ACCESS TO FAMILY PLANNING SERVICES IN RURAL TANZANIA

FLORA KESSY

JULY 2016



Special Paper 16/3

Publisher for:	REPOA
	P.O. Box 33223, Dar es Salaam, Tanzania
	157 Migombani Street, Regent Estate
	Tel: +255 (0) 22 2700083/2772556
	Fax:+255 (0) 22 2775738
	Email: repoa@repoa.or.tz
Design:	Formatted by GJM
Key Words:	
Special Paper 16/3	Dar es Salaam, REPOA
Special Faper 10/3, L	oai es Galaalli, NEF OA
@REPOA, 2016	
	o Part of this publication may be reproduced or transmitted in any form or

by any means without the written permission of the copyright holder or the publisher.

TABLE OF CONTENTS

TAE	BLE OF	CON	ITENTS	iii
LIS	T OF T	ABLE	S	v
LIS	T OF F	IGURI	ES	vi
ABE	BREVIA	ATION	S AND ACRONYMS	vii
AC	KNOWI	_EDG	EMENTS	viii
ABS	STRAC	T		ix
1.0			RODUCTION	
2.0			ERATURE REVIEW AND CONCEPTUAL FRAMEWORK	
	2.1	•	roductive Health Policies	
	2.2	Con	traceptive Use in Tanzania	5
	2.3		erminants of Family Planning Use	
	2.3.	1	Demand Side Factors	6
	2.3.	2	Supply Side Factors	7
	2.4	Fam	nily Planning and Maternal Health	8
	2.5	Con	ceptual Framework	9
3.0		MET	THODOLOGY	12
	3.1	The	Study Area and the Sample	12
	3.2	Data	a Collection Instruments	13
	3.3	Data	a Analysis	13
	3.4	Ethic	cal Considerations	14
4.0		FIN	DINGS AND DISCUSSION	15
	4.1	Qua	lity of Care of Family Planning Services	15
	4.1.	1	Choice of Methods of Family Planning Services	15
	4.1.	2	Information Given to Clients	16
	4.1.	3	Technical Competence	19
	4.1.	4	Interpersonal Relations	23
	4.1.	5	Mechanisms to Encourage Continuity	24
	4.1.	6	Appropriate Constellation of Services	25
	4.2	Acce	essibility and Affordability of Family Planning Services	25
	4.3	Acce	eptability of Family Planning Services	27
	4.4	Exte	ending Family Planning Services to Couples	27

5.0	CONCLUSIONS AND IMPLICATIONS FOR POLICY AND PRACTICE	29
REFERE	ENCES	32
	ES	
Ar	nnex 1: Indicators for Measuring Quality of Care of Family Planning Services	37
Ar	nnex 2: Statistical Tests Results	39

LIST OF TABLES

Table 1:	Trends in Unmet Needs and Demand for Family Planning Methods	6
Table 2:	The 5 As	11
Table 3:	Choice of Family Planning Methods	16
Table 4:	Information Given to Clients	17
Table 5:	Technical Competence	19

LIST OF FIGURES

Figure 1: Causes of Maternal Deaths in Tanzania	9
Figure 2: Framework of Access to Family Planning Services	10

ABBREVIATIONS AND ACRONYMS

ANC Antenatal Care

BEmOC Basic Emergency Obstetric Care

CBDs Community-Based Distributors

CPR Contraceptive Prevalence Rate

FGDs Focus Group Discussions

IEC Information, Education, and Communication

IPTp Intermittent Presumptive Treatment (for pregnant women)

IUCD Intra Uterine Contraceptive Device

KI Key Informants

MCH Maternal and Child Health

MMR Maternal Mortality Ratio

MoHSW Ministry of Health and Social Welfare

PAC Post-Abortion Care

PSI Population Services International

RCH Reproductive and Child Health

SARA Service Availability and Readiness Assessment

STIs Sexually Transmitted Infections

TDHS Tanzania Demographic and Health Survey

TFR Total Fertility Rate

TRCHS Tanzania Reproductive and Child Health Survey

TSPA Tanzania Service Provision Assessment

TT Tetanus Toxoid

URT United Republic of Tanzania

ACKNOWLEDGEMENTS

The author wishes to extend appreciation to the research assistants, Yoswe Msongwe, Christopher Mshana, Elihaika Lucas, and Beatrice Bilikwija, who participated in data collection in the two case study districts (Misungwi and Ukerewe). Appreciation also goes to Samwel Kessy and Mackfallen Anasel, who assisted in data management and analysis. The author is also grateful to the many people who participated in the focus group discussions and exit interviews at the health facilities, as well as health officials and executives from the non-governmental organizations who were the key informants for the study.

Finally, the author acknowledges receipt of useful comments from one anonymous reviewer and REPOA's Publication Committee members. The comments were useful in sharpening some of the arguments and key messages from the study findings. Nevertheless, the content of this research report is the sole responsibility of the author. This work was financially supported by REPOA, to whom I am very grateful.

ABSTRACT

This study has explored how quality issues in delivering family planning services (supply side), and attitudinal and behavioural issues of the potential users (demand side) merge together to influence adoption of family planning methods. The subject was explored by blending Bruce's (1990) quality of care of family planning services framework with an access framework with five determinants of decisions to use and sustain family planning services (availability, accessibility, affordability, adequacy, and acceptability of the services). Two districts, Misungwi and Ukerewe in Mwanza region, one of the regions with the lowest contraceptive prevalence rates, were used as case studies. Data were collected from providers of health services, clients of family planning services, and men and women non-users in catchment areas of the sampled health facilities.

The study finds that although family planning services are generally available, the range of options available to users at the primary healthcare level tends to be limited, which limits the ability of users to switch methods. Proper management of clients, including protection of clients' privacy and ensuring that necessary tests and counselling are done before any method is prescribed, was also found to be weak. On the demand side, inadequate information on modern contraceptives (benefits, efficacy, side effects, and how to deal with them), misunderstandings on possible side effects, distrust among spouses, and problems of male inclusion stand out as important constraints to adoption.

Delivery of comprehensive and appropriately packaged information to communities through properly designed social marketing campaigns, as well as deliberate efforts to ensure inclusive integrated services at primary healthcare level, can considerably help boost adoption. Improving the technical competence, in terms of infrastructure to allow for privacy in service delivery and skills to manage clients appropriately, is essential. The potential of community health workers in delivering services like injectable contraceptives should also be tapped.

1.0 INTRODUCTION

Although over the past decade the Total Fertility Rate (TFR) in Tanzania has dropped from 5.6 to 5.4 children per woman (NBS and ICF Macro, 2011), this rate is still high by world standards. In 2012, the world TFR stood at 2.5 (World Bank, 2014). Several factors, such as early marriages, sex preferences, low status of women, and low contraceptive use, contribute to the high TFR. Globally, high fertility rates (which result in a high population growth rate) have been shown to have negative impacts on the economy and health of children and women (Cleland et al., 2006; Stover and Ross, 2010).

As a way of confronting the rapid population growth rate and promoting child and maternal health in Tanzania, the government has increasingly emphasized the importance of reproductive health within primary healthcare, and instituted policies and strategies to that effect. In 1989, Tanzania became the first among countries in Sub-Saharan Africa to adopt the Safe Motherhood Initiative (Magoma et al., 2013). Since then various interventions have been instituted to accelerate the reduction of maternal, newborn, and child deaths. These include exempting pregnant women from paying fees at government health facilities for Antenatal Care (ANC), delivery, emergency obstetric care, newborns, postpartum care, family planning, and Post-Abortion Care (PAC) (United Republic of Tanzania (URT), 1997, 2000, 2005, 2007, 2008, 2009, 2010a). Reproductive health interventions have been further emphasized in Tanzania in the framework of the Sharpened One Plan, which accentuates access and quality of family planning, care at birth, and community security to maximize health outcomes for women and children (URT, 2014).

Despite these developments, maternal health is still a challenge in Tanzania. The government's target of reducing maternal mortality by half from 529 per 100,000 live births in 1996 to 265 per 100,000 by 2010 has not been realized. The latest Tanzania Demographic and Health Survey (TDHS, 2010) estimated the Maternal Mortality Ratio (MMR) to be 454 deaths per 100,000 live births. There is a slight decline to 432 deaths per 100,000 based on 2012 census data (URT, 2015). The 2013 "State of the World's Mothers Report" ranks Tanzania as the 135th worst country for mothers globally, and ranks it among the top ten countries with the highest newborn deaths and the country with most first-day deaths (Save the Children, 2013a). In effect, a lot more still needs to be done in translating policies and strategies into actions that deliver meaningful results.

The initiative was launched in 1987 and adopted by the country in 1989.

² The Sharpened One Plan reprioritized the strategies in the National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn, and Child Deaths in Tanzania 2008-2015.

A complex set of factors contributes to Tanzania's high MMR. First is extensive poverty in the country. At least 28% of the population lives below the basic needs poverty line (URT, 2013a). Second is persistent underfunding of the health sector (Ministry of Health and Social Welfare (MoHSW), 2013) along with systemic difficulties arising from shortfalls in structures and processes set up for healthcare delivery. While there are various hindrances at the health facility level, reasons for an uneven distribution of maternal morbidity and mortality in Tanzania are also reinforced by socio-cultural beliefs and practices of different societies in the country (Mbaruku, 2005; Mbuyita and Mayombana, 2006; NBS, 2011; MoHSW, 2013).

Family planning is considered a highly cost-effective public health intervention and one of the most cost-effective ways to reduce maternal and child mortality (World Bank, 1993; Cleland et al., 2006). Ensuring basic access to family planning could reduce maternal deaths by a third and child deaths by as much as 20% (Cleland et al., 2006; UNFPA, 2008; Stover and Ross, 2010). Family planning helps ensure that pregnancies occur at the healthiest time of a woman's life and that the pregnancies are wanted and planned. When pregnancies occur during healthy times, women and their newborns are more likely to survive (Norton, 2013). Yet the benefits of family planning remain out of reach for many, especially those who often have the hardest time getting the information and services they need to plan their families, such as the poor, the marginalized and young people.

The extent of unmet needs for modern family planning, defined as the proportion of married women who want to space their next birth or stop childbearing entirely but are not using contraception, is remarkably high in Tanzania. The unmet need for modern methods has remained about 25% in 2010, while the percentage of women satisfied with modern methods has remained below 50% (NBS and ICF Macro, 2011; Bradley et al., 2012; Otieno and Amani, 2013). As a result, unwanted and mistimed pregnancies remain high in the country. The Demographic and Health Survey (DHS) data of 2010 show that while most births (73%) are wanted at the time of pregnancy, as much as 23% are mistimed and 4% are unwanted. The proportion of mistimed births increased from 18% in 2004-05, while the proportion of unwanted births has not changed much (NBS and ICF Macro, 2011).

Of particular interest therefore is why a large fraction of women wish to avoid untimed and unwanted pregnancies but do not practice family planning. The existence of unmet needs for contraception presumes the existence of multiple obstacles to contraceptive use. Ensuring low monetary costs and high knowledge of family planning services are therefore not enough to guarantee adoption of family planning methods.³ Expanding the

³ Knowledge of contraception is almost universal in Tanzania. The most commonly known methods among both men and women are birth control pills, injectables, and male condoms (NBS and ICF Macro, 2011).

2

.

quality of care of family planning services is one approach to achieving greater use of modern contraceptive methods (Veney et al., 1993; Mroz et al., 1999). One important policy question underscored in the National Family Planning Research Agenda is whether quality of contraceptive services in the country is hindering adoption, and if increasing quality might encourage more women to use modern contraceptives, thereby accelerating the process of fertility decline (URT, 2013b).

Thus, this study explored quality aspects of family planning services (a supply side aspect), using data from providers and clients of family planning services, and the perceptions of both men and women on demand side determinants of family planning use. The following research questions have been addressed:

- 1. What is the quality of family planning services provided in the sampled health facilities?
- 2. From the men's and women's point of view, what are the major barriers to family planning use?

2.0 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Reproductive Health Policies

Various policies have been developed to guide the delivery of reproductive health services in Tanzania. Notable ones include the Reproductive and Child Health Strategy that proposes strategies to improve Maternal and Child Health (MCH) (URT, 1997). MCH targets have also featured prominently in the National Strategy for Growth and Reduction of Poverty (NSGRP), known by the Kiswahili acronym MKUKUTA (URT, 2005, 2010a). Both MKUKUTA I and II underscore the importance of improved health and well-being of all Tanzanians, with special emphasis on children and women, and especially vulnerable groups, through reducing infant, child, and maternal mortality, morbidity, and malnutrition and increased prevention and treatment of HIV and AIDS.

Other important policy guiding documents include the National Package of Essential Health Interventions (URT, 2000) and exempting pregnant women from paying fees at government health facilities for ANC, delivery, emergency obstetric care, newborns, postpartum care, family planning, and post abortion care (URT, 2009). In 2008, the National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania (One Plan) was launched, which provides a detailed overview of the government's 2008-2015 plan to reduce maternal, neonatal, and child mortality, in line with targets for Millennium Development Goals (MDGs) 4 and 5 (URT, 2008). Furthermore, the Primary Health Services Development Program (MMAM) 2007-2017 sets out national plans for upgrading 40% of health centres to make them compliant with Comprehensive Emergency Obstetric and Newborn Care (CEmONC) by 2017 (URT, 2007). Recently, the Ministry of Health and Social Welfare launched the evidence-based Sharpened One Plan (2014-2015) for Maternal, Newborn and Child Health in Tanzania. The Sharpened One Plan aims to:⁴

- Address the unmet need for family planning,
- · Address the gaps for coverage and quality of care at birth,
- Continue the progress already achieved in child health.

Despite this impressive policy landscape, only 27% of currently married women use a modern family planning method, and the unmet need for modern methods of family planning stands at 25% (see Table 1 below). The Ministry of Health and Social Welfare-Reproductive and Child Health Section (MOHSW-RCH), in partnership with key development partners, developed the National Family Planning Costed Implementation

4

⁴ Implementation of the plan focuses on women from the Western and Lake Zones who are being left behind in family planning services, and on rural, poor women, and newborns who are being left behind for care at birth.

Program Strategy (URT 2010b) to bring the family planning programme up to speed. The programme aims to reposition family planning in the national agenda and as a key strategy to improve Maternal, Newborn, and Child Health (MNCH). However, budgets for family planning activities have not yet increased, and in most areas family planning services are dependent on the support of national and international Non-Governmental Organizations (NGOs,) which poses questions about sustainable development of those services after external funding is phased out (MoHSW, 2013; Kessy, 2014). This means that concerted efforts are needed to translate policies and strategies into actions, by allocating requisite resources for their implementation.

In countries like Madagascar, where family planning has a recorded success story, strong leadership at the highest level (such as the level of president) was mentioned as a key. In Tanzania, the repositioning of family planning has benefited from high-level political commitment by His Excellency President Jakaya Kikwete, who committed the government to achieving a 60% Contraceptive Prevalence Rate (CPR) by 2015 (the target in the Sharpened One Plan). This will mean doubling the number of family planning users from the current 2.1 million to 4.2 million by 2015 (MoHSW, 2013). However, budgets for family planning activities have not yet increased, which is a concern.

2.2 Contraceptive Use in Tanzania

TDHS 2010 showed a rising trend in usage of contraceptives, where the CPR reached 34% for use of any method (both traditional and modern methods). The overall increase in CPR between 1991 and 2010 was largely due to use of modern methods among married women. Indeed, injectables and pills are the most commonly used methods. The percentage of married women using modern methods of contraception increased from 7% in 1991 to 27% in 2010. Use of traditional methods has generally remained low at between 4% and 7% during the last decade (NBS and ICF Macro, 2011). The unmet need for family planning has declined marginally from 30% in 1991 to about 25% in 2010 (16% have an unmet need for spacing, and 9% have an unmet need for limiting). If all women who reported wanting to use any contraception method were able to achieve their desire, then the CPR would have increased from 27% in 2010 to nearly 60% in 2010 (Table 1).

The use of modern family planning varies by residence and region: 34% of women in urban areas compared to 25% of women in rural areas use a modern method of family planning (NBS and ICF Macro, 2011). Also of concern is a large gap between the poorest and the wealthiest women in the use of contraception. Although the CPR by modern methods has gradually increased between 2005 and 2011, from 20% to 27%, this is inadequate for achieving the Sharpened One Plan target of 60% CPR by 2015.

Table 1: Trends in Unmet Needs and Demand for Family Planning Methods

Year	TFR	Wanted fertility rate	CPR for all methods (%)	CPR for modern methods (%)	Unmet need for modern methods (%)
1991-92	6.2	5.6	10	7	30
1996	5.8	5.1	18	13	24
1999	5.6	4.8	25	17	22
2004-05	5.7	4.9	26	20	22
2010	5.4	4.8	34	27	25

Source: NBS and ICF Macro (2011); Bradley et al. (2012); Otieno and Amani (2013).

2.3 Determinants of Family Planning Use

2.3.1 Demand Side Factors

Studies are replete on the household socio-economic and community-level determinants of contraceptive use in Africa and in Tanzania in particular. Factors found to be positively associated with contraceptive use include education level, woman's occupation, support from husbands/partners, husband's education, and access to information (Arends-Kuenning and Kessy, 2007; Stephenson et al., 2007; Stephenson, Beke and Tshibangu, 2008; Alene and Worku, 2009; Michael, 2012; Aziem et al., 2013). For example, Arends-Kuenning and Kessy (2007) show that transforming rural women from illiterate to literate would increase the predicted probability of using modern contraceptives by 52%. Husband's education was also shown to have a large impact on women's contraceptive use in rural areas. Increasing husband's education from "no schooling" to "13 years of schooling" increases the probability that a rural woman will use contraceptives by 228%.

In a study by Aziem et al. (2013) in Sudan, woman's age, age at marriage, parity, residence, and experience of child death were not associated with total unmet need for family planning, while woman's education (above secondary level), husband's education (above secondary level), and woman's occupation were associated with the total unmet need (increase of these variables will reduce the unmet need for family planning services). Also, traditional cultural beliefs, distance to the health facility, misconceptions and concerns about side effects, and poor communication between spouses are negatively associated with family planning use (Pathfinder International, 2008; Michael, 2012).

Analysis of data from 56 developing countries shows on average that the poorest fifth of women had a fertility rate of 6 births, compared with 3.2 births in the wealthiest fifth. However, interpretations of the association have varied. The assumption of many economists is that behaviour is rational, which has resulted in widespread beliefs that poor people need many children (e.g., for help with household production and for security in old age) and that family planning promotion cannot succeed in very poor countries. To the contrary of these two ideas, family planning promotion has succeeded in very poor countries, and much of the fertility difference between rich and poor populations stems not from the application of reproductive choice but from the absence of such an option for the poor (Cleland et al., 2006). These authors further show that the unmet need for contraception and unwanted childbearing are consistently higher for poor couples than for wealthy individuals.

Nevertheless, most studies on family planning provide evidence from women users and non-users without considering the men's perspectives. Furthermore, there is no consensus on whether the demand side factors outweigh the supply side factors in terms of importance and vice versa, which necessitates development of programmes to address both.

2.3.2 Supply Side Factors

From the supply side of heath care, erratic supplies, limited range of choices, gaps in provider knowledge and skills (along with provider bias), and insufficient counselling to determine and meet clients' needs are some of the major factors influencing family planning use (Wanjiru et al., 2007; Pathfinder International, 2008). Providing a choice of methods to meet the changing needs of clients throughout their reproductive lives increases contraceptive usage levels and enables individuals and couples to meet their reproductive goals. The mix of methods available in a programme influences not only client adoption and satisfaction rates, but also has implications on provider skills and the facilities and equipment needed to deliver certain methods (URT, 2010b). In a recently released Service Availability and Readiness Assessment (SARA), family planning services were offered in more than 80% of the sampled health facilities, and more than 70% of the facilities were ready to offer these services (URT, 2013c). Given this evidence, a possible cause of high levels of unmet demand is the lack of high-quality family planning services, that is, services are offered in a significant number of health facilities, but these are not of a desired quality.

Quality of care of family planning services is a factor that has moved to the forefront of family planning research. It refers to the way clients are treated by the system providing them with the services. Bruce (1990) proposed a framework to define quality of services, using six specific elements of the service delivery process. These are choice of methods, which measures the range of family planning methods available at each facility; information given to clients, which is captured by variables that show if the

clients are given any/enough information concerning family planning; technical competence, which measures how competent the providers are in clinical techniques and the condition of the facility in general; interpersonal relations, which measures how clients perceive interaction with providers, including issues such as the degree of empathy in the provider's manner and the amount of time spent with the clients; mechanism to encourage continuity, such as community media, forward appointment, and home visits; and lastly appropriate constellation of services, which is defined as situating family planning services within the existing health services.

By using both the providers' and clients' perspectives, Bruce's framework has become fundamental in the discussion of quality of care of family planning services. However, there is a controversy on who should define quality. Is it best defined by clients, providers, managers, policy makers, researchers, or by some or all of these groups? Efforts to define and measure quality have thus been limited to perspectives of the providers and researchers, although the importance of the client's perspective has been recognized (Kessy and Mwageni, 2005). Adopting Bruce's framework, this study develops quality of care of family planning services indices that represent the views of providers and women users, and discusses them in light of the qualitative data collected from women users, non-users, and men.

2.4 Family Planning and Maternal Health

Figure 1 below underscores the fact that the major causes of maternal deaths are related to delivery complications (mainly haemorrhage) and abortions. In Tanzania, teenage pregnancy is high; 23% of women aged 15-19 years are pregnant or already have children (NBS and ICF Macro, 2011), with some pregnancies unintended and unwanted, which may warrant unsafe abortions.

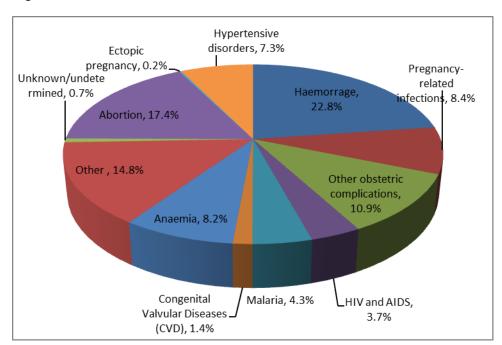


Figure 1: Causes of Maternal Deaths in Tanzania

Source: Armstrong, Magoma and Ronsmans (2015).

Voluntary family planning is an effective way of controlling fertility as it gives couples the ability to have their desired family size (Prata, 2007), thus allowing women to have fewer exposures to risky pregnancies and risky healthcare environments which may lead to maternal deaths. "Modern contraception can help mothers avoid pregnancies that may be too early, too frequent, too many, and too late" (USAID et al., 2012: 17). Evidence shows that if couples can space their pregnancies by at least two years apart through the use of family planning, up to 35% of maternal deaths and up to 13% of child mortalities could be averted, while 25% of under-five mortalities could be averted if birth intervals were at least three years (Stove and Ross, 2010).

2.5 Conceptual Framework

The family planning access framework presented in Figure 2 has been used to examine the influence of demand and supply side factors on the usage of family planning. By placing access to healthcare in a wider context of poverty and development, the framework moves beyond the conventional biomedical or public health approaches. The framework is based on the assumption that before a woman decides to use family planning services; she has to think about how to handle several access issues.

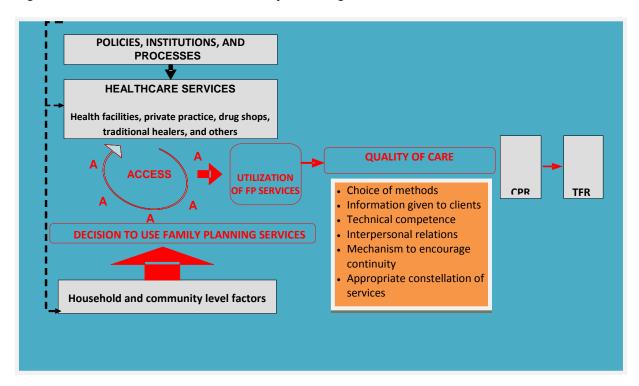


Figure 2: Framework of Access to Family Planning Services

Source: Adapted from Obrist et al. (2007) and Save the Children (2013b).

Five dimensions referred to as the "5 As" influence the course of the decision she is going to make: *Availability, Accessibility, Affordability, Adequacy, and Acceptability* (Table 2). What degree of access is reached along the five dimensions depends essentially on the interplay between:

- (a) The healthcare services and the broader policies, institutions, organizations, and processes that govern the services; and
- (b) The households and community-level context influencing the norms of a particular society.

While the acceptability will mainly be influenced by community socio-economic and cultural issues, the availability and adequacy (reflecting the quality of services) will be affected by policies and institutions around healthcare delivery. Affordability and accessibly will be affected by both health policies and community socio-economic variables such as income and education. Quality of care is measured by Bruce's (1990) six elements described above (choice of methods, information given to clients, technical competence, interpersonal relations, and mechanisms to encourage continuity, and appropriate constellation of services). When all these elements are addressed, clients' satisfaction and positive health outcomes, in terms of CPR and TFR, will be achieved

(Figure 2). A woman may seek care in the public or private sector, visit traditional healers or other alternatives, or do nothing at all (or use these different providers sequentially or concurrently) depending on the perceived quality of services once the demand side impediments have been addressed.

Table 2: The 5 As

Availability	What types of family planning services exist (choice of methods)? Is there enough equipment, supplies and skilled personnel (technical competence)? What information is given to clients? What mechanisms are in place to encourage continuity? Are the services appropriately constellated?
Accessibility	What is the geographical distance between the services and the homes of the intended users? What means of transport exist? How long does it take to reach the service delivery point?
Affordability	What are the direct costs of the services/products delivered? What are the indirect costs (transportation, lost time and income, bribes)?
Adequacy	Does the organizational set up meet the patients' expectations and needs? E.g., do opening hours match farmers' work schedules? Are services offered in an environment that considers the privacy of the clients? Do the providers handle clients empathetically (interpersonal relations)?
Acceptability	Do the services take local concepts into account?

3.0 METHODOLOGY

3.1 The Study Area and the Sample

The study was conducted in Misungwi (high performance in use of family planning) and Ukerewe (low performance) districts in Mwanza region. The region represents one of the regions with a low CPR (15% for use of all methods, 12% for use of modern contraceptive methods) and second worst region in the country in terms of satisfying the demand for family planning services (29%).⁵ The study's target population encompassed all women and men of reproductive age, providers of health services, council health management team members responsible for Reproductive and Child Health (RCH), and employees of non-governmental organizations implementing family planning interventions in the study areas.

A total of 14 and 11 public health facilities (30% and 33% of total health facilities in the districts) were randomly sampled from Misungwi and Ukerewe, respectively. From these facilities, a total of 118 clients of family planning use (women) were sampled purposively for exit interview (75 from Misungwi and 43 from Ukerewe). The purposive sampling technique employed is convenient sampling whereby women were requested to participate in the study, based on their availability at the health facility on the day of survey. The average age of these women was 29 years (range 17-34 years). Most of these women were married (77%) and a few were single (7%). The rest were either divorced or separated (5% each) and cohabiting (4%). The majority had a primary education (73%), and 14% had a secondary education. Only 4% had no formal education. The average number of children per woman was 4 (range 0-9 children).

For Key Informants (KI) interviews, one provider was purposively sampled from the RCH unit of each health facility. Interviews also included a total of four other KI, notably, District Reproductive and Child Health Coordinators (DRCHCos) from both districts and service providers from Population Services International (PSI), a non-governmental organization providing family planning services in the study areas.

Convenient sampling was also used to reach a total of 117 other respondents who participated in Focus Groups Discussions (FGDs) conducted in 4 villages (33 women users, 35 women non-users, and 49 men). In each community, members of village government assisted in getting the study participants for FGDs. Two villages were sampled from each district - one located far from the district headquarters and another one located nearby.

⁵ Only three regions have CPRs above 50%: Kilimanjaro (64.8%), Tanga (53.7%), and Dar es Salaam (50.4%). Three regions have CPRs below 20%: Shinyanga (15.1%), Mwanza (15.2), and Mara (11.9%) (NBS and ICF Macro, 2011).

3.2 Data Collection Instruments

Questionnaires were designed to collect quantitative data from the sampled health service providers and women users. Information was sought on quality of care of family planning services, assessed using the six broad indicators defined in the conceptual framework. Various sub-indicators were constructed to assess each broad indicator as presented in Annex 1.

A total of 18 FGDs (6 with each group of study participants - women users, non-users, and men) were conducted in 4 villages (2 from each district) located in the catchment area of the sampled health facilities. The FGDs were conducted to ascertain the opinions and perceptions of clients and non-clients on various aspects of family planning (Konde-Lule, Musagara and Musgave, 1993; Patton, 2002). Data collected from users include perceptions on the quality of care of family planning services and how quality limits individual contraceptive choices. FGDs were conducted to enable clients to come up with their own definition of quality and identify the problems related to quality of services. From the users, non-users, and men, information was also collected on the household and community-level determinants of family planning use.

KI interviews sought to gather data on perceptions on barriers to family planning use and strategies to address the identified barriers. Observation data collection method was also used. The essence was to record information on interactions between providers and clients, displayed Information, Education, and Communication (IEC) materials on family planning, and the available stock of family planning methods. Observational data were instrumental in addressing any bias which could have been introduced by the exit interviews (interviewing respondents at the point of service delivery).

3.3 Data Analysis

Descriptive statistics have been used as the main framework for presenting results from the quantitative data gathered in the study. Indices of quality of care have been constructed for all relevant indicators, with values ranging from 0.00 (indicating very poor) to 1.00 (indicating excellent quality of care) (Arends-Kuenning and Kessy, 2007). The t-test and Analysis of Variance (ANOVA) were performed to confirm statistical differences among variables. On the one hand, t-test was used to confirm any statistical difference on the average performance of quality indicators (the choice of family planning methods, information given to clients, and technical competence) per district. On the other hand, ANOVA was used to check for statistical differences on the performance of quality indicators among the three types of facilities.

Thematic analysis has also been used to interpret qualitative data collected from FGDs and key informants. This technique makes it possible to make inferences by objectively and systematically identifying and classifying patterns of meanings and key themes/messages emerging from the data. In the findings chapter, quantitative data from the closed-ended questions have been triangulated with qualitative evidence from the FGDs, KI interviews, and open-ended questions in the survey of respondents at the facilities, to explain the patterns in the results, as proposed by Steckler et al. (1992).

3.4 Ethical Considerations

Given the sensitive nature of the study theme, care was taken in making sure that the study participants' rights are not violated. Measures to ensure this included seeking verbal consent from the respondents before interviewing them, organizing separate focus groups for men and women, and ensuring that male FGDs are handled by male data collectors, while female FGDs are handled by female data collectors. Interviews with clients at the health facilities were handled by female data collectors. It was made clear to the clients that if they were uncomfortable with the observation method (observing the interactions between the provider and the client), only exit interviews would be used. However, no client indicated being uncomfortable with observations.

4.0 FINDINGS AND DISCUSSION

4.1 Quality of Care of Family Planning Services

Using the data collected from the providers and women users of family planning services, composite indicators of quality of care were developed around six themes reflecting service availability and adequacy:

- (i) Choice of methods of family planning services
- (ii) Information given to clients
- (iii) Technical competence
- (iv) Interpersonal relations
- (v) Mechanisms to encourage continuity
- (vi) Appropriate constellation of services

The quality of care indices range between 0.00-0.19 (indicating very poor), 0.20-0.39 (poor), 0.40-0.59 (average), 0.60-0.79 (good), and 0.80-1.00 (indicating excellent quality of care), as proposed by Arends-Kuenning and Kessy (2007).

4.1.1 Choice of Methods of Family Planning Services

The range of methods available, based on women's accounts of available family planning services, was found to be of average in the three types of health facilities and in both districts (Table 3). This may mean that no combination of methods is offered at these facilities. Data presented in Table 3 show that the most promoted methods, and those of which the women were most aware, are pills and injectables (depo-provera) (>90%) and intra-uterine devices (vitanzi) and implants (vipandikizi) (>75%). The lesser known methods include diaphragms, foaming agents/spermicides, female and male sterilization, and natural family planning (<15% knowledge). Observational data from health facilities show the same with pills and depo-provera, available in >95% of the facilities. Condoms (mainly male condoms) were only available in 50% of the surveyed health facilities. Diaphragms and foaming agents were not available in any of the sampled facilities.

Table 3: Choice of Family Planning Methods

Type of health facility	Misun	gwi	Ukerewe		
Type of floatar lability	Quality index	Remarks	Quality index	Remarks	
Hospitals	0.6	Good	0.5	Average	
Health centres	0.5	Average	0.4	Average	
Dispensaries	0.4	Average	0.4	Average	

The average for all facilities was reduced by lack of diaphragms, foaming tablets, and information on natural family planning services. Information on natural family planning was not provided probably because of its ineffectiveness. The rather low rate for choice of methods at rural dispensaries is a reflection of the inability of dispensaries to offer some methods, for example, Intra Uterine Contraceptive Devices (IUCDs) and sterilization, due to inadequate facilities and trained personnel. Wide use of injectables (depo-provera) has been reported elsewhere in Sub-Saharan Africa (Prata, 2009).

4.1.2 Information Given to Clients

The information given to clients is rated as good in all sampled facilities, except for hospitals in Ukerewe, where the facilities attained an average score (Table 4). The t-test values showed borderline significant variation between Ukerewe and Misungwi districts in mean scores for information given to clients (p<0.063), meaning that compared to Ukerewe, Misungwi district offers slightly higher quality services as defined by the variables for measuring this indicator (see Annex 2 for statistical results). Most variables under this theme performed well (>70%), e.g. given a chance to select preferred method, informed of difference between permanent and reversible methods, and discussion on reproductive goals and dual protection of condom use (77%). The surveyed women were very conversant on the mode of action of depo-provera and implants - that is, they know they have to go to the facility for injection after every three months, and they understand that implants can last for 3-5 years. They were also conversant on the side effects of some of the methods, e.g. headaches, abdominal pain, nausea, dizziness, unusual body-swelling, swelling of the veins, loss of body weight, pains in the part of the arm where implants are placed, increase in blood pressure/abnormal blood circulation, and prolonged menstrual cycles. Prolonged menstrual cycle was mentioned as a common symptom among women using depoprovera.

However, most women had no knowledge on conditions/symptoms that would require them to return to the health facilities for additional assistance and/or check-up. Also, although 68% of the women clients mentioned the presence of misconceptions about family planning use in their community, only half of the family planning clients mentioned that the providers provided clarifications on these misconceptions.

Women users also pointed out that providers often do not provide adequate information on the side effects of contraceptives, and on how to cope with them. Lack of proper knowledge about these side effects can result in discontinuation of use and also deters women from seeking family planning services. Side effects like swelling of veins (varicose vain) are embarrassing, and ways to address them should be well communicated to women and their partners.

Nevertheless, some male FGD members argued that some of the side effects are caused by the users themselves when they fail to follow the instructions from the health service providers. Some women misuse the methods by, e.g., swallowing a lot of pills with the intention of abortion which in turn causes problems. One man cautioned that:

"...like other medicines, family planning pills become poisonous in the body if excessively swallowed," (FGD with men, Misungwi A Street, Misungwi).

Table 4: Information Given to Clients

Type of health facility	Misungwi		Ukerewe		
Type of floatar lability	Quality index	Remarks	Quality index	Remarks	
Hospitals	0.7	Good	0.5	Average	
Health centres	0.7	Good	0.6	Good	
Dispensaries	0.6	Good	0.7	Good	

The major weakness in delivering family planning information is that it is confined to the women who have presented themselves to the health facility for various reasons. Community-wide modes of delivering family planning information are rarely used, and those that do occur are usually from intermittent interventions by NGOs. While users have adequate information on some aspects of family planning methods, the FGD findings point to inadequacy of the information provided to the community. There are no regular community-wide social marketing campaigns to enlighten community members on the efficacy of family planning methods and benefits. This was echoed in the men FGDs:

"Family planning materials should be provided to ALL and not only to those few people that go to the clinics; why will I go to the health facility if I don't have a sick child or my wife is not pregnant? I recommend family planning materials to be provided at the village assembly," (FGD with men, Iteja village, Misungwi).

"We have never seen road shows in this village! Family planning stakeholders can use road shows, organize meetings with councillors, organize village meetings with both men and women, to provide family planning education; people will ask questions when they get answers they will understand," (FGD with men, Hamkoko village, Ukerewe).

As noted elsewhere, providers sometimes also discourage women from accessing certain methods of contraception, based on personal biases and beliefs (Prata, 2009), and refuse to counsel clients on some of the long-term methods such as the IUCD (MoHSW, 2013). Similar incidents were noted in the FGDs, where people reported that some service providers misinform or discourage women on the use of modern family planning services:

- "... it is up to you. Do not rush to use those family planning methods because they have side effects; they will affect you," (FGD with women users, Nkirizaya village, Ukerewe).
- "... you see this kind of heavy bleeding? This is a result of using modern family planning methods, and it can be worse," (FGD with women users, Nansio, Ukerewe).

Incorrect information on efficacy of family planning services also deters women. A study of eight developing countries showed that 50%-70% of women thought the use of oral contraceptive pills was a considerable health risk, even though having a baby in a low-resource setting can be up to 1,000 times as dangerous as taking oral contraception (Grubb, 1987, cited in Prata, 2009).

Thus, it is imperative to address the misconceptions by providing well-packaged information on efficacy of various family planning methods and benefits to communities through community-wide social marketing campaigns. For instance, incorrect knowledge can be addressed in the IEC campaign by using simple, single-message flyers and announcements, such as "family planning is safe" or "family planning is safe and works", to empower women (Prata, 2009). A study conducted in Malawi showed that family planning is increasingly becoming a social norm in the country, because of the concerted efforts by the Ministry of Health to disseminate information on the benefits of modern family planning methods to communities, with emphasis on the idea that "modern contraception can help mothers avoid pregnancies that may be too early, too frequent, too many, and too late" (USAID et al., 2012: 17).

Social marketing campaigns have been proven to be very effective in changing behaviour, for example, in interventions such as Oral Rehydration Salts (ORS) and condoms use (BASICS, 1998), and in the use of Insecticide Treated Nets (ITNs) (Minja, 2001). These approaches can be adapted to help address challenges of family planning

use in rural settings. Adaptation can be in form of using community-based social groups and community health workers (Mshana, 2010).

4.1.3 Technical Competence

The technical competence aspect of quality is divided into visible technical competence in terms of staff training and clients' management, and privacy. Overall, the technical competence was found to be excellent in hospitals, good in health centres, and average in dispensaries in both districts (Table 5). The average for all health facilities was pulled down by failure to manage clients appropriately in terms of taking necessary diagnostic tests before providing family planning services. For the dispensaries, apart from managing the clients well, the average was also pulled down by lack of privacy and unavailability of electricity and running water. Specific components of technical competence are discussed in the following subsections.

Table 5: Technical Competence

Type of health		Misı	Misungwi		Ukerewe	
facility	Variables	Quality index	Remarks	Quality index	Remarks	
Hospitals	Technical competence	0.8	Excellent	0.8	Excellent	
	(a) Visible competence	1.0	Excellent	1.0	Excellent	
	(b) Privacy	1.0	Excellent	0.6	Good	
	(c) Staff competence (screening of clients)	0.5	Average	0.4	Average	
	(d) Staff competence (training)	0.8	Excellent	1.0	Excellent	
Health centres	Technical competence	0.7	Good	0.7	Good	
	(a) Visible competence	0.5	Average	0.7	Good	
	(b) Privacy	0.7	Good	1.0	Excellent	
	(c) Staff competence (screening of clients)	0.6	Good	0.3	Poor	
	(d) Staff competence (training)	0.9	Excellent	0.7	Good	
Dispensaries	Technical competence	0.4	Average	0.5	Average	
	(a) Visible competence	0.2	Poor	0.3	Poor	
	(b) Privacy	0.5	Average	0.4	Average	
	(c) Staff competence (screening of clients)	0.4	Average	0.4	Average	

(d) Staff competence	0.5	Average	0.5	Average
(training)				

Visible Technical Competence

Visible technical competence was measured by availability of electricity and water supply in the facility. The index for this indicator was excellent for hospitals in both districts and good for health centres in Ukerewe. The index was poor for dispensaries located in both districts. The t-test values showed significant variation in mean scores for visible technical competence between Ukerewe and Misungwi districts (p<0.006), meaning that Ukerewe district offers services of higher quality compared to Misungwi. Furthermore, only visible technical competence was significantly different among the three types of health facilities (p<0.0001). More specifically, hospitals, versus health centres and dispensaries, offer high quality services as defined by the variables for measuring this indicator (see Annex 2 for statistical test results). Although most dispensaries in rural areas do provide a wide range of MCH services, including antenatal and postnatal care, delivery services, and MCH, about a third of dispensaries do not have running water (MoHSW et al., 2015). In some rural facilities it is still common that a woman showing up for delivery services must come with a bucket of water or have a relative around who can fetch water for her. Likewise, some rural health centres lack piped water and electricity. Nevertheless, the invention of solar technology has been very helpful for rural-based health facilities.

Privacy

The score of this index was consistently high in district hospitals and health centres but low in dispensaries. In hospitals and health centres, privacy was somehow ensured by having proper examination and counselling rooms and an open area in the MCH department where education sessions are conducted. In most of the hospitals and health centres, curtains are also used to separate different cubicles, where necessary, to ensure privacy of clients.

The recently released Tanzania Service Provision Assessment (TSPA) survey shows that visual and auditory privacy has been ensured in majority of health facilities even those in rural areas (93%) (MoHSW et al., 2015). However, in this study, consultation rooms with auditory and visual privacy were only available in 15% of the sampled health facilities. Failure to ensure privacy is detrimental to women's esteem, especially those who are using family planning services secretly. In male FGDs it was echoed that more women are currently using family planning compared to the past, but there are only a few who are open about it to their husbands; the majority of women keep their pills hidden or do not inform their husbands on their use of implants or injectable. Majority of men find out only when there are side effects that cannot be hidden:

"Sometimes there is no privacy at the health facility and some users do not like to be seen and known as users of family planning, as they have not informed their husbands. And you know some people cannot keep secrets; when they see a woman at the health facility they will talk and talk and talk...," (FGD with men, Nkirizya village, Ukerewe).

Staff Training

The staff competence score in terms of training was excellent and good in hospitals and health centres; but it was average in the dispensaries. The interpretation of these findings is that providers have at least some basic knowledge on family planning. Some 78% of the interviewed providers mentioned that basic clinical skills were covered in the pre-service training, while 44% mentioned attending additional in-service training that covered family planning clinical skills, comprehensive family planning clinical skills, or contraceptive technology updates. The t-test values showed borderline significant variation in mean scores between Ukerewe and Misungwi (p<0.082) for provider training, meaning that Misungwi had more trained providers of family planning services (see Annex 2 for statistical results). However, it was noted from the KI interviews that providers at lower level health facilities can provide only pills, condoms, and injectable contraceptives, which limits the choice of methods. In fact, these are the only methods that are widely available at dispensaries and health centres. During the midterm review of the Health Sector Strategic Plan III in 2013, very few providers reported being able to safely and effectively offer implants or place IUCDs, even when supplies were available. Patients ended up being referred elsewhere or turned away because providers are not skilled enough to administer the contraceptives (MoHSW, 2013).

Screening of Clients

Screening of clients is an indicator with consistently low scores across health facilities, meaning that clients are not thoroughly investigated before commencing family planning. However, t-test values showed significant variation in mean scores for technical competence in terms of screening the clients (p<0.005). This means that compared to Ukerewe district, providers in Misungwi more often screen the clients before providing family planning services (see Annex 2 for statistical results). Important checks that would normally need to be done before administration of contraceptives include client's blood pressure and weight, as well as breast, abdominal, and pelvic examinations. Proper screening is important in making sure that the given method is compatible with any medical condition the woman might have - e.g., high blood pressure and currently pregnant. Yet results from the study reveal that these are not done, even in higher level health facilities.

Lack of client screening before starting family planning was echoed in both male and female FGDs. Examples were given of women who were given depo-provera but later conceived nonetheless, while under medication. Some community members challenged the effectiveness of depo, but others mentioned that the women in question were

perhaps already pregnant and no effective pregnancy tests had been done to rule out that possibility before they started using the contraceptives.

Similar to absence of proper screening, proper counselling is also not done before the clients start using the contraceptives. A few studies in Tanzania have documented insufficient counselling on method selection, particularly the extent to which providers consistently and adequately counsel clients to determine and meet their individual needs (URT, 2013b).

4.1.4 Interpersonal Relations

The interpersonal relations index was excellent for all the sampled health facilities. The scores were constructed from variables showing how comfortable the providers were in discussing sexual behaviour related to STD/HIV, with women attending MCH clinics. This was based on observational data collected during the educational sessions at the MCH sections of the facilities. It was assumed that if the providers could discuss and ask questions on sensitive sexual behavioural issues with women, discussions on issues related to use of family planning methods would also be possible.

Findings from interviews with women users further show that in most cases, they were treated with empathy and were encouraged to ask questions during their visits. Nonetheless, only about 50% reported actually asking questions. Abusive language by providers was reported to be common when women visited for delivery services, compared to when they visited for family planning. During FGDs with women users, some mentioned that the providers failed to sensitively handle the clients:

"I went to the health facility for family planning services. I wanted to use injectable contraceptive. The provider told me, 'we are tired of injecting you; change the method' (use IUCD or implant)," (FGD with women users, Mwanangwa village, Misungwi).

"I had an implant, and I was bleeding excessively; I went back to the facility and asked the nurse to remove it. They told me that they had a seminar, so I should go back home and comeback the next day. However, one of the nurses decided to attend me. She removed one implant and showed me. She tried to remove the second one but she couldn't. She finally told me to go home, and that she had already removed it but without showing me the implant. My arm is still in pain and I think maybe the implant is still there or it has disappeared into my body," (FGD with women users, Nansio, Ukerewe).

4.1.5 Mechanisms to Encourage Continuity

The score for mechanisms to encourage continuity ranged from good to excellent in the sampled facilities. The index was measured by three proxy variables:

- whether the facility makes referrals (for health centres and dispensaries),
- whether the providers discussed return visits and follow-ups with the clients, and
- Whether clients are asked to return to the clinic at any time if they have a question, concern, or problem.

Fewer referrals were expected from hospitals (referrals could be made to the non-governmental organizations), but dispensaries were expected to be making more referrals, followed by health centres. This was echoed in the FGDs with clients:

"I went to the dispensary for injectable, but they were short of supply; they gave me pills which I used for two days. I felt nauseated and went back to the dispensary. They then referred me to the health centre, where I had an injectable and felt okay," (FGD with women users, Buzegwe village, Ukerewe).

Some exceptions were expected, nonetheless. Dispensaries, particularly in rural areas, might not have been making referrals even where they were needed because there are no nearby facilities to which they refer the women. Arends-Kuenning and Kessy (2001) note that for family planning services in particular, providers know that even if they referred the women to facilities in urban areas, travel costs could still be a stumbling block for most of them. However, referrals are important for tubal-ligation and vasectomy, since these services cannot be performed at the primary health facility level.

One issue raised by key informants from PSI relates to inadequate management of clients who consistently experience side effects from using various contraceptive methods. Providers should be trained on how to handle clients with such condition:

"The issue is not only about how to encourage continuity. If a woman has started with pills and is affected and switches over to implants but still experiences serious side effects, the woman is told to just tolerate them, and the problems persist for so long. If this happens, the use of family planning services becomes another disease to her; she will despair and end up at the traditional healers and sometimes if God wishes, she is cured. Such a client cannot believe in family planning services and will never use it again," (Key Informant, PSI).

4.1.6 Appropriate Constellation of Services

The constellation of services index was good for all facilities. Most of the sampled health facilities had child immunization services, Intermittent Presumptive Treatment for pregnant women (IPTp), Tetanus Toxoid (TT) for pregnant women, and ANC services. Maternity/delivery care was also provided, even at dispensaries. However, most dispensaries do not have the capacity to offer even Basic Emergency Obstetric Care (BEmOC) although often times, dispensaries are the only available service delivery points in the rural areas. In the SARA survey, only one third of dispensaries and half of health centres had the capability of providing all BEmOC signal functions. Of the 25 health facilities sampled in this study, 11 had Voluntary Counselling and Testing (VCT) centres for HIV and AIDS. Nevertheless, even without VCT centres, HIV and AIDS counselling services and HIV and AIDS education were still offered. However, providers perceived that family planning services are not given priority like other services, e.g. child immunization, ANC, etc.

Constellation of services is important because some of the symptoms of Sexually Transmitted Infections (STIs), e.g. bleeding, are quite similar to side effects from use of contraceptives. As such, it is important that women are encouraged to return to facilities for investigation, advice, and care whenever they experience complications or unusual symptoms. This might help reduce the prevalence of misconceptions about the side effects of the family planning options.⁶

4.2 Accessibility and Affordability of Family Planning Services

This study finds that the services are mostly accessible and affordable to the majority of community members at the point of service delivery. Nevertheless, there is a problem of limited choice, especially at dispensaries, which, given their nearness, are the first place of contact for most community members. Although the choice of methods is broad at hospitals and partly at health centres, few women live within the vicinity of these facilities. Most hospitals are located in urban areas/district headquarters, while the majority of women live in rural areas. This means that the services offered at hospitals and health centres might not be accessible to a lot of women. Occasionally, providers from hospitals (e.g. Nansio district hospital) and non-government organizations such as PSI conduct community outreach programmes. IUCD implants and condoms have been made available through these kinds of community outreach programmes as well.

The SARA report notes that dispensaries are expected to offer oral contraceptives and condoms, while health centres and hospitals, in addition to offering oral contraceptives and condoms, can offer surgical methods and IUCDs, depending on the available

25

⁶ Interviewed providers cautioned that it is very important to provide all of these services under one roof, although there are challenges with regard to infrastructure and shortage of trained providers.

infrastructure and expertise. Surgical/permanent contraception is largely restricted to hospitals (URT, 2013c). This level of protection/restriction affects rural women's access to the desired services. Rural women in many parts of Africa receive services from dispensaries and Community-Based Distributors (CBDs), but dispensaries may not have the desired method, and CBDs are only allowed to distribute pills and condoms. Yet it is exactly in rural Sub-Saharan Africa where women prefer injectable contraceptives. Depo-provera provision by CBDs has been used in many parts of Asia and Latin America, and it has been tried in pilot projects in Uganda, Madagascar, and Ethiopia (Prata, 2009). However, in most Sub-Saharan Africa, depo-provera can only be provided by skilled personnel, despite the evidence showing its safety, feasibility, and acceptability at the community level (Stanback et al., 2007). Similarly, the satisfactory provision of IUCD insertion by non-physicians has been established since 1970s (Prata, 2009), but skill restrictions are still rampant.

To compensate for the lack of trained personnel to provide family planning services at the outreach level (as echoed by MoHSW (2013) and KIs in this study), empowering community health workers to deliver more family planning choices and messages is an important mechanism for encouraging continuity and stimulating demand for family planning. A vast body of literature from various evaluations has demonstrated the acceptability and effectiveness of CBD programmes in generating demand and increasing access and use of modern contraceptives in Tanzania, particularly among the hard to reach populations (Kibuga, 2005; Simba et al., 2011). Bringing services to the doorstep in rural areas through health extension workers, as noted in Ethiopia, has resulted in tremendous achievements in contraceptive use (USAID et al., 2012). Madagascar, for example, records an informative success story in increasing CPR through training of community health workers to provide family planning services with injectable contraceptives (WHO, 2010).

Family planning services in public health facilities are provided for free, as are the services offered by some non-governmental organizations such as PSI Tanzania. However, payment of unofficial fees, especially for inserting and removing implants, was reported during the FGDs with women users. Given the competing demands on the limited incomes for rural dwellers, and low acceptability of the services, attaching a fee to family planning use could deter women from accessing the services. One member in women users FGD noted:

".... Mhhh! Family planning services are available in our dispensary. If we were asked to pay anything, it wouldn't have been possible for us to access these services because the economic situation wouldn't allow us. If you ask your husband for TZS 500 for the service, he would say, 'get out of here (...), I have no money to waste,'...." (FGD with women users, Buzegwe village, Ukerewe).

4.3 Acceptability of Family Planning Services

Acceptability of family planning services is affected by both demand and supply side factors. As presented above, if major issues on availability (methods selection and information given to clients), accessibility (bringing the services closer to people), and adequacy (privacy) are not addressed, women would be discouraged from seeking family planning services. At the community level, low awareness of and misconceptions on the efficacy and side effects of family planning options were echoed in this study, as in others (Alene and Worku, 2009; Aziem et al., 2013; MoHSW, 2013).

Communities do not have adequate knowledge and understanding of family planning methods and use. The reasons behind this, as raised in the FGDs, include lack of inclusive and sustainable strategies for community sensitization and engagement. In various family planning campaigns, men have not been involved as equal partners. Furthermore, some community members believe that family planning may cause cervical and uterine cancer and fibroids; women might give birth to abnormal children with mental retardation or other forms of disability (e.g. cleft lips and cleft palate); and women believe that devices like IUCDs and implants can continuously move along with blood circulating inside the body.

Trust issues between couples were also associated with low usage of family planning services. In the FGDs, it was noted that due to mistrust issues among couples, husbands tend to be suspicious when wives express a desire to use family planning services. This is especially so for men who equate family planning with marriage betrayal, i.e. the desire to have sex out of wedlock. Women also fear that using family planning may push their husbands to other women in order to get more children. This is particularly the case in communities where demand for children is high.

Effective communication with clients and communities on the benefits, efficacy, and effectiveness, as well as side effects of family planning is thus very important. Furthermore, community engagement involving all levels of leadership at the local level and sensitization of both men and women leaders is also important. This approach is in fact one of the strategies that contributed to the success story in family planning in Madagascar (WHO and UNICEF, 2010).

4.4 Extending Family Planning Services to Couples

A key agenda in family planning research is how to get men on board (Sonenstein, Punja, and Scarcella, 2004). Family planning programmes have been mainly prowomen, while men have been left out. In this study men complained that providers' attitudes, biases, and behaviour discourage men from accompanying their wives to the facility:

"Service providers contribute to discouraging men; they do not care about the presence of men. But the service providers do recognize the presence of the wife. They call her and attend to her while the husband is told nothing; he remains in the waiting area with nothing to do. Sometimes he may decide to go out of the building to guard his bicycle," (FGD with men, Mwamanga village, Misungwi).

The idea of bringing men on board in RCH issues arose in the advent of interventions for Prevention of Mother to Child Transmission (PMTCT). Partners are encouraged to accompany their pregnant women to the ANC for HIV testing. In a study by Kessy (2012), men in FGDs indicated that they indeed accompanied their wives to the clinic, as they are asked to go for HIV testing:

"What pushes us to go is the pregnancy; nowadays when a woman starts attending the clinic, they want her to be accompanied by her husband so that both can test for H/V," [FGD with men, Lugalla village, Dodoma Municipal, as cited in Kessy (2012)].

The same approach can be used for family planning services. Men will receive information and advice from the providers either at the health facility or at any outreach meetings organized in the community. Men participating in FGDs recommended that it would be helpful if both the husband (man) and wife (woman) met with the providers at the same time to avoid secrecy by the wife. Decision to use family planning options, e.g. female sterilization, should be participatory in order to avoid disharmony and misunderstanding between couples caused by secret usage of family planning.

"The family planning education sessions are conducted at the health facility, and they focus on the woman. If the woman receives the knowledge, she can convey it to her husband, but it is quite difficult for a man to listen or accept the message because they assume that in doing so women are dominating and planning life for them. We have to remember that husbands have power and they paid a bride price for their women," (FGD with women non-users, Nkinga village, Misungwi).

Gradual discussion between the couples is also important.

"Women should be the ones to decide on family planning use, because they are the ones who suffer with the burden of care. Look at this boy; he is only 4 years old, and I delivered around the same time as one woman in this community, who now has three more children (delivering every year). I used to use injectable contraceptive secretly; I did not even take my clinic card home. I used to write my number somewhere. I gradually approached [my husband] about family planning usage, until he agreed and now he has consented and I am using family planning freely," (FGD with women users, Buzegwe village, Ukerewe).

5.0 CONCLUSIONS AND IMPLICATIONS FOR POLICY AND PRACTICE

This study explored the quality aspects of family planning services and barriers to adoption, using data from providers, clients of family planning services, and the perceptions of men and women in the catchment areas of health facilities. The motivation to explore these aspects is derived from two considerations. First is the persistently high level of maternal deaths in Tanzania, which suggests that the nation might not have fully tapped the potential for family planning to improve MCH. Second is the low rate of adopting modern contraceptives, despite indications of a wish to do so, particularly by women. The study used the access framework to analyze the (namely, availability, accessibility, affordability, determinants adequacy, acceptability of the services) of decisions to initiate and sustain the use of family planning services. Although the recommendations from this study are confined to the two sampled rural districts from a region with a low CPR, they may be applicable to other rural areas with the same socio-cultural and economic conditions.

In terms of availability of services, adoption is hindered by the limited range of contraceptive options available in the primary health facilities of the sampled districts, and by the associated difficulty in switching methods if unsatisfied with the prescribed one. This prompts the following recommendations:

- In making family planning more accessible, efforts should be made to facilitate provision of all family planning methods (except those requiring surgical procedures, such as tubal-ligation and vasectomy) at the primary health facility level. This will require support in training providers in order to increase skills in offering a full range of services at the facility level.
- Efforts need to be made to tap the potential of community health workers (and CBDs where available) who operate outside the health facility and whom potential users trust in delivering services like injectable contraceptives. This will help expand the range of services communities will have access to, and help ameliorate gaps caused by staffing and competence constraints in primary public health facilities.
- Continuous community education outreach programmes have to be promoted by both public and non-governmental organization providers in order to complement the efforts of providers at the primary health facility level and community health workers.

To control fertility effectively, women, couples, and the community at large need to have access to correct information about contraceptive methods and be able to afford the method of their choice. It is important that people attain correct knowledge about the benefits of family planning, how the various methods work, and their safety and possible side effects. To sustain continuity and expand usage, it is equally important to address misinformation and misconceptions about family planning. The right information might include, for example, providers refraining from telling women to limit their fertility (how many children they should have) but underscoring instead their right and freedom to choose how to control their own fertility and the benefits they can get by doing that. Provider skills, sensitivity, and professionalism are especially important aspects in this regard.

Understanding cultural contexts and nuances is also important. The messages may, for example, need to avoid equating large households with more poverty, because in areas with generalized poverty, large and small households tend to be equally trapped in poverty. A wide range of social marketing approaches can also be used to deliver well-packaged evidence:

- Community meetings: discussing family planning issues in community meetings and having family planning agendas in all local-level meetings, as has been the case with HIV and AIDS messages. Village and hamlet leaders can be empowered to deliver family planning messages (the Madagascar model).
- Printing and distributing booklets with correct messages/questions and answers (an example was given on TB booklets).
- Using Community-Based Social Marketing (CBSM) approaches through Community Resource Persons (CRPs) like community health workers, peer educators, existing community social groups, influential people, etc. Alternative delivery approaches, such as road shows and cinemas as have been used in malaria campaigns. These can be tried for family planning campaigns as well.

Proper management of clients, including protection of clients' privacy, and ensuring that necessary tests and counselling are done before any method is prescribed is of essence. Efforts should be made to have counselling and examination rooms that have both auditory and visual privacy. Taking all necessary tests ensures that women do not use contraceptives while pregnant. Injecting an already pregnant woman with depoprovera endangers both the health of the mother and the foetus.

Constellation of services is another important step in promoting family planning use. Family planning services should be integrated and provided alongside other routine RCH delivery services to improve access and reduce missed opportunities, especially during postpartum periods. The services should be integrated into immunization, growth monitoring, PAC, in-patient paediatrics or gynaecological consultations and in Care and Treatment Centres (CTCs) for HIV and AIDS.

Other strategies, based on the Madagascar model, that can be adapted to the Tanzanian context include:

- Strong leadership at all levels (from the level of the presidency to village and hamlet levels).
- Including the 60% CPR target in the strategic national documents, such as the Five-Year Development Plan and MKUKUTA, and monitoring their achievement. This target is only included in the Sharpened One plan.
- Reinforcing the policy of providing free contraceptives in all public health facilities, and in private facilities through Public-Private Partnership (PPP) arrangements.
- Adoption of a national campaign in public schools on integrated activities for family planning, adolescent reproductive health, and HIV and AIDS.

REFERENCES

- Alene, G. and A. Worku. (2009). Examining Perceptions of Rapid Population Growth in North and South Gondar Zones, Northwest Ethiopia. *Journal of Health, Population and Nutrition*, 27(6): 784-793.
- Armstrong, C., M. Magoma and C. Ronsmans. (2015). Magnitude Maternal and Neonatal Mortality in Tanzania: A Systematic Review. *International Journal of Gynecology & Obstetrics*, 130(1): 98-110. doi:10.1016/j.ijgo.2015.04.021.
- Arends-Kuenning, M. and F. Kessy. (2007). The Impact of Demand and Supply Factors, Quality of Care and Access to Facilities on Contraceptive Use in Tanzania. *Journal of Biosocial Science*, 39: 1-26.
- Aziem, A., A. Ali and A. Okud. (2013). Factors Affecting Unmet Need for Family Planning in Eastern Sudan. *BMC Public Health*, 13(102). doi:10.1186/1471-2458-13-102.
- BASICS. (1998). Realizing the Promise of a Commercial Approach to Improving Public Health: Social Marketing Matters. BASICS, Arlington, VA, USA.
- Bradley, S., T. Croft, J. Fishel and C. Westoff. (2012). Revising Unmet Need for Family Planning. DHS analytical studies no. 25, ICF International, Calverton, MD, USA.
- Bruce, J. (1990). Fundamental Elements of Quality of Care: A Simple Framework. *Studies in Family Planning*, 21(2): 61-91.
- Cleland, J., S. Bernstein, A. Ezeh, A. Faundes, A. Glasier and J. Innis. (2006). Family Planning: The Unfinished Agenda. *The Lancet Sexual and Reproductive Health Series*, 368(9549): 1810-1827. doi:10.1016/S0140-6736(06)69480-4.
- Kessy, F. (2012). Gender Dimensions in the Distribution and use of Mosquito Nets in Dodoma, Tanzania. Research report 2012/1, Ifakara Health Institute, Dar es Salaam, Tanzania.
- Kessy, F. (2014). Financing Reproductive and Child Health Services at the Local Government Level in Tanzania. *African Journal of Economic Review*, 2(1): 48-72.
- Kessy, F. and E. Mwageni. (2005). Quality of Care of Family Planning Services in Tanzania: Providers, Clients, and Non-users Perspectives. *Tanzania Journal of Population Studies and Development*, 12(1): 31-42.

- Kibuga, K. (2005). Who Do the CBDs Reach? A Study for the Tanzanian German Program to Support Health (TGPSH) in Dar es Salaam, Tanzania. TGPSH, Dar es Salaam, Tanzania.
- Konde-Lule, J., M. Musagara and S. Musgrave. (1993). Focus Group Interviews about AIDS in Rakai District of Uganda. *Social Science and Medicine*, 37(5): 679-684.
- Magoma, M., C. Ferla, C. Armstrong, H. Afnan-Holmes, S. Bandali, J. Wigle, L. Hulton, J. Innes and C. Ronsmans. (2013). Tanzania Country Strategy Narrative. E4A Program, Dar es Salaam, Tanzania.
- Mbaruku, G. (2005). *Enhancing Survival of Mothers and Their Newborns in Tanzania*. PhD dissertation, Karolinska Institute, Stockholm, Sweden.
- Mbuyita, S. and C. Mayombana. (2006). Desk Review Report on Maternal and Newborn Care at Community Level, Tanzania. Ifakara Health Research and Development Centre, Dar es Salaam, Tanzania.
- Michael, E.J. (2012). Use of Contraceptives Methods among Women in Stable Marital Relations Attending Health Facilities in Kahama District, Shinyanga Region, Tanzania. MPH dissertation, Muhimbili University of Health and Allied Sciences, Tanzania.
- Minja, H. (2001), *Introducing Insecticide Treated Mosquito Nets in the Kilombero Valley (Tanzania): Social and Cultural Dimensions*. Doctoral thesis, University of Basel, Switzerland.
- MoHSW. (2013). Mid Term Review of the Health Sector Strategic Plan III 2009-2015. Main report, Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- MoHSW, MoH [Zanzibar], NBS, OCGS, and ICF International. (2015). Tanzania Service Provision Assessment Survey (TSPA) 2014-15. MoHSW, Ministry of Health [Zanzibar], National Bureau of Statistics, Office of the Chief Government Statistician and ICF International, Dar es Salaam, Tanzania, and Rockville, MD, USA.
- Mroz, T., K. Bollen, I. Speizer and D. Mancini. (1999). Quality, Accessibility, and Contraceptive use in Rural Tanzania. *Demography*, 36(1): 23-40.
- Mshana, C. (2010). The Effect of Social Marketing on Malaria Knowledge among Primary School Children in Kilombero District, Tanzania. MPH dissertation, Muhimbili University of Health and Allied Sciences, Tanzania.
- NBS and ICF Macro. (2011). Tanzania Demographic and Health Survey 2010. National Bureau of Statistics, Dar es Salaam, Tanzania and ICF Macro, MD, USA.

- Norton, M. (2013). Maternal Health Initiative: The Role of Family Planning in Improving Maternal Health. Wilson Centre. Available at: http://wilsoncenter.org/event/the-role-family-planning-improving-maternal-health, accessed on 7 March 2014.
- Obrist, B., N. Iteba, C. Lengeler, A. Makemba, C. Mshana, et al. (2007). Access to Health Care in Contexts of Livelihood Insecurity: A Framework for Analysis and Action. *PLoS Med, 4(10)*: e308. doi:10.1371/journal.pmed.0040308.
- Otieno, A.A. and H.K.R. Amani. (2014). Population Growth, Structure and Momentum in Tanzania. Background paper for the Tanzania Human Development Report, Economic and Social Research Foundation, Dar es Salaam, Tanzania.
- Pathfinder International. (2008). Reproductive Health and Family Planning in Tanzania: The Pathfinder International Experience. Pathfinder International, Dar es Salaam, Tanzania.
- Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*, 3rd Ed. Thousand Oaks, CA, USA: Sage Publications.
- Prata, N. (2007). The Need for Family Planning. *Population & Environment*, 28: 212-222. doi:10.1007/s11111-007-0042-9.
- Prata, N. (2009). Making Family Planning Accessible in Resource-Poor Settings. *Philosophical Transactions of the Royal Society Berkeley*, 364: 3093-3099. doi:10.1098/rstb.2009.0172.
- Save the Children. (2013a). Surviving the First Day: State of the World's Mothers 2013. UK: Save the Children.
- Save the Children. (2013b). *Universal Health Coverage: A Commitment to Close the Gap.*London: Save the Children.
- Simba D., C. Schuemer, K. Forrester and M. Hiza. (2011). Reaching the Poor through Community-Based Distributors of Contraceptives: Experiences from Muheza District, Tanzania. *Tanzania Journal of Health Research*, 13(1): 1-7.
- Sonenstein, F.L., S. Punja and C. Scarcella. (2004). Future Directions for Family Planning Research: A Framework for Title X Family Planning Service Delivery Improvement Research. The Urban Institute, Washington, DC, USA.
- Stanback, J., A.K. Mbonye and M. Bekiita. (2007). Contraceptive Injections by Community Health Workers in Uganda: A Nonrandomized Community Trial. *Bulletin of World Health Organization*, 85: 768-773. doi:10.2471/BLT.07.040162.

- Steckler, A., K.R. McLeroy, R.M. Goodman, S.T. Bird and L. McCormic. (1992). Toward Integrating Qualitative and Quantitative Methods: An Introduction. *Health Education Quarterly*, 19(1): 1-8.
- Stephenson, R., A. Baschieri, S. Clements, M. Hennink and N. Madise. (2007). Contextual Influences on Modern Contraceptive Use in Sub-Saharan Africa. *American Journal of Public Health*, 97(7): 1233-1240.
- Stephenson, R., A. Beke and D. Tshibangu. (2008). Community and Health Facility Influences on Contraceptive Method Choice in the Eastern Cape, South Africa. *International Family Planning Perspectives*, 34(2): 62-70.
- Stover, J. and J. Ross. (2010). How Increased Contraceptive Use has Reduced Maternal Mortality. *Maternal Child Health Journal*, 14(5): 687-695. doi:10.1007/s10995-009-0505-y.
- UNFPA. (2008). Family Planning Vital to Improving Maternal Health. UN News Centre. Available at: http://un.org/apps/news/story.asp?NewsID=27343&Cr=unfpa&Cr1, accessed on 7 March 2014.
- URT. (1997). Child and Reproductive Health Strategy. Ministry of Health, Dar es Salaam, Tanzania.
- URT. (2000). National Package of Essential Health Interventions in Tanzania. Ministry of Health, Dar es Salaam, Tanzania.
- URT. (2005). National Strategy for Growth and Reduction of Poverty. Vice President's Office, Dar es Salaam, Tanzania.
- URT. (2007). Primary Health Services Development Program (PHSDP) 2007-2017. Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- URT. (2008). The National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn, and Child Deaths in Tanzania 2008-2015. Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- URT. (2009). Health Sector Strategic Plan III, July 2009-June 2015. Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- URT. (2010a). The National Strategy for Growth and Reduction of Poverty. Ministry of Finance and Economic Affairs, Dar es Salaam, Tanzania.
- URT. (2010b). National Family Planning Costed Implementation Program: 2010-2015. Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- URT. (2013a). Household Budget Survey 2012. National Bureau of Statistics, Dar es Salaam, Tanzania.

- URT. (2013b). Tanzania National Family Planning Research Agenda 2013-2018. Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- URT. (2013c). Service Availability and Readiness Assessment (SARA) 2012. Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- URT. (2014). The National Road Map Strategic Plan to Accelerate Reduction of Maternal, Newborn, and Child Deaths in Tanzania 2008-2015: Sharpened One Plan. Ministry of Health and Social Welfare, Dar es Salaam, Tanzania.
- USAID, Ethiopia Federal Ministry of Health, Malawi Ministry of Health and Rwanda Ministry of Health. (2012). Three Successful Sub-Saharan Africa Family Planning Programs: Lessons for Meeting the MDGs. USAID, Washington, DC, USA.
- Veney, J., R. Magnani and P. Gorbach. (1993). Measurement of the Quality of Family Planning Services. *Population Research and Policy Review*, 12: 243-259.
- Wanjiru, M., I. Askew, N. Munguti, S. RamaRao and R. Homan. (2007). Assessing the Feasibility, Acceptability and Cost of Introducing Post-Abortion Care in Health Centers and Dispensaries in Rural Tanzania. Final report, Population Council, Washington, DC, USA.
- WHO and UNICEF. (2010). Countdown to 2015, Decade Report (2000-2010): Taking Stock of Maternal, Newborn and Child Survival. The World Health Organization and United Nations Children's Fund: Washington, DC, USA.
- World Bank. (1993). *World Development Report 1993: Investing in Health*. New York, USA: Oxford University Press.
- World Bank. (2014). Open Data. Available at: http://blogs.worldbank.org.open data, accessed on 23 March 2015.

ANNEXES

Annex 1: Indicators for Measuring Quality of Care of Family Planning Services

Quality of care indicator	Description of the indicator
(i) Choice of methods	This was measured by the number of family planning methods offered at each facility. The indicator focused on ten methods: the pill, ICUDs; injectables (depo-provera); implants/norplant; diaphragms; foaming agents; condoms; female sterilization; male sterilization; and natural family planning. If a method is available at the facility, a score of 1 was assigned. Otherwise a score of 0 was assigned. The points were summed over the 10 methods and then divided by 10 (the maximum score possible). A score range of 0 to 1 was finally obtained.
(ii) Information given to clients	Ten (10) variables were included in this category: availability of educational and promotional outreach programmes in the facility; a sign indicating that family planning services are offered in the facility; indications of what hours family planning services are offered; whether the clients were told anything about the methods before they decided to use any method; whether clients were given a chance to select a family planning method of their choice; whether clients were given information on the difference between reversible and permanent family planning methods; whether the clients were told what to do if anything happened when using a specific method; whether clients were asked about how many children they want and how long they want to space them (reproductive goals); whether information on dual protection and its role in preventing HIV infection (use of condom in addition to a contraceptive method) was provided; and if the provider clarifies misconceptions/negative perceptions on family planning use. The scores for each of the 10 items were summed up and the total was divided by 10. An index measuring between 0 and 1 was then obtained. For this indicator, 1 means complete provision of information, and 0 means no information is provided in the facility.
(iii) Technical competence	Four (4) sub-indicators were used to measure this variable: visible technical competence, privacy, staff competence in screening clients, and staff competence in terms of training. Visible technical competence was measured by availability of electricity and availability of water supply in the facility. The sum of these items ranged between 0-2.
	<i>Privacy</i> was measured using the following aspects: if other people could hear what is being said in the counselling room/area; if other people could see the clients in the counselling room/area; if the counselling room contains a curtained area or some other arrangements to provide privacy for the examinations; if other people could hear what is being said in the examination room/area; if other people could see clients in the examination room/area; if there is a separate room for physical examination. The sum of these items ranged from 0-6. The scores for each of the 6 items were summed up and the total score was divided by 6. An index measuring between 0 and 1 was then be obtained.
	Staff competence in terms of screening the clients was measured by 5 variables: whether the blood pressure of the client was checked; whether the

⁷ Here we explored whether IEC materials on natural family planning methods are available at the health facility.

Quality of care indicator	Description of the indicator
<u>-</u>	weight was checked; whether the provider performed breast examination; whether the provider performed abdominal examination; and whether the provider performed pelvic examination. The sum of these items ranged from 0-5. The scores for each of the 5 items were summed up and the total score was divided by 5. An index measuring between 0 and 1 was then be obtained. Staff competence in terms of training was measured by 4 variables: if the facility has staff trained in family planning; whether the pre-service training attended by the provider covered introduction to family planning clinical skills; whether the provider had attended additional (in service) training; and whether the training included basic family planning clinical skills, comprehensive family planning clinical skills, or contraceptive technology update. The sum of these items ranged from 0-4. The scores for each of the 4 items were summed up and the total score was divided by 4. An index measuring between 0 and 1 was then be
(iv) Interpersonal relations	Two (2) sub-indicators were used to measure this variable: discussions with clients on issues related to STIs/HIV, and clients' management aspects.
	Discussions on STIs/HIV were measured by 4 variables: whether the provider discussed issues related to STI/HIV when the client reported for family planning services; whether the provider discussed the need of protection against STIs/HIV; whether the provider discussed sexual behaviour related to STIs/HIV with the client; and whether the provider was comfortable in discussing sexual behaviour related to STIs/HIV with the client. The scores for each of the 4 items were summed up and the total score was divided by 4.
	Management of clients was measured by 6 variables: whether the provider greeted the client when she came to the facility today; whether the clients was given a chance to ask questions; whether the provider answered the question(s) to the client's satisfaction; whether the provider asked the client about her reproductive history when she came for the family planning the first time; whether the provider discussed the return visits and follow up on family planning matters; and whether during the visit today the health facility staff handled the provider with empathy (polite and caring). The sum of these items ranged from 0-6. The scores for each of the 6 items were summed up and the total score was divided by 6. An index measuring between 0 and 1 was obtained.
(v) Mechanism to encourage continuity	This was measured by 3 proxy variables: if the facility makes referrals to other health facilities for family planning services (asked at health centres and dispensaries only); whether the provider discussed return visits and follow up with the clients; and whether the client was asked to return to clinic at any time if she had any questions, concerns, or problems. The sum of these items ranged from 0-3. The scores for each of the 3 items were summed up and the total score was divided by 3. An index measuring between 0 and 1 was obtained.
(vi) Appropriate constellation of services	This was measured by 8 items, namely the availability of: child immunization; IPTp; TT for pregnant women; ANC; maternity or delivery care; post-natal services; HIV/AIDS counselling services; HIV/AIDS education and testing. The scores for each of the 8 items were summed up and the total score was divided by 8. An index measuring between 0 and 1 was obtained.

Annex 2: Statistical Tests Results

Table 2A: Differences between Districts in Provision of Quality Services

Variables	District	N	Mean (SD)	Т	P-value
Choice of family planning methods	Misungwi	75	0.50(0.14)	-0.61	0.542
	Ukerewe	43	0.43(0.13)		
Information given to clients	Misungwi	75	0.67(0.25)	-1.88	0.063
	Ukerewe	43	0.60(0.20)		
Visible technical competence	Misungwi	75	0.57(0.37)	2.84	0.006
	Ukerewe	43	0.67(0.33)		
Privacy	Misungwi	75	0.73(0.38)	0.77	0.939
·	Ukerewe	43	0.68(0.49)		
Staff's technical competence (screening of clients)	Misungwi	75	0.45(0.20)	-1.87	0.005
	Ukerewe	43	0.34(0.20)		
Staff's technical competence (training)	Misungwi	13	0.73(0.37)	0.281	0.082
	Ukerewe	10	0.63(0.31)		

Table 2B: Differences by Types of Facility in Provision of Quality Services

Variables	Facility Type	N	Mean (SD)	F	P-value
Choice of family planning methods	Hospital	23	0.40(0.14)		
	Health Centre	43	0.44(0.11)	0.00	0.991
	Dispensary	52	0.41(0.14)		
	Hospital	23	0.60(0.25)		
Information given to clients	Health Centre	43	0.68(0.23)	0.20	0.658
	Dispensary	52	0.65(0.23)		
Visible technical competence	Hospital	23	0.98(0.10)	65.27	0.000
	Health Centre	43	0.60(0.21)		

	Dispensary	52	0.25(0.38)		
	Hospital	23	0.85(0.34)		
Privacy	Health Centre	43	0.80(0.45)	0.02	0.891
	Dispensary	52	0.45(0.43)		
Staff's technical competence	Hospital	23	0.45(0.41)		
(screening of clients)	Health Centre	43	0.45(0.43)	0.00	0.947
	Dispensary	52	0.41(0.51)		
	Hospital	2	0.90(0.18)		
Staff's technical competence (training)	Health Centre	6	0.80(0.10)	3.011	0.097
	Dispensary	15	0.50(0.33)		