retention at work all the time

6.5 Policy Implications

Tanzania HIV/AIDS 2013 guidelines say patients should start ART when his/her CD4 count is less than 350 counts per cell and clinical stage III or stage IV. The evaluation findings show patients who had 18 years and above, CD4 count 100-200 and stage I or stage II at baseline, were at risk of lost followed before started ART which may led to death. So the findings has an implication to HIV policy and guidelines reviewers, so that to incorporate for every patients on ART initiations at any stage

6.6 Areas for Further Research

This evaluation based up on magnitude of lost follow up and its associated factors. For better and tangible findings I recommend the following

i. Another similar evaluation study has to be done that will take critical examination on economic perspective of employing the lay workers in reducing the magnitude of lost follow up among patients with advanced HIV

ii. Also conducting another study that will explain in detail the issue of stigma and discrimination among those patients with advanced HIV/AIDS as this could affect HIV/AIDS service utilization among the patients which could contribute to a massive death, WHO REPORT, 2012

iii. The study that will critically examined lay worker perspective in relation to lost follow among the patients with advanced HIV/AIDS

iv. The study taking off since 2014, another similar study that will incorporate any new theme emerged during this period is highly needed
REFERENCES


Edward J. Millsa,b, Celestin Bakandab, Josephine Birungib, Robert Mwesigwab, Keith Chanc, Nathan Fordd, Robert S. Hogge and Curtis Cooper: 2010 “Mortality by baseline CD4 cell count among HIV patients initiating antiretroviral therapy: evidence from a large cohort in Uganda”


Ferdinand M Mugusi*1, Saurabh Mehta2, Eduardo Villamor2, Willy Urass3, Elmar Saathoff4, Ronald J Bosch5 and Wafaie W Fawzi2,5; 2009 “Factors associated with mortality in HIV-infected and uninfecccated patients with pulmonary tuberculosis”


Ismael Ahmed†, Salem T Gugsa2, Seblewengel Lemma3 and Meaza Demissie3:2013“Predictors of loss to follow-up before HIV treatment initiation in Northwest Ethiopia: a case control study”


Lidia Gazzola, Camilla Tincati, Giusi Maria Bellistrì, Antonella d’Arminio Monforte, and Giulia Marchetti “The Absence of CD4+ T Cell Count Recovery Despite Receipt of Virologically Suppressive Highly Active Antiretroviral Therapy: Clinical Risk, Immunological Gaps, and Therapeutic Options”


Sabin, Caroline A; Phillips, Andrew N; 2009” Should HIV therapy be started at a CD4 cell count above 350 cells/μl in asymptomatic HIV-1-infected patients?”


Stockman F. US seeks to rein in AIDS program. Overseas clinic costs have tripled to $7b in 6 years. Boston Globe, 11 April 2010. 2010

THMIS REPORT, 2012

UNDP REPORT, 2012

WHO AIDS report: 2011

WHO AIDS report: 2013
