A STUDY TO ASSESS THE CLIENT REFERRAL SERVICE OF COMMUNITY BASED DISTRIBUTION OF CONTRACEPTIVES IN NYAMIRA DISTRICT, KENYA.

BY

DR.JOYCE KERUBO ONSONGO,
M.B.ch.B (UoN), NAIROBI.

A DISSERTATION SUBMITTED IN PART FULFILMENT

FOR THE AWARD OF THE DEGREE OF MASTER OF PUBLIC HEALTH

OF THE UNIVERSITY OF NAIROBI.

JUNE1995

UNIVERSE * or LIBRARY

DECLARATION:

I hereby declare that this dissertation is my own original	work an	nd has	not been	presented
for a degree in any other university.				
SIGNED: TP ^ .				
JOYCE KERUBO ONSONGO	D	ATE		
M.B.Ch.B.				

LIST OF SUPERVISORS

THIS DISSERTATION HAS BEEN SUBMITTED FOR EXAMINATION WITH OUR APPROVAL AS SUPERVISORS

INTERNAL SUPERVISORS

1•	Signed	f / ^ ^ y	_Date_		
	DR. J. OLEN	JA, B.A., M. Phil. Ph.D.			
	Senior Lectur	er, Dept. of Community Health.			
	University of	Nairobi.			
2.	Signed	(^/j)	Date_		
				<u>og/g/V</u> r	
	MR. L. NYAB	OLA, Bsc., Msc., ScM. Dip Epid.			
	Lecturer, Dep	t. of Community Health.			
	University of	Nairobi.			
EXTE	RNAL SUPER	RVISOR.			
3.	Signed	^		Date	<u>15</u>
	DR. ALAN G.	FERGUSON. Ph. D			
	GTZ-FP Proj	ect Team Leader			
	Division of Fa	amily Health, Ministry of Health.			
4.	Approved by	the Chairman, Department of Com	munity	Health, University	of Nairobi.
	ଞ୍ଚିନ୍ତ୍ରକୃତ୍ୟ WAN	G'OMBE J.K., B.A., M.A., P.h.D.		Date/ <u><?• T</u></u>	-
	Chairman De	epartment of Community Health,			
	University of	Nairobi.			

TABLE OF CONTENTS.

DECLA	ARATI	ON	i
LIST C	F SU	PERVISORS	ij
DEDIC	CATIO	N	х
ACKN	OWLE	EDGEMENT	.xl
ABBR	EVIAT	IONS	xiii
ABSTI	RACT.		X۷
1.0 IN	TROD	DUCTION	1
	1.1 T	he Primary health care approach	1
	1.2 D	Definition of family planning	. 2
	1.3 T	he family planning programme in Kenya	3
2.0	LITE	RATURE REVIEW	6
	2.1	BACKGROUND INFORMATION	6
	2.2	CBD PROGRAMME EFFECTS	9
	2.3	THE QUALITY OF REFERRAL SERVICE	.12
		2.3.1 Definition of quality	.13
		2.3.2 Information given to the clients	.15
		2.3.3 Interpersonal relationship	.16
3.0	RES	EARCH PROBLEM	.19
	3.1	STATEMENT OF THE PROBLEM	.19
	3.2	JUSTIFICATION OF THE STUDY	.23
	3 3	STLIDY OR JECTIVES	25

3.3.1 GENERAL OBJECTIVE
3.3.2 SPECIFIC OBJECTIVES
3.4 STUDY HYPOTHESIS
3.5 OPERATIONAL DEFINITIONS
4. THE STUDY AREA
5.0 STUDY METHODOLOGY
5.1 Study design
5.2 Study populations
5.3 Sample size
5.4 Sampling Frame
5.5 Sampling procedure
5.5.1 Selection of clients
5.5.2 Selection of CBD agents
5.5.3 Selection of medical personnel
5.6 Procedures
5.6.1 Data collection
5.6.2 Data collected
5.7 Data management and Analysis
5.8 Ethical considerations
5.9 Study limitations
RESULTS

7. D	ISCUS	SION CONCLUSIONS AND RECOMMENDATIONS	
	7.1	Discussion	
	7.2	CONCLUSIONS:	
	7.3	RECOMMENDATIONS:	
REF	ERENC	ES	
ANN	EX 1- V	VORKING DEFINITIONS	
ANN	EX 2 - (QUESTIONNAIRE FOR THE CBD CLIENT89	
ANN	EX 3 - (QUESTIONNAIRE FOR CLINIC STAFF	
ANN	IEX 4 -	QUESTIONNAIRE FOR THE CBD AGENT	
ANN	IEX 5 -	INFORMED VERBAL CONSENT	
MAF) C		
141/_//	J		

LIST OF TABLES

Table 6.1	Distribution of clients by Health facility	42
Table 6.2	Distribution of clients by level of education	44
Table 6.3	Distribution of clients by age of youngest child	45
Table 6.4	Distribution of clients by method of FP use	46
Table 6.5	Distribution of clients by reason of referral	47
Table 6.6	Distribution of Depo clients by information given	47
Table 6.7	Distribution of TL clients by information given	48
Table 6.8	Client attendance to Health Facility by reason of	
	referral	48
Table 6.9	Distribution of clients by methods given at health	
	facility	49
Table 6.10	Outcome of referral for side effects	50
Table 6.11	Distribution of clients according to reasons why they	
	like the CBD agents in community	52
Table 6.12	Contacts made with CBD agents before referral	52
Table 6.13	How clients perceive the clinic staff	53
Table 6.14	Distribution of clinic staff by knowledge of CBD activities	54
Table 6.15	Distribution of clinic staff by their knowledge on role of staff in CBD	
	activities	55
Table 6.16	Priority that clinic staff give to CBD clients	56
Table 6.17	How clinic staff identify CBD clients	56

Table 6.18	Distribution of CBD agents by level of education	57
Table 6.19	Information given by CBD agents about TL and Depo	59
Table 6.20	How CBD agents confirm that their clients did go for referral	60
Table 6.21	Appropriate information received on the method by Depo referrals	62
Table 6.22	TL referrals who received appropriate information on the method	63
Table 6.23	Contacts made with the CBD agent before referral for	
	Depo and TL clients	63
Table 6.24	Distribution of referral clients by period of attending to health facility	64
Table 6.25	Relationship between Depo and TL clients and the time taken	
	to attend to Health Facility	65
Table 6.26	Clients who received appropriate services at the Health facility	65

LIST OF FIGURES

Figure 1	Age distribution of client respondents	43
Figure 2	Distribution of clients by number of children	45
Figure 3	How CBD clients perceive CBD agents	51
Figure 4	Distribution of CBD agents by number of house hold coverage	58
Figure 5	Difficulties that CBD clients encounter as described by	
	the CBD agents	61

DEDICATION

This work is dedicated to my husband Henry Nyang'au, and my daughter Kwamboka for their patience and love during my very busy time and absence from home while on the project.

Also to my parents MR. Williamson Oigara and Mrs. Dinah Magoma Oigara who endeavoured to educate me during my early days.

ACKNOWLEDGEMENT

1 would like to express my sincere appreciation to all those who assisted me in one way or another during my study period.

- Special thanks goes to GTZ-FP Project for its kind sponsorship and for all the facilities that it offered me to use during the project period. Thanks to Dr Alan Ferguson, Mrs Betty Jonyo, Mr.Paul, Sofia, and the entire staff of the Project for their assistance that they offered me.
- 2 Special thanks to Dr. Alan Ferguson who was my External Supervisor who was ready to listen and assist me at all times.
- Special thanks to the internal supervisors, Dr. Olenja and Mr. Nyabola for their guidance during all the stages of the study. Dr Olenja challenged me to work hard, thanks to

Mr. Nyabola for his assistance in all the statistical aspects of this study.

- Special thanks to Prof Wang'ombe, the chairman Department of Community Health
 UON for his assistance that he showed during my post graduate period.
- 5. Special thanks to Dr. Johnson Musomi for his assistance.

Thanks to Dr. Nyamache, MOH Nyamira District Hospital for his assistance.

Thanks to Mr.James Ayuyo the DPHN Nyamira Hospital and all staff from his office who assisted me a great deal during my field work.

Thanks to Mr. Mburu the DO Ekerenyo Division for his cooperation with me during the field work.

Thanks to my colleagues like Dr.Mitula and Dr.Chirchir who were an encouragement throughout the period.

Finally to my dear brethren, My Pastor Ibrahim Omondi and his wife Diane Omondi who prayed and encouraged me during my post graduate period. God bless them all.

ABBREVIATIONS

PHC PRIMARY HEALTH CARE

CBD COMMUNITY BASED DISTRIBUTION

CBDs COMMUNITY BASED DISTRIBUTION AGENTS

FP FAMILY PLANNING

SDP SERVICE DELIVERY POINT

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

FPAK FAMILY PLANNING ASSOCIATION OF KENYA

FINNIDA FINNISH INTERNATIONAL DEVELOPMENT AGENCY

CHAK CHRISTIAN HEALTH ASSOCIATION OF KENYA

AMREF AFRICAN MEDICAL RESEARCH FOUNDATION

DFH DIVISION OF FAMILY HEALTH

GTZ GERMAN TECHNICAL COOPERATION AGENCY

DHMT DISTRICT HEALTH MANAGEMENT TEAM

VHW VILLAGE HEALTH WORKER

TBA TRADITIONAL BIRTH ATTENDANTS

NGOs NON-GOVERNMENTAL ORGANIZATIONS

MCH MATERNAL CHILD HEALTH

OCs ORAL CONTRACEPTIVES

MYWO MAENDELEO YA WANAWAKE ORGANIZATION

KDHS KENYA DEMOGRAPHIC AND HEALTH SURVEY

NCCK NATIONAL COUNCIL OF CHURCHES KENYA

VSC VOLUNTARY SURGICAL CONTRACEPTION

PCEA PRECIPITARIAN CHURCH OF EAST AFRICA

DO DIVISION OFFICER

MOH MEDICAL OFFICER OF HEALTH

TL TUBAL LIGATION

ABSTRACT

Attaining sustainable development in the presence of high Population growth has been a difficult issue in many countries of the world. Therefore fertility reduction is needed through implementation of community assisted Family planning programmes².

The community approach to Family planning now referred to as Community Based Distribution of Contraceptives (CBD) addresses the need for non professional personnel to deliver contraceptives through training community auxiliary staff. The question of client referral is an important aspect of CBD programmes so that clients are brought closer to the services that they need and if the referral is not functional the whole programme may be jeopardised.

This was a descriptive study carried out in Nyamira District. A total of 300 referral clients, 94 CBD agents and 25 clinic staff were interviewed on different aspects of the CBD referral services in the area. Over 75% of referrals made were either for TL or Depo and above 75% of TL and Depo referrals received appropriate information about the method. Compliance for referral was found to be high (91%). There was a significant difference in the number of contacts made with the CBD agents before referral for Depo compared to TL clients. 77% of TL clients had more than three contacts as opposed to 55% of Depo.

There was a significant difference in the time taken to attend to health facility between TL and Depo clients. 95% of depo clients attended within the first two months compared to 59% of TL clients. The proportion of clients who received appropriate services at the health facility was over 75%. The general attitude of clients towards the CBD services was positive.

Most of the clinic staff agreed that CBD activities has made their work easier by reducing work load at the clinic, nearly all of them give quick service to CBD referral clients.

Most of the CBD agents followed up their clients at home to ascertain if they went for the referral.

In conclusion the CBD referral services in Nyamira District is operational but there is need to increase TL services to meet the demand. There is supportive effort from health facilities to facilitate effective referral. The general attitude towards the CBD activities from clients, staff and CBD agents is positive.

1.0 INTRODUCTION.

1.1 The Primary health care approach.

The Primary Health Care (PHC) approach of Alma Ata conference of 1978¹, aims at improving population health status by extending access to basic health care services to large numbers of people, compared to hospital based care systems. This conference produced a definition of various components of comprehensive PHC programme that gave impetus to a movement that led to the WHO declaration that PHC is the key strategy for the achievement of "Health for all by the year 2000"².

It is difficult to attain sustainable development in the presence of high population growth in the present day conditions. Increased uptake of modern methods of family planning (FP), is urgently needed to control the explosive population growth rate and preferably by use of the PHC approach². Achievements of fertility reduction through implementation of community assisted FP programmes means involving those who are directly affected³. The objective of encouraging community participation are;

- i. More acceptable services that respond to expressed local needs
- ii. Increased availability of services through expanding Service Delivery Points (SDP).
- iii. To ensure more effective and efficient programme implementation through community participation in povision of resources and decision making (empowering communities).
- iv. To realize community participation which is a basic right through which people are enabled to have greater control over their reproductive health⁴.

The PHC approach in distribution of contraceptives not only makes them accessible to seekers but also increases acceptability as has been established in several CBD programmes⁵. It is much more extensive and reduces the work load at health centres giving the health personnel time to concentrate on the overwhelming curative service responsibilities and more complex family planning cases. The CBD schemes aims at making FP services, in particular oral contraceptives (OC) available at the level of the community.

1.2 Definition of family planning.

Birth control and family planning are terms frequently used interchangeably, though they are not precisely synonymous. As described by the International Planned Parenthood, birth control means spacing and limiting pregnancies, and infertility therapy to conceive wanted children. Since historically the great need has been for contraception, birth control has popularly been identified with contraception. Family planning is on the other hand considered as a basic goal to be achieved through contraception or birth control. Therefore, broadly family planning focuses on the services, medical, laboratory and supportive services to enable this goal to be attained for individuals⁶.

Family planning is an important health intervention, provided by the Ministry of Health and other Non-Governmental Organizations (NGOs) like Family Planning Association of Kenya (FPAK), and other NGOs in the country. The service provides the chance for families to have the number of children they so desire and at specific intervals that is suitable for them. This means that individuals are enabled to have the number of children they wish to have, and these services enables people to make informed choices of their fertility⁷.

Women need to be assisted to have their children with the least possible risk to their health⁸. Family planning helps to reduce the risks. Many mothers' lives could be saved by spacing or limiting births. The primary task of family planning is to make access to services possible for the majority of people. Therefore family planning is one of the highest priority programs because of the immense potential to improve the health of women and children⁸.

1.3 The family planning programme in Kenya.

Concerned with the negative effects of rapid population growth and development, Kenya became the first Sub- Saharan country to adopt a national family planning programme⁹. Private efforts in Family activities in Kenya had started as early as 1955 in Nairobi and Mombasa as Family Planning Associations which later combined in 1961 to form the Family Planning Association of Kenya (FPAK)¹⁰.

When the national family planning programme was officially launched in 1967, it was presumed that fertility reduction is closely associated with declines in child and maternal morbidity and mortality. This programme has since operated within the framework of maternal and child health services (MCH). In 1970 the proposal to integrate MCH/FP services was effected since the potential user of FP are usually mothers between 15-49 years it is convenient to serve them at the same time what is referred to as the supermarket approach. Although integration of MCH/FP took place in 1970 there was actually an increase in fertility that resulted to doubling Kenya's population by 1979.

The weakness of the integrated MCH/FPwas to assume that clients will voluntarily go for these services while men were left out since they do not fall within the MCH category. Therefore if clients did not perceive the need for FP they would not seek for them, this led to the formation of community approach to FP where services are taken to the people. The programme measures include: providing clinical and preventive services as well as disseminating family planning and population information. The Ministry of Health coordinates and collaborates with voluntary, church and other NGOs agencies in providing these services¹⁰.

The distribution of clinic based contraceptives including pills and intra uterine devices (IUCD) were subject to strict controls and were distributed on prescription by medical personnel¹⁰. This means that only medical personnel could distribute contraceptives at specific areas. To meet the expanding demand non-clinic based contraceptives are now being distributed through community based distribution agents. This is the community approach to family planning where non-medical staff distribute oral contraceptives.

2J) <u>LITERATURE REVIEW</u>.

2A BACKGROUND INFORMATION.

HISTORY OF CBD

CBD is a term used generally and applied to a variety of programmes that utilize community resources to distribute contraceptive commodities or services within the community. The term is commonly used to describe community based family planning health programme, although it can be used in other developmental social sectors. CBD is a rational approach to family planning and health service delivery for more extensive coverage, it also avoids barriers that may be encountered through the bureaucracy of the traditional clinic based systems 11,12.

Amongst the earliest CBD programmes were those developed by private FP organizations, including PRO-FAMILIA in Colombia in 1971, the Sociedad civil de Bien-Estar, Family planning Association in Brazil (BIENFAM) in 1973, the American University of Cairo and the family planning association of Egypt in 1974 -1975^s, and community based family planning services programme (CBFPs) in Thailand². In Colombia Pro-Familia initiated distribution of contraceptives outside clinic systems in 1970, most distributors were teachers, housewives, heads of mothers' clubs, and owners of small shops. They received one to two days training after which they offered contraceptives from their shops or homes.

The CBD programmes have four essential features:

- i. Community residents who are not health professionals deliver supplies and services.
- ii. Programmes deliver services to each community and do not depend on clinic attendance.
- iii. CBD workers operate relatively independent without day-to day supervision.
- iv. Many diagnostic, screening, and record keeping procedures are omitted because they are not practical for community workers.

CBD PROJECTS IN AFRICA

CBD programmes in Africa started in several countries, some of the first projects were in Egypt, Morocco, Tunisia, and were designed to deliver contraceptives directly to households and encourage re-supply from clinics or depots there after.

A pioneer programme started in 1977 in Menoufia in Egypt and where women received oral contraceptives during a home visit and there after supplied at a family planning clinic¹³. In Morocco from 1977-80 nurses distributed oral contraceptives and condoms. In Tunisia social-workers distributed OC and condoms. In Zimbabwe the CBD programme objectives was to make contraceptives methods easily available to people in rural areas through household distribution.

CBD PROGRAMMES IN KENYA

In Kenya CBD came at the wake of realization of the serious over population problem. In 1969 Kenya's population was about 11 million this doubled to 21 million in 1989, based on the 1989 census with a growth rate of 3.34%. Population in 1993 was projected to be 24 million. Though growth rate has fallen from 4.41% in 1984 to 3.34% in 1989 a further reduction needs to be aimed atr through family planning. In the early 80s OCs were distributed to clients after a mandatory physical examination, this was carried out in other CBD programmes. Since FP intake was found to be insufficient as opposed to the FP need, the Division of family health (DFH) started investigating the possibility of distributing OCs if mandatory medical examination was not to be considered as a necessity. On this investigation GTZ-CBD programme was started. MYWO were the pioneers in Kenya, they started a CBD programme at Vihiga Division of Kakamega and in Murang'a districts, FPAK carried out similar projects atTetu. These programmes initiated alternative methods of FP distribution through CBD. 1,8,11,12 PCEA in Chogoria also carried out CBD programme through use of VHFWs and TBAs. The community workers are integrated in PHC activities. They are selected by the health committees and undergo initial training of one week followed by an inservice training once a year. Other organizations involved in CBD include ;JICA, FPAK, FINNIDA, CHAK, AMREF¹⁴, NCCK, CORAT.

2.2 CBD PROGRAMME EFFECTS

In 1987 a conference of experts met in Abidjan and gave a synthesis of work and recommendations on CBD. The expert committee concluded that under certain conditions CBD is an inexpensive strategy safely permitting increased contraceptive usage. The conditions include adequate recruitment and training of agents, regular supervision and payment, continual resupply and coordination for higher care referral¹⁴.

In Honduras evaluation of Community based distribution programm introduced by Family Planning Association of Honduras in 1976, came up with the fact that most distributors were able to recognize most contraindications of the pill and when to correctly refer, they thus performed the task adequately¹³.

A number of studies in Kenya^{11,12,14,15,16} are already demonstrating that CBD is feasible in Kenya. The CBDs have been found to be capable of learning and carrying out some investigative measures in reference to screening potential of FP clients.

In a study carried out by Sai on CBD programmes¹⁷, it has been indicated that it is important to ensure that all those handling the contraceptives as well as those whom the contraceptives are being distributed understand fully their benefits and side effects. All evaluations of CBDs done have shown that the major CBD projects have proved convincingly that this is a fair and just approach as well as medically sound. CBD need to be considered as extensions of PHC services rather than alternatives.

FPAK established an innovative CBD approach to service delivery in 1983, the most important lesson learned included, acceptor/ continuation rate is higher with easy access to FP services, close person-to-person contact and counselling, and as well as efficient follow up of clients.

The CBD approach to service delivery must have adequate and appropriate back up clinics and health centres for client referral. Even though health measures provided by the CBD programmes are safe and have few side effects, there will still be need for medical back up.

THE NYAMIRA CBD PROJECT

The Nyamira CBD project has been implemented by the Ministry of Health assisted by the GTZ-FP project. The programme is not yet at the end of the pilot stage and substantial evidence of its effectiveness is needed in order to review the current FP policy guidelines. The Project is supervised by the GTZ-FP support group within the Division of Family Health in the Ministry of Health. At the district level the programme is supervised by the District Health Management Team (DHMT), which receives monthly returns from the SDP supervisors, the SDPs also send monthly returns to the DFH. The CBDs working in this programme are lay people chosen by the community and acceptable to provide the service to them, they are mature persons representative of target groups. Priority is given to literate persons.

Role of CBD agents.

The CBDs are trained for a period of two weeks, one week in family planning and one week in Primary Health Care. A standard curriculum has been developed ¹⁸, which covers, Policies of FP, definition of FP and CBD concepts highlighting benefits to the individuals and the nation. Information on very simple anatomy and physiology, FP methods their advantages, indications, contraindications, and their management. They are also instructed on how to use the check list, counteracting rumours, misinformation, and misconceptions of FP. Primary health care problems prevalent in the community, communication and motivation techniques, follow up, and simple record keeping are also yourself. This training qualifies them to perform only certain duties. The CBD model in this project are trained as general family planning motivators and to use a predesigned checklist to indicate or contraindicate the use of methods available to them. The methods are low dose oral contraceptive pills (microgynon and microlut), foaming tablets and condoms. Where checklist contraindication exists the CBD agents refer such clients. The CBD agents are trained for one week in family planning and therefore they may not be able to discuss and counsel clients on methods such as intrauterine devices (IUCDs), injectables and voluntary surgical contraception (VSC), which require more training and are served by more trained health workers (mainly nurses). The CBDs are supplied with a "CBD Tool Kit" after training which is a metal box containing, a CBD diary for record keeping, a demonstration book, check list, condoms and foaming tablets, 100 cycles of low dose OCs.

Supervision of CBD agents.

The CBDs are supervised by a trainer at the SDPs who is a Community Nurse trained to be a CBD trainer and updated in modern FP. The CBDs report to the trainer to whom they take their records and from whom they get their supplies at a regular monthly meeting.

The CBDs either visit or are visited by potential clients to inform about contraceptives in general or to supply them with condoms, foaming tablets or low dose oral contraceptives. If contraindications to OC use exist as per checklist, or if the clients prefer methods not supplied by the CBD, referral to the nearest SDP takes place.

Supervision is done three levels, CBD report to the trainer monthly at the SDP, at this visit problems which have arisen are discussed. Consultations are also made possible between reporting visits. The supervisor at the SDP in turn reports to the district coordinator and to the DFH/GTZ.

2.3 THE QUALITY OF REFERRAL SERVICE.

In assessing the quality of any service, the clients perspective is important, three parts are addressed, namely:

- i. the service quality itself;
- ii. outcome of care;
- iii. clients, knowledge, behaviour and satisfaction with services.

The family planning field has focused its commitment to individuals and couples right to make voluntary choices about the number and the timing of the children they want and select compatible means to achieve their goals. Despite intensified concern with programme performance and ethics of family planning services provision, many at times appraisals of family planning programmes have neglected central dimension, which is the quality of care rendered. Improvements in the quality of services will result in a larger more committed clientele of satisfied users of the referral services ¹⁹. In both the clinic and the community based programmes its likely that improvements in the quality of services will result in greater initial acceptance and more sustained use.

2.3.1 Definition of quality.

Very few systematic studies are available to guide us in defining and measuring the quality of services. In documentation of family planning programmes operated by International Centre for Diarrhoea Disease Research in Bangladesh Matlab Thana on unparalled picture of the features of a supply system, workers role and clients' responses were major issues considered. Analysis of availability of services and monitory cost to clients have been necessary. But the three issues of quality of services, their use, and availability are difficult to consider discretely as choice of methods is not possible without sufficient supply points¹⁹.

The definition of quality is therefore at times confusing. But by its connotation quality implies standards to be measured and therefore possibly a costly procedure. It is usually not a standard at all though, rather its a property that all programmes have²⁰.

Only through judgment of expected output can one determine whether quality is good or bad, satisfactory or unsatisfactory. The word quality and its impacted meaning have emerged in contradictory contexts. In early family planning literature, quality was largely discussed with regard to clinical operations and this approach ignored interpersonal dimensions of care, and suggested to some that high quality meant technically sophisticated and expensive equipment¹⁹. Quality has sometimes been counted synonymous with availability and /or accessibility of contraceptives¹⁹. It has also been defined as potential demographic effect, example in an evaluation of a major Asian family planning programme the proportion of women using long term methods was a measure of quality²¹.

This conflicting approaches to definition of quality and the suggestion that it's unmeasurable has discouraged many managers from including quality of care indicators in their evaluation reports. Therefore evaluation usually focuses on the volume of activities given.

The major sources of information and tools of developing measures of quality will not be found in scientific literature alone, as much of it is transmitted orally or noted on site visit reports which is also vital. Therefore if volume of services is an indicator of programme performance, both the clinical dimension and the interpersonal aspects must be brought together.

Donabedian has provided a basic foundation for assessing quality of family planning services.

These include the following six elements: choice of methods, information given to client, technical competency of service provider, mechanism to encourage continuity, interpersonal relationship, and appropriate constellation of services²².

For purposes of the study attention will centered on the experience of those who have gained access to the referral services. The elements that will be focused on are the information given to the clients and the interpersonal relationship, the uptake rate of those referred and their satisfaction with the system.

2.3.2 Information given to the clients.

Information imparted during service contact enables the client to choose and employ contraception with satisfaction. Three aspects of information may be looked at¹⁹. Firstly the information component that clients appreciate a variety of methods available, secondly

is to enable the user to employ the methods effectively and appreciate potential physical changes healthy or unhealthy. Unanticipated or unmanaged side effects leads to disappointment of clients and may result in discontinuation of contraceptive use.²³ Thirdly information also helps in developing an appropriate expectation on the part of the client as a service provider's forward role is giving advice, supplying methods and referring for other methods. The client's willingness to return to the service provider will relate to their contact with the client.

In a report by Bruce¹⁹, the role of information in assuring clients and in contributing to contraceptive prevalence has been found to be of great importance. There has been a demonstration of a strong relationship between accurate information about methods and anticipated side effects and the tendency of clients to continue with methods and to resist negative ill founded rumours²⁴.

Studies conducted in Colombia where most oral contraceptives (OC) were distributed by rural health promoters have provided evidence of a relationship between clients' compliance and continuation with OC¹⁹. Observations suggests that revolution in information about contraceptives is needed. Lack of information is a reason for discontinuing method use and belief in rumours may be a deterrent to use altogether.

2.3.3 Interpersonal relationship.

Another important aspect of family planning is the worker's role to compensate for logistical problems in accessing services. Accurate information giving may be necessary as allaying negative feelings for example about tubal ligation. In circumstances where women have to travel for special services about which they have fear such as sterilization, a field worker accompanying the client compensates in effect for her discomfort with the unknown procedure.

The workers' ability to discuss their own contraceptive experience or ability to point out a healthy community member who is happy with the method responds to the client's reasonable worry²⁵. Assessing client /provider relationships is difficult, but it is essential to analyze and unveil emotional content of this interaction from client's perspective.

Client's feelings.

Early literature that sought factors that improved the worker's effectiveness and acceptability tested the hypothesis that "clients were most comfortable with workers who resembled them in most characteristics such as gender and marital status"²⁶. In this study carried out by Rupetto and other studies have found out a positive support in a number of settings. Similarity between providers and clients may yield more confidence on part of the

client. A review on worker performance in Bangladesh¹⁹, showed different patterns of exchange between male and female workers and their clients. Female workers spent more time with clients and were less likely to advise women towards sterilization²⁶. It may be that female workers identified with their clients and trusted them to practice self employed methods, and were at ease discussing sexual dimensions of different methods.

Follow up.

Early family planning programs were mostly clinic based, if clients did not appear for return visits only the best of the programmes could recontact through outreach workers. Many clinic based programmes don't have regular follow up systems⁵, while many community based family planning programmes are concerned with recruiting clients than maintenance of use. The strongest argument for promoting continuity of use is to ensure established follow up measures. Programmes can achieve better results when they concentrate on small numbers to enhance improved continuity and follow up²⁷.

3J) **RESEARCH PROBLEM**

3J. **STATEMENT OF THE PROBLEM**

CBD programme addresses the need for non-professional personnel to deliver contraceptive services by training community auxiliary staff. Important CBD programme components include: initial approval through medical establishments, preparation of local community, recruitment, selection and training of CBD, supervision and motivation.

Recent discussions on FP programmes have emphasized the importance of the interface of clients with the service providers and the service delivery system²⁸. Attention has been shifted to understanding dynamic nature of process involved in contraceptive acceptance and adoption²⁹.

FP-providers have been shown to influence clients' contraceptive adoption and continuation through their skills, attitudes and recommendations^{29,30}. Providers' opinion has been shown to have a strong effect on clients' behaviour in many settings³¹, and may be important in determining contraceptive choice in FP programmes. This is especially so in CBD programmes where client-provider interactions are frequent and where providers serve as promoters of FP policy. Six elements of quality of care have been indicated¹⁹²² choice of methods, information given to the client, technical competency of the service provider, interpersonal relationship, mechanism to encourage continuity and follow up, and appropriate constellation of services.

No studies has been undertaken to measure all these elements at once as this may not be possible but several studies have done a possibility of at least one element, and especially choice of methods.

REFERRAL SERVICE FOR CBD PROGRAMMES

CBD workers cannot handle serious medical emergencies or even less serious problems for which they have not been trained . Therefore, CBDs have to coordinate their efforts with existing health services that can provide medical back up. Training courses for CBD workers need to explain local health system to workers and tell them the location of the nearest clinic. Special efforts must be made to foster communication and cooperation between village CBD workers and the health system so that the referrals go smoothly⁵. CBD workers may have to escort patients up to the clinic helping them with transportation problem and ensuring they are seen promptly¹⁷. In other programmes e.g. Haiti and Indonesia, special referral forms have been developed for workers, these forms are later returned to the workers so that they know which of the patients went to the clinic and can therefore follow them up^{5,32}.

The question of client referral is an important aspect in the CBD projects, because if support is not available the whole programme may be jeopardized. For example, if a woman obtains foaming pessaries from a CBD supplier and gets a problem with it and if the supplier cannot reassure her or refer her to the next level of support, the next time she may not have the confidence to deal with that particular commodity any more.

Three or four functions are therefore important at the referral point:

- i. To examine those clients who fall outside the check list used by CBD acceptors. In the CBD Project to be investigated in this study, community approach is employed in distributing low dose oral contraceptives. A modified Check list is used by the CBD agent to screen clients for OCs. Questions are posed to the clients by the check list to bring out what would be found out by medical history and physical examination. The CBD agent refers clients to the health centres for physical examination where the answers on the Check list indicate thus.
- ii. To look at clients who having been accepted because they fall within the requirements of check list have developed a problem because of usage and therefore may require change of method.
- iii. To serve a client who requests for a method outside the CBD capability these include IUCD, Injectibles and Tubaligation.
- iv. Those that request a physical examination before initiation of FP³³.

In an ideal CBD referral system the distance between the woman and the referral service is narrowed by introducing mobile clinics closer to the community or if this is not possible, means of transporting these people from the community to the health centre or hospital are available. An effective CBD programme thus ensures that the woman once referred to the

health centre is not to be tossed from department to another, because this may make a woman to want to leave or possibly completely drop out from the programme. This therefore means that the health centres or hospitals and the Family planning programme have a system within which is concerned for referral clients.

In an evaluation of the FPAK CBD Programme in 1993³⁴ it has been shown that nearly 18% of all visits both new and old made to the CBD agent end up in a referral to other services. The majority of referrals were associated with check up for oral contraceptives and about 8% were for clinical methods. While record reports from Nyamira CBD project have shown that the majoril/ of the referral clients (47%) were for the Injection method.³⁵.

It has also been noted from the FPAK report that referral constitute a very weak area of the CBD programme and significant improvements are therefore needed³⁴. On this basis it shall be of great interest to have a baseline assessment on this part of the service in the Nyamira CBD project.

3.2 JUSTIFICATION OF THE STUDY.

Since the initiation of the CBD Project, the programme has concentrated on increasing the volume of service delivery as opposed to addressing the issue of the quality of the services provided. Quality of services is an essential issue in CBD programmes.

In a study carried out by Muindi 1992 ¹⁴ to assess the competence of CBD providers on how correctly they detected indications and contraindications of OC using the check list in order to determine their safety, it was concluded that Community based distribution of oral contraceptives was safe in Rural Kenya.

CBD screening was found to be efficient in determining the current pill prescription and that this approach does not jeopardize the health of recipients. This study also found out that the CBD providers made less errors in the correct allocation of clients as indicated or contraindicated to OCs. One of the recommendations of this study was that more research needs to be carried out to further assess the CBD Family Planning as a service.

The referral service in the GTZ-FP project is linked to the local MCH services of the Ministry of Health at the Health centre and dispensary level. It is therefore assumed that in this project the referral service should not a major problem. It has been shown from the

GTZ-FP project reports³⁵ that the percentage of referral for all clients visiting the CBD agent is much lower as compared to other CBD projects.

This figure as reported earlier is 18% in the FPAK CBD projects³⁴, while in the GTZ-FP project this figure ranges from 1.2% in the Nyamira district to 4.6% in Vihiga district³⁵. The question that this study is asking is, is there a problem in the referral system within the GTZ-FP project or are the referrals not being reported? Do the CBD agents know the need for a reported referral system. If the CBD referral services are effective then the referral clients are being brought closer to the services, and this therefore should be reflected in the reports. Should this not be the case then there is need to identify what are the problem areas that may require improvements.

3.3 STUDY OBJECTIVES.

3.3.1 GENERAL OBJECTIVE.

The aim of the study was to assess the client referral service of community based distribution of contraceptives.

3.3.2 SPECIFIC OBJECTIVES.

- To determine the reasons of referrals made by the CBD agents and the information given about the referral.
- 2. To determine the proportion of clients who attend the health facility following the referral and the type of services offered to them.
- 3. To determine the attitude of clients towards CBD client referral.
- 4. To determine the attitude of clinic staff towards CBD client referral.
- 5. To determine the attitude of CBD agents towards CBD client referral.
- 6. To compare, number of contacts made before referral, time taken to attend to health facility, and appropriate services given at the health facility between referrals for Depo provera and tubal ligation.

3.4 STUDY HYPOTHESES.

- 1. At least 75% of CBD agent referrals are appropriate.
- At least 75% of the referrals receive appropriate information about the referral method.
- At least 75% of the referral clients attend to the health facility within two months following the referral.
- 4. At least 75% of referral clients who attend the health facility following the referral receive appropriate services.
- 5. Number of contacts made before referral, time taken to attend to health facility, and appropriate services given at the health facility have no relationship with the referral methods of Depo provera and tubal ligation.

Why was 75% level used to Determine the Cut off point.

Since this was evaluation Study, like all other evaluation programmes an expected level of performance had to be set against which to compare the actual programme performance. Information was collected on some indicators for evaluation and these had to be compared against the expected set standard.

In this case 75% level of performance was an acceptable measure of effective performance. In the ideal situation a programme is expected to have 100% performance level. This expectation may be too high a standard to set as a measure of an effective programme. This is because there exists other effects outside the programme that may deter the actual performance.

In immunisation programmes for example a 75% coverage is accepted as an effective programme.

A pilot study carried out in GTZ-FP CBD project have shown that the compliance for referral was over 75%.

This was the basis of determining the cut off point.

A this cut off point a level of performance less than 75% would indicate that the

programme is not performing effectively. If the performance is 75% and above this is

considered as an effective performance.

The hypotheses tested was: "the expected level of programme performance is less

than 75%".

Thus

 H_0 : Performance < 75%.

 H_a : Performanc ;> 75%.

28

3.5 OPERATIONAL DEFINITIONS

1. Reasons for referral.

The reasons why the client was referred to the health facility as described by the client.

2. Appropriate referrals.

Those referrals that are described in the CBD guidelines, these include all other Family Planning methods that the CBD agents cannot issue.

3. Appropriate information on Depo. and TL.

In this study, appropriate information for Depo was, that the method is temporary and that it is an injection given every three months.

Appropriate information for TL, was it is surgical and permanent.

4. Appropriate services.

Some aspects of services given were taken as appropriate.

- Day when service was given. If clients were attended on the same day, this was taken as appropriate.
- b. Length of time taken to be attended at clinic. If clients were attended within three hours, it was taken to be appropriate.
- c. Examination done. If a physical examination was done this was taken as appropriate service.

d. Given a form of method. If the client received a Family planning method at the facility, it was taken to be appropriate service.

4. <u>Positive attitude of clinic staff.</u>

What the staff feel, or perceive about the CBD referral services.

What they feel has been the effect on their work as result of CBD activities. How they think about the competency of CBD agents and if they would give any priority treatment to CBD referral clients.

5. Positive attitude of CBD clients.

What the CBD clients feel about the CBD referral services.

How they perceive the CBD agents, how many contacts they had with the agent before referral.

If they like having CBD agents in the community.

How do they perceive the clinic staff.

6. Positive attitude of CBD agents towards referral.

What the CBD agents feel about their referral clients. If they think they get the services they have been referred for.

How they would confirm they have received the services.

Would they accompany clients to the referral centre, and if they would introduce them to the staff.

4. THE STUDY AREA.

Nyamira District was created in 1989 from a sub-division of Kisii District³⁶. It is one of the five districts of Nyanza Province. It boaders administrative boundaries of four districts namely, Bomet to the East, Kisii to the South, Homabay to the North, and Narok to the South. The district is divided into 5 divisions and 14 locations. These divisions include, Nyamira, Ekerenyo, Borabu, Manga and Rigoma. The capital is Nyamira situated some 35 Km. east of Kisii town. The district covers an area of about 861 sq. Km.

Topography.

Nyamira is divided into two main topographic zones corresponding to altitudes. The first zone lies between 1500m-1800m of altitude, mainly some parts of Nyamira and Ekerenyo Divisions. The second zone lies above 1800m of altitude and this covers parts of Nyamira and Ekerenyo, East Kitutu, Rigoma and Borabu divisions.

Ecology and water sources.

The climate is of high equatorial type. There is long rains from March to June and short rains from October to December. The average annual rainfall is 2000mm, the highest being in April of about 800mm and the least being in January of about 200mm of rain. Temperatures vary from 10.1° - 28.7° Celsius. There are many rivers and streams which provide the source of water for human and livestock.

Demographic features.

The population of Nyamira was 300,756 in 1979, between 1979-1989 the population grew at 2.7% per annum and was projected to be 392,571 in 1989. Since 1989 the population has been growing at a rate of 3.1% per annum and in 1993 the population of Nyamira District was projected to be 443,561. The population average density in 1993 was 515 per sq Km. Between 1979 and 1993 the population of Nyamira had increased by 68.2% with 53.3% of total population being under 14 years. 35,37

Economic activities.

Agriculture is the leading economic activity in the district, 72% of total labour force is employed in agriculture, out of which 85% of these are in small holdings. The average size of holding is about 1.8 Ha, the most important food crops grown are maize, beans, sorghum and horticultural produce. Major cash crops include tea, pyrethrum, coffee and bananas.

Ethnic Distribution.

The indigenous inhabitants are the Kisii, who account for over 97% of the total population.

Luos, Luhyas and others account for 3% of the population.

Health Facilities.

There are about 46 health facilities in Nyamira District including one government district hospital. There are 6 health centres and 39 dispensaries, 22 of these are run by the government while the rest are run by the NGOs or private individuals.

Family planning.

The contraceptive prevalence rate (CPR) in Kisii district was 20% in 1989,³⁶ while the National figure was 27%. Nyamira baseline survey carried out in 1990 reported an increasing CPR of 34% in Nyamira district showing an increasing use of family planning methods³⁸. Fertility in Kisii in 1979 was reported to be the highest in the country at 4% per year. This has contributed to a rapid increase of population in the district. The total fertility in Nyamira was 6.5 in 1990 while the National figure was 6.7³⁹.

5.0 STUDY METHODOLOGY.

5.1 Study design.

Cross sectional (Snap shot) study.

5.2 Study populations.

Target population.

The target populations comprised of rural women seeking use of contraceptives from the CBD providers in Nyamira District, CBD agents in the area, and health staff in the local health facilities

Study population

The study population were Women who were referred by the CBD agents for further management at the service delivery points, CBD agents selected from the selected health facilities, and health personnel from the selected health facilities.

5.3 Sample size.

The sample size was determined as follows:

Using a 95% confidence interval, the estimate of compliance for referral was estimated to be 80%. A confidence interval width of 5% was set. Therefore the minimum sample for the group of clients was determined by the following formula;

$$n = Z^2 i \ll /2 P(1-P)$$

Where

n =minimum sample size

z = critical value corresponding to 95% probability (a = 0.05), obtained from the table of standard normal distribution

=1.96.

p = estimated proportion of compliance for CBD referrals

= 80% (from pilot study)

d = degree of precision set at 5%.

Therefore n = $1.96^2 \times 0.8 \times 0.2$ = 245 referral clients. 0.05^2

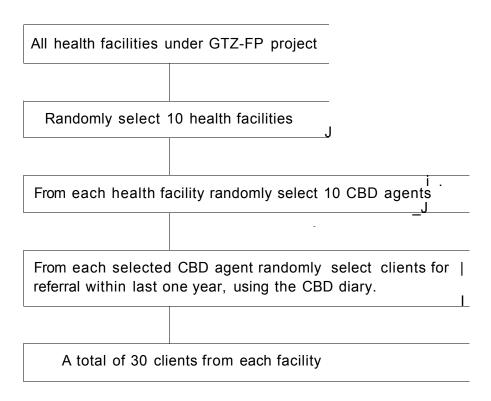
5.4 Sampling Frame

The sampling frame included all the health facilities that are under the GTZ-FP project in Nyamira. The sampling unit was the referral clients.

5.5 Sampling procedure.

5.5.1 Selection of clients

Using the 25 service delivery points under the GTZ-FP project in Nyamira District, the study subjects were selected by applying multi-stage sampling method as follows:



How the final sample was allocated to the 10 health facilities.

The minimum sample required was 245 referral clients and to allow a buffer, a target of 300 clients was selected to allow for wastage. A total of 25 health facilities were under the GTZ-FP project in Nyamira District. Ten were chosen randomly as a representative of all and the sample divided evenly. Thus the target for each of the facilities was 30 referral clients. To allow for a fairly wide selection of CBD agents the 30 clients were selected through 10 agents in each facility, i.e., 3 clients per CBD agent.

Criteria for inclusion.

All clients who were referred by the CBD within the last one year for any reason.

Criteria for exclusion.

Any clients who were never referred to the health facility for any reason.

5.5.2 Selection of CBD agents

All the randomly selected CBD agents per health facility were included in the study, they should have referred at least six clients in the last one year. In total approximately 100 CBD agents were included in the study.

5.5.3 Selection of medical personnel

All medical staff that were involved with delivery of FP service in the selected health facilities were included in the study.

5.6 Procedures.

5.6.1 Data collection

The main tool used in data collection was a designed questionnaire written in English. Interviewers who were recruited from the study area were fluent in English, Swahili, and the local Kisii language. They received some training before actual field work. The training sessions and practice interviews were conducted for three days, during which standardization of the questions in the local Kisii language was agreed upon.

The questionnaire was pretested before the actual data collection. Each service delivery point was visited by a team on given appointments, when the clients, the CBD agents and the staff were interviewed. Therefore each service delivery point had at least two visits during the data collection period.

5.6.2 Data collected.

- Social demographic data eg age, marital status, occupation, education level, number of children, and religion.
- 2. Family planning history, this focused on the current methods of FP the clients were using.
- 3. Source of FP supplies for the client and where follow up is done.
- 4. Detailed history of the referral sen/ice, reason for referral as understood by the client and whether the client went for the service?

- 5. Attitudes about the referral services from the clients and the CBD agents.
- 6. Problems encountered by the clients and the CBD agents.
- 7. Data was also collected on the information given to the client during referral, the time taken to get to the referral centre, and the effect of referral.
- 8. Documentary evidence of CBD referral was noted from the CBD diaries.

5.7 Data management and Analysis.

The questionnaires were self coding. Entry was by SPSS Data Entry Programme. Data analysis was done by use of the Computer (SPSS PC+ programme)

The collected data was organized and summarized in tables, bar charts, percentages, and frequency distribution tables. Tests of significance were applied where necessary, the following tests were used, Chi-Square, T-test, and Z-test.

For all the tests carried out 5% level of significance was used.

5.8 Ethical considerations.

- The clients had a fully informed consent in their local language by the CBD supervisor and the interviewers.
- 2. Clients with problems were referred.
- Prior to the study the following people were informed about the study:
 Local authorities and the MOH Nyamira district.
- 4. Approval was sought from the Team Leader of the GTZ-FP project.

5.9 **Study limitations**

- This was the first study in the area of CBD referral therefore it was difficult to set any limits or standards as there was no prior data for reference.
- 2. Because the study was more of a baseline survey it was difficult to have analytic relationship except for few variables.
- 3. Detailed assessment for all types of referrals was not undertaken and it was beyond the scope of the study. These needed more indepth studies to follow the outcome of some referral types and to identify documentary evidence of what was done for example to clients who were referred for medical problems.
- 4. Accuracy of information depended on how well the clients could recall.
- 5. Some operational difficulties:
- Some of the clients were unwilling to come for the interview and incentives had to be given so as to increase the turn up.
- ii. Displacement of clients by civil unrest made some areas unaccessible for the study,this was made worse by very poor roads in the area.

6. RESULTS

Client population.

A total of 300 clients from 10 health facilities were interviewed table 6.1.

<u>Table 6.1</u>: Distribution of clients by Health facility.

H.facility	No.	Percentage
Magwagwa	34	11.3
Kemera	29	9.7
Magombo	29	9.7
I. Itambe	20	6.7
Ting'a	25	8.3
Nyamaiya	33	11.0
Riakworo	23	7.7
Chepng'ombe	33	11.0
Amaterio	26	8.7
Etono	48	16.0
Total	300	100

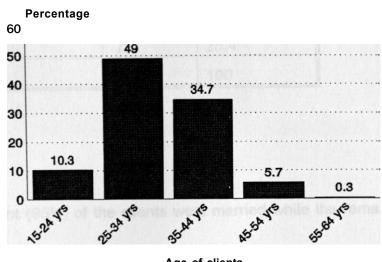
Background information of study group.

The age distribution of the 300 clients ranged from 16-58 years with a mean of 33.2 years.

The age distribution is presented in figure 1.

Figure 1.

Distribution of clients by age



Age of clients

Majority (49%) of the clients were between 25-34 years and about 10% of the clients were below 25 years.

Most of the clients (58.3%) had primary education and only 16% had no education table 6.2.

<u>Table 6.2</u> Distribution of clients according to level of education.

education level	Number	Percentage
No education	49	16.3
Primary	175	58.3
Secondary	76	25.4
Total	300	100

Ninety five percent (95%) of the clients were married while the remaining were either widowed or separated.

Most of the clients (59.7%) were seventh day adventists while twenty seven percent (27%) of the clients were catholics and the rest were of other denominations.

The number of children per client ranged from 0-11, with the mean number of five children. The distribution of clients according to the number of children is presented in figure 2.

Distribution of clients by number of children

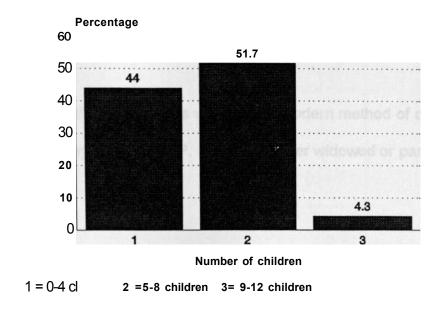


Figure 2

Most of the clients had between 5-8 children, while only 4.3% had 9 or more children.

The mean age of youngest child was found to be 5 years.

Majority of the clients (66.3%) had the youngest child less than five years table 6.3.

<u>Table 6.3</u> Distribution of clients according to age of youngest child.

age of child	< 1year	1-4 years	5-9 years	10-14	Total
				years	
number	24	175	84	17	300
%	8	58.3	28	5.7	100

Only 8% of the clients had their youngest child less than one year.

Majority (95.3%) of the respondents were using modern method of contraception. Only 4.7% were not on any method of FP, they were either widowed or past reproductive age table 6.4.

<u>Table 6.4</u> Distribution of clients by method of FP used.

Method	pill	injection	coil	TL	Other
number	42	137	2	103	16
%	14	45.7	0.7	34.3	5.3

The most popular methods used are injection and TL.

Objective 1

Reasons for referral.

When asked about reasons for referral, responses were as given in table 6.6. Most (78.6%) of all referrals were for injection and TL and the main side effects were bleeding due to pills table 6.5.

<u>Table 6.5</u> Distribution of clients by reason for referral.

Reasons	NO.	Percentage
Depo /injection	122	40.6
TL (surgical)	115	38.3
Side effects pill	38	12.7
Side effects Depo	11	3.7
Others	14	4.7
Total	300	100

Information given about the methods TL and Depo.

Information given was collected on Depo and TL referrals. 97.1% of the respondents were given some information about the method. Most of the Depo referrals were informed that Depo, is given every three months while most of TL referrals were informed that TL is permanent tables 6.6 and 6.7.

<u>Table 6.6</u> Distribution of Depo clients according to information given. n=122

	Information given about Depo			
	Depo temporary	Depo is injection given 3 monthly	Other information Depo	
Numbers	100	120	22	
%	80	96	17.6	

<u>Table 6.7</u> Distribution of clients according to information given on TL. n=115

	Information given about TL		
	TL surgical TL permanent Other on TL		
Numbers	98	106	19
%	89.1	96	17.3

Objective 2

Proportion of clients who attend Health Facility following referral and services given.

When asked how many attended the health facility following referral, it was found that 273 (91%) attended and 27 (9%) did not.

For those who attended by reasons of referral are shown in table 6.8.

<u>Table 6.8</u> Clients attendance to health facilities by to reason of referral.

Reasons for			Went for referral		Did not go for referral	
referral		No.	%	No.	%	
	Total No					
Depo /injection	122	119	97.5	3	2.5	
TL (surgical)	115	102	88.7	13	11.3	
Side effects pill	38	30	78.9	8	21.1	
Side effects Depo	11	10	90.9	1	9.1	
Others	14	12	85.7	2	14.3	
Total	300	273	91%	27	9%	

Nearly all Depo referrals attended to the health facility. Most (13) of those who did not attend to the facility were TL referrals.

Services given

When asked about the services given at the health facility, 85.7% were attended to on the same day and of these, 67.5% of them were attended to within the first three hours, while 32.5% had to wait for more than three hours. When asked if they had any physical examination done, 91.1% answered in the affirmative. Of these 87% had blood pressure taken, 77.7% had their weight taken, 42 % had a pelvic examination and 33.2% had other forms of physical examination.

Method given

When asked if they received any method at the health facility, 88.2% of them answered in the affirmative. The methods given are presented in table 6.9.

<u>Table 6.9</u> Distribution of clients according to methods given at health facility: n=273

Method	Number	percentage
pill	27	10.5
coil	3	1.2
Depo	125	48.4
TL	101	39.1
other	2	0.8
Total	258	100

87.5% of all methods given were either Depo or TL.

Fifteen of those who attended the referral did not receive any form of method, most of these were referred for medical problems.

The outcome of referrals for side effects were as shown in (table 6.10)

Table 6.10

Outcome of referrals for side effects n = 49

	Outcome Method given		
Side Effects	Pills	Depo	Total
Due to pills	19	9	28
Due to Depo	7	1	8
Total	26	10	36

From this table it can be seen that 19 of the referrals on side effects due to pills and 7 of the referrals on side effects due to Depo received a method change.

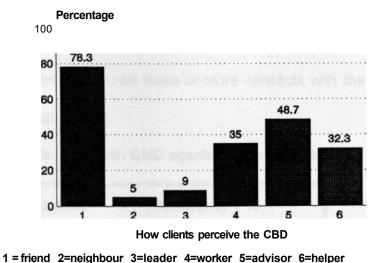
Nine of the clients referred for side effects did not go for referral, while four who went for referral were not given any method.

Objective 3.

To determine the attitude of the clients towards CBD client referral.

When asked who initiated the referral, it was found that 61.7% were initiated by the CBD agents and when asked reasons why they needed to go to the CBD agent for referral, 87.3% of them said they needed more information from the CBD agent. When asked how they perceived the CBD agents and the clinic staff, most (78.3%) of the CBD clients consider CBD agents as friends and about half of them think of the CBD agent as advisors figure 3.

How CBD clients perceive the CBD agents



Majority (98.6%) of the clients said they liked to have the CBD agents in the community.

Table 6.11 shows the distribution of clients according to reasons why they liked to have CBD agents in the community.

<u>Table 6.11</u> Reasons for having CBD agents in the community as given by clients.

n=300

Reasons Numbers percentage

services are near 275 92.6

CBD agent confidential 41 13.8

Other reasons 60 20.3

Most (92.6%) of the clients were of the agreement that the presence of CBD agents in the community had brought services nearer to them.

Majority (83.6%) of the clients had three or more contacts with the CBD agents before referral as shown in table 6.12.

<u>Table 6.12</u> Contacts made with CBD agents before referral

Number of contacts	Number of clients	%
1	13	4.3
2	36	12
3	60	20
>3	191	63.6

Majority of the clients perceive the health clinic staff as friendly and sympathetic table 6.13.

Table 6.13 How the clients perceive the clinic staff

How clients perceive clinic staff	Numbers	%
Friendly	200	67.8
Unfriendly	7	2.4
Sympathetic	192	65.1
Not sympathetic	10	3.4
Helpers	45	15.3
Advisors	34	11.5

As already stated above, 91% of referral clients attended the health facility following the referral.

Therefore it follows that majority of the CBD clients had a positive attitude towards CBD referral.

Objective 4

To determine the attitude of the clinic staff towards CBD client referral.

Background information.

A total of 25 clinic staff were interviewed. Thirteen of them were males while the remaining 12 were females. Their ages ranges from 26-54 years.

The cadre of staff were as follows: 12 Enrolled community nurses, 3 enrolled nurse or Midwife/Fp, 4 field educators and 5 other cadres of staff. Fourteen of these clinic staff were trained in Family Planning, 19 were CBD supervisors while only 8 were trained as CBD supervisors.

Knowledge of the CBD programme.

All the clinic staff were aware of the CBD programme. Table 6.14 shows the distribution of the clinic staff according to their knowledge on the CBD activities.

<u>Table 6.14</u> Distribution of clinic staff according to their knowledge of the CBD activities. n=25

Knowledge of CBD activities	Numbers of staff	percentage
Distribute pills	24	96
No mandatory PI Examination	25	100
Use of check list	17	68
Use of community members to issue pills	24	96

Knowledge on role of CBD.

All the clinic staff had some knowledge that the role of the CBD is to distribute pills and condoms, while 16 had knowledge that the CBD agents refer clients to the clinics.

Knowledge on role of clinic staff in the CBD programme.

All the clinic staff said that they had a role to play in the CBD programme. Nineteen said that the main role of the staff was supervision while 16 said it was managing referral clients.

<u>Table 6.15</u> Distribution of clinic staff according to their knowledge on role of staff in CBD activities.

n = 25

11-25			
Knowledge on role of staff	Numbers	percentage	
Supervise CBD agents	19	76	
Train CBD agents	12	48	
Manage Referrals of CBD agents	16	64	
Give supplies to CBD agents	9	36	

Attitude towards CBD activity

Seventeen clinic staff feel that CBD activities have reduced their work load and they can now concentrate on referral and other clinical cases.

Sixteen of the clinic staff felt that the CBD agents are competent in their work because they have been trained on how to use the check list to issue pills. While only seven felt that CBD agents should be trained on how to examine clients.

Twenty four of the clinic staff said they would give priority to CBD referral clients.

Table 6.16 show what priority the clinic staff give to the CBD referral clients.

<u>Table 6.16</u> Priority that clinic staff give to CBD clients.

Priority given	Numbers	%
Quick service	22	91.7
Attended in Private room	2	8.39
Other priority	1	4.27

From the table it can be seen that the CBD clients are attended to promptly at the clinic.

Twenty four of the clinic staff said they can identify CBD clients.

Table 6.17 How clinic staff identify CBD clients.

Means to identify	Numbers	%
CBD accompanies client	4	16.7
History from client	18	75.6
Client given a note	15	62.5

Most common ways of identification is by history from clients or through a note given to the clients by their CBD agent.

Therefore majority of the clinic staff had a positive attitude towards CBD client referral.

Objective 5.

To determine the attitude of the CBD agents towards CBD client referral-

Background information of the CBD agents.

A total of 94 CBD agents were interviewed. Their ages ranged from 22 to 64 years with a mean age of 35 years. Twenty nine (30%) were males while the rest were females. Majority (93.6%) of the CBD agents were married.

Their level of education of CBD agents was as presented in table 6.18. From this table it can be seen that more than half of the CBD agents have secondary education.

Table 6.18 Distribution of CBD agents according to level of education.

Level of education	Numbers	percentage
Primary	39	41.5
Secondary	53	56.3
Adult	2	2.2
Total	94	100

Majority of the CBD agents 87.2% were using modern methods of FP. 24.7% were using injection, 43.2% were using TL, while 22.2% were using the pill. The rest were using other FP methods.

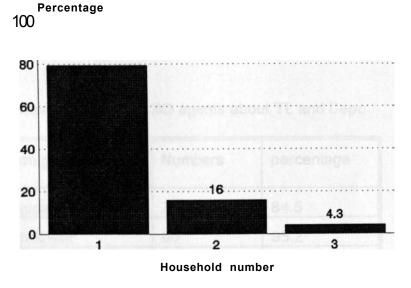
Knowledge of the CBD role.

All CBD agents knew that the role of CBD agents is to distribute pills and condoms, 96.8% of them said it is to promote FP in the community, and 59.6% said it is to refer clients to clinics.

The mean number of households covered by each CBD was 47 and majority of the CBD agents covered between 0-50 house holds. Figure 4 show distribution of CBD agents by number of household covered.

Figure 4

Distribution of CBD agents by number of households covered



1= 0-50 H/holds 2= 51-100 H/holds 3= >100 H/holds

Client referral.

All CBD agents refered clients to the clinics, 96% said they refer for Depo, 89.4% refered for TL, 89.4% refer for medical problems, 16% refer for coil and 16% refered for other reasons.

Information given by CBD agents.

Ninety (95.7%) CBD agents give some information to Depo and TL referrals about the method. 95.2% give information that TL is a permanent method, while 84.5% give information that it is a surgical procedure. Majority (90.8%)of CBD agents give information that Depo is an injection given every three months, while 60.9% inform that Depo is a temporary method table 6.19.

<u>Table 6.19</u> Information given by CBD agents about TL and Depo

Information given by CBD agent	Numbers	percentage
TL is surgical	71	84.5
TL is permanent	80	95.2
Depo is temporary	53	60.9
Depo given every three months	79	90.8

Attitude of CBD agents towards referral.

All CBD agents said that their clients go for the services they have been referred for.

When asked how they confirm this responses were as shown in table 20.

<u>Table 6.20</u> How the CBD agents would confirm that their clients did go for the referral.

How CBD confirms	Numbers	%
Follow up client at home	65	69.1
Feed back from the clinic staff	38	40.4
Client reports back to CBD	36	38.3

Most (69%) CBD agents follow up their clients at home.

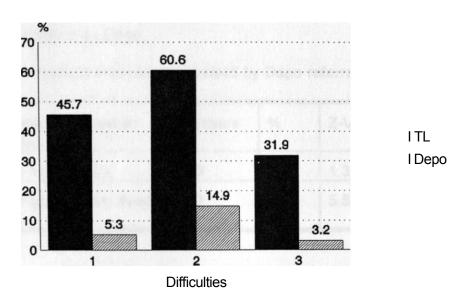
Seventy six (80.9%) of the CBD agents said they accompany clients to the health facility and introduce them to the clinic staff.

Seventy six of the CBD said they give a referral note to their referral clients.

Therefore majority of the CBD agents have a positive attitude towards CBD client referral.

When CBD agents were asked if there were any problems they had seen that may be a hinderance to the referral clients, their responses were as shown in figure 5.

Difficulties that CBD referral clients encounter



1 = services not available 2=Rumours 3=husband uncooperative

Figure 5

This figure shows that more TL referral clients encounter difficulties than Depo clients. For both TL and Depo clients the most common difficulty encountered is rumours about the method. This is much so for TL clients over 60% encounter rumours related to TL. About 45% of TL clients face unavailability of TL services compared to only 5.3% for Depo clients. Husbands are also more likely to cooperate for Depo than TL. This could be as a result of rumours associated to TL as mentioned above.

HYPOTHESIS 1.

At least 75% of CBD referrals are appropriate, and they receive appropriate information on the referral method.

Ninety five percent of the referrals were appropriate.

The appropriateness of referrals was significantly above the set value of 75% (Z = 8.12).

Appropriate information on Depo referrals.

Appropriate information given about Depo	Numbers	%	Z-Value
Depo is Temporary	100	80	1.32
Depo is given every three months	120	96	5.52

The proportion of clients who received information that Depo is a temporary method was over 75% although it was not significantly above the set value of 75% (Z = 1.32).

The proportion of those who were informed that Depo is given every three months was significantly above the set value of 75%

(Z = 5.52).

Appropriate information on TL.

<u>Table 6.22</u> TL referrals who received appropriate information on the method.

Appropriate information given about TL	Numbers	%	Z-Value
TL is surgical	106	96.4	3.5
TL is permanent	98	89.1	5.52

The proportion of clients who were informed that TL is permanent was significantly above the set value of 75% (Z = 5.25).

The proportion of clients who were informed that TL is surgical was significantly above the set value of 75% (Z = 3.5).

The appropriateness of information given was further assessed by number of contacts made to the clients before referral.

Table 6.23 Contacts made with the CBD before referral for Depo and TL clients

Contacts	Depo	TL	Total
1-3	54 (44.3%)	26 (22.6%)	80
4-5	68 (55.7%)	89 (77.4%)	157
Total	122	115	237

 $X^2 = 12.4$ P=0.0004

There was a relationship between the number of contacts made before referral to Depo and TL clients. TL clients were more likely to have had more than three contacts before referral compared to Depo clients.

HYPOTHESIS 2

At Least 75% of all referrals do attend the health facility within two months of referral.

From the results 91% of all referrals attended the health facility.

The break down on attendance by period is was shown in table 6.24.

<u>Table 6.24</u> Distribution of referral clients by period of attending at health facility.

Period of attending to health facility	Numbers	%
Less than 1 month	191	69.9
Between 1-2 months	34	12.5
Between 2-3 months	17	6.2
More than 3 months	31	11.4
Total	273	100

The majority (82.4%) of clients attended to the health facility within two months of referral. The proportion of clients who attended within two months of referral was significantly above the set value of 75% (Z = 2.84 P=0.0025).

It was found that there was a statistically significant difference in the time taken to attend to health facility between Depo and TL referrals. More (84%) Depo clients attended to the health facility within the first month of referral as compared to TL referrals (44%).

<u>Table 6.25</u> Relationship between Depo and TL clients and time taken to attend to health facility.

Time taken to	Referral clients		
attend to health	Depo	TL	Totals
0-8 weeks	113 (95%)	61 (59.8%)	174
> 8 weeks	6 (5%)	41 (40.2%)	47
Total	119 (100%)	102 (100%)	221

 $X^2 = 40.5362$ DF = 1 P value = 0.0000.

More (95%) depo clients attended within the two months compared to TL clients (59.8%). Some of the reasons given are that Depo services are easily available in the health facilities.

HYPOTHESIS 3

A least 75% of referral clients who attend the health facility receive appropriate services.

<u>Table 6.26</u> Clients who received appropriate services at the health facility.

Appropriate services given	Numbers	%	Z-value
Service on one contact	234	85	3.84
Blood pressure Exam	215	87	4.61
Received a method on attending	239	88.2	5.06

The proportion of clients who received services on one contact was significantly above the set value of 75%, the proportion of clients who received blood pressure examination was significantly above the set value of 75% and the proportion of clients who received a method at the facility was significantly above the set value of 75%.

There was no significance difference between Depo and TL clients regarding receiving service on one contact, receiving blood pressure examination or receiving a method between Depo or TL clients. But there was a significance difference in the time taken to be attended for TL and Depo clients. Most (70.3%) TL clients were attended after three hours compared to only 7.6% of Depo clients $(X^2 = 89.5 P = 0.0000)$.

Further assessment of services given was to look at the outcome of referrals for side effects. Some of these received method change while others were reassured and continued with the method (table 6.10).

Therefore the proportion of referral clients who received appropriate services upon attending to the health facility was significantly above the set value of 75%.

7. DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

7.1 DISCUSSION.

Client population

The mean age of the clients population was 33.2 years indicating mothers who were in active reproductive age. The literacy level was found to be 83.7% which is higher than the National average of 54%⁴⁰, majority (58.3%) of whom had primary education. It is limiting to generalise this finding to the general population as family planning users are already considered to be a special group. Studies have shown that FP users are more likely to be more educated than non-FP users⁵.

The mean number of children per woman was 5. Majority of clients were using modern FP methods except for a few who were not on any method, for reasons of infertility problems or post reproductive age. This was a specific group of women highly motivated for FP by the CBD agents therefore FP use is expected to be high as it can be attributed to CBD activities in the area.

Over 75% of all referrals were either for Depo or TL. This can be explained by the sample selected for study of referal clients. Factors that may contribute to the high uptake of Depo and TL include CBD being as role models, age of clients and the number of living children. In this group the mean number of living children was five therefore indicating high parity women who want longterm spacing or permanent methods. There were no referrals made for IUCD and only three clients received a coil at the health facility. This finding is similar to those of a Nyamira baseline survey³⁸ carried out in the same area three years earlier. The survey indicated a dominance of injection and pill as the main methods of family planning in the area while IUCD accounted for only 4%. Several reasons may contribute to the low uptake of IUCD among CBD referral clients, such as unavailability of necessary equipment for coil insertion at the health facility. It may also be due to the rural sample as it is known that IUCD is a method of more educated urban women of high hygiene and few sex partners³³. There may be fear of side effects associated with IUCD such as Sexually Transmitted Diseases (STDs) and ectopic Pregnancy and misconceptions about the IUCD that may have discouraged the would be users. There is also a declining popularity for IUCD nationally and the finding is in line with the trend. Provider bias may not be ruled out. An investigation on the IUCD services in the health facilities may be necessary to clarify the actual cause of low IUCD uptake in this area.

Amongst the referrals were 40 who attended to the health facility following referral for side effects, 36 received method change and four were given a second referral for specialist review. This is an indication that the CBD agents understand well when and who to refer and that the back up clinic system is supportive.

It was noted that the mean number of children per woman was higher for TL clients compared to Depo clients because TL clients generally are those who have decided to stop child bearing while as most Depo clients may continue with child bearing.

The majority of the clients were given some information about the method and tests carried out have shown that the proportion of Depo and TL clients who received appropriate information was significant. It is of great importance that clients received appropriate information from their CBD agents, as studies have shown that clients who receive appropriate information are more likely to comply with FP use ²³. It can be assumed that clients who received more contacts from their CBD agents are more likely to have received more information. On this assumption when analysis was carried out there was a statistically significant difference between the number of contacts made to Depo clients compared to TL clients. TL clients are more likely to have had more than three contacts before referral. This is an expected result because TL is irreversible and clients will need more discussions to be convinced about the method.

More intensive interaction between CBD agents and TL clients was important to give appropriate information necessary to make their decision. The intensive contact given to CBD clients shows the importance of the CBD agents in the community, since the nurse at the clinic may not have the time to do this due to many responsibilities at the clinic.

The proportion of clients who attended the health facility was 91%, and over 75% of them attended within two months of the referral. This high compliance may reflect a positive influence that CBD agents have on their clients. Studies have shown that proper interaction with the service provider encourages continuity of FP use ²⁹. Other studies have also shown that if women using FP were late for their follow up appointments by more than three months they stand a 75% chance of being exposed to a pregnancy ¹⁹. Depo clients were more likely to attend to the health facility within the first eight weeks compared to TL clients who were likely to attend after two months. This may be explained by the fact that Depo services were more available in the community than those for TL. At the time when the study was carried out the TL services available were mobile clinics carried out once a month at different sites. Therefore it was often necessary for clients to wait for a month or so until the services would be available. Some other studies from Zambia have shown that more than 75% of FP users who delay or discontinue use of FP can attribute their problems with unavailability of services or problems with the clinic service.

In this study it has been pointed out that unavailability of TL services may be a discouraging factor for the would be users¹⁹. Clients who choose a method which is not easily available within the FP programme are likely to be discouraged and may totally drop out. Alternatively, they may be forced to use other methods available, which are not of their own choice. This may be the case in this study as there were many high-parity women still using injectables although this can be a point for investigation in future studies.

The proportion of clients who received appropriate services at the health facility was above 75% which indicates supportive back-up services for the CDB programme. Since CBD programmes cannot function without supportive back-up clinics⁸ it can be a hinderance to any CBD-FP Programme if clients, once referred, cannot receive appropriate services. The services considered are an indication of the quality of services given at the health facility.

It is considered that if a referral client receives a service on the first contact it may encourage the client to comply with the referral than if a client has to come back on another day to receive the same service. In rural areas where clients sometimes have to travel long distances to health facilities it is important that clients are attended to on one contact. This leads to the next question of waiting time before service is given.

Although many factors may influence the waiting time it is an indication on the quality of services given²⁷ The majority (70.3%) of TL clients were attended to after three hours as opposed to 7.6% of Depo clients.

This is expected since the procedures for TL takes longer, and as explained earlier TL services in the area are mobile therefore the waiting time is likely to be longer because of accumulation of clients. This finding strengthens the fact that availability of TL services in the area is limited as already stated above.

Once a client has been attended, receiving an appropriate method is vital for the client's satisfaction. In this case a method was given to over 75% of clients and this was considered satisfactory. Only 22% of the clients did not receive any form of method. Some clients were pregnant at the time they attended the clinic while others needed further assessment due to medical problems. Over 75% of clients received a blood pressure examination and this was considered satisfactory. It is expected that all clients who attended the health facility should receive a blood pressure examination yet this may not be the case as some of the health facilities may not have access to proper equipment for examination.

The majority (78%) of CBD clients perceived the CBD agents as a friend and some 50% perceive the agent as an advisor. Most of the clients also perceived the clinic staff as friendly and sympathetic. Although 61.7% of the referrals were initiated by the CBD agent

87% of clients said that they needed more information from the CBD agent before deciding to go for a referral. These findings indicate a positive attitude of CBD clients towards the agents. This means that the clients are more free to discuss their FP problems with the agents without fear, something which may not be attained by the busy clinic staff.

These findings agree with Muindi's study observing that CBD agents spend more time with their clients and therefore are more likely to make less errors when indicating or contraindicating for the pill¹⁴. The CBD agent appears to be the first hand information source and this can determine whether the client will comply with the referral or not. The majority (92%) of the CBD clients felt that the CBD activities needed to continue within the community because the services are brought neaerer to them. Again this is a positive opinion given by a majority of clients about the CBD activities, and therefore it appears that the FP needs of most of these clients are being met. If this is the case, then it can be generalised that the CBD activities in the project area as an extension service of the PHC approach is reaching the people in need ³. Clients feelings towards the service and to service providers have an influence on compliance and continuation^{29,30}.

It is likely that if clients can have a positive attitude then their use of and compliance with contraceptives will be high.

Clinic Staff.

Only 25 clinic staff were interviewed. All were aware of the CBD programme in their area and felt that they all had a role to play. The majority (17) identified their main role as supervising the CBD agents. Since most of the clinic staff felt the CBD activities had reduced their work-load and they can now spend more time attending to other complicated cases and referrals, this represents a positive attitude of the clinic staff towards the CBD activities. The clinic staff have appreciated the role of the CBD agents as not only vital in extension of FP services to the community but also as a helping hand that has made their work at the clinic lighter. This means that the CBD activities would receive necessary support from the clinic staff.

Sixteen clinic staff felt that CBD agents are competent in their work because they have been trained on how to issue pills and how to refer clients. Most of the clinic staff (22) said they give quick service to CBD referral clients so that they do not have to wait on the line. This is a positive action as a result of a positive attitude of the staff towards CBD clients. The fact that a CBD client will be given priority at the clinic facilitates and increases compliance of referral, because clients now know they do not have to wait very long to be attended at the clinic. These findings indicate a caring attitude on the part of clinic staff towards the CBD clients.

CBD agents

i

A total of 94 CBD agents were interviewed. This comprised about 10% of all CBD agents in the GTZ-DFH project in Nyamira District. Their mean age was 35 years, and the majority (56.3%) of the CBD agents had secondary education. The CBD agents had been selected by the community and are required to have some form of education therefore this finding reflects the criteria for selection of the CBD.

Most (87%) of the CBD agents or patners were using modern methods of contraceptives and 43% of these were using TL. The rest who were not on any method were either beyond reproductive age or widows. The mean period they had worked as CBD agents was 25 months. The mean size of households served by the CBD agent was 47 with a range of 5 to 200 households. This finding reflects the model of the project, where the emphasis is on small coverage areas about 40 house-holds for a CBD agent with more intensive follow up. This concentrates on continuity of use as opposed to volume of acceptors.

All CBD agents refered clients to the clinics, and they felt that their clients go for the referral and that they receive the services they have been referred for. A number of CBD agents refered their clients verbally without necessarily indicating this in their records. This may give an impression that few referrals are made when the real reason is poor record-

keeping. Most (69%) of the CBD agents follow their clients at home to confirm that they have gone for the referral and 40% visit the clinic for the feed back. Studies done in Botswana have shown that there is a positive correlation between home visiting and compliance with follow up health care, and that it is an important procedure which has added additional acceptors and contributed to a higher continuation rate⁴¹. The findings in this study agrees with the cited above because the active home visits by the CBD agents results in high compliance to referral.

Some 46% of the agents felt that TL services are not easily available for their clients and pose a major hindrance in their work. About 80% of CBD agents have, at some time, accompanied a client to the health facility and at times provided the clients with transport money. These findings indicate the commitment that CBD agents have towards their clients. Most (60%) of the CBD agents cited rumours about TL as a major hinderance for the would be users. This is a very useful finding because belief in rumours may be a deterrent to use of FP²⁴.

Population and Health services Programme (PHS).

Finally this discussion will not be complete without pointing out the role of the Population and Health Services Programme.

It had become apparent from the project that women who requested for TL were unable to get the services since the District Hospital did not have the necessary resources to provide a VSC service.

A mounting unmet need was therefore being created. To meet this need arrangements were made between the Nyamira DHMT, GTZ and the PHS programme to have mobile outreach TL services carried out once a month at different parts of the Districts. This started from the month of September 1993 six months prior to the onset of this study at Ekerenyo, Ting'a and Keroka.

Records available From the GTZ-DFH show that TL referrals were much lower before the intervention programme, a total of 130 TL referrals were recorded between January - July 1993. After the intervention in September a total of 463 referrals for TL were reported between September 1993 - February 1994. This confirms the unmet need that was present in the area.

Reports from the PHS programme show the following number of TL procedures performed some months after the initiation of the programme:

		Numbers
September	1993	29
October		142
December		164

February	1994	96
March	n	139
April	Н	68
May	Н	33
•		
Total		671

Findings from this study show that the majority (90%) of the TL referrals received the services at the centres where mobile clinics are situated, reflecting the result of the intervention programme. It is evident that the intervention programme influenced the numbers of TL referrals recorded and perhaps this would have not been the case if the survey was carried out before the intervention. The programme also shortened the period that TL clients had to wait before they received services. Although the study indicates that most TL clients had to wait for two months to get service at the mobile clinic this period would have been much longer if the intervention was not present. This is because the there were no TL services available in the District. It is recommended that similar surveys should be carried out in other project areas where the intervention has not been effected so as to assess the nature of referrals because findings from this study suggest that the nature of referrals in any CBD project will depend on the type of referral services available.

L2 <u>CONCLUSIONS</u>:

The study brought out the following.

i. CBD agents are able to make appropriate referrals and give appropriate information about the referral.

The vast majority of referrals made by CBD agents were for injectables and tubal ligation.

- iii. Although they were effective, some referrals were made orally and not recorded in the diaries. This gives a false impression that there are few CBD referrals in the area.
- iv. The compliance for referral is high and this may be a result of a positive attitude and the commitment by the clients and the service providers to the CBD programme.
- iv. There is a supportive effort by the health facilities to facilitate effective CBD referrals in the area. Clients, clinic staff, and CBD agents are positive about the CBD activities as they offer extension services to a community in need.
- v. Unavailability of TL services coupled with the many rumours about the method deters some potential clients. No major problems were observed with Depo referral

services and they are easily available in this area.

Although clinic staff working with the CBD agents are supportive the majority are not trained in CBD activities and they may not be fully aware of the rationale behind the CBD programme.

In general the CBD referral service in Nyamira is operational and satisfactory although improvements are needed to increase its effectiveness. Some of the areas identified in this study that may have resulted in the success of the project include:

- a. The small coverage target of about 40 house holds per CBD agent makes it possible for closer interaction and active follow up between the clients and the CBD agents.
- b. Since the CBD agents are selected by the local community, the CBD agents feel they have an obligation to the community.
- c. There is close linkage with the local health facilities as supportive backups for the CBD programme and cooperation between clinic staff and CBD workers facilitates smooth running of the referral service.

RECOMMENDATIONS:

i

The following recommendations are made:

The Nyamira CBD project should focus on the following areas:

- There is need to have regular refresher training and update of the CBD agents, this will remind them of the practical work of the CBD agent and update them on new developments. It is recommended that CBD agents should be provided with standardised referral slips to facilitate proper record keeping.
- ii. Although mobile services for TL are offered in the area there is still a need to maintain TL services. Many referrals for TL face unavailability of services because the few available mobile services cause delay as clients have to wait for the time when the clinic will be available.
- iii. An investigation of the health facilities for the possible causes of low referrals for IUCD in this area may be necessary.
- iv. Similar studies need to be carried out in other Projects where the intervention programme for TL services is not present to determine the nature of the referrals.
- iv. The CBD model in this project may be extended to other Districts with similar FP needs.

There is need to carry out a comparative study on impact evaluation of a diferrent CBD Model as opposed to the one in the Study project. This will help to identify the strengths and weaknesses of different CBD models.

REFERENCES.

WHO Report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978.

Rosenfield, A. Non clinical distribution of the pill in developing world, <u>International family planning perspective</u>. December 1990, 6 (4).

Askew, I. and Khan, A.R. Community participation in National Family Planning Programmes, Examination of critical issues, Studies in Family Planning. May/June 1990, 21 (3).

Oakley, P. An Examination of the issues, community involvement in Health Development, WHO Geneva 1989.

Population Reports, Community Based Health and Family Planning, L-3, November-December 1982.

Manisoff, M.T.and R.N. Family Planning . A Teaching Guide for Nurses. Planned Parenthood - World Population 1969, New York Fourth Edition 1973.

Nkya, L.S. Modern Family Planning, Knowledge, attitudes and practice and characteristics of contraceptive drop outs in Tanzania. A study of women in child bearing age in Morogoro Region. Dissertation submitted for the degree of Masters of Public Health of the University of Nairobi September 1990.

Centre for population and Health. Bringing Family planning to the people; A Conference on community based distribution and alternative delivery systems in Africa, proceedings report, Harare Zimbambwe November 1986.

Republic of Kenya Development plan 1966-1970, Government press.

- 10. Ominde, S.H. Kenya's population growth and development to the year 2QQQ. Heinmann Kenya Ltd Nairobi in Association, James Currey London and Ohio University Press, Athens 1990.
- 11. Keyenzo, K. and Lewis. An Evaluation of family planning Association of Kenya, Community based distribution pilot project 1989.
- 12. Keyonzo, N. A preliminary review of three community based distribution programmes in rural Kenya, july 1984.
- 13. Janowittz, B. Knowledge and practice of Community based distribution agents in Honduras, <u>Boitin de la Qfinica Sanitaria pana Americana</u>. July 1986 101(1). pp 48-57.
- Muindi, F.N. The safety of Community based distribution of oral contraceptives in Rural Kenya. A dissertation submitted for the degree of Master of Public Health in the University of Nairobi 1992.
 - 15. Muia, E. A study to assess the impact of CBD in Rural Kenya. University of Nairobi Department of community Health, MPH thesis 1985.
 - 16. Muriithi, G.K. <u>A comparative study of CBD and integrated</u>

 <u>Maternal Child Health/FP programmes in two communities in</u>

 <u>Meru Kenya</u>. University of Nairobi, Department of Community

 Health, MPH thesis 1989.
 - 17. Sai, F. Medical Back up for CBD Programmes, Seminar workshop on the Role of Family planning association clinics in relation to community based FP services, IPPF East and S.E. Asia Manilla 1975.
 - 18. Population council Africa OR/TA project. CBD Policy guidelines workshop Report, Silver Springs Hotel Nairobi, Kenya. August 1990 (Updated in May 1991).
 - 19. Bruce Judith. Fundamental elements of the quality of care; A simple framework. <u>Studies in Family Planning</u>. 1990, 21 (2). pp 61-91.
 - 20. Simmons Ruth. Discussions at the Second meeting of Quality of care advisory committee to the population council. New

York April 1987.

i

- 21. Bair, W.D. Astawal, I.B. and Sudarmadi, D. Evaluation of villages Family Planning Programme, USAID Indonesia Project 497-0327. Report No 86-099-056 Arlington Popultion Technical Institute 1987.
- 22. Donabedian, Avedis. The quality of care, how can it be assessed?, <u>Jornal of American Medical Association</u>. 1988 260 (12).
- 23. Kreager, Philiph. Family Planning drop-outs considered, a critical review of research and research findings,
 International Planned Parenthood Federation, London 1977.
- 24. Keller, Alan. Patient attrition in five Mexico city Family Planning clinics, in-clinics contraception and communication. Ed. J. Mayone Stycos, Des Moines Meredith Corparation; pp 25-50.
- 25. Simmons, Ruth. Baqee, L. Koenig, M.A.and Phillips, J. Beyond supply the importance of female Family Planning workers in Rural Bangladesh, Studies in Family Planning. 1988 19 (1). pp 29-38.
- 26. Rupetto, Robert. Correlates of field worker performance in Indonesia Family Planning Programme, A test of homophylyheterophyly hypothesis, <u>Studies in Family Planning</u>. 1977, 8 (1). pp 19-21.
- 27. Anrudh, Jain. Fertility reduction and quality of Family planning services, <u>Studies in Family Planning</u>. 1989, 20 (1). pp 1-16.
- 28. Kaufman, J. Zhirong, Z. Xinjian, Q. and Yang, Z. The quality of family planning services in Rural China, Studifis in Family Planning. 1992, 23 (2). pp 85-96.
- 29. Ferguson, Alan. Family planning adoption change and discontinuation; A retrospective study from two rural areas of Kenya, GTZ-Family planning support unit, Division of Family Health, Ministry of Health 1991.

- Rahman, M. Mosley, W.H. Khan, A.R. Chowdhury, A.T. and Chakroborty, J. Contraceptive distribution in Bangladesh some lessons learned, <u>Studies in Family planning</u>. 1977, 6 (11). pp 191-212.
- 31. Cerdic, P.W. Waife, R.S. and Holtrop, R.H.

 The Health Providers' guide to contraception, The Pathfinder
 Fund Boston 1983.
- 32. Soyadi, A. Primary care in village, an approach to village self-help Health Programmes, <u>Tropical Doctor</u>. July 1977, 7. pp 123-128.
- 33. Family Planning Policy Guidelines and Standards for Service Providers, The Family planning Programme Division of Family Health, Ministry of health Government of Kenya 1991.
- 34. FPAK Community Based Distribution Evaluation Report February 1993. Family Planning Management Development, Supported by U.S Agency for International Development.
- 35. The Nyamira CBD Project Monthly reports, Jan-may 1993. DFH-GTZ Support Unit.
- 36. The Nyamira District Annual Report 1990, District Health Management Team Nyamira, MOH.
- 37. The Kisii District Development Plan 1989-1993.
- 38. Fergurson, A. The Nyamira Baseline Survey, GTZ-FP Support Unit, Division of Family Health 1990.
- 39. The Kenya Demographic and Health Survey 1989. The National Council of Population and Development.
- 40. Kenya Rural Literacy Survey 1988, Central Beareau of Statistics.
- 41. Stephes, Betsy. Programme Implications for Discontinuation, The Botswana Family Planning Follow up Study, PATH paper No.3 Boston Pathfinder Publication 1978.

ANNEX 1-WORKING DEFINITIONS.

The family planning CBD referral.

Many CBD agents will need to refer clients to see a doctor or a nurse, the most commonly referred clients include, those who choose a contraceptive method not available at the CBD service, that is outside (pills, condoms, and foaming tablets). Pill clients who may need physical examination, clients with side effects, and clients with any medical problems. Often clients may be referred to the health centre and do not go for their appointments, mainly due to ineffective referral. For example clients may not be sure when the health centre is open, or when the client cannot tell what she was referred for. The CBD thus plays an important role in making the referral successful. Example issuing a referral letter, helping the client to get to the referral centre, and following up the client to ensure that she got the referral service.

The procedures for referral.

- 1. The CBD agent should inform the client reason for referral.
- 2. If she is a client a client for family planning she should be given back up family planning methods like condoms.
- The CBD agent should complete a referral letter and give a copy to the client to take to the nurse.
- 4. Explain to the client how to find the health centre.
- 5. Ask the client to return to see her after visiting the clinic.
- 6. There should be a home visit for the client if failure to turn up after the referral.
- 7. CBD agent may accompany the client to the health centre.

Definition of an effective referral.

In this study an effective referral shall be considered to be a client who is referred to the clinic, went for and got the service and is currently being followed up or on a method.

Measurements of quality of referral.

In this study the measurements of quality will include the information given to the client on the referral. This will include the accuracy of the information as established from the client. The time taken for the client to get the service from the referral centre and the effect of the referral. Did the client receive the method of referral or any other effect as a result of the referral.

ANNEX 2- QUESTIONNAIRE FOR THE CBD CLIENT.

Instructions.

- 1. Tick appropriate answers. 2 Do not omit any item on the Questionnaire. 3. Fill in information as accurate as possible. PART 1. Identification. 1. Serial number 2. Interviewer 3. Date 4. Health centre / Dispensary Name_ 5. CBD agent number / Name_ 6. Respondent's name_ 7. Have you ever been referred by the CBD agent to any Health Facility? 2-No (If No Stop) (If Yes continue) PART 2 Demographic data. Date of birth mm____yy____/^A9e-Q1. Q2. Did you ever go to school? 1- Yes 2- No
 - Q3. What is the highiest level of education you have attained?

(If No go to Q.4)

	1	std 1-6	4	Forms	3-4	
	2	std 7-8	5	Above	form 4	
	3	Forms 1-2	6	Othe	ers	
Q4.	Marita	I status				
		er married 2-C arated/ divorced		-		
Q5.	Religion 1-Rom	on. nan catholic 2-	SDA (S	Seveth D	av) 3-Lutheran	
		tecostal 4-Mus	•		• •	
Q6. H	low mai	ny living childrer	n do yo	ou have?		
07 0	ata of l	birth of younges	t abild	mm	N 04	
Q1. L	ale or i	onth of younges	t Gillia,		у у.	
PAR1	Г 3					
<u>Famil</u>	ly plann	ning history.				
Q1. A		currently using				
	1-Ye	s 2-No	(If No C	3o to Q.4	1)	
Q2.	If yes	, which method	of cont	raception	n are you using?	
	1	The pill	4_	TL	(VSC)	
	2	Injectible (De	po)	5	_Condoms /Foaming tab	olets

	3	Coil (IUCD) 6Others	
Q 3.		where did you get the current method? alth facility 2-CBD agent 3-Shop er	
Q4.	Have	e you ever been visted by the CBD agent fo	or Family Planning?
	1-Yes	s 2-No	
Q5.	If yes, fo	for how long have you been served with the	e CBD agent?
Q 6.	When w	were you referred by the CBD agent to the	Health Facility?
	wk	yy <u>.</u>	
Q7.		what reasons were you referred? Vhere applicable)	
	1	Physical examination	
	2	For injection (Depo)	
	3	Surgical (TL)	
	4	Do not know	
	5	Medical Problems, Specify	
	6	Others specify_	

1 - t	he clie	s it that initiated about the referral? nt herself 2- the CBD agent rs• L	_J
	(For 2	and 3 above Go to Q 10.)	
	•		
	-	ossible for you to go the clinic directly, why did you decide to go the CE (Tick where applicable)	3D
	1	because the CBD agent acompanies me to the clinic	
	2	because the CBD agent gives me a letter to the clinic	
	3	I wanted more information from the CBD agent	
	4	Others _	
	(Q10.	and Q11. Applies for TL and Depo Injection referrals)	
Q10.	Was a	any information about the method given to you by the CBD agent? es 2-No (If No, GotoQ12.)	_
Q11.	If Yes	, what was the information about?	
A. Depo (Injection) (Tick where applicable, Probe if necessary)			
	1	It is a temporaly method	
	2	It is an injection given every three months	
	3	Others specify_	
B. TL	<u>Method</u>		
	1	It is surgical	
	2	It is permanent and irreversible	
	3	Others specify_	

Q12. Did you go for the referral? 1-Yes 2-No (If Yes Go to Q14.) Q13. If No why?... (Then go to Q25.) Q14. If yes, when did you go for the referral? 1- Within that same month 2- One month later 3- Two months later 4- More than three months later ΙU Q15. With whom did you go to the referral center? 1-Alone 2- With spouse 3- With CBD agent 4- With friend 5-Others specify (Q16. applies to 3- above) Q16. Did the agent introduce you to the staff at the referral centre? 1-Yes 2-No Q17. Atthe Health Facility, did you receive the service on the same day? No (If Yes, Go Q19.) Q18. If No, did you receive the service on any other day? 1-Yes 2-No (If NO, Go to Q25.) ho attended at the Health Facility? be attended Q19. If Yes, for how long did you have to wart 1- Less than an hour 2- one-two hours

	3- two to three 4- more than three hours
Q20.	At the Health Facility did you have a physical examination done? 1-Yes 2-No (If No, GO to Q22.)
Q21.	If Yes, what kind of physical examination was done? (Tick where applicable)
1	Blood pressure 4Blood pressure and weight
2	Weigth 5All of the above
3	Pelvic Examination 6Others
	(Q22 Q23. and Q24. applies for Depo and TL referral clients)
Q22.	Was a method given to you at the health facility? 1-Yes 2-No (If No, Go to Q24.)
Q23.	If yes, which method was given to you at the health facility?
	1- Pill 2-the Coil
	3- Depo injection 4-TL 5- others

Q24. If No, what are the reasons given?

Q25. How many contacts did you have with the CBD agent before you were referred?
1- One contact 2- Two contacts 3-Three contacts
4- More than three contacts
ILI
Q26. How would you describe the CBD agent? (Probe If necessary)
1 - a friend 2- a neighbour 3- a worker
4-community leader 5- Others
Q27. How would you describe the clinic staff? (Probe If necessary)
1-friendly 2-unfriendly 3-sympathetic
4- not symphathetic 5- Others
Q28. Do you like having somebody in the community who can supply contraceptives? 1-Yes 2-No
Q29. If Yes, Give reasons for the answer above?
1- The services are easily available at the community level
2- The services are closer to the people
3- The people offering these services are friendly and confidential
95

4- Others

Q30. If NO, give reasons

(Q31. and Q32. are for TL and Depo referrals)

Q31. Is there anything that you have found discouraging with the CBD referral service for either TL or Depo?

1- Yes 2-No

U

- Q32. If yes, give reasons. (Tick where applicable)
 - 1 TL or Depo services are not easily accesible in the community
 - 2 There have been many roumours about TL or Depo
 - 3 Difficult for the husbands to cooperate for TL or Depo
 - 4 Others

ANNEX 3- QUESTIONNAIRE FOR CLINIC STAFF.

Part 1 Identification.
Q1. Serial number/ Date
Q2. Interviewer
Q3. Name of health facility
Q4. Respondent's name
Part 2 Background Information.
Q1. Date of birthmmyy / Age
Q2. What cadre of staff are you? 1-Clinical officer 2-community nurse 3- Enrolled nurse 4-Field educator 5- others specify
Q3. Have you had any training in family planning? 1- Yes 2-No
Q4. Are you a CBD supervisor? 1-Yes 2-No
Part 3 The CBD-FP service.
Q1. Are you aware of the CBD-FP programme in your area?

1-Yes 2-No

Q2. Do you know any CBD agent in your service area?

1-Yes 2-No

- Q3. Can you describe the CBD service as you understand it. (tick where applicable)
 - 1 Distribution of low dose pills, condoms and foaming tablets
 - 2 There is no mandatory physical examination done
 - 3 Use of check list to issue pills or refer clients
 - 4 Community members are trained to give family planning
 - 5 Others
- Q4. What should be the major role(s) of the CBD agent?

(tick where appropriate)

- 1 to promote family planning in the community
- 2 to distribute pills and condoms at the community
- 3 to refer clients to clinics
- 4 to follow up clients in the community
- 5 others
- Q5. Do the health clinic staff have any role in the CBD programe?
 - 1-Yes 2-No (If No, Go to Q7.)

Q6. If yes, what is the role of the Health clinic staff in the CBD

programe?

(tick where appropriate)

- 1 to supervise and advice CBD agents
- 2 to train CBD agents
- 3 to manage referral clients of the CBD agents
- 4 give supplies and materials to the CBD agents
- 5 others (secify)
- Q7. In your opinion have the CBD activities increased your work load?
 - 1-Yes 2-No 3- Dont know (If No, Go to Q9.)
- Q8. If yes explain your answer above, (tick where applicable)
 - More clients are comming to the health facility for FP
 - 2 More time is spent to supervise CBD agents
 - 3 there is time spent on writing reports on CBD activities
 - 4 Others specify
- Q9. If the answer is NO to Q.7 give reasons (tick where applicabe)
 - 1 Very few Pill clients are coming to the health facility
 - 2 Fewer condoms are now given at the health facility

	What is the main reason(s) for referral from the CBD clients? k where applicable)
	1For Injection (depo) 2for TL 3IUCD (coil)
	4 medical problems
	5 for clinical examination before pills
	6 Others (Specify)
	What are the types of medical problems associated with methods which mmonly referred? (Tick where applicable)
	1Excessive menstral bleeding 2Backache
	3Headache 4Dizziness
	5others
Q12.	Do you think that CBD agents are currently sufficient in providing the servises they are handling at the community?.
	1- Yes 2-No (If Yes Goto Q14.)
Q13.	If NO, give reasons. (Then Go to Q17.)

Only referred clients are seen at the health facility

3

4

Others specify

IF THE ANSWER IS YES TO Q.12. PROCEED AS BELLOW

Q14. Are you aware that CBD workers provide pills to clients without a mandatory physical examination?

1- Yes 2-NO

[...]

Q15. Do you have any doubts in CBD providing pills without physical examination?

1- Yes 2-No

[....]

Q16. Explain your answer

j

Q17. Can you identify if a client is referred by a CBD worker?

1- Yes 2-No (If No, Goto Q21.)

Q18. If Yes, how do you tell? (tick where applicable)

- 1 The CBD worker accompanies the client
- 2 History from the client
- 3 The client is given a note by the CBD worker
- 4 Others specify

Q19. Do you treat the CBD referral clients as priority?

1- Yes 2- No (If No Goto Q21.)

- Q20. If Yes, explain (tick where applicable)
 - 1- They are given quick service
 - 2- They do not queue with the other patients
 - 3- Given privacy in a room
 - 4- Others
- Q21. Have the CBD activities in your area increased the use of Family

planning?

1 - Yes 2- No 3- Dont know

- Q22. If Yes give reasons (Tick where applicable)
 - 1 The number of women using FP has increased according to clinic attendance
 - 2 The supplies for FP have increased
 - 3 There are more clients of Injectibles
 - 4 Others specify

ANNEX 4- QUETIONNA1RE FOR THE CBD AGENT.

	Part 1 Identification	
Q1.	Serial number/ Date	
Q2.	Interviewer	
Q3.	Name of Health Facility	
	Part 2 Demographic Data	
Q4.	Name of CBD worker	
Q5.	CBD number	
Q6.	Date of birthmmyy / Age	
Q7.	. Sex 1-male 2-Female .	
Q8	. Marital status: 1-Married 2-single 3-widowed	
	4-Divorced /separated 5-others	
		L
Q9). What standard of education did you complete?	
	1-No formal education 2-Std 1-6 3-Std 7-8	
	4-Form 1-2 5-form 3-4 6-Others,	
O	10. Are you or your spouce currently using a Mordern Family Planning method	?

Q11.	If Yes,	Which Met	hod a	re you cur	retly using	?		
	1	The Pill	4	TL (√SC)			
	2	Injectible (Depo)	5C	ondoms/ I	oaming	tablets	
	3	Coil (IUCD))	6Ot	ners <u></u>			
	THE (CBD REFE	RRAL					
Q12.	When	were you se	lected	as a CBD	agent?_	mm	1	уу.
Q13.	What	is the major			vorker?			
1	To dis	stribute pills	and c	ondoms ir	the comr	nunity		
2	To ref	er clients fo	r TL a	nd injectio	n (Depo)			
3	Inform	n and Promo	ote fan	nily planniı	ng in the o	communit	y	
4	motiva	ate mothers	to im	nunize the	ir childrer	1		
5	Other	s specify_						
Q14.	Abou	t how many	house	holds are	you expe	ected to c	over in y	our area?
("	Ekenyo	ro" is about	50 H	ouse holds	()			
Q15.	Do yo	u refer client	s to th	ne health f	acility?			
	1-Ye	s 2-No	(IfYe	s Goto Q	17.)			

1-Yes 2-No

Q16. If No, give reasons... (Then Stop)

If Yes. to Q15. proceed as bellow

Q17. For what reasons do you refer clients?

(tick where applicable)

- 1 for physical examination
- 2 for injection (Depo)
- 3 for the coil (IUCD)
- 4 surgical (TL)
- 5 medical problems, Specify
- 6 Others specify
- Q18. Do you give any information to the clients of TL and Depo

during the referral?

1-Yes 2-No (If No, Go to Q20.)

Q19. If Yes, what information do you give?

A. about TL (tick where applicable)

- 1 it is a permanent method and you cannot have more children
- 2 it cannot be reversed
- 3 it is surgical

4____Others specify.

B. About Depo (tick where applicable")

- 1 It is temporary, you can stop it if you want more children
- 2 It is an injection given every three months
- 3 Others specify
- Q20. Do you think that the clients that you have referred usually go for services? 1-Yes 2-No. (If Yes, Go to Q22.)
- Q21. If No, Give Reasons (Then Go to Q25.)
- Q22. If Yes, do you think they get the services that they been referred for? 1-Yes 2-No (If Yes Go,to Q24.)
- Q23. If No, Give reasons
- Q24. If yes, how would you know that they have gotten the service?

 (tick where applicable)
 - 1. I get feedback report from the clinic staff
 - 2. By following up the client at home
 - 3. The client reports back to me
 - 4. Others specify

Q25.	Do you	usually accompany referral clients to the health facility?		
	1-Yes	2-No		
			L	_
Q26.	If yes, d	lo you introduce the clients to the staff?		
	1-yes	2-No		

Q27. Do you ever give a referral note to the client?

1-Yes 2-No

Q28. What do you think is the major problem(s) that you face as CBD workers in the referral service for TL or Depo clients?

(tick where applicable)

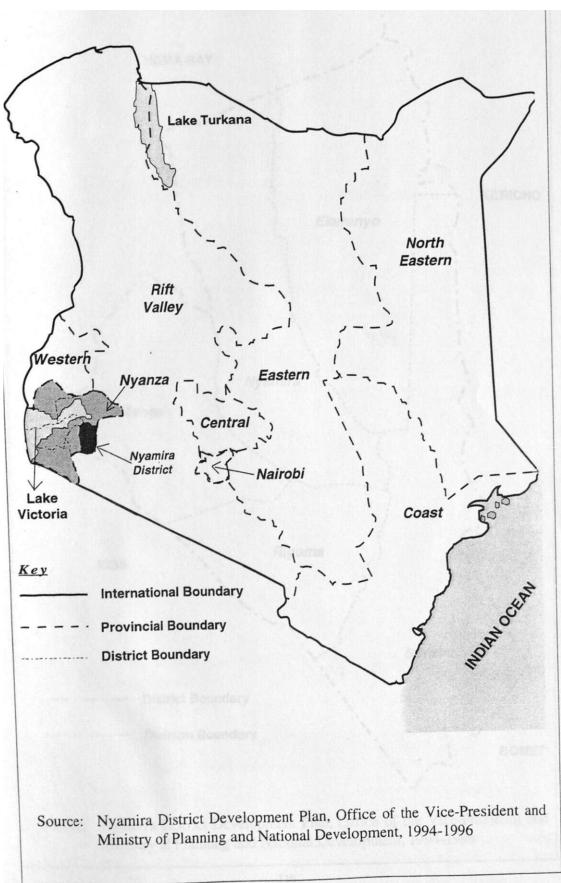
		TL(VSC)	DEPO
1- No major Problems			
2-Services are Not Easily	available		
3- Many roumours about the	method		
4- Difficult for husbands to	cooperate		
5- Others specify			

ANNEX 5-INFORMED VFRRAI CONSENT.

Having satisfactorily understood the purpose of this study, I hereby voluntarily agree to give all necesary information about myself and answer all other questions that may be asked.

Name of client I Agent	IOR Staff.
Signature of interviewe	er:
OR	
Signature of the Staff	_
Date:	

MAP 1: LOCATION OF NYAMIRA DISTRICT

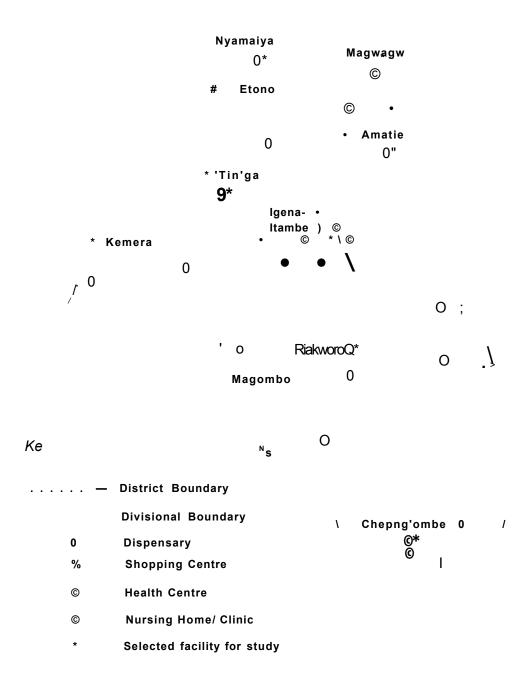


MAP 2: NYAMIRA DISTRICT ADMINISTRATIVE BOUNDARIES

HOMA BAY		i	
	Ekerenyo		KERICHO
Manga	Nyamira		
KISII	Rigoma		·
Diotriot Roun	don.	Borabu	
District Bound			
Division Bou	ndary	\	BOMET

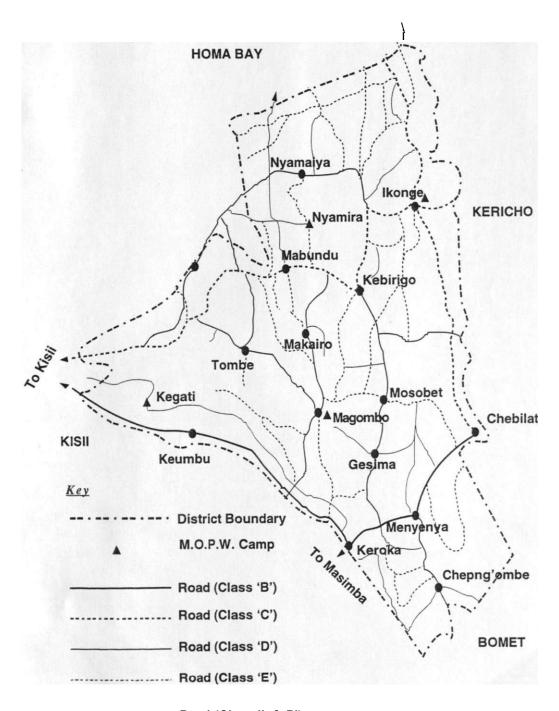
Source: Nyamira District Development Plan, Office of the Vice-President and Ministry of Planning and National Development, 1994-1996

MAP 3: DISTRIBUTION OF HEALTH FACILITIES IN NYAMIRA DISTRICT



Source: Nyamira District Development Plan, Office of the Vice-President and Ministry of Planning and National Development, 1994-1996

MAP 4: COMMUNICATION IN NYAMIRA DISTRICT



Road (Class 'L & R')

Source: Nyamira District Development Plan, Office of the Vice-President and Ministry of Planning and National Development, 1994-1996