UNIVERSITY OF MALAWI

College of Medicine

A Comparative Study of Effectiveness of Youth Peer HCT Counselors And Adult Counselors (Health Workers) in Promoting Uptake of HIV Counseling and Testing Among the Youth in Lilongwe District, Malawi.

By

Jean Hellen Gondwe Mwandira
Bachelor of Science in Nursing

Dissertation Submitted In Partial Fulfillment of the Requirements of the Master of Public Health Degree.

30th July 2008

CERTIFICATE OF APPROVAL

The thesis of Jean Hellen Gondwe Mwandira is approved by the Thesis Committee

_____

(Chairman, Postgraduate Committee)

_____

(Supervisor)

_____

(Internal Examiner)

_____

(Head of Department)

DECLARATION

I Jean Hellen Gondwe Mwandira declare that this thesis is my original work and has not been presented for any award to the University of Malawi or any other University.

Name of Candidate : **Jean Hellen Gondwe Mwandira**

Signature _____

Date 30th July, 2008

ACKNOWLEDGEMENTS

I wish to thank Professor Cameron Bowie, the major supervisor of my study and Mr David Chilongozi my second supervisor for their expert and professional advice provided throughout my study.

I wish to further thank Mr Gondwe of UNC project and Walusungu Gondwe for their assistance during data analysis.

I also thank the Board and Management of National Youth Council of Malawi for recommending partial funding for my study.

I am also grateful to the following people who were actively involved in the study in one way or another: Patrick Makono, Tamara Kapichila Banda, Ruth Nkhwazi, Ulemu Njirazafa and Christine Chidaya, your support was not taken for granted.

I further to thank my late mother, Donafegi Chavula and my dad, Rodwel Gondwe for opening the gates of my education.

My acknowledgements would be incomplete without the mention of my husband Zeru and my sons Alfred and Yewo who have always been by my side and also understood why I had to pay little attention to them during my study.

ABSTRACT

Introduction: HIV prevalence among youth (15-24yrs) is higher than the national one (12%). HCT is one of the interventions used to prevent the infection among youth. Use of youth peer counselors in the provision of HCT services is one of the strategies that Malawi has adopted to attract more youth to this service.

Objective: To evaluate the effectiveness of youth HCT peer counselors in promoting HCT uptake among the youth through comparison to adult counselors in youth friendly health services sites**.**

Rationale/justification: No study had been published on evaluation of youth HCT peer counselors in Malawi to generate scientific based evidence to improve programming of HCT services for youth.

Methods: Comparison was made between two groups of youth in anonymous exit interviews to assess client satisfaction of youth counseled by youth, and youth counseled by adults with a sample size of 214 having 107 youth in each group. HCT sites' records were reviewed to assess uptake of the services in each HCT site for years 2005 and 2006.

Results: No significant difference in client satisfaction of the services between youth who accessed HCT services from youth centres (49.5%) and health facilities was observed (48.2%) ($\chi 2=1.843$, $p>0.175$). Youth friendliness ($\chi 2= 38.504$, $p<0.000$), reduced waiting time ($\chi 2 = 9.341$, $p<0.0025$) and adequate visual and auditory privacy ($p<0.013$) were the factors that youth viewed would increase their satisfaction of the services in both settings.

Conclusion: Counselors of both types of HCT sites offer features sought by youth, but youth only facilities attracted more youth to the service. Young people wished to be counseled by youthful and friendly providers in private and within a short time.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

AIDS - Acquired immunodeficiency syndrome

DHO – District Health Office (r)

FHI – Family Health International

HC – Health Centre (facilities)

HCT – HIV Counseling and Testing

HIV- Human Immunodeficiency Virus

HW - Health Worker

MACRO – Malawi AIDS Counseling and Resource Organization

PC – Peer Counselor

PMTCT –Prevention of Mother to Child Transmission

SOS – Social Services

SPSS – Statistical Package for Social Scientists

STATCALC – Statistical Calculations

UNAIDS – United Nations AIDS Organization

HCT – Voluntary Counseling and Testing

YC- Youth Centre

YFHS – Youth Friendly Health Services

OPERATIONAL DEFINITIONS

Youth – Any person age 14 – 25 years regardless of marital and economic status and whether one has a child or not.

Young People – Any person age 10 – 24 years regardless of marital and economic status, and whether one has a child or not.

Youth Friendly Health Services – Youth Friendly Health Services has been defined as high quality health services that are relevant, accessible, attractive, affordable, appropriate and acceptable to youth.

Voluntary HIV Counseling and Testing (VCT) – A process whereby people willingly undergo an HIV counseling process and have an HIV test.

Effectiveness – Producing intended results, which in this study means after pre-test HIV counseling, clients' concerns will be addressed; clients will go for an HIV test and receive test results. After post test counseling, whether client is HIV positive or negative he/she should express satisfaction of the service. In this study effectiveness will also covered abilities of a counselor namely *being able to provide adequate knowledge, address all concerns, provide visual and auditory privacy, develop risk reduction plan with client, link clients to care and support services, reduce waiting time and youth friendliness.*

Uptake – It means number of young people actually counseled, tested and received their HIV test results at a point in time.

Evaluation – It is an assessment of how significant or valuable the use of youth peer HIV counselors are, based on a careful study of their good and bad attributes in comparison with the adult counselors (health workers).

Client Satisfaction – It means that client is happy with the service provided, services being provided within a short time and in a friendly manner.

Peer (HCT) Counselor – A young, non health worker HIV counselor whose age bracket is similar to that of the client and may also be sharing/undergoing similar concerns/experiences.

Chi-square ($\chi 2$) – A test which uses 2 by 2 contingency tables to test for comparison of proportions of respondents of each group with a dichotomous outcome.

Variables under study

Dependent variables – Client Satisfaction and VCT Uptake

Independent variables – VCT Counselor Effectiveness and Age (Adult or youth)

CHAPTER 1

INTRODUCTION

1.1 Background

HIV/AIDS is one of the global epidemics that have led to greatest burden of disease. Globally, 37.8 million people are living with HIV out of which about 25 million are from sub-Saharan Africa [1]. Half of all the new infections occur in young people age 15 -24 years with 75% of these infections occurring in females and 6000 young people are infected with HIV everyday [1]. Therefore, young people remain at the centre of the epidemic in terms of transmission, vulnerability, impact and potential for behaviour change. This implies that young people will determine the course of the epidemic and therefore they are a critical focus for HIV prevention and behaviour change programmes.

In Malawi, about 1 million people are living with HIV making up a national adult HIV prevalence rate of 14 % [1]. However, the prevalence of HIV among female youth age 15-24 is higher than the national prevalence. UNAIDS registered an HIV prevalence of 18% among pregnant young females in Lilongwe city against 7% among young men of the same age [1].

In view of the HIV situation among young people, international and national commitments were made to address the situation in the United Nations General Assembly Special Session on HIV/AIDS which was held in June 2001 in New York.

Declaration of commitment on HIV/AIDS globally was made that "*by 2003, all countries establish time bound national targets to achieve internationally agreed global prevention goal to reduce by 2005 HIV prevalence among young men and women aged 15-24 in the most affected countries by 25% and by 25% globally by 2010* [2]".

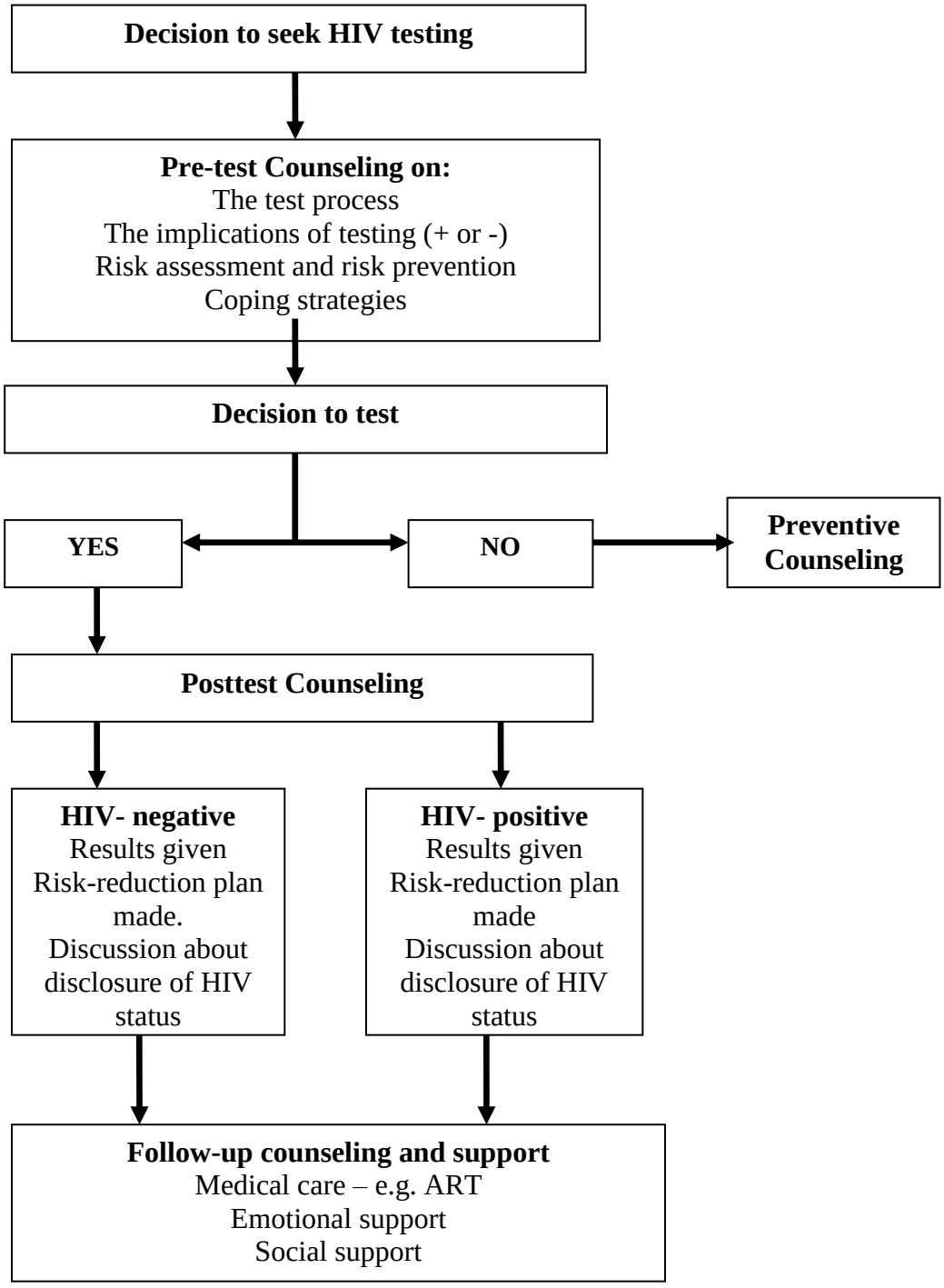
Commitment was also made that "*by 2005 countries should ensure that at least 90%, and by 2010 at least 95% of young men and women age 15-24 have access to information, education, including peer education and youth specific HIV education, and services necessary to develop the life skills required to reduce their vulnerability to HIV infection, in full partnership with young people, parents, families, educators and health care providers* [2]".

In view of these commitments, Malawi is among many countries which are refocusing their interventions to accelerate youth access to HIV/AIDS interventions. As such, the HIV/AIDS policy was reviewed to provide for young people's access to HIV/AIDS interventions. Among the many interventions, different organizations are accelerating young people's access to Voluntary HIV Counselling and Testing as a gate way to prevention, treatment, care and support services including behaviour change.

Voluntary Counselling and Testing (HCT) is a process whereby an individual or couple undergoes counselling to enable him/her/them make informed choice about being tested for HIV. HCT also aims to help individuals including young people to evaluate their own behaviour and consequences. It offers benefits to those who test positive or negative. It alleviates anxiety, increases client's perception of their vulnerability to

HIV, promotes behaviour change, facilitates early referral for care and support including access to anti-retroviral therapy, and assists in reducing stigma in the community [3]. The process of HCT has been summarized in the diagram presented below.

Figure 1



Diagrammatic explanation of the process of HCT [13,]

In view of the benefits of HCT, Ministry of Health adopted it as one of the strategies to promote behaviour change as well as an entry point to prevention, care, and treatment and support services. HCT services are therefore being introduced in all youth friendly health service facilities and youth centres to promote its access to youth.

Ministry of Health has therefore been training HCT site counsellors (both health and non health workers {youth}) for its health centres and other non governmental organizations to enable them provide quality HCT services. National Youth Council of Malawi has been organizing and coordinating such trainings for youth since 2003 while Ministry of Health in collaboration with MACRO has been training youth who hold Malawi School Certificate of Education in HCT. The Ministry has therefore been using trained youth peer counsellors (non health workers) in its integrated youth friendly HCT/HTC sites and youth centres owned by stakeholders to provide quality HCT services with the aim of attracting more youth to the service. This has enabled the Ministry to work in partnership with youth while creating an enabling environment to provide youth friendly quality HCT services.

1.2 Statement of Problem

Knowledge of HIV sero status has been advocated as a pre-requisite for access to support and care. Thus, HCT remains the most widely accepted approach for promoting knowledge of HIV sero - status. Furthermore, studies in Malawi have shown that HCT is likely to contribute to prevention of HIV transmission because people who know their HIV sero status are likely to change their behaviour [4]. However, not many youth have accessed these services due to unfriendliness of health services among many other barriers.

Studies show that only 6-9% of young people have accessed HCT in Malawi [4]. The MDHS further shows that 4.6 % and 8.9% of young women and men respectively age 15 -24 had undergone an HIV test and received results in the past 12 months preceding the survey [5]. This suggests that HCT uptake is generally very low considering that over half of the population is young people and half of the new infections occur in them.

In trying to make HCT more accessible to youth, one strategy being used is youth involvement. A synthesis of research evidence shows that young people in Malawi have been involved in the provision of services as life skills peer educators, community based contraceptive distribution agents (CBDAs), home based care providers and community mobilizers [4].

Since 2003, Ministry of Health and its stakeholders implementing youth HIV interventions began to involve youth in HIV counselling and testing. As such, they have been organizing HCT counsellor trainings for youth to make them effective providers.

However, the HCT training programme has not evaluated the effectiveness of youth HCT counsellors in promoting HCT uptake among young people. Besides, a comparison has not been made to check if the outcomes are the same for counseling provided by non health workers (youth) compared to adult health workers. Therefore, this study evaluated the HCT training programme by looking at the effectiveness of

youth HCT counsellors in promoting HCT uptake among fellow youths. A comprehensive evaluation would look at the inputs, processes and outcomes of trainers, trainees, clients and the cost. However, due to financial constraints, this study looked at the effectiveness of the peer counsellors using exit interviews with young clients aged 14 – 25 years who accessed HCT in selected centres to assess client satisfaction.

1.3 Literature Review

Many studies have been done to evaluate HCT services and have provided strong evidence to support the theory that HCT is both effective and cost effective as a strategy for facilitating behaviour change to prevent HIV transmission. However, very few have evaluated youth peer counsellors.

1.3.1 Peer Providers and Peer Influence

Peer providers have been used in many projects and programs both in and outside Malawi. They have been used in the provision of family planning services, home based care, peer education, community mobilization and behaviour change communication activities [4].

The rationale for peer provider services is that people in general, and adolescents in particular may be more likely to personalize health education messages if they receive them from a peer or someone who they perceive is facing similar concerns and pressures [6]. Some studies have found that peer and adult educators have comparable effectiveness. For example, a study of abstinence and safer sex HIV risk reduction

interventions found improved condom use resulting from both the peer led and adult led interventions [7]. UNAIDS, further reported of other studies which found that peer educators can produce better results than adult health educators in some areas such as reproductive health knowledge and behaviour [1].

Young people value and listen to peers more than adults. As cited in [8] on a study which determined the kinds of social support youth need to encourage them to seek HIV counselling and testing, adolescents turned to friends for information and emotional support before HIV testing. It further showed that peers escorted half of the respondents to the testing facility and 76% disclosed the HIV status to friends. Similarly peer education programmes in Malawi have shown positive results. Four months later after peer education training for commercial sex workers in Dedza District in 1990 resulted into increased correct condom use from 19% to 68% and ever condom use from 68% to 100% which further resulted to scale up of the intervention in most districts in Malawi [9].

1.3.2 Barriers to access of HCT services by Young People

The Malawi Demographic Health Survey (MDHS) report acknowledges that young people may feel that there are barriers to accessing and utilizing available services and facilities particularly for sensitive concerns relating to sexual health [5]. The MDHS revealed that overall, 5 % and 9% of women and men age 15-24 respectively were tested and received results in the past twelve months preceding the survey [5]. The survey further revealed a trend whereby the proportion of young women undergoing

HCT decreased with age whereas young men showed the reverse. This low uptake of HCT services is a clear indication that barriers to access and utilization do exist.

However, literature shows that young people are already willing to go for voluntary counselling and testing services despite the barriers that prevent them from accessing the service. A study among young people in Lilongwe showed that 72% males and 65% females were willing to have an HIV test and that willingness to have a test was largely influenced by the cost, privacy, confidentiality and distance to testing centres [4]. This agrees with another study of youth in Zambia which found that youth are more likely to go for testing in areas where they could go in and out without being noticed [10].

Another study exploring the views of young people on sexual and reproductive health in Malawi, Burkina Faso, Ghana and Uganda revealed that youth did not discuss personal benefits of HCT services despite understanding that HCT can help prevent HIV/AIDS due to low level of awareness and unavailability of HCT services. Instead, youth associated personal advantages of getting tested with the possibility of receiving anti-retroviral treatment [11]. These findings implied that programs should seek to increase awareness of and accessibility to HCT services.

A Horizons exploratory study on HIV voluntary counseling and testing in Kenya and Uganda (2001) revealed that 75% and 90% of youth in Kenya and Uganda respectively would like to be tested for HIV at some point and that would be attracted to it if services were confidential, honest and inexpensive [12,13,14]. The same study revealed that the primary source of information of HIV testing were peers and also

disclosed their HIV status to peers apart from spouses and partners. The study also revealed that 41% of untested youth and 38% of tested youth aged 14 – 21 preferred being tested at a youth facility rather than an adult facility where they might encounter adults they knew.

1.3.3 Characteristics of HCT Counselors that are important to youth.

In a study in the Ugandan clinics, tested youth participating in exit interviews rated skills and friendliness of providers as what they liked most about the HCT service and long waits as what they liked least. In this study, counselors' characteristics that were important to youth were rated as follows: being knowledgeable (83%), youth friendly (77%), counselors has been tested (53%), same sex (49%), young (43%), old (38%), opposite sex (37%) and HIV positive peer (31%) [15]. These results showed that, 43% preferred young counselors but that this was not the most important preference of many young people.

It was also reported on the Red Cross HCT centres in Honduras which also used volunteer youth counselors to decrease cost and increase client satisfaction while maintaining a high level of service quality [16]. University students were trained for two weeks to provide HCT services for one half - day session per week for a period of six months as part of the social service in partial fulfillment of the university requirements. Exit interviews revealed a high level of client satisfaction with the services [18]. However, these were university students while the peer counsellors utilized in Malawi are form four school leavers whose level of understanding may be different.

Furthermore, an evaluation of peer provider reproductive health service model for adolescents in California showed that the use of peer providers can be a strategy that can better serve young people/youth [6]. It further showed that successful clinics were those which hired both male and female peer providers who represented the ethnic composition of the community and of local schools.

1.3.4 Quality of HCT services and Client Satisfaction

A review of HCT approaches for youth by Boswell and Baggaley [18] revealed that attracting youth to HCT services was less of a problem than other issues such as space, enough personnel etc. These findings seem to concur with results from an evaluation of HCT services in Lilongwe, Malawi. An evaluation on one stand alone and three integrated HCT services in Lilongwe and results revealed that there was shortened counselling with inadequate information when services were busy, uncomfortable working waiting areas, disorganized client flow, inadequately trained volunteers and lack of supportive supervision for the counselors [19]. However, in Lilongwe, an earlier evaluation of Lighthouse, Area 18 and Bottom Hospital (now known as Bwaila) HCT services to assess client satisfaction revealed that 99% of the clients were satisfied with HCT services provided to them and said would recommend them to others [20]. This study also found that clients (99%) had confidence that the counselors were experienced and would provide them with a correct test result.

1.3.5 Conceptual Framework

The researcher conceptualized that since both youth and health workers were trained by Ministry of Health using the same training manuals and trainers, it is assumed that both

categories should be able to provide quality HCT services which should result into increased demand, uptake and client satisfaction. Further more, it is believed that young people would be more motivated/attracted to HCT sites with the availability of fellow youth in the counseling sites.

It was also conceptualized that the HCT training would lead to behaviour change among youth undergoing the training and those accessing HCT services which may also lead to reduced incidence and prevalence. Knowledge gained during the HCT training and knowing one's HIV sero status would collectively lead to behaviour change such as safer sex, reduction of risky behaviours, secondary abstinence and reducing number of sexual partners among youth undergoing the HCT training and those accessing the HCT service. It is further believed that the outcome of behaviour change would be reduced HIV incidence and prevalence in the long run.

1. 4. Justification of the study

No published study in Malawi had been found on evaluation of youth who provide HCT services. Consequently, there was need to generate scientific based evidence to improve programming of youth HIV interventions. Besides, the fact that these youth counselors are non-health workers necessitated evaluation to explore the quality of both the service and the product**.**

Scaling up of HCT services has always been a challenge due to acute shortage of staff in Ministry of Health facilities and well-trained young people may close this gap. However, scaling up of HCT services through use of youth peer counselors needed to be evidence based. Furthermore, client satisfaction data realized from the evaluation

exercise could be used to improve quality of HCT services for youth in Lilongwe District.

CHAPTER 2

OBJECTIVES OF THE STUDY

2.1 Broad Objective of the study

The broad objective of the study was to evaluate the effectiveness of youth HCT counsellors in promoting HCT uptake among fellow youth using client satisfaction data on exit from the service site.

2.2 Specific Objectives:

- To assess the effectiveness of youth peer counsellors versus health workers in promoting client satisfaction and HCT uptake among youth.

- To explore client satisfaction of HCT services on exit from the service delivery point.

- To authenticate the claim that youth only HCT services are more acceptable to youth.

CHAPTER 3

METHODS

This chapter presents information on type of the study, the study place, study population, study period, sample size, methods of data collection data management, limitations of the study and ethical considerations.

3.1 Type of Research Study

A cross sectional quantitative study design using exit interview data to compare youth counselled by youth peer counsellors to youth counselled by health workers (adults) in order to assess effectiveness of youth peer counsellors in Lilongwe District was employed. Client satisfaction data were used to assess counsellor effectiveness in promoting HCT uptake. This design was chosen because it was the most feasible in the time allocated to do the study and was the most suitable to test the proposed assumptions.

3.2 Study Place

The study was conducted in Lilongwe District at Kamphata and Kawale (Lilongwe) youth life centres, as well as in three health facilities namely; Area 25, Social Society (SOS) and Mitundu. Kamphata and Kawale (Lilongwe) youth life centres belong to Interaide and Family Planning Association of Malawi respectively. The two youth centres were chosen because they are stand alone private youth friendly health sites and have only youth peer HCT counsellors offering HCT services whereas health centres

were chosen because they were integrated and have only adult health workers providing similar services.

3.3 Study population

The study population was youth accessing/attending YFHS HCT services in Lilongwe District in Malawi.

3.4 Study period

The study has been conducted within a period of about one and half years starting from one page proposal development, proposal development, piloting, conducting the research , Data analysis and then submission to examiners.

3.5 Sample size

At the ratio of 1:1 the sample sizes were equal for both settings. Following the findings of a pilot study which was done prior to the evaluation exercise, it was assumed that in the unexposed group (youth counselled by adults), 40% of the youth undergoing HCT would report satisfaction compared to 60% in the exposed group (youth counselled by youth). Using STATCALC program in Epi Info 6.0 software package to be able to measure this difference at a significance level of 0.05, and with 95% confidence and at the power of 80%, the sample sizes required were calculated to be 107 for each group making N= 214.

Piloting was done to aid in determining sample sizes for each site and to ensure clarity of the questionnaire. Purposeful sampling of the centres was undertaken and proportionate sampling was used to determine the number of participants to be interviewed per site. Consequently, **71** clients were interviewed at Kawale YC, **36** at

Kamphata YC, **49** at Mitundu Health centre, **34** at SOS, and **24** at Area 25. These were selected using proportionate sampling calculated based on weekly turn up of clients at each centre as was observed during piloting phase. The figures were calculated against the sample size of 107 in each of the settings (youth centres & health centres).

3.6 Data Collection

*3.*6.1 Recruitment of interviewers

Data collectors/interviewers with basic knowledge on the topic under study were employed to assist with data collection. Selection of interviewers was also based on previous experience in research work. Two data collectors/interviewers were trained per site for a period of three days covering background of the study, the objectives, and research methods to be employed in the study, general interviewing techniques and procedures (chronology, neutrality and probing). The training also focused on ethical considerations of the study such as obtaining consent from clients, use of pre-coded questionnaires, questioning techniques, maintaining neutrality, privacy and confidentiality. The data collectors were oriented on the subject information sheet and the consent form prepared by the principal investigator (See Appendices 2A&B, and 3).

3.6.2 Validity and Reliability

To ensure validity and reliability, data were collected using an adapted tool developed by UNAIDS for evaluating HCT services (See appendix1) since regular HCT evaluation using UNAIDS tools was already recommended by the Malawi HCT Technical Working Group. All consenting clients age 14-25 who underwent HIV counselling and testing were interviewed. Data collection was done for a continuous

period of 15 days. Each site had two well trained data collectors to ensure quality and reliability of data. The principal evaluator worked with all the teams.

Objective 1: To document the number of youth accessing HCT services in the sampled sites

Data were collected from client registers on the number of young people who were counselled, tested and received tests results in youth centres as well as health centres and HCT uptake were determined and a comparison was made between the two settings (youth centres & health centres) for 2005 and 2006.

Objective 2: ***To explore client satisfaction of HCT services on exit from the service delivery point.***

Structured interviews using a pre-coded questionnaire were conducted with clients on exit from the HCT centre to assess their satisfaction. To reduce bias the questionnaires had objective/close ended questions with responses pre-determined. To ensure validity and reliability of the tool, questions in the questionnaire were adapted from the UNAIDS HCT evaluation tool number 7 for client satisfaction. Only consenting clients were allowed to participate in the study. The interviews were taking about 10-15 minutes.

Objective 3: ***To authenticate the claim that youth only HCT services are more acceptable to youth***.

A quantitative comparison was made of HCT uptake and client satisfaction responses between clients of the two settings and conclusions were made accordingly.

3.7 Data Management

Data entry was done for a period of 3 days following which data cleaning was done before analysis. Data were analyzed using SPSS and Microsoft Excel computer packages with the aid of a statistician. To ensure confidentiality, only the principal investigator and the statistician had access to clinic data. Only numbers of those tested were collected with no inclusion of client's names.

3.8 Limitations of the study

The study experienced some few limitations as follows;

- The characteristics of youth that accessed HCT services may not have been similar to those who did not, thus extrapolating the results to youth who did not seek HCT may not be possible.
- It was not possible to establish behaviour change, which is a measure of outcome for HCT using exit interviews because change takes time. Thus, this area is recommended for further research to explore sexual behaviours of youth following access to HCT services in the two settings (impact of HCT on youth accessing the services).

3. 9 Ethical considerations

The study was approved by the postgraduate and the research committee of College of Medicine research committee (See certificate of approval at the beginning of this report). Since a request was already made by the DHO Lilongwe, asking National Youth Council to evaluate the effectiveness of youth peer counsellors, no written consent was sought from the sites (See appendix 1). However, they were informed about the exercise.

Written consent was sought from clients undergoing voluntary HIV counselling and testing to participate in the exit interview exercise. All consenting clients signed a consent form that was designed by the principal evaluator (See appendix 3), either by writing their signature or marking using their thumb print. The consent form contained objectives of the study, its significance and general information about the evaluation exercise. It also explained to clients that choosing not to participate would not lead to any penalties as they were free to do so (See appendix 2A &B) for subject information sheet).

All data collection instruments were coded such that participants' names were not used and all the interviews took place in a private room to ensure clients' privacy and confidentiality.

CHAPTER 4

RESULTS

4.0 Introduction

This chapter presents the findings of the evaluation. The major findings have been presented under the following subheadings; Socio-demographic characteristics, Opinion data/views of young people on various aspects and suggested ways of improving HCT services for youth. Tables, charts and descriptions of facts are used to present the findings. Results of cross tabulations have been presented and statistical tests have been used to test significance of the findings as comparison is being made between youth centres and health facilities. Testing of the assumptions/hypotheses and associations using cross tabulations have also been reported in this chapter with reference to the relevant appendices.

4.1 Socio - Demographic Characteristics

4.1.1 Mean Age distribution

Presented in table 1 are mean ages of youth that accessed HCT services in the five sites**.**

Table 1: Distribution of mean ages in the five centres

Centre		Mean Age	Mean Age for the Centres
Youth Centres	Kamphata	21.71	21.60
	Kawale	21.48	
Health Facility	Area 25	22.08	21.96
	Mitundu	21.31	
	SOS	22.44	

The youths who reported in all centres were within the same age bracket and a test of the mean ages by using Analysis of Variance (ANOVA) proves this claim. The f value in the table below was less than the critical value of $\alpha = 0.05$ which implies that on average youth reporting to the centres were within the same age bracket (See table 2 below).

Table 2: ANOVA table for the mean ages in all five centres

			Sum of Squares	df	Mean Square	F	Critical Value	P - value
Client Age Health Facility/YC	Between Groups	(Combined)	33.278	4	8.320	1.082	2.37	0.366
	Within Groups		1591.401	207	7.688			
	Total		1624.679	211				

4.1.2 Marital Status

Results indicated that single young people were more likely to access HCT services in youth friendly sites than married ones ($\chi 2 = 26.027$, $p<0.011$). Results further revealed that marital status significantly influenced young people's choice of an HTC site and significant differences were observed between youth centres and health facilities ($\chi 2 = 13.273$, $p<0.004$) with more single young people accessing the services from youth

centers. 72% of the respondents were single, 25.2% were married, and 0.5% was divorced while 2.3% did not disclose their marital status as shown in table 3 below.

Table 3: Percent distribution of marital status in the sites.

		Client Marital Status				
		Single	married	Divorced	Did not disclose	**Total**
Youth Centres (n=107)	Kamphata (36)	29 (80.6%)	7 (19.4%)	0 (0%)	0 (0%)	36 (100%)
	Kawale (n=71)	55 (77.5%)	11(15.5%)	0 (0%)	5 (7%)	71 (100%)
	Average %	79.%	17.5%	0	3.5%	100%
Health Centres (n=107)	Area 25 (24)	16 (66.7%)	7 (29.2%)	1 (4.1%)	0 (0%)	24 (100%)
	Mitundu (49)	33 (67.3%)	16 (32.7%)	0 (0%)	0 (0%)	49 (100%)
	SOS (n=34)	21 (61.8%)	13 (38.2%)	0 (0%)	0 (0%)	34 (100%)
	Average	65.3%	33.4%	1.4%	0	100%
Total (N=214)		154 (72%)	54 (25.2%)	1 (0.5%)	5 (2.3%)	214 (100%)

4.1.3 Client's Level of Education

Table 4: Percent Distribution of Highest Level of Education in the sites

		Client Highest Education Attained				Total
		Primary	Secondary	Post secondary	Missing	
Youth Centres (n=107)	Kamphata (n=36)	23 (63.9%)	12 (33.3%)	1 (2.8)	0(0%)	36 (100%)
	Kawale (n=71)	19 (26.8%)	44 (62%)	8 (11.2%)	0(0%)	71 (100%)
	Average %	45.4%	47.7%	7%	0%	100%
Health Centres (n=107)	Area 25 (n=24)	7 (29.2%)	10 (41.7%)	5 (20.8%)	2(8.3%)	24 (100%)
	Mitundu (n=49)	39 (79.6%)	10 (20.4%)	0 (0%)	0 (0%)	49 (100%)
	SOS (n=34)	9 (26.5%)	23 (67.6%)	2 (5.9%)	0 (0%)	34 (100%)
	Average %	45.1%	43.2%	8.9%	2.8%	100%
Total (N =214)		97 (45.3%)	99 (46.3%)	16 (7.5%)	2 (0.9%)	214 (100%)

The percent distribution of client's level of education attained for both youth centres and health facilities is as shown in table 4 above. On average, 45.4% of the youths with primary education visited youth centres while 45.1% visited health centres; 47.7 % with secondary education visited youth centres compared to 43.2% who visited health centres and 7% with post secondary education visited youth centres compared to 8.9% who visited health centres. No significant differences in level of education between males and females were observed ($\chi 2 = 1.646$, $p = 0.649$). However, a chi-square test

showed a strong association between level of education and choice of an HTC site ($\chi 2$ = 68.284, p<0.000). It further showed no significant differences in level of education between youth that accessed HTC in youth centres and those that did so in health facilities ($\chi 2$= 5.699, p = 0.127). Percent distribution of level of education versus client sex is shown in table 5 below.

Table 5: Percent Distribution of Highest Level of Education Attained and Client Sex

			Client Sex		Total
			Male	Female	
Client Highest Education Attained	Primary	Actual count	60	37	97
		% within Client Highest Education Attained	61.9%	38.1%	100.0%
	Secondary	Count	58	41	99
		% within Client Highest Education Attained	58.6%	41.4%	100.0%
	Post secondary	Count	9	7	16
		% within Client Highest Education Attained	56.3%	43.8%	100.0%
Total Percentages (n=214)		Count	129	85	214
		% within Client Highest Education Attained	60.3%	39.7%	100.0%
		% of Total	60.3%	39.7%	100.0%

4.2 Opinion Data

4.2.1 How youth first went to the sites

Table 6: Row percentage distribution of how youth first went to the sites

		Percent	How did you first come to this center			Total Percent
N=214			referred	Recommended (by partner, peer/friend, parents)	Just dropped in	
Youth Centres (n=107)	Kamphata (n=36)	% within YC	0%	19.4%	80.6%	100.0%
	Kawale (n= 71)	% within YC	16.9%	42.3%	40.8%	100.0%
	Average%		8.5%	30.8%	60.7%	100%
Health centres (n=107	Mitundu (n= 49)	% within HC	2.0%	55.1%	42.9%	100.0%
	SOS (n=34)	% within HC	38.2%	11.8%	50.0%	100.0%
	Area 25 (n=24)	% within HC	8.3%	8.3%	83.3%	100.0%
	Average %		16.2%	25.1%	58.7%	
Total		Count	28	70	116	214
		% within Health Centres and Youth centres (Combined)	13.1%	32.7%	54.2%	100.0%

Results in table 6 above, show that youths were either referred or recommended or just dropped in during their first encounter with the centres' counsellors. Out of the total sample of N=214 (100%) who participated in the study, 28 (13.1%) were referred, 70 (32.7%) were recommended by partners, peers or parents and 116 (54.2%) came on their own (just dropped in). The results show that over half of the young people went to the HCT sites/centres on their own.

4.2.2 Young people's preference of a counsellor

Table 7: Young people's choices between peer counsellor and health worker

			Given a choice, who would you have chosen; Peer counsellor or Health worker?			Total
		Percent	Peer Counsellors	Health Worker	No response	
Youth Centres (n=107)	Kamphata (n=36)	% within YC	94.4%	5.6%	0%	100.0%
	Kawale (n=71)	% within YC	88.7%	8.5%	2.8%	100.0%
	Average% for YC		91.6%	7.0%	1.4%	100%
Health Facilities (n=107)	Area 25 (n=24)	% within HC	79.2%	20.8%	0%	100.0%
	Mitundu (n=49)	% within HC	63.3%	30.6%	6.1%	100.0%
	SOS (n=34)	% within HC	91.2%	2.9%	5.9%	100.0%
	Average % for HCs		77.9%	18.1%	4%	100%
Total counts for N			178	29	7	214
		% within HC & YC	83.2%	13.6%	3.3%	100.0%
		% of Total	83.2%	13.6%	3.3%	100.0%

A high proportion of young people preferred to be counselled by peer counsellors. In response to the question above, an average of 91.6% and 77.9% of youth from youth centres and health centres respectively said they would have chosen a youth peer counsellor and not an adult (health worker) counsellor ($\chi 2 = 7.224$, $p < 0.007$). Results also indicated that availability of a peer counsellor at an HTC site would significantly

promote client satisfaction and a strong association was observed between preference for a peer counsellor at an HTC site and choice of an HTC site ($\chi 2$ =21,037, p<0.000).

		Why did you come to this centre?	Total

		Percent	Counsellors are Youth Friendly	Convenient Opening Hours	Youth only facility/was motivated by peers	Failed to disclose	
Youth Centres (n=107)	Kamphata (n=36)	% within the YC	77.8%	13.9%	5.6%	2.8%	100.0%
	Kawale (n=71)	% within the YC	63.4%	21.1%	7.0%	8.5%	100.0%
		Average %	70.6%	17.5%	6.3%	5.65%	100%
Health centres (n=107)	Area 25 (n=24)	% within health centre	54.2%	45.8%	0%	0%	100.0%
	Mitundu (n=49)	% within HC	51.0%	44.9%	0%	4.1%	100.0%
	SOS (n=34)	% within HC	94.1%	2.9%	0%	2.9%	100.0%
		Average %	66.4%	31.2%	0%	2.4%	100%
Total		Count	143	54	7	10	214
		% within Health Facility/YC	66.8%	25.2%	3.3%	4.7%	100.0%
		% of Total	66.8%	25.2%	3.3%	4.7%	100.0%

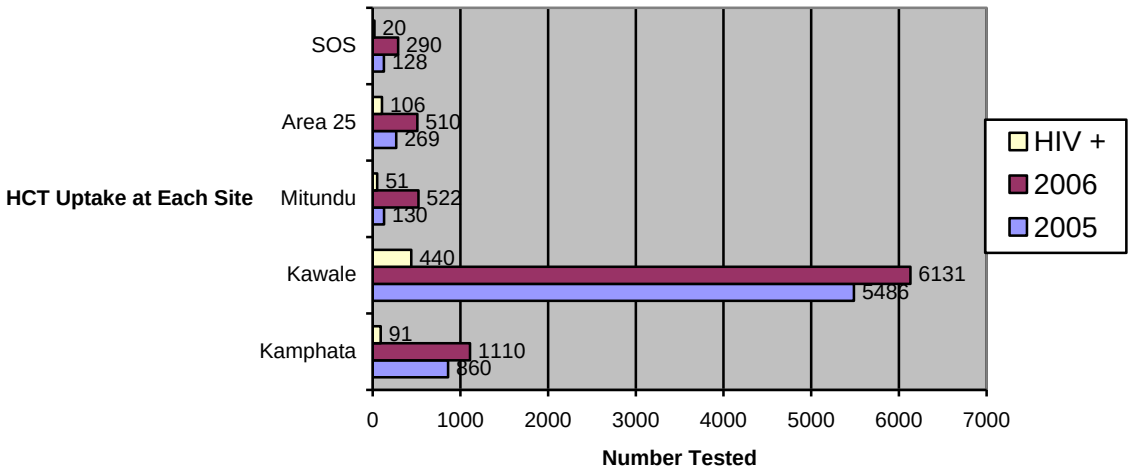
4.2.3 Reasons for Going to a Particular HTC site

Table 8: Percent distribution of the reasons that made youth visiting the HTC sites

The study tried to establish the reasons why youth visited specific sites to access HCT services. Results showed that out of the total sample (N=214), 143 (66.8 %) said they visited the centres because counsellors were youth friendly, 54 (25.2%) said the sites were opening at convenient times and 7 (3.3%) said were motivated by peers. Youth viewed counsellors in youth centres to be friendlier than those from health centres and

that friendliness of counsellors can significantly increase client satisfaction ($\chi 2$ = 38.504, p<0.000). However, a chi-square test to compare client satisfaction in youth centres and health centres in relation to youth friendliness of counsellors showed no significant differences between the two settings ($\chi 2$ =1.843, p= 0.175). The percent distribution of the responses is as shown in table 8 above.

Fig.2



4.2.4: HCT uptake by youth in all the HTC sites in 2005 and 2006

Presented in figure 2 above are HCT annual uptakes for 2005 and 2006. Results showed a significant increase in uptake of HCT services in both health and youth centres in 2006 compared to 2005 (f value =7.71, p<0.05) with HCT uptake being higher in youth centres than in health facilities. A lower HIV prevalence among youth accessing HCT services in both years was observed.

4.2.5 Time spent by client waiting to see an HCT counsellor

Results showed that an average of 81.9% of youths in youth centres spent less than 30 minutes before seeing a counsellor as compared to 67.7% in health facilities. A further 14.7% in youth centres and 21.1% in health facilities waited for less than an hour. The time distribution in all centres is as shown in table 4.8 below.

Results showed significant differences observed on time spent before seeing the counsellor. The results showed that young people waited longer at health facilities than youth centres and this finding was statistically significant ($\chi 2 = 9.341$, $p<0.025$). A significant association was also observed between the choice of an HTC site and time spent before seeing a counsellor ($\chi 2=30.042$, $p<0.003$). However, no significant difference was observed in client satisfaction in relation to waiting time before seeing a counsellor ($\chi 2=1.643$, $p =0.650$).

Table 9: Time that youth spent waiting to see counsellor

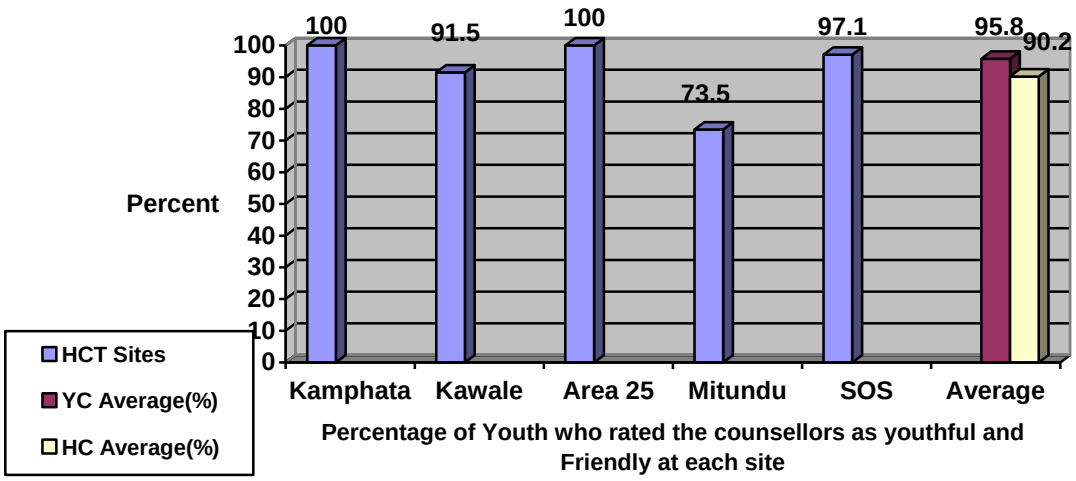
Centres (N=214)		How much time did you spend waiting to see counsellor?				
		<30 min	<1 hour	>1 hour	No response	Total
YC (n=107)	Kamphata (n=36)	28 (77.78%)	7 (19.44%)	0 (0%)	1 (2.78%)	36 (100%)
	Kawale (n=71)	61 (85.92%)	7 (9.86%)	3 (4.22%)	0 (0%)	71 (100%)
	Average %	81.9%	14.7%	2.1%	1.3%	100
HC (n=107)	Mitundu (n=49)	30 (61%)	15 (31%)	4 (8%)	0 (0%)	49 (100%)
	SOS (n=34)	30 (88%)	1 (3%)	3 (9%)	0 (0%)	34 (100%)
	Area 25 (n=24)	13 (54.1%)	7 (29.2%)	4 (16.7%)	0 (0%)	24 (100%)
	Average %	67.7%	21.1%	11.2%	0	100%
Total		162 (75.7%)	37 (17.29%)	14 (6.54%)	1 (0.47%)	214 (100%)

4.2.6 How youth viewed HCT Counsellors (Counsellor Effectiveness)

This section covered responses made by counsellors on different factors that defined effectiveness of a counsellor. On the views of the youth (clients), cross tabulations were made to assess association between client satisfaction and the characteristics of a counsellor which defined their effectiveness. A chi-square test was used to test whether the findings between the two settings were statistically significant.

4.2.6.1 Youths' views on whether the counsellors were youthful and friendly

Fig. 3



Results showed that over half of the youth who visited the HCT sites rated the providers as youthful and friendly. On average 95.8% and 90.2% of the youth who visited youth centres and health centres respectively said that the counsellors were young and friendly as shown in figure 3 above with no significant differences in the responses between clients in youth centres and those from health centres ($\chi 2=3.530$, p

= 0.060). However, a significant association between the choice of an HCT site and youthfulness/friendliness of counsellors ($\chi 2=24.979$, $p<0.000$) was observed although there was no significant association between being youthful/friendly and client satisfaction ($\chi 2 = 0.528$, $p = 0.468$).

The study also tried to find out whether the clients wished they had a different counsellor and whether they would recommend the services to others. Significant differences were observed in the responses. A high proportion of youth (48.5%) from health facilities wished they had a different counsellor compared to 21.5% from youth centers ($\chi 2. = 17.894$, $p<0.000$). On the contrary, results further showed that 98.1% and 97.2% of youth that accessed HCT services from health facilities and youth centres respectively would recommend them to others and no significant differences in responses were observed ($\chi 2 = 2.005$, $p = 0.367$).

4.2.6.2 Youths' views on counselors' knowledge level

Table 10: Percent Distribution of responses by HCT site

Centre		Were counsellors knowledgeable?		
		Yes	No	Total
Youth Centre (n=107)	Kamphata (n=36)	30.6	69.4	100
	Kawale (n=71)	43.7	56.3	100
	Average Percent	37.2	62.8	100
Health Facility (n=107)	Area 25 (n=24)	41.7	58.3	100
	Mitundu (n=49)	59.2	40.8	100
	SOS (n=34)	20.6	79.4	100
	Average Percent	40.5	59.5	100

On average, 37.2% of all youths in youth centres (n=107) said that the counsellors were knowledgeable as compared to 62.8% who said they were not. 40.5% of the youths who visited health facilities (n=107) said that the counsellors were knowledgeable as compared to 59.5% who said they were not, as shown in table 10 above. On average HCT counsellors in health centres were viewed by youth as being more knowledgeable than those in youth centres but this difference was not statistically significant ($\chi 2$ = 0.309, p = 0.578).

4.2.6.3 Views of youth on whether counsellor was able to address all their concerns

Table 11: Views on counsellors' ability to address concerns by HCT site

Centre		Counsellors Addressed all Concerns		
		Yes (%)	No (%)	Total
Youth Centre (n 107)	Kamphata (n=36)	66.7	33.3	100
	Kawale (n=71)	85.9	14.1	100
	Average %	76.3	23.7	100
Health Facility (n=107)	Area 25 (n=24)	66.7	33.3	100
	Mitundu (n=49)	75.5	24.5	100
	SOS (n=34)	97.1	2.9	100
	Average %	79.8	20.2	100

On average 76.3% and 79.8% of youths who visited youth centres and health facilities respectively said that the counsellors addressed all their concerns as compared to 23.7% and 20.2% respectively that had different views on the same as shown in table 11 above. Results showed no significant association between client satisfaction and

counsellors' ability to address clients' concerns ($\chi 2 = 0.024$, $p = 0.877$) and no significant difference in this ability was observed between counselors in youth centres and health facilities ($\chi 2 = 1.005$, $p = 0.316$).

4.2.6.4 Views of youth on whether counselors provided visual and auditory privacy

Table 12: Percent distribution of views of youth on visual and auditory privacy

Centre		Counselors Provided Visual and Auditory Privacy		
		Yes (%)	No (%)	Total (%)
Youth Centres	Kamphata (n=36)	8.3	91.7	100%
	Kawale (n=71)	9.9	90.1	100
	Average percent (n=107)	9.1	90.9	100
Health Facilities	Area 25 (n=24)	33.3	66.7	100
	Mitundu (n=49)	0.0	100.0	100
	SOS (n=34)	2.9	97.1	100
	Average	12.1	87.9	100

Results indicated a significant association between client satisfaction and counsellor's ability to provide adequate visual and auditory privacy ($\chi 2 = 6.129$, $p<0.013$). Results further showed a significant association between choice of site and counsellors' ability to provide visual and auditory privacy ($\chi 2 = 24.095$, $p<0.000$). However, no significant differences were observed in this ability between counsellors in youth centres and health facilities ($\chi 2 = 0.058$, $p = 0.810$). Over 60% of tested youth in all the

centres were of the view that the counsellors in all sites did not provide adequate auditory and visual privacy as shown in table 12 above.

4.2.6.5. Views of the youth on whether counsellors developed a risk reduction plan with them.

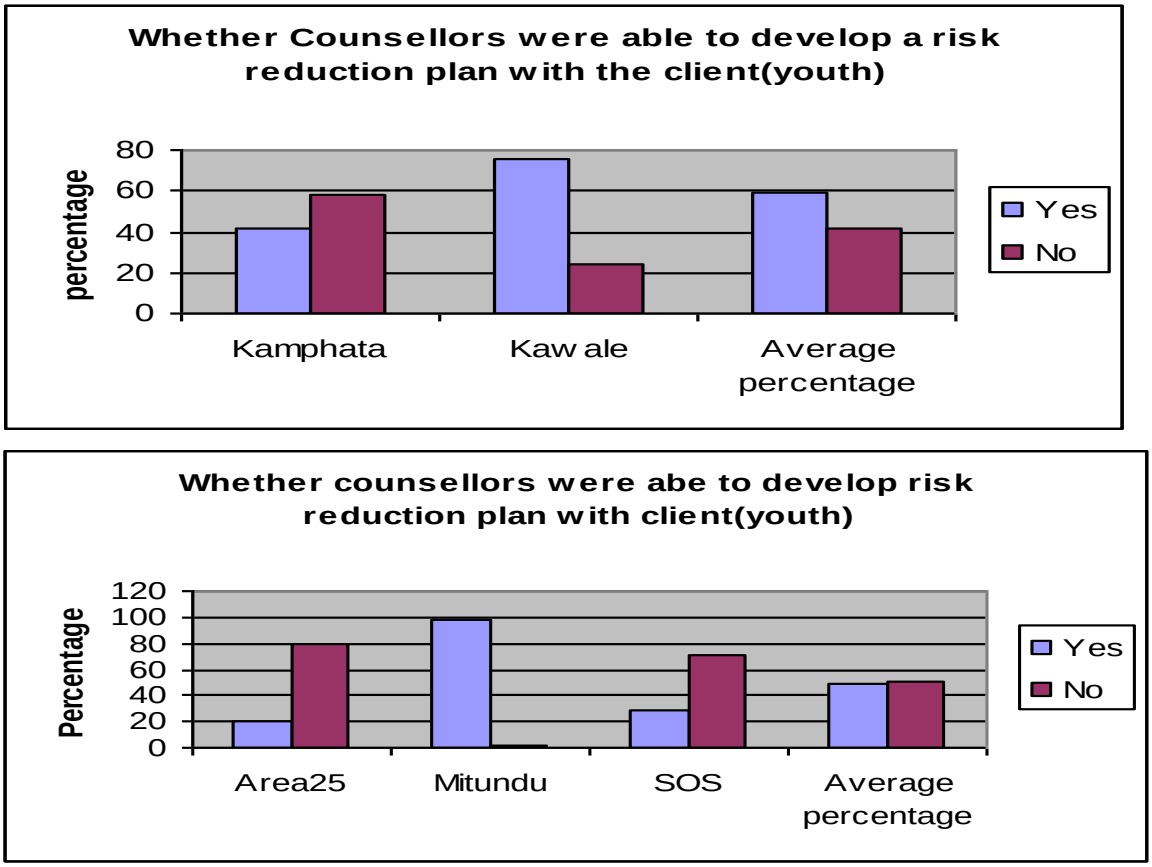
Table 13: Percent distribution of youth's views on whether counselors developed a risk reduction plan with them.

Centre		Counsellors Helped Develop a Risk Reduction Plan		
		Yes	No	Total Percent
Youth Centres (n=107)	Kamphata (n=36)	41.7	58.3	100
	Kawale (n=71)	76.1	23.9	100
	Average percentage (n=107)	58.9	41.1	100
Health Centres (n=107)	Area 25 (n=24)	20.8	79.2	100
	Mitundu (n=49)	98.0	2.0	100
	SOS (n=34)	29.4	70.6	100
	Average percentage	49.4	50.6	100

Different views were expressed by the youths on whether they were assisted by counselors in developing a risk reduction plan or not at these different centres as shown in table 13 above. Among the health centres, Mitundu was leading in this ability with 98% of clients acknowledging it whereas between youth centres, Kawale youth centre was taking the lead with 76.1% acknowledging the fact as shown in fig. 4 below.

On average, counsellors in youth centres (58.9%) were more able to assist clients to come up with risk reduction plan compared to those in health facilities (49.4%) but this difference was not statistically significant ($\chi 2 = 0.712$, $p>0.399$). The results also indicated no significant association between counsellor's ability to come up with a risk reduction plan and client satisfaction ($\chi 2 = 1.018$, $p = 0.313$). Fig 4 below is a graphic illustration of the findings in various sites.

Fig.4



Counselors' Ability to develop a risk reduction plan with youth accessing HCT services.

4. 2.6.6 Whether counsellors linked youths to care and support services.

Table 14: Percentage of youth who were or were not linked to care and support services

Sites		Were you linked to care and support services by HCT counsellors?		
		Yes	No	Total Percent
Youth Centres (n=107)	Kamphata (n=36)	55.6	44.4	100
	Kawale (n=71)	59.2	40.8	100
	Average percentage	57.4	42.6	100
Health Facilities (n=107)	Area 25(n=24)	50.0	50.0	100
	Mitundu (n=49)	63.3	36.7	100
	SOS (n=34)	47.1	52.9	100
	Average percentage	53.46	46.5	100

Except at SOS Centre, at least 50% of the youths who visited the HCT sites responded that the counsellors linked them to care and support services as shown in table 14 above. However, there were no significant differences in client satisfaction between youth who visited youth centres and those who visited health facilities in relation to counsellor's ability to link them (youths) to care and support services ($\chi 2 = 0.171$, $p = 0.679$).

4.2.6.7 Whether youth were pressurized to tell their parents about their accessing HCT.

The results of the study showed that none of the youths (0%) who participated in the study (N =214) was pressurized by a counsellors to inform parents/guardians about their undergoing HCT at any of the centres as shown in table 15 below

Table 15: Youth's responses on whether they were pressurized to inform parents.

Centre		Counselors pressurized youths to tell their parents		
	N=214	Yes	No	Total Percent
Youth Centres (n=107)	Kamphata (n=36)	0.0	100.0	100
	Kawale (n=71)	0.0	100.0	100
	Average Percentage	0.0	100.0	100
Health Facilities (n=107)	Area 25(n=24)	0.0	100.0	100
	Mitundu (n=49)	0.0	100.0	100
	SOS (n=34)	0.0	100.0	100
	Average Percentage	0.0	100.0	100

4.2.6.8 How HCT services at each centre were rated by young people

Table 16: Rating of HCT services each site

Centre		Rating of HCT services at each centre in %				
		Excellent	Very Good	Good	Failed to rate	Totals (%)
Youth Centres (n=107)	Kamphata (n=36)	6.5	8.9	1.4	83.2	100
	Kawale (n=71)	20.6	11.2	1.4	66.8	100
	Average Percentage (n=107)	13.6	10.1	1.4	75.0	100
Health Centres (n=107)	Area 25 (n=24)	4.7	5.6	0.9	88.8	100
	Mitundu (n=49)	15.0	5.6	2.3	77.1	100
	SOS (n=34)	7.5	7.0	0.5	85	100
	Average Percentage	9.1	6.1	1.2	83.6	100
	Total for N (214)					100

A high proportion of young people (an average of 75% in YC and 83.6% in HC) failed to rate the sites. Only 13.6% and 9.1 % of the youths in youth centres and health facilities respectively rated HCT services as excellent while the rest of the respondents rated them as either being very good or good as shown in table 16 above. A chi-square test showed no significant difference in ratings by youth accessing HCT in youth centres and those accessing from health facilities ($\chi 2 = 4.195$, $p = 0.241$). However, significant differences were observed in ratings among individual facilities ($\chi 2 =$

25.972, p value <0.011) which could significantly affect the choice of a particular site and client satisfaction ($\chi 2 = 41.220$, $p<0.000$).

4.2.6.9 Client (Youth) Satisfaction of HCT Services

Table 17: Percentages of youth satisfied with HCT services

Centres		Were you satisfied with of HCT Services?		
		Yes	No	Total
Youth Centres (n=107)	Kamphata (n= 36)	48.5	51.5	100
	Kawale (n=71)	51.0	49	100
	Average percentage (n=10)	49.5	50.25	100
Health Facilities (n=107)	Area 25 (n=24)	40.0	60.0	100
	Mitundu (n=49)	56.4	43.6	100
	SOS (n=34)	48.0	52.0	100
	Average Percentage	48.16	51.86	100

In response to the question an average of 49.5% and 48.2% of all the youths who visited youth and health centres respectively were satisfied with the HCT services as shown in table 17 above. However, on average, over half of the respondents were dissatisfied with HCT services in both settings with no significant differences in terms of client satisfaction between the two settings ($\chi 2$ 1.843, $p = 0.175$). This was also proved through testing of assumptions (see appendix 7).

4.2.7 How HCT services could be improved in the sites.

Table 18: Views of Young people on how HCT services could be improved

N=214		What can be done to improve HTC services for youth at this facility?					
		Recruit more youth counsellors	Reduce waiting time	Train more health workers in YFHS	Improve infrastructure to provide more privacy	Missing	Total
YC (n=107)	Kamphata (n=36)	17 (47.2%)	2 (5.5%)	1(2.8%)	6 (16.7%)	10 (27.8%)	36 (100)
	Kawale (n=71)	13 (18.3%)	7 (9.9%)	2 (2.8%)	36 (50.7%)	13 (8.3%)	71 (100%)
Average Percentage (YC)		32.8%	7.7%	2.8%	33.7%	18.1%	100%
HC (n=107)	Area 25 (n=24)	14 (58.3%)	3(12.5%)	1 (4.2%)	5 (20.8%)	1 (4.2%)	24 (100%)
	Mitundu (n=49)	14 (28.6%)	7(14.2%)	6 (12.2%)	9 (18.4%)	13(26.5%)	49 (100%
	SOS (n=34)	16 (47.1%)	0 (0%)	0 (0%)	18 (52.9%)	0 (0%)	34 (100%)
Average Percentage (HC)		44.7%	8.9%	5.5%	30.7%	10.2%	100%
Total		74 (34.6%)	19 (8.8%)	10 (4.7%)	74 (34.6%)	37 (17.3%)	214 (100%)

The study tried to find out from young people as to what could be done to improve uptake of HCT services. Table 18 above shows percentages on different responses. An average of 44.7% and 32.8% of young people from health centres and youth centres respectively said that more youth counsellors should be recruited whereas an average of 33.7% and 30.7% of the youths who had visited youth centres and health centres

respectively said that infrastructure should be improved to provide more privacy. However, the differences in responses between the two settings were not statistically significant ($\chi 2 = 7.842$, $p = 0.098$).

CHAPTER 5

DISCUSSION OF STUDY FINDINGS

5.1 Introduction

This chapter presents the discussion that follows the major findings presented in chapter four of this report. Therefore, reference is made to chapter four and only major findings of the study are discussed in this chapter. The findings that are discussed are demographic characteristics, opinion data results, voluntary counseling and testing (HCT) uptake, how respondents (youth) viewed HCT counsellors and client satisfaction.

5.2 Demographic Characteristics

The results indicated that older single young people were more likely to access HCT services from youth friendly sites especially in youth centres ($p<0.011$) and that marital status could significantly affect the choice of an HTC site by youth ($p<0.004$). These findings are in concordance with the findings of a study in the USA which showed that sexually active young people under 18 years were less likely to attend HCT than their counterparts above the age of 18 years [7]. These results imply low demand of the services by younger youth especially adolescents and hence the need that youth friendly sites should target them in a special way. Results further suggest that single young people are more responsive to HCT motivation messages and perhaps perceive HCT services as being very vital for decision making in their lives especially before they get

married. However, results may also imply existence of HCT access barriers to adolescent youth which need to be addressed.

5.3 Young people's preference of a counsellor

The findings revealed that a high proportion of youth in youth centres (91.6%) and health facilities (77.9%) preferred peer counsellors to adult counsellors ($p<0.007$) which indicated that availability of a peer counsellor at an HCT site would significantly attract youth to an HCT site and also ensure client satisfaction. These findings mean that youth to youth approaches seem to be more acceptable to youth. The presence of peer counsellors at the HCT site was what mattered most in terms of attracting youth to the service than what the counsellors were actually doing during the counselling session (gold standard counselling service) that would have defined quality services or counsellor effectiveness. [6] found that youth turned to friends/peers for information and emotional support before HIV testing and that half of them were escorted by peers to the HIV testing facility and 76% further disclosed their HIV status to friends. These results further concur with [15] whose study reported that 43% of youth preferred young counsellors although this was not the most important characteristic in terms of promoting uptake of the services.

5.4 Reasons for reporting to specific HCT sites for the services

In response to the question on why youth reported to a specific site, a high proportion of young people acknowledged "*youth friendliness*" of counsellors was the main reason that attracted them to the sites in both settings (YC & HC) with no significant differences in such responses ($p>0.175$). It was also clear from this study that

friendliness of counsellors was more likely to increased client satisfaction in both settings ($p<0.000$). These findings concurred with the Ugandan clinics study which revealed that 77% of tested youth considered youth friendliness as an important characteristic of HCT counsellors [15]. The views of young people on HCT counsellors in section 5.7 below also agree with these findings.

5.5 HCT uptake by youth in all the sites

Site records showed a significant increase in uptake of HCT services by youth in both settings ($p<0.05$) and in all sites in 2006 as compared to 2005 (See fig 4 in chapter four). This may be attributed to trainings of youth friendly health services provided to service providers by the DHO of Lilongwe which made the sites more youth friendly and eventually attracted more youth. However, low HIV prevalence among young people accessing HCT services was also observed implying that young people that accessed these services might have come from a certain group with low risk behaviours or many young people were still in window period and therefore of public health significance as far as HIV prevention is concerned. These findings confirm the findings of the Horizons study which found that most youth want to be tested while they are still healthy [16]. High turn up of young people for the services in youth centres is an indication that youth only facilities attract more youth and are acceptable to them. However, these results may not be generalized.

5.6 Time spent by client waiting to see an HCT counsellor

Young people waited longer at HC than YC although a high proportion waited less than 30 minutes in both settings (YC & HC) ($p<0.0025$). Long waits were what young people liked least in the Ugandan clinics study and is a clear sign of low quality

services [15]. Less waiting time in the sites is therefore suggestive of improved quality of HCT services and needs to be maintained.

5.7 How Youth Viewed HCT Counsellors

5.7.1 Youthful and Friendliness of HCT Counsellors

The choice of a health facility because the counsellors were youthful and friendly was highly significant ($p<0.003$). Youth from both settings viewed HCT counsellors as youthful and friendly with no significant differences in the responses although a higher proportion was from youth centres. However, uptake of HCT services did not really match the youthfulness and friendliness of counsellors especially in some of the health facilities such as Area 25 (See fig 3 and 4.in chapter four). This implies that despite friendliness of counsellors, barriers to uptake of HCT services by youth still existed in health facilities and needed to be explored. These findings agree with the Ugandan clinics study findings which revealed that 77% of tested youth considered youth friendliness as an important characteristic of HCT counsellors [15]. HCT strategies should therefore, aim at increasing both friendliness and uptake of services by young people especially young adolescents.

5.7.2 Views of youth on whether counsellors provided them with visual and auditory privacy

Provision of visual and auditory privacy by counsellors significantly influenced the choice to go for HCT to a particular site by youth and was more likely to increase client satisfaction of the services ($p<0.013$). On the contrary results showed that tested youth in all the centres were of the view that counsellors did not provide both auditory and

visual privacy with no significant differences in the responses between the two settings (YC&HC)($p>0.810$). This is a contradiction to the findings of [10] who reported that young people in Zambia wanted to get tested in places that they would not be noticed (anonymous). [4] also found that young people's willingness to have an HIV test was largely influenced by privacy and confidentiality in the testing centres.

UNAIDS also acknowledged that worries about confidentiality and fear that results would be shared with parents/guardians without young people's consent, prevents them (young people) from accessing HCT services [8]. Results from the exploratory study in Kenya and Uganda [13] further revealed that young people prefer being tested in facilities where they won't run into parents or neighbours and where it is not clear to casual observers that they were there to have an HIV test. Thus, privacy remains an important factor when providing HCT services to young people.

5.7.3 How HCT services at each centre were rated by young people

There were no significant differences in the way youth rated youth centres and health centres ($p>0.241$) suggesting that the services in both settings were generally viewed as either excellent, very good or good, a perception that needs to be sustained by all HCT counselors. However, results also showed that the way youth rated a site would affect their choice of a site and satisfaction ($p<0.000$). Just like friendliness of counselors, these ratings did not match with the actual uptake of HCT services in some of sampled health facilities hence the need for further research to identify barriers to HCT uptake at specific sites as suggested earlier on. These findings concur with findings of the study in similar settings which found that ninety nine percent (99%) of the clients had confidence that the counsellor conducting an HIV test was experienced and that their

test result was correct [20]). In this same study, clients said that they would recommend the HCT services to others implying they were good.

5.7.4 Client (Youth) Satisfaction of HCT Services

There was no significant difference in client satisfaction between youth who accessed HCT services at the youth centres and those that did so in health facilities. These findings are in agreement with the findings of [20] in Lilongwe, where an earlier evaluation of Lighthouse, Area 18 and Bottom Hospital (now known as Bwaila Hospital) HCT services to assess client satisfaction revealed that 99% of the clients were satisfied with HCT services provided to them and said would recommend them to others. The results of this study therefore suggest that the performance (effectiveness) of adult counselors was not different from that of peer counselors. This further validates the quality of the HCT training provided to both youth and adult counselors.

In summary, youth were satisfied with the services offered in both settings as the study found no significant differences in client satisfaction between the two settings ($p>0.175$) although youth in both settings significantly preferred peer counsellors to adult counsellors ($p<0.007$).

The study revealed that client satisfaction and HCT uptake were not totally dependent on counsellor's effectiveness. It is clear *that ability to impart knowledge, addressing all young people's concerns, help client to develop risk reduction plan, link youths to care and support, non pressurized counselling* which were some of the key components of counsellors' effectiveness in this study had chi-square values less than the critical value at 5% significance level. Thus, the conclusion is that client satisfaction was not affected

by these abilities of the counsellors (counsellor effectiveness). However, satisfaction can be guaranteed if provision of visual and auditory privacy is effectively provided, waiting time was reduced, and youthful and friendly counsellors are deployed in the sites (Refer to appendix 7 for testing of assumptions).

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Despite limitations the conclusions are that the study found no significant differences in client satisfaction of the services and effectiveness of counsellors between the two settings implying that youth peer counsellors were just as effective as adult counsellors. Majority of clients (98.1% in HC & 97.1% in YC) were satisfied with the HCT services and said would recommend them to others. However, in this study young people preferred to be counselled by fellow youth confirming that youth only services are acceptable to youth. Thus, the assumption that 60% of youth in youth centers would express satisfaction against 40% in health centers was overstated because this study found no difference in client satisfaction.

Low turn up of young adolescents (teenagers) for HCT services and low HIV prevalence among youth accessing these services were observed. This implies that more resources and efforts are required to mobilize young adolescents to go for HCT services and towards targeting those that are HIV free while ensuring availability of care and support services for youth that test HIV positive.

The study results further revealed that young people would go for HCT to either youth or health centres as long as adequate visual and auditory privacy was ensured, waiting time was reduced and youthful and friendly were deployed in the HCT sites. This

implies that Ministry of Health (DHO) and its stakeholders should ensure adequate privacy in all HCT sites and also deploy youthful and friendly providers who are able to offer services in a friendly manner and in private.

6.2 Recommendations

Following the results of the study, recommendations have been made to District Health Officer (DHO), local managers and stakeholders implementing HCT for young people in Lilongwe District**.**

To increase uptake of HCT among youth, it is recommended that;

- Well trained youth peer counsellors should continue to form part of the service provision team to continue attracting more youth to HCT services.
- DHO should consider recruiting young people as HCT counsellors to enable health workers concentrate on their core business of taking care of the sick as the study has confirmed that youth peer counsellors (non health workers) were just like health workers effective in the provision of the services and that young people preferred fellow youth to adults counsellors.
- DHO must continue training new staff in YFHS and deliberately deploy youthful staff to all youth friendly health centers/youth corners and all HCT sites as this study has established an increased uptake of HCT services in the YFHS sites.
- Develop strategies to attract young adolescents (teenagers) to HCT services.
- Renovate health facilities to offer adequate privacy and to make them more youth friendly.
- Improve youth centre infrastructure to ensure adequate privacy.

- Ensure reduced waiting time for young people in all health facilities because long waiting time can significantly affect client satisfaction.

REFERENCES

1. UNAIDS; 4th Report on the Global AIDS Epidemic: Geneva, Switzerland. 2004.

2. UNAIDS; AT THE CROSSROADS: Accelerating Youth Access to HIV/AIDS Interventions. Joint United Nations Programme on HIV/AIDS. New York. USA. 2003.

3. Family Health International: Voluntary Counselling and Testing (HCT) and Young People: 2001

4. Munthali A., Chimbiri A. and Zulu E. (2004): Adolescent Sexual and Reproductive Health in Malawi. A Synthesis of Research Evidence: Occasional Report No. 15, December, 2004.

5. National Statistical Office (Malawi) and ORC Macro; Malawi Demographic and Health Survey ; Zomba, Malawi; 2004:

6. Brindis C , Moya C. and Davis L: Creating Youth Friendly Sexual Health Services in sub Saharan Africa. Advocates for youth (2002).Washington DC Accessed on 12th November, 2006. Available from http://www.advocatesforyouth.org.

7. UNAIDS: The Impact of Voluntary Counselling and Testing: A global review of the benefits and challenges: Joint United Nations Programme on HIV/AIDS; 2001.

8. Denison in Mc Cauley (2004b):Equitable Access to HIV Counselling and Testing for Youth: A Review of the Current Practice

9. Walden VM., Mwaungulu K., Makhumula – Nkhoma P: Measuring the Impact of Behaviour Change Intervention for Commercial Sex workers and their Potential Clients in Malawi.Health Education Research 1999, 14 545-54.

10. Yoder P., Stanley A and Matinga P. Voluntary Counselling and Testing for HIV in Malawi: Public Perspectives and Recent HCT Experiences. Calverton, USA: ORC MACRO. 2004.

11. Amuyunzu-Myamongo M., Biddlecom A. E., Ouedraogo C. and Woog V.: Qualitative Evidence on Adolescents' Views of Sexual and Reproductive Health in Sub Saharan Africa. Protecting the Next Generation: Understanding HIV risk Among Youth: Occassional Report No. 16. January 2005.

12. Woog V. (2003): Annotated Bibliography on HIV/AIDS and Youth in Sub Saharan Africa. Occasional Report No.10, November, 2003.

13. Horizons Program, Kenya Project Partners, Uganda Project Partners: HIV Voluntary Counselling and Testing Among Youth: Results from an Exploratory study in Nairobi, Kenya; and Kampala and Masaka , Uganda. Washington DC: Population Council, 2001: [Accessed on 20th June 2005]: Available from: http://www.fhi.org/youthnet.

14. Horizons HIV Voluntary Counselling and Testing among Youth aged 14 – 21.Washington DC: ICRW and Population Council, 2001.

15. Juma M. Department of Economic and Social Affairs: The Global Situation of Young People: World Youth Report. 2004. United Nations Reproduction Publication Section. Newyork. Accessed on 20th December, 2006: Available from http://www.un.org/esa/socdev/unyin/documents.

16. Mc Cauley, A.P. (2004): "Equitable Access to HIV Counselling and Testing for Youth in Developing Countries. A review of the Current practice, Chapter 6," Horizons Report. Washington DC: Population Council. [Accessed on 17th July, 2005]: Available from :http://www.popcouncil.org/horizons/horizons.html

17. Mc Cauley A.P , Juma M.A, Kirumira E, Bufumbo L, Kakande N, Kalule J. Lukenge D , Mukisa E. and Habomugisha G. Validating Youth Responses to UNAIDS evaluation tool for VCT :Int Conf AIDS.[2002] July 7-12 Abstract no.tuPpD2062: Horizons Program/ICRW, Washington DC, United States of America.

18. Boswell D. and Baggaley R. Voluntary Counselling and Testing (HCT) and Young People: A Summary Overview; June 2002; Family Health International.

19. Hargreaves N.J., Chimzizi RB., Golombe C.Munthali F. Kajawo E. and Salaniponi FM (2002): Improving the Quality of Voluntary Counselling and HIV Testing services in Malawi using UNAIDS HCT Quality Evaluation Tools: Int. Conference. AIDS 2002 Jul 7-12:14 (Abstract no.MoOrF1078): Malawi National TB Control Programme, Lilongwe, Malawi.

20. Phiri M., Phiri S., Boxshall M., Zumazuma B., Killman P., Chang'ana E. and Ravenscroft N. (2004): Lighthouse Voluntary Counselling and Testing (HCT) Services in Lilongwe: Client Satisfaction and Knowledge Transfer.

.

APPENDICES

Appendix 1: DATA COLLECTION TOOL

Date: _____ HCT Site: Health Facility/Youth Centre(Tick)

Interviewer: _____

Code:

Instructions to user

This evaluation tool is aimed at collecting data about client satisfaction on exit from a service delivery point (HCT Site). Therefore, the process will be **anonymous** to ensure client's confidentiality and accurate responses from participants. Consequently, data collectors are instructed neither to ask the consenting clients about their names nor their HIV status.

Only consenting clients should participate in the study. Participants who do not want to participate should not be forced to do so.

Privacy and confidentiality should be ensured throughout the process of data collection.

All the data collected should be stored in a lockable cupboard to ensure confidentiality.

The interview should not take more than 15 minutes.

Thank the client for participating in the study.

SOCIO- DEMOGRAPHIC DATA

Client ID ☐

Age ☐

Sex ☐

Marital Status Married ☐ Single ☐

Highest level of Education Attained:

Primary ☐

Secondary ☐

Post Secondary ☐

OPINION DATA

1. How did you first come to centre?(**Tick in the appropriate box)**

Referred ☐

Recommended to come (by partner, friend/peer, and parents) ☐

Just dropped in ☐

2. Why did you come to this centre? **Tick Appropriately**

Counsellors are youthful and friendly ☐

Convenient opening hours ☐

Youth only facility/was motivated by peers ☐

3. How much time did you spend? Tick in the appropriate box

Waiting to see your counselors? < 30 min ☐ < 1hr ☐ >1hr ☐

In session with the counsellor? < 30 min ☐ <1hr ☐ >1 hr ☐

Waiting to get your HIV test? < 30 min ☐ < 1hr ☐ >1hr ☐

4. How did you view the counselors? What were the good and bad things about him/her?

Tick the response that applies to you

Good Things

Youth friendly ☐

Knowledgeable ☐

Addressed all my concerns ☐

Provided both visual and auditory privacy ☐

Helped me develop a risk reduction plan ☐

Linked me to care and support services ☐

BAD THINGS (Tick according to participant's response)

Was impatient and unfriendly ☐

Made me wait long (more than 1 hour) ☐

Did not provide privacy ☐

☐

Had inadequate knowledge ☐

Did not address all my concerns

He/she pressurized me to tell my parents/guardians ☐

5. Do you wish you had a different counsellor? Y/N

If yes:

Youthful? ☐ ☐

Different sex? ☐ ☐

Older? ☐ ☐

Health worker? ☐ ☐

6. Were you able to see the same counselor before and after the HIV test?

Yes ☐

No ☐

7. If a friend or relative were in a similar position to you before you came to the service would you recommend that he/she came to this facility?

   Yes ☐

   ☐

   No

   If yes, why? **Score in order of client's priority, starting with 1 as the highest priority and 5 the least.**

   ☐

   Convenient

   ☐

   Quality services

   ☐

   Less waiting time

   ☐

   Friendliness of counselors

   ☐

   Availability of youth counselors

8. Given a choice, who would you have chosen; a youth peer counselor or a counselor who is a health worker? **Tick according to the client's response.**

Youth Peer counselor ☐

Health Worker ☐

9. Were you satisfied with the HIV Testing and Counselling (HTC) service provided at this facility? Tick as appropriate

Yes ☐

No ☐

10. How do you rate the HIV Testing and Counselling services provided at this facility?

Excellent ☐

Very good ☐

Good ☐

Poor ☐

11. What can be done to improve HIV Testing and Counselling services for youth at this facility? **Tick only one most important suggestion to client.**

Recruitment of more youth counselors ☐

Reduce the waiting time ☐

Train more health workers in YFHS ☐

Improve the infrastructure to provide more privacy ☐

Appendix 2A & B: SUBJECT INFORMATION SHEET

Title of Study: ***A Comparative Study of Effectiveness of Youth Peer HCT Counselors and Adult Counselors (Health Workers) in Promoting Uptake of HIV Counseling and Testing Among the Youth in Lilongwe District, Malawi*.**

- **Principal Investigator: Mrs Jean H. Mwandira**

I am a second year student pursuing a Master of Public Health Degree at the College of Medicine, University of Malawi.

- **Objective of the study**

As part of the academic requirements, I am conducting this study to find out the effectiveness of youth peer (HCT) counselors in promoting HCT uptake among fellow youths in Lilongwe district by comparing client satisfaction in health centres and youth centres. I will ask questions on exit from a HCT sites to assess client satisfaction.

- **What you need to do for this study**

If you decide to participate in the study, you will be required to give your personal data and answer questions from the interviewer who will ensure both privacy and confidentiality of the information provided by using codes.

- **How will your privacy be maintained**

Your personal details and all records will be kept safe and limited to interviewers who have been well trained on how to keep data private and confidential. Codes will be used instead of names to ensure anonymity. After the study, your records will be destroyed. The interview will take place in a private room where people will not be able to hear and see what the interviewer will be recording.

- **Voluntary Participation and your right to refuse**

You will only participate if you have consented. Even after consenting, you have the right to withdraw from the study at any point if you wish to do so without being penalized. Thus, participation is voluntary.

- **Are there any risks involved in the study?**

There are no known risks that I am aware of in this study since no medical procedures will be involved.

- **Whom to contact if you have any questions about the study.**

Mrs. Jean H. Mwandira

National Youth Council of Malawi

P.B 389

Lilongwe 3

Phone: **08646312/01751972**

You can visit me at Area 4 in Capital Furniture Building near Action Against Hunger Offices

- **Who has given permission for me to go ahead with the study?**

The College of Medicine Research and Ethics Committee, Postgraduate Committee, Ministry of Health and Lilongwe District Health office have all given me permission to carry out the study. If you have any worries or queries, contact the chairperson of the Research and Ethics Committee on telephone number 01671911.

Thank you for taking the time to read the information sheet

Appendix 2B (Chichewa Version): CHIDZIWITSO KWA OLOWA MU KAFUKUFUKU

Kafukufukuyi akufuna kuyankha funso loti**:** *Kodi achinyamata amene amapereka uphungu ndikuyeza magazi kuti achinyamata anzawo adziwe ngati ali ndi ka chirombo ka HIV amathandizadi kukopa anzawo kuti azibwera kuzayezetsa?*

Wotsogolera kafukufuku ndi: Mrs Jean H. Mwandira

Ndine mwana wasukulu ya ukachenjede ya madotolo ya College of Medicine ya Univesite ya Malawi. Mwazofunikira zina pamaphunziro anga azaumoyo ndikuchita kafukufuku kuti ndidziwe ngati achinyamata amene amakayezetsa magazi awo kuti adziwe ngati ali ndi kachirombo ka HIV mthupi lao amakhutitsidwa ndi chithandizo chimene amalandira mzipatala za boma komanso mmalo okumanirana achinyamata (Youth Centres) a m'boma la Lilongwe. Komanso, ndikufufuza kuti ndidziwe ngati achinyamata amene amapereka uphungu kwa achinyamata anzawo amakopanso achinyamata anzawo kuti azi kuyezetsa magazi. Choncho ndidzinka ndifunsa ndi kucheza ndi achinyamata amene akhale atalandira uphungu ndikuyezetsa magazi awo mu mzipatala (Mitundu, SOS & Area 25 Health centres) komanso m'malo okumanirana achinyamata(Kamphata & Kawale Youth Centres).

Zofunika kuti inu muchite mukafukufukuyu

Ngati mwalola kulowa mukafukufukuyu mudzafunsidwa kupeleka uthenga wokhudzana ndi inu monga zaka zanu, kumene mukuchokera, pamene mudalekezera sukulu ndi zina. Mudzafunsidwa mafunsowo panokha ndipo mwachinsisi.

Kusunga chinsinsi chanu

Ine ndidzasunga chinsinsi chanu chonse pa zomwe mudzandiuze kwaine ndekha. Sikofunika kuti mutiwuze dzina lanu chifukwa tigwiritsa ntchito manambala wosati maina kuti tikusungileni chinsinsi. Kafukufuku akatha, uthenga wokhudzana ndi inu udzawonongedwa kuti wina aliyense asadzauwone.

Ufuluwanu kulowa kapena kusalola kulowa mukafukufuku

Muli ndiufulu kusapitiliza ndikafukufuku panthawi yili yonse pamene mwafuna kutero ndipo ngakhale mutasiya simudzayimbidwa mlandu uliwonse ayi.

Pali zovuta zina zilizonse zokhudzana ndikafukufukuyu?

Ayi, palibe zovuta zina zilizonse zokhudzana ndi kafukufukuyu chifukwa sipakhala zina zilizonse zokhudzana kutenga magazi kapena kuchita opeleshoni.

Munthu amene mungamufunse china chili chonse chokhudzana ndi zakafukufukuyu ndi:

Mrs Jean H. Mwandira

National Youth Council

P.B 389

Lilongwe 3

Foni: **08646312 / 01751972**

Mutha kundipeza ku Area 4, Capital Furniture Building, pafupi ndi maofesi a Action against Hunger.

Amene wavomeleza kuti kafukufuku achitike ndi.

Committee yowona za kafukufuku College of Madicine Research and Ethics (COMREC), unduna wa za umoyo ndi ofesi ya mkulu wa za umoyo m'boma la Lilongwe. Ngati muli ndidandaulo lina lililonse, lankhulani ndi mkulu wa komitiyi panambala iyi **01671911.**

Zikomo potenga nthawi yanu kuwerenga ndi kumva uthenga uwu.

Appendix 3: Informed consent

I…….have read the information sheet explaining the study entitled : *"**A Comparative Study of Effectiveness of Youth Peer HCT Counselors And Adult Counselors (Health Workers) in Promoting Uptake of HIV Counseling and Testing Among the Youth in Lilongwe District, Malawi***" I have read and understood the information given to me. Any questions I have asked have been answered to my satisfaction.

I agree that the research data gathered from the results of this study may be published provided that names are not used.

Date……day of…….2007

Signature…….

Date…….day of……..…2007

Appendix 4: REQUEST LETTER FROM DHO - LILONGWE

Ministry of Health

Lilongwe District Health Office

P.O Box 1274

6/8/2006

The Executive Director

National Youth Council of Malawi

P/B 389

Lilongwe 3

Attention: Mrs Jean H. Mwandira

REQUEST FOR YOUR ORGANIZATION TO CARRY OUT AN EVALUATION ON YOUTH FRIENDLY SERVICES OR YOUTH HCT SERVICES IN THE DISTRICT.

We write to request your organization to evaluate youth friendly HCT services in the district. We have noted that since 2003, you have been coordinating Youth friendly Health services as well as HCT for youth. However, no evaluation has been done to assess their effectiveness and to improve their quality. As such, there is need that an evaluation be conducted in order to establish whether young people are satisfied with the services being provided.

This exercise might help improve youth services in our district.

Regards.

Dr A. Maida

DHO - Lilongwe

Appendix5: PERMISSION LETTERS FROM THE HTC STITES

National Youth Council of Malawi

P/B 389

Lilongwe

16th August, 2006

The District Health Officer

Lilongwe District Health Office

P.O Box 1274

Lilongwe

Dear Madam

Request to carry out an Evaluation of HIV Counsellors in selected Facilities

In partial fulfillment of the Masters Degree in Public Health (MPH), it is a requirement that each student conducts research, an evaluation or writes a policy paper to contribute to the body of scientific knowledge and improve health services in the country.

As per your earlier request which you sent to our office, I chose to evaluate the effectiveness of Youth HCT counselors. I therefore, would like to request for your permission to carry out the above underlined evaluation at Mitundu, and Area 25 Health centres. The evaluation will be also be conducted at SOS health facility, Kamphata and Kawale youth life centers.

The evaluation aims at assessing effectiveness of youth HIV counselors by comparing them with adult health workers who are also HIV counselors through assessment of client satisfaction on exit from the facility (For details refer to the enclosed research proposal).

In preparation to this evaluation exercise, there is need to explore clientele in order to determine the appropriate sample size per facility and assess appropriateness of the tool. As such, I will also be visiting the selected health centers prior to the exercise to establish the number of clients that come to the centers per week to help me determine the sample size (piloting). I therefore request for permission to carry out this preliminary exercise as well.

Yours faithfully,

Mrs Jean Mwandira (Mrs Jean Hellen Mwandira – MPH student)

National Youth Council of Malawi

P/B 389

Lilongwe

16th August, 2006

The Executive Director

Family Planning Association

P/B 424B

Lilongwe

Dear Madam

Request to carry out an Evaluation of HIV Counsellors at Kawale(Lilongwe) Youth Life Centre

In partial fulfillment of the Masters Degree in Public Health (MPH), it is a requirement that each student conducts research, an evaluation or writes a policy paper to contribute to the body of scientific knowledge and improve health services in the country.

In this vein, I chose to evaluate the effectiveness of Youth HIV counselors as was requested by the DHO of Lilongwe. I therefore, would like to request for your permission to carry out the above underlined evaluation at Lilongwe Youth Life centre. The evaluation will also be conducted at SOS health facility, Area 25 health centre, Mitundu Rural Hospital, Kamphata and Kawale Youth life centers.

The evaluation aims at assessing effectiveness of youth HIV counselors by comparing them with adult health workers who are also HIV counselors through assessment of client satisfaction on exit from the facility(For details refer to the enclosed research proposal).

In preparation to this evaluation exercise, there is need to explore clientele in order to determine the appropriate sample size per facility and also to assess the appropriateness of the data collection tool. As such, I will also be visiting the selected health centers prior to the exercise to pilot my study in order to establish the number of clients that come to the centers per week to help me determine the sample size. I therefore request for permission to carry out this preliminary exercise as well at your site.

Yours faithfully,

Mrs Jean Mwandira (**MRS JEAN HELLEN MWANDIRA** – MPH student)

National Youth Council of Malawi

P/B 389

Lilongwe

16th August, 2006

The Executive Director

SOS

Lilongwe

Dear Sir,

Request to carry out an Evaluation of HIV Counsellors at Lilongwe Youth Life Centre

In partial fulfillment of the Masters Degree in Public Health (MPH) it is a requirement that each student conducts research, an evaluation or writes a policy paper to contribute to the body of scientific knowledge and improve health services in the country.

In this vein, I chose to evaluate the effectiveness of Youth HIV counselors as was requested by the DHO of Lilongwe. I therefore, would like to request for your permission to carry out the above underlined evaluation at health facility The evaluation will be also be conducted at Area 25 health centre, Mitundu Rural Hospital, Kawale and Kamphata youth life centres.

The evaluation aims at assessing effectiveness of youth HIV counselors by comparing them with adult health workers who are also HIV counselors through assessment of client satisfaction on exit from the facility(For details refer to the enclosed research proposal).

In preparation to this evaluation exercise, there is need to explore clientele in order to determine the appropriate sample size per facility and also assess appropriateness of the data collection tool. As such, I will also be visiting the selected health centers prior to the exercise to establish the number of clients that come to the centers per week to help me determine the sample size (piloting). I therefore request for permission to carry out this preliminary exercise as well at your site.

Yours faithfully,

Mrs Jean Mwandira (**MRS JEAN HELLEN MWANDIRA** – MPH student)

National Youth Council of Malawi

P/B 389

Lilongwe

16th August, 2006

The Executive Director

Interaide

P.O Box

Lilongwe 3

Dear Sir

Request to carry out an Evaluation of HIV Counsellors in selected Facilities

In partial fulfillment of the Masters Degree in Public Health (MPH) it is a requirement that each student conducts research, an evaluation or writes a policy paper to contribute to the body of scientific knowledge and improve health services in the country.

In this vein, I chose to evaluate the effectiveness of Youth HIV counselors as was requested by the DHO of Lilongwe. I therefore, would like to request for your permission to carry out the above underlined evaluation at Kamphata Youth life centre. The evaluation will be also be conducted at SOS health facility, Area 25 Health centre, Mitundu rural hospital and Kawale youth life centre.

The evaluation aims at assessing effectiveness of youth HIV counselors by comparing them with adult health workers who are also HIV counselors through assessment of client satisfaction on exit from the facility(For details refer to the enclosed research proposal).

In preparation to this evaluation exercise, there is need to explore clientele in order to determine the appropriate sample size per facility. As such, I will also be visiting the selected health centers prior to the exercise to establish the number of clients that come to the centers per week to help me determine the sample size (piloting). I therefore request for permission to carry out this preliminary exercise as well at your site.

Yours faithfully,

Mrs Jean Mwandira (**MRS JEAN HELLEN MWANDIRA** – MPH student)

Appendix 6: RESEARCH BUDGET

ACTIVITY	ITEMS	**Total Cost (in Malawi Kwacha)**
Proposal Development	**Stationery**	
	2 reams of paper 700 each	1,400.00
	2 pens @ 40 each	80.00
	2 note pads @ K 300 each	600.00
	1 flash disc@K14000	14,000.00
Ethical Clearance		
Getting Permission from		
Stakeholders owning the		
sampled sites	**Transport**	
	Fuel	3,000.00
Recruit and train		
interviewers	**Stationery**	
	14 Pens @ K40 each	560.00
	1 ream of paper @ K700	700.00
	Allowances	
	14 people @ 1300 x 3 days	54,600.00
	1 Principal researcher x 2500 x 3 Days	

		7,500.00
	Transport/fuel	3,000.00
Pretesting of Tools, Making corrections & Printing of final questionnaires	**Transport/Fuel**	5,000.00
	Allowances	
	14 people @1300 x 4 days	72,800.00
	1 Principal Investigators @ 2500 *4days	10,000.00
	Stationery	
	5 reams of paper@700	3,500.00
	15 pens @K40	600.00
	15 Note pads for notes@K300	4,500.00
	Printing costs	5,000.00
Data Collection	**Transport/Fuel**	15,000.00
	Allowances	
	14 people x 1300 x 10 days	182,000.00
	1 Principal Investigators @ 2500*10days	25,000.00
	Stationery	
	30 pens@K40 each	

		1,200.00
Data		
Analysis(Statistician)	Statistician Fees @ 3000/day x 15 days	45,000.00
Drafting Report	**Stationery**	
	3reams of paper @K700	2,100.00
	5 Pens @ K40each	200.00
Final Report	**Binding costs**	6,000.00
Dissemination	Circulation costs	5,000.00
	Publication costs	5,000.00
	Presentation at COM symposium	5,000.00
Total Research Budget		**477,340.00**

Appendix 7: ILLUSTRATION ON TESTING OF RESEARCH ASSUMPTIONS.

A. CLIENTS' SATISFACTION OF HCT SERVICES

Assumption: 40% of youths counselled by adults in health centres will report satisfaction as compared to 60% counselled by youths in Youth Centres.

TEST OF PROPORTIONS

	YOUTH CENTRES	HEALTH CENTRES
Mean Proportion	49.5	48.2
Sample deviation	0.051	0.051
Sample size	107	107

HYPOTHESIS TESTING:

YOUTH CENTRES

Hypotheses:

Null hypothesis

H_0: p = 0.6

i.e. 60% of youths counseled by youths will report satisfaction in youth centres

Alternative hypothesis

H_1: $p < 0.6$

i.e. less than 60% will report satisfaction

Test Statistic

$Z = \frac{0.495 - 0.6}{0.051} = -2.06$

This is a 1-tailed test with 5% of normal population in the left tail, so that the critical value for z = -1.64.

Conclusion

The null hypothesis is rejected and conclusion is made that less than 60% of youths who visit youth centres will report satisfaction. This claim that 60% will report satisfaction was overstated at $\alpha = 0.05$ significance level.

B. HYPOTHESIS TESTING:

HEALTH FACILITIES

H_0: At least 40% of the youths visiting any health centre will report satisfaction

H_1 : Less than 40% will report dissatisfaction.

Test Statistic

$Z = \frac{0.428 - 0.4}{0.051} = 0.55$

This is again a 1-tailed test with 5% of normal population in the left tail, so that the critical value for z = 1.64.

Conclusion

Since the test statistic is less than the critical value of 1.64, I fail to reject the null hypothesis and conclude that more than 40 % of the youths visiting any health centre would have reported satisfaction.

Since the initial claim that 40% of youths counselled by adults and 60% of youths counselled by youths will report satisfaction has been rejected at $\alpha = 0.05$ significance level, we proceed and test for the differences in satisfaction levels.

C. TEST FOR DIFFERENCES IN SATISFACTION

Hypotheses:

H_0: There is no difference in reported satisfaction between youth and health centres

H_1: There is a difference.

i.e. $H_0: p_1 - p_2 = 0$

$H_1 : p_1 - p_2 \neq 0$

Where p_1 and p_2 are sample proportions for youths reporting satisfaction in youth and health centres respectively.

The pooled standard deviation is 0.02, $p_1 = 0.495$ and $p_2 = 0.482$

Test Statistic

Using the two sample proportions, we get the test statistic as follows

$$Z = \frac{0.495 - 0.482}{0.02} = 0.637.$$

This is a two-tailed test with a significance level $\alpha = 0.05$, so that the associated critical value is 1.96

Conclusion

Since the test statistic is less than the critical value, we fail to reject the null hypothesis and conclude that there is no difference in reported satisfaction between youth and health centres.

Although many youths reported that they preferred peer counsellors to health workers, the study has established that satisfaction of services rendered in youth centres is similar to health centres. Possible reasons could be that the peer counsellors lacked knowledge and they also failed to address all youth's concerns. It could also be due to the fact that the adult counsellors helped less in developing risk reduction plans as already established.