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UNIVERSITY OF SOUTHAMPTON
United Kingdom



**Factors Influencing Contraceptive Use and Method Choice among
Women and Men in Zambia**

By

Kabwe W. Kalunde BENAYA

Thesis submitted for the degree of Doctor of Philosophy

Division of Social Statistics
School of Social Sciences

September 2004

For my dear husband Chibale, my daughter Mwape and the yet to be born!

“The Lord will watch over your coming and going, both now and forever more...”

Ps. 121: 8.

ABSTRACT

FACUTLY OF LAW, ART AND SOCIAL SCIENCES

Division of Social Statistics

School of Social Sciences

Doctor of Philosophy

**Factors Influencing Contraceptive Use and Method Choice among
Women and Men in Zambia**

By Kabwe W. Kalunde Benaya

This study examines demand and supply factors influencing men and women's contraceptive practice in Zambia. Specific objectives include; investigating the determinants of contraceptive use and method choice, determining whether regional variations in contraceptive use and method choice are a result of ethnicity or information access and understanding the socio-cultural context of family planning.

Both quantitative and qualitative data are used. Quantitative data are based on the 1996 Zambia Demographic and Health Survey (ZDHS), while qualitative information was collected through focus group discussions and in-depth interviews. Bivariate analysis was used in the preliminary analysis of contraceptive use and methods choice, while multivariate analyses using logistic and multinomial logistic regression were used to examine contraceptive use and method choice, respectively, when other factors are accounted for.

Pills and condoms are popular among both sexes; a higher proportion of women are using pills than condoms, while the opposite is true among men. Most male condom users are unmarried and aged below 20 years. The main findings show that the patterns of contraceptive use and method choice are similar to those found in other studies in the region. However surprising results are noted for men's method choice by education and current residence. The findings also reveal that regional differences do exist and are important in explaining men and women's contraceptive use. Among women, education, region of residence, ethnicity, current residence, desire for more children, partner's approval of family planning and access to information are among important determinants of contraceptive use. Among men, important determinants of use include current residence, region of residence and partner's approval of family planning. Regarding men's choice of methods, education, current residence, ethnicity, region of residence and family planning information source, are among the significant predictors. Some key barriers identified in men and women's contraceptive practice include, limited method mix, lack of availability of methods, inadequately trained providers and socio-cultural barriers such as high fertility aspirations.

The findings suggest that strategies aimed at promoting contraceptive adoption among men and women in Zambia should recognise the importance of background characteristics and the supply environment. Additionally, the service delivery mechanism starting from the policy level to the service delivery needs to be revisited. Key suggestions include expansion of the method mix, strengthening contraceptive logistics, expanding the CBD programme, and intensifying awareness creation.

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ABBREVIATIONS AND ACCRONYMS

AIDS	Acquired immune deficiency syndrome
APHRC	Africa Population and Reproductive Health Centre
BSC	British South Africa Company
CBD	Community Based Distributors
CBoH	Central Board of Health
CBR	Crude Birth Rate
CDR	Crude Birth Rate
CHWs	Community Health Workers
CMAZ	Christian Medical Association of Zambia
CSAs	Census Supervisory Areas
CSO	Central Statistical Office
DHMTs	District Health Management Teams
DHS	Demographic and Health Survey
DIFID	Department of International Fund for Development
EBDs	Employment Based Distributors
ESP	Essential Services Package
FGDs	Focus Group Discussions
FLMZ	Family Life Movement of Zambia
FP	Family Planning
FPWAZ	Family Planning Welfare Association of Zambia
GDP	Gross Domestic Product
GNP	Gross National Product
HIV	Human Immune Virus
HSR	Health Sector Reforms
ICPD	International Conference on Population and Development
IEC	Information, Education and Communication
ILO	International Labour Organisation
IMF	International Monetary Fund
IMR	Infant Mortality Rate
IPPF	International Planned Parenthood Federation
IUD	Intra-Uterine Device
JHU	Johns Hopkins University
JSI	John Snow International
KAP-Gap	Knowledge, Attitude and Practice-Gap
LRT	Log-likelihood Ratio Test
MCA	Multiple Classification Table
MCH	Maternal and Child Health
MMD	Movement for Multiparty Democracy
MOH	Ministry of Health
NCDP	National Commission for Development Planning
NERP	New Economic Recovery Programme
NGOs	Non-Governmental Organisations
NORAD	Norwegian Aid for Development
PPAZ	Planned Parenthood Association of Zambia
PRB	Population Reference Bureau
PSI	Population Services International
PSUs	Primary Sampling Units
SAP	Structural Adjustment Programme
SEAs	Standard Enumeration Areas
SFH	Society for Family Health
SIDA	Swedish International development Agency

SPSS	Statistical Package for the Social Sciences
SSA	Sub-Sahara Africa
STDs	Sexually Transmitted Diseases
TBAs	Traditional Birth Attendants
TFR	Total Fertility Rate
UNFPA	United Nations Development Fund
UNICEF	United Nations Children’s Emergency Fund
UNIP	United Nations Independence Party
UNZA	University of Zambia
USAID	United States Aid for International Development
UTH	University Teaching Hospital
WHO	World Health Organisation
ZCCM	Zambia Consolidated Copper Mines
ZDHS	Zambia Demographic and Health Survey
ZFPSP	Zambia Family Planning Services Project
ZHIP	Zambia Integrated Health Programme
ZSMP	Zambia Social Marketing Project

CHAPTER 1

INTRODUCTION

1.0 Introduction

Family planning is used by couples and individuals to space births or limit childbearing. Men and women can achieve these goals by using methods classified by demographers as modern (e.g. pills, Intra-Uterine Device (IUD), Norplant, condoms and injections) or traditional methods of family planning (e.g. withdrawal, herbs, abstinence and breastfeeding). Although these methods may be available, decisions on use and choice of method may be complex. They may for example, depend on a number of factors operating in the family planning demand and supply environment. Taking this into consideration, this dissertation is based on the investigation of the underlying demand and supply factors influencing women's and men's contraceptive use and choice of method in Zambia. The demand factors include socio-economic, demographic and socio-cultural factors, while the supply factors include accessibility and availability of services, quality of services and Information, Education and Communication (IEC).

The study is based on data from the 1996 Zambia Demographic and Health Survey (ZDHS) and the results of a qualitative study conducted in selected districts of Zambia between April and June 2003. Since the commencement of this study, a new DHS (ZDHS 2001/02) and the 2000 Census have been conducted. The results from these two sources have also been made reference to in this thesis. This chapter begins with the background and rationale for the study. This is followed by an outline of the study's objectives. The last section presents an outline of the organisation of the thesis.

One of the interests of this study is to understand the socio-cultural context in which contraceptive practice occurs. In every lineage or ethnic group, there are various beliefs and practices that govern people's behaviour. These undoubtedly extend to the area of fertility and its regulation. Therefore this study will also explore the role of socio-cultural factors in the contraceptive behaviour of women and men of different ethnic and lineage background. The focus on men adds an important dimension to studies in family planning in Zambia, particularly in view of the scarcity of information on men's contraceptive

practice and their role in women's reproductive lives. Since this study includes both sexes, gender comparisons may shed light on the differences and similarities of factors influencing their contraceptive practice.

1.1 Background and rationale for the study

The need for family planning in Zambia cannot be overemphasised in view of the high fertility and poor economic conditions. According to the 2000 Census of Population and Housing, Zambia has approximately 10.3 million inhabitants and a growth rate of 2.4% per annum (Central Statistical Office (CSO) [Zambia], 2003). Such a population growth rate is unsustainable in the current economic conditions. According to the ZDHS results, contraceptive use among currently married women has more than doubled from 9% in 1992 to 23% in 2001, largely due to increased program effort in the late 1980s and 1990s. However, its effects on reducing fertility have been marginal. In the 1980s and early 1990s, Zambia's family planning program was rated as 'weak' whereas the programs in neighbouring Zimbabwe and Botswana were rated as 'moderately strong' and 'strong', respectively. Zambia's family planning program has since improved and was rated as 'moderate' in the 1999 cycle of the family planning effort index (Mauldin and Ross, 1991; Ross and Stover, 2001). Nevertheless, further improvements are still required.

The levels of contraceptive use in the country are still quite low when compared with other sub-Saharan Africa (SSA) countries with similar socio-economic conditions like Kenya and Zimbabwe, where over a third of women are using a method. Demographic and Health Surveys conducted in Zambia reveal differentials in contraceptive use according to background characteristics. Studies conducted elsewhere have found that contraceptive methods are driven by various factors in the demand and supply environment. While some of the patterns in use and method choice could be explained by socio-economic and demographic factors, it is sometimes difficult to determine whether use and choice of methods is as result of demand or supply factors independently or an interaction of both demand and supply factors.

Although fertility has been declining over the years in Zambia, short birth intervals are still common. For example, 20% and 16% of women had birth intervals of less than 24 months in the 1996 and 2001/02 ZDHS respectively. Such short birth intervals have health implications for both the mother and infant given the generally poor nutritional levels in

the country. The situation has been worsened by the high levels of infant and adult morbidity and mortality partly due to HIV/AIDS. It is estimated that currently in Zambia, 16% of all adults are infected with HIV/AIDS (Central Statistical Office (CSO) [Zambia], 2003). The comparatively high levels of fertility, infant and maternal mortality are a source of concern in light of the relatively low levels of contraceptive use in the country.

Past demographic studies in Zambia have consistently found regional variations in contraceptive use across the nine provinces. (MOH, 1991; Gaisie et al., 1993; CSO, 1995). These provinces are not homogenous as they differ with respect to demographic, socio-economic and ethnic composition. Although socio-economic development in Zambia was never intended to benefit selected areas, it has however been concentrated in areas found along the line of rail, a continuation of the pattern established in the colonial era. This has left some areas, especially peripheral areas where the majority of the population reside, more disadvantaged than others with regard to access to information and services. It would therefore be expected that more developed provinces such as, Lusaka, Central and Copperbelt provinces, would have higher levels of contraceptive use than the other provinces, since factors that favour contraceptive use (e.g. better access to social, health services and urbanization) are more widespread there than in the rest of the country. Past studies have found that use of traditional methods is closely associated with rural residence. It is hypothesised that the more underdeveloped provinces which are also largely rural, such as Luapula, North-western, Northern and Western provinces will have higher use of traditional than modern methods.

In Zambia, few studies have examined the determinants of contraceptive use or explored regional variations in contraceptive behaviour. In addition, little information exists on the role of socio-cultural factors among sub-cultures of different ethnic and lineage descent in the country. Since there may be differences among the provinces with regard to ethnicity, lineage descent and access to family planning information and services, for instance, it is expected that these variables will be important in explaining differentials in contraceptive use in Zambia. While a large number of studies have focussed on the determinants of contraceptive use, few have examined the influence of socio-cultural factors. The social context in which contraceptive decision-making occurs needs to be understood in order to identify cultural values and practices that may be influencing contraceptive adoption. Previous studies elsewhere have found that spousal opposition to family planning

sometimes prevents women from using methods. Like most of SSA, Zambia has a diversity of ethnic groups thus making it difficult to generalise about reproductive and contraceptive behaviour. However, there could be some common beliefs, values and practices that influence attitudes towards child-spacing and family size limitation among matrilineal and patrilineal social systems as some studies in the region have found (Kalipeni, 1997 and Zulu, 1998). Zulu (1998) for instance, in a study among matrilineal and patrilineal ethnic groups in Malawi noted that both lineage systems place a high value on having many children. In most Zambian households decision-making is the man's domain and this extends to matters relating to sex and reproduction. Therefore involving men in family planning is critical and examining the determinants of men's contraceptive practice may provide important information for addressing their needs.

In this study it is expected that women in matrilineal systems would be more likely to regulate their fertility than those in patrilineal systems because they 'have' a higher status than their counterparts in patrilineal societies and may therefore have more control of reproductive decision-making. Furthermore, women in matrilineal systems can assume leadership positions, own property and land and children belong to their lineage. The patrilineal system is a male-dominated system in which inheritance is through the male line and sons are highly prized for the continuation of the lineage (Kishindo, 1994). Subsequently, it is expected that son preference would be higher among patrilineal than matrilineal societies and this may influence their contraceptive behaviour.

In Zambia, although men and women use both traditional and modern methods of family planning, the choice of modern methods is essentially limited to pills, injections and condoms (WHO, 1995). Also although condoms are listed as family planning methods, reported use among women is very low, a situation which raises concern in light of the high HIV/AIDS prevalence in the country. Unless there are considerable increases in the proportions of men and women using modern methods, the goal of reducing the population growth rate will be hard to achieve.

1.2 Aims of this study

Given the background highlighted in the preceding section, understanding the demand and supply factors responsible for men and women's contraceptive practice becomes important. Specifically, the study will:

- (i) investigate the determinants of contraceptive use and method choice among *women* and *men* in Zambia;
- (ii) determine whether regional variations in contraceptive use and method choice are a result of demand factors such as ethnicity and lineage, or supply factors such as, access to family planning information;
- (iii) investigate the potential of condom use for dual protection;
- (iv) understand the socio-cultural context in which contraceptive use and method choice operate among men and women in Zambia and to
- (v) explore the differences and similarities between the contraceptive behaviour of men and women belonging to different ethnic and lineage systems

1.3 Organisation of the thesis

This thesis is divided into 10 chapters. Chapter 2 presents the study's conceptual framework and literature review on the demand and supply factors influencing contraceptive use and method choice in developing countries in general, and Zambia in particular. Past studies on the involvement of men in family planning are also reviewed in Chapter 2. Background information on the country's geography, economy, politics and demographic profile is presented in Chapter 3. Also presented in Chapter 3 are the health sector reform programme and the history and development of family planning in Zambia. The quantitative methodology for this study is described in Chapter 4.

Since this study examines the contraceptive behaviour of the two sexes, two separate chapters, Chapters 5 and 6, present the results of the quantitative analyses of the factors affecting contraceptive use and method choice among women and men, respectively. In Chapter 7 the qualitative methodology that has been employed in this study is described, while Chapters 8 and 9 give the results of the qualitative study. In this thesis all the findings of the quantitative and qualitative analysis are discussed in Chapter 10. The Chapter also presents policy implications of the study findings and gives suggestions for future work.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

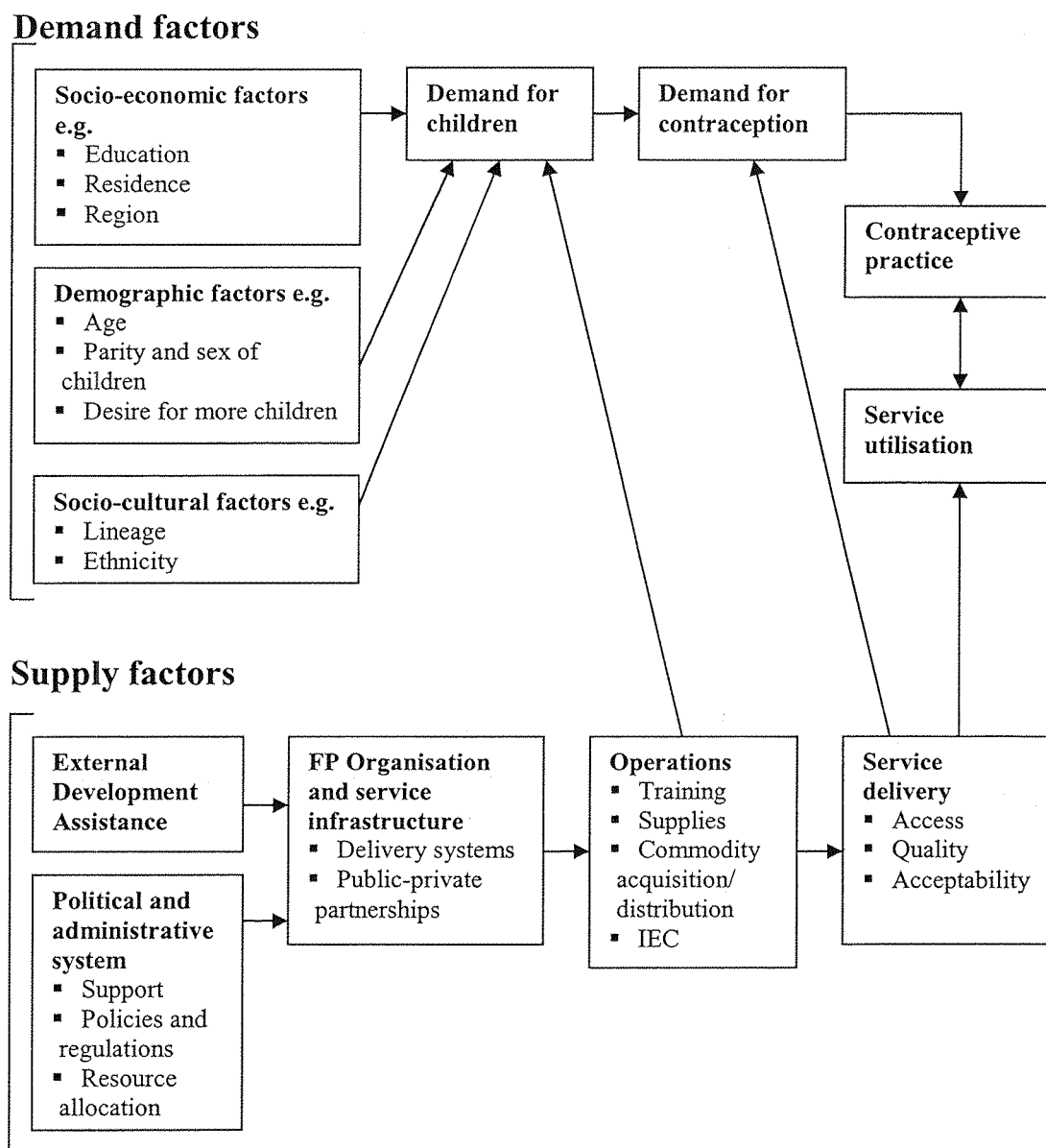
This chapter is based on a review of literature of previous studies that have been carried out in the area of family planning. Of interest, is literature on a range of socio-economic, demographic, geographic, socio-cultural and programmatic factors that influence women and men's contraceptive behaviour. These factors are often described as being either on the demand or supply side of family planning (Jain, 1989; Bongaarts and Bruce, 1995 and Bertrand et al., 1996).

The chapter begins with a framework summarising the pathways through which underlying factors operate in influencing contraceptive practice. This leads into a review of literature on demand factors which include a series of socio-economic, demographic and socio-cultural variables (e.g. education, residence, age, parity and marital status). Part of the literature presented in this chapter relates to ethnicity, lineage and the socio-cultural context of family planning in Zambia. The next section looks at past studies on supply factors such as accessibility of services, contraceptive supplies, quality of services and information access. Since this study is also interested in men's contraceptive behaviour, past studies on men's involvement in family planning in general and in Zambia in particular are reviewed. Finally, a summary of the chapter is given at the end.

2.1 Framework of analysis

Figure 2.1 presents the framework for the factors influencing contraceptive use and method choice in Zambia which mainly draws on earlier work by Bertrand et al., (1996). This framework proposes that a range of factors that include individual factors, and societal factors, indirectly affect contraceptive practice through demand for children and demand for family planning. Figure 2.1 also shows that contraceptive practice is influenced by various factors in the supply environment.

Figure 2.1 Framework for the factors influencing contraceptive use and method choice



Adapted from Bertrand et al., (1996).a

According to Jain (1989), factors that affect couples or individuals desired family size or their desire to do something about it are generally known as *demand factors*. The demand side of the framework includes factors at the individual and societal level such as socio-economic, demographic and socio-cultural factors, which generate the demand for contraceptive use. Factors such as education, residence, region and age are associated with the likelihood of using modern contraception (Bertrand et al., 1995; Tuone, 1999; Magadi et al., 2001). For example, place of residence may account for differences in contraceptive use largely due to the characteristics of the areas: urban areas are usually associated with

better education and access to social services which may influence contraceptive adoption. Socio-cultural factors such as sex and fertility preferences may also affect use of family planning. In a multi-ethnic country like Zambia, differences in contraceptive use are expected since traditional beliefs and practices differ from one ethnic and lineage group to another. These may influence their reproductive and contraceptive behaviour as suggested by the *cultural hypothesis* which suggests that differences in reproductive and contraceptive behaviour may be due to attitudes, values and customs which differ from one ethnic group to another (Murty and De Vos, 1984). Since Zambia's ethnic groups are either of matrilineal or patrilineal descent, it might be expected that ethnic groups of the same lineage descent would behave homogeneously in their regulation of fertility. The beliefs and practices of the various ethnic and lineage groups on fertility aspirations, sex preference, inheritance and property rights, for instance could either facilitate or hinder contraceptive use.

Various studies have found variations in contraceptive use among regions. Freedman (1987) suggested that any country with regions that are differentiated on ethnic grounds should expect differentials in reproductive and contraceptive behaviour. His argument, which is similar to the *cultural hypothesis*, is based on the fact that different ethnic groups have different rules and regulations governing their reproductive and contraceptive behaviour. Ominde and Ayiemba, (2003) propose that region of residence may be a proxy for ethnic or cultural influences that are related to contraceptive adoption. In Zambia, regional residence is influenced by ethnicity largely as a result of historical movements of the ethnic groups (see details in Chapter 3). Consequently, some of the provinces are more ethnically homogeneous than others. It is therefore anticipated in this study that regional variations in contraceptive use will reflect the contraceptive behaviour of different ethnic groups.

Figure 2.1 also indicates ways in which supply factors influence contraceptive practice. According Bertrand et al. (1996), *supply factors* entail the entire service delivery mechanism from external donor assistance to the actual delivery to the client. If supply factors are not functioning properly, delivery of services will be affected and this may in the end affect contraceptive uptake. Government policies on family planning use and the type of methods allowed in the country directly influence the supply environment. Information, Education and Communication (IEC) programmes also work to create

awareness on family planning and raise levels of acceptability of family planning use which could result in service utilisation and contraceptive practice.

Many researchers have acknowledged that societal and service factors such as access to contraception, availability of methods and the quality of care can impinge on individuals' decisions to use or not use modern methods or the choice of methods (Akin and Rous 1997; Koenig et al., 1997). Steele et al. (1999) used multilevel models on cross-sectional data from women and the Service Availability modules of the Morocco Demographic and Health Survey (DHS) to model the influence of service factors on women's contraceptive use. Using DHS and situation analysis data from Peru, Mensch et al. (1996) showed that women residing in environments with high quality of care were significantly more likely to use contraceptives than those living in areas with poor quality services.

Although demand and supply factors may act independently on contraceptive practice, it has been noted that supply and demand factors sometimes influence contraceptive use jointly. For example, IEC activities can increase levels of knowledge and awareness of family planning and reduce the demand for children while at the same time lead to an increase in the demand for contraception. The interaction between demand and supply factors is also supported by the *family planning hypothesis* which states that, "discomfort in communicating about a sensitive topic with someone outside one's ethnic group, a language barrier, or ethnic discrimination in the distribution of family planning services could affect differentials in contraceptive use" (Murty and De Vos, 1984, p. 222). The *socio-economic hypothesis* also suggests that in any region, demand and supply factors can jointly affect contraceptive adoption. It is hypothesised that regions where women have low education, limited formal-sector employment and limited access to health and family planning services are expected to have low levels of modern contraceptive use (Njogu, 1991). Conversely, regions with 'favourable' conditions should expect to have high levels of use. With reference to Zambia, the more developed provinces such as Lusaka, Central and Copperbelt province would be expected to have higher use of modern methods compared to the less developed ones. However, if traditional methods are considered, the more rural provinces such as Northern, Luapula and North-western provinces would be expected to have higher levels of use compared to the rest of the country as use traditional methods is much higher in the more rural than in urban settings.

2.2 Previous research on the determinants of contraceptive use and method choice

2.2.1 Demand factors

2.2.1.1 Socio-economic factors

There are various socio-economic factors that influence contraceptive behaviour, however only some, namely education, rural-urban residence and region of residence are discussed in this section. The relationship between female education and contraceptive use has been well researched and documented for many years. Researchers have consistently found that better educated women are more likely to use contraception even after other factors are accounted for (Guilkey and Jayne; 1997; Kaufman, 1998; Mancini, 1998; Diamond et al., 1998; Lutalo et al., 2000; Fikree et al., 2001). While husband's education may also be associated with own and spouse's contraceptive uptake, it is less important than the wife's own education attainment (Degraff, et al., 1997). Female education influences contraceptive use in multiple ways. For instance, it may result in greater knowledge and access to modern methods, late entry into marriage, exposure to new ideas on small family size norm, increased spousal communication and increased labour force participation. Countries like Zimbabwe, Kenya and Botswana which have scored significant successes in family planning, also have the highest levels of female schooling in SSA (Hall, 1996).

However, increases in education are not always a precondition for increased contraceptive adoption as some studies have demonstrated. In countries where the prevalence rates are very high and have spread to every group of society, the differences in use by education are minimal (Zlizar et al., 2003). A plausible explanation is that the favourable supply environment is able to meet the high demand for contraception resulting from widespread female education. Amin et al. (1996) have also suggested that the similarity in the levels of contraceptive use among educated and uneducated women may be related to the overall levels of education in an area. Other underlying factors could also result in similar levels of use among women of different education background. For instance, contraceptive use levels have been quite uniform regardless of educational attainment for some time now among Chinese women primarily as a consequence of the government's one-child policy (Poston, 1986; Boachang and Zhenming, 2003).

Women who have attained high levels of education tend to choose modern methods, such as pills and injections which have been known to effectively control fertility, while less educated women use traditional methods. Many DHSs including those conducted in Kenya

(2003), Zimbabwe (1999), Zambia (1992) have found that the pill is the most popular method among educated women (Gaisie et al., 1993; Central Statistical Office of Zimbabwe et al., 2000 and Central Bureau of Statistics [Kenya] et al., 2003). New evidence is beginning to show that although the pill is still the most commonly used method, there appears to be a dramatic rise in use of injectibles in some SSA countries. A study on 'Trends and determinants of contraceptive method choice in Kenya' using the 1989, 1993 and 1998 DHS results observed that use of injectibles had risen far much higher than any other method over the years particularly among uneducated and rural women (Magadi and Curtis, 2003).

Findings from past studies show a consistent relationship between contraceptive use and the place of residence: rural areas have comparatively lower levels of use than urban areas (Curtis and Neitzel, 1996; Zlidar et al., 2003; Agha et al., 2003). Favourable conditions for family planning adoption such as wide range of method choice, easily accessible health facilities are more prevalent in urban than rural areas. It has also been however observed that in countries where contraceptive use is widespread, or where methods have been widely available in rural areas as well, rural-urban differences are smaller than where contraceptive prevalence is low (Zlidar et al., 2003). A study by Moreno (1993) based on DHS data from 15 Latin American, Asian and North African countries found that levels of use among rural women were lower than those of their urban counterparts in all the countries, except for Jamaica (with a prevalence rate of 62%) where urban and rural levels were equal. The 2003 DHS for Philippines also reveals marginal differences in modern contraceptive use between rural (32.8%) and urban women (33.9%) (National Statistics Office [Philippines], 2003).

Cleland et al., (1994) noted that in Bangladesh, a favourable supply environment springing from a strong family planning programme with an emphasis on outreach programmes in the villages contributed to raising contraceptive use in rural areas significantly. A study by Chimere-Dan (1996) in a predominantly rural region of South Africa, found exceptionally high levels of contraceptive use and unexpected patterns of use. The study found a prevalence rate for modern methods of 42% and highly effective methods such as the pill and injectibles represented 29% and 58% of current use, respectively. These levels were much higher than those observed in some of the urban areas. The most common reason for using methods was limiting family size (43%), while a third of the women said they were

using family planning for spacing. These findings in South Africa do not represent the typical pattern as most studies observe that use of modern methods is generally higher in rural than urban areas and the reverse is observed for traditional methods (Curtis and Neitzel, 1996; Ominde and Ayiemba, 2003).

2.2.1.2 Demographic factors

This section presents a review of past literature on some demographic factors. Those discussed include age, the number of surviving children, marital status, desire for more children, spousal communication and spousal approval of family planning. It has been noted that contraceptive use differs with respect to the age of the woman. The differences in women's contraceptive behaviour at different ages are often a result of their fertility preferences, parity and fecundity. Some studies have shown that contraceptive use is typically low among young women in their teens and then rises to its peak among women in their 20s; thereafter, it declines, as the women grow older (Curtis and Neitzel, 1996; Lutalo et al., 2000; Magadi et al., 2001). It has also been observed that different types of contraceptive methods have different effects on the age pattern. Women's contraceptive needs may also change depending on the stage they are at in the life cycle, parity and the nature of the relationship they are in (Wysocki et al., 2001). For example, those at the start of their childbearing years may prefer to use less permanent methods while older women, with several children may prefer long-acting or permanent methods. Some studies have also observed that traditional methods are more popular among older women in their 40s, while condoms are more common among adolescents (Kilbourne-Brook, 1997 and Manning et al., 2000).

Generally, levels of contraceptive use are observed to be higher among married than unmarried women. However, among young married women, levels of use are much lower than among their unmarried counterparts largely due cultural expectations and social pressures to prove their childbearing ability immediately after marriage. The fear of being suspected of being infertile and fear of being divorced causes young brides not to give contraception much consideration until they have had a child (Mensch et al., 1998; Kirk and Pillet, 1998). Although levels of use are generally lower among single than married women, with reference to choice of methods, it has been observed that sexually active women who are not in union have higher levels of condom use than married women. In an analysis of DHS data from 60 countries that have taken part in the surveys since 1990

Zlidar and her colleagues (2003) observe that condom use is consistently higher among unmarried than married women in all the countries. They observe that in sub-Saharan Africa, sexually active unmarried women are on average 16 times more likely to report condom use than married women. Some studies indicate that condoms are not popular among married couples because of the stigma attached to them and their association with non-marital sex and HIV/AIDS, for instance (Hope, 1995; Dodoo and Adomako, 1998; Bauni and Jarabi, 2000).

Past studies have found that more women tend not to use contraceptives before the birth of the first child (Curtis and Neitzel, 1996; Nsemukila et al., 1999; Magadi and Curtis, 2003). A national study of 2,500 women in Zimbabwe found that on average women were married by the age of 19 and had their first child at 20. The results showed that contraceptive use increased substantially from 9% to over 50% after the birth of the first child (Barnett, 1999). Misconceptions about the effects of methods such pills, IUDs or injections on fertility, for example, are partly to blame for the low levels of contraceptive use before the first birth (Agha, 1997). Childless young women may also fear that hormonal methods could potentially affect their chances of becoming Mothers, which a symbol of women's status in most African communities (Castle, 2003). It could also be argued that perhaps women simply want at least one child before adopting a method.

Contraceptive use has also been observed to generally increase as parity increases. As women reach their desired family size, they tend to adopt contraception and particularly choose more efficient methods of contraception (Fikree et. al., 2001). In some studies however, a negative association has been found between parity and contraceptive use. A likely explanation is that most women with large families may never have used contraception at all in the past. Women with high parity also tend to reside in rural areas and have little or no education, both of which are associated with low contraceptive use. Another possible explanation is that with increasing age, women may have less need for contraception as they may be experiencing lower fecundity since they are near the end of their reproductive lives. The 1999 Family Planning Survey of the Philippines found that contraceptive use was lowest among childless married women (3.3%) and highest among those with three children (61.2%). Low levels of use were also noted among those with four or more children however. It is possible that women with higher parity may have never used family planning before (National Statistics Office [Philippines], 1999).

The results of a number of studies which reveal that the desire for more children is significantly associated with contraceptive use are hardly surprising. Women who do not want to have any more children have higher use of methods compared with those who still want to have more children (Lasee and Becker, 1997; Adai, 1999). In demographic studies the gap between desire to space or limit births and contraceptive use is referred to as unmet need or KAP-Gap. According to Westoff and Bankole (1995), unmet need is a moving target in that it rises as more women want to control their fertility. They argue that the rise in unmet need could also be due to population growth and may not necessarily imply the failure of a family planning programme. Sometimes women report that they are not using contraception, not because they do not desire to limit or space births, but because they lack the means to do so or face opposition from their spouses and communities.

Among most couples in African communities, discussions on reproductive issues is not very common. Underlying the difficulties in spousal communication on family planning use are socio-cultural factors such as those that regard sex and related issues as something not to be discussed. A study in Zambia by Mahler (1999) found that difficulty in communicating with the spouse about family planning hindered women's contraceptive use. The relationship between spousal communication and contraceptive use is consistent in most survey data. Past DHSs that have been conducted in SSA for example demonstrate that spousal communication on family planning is associated with family planning use. Other past studies have also established that couples that discuss family size and family planning issues have high levels of contraceptive continuation and effective use of methods (Becker, 1996; Feyisetan, 2000). Some studies have also established that mass media messages on family planning can trigger conversations on family planning among couples. Sharan and Valente (2002), for example demonstrated that dissemination of family planning information using radio in Nepal led to couples communicating about family planning and eventually deciding on use. Similar impacts of family planning radio messages on spousal communication were noted in Tanzania by Rogers et al., (1999) and in Uganda by Gupta et al., (2003).

Often it is assumed and that spousal communication on family planning leads to spousal approval and consequently contraceptive adoption. However, spousal discussion on family planning may not always lead to contraceptive adoption as couples may disagree on use or decide not to use contraception. In a recent article, on whether discussion of family

planning improves knowledge of partner's attitude toward contraceptives, DeRose and colleagues (2004) conclude that having discussions on family planning with one's spouse does not necessarily mean an increase in knowledge of partner's contraceptive attitudes (i.e. spouse's approval of family planning). After examining DHS data for 21 SSA countries they suggest that anticipated unmet need for contraception through improvements in spousal communication might be overemphasised.

Approval of family planning is used to indicate attitudes towards family planning. Its importance in family planning policy formulation cannot be overstated. Widespread disapproval can seriously affect family planning programme goals while approval facilitates use of methods and services. A study in Uganda found that partner's disapproval of family planning caused a statistically significant increase in women's unmet need. It was observed that partner's opposition accounted for much higher levels of unmet need in urban than rural areas. It appears from DHS data from various countries that men and women generally have favourable attitudes towards family planning as the proportion of those who approve of family planning is often much higher than those who do not. For instance, according to the 1998 Kenya DHS, nearly 90% of women approve of family planning; 65% believe that their husband approves and among 85% of couples both partners approve of family planning (DeRose et al., 2004). Using data from an earlier Kenya DHS, Lasee and Becker (1997) also observed that the wife's perception of her husband's approval of family planning had strong and significant association with contraceptive use.

2.2.1.3 Socio-cultural factors

It is becoming recognised that for family planning programmes to be successful, there is need to consider the social context in which decisions on family planning operate. Bulatao (1989) observes that socio-cultural factors may either encourage or deter women from using contraception. Many studies have however found that socio-cultural factors are more of an obstacle to women's use of modern methods than not. For instance, women's contraceptive behaviour has been found to be strongly influenced by cultural norms and practices such as early and universal marriage, high fertility aspirations, son preference and spousal and familial opposition to family planning (Adongo et., al, 1997; Nsemukila et al. 1999).

Studies in Navrongo, northern Ghana observe that women who chose to use contraception faced the risk of being ostracised by their spouses, relatives and society (Bawah et al., 1999). Such reactions sometimes compel women to practice contraception secretly as Castle et al., (1999) found in their study in Mali. A study in Zimbabwe by Francis-Chizororo et al., (1998), found that most mothers-in-law and husbands wanted their daughters-in-law and wives respectively to bear many children to extend the family line and opposed the use of contraception until at least after two or three children. These socio-cultural barriers could also partly explain the high unmet need for family planning especially in rural Africa where they are more widespread.

An anthropologist (McLeod) who studied the Asante of Ghana, a matrilineal ethnic group, noted that a woman was expected to bear many children. Failure to get pregnant or give birth, were matters of deep concern as women feared being considered cursed or suspected of practising witchcraft. A woman who gave birth to ten or more children was recognised in a special ceremony and was highly honoured (McLeod, 1981). In such a society, the use of contraception to limit births would undoubtedly be unwelcome as gaining recognition by having many children would be the goal of most women.

Cultural beliefs and practices also have a major influence on the type of methods that women in a particular community use. For example, rumours and myths have been found to be barriers for the adoption of modern contraception (Rutenberg and Watkins 1997; Centres for Disease Control and Prevention, 2000). While it is true that awareness creation could dispel misconceptions, sometimes these misconceptions are deeply embedded in the people's culture. For example, a study in rural Tanzania found that women were not comfortable with using injectibles because it disturbed their monthly periods, which is regarded as a sacred thing in some societies (Makundi, 2001).

Fertility regulation in the African context has often been for child spacing rather than limiting births. Sex was restricted to marriage and was usually for the purpose of procreation, similar to Thomas Malthus' theory on population growth (see Wrong, 1965). Traditional methods for regulating fertility included periodic and total abstinence, breastfeeding, herbs and strings (worn around the waist) (Nsemukila et al., 1999). Some of these methods that were used to observe taboos and restrictions imposed by society consequently resulted in spacing of births. The Caldwells (1983) in their studies among the

Yoruba of Nigeria observed that cultural beliefs such as 'having sex with a breast-feeding mother spoils breast milk' is 'improper', assisted in spacing births. While in some places these traditional practices are no longer observed due to lifestyle changes which have made it difficult to observe these 'less flexible and less convenient' methods, some studies have however found that breastfeeding for instance is still a common a way of regulating fertility (Hinde and Mturi, 1996).

Cultural reasons foster high fertility and contribute tremendously to low use of family planning methods in most traditional African societies. Makinwa-Adebusoye (2001) in her article on 'Socio-cultural factors affecting fertility in Africa' identified the following factors: the importance of lineage continuation; societal rewards of child bearing; stigma attached to childlessness; universal marriage; male control in decision-making and value of children as economic labour and for support in old age. Frank (1987) and Isuigo-Abanihe (1994) observed that in traditional African culture, one of the ways in which high fertility was maintained was through 'child fostering'. This 'communal ownership' of children and the strong support mechanism of childcare and childrearing, act to reinforce high fertility, implicitly leaving little or no room for contraceptive considerations.

Caldwell and Caldwell (1990) conclude that the way lineages are structured weakens spousal relations emotionally and economically thus making the couple to be more obliged to fulfilling the reproductive desires of the extended family rather than their own. They also argue that such structures leave little room for the decline in demand for children. This may be the case for West African communities where the Caldwells research was based. In East and Southern African where substantial declines in fertility have been recorded the levels of development, the high cost of raising children and widespread family planning programmes, for example, defeat their arguments. It is now evident that contraceptive use is on the increase and high fertility aspirations are slowly eroding away in most of SSA (Robey et al., 1994). Although there may be similarities in the contraceptive behaviour among the different ethnic groups of SSA, explanations underlying such behaviour may not necessarily be uniform as beliefs and practices differ from one ethnic group to another.

2.2.1.3.1 Lineage and ethnicity

Ethnic groups found in SSA either follow the matrilineal or patrilineal customary system of inheritance. Beidelman (1971) describes a lineage as a group of people linked together though traceable descent to a common ancestor solely through one sex. The matrilineal system is one in which descent is through the female line and therefore inheritance and chieftainship is through the maternal line, while in the patrilineal system, members share descent through the male line and decision-making, ownership of property and inheritance is through males.

In a matrilineal society, women own land and command some authority in decision-making pertaining to inheritance and chieftainship (Chondoka, 1988). Marriage is usually matrilocal, which means that the man takes up residence in the wife's village after marriage. In this society, the man is considered as a guest and the children belong to the woman's family. Thus in the event of death or divorce, the children belong to the woman. This may be reason enough for matrilineal women to have high fertility aspirations.

Patrilineal societies are male dominated, with men having an elevated position in the household and community. In these societies, men hold the property rights and inheritance is transferred to male children after the death of the male parent (Townsend and Garey, 1994). This system makes women dependent on their children or their own lineage. In patrilineal societies women are often regarded as part of the possessions that a man owns and are totally under his care and authority. In the event of marital dissolution or death of the spouse, women are either inherited by a male relative of the deceased or sent back to their own people without any property. A preference for parents to have either sons or daughters has been observed in some societies while in others, there is no strong bias for either sex. Son preference which is a result of religious beliefs and customs such as the dowry system, lineage and kinship ties, is particularly common among patrilineal communities in some Asian countries (Arnold and Kuo, 1984; Cho and Kim, 1994; Das Gupta, 1994; Clark, 2000). According to Das Gupta et al., (2000) in East and South Asia, sons are more highly valued compared to daughters as they could extend the family line, are of more economic value, carry the family name and bring prestige, unlike daughters who got married. In some patrilineal societies, no amount of female children will compensate for a male child and women will keep having children until they have a son. In some patrilineal Asian communities sons are expected to carry on the family lineage and

provide support in old age (Knodel and Debavalya, 1992; Mason, 1992). The relationship between son preference and contraceptive use is not a straightforward one. Some studies have found that son preference is associated with contraceptive use, while others observe that it has a negative association with contraceptive use (Khan and Khanum, 2000; Amin and Mariam, 1987).

According to Isuigo-Abanihe, (1994), the number of children is a measure of the importance and wealth of a patriarch and it is generally the case that children are needed to extend a patriarch's personal influence among ethnic groups of partilineal descent in Nigeria. Children are highly valued as they provide labour for the land, prestige, status and economic support in old age. Cain et al., (1979) suggest that women in patrilineal societies may desire high fertility because of their comparatively vulnerable position. Since the more sons one has, the more land and wealth a man's family has, producing sons may act as security for women against divorce, husbands taking on another wife or against desertion.

In many traditional African communities, resources are allocated on the basis of gender, age, lineage and kinship. Land is typically owned by the lineage and the size of land allocated to an individual family is dependent on family size. This implies that women who cannot have children or those with few children may have comparatively fewer resources. Because fertility is central in many traditional societies, a childless woman is not considered of much value in terms of household wealth or continuity of the lineage. Some past studies in SSA have also found that women often have diminished power to make decisions regarding sex, pregnancy and fertility regulation, but their reproductive abilities clearly define their role as the centre of the continuity of the lineage (Ojeifo and Singh, 1994; Pitso and Carmicheal, 2003; Rojas, 1990).

Unlike the western world where the nuclear family is the most important unit of a family system, in most of SSA the extended family comes first. The individual finds their meaning within the context of the extended family or community. The extended family acts as a support system throughout an individual's life and influences decision making on fertility and its regulation. Although the two social systems are different by definition, past studies have observed that there is hardly any difference in some traditional values and

customs between the two lineages. For example both place high value on children and consequently have high fertility aspirations.

An important characteristic of most ethnic groups in the SSA region is the lower status of women compared to the men folk which affects their decision making powers. The socio-cultural context of decision-making in both matrilineal and patrilineal ethnic groups is dominated by men who have the prerogative in reproductive decision-making. Hence the decision to regulate fertility which in the first place is not observed as a primary need owing to the value placed on children for instance, does not rest in the woman's hands, but that of the husband and the extended family. This is compounded by the fact that in most ethnic groups of either matrilineal or patrilineal descent, matters to do with sexuality are considered sacred and discussing them openly (with the spouse or strangers) is a violation of a traditional norm. Because of the fact that matrilineal women can own resources such as fields and patrilineal cannot, it may be assumed that matrilineal women in this sense have more power than their counterparts in patrilineal ethnic groups. Matrilineal women could be in a better position than patrilineal women to take control of their reproductive and contraceptive decisions since they can own property and land for example. However studies have found that in matrilineal societies as well, decisions on fertility and family size are still made by the husband or extended family (Kishindo, 1994).

Ethnicity is the springboard from which cultural beliefs, norms and behavioural patterns emanate. Therefore it is an important variable in the study of family planning. Family planning programmes bring with them a particular context which is sometimes in conflict with the existing culture. For instance, the essence of family planning programmes is to help men and women space and limit births. While spacing births is recognised in SSA as something that was practiced long ago as well, limited family size is a conflicting idea as having large families has been the cultural norm of many ethnic groups. Having children goes beyond simply fulfilling personal desires. It includes fulfilling the desires of the extended family who are often involved in the decisions on family size.

Cultural values of ethnic groups may be more of a barrier to family planning adoption than not. Since traditional values of ethnic groups are observed to be more adhered to in traditional than modern societies, it would be expected that use of modern methods in regions or areas that are less modernised such as rural areas would be low. For example in

rural regions of North-western province of Zambia and Bolivia use of traditional methods compared to that of modern methods was very high (MOH et al., 1997 and Schuler et al., 1994). In Bolivia, reasons advanced for this included supply factors and socio-cultural factors such as husband's disapproval, fear of stigmatization and inability to discuss sexuality openly.

2.2.1.3.2 The socio-cultural context in Zambia

In Zambia ethnic diversity makes it difficult to make generalisations about fertility or contraceptive behaviour. However, certain values and practices that influence reproductive and contraceptive behaviour are common among the different ethnic groups. For instance, the high value placed on children, the subordinate position of women in society and the importance of the extended family in reproductive decision-making and so on. So far no evidence exists concerning differentiated family planning supply environment on lines of ethnicity of lineage. Perhaps the faintest hint of this is the distribution of resources motivated by political support in own constituency or region of origin by political leaders. Such tendencies which leave some regions less endowed with socio-economic resources than others have been observed in some SSA countries, including Zambia, although there is no proof to establish the effect on contraceptive use for instance.

Although provincial residence may be influenced by ethnicity, it would be unrealistic to conclude that all the inhabitants of a province belong to the same ethnic group or lineage system. A more plausible argument is that it is possible for one ethnic group or lineage to be more dominant in one region than others. Copperbelt and Lusaka provinces of Zambia, owing to their unique history and level of socio-economic development, are more cosmopolitan in their ethnic composition than the other provinces.

In Zambia, marriage is universal in all ethnic groups without exception, and early marriage is not uncommon particularly among rural populations. In most tribes a woman is traditionally expected to start childbearing soon after marriage and having many children is traditionally considered a good thing. Strong preferences female children have been documented among the matrilineal Gwembe Tonga of Southern Zambia who must have female children to perpetuate the matrilineage. Clark et al., (1995) observe that female children are preferred among the Gwembe Tonga because they also bring wealth to the family through dowry which is mainly in form of cattle. A man with many sons is thus

considered disadvantaged. Although teenage pregnancy and pregnancy outside marriage is not uncommon in Zambia, it is condemned and discouraged. This stems from the fact that sex (for women) is expected to take place only in marital unions. Also, although polygamy is only practiced by a few ethnic groups in Zambia, it is socially acceptable for men to have multiple sexual partners (Foreman and Scalway, 2000).

Puberty rites in which advice on sex practice and behaviour is given to young girls are observed by a number of ethnic groups in Zambia, although they are slowly fading away in urban areas due to modernisation. The teachings on sex practice and behaviour passed on to young girls in puberty rites (observed by matrilineal Chewa and the Bemba, for instance), may act as a preparation for marriage although the young girls may not yet be ready to enter into marital unions. According to Richards (1956) and Chondoka (1988), during the initiation ceremony girls are taught how to satisfy a man, besides being taught how to behave like a woman. Puberty and marriage rites are important ceremonies in which important traditions of the tribe pertaining to womanhood and the importance of marriage, for instance, are passed on. Most literature on puberty rites do not make mention of any information passed on concerning fertility regulation. Since child spacing was and is still practiced in traditional societies in Zambia, it would appear that such information is perhaps passed on informally by elders or peers. A qualitative study among in-school and out-of-school youth on sex practice and behaviour conducted in Zambia found that boys and young men were often pressurized by their peers to engaging in sex to prove their virility (Kalunde, 1997).

To a certain extent, a marriage without children is stigmatised and consequently men and women go to great lengths to seek help for infertility. Besides the use of traditional methods such as herbs, abstinence and breastfeeding, there are a number of traditional beliefs and practices in the form of taboos which help in spacing children. A qualitative study on maternal morbidity and mortality conducted in Zambia in 1998 observed that common beliefs and practices pertaining to sex and fertility include ceasing childbearing upon becoming a grandmother, the belief that engaging in sex while breastfeeding will contaminate breast milk, and post-partum sexual abstinence until the child is at least two years (see Nsemukila et al. 1999).

Among the matrilineal ethnic groups in Zambia like others in the SSA region, the most important family unit is the extended family on the maternal side. The social organisation of the lineage includes ancestors and descendants in social life and decision-making on key aspects of life (Tembo, 1988). Under this system women have access to resources such as land and labour. Matrilocal residence which is a feature of matrilineal societies gives the husband little control over the family property or resources which primarily belong to the woman, her children and extended family. In contrast to the arrangement in matrilineal societies, women in patrilineal societies in Zambia rely more on their husbands than their extended family. Their access to resources is through a male, who can either be the husband, son or male relative. Like in other studies in patrilineal societies in Asia, this may reinforce their need to have sons who can support them in the absence of the husband (through death or divorce) and in their old age.

A study by WHO, (1995) in Zambia observed that regardless of lineage system, men (husbands or male relatives) control decision-making regarding children. This study noted that the difference between the two lineage systems is not necessarily the relative autonomy of women but the way in which the subordination of women's control over children is expressed. The 'bride price' has different significance among matrilineal and patrilineal ethnic groups. For example in a typical matrilineal system, children belong to the maternal line and payment of bride price does not necessarily imply that the woman will give birth for the husband's family. Bride price is more of a token since the rights over the wife's fertility remain with her extended family, specifically her brother who assumes a more important role in the lives of the woman's children than her husband.

In the patrilineal system however, the woman's reproductive rights and rights to her children are transferred to the husband through the bride price. According to Colson and Scudder (1980), among the Tonga of Gwembe Valley, who are traditionally matrilineal, the influence of the patrilineal system of inheritance can be traced. The researchers observe that although Tongas dispute their matrilineal descent, they have not fully embraced the patrilineal system. For instance, although a woman's fertility is not transferred fully to her husband, the man has greater rights over his children and wife than in most matrilineal societies. While the low contraceptive uptake in most developing countries has mainly been blamed on demand factors, evidence from various surveys carried out in developing countries suggests that supply factors are also to blame (Miller et al., 1998).

2.2.2 Supply factors

Factors that affect the delivery of family planning services have been observed to be important in determining contraceptive adoption. One important aspect of service delivery is the quality of services provided. The assumption is that the provision of high quality of services will maintain contraceptive use and generate new demand from first time users (Jain, 1989). Partly as a result of the development of a framework for the quality of care by Bruce (1990) the quality of care has become an important part of family planning service delivery. The framework provides a comprehensive list of elements of quality of care which include *choice of contraceptive methods, information given to clients, provider competence, client/ provider relations, follow-up mechanisms* and *appropriate constellation of services*. In the conceptual framework used in this thesis, supply factors include external donor assistance, political and administrative system, family planning organisation and service infrastructure, operations and service delivery factors (e.g. accessibility and availability). Some of these factors are discussed in Chapter 3 with specific reference to Zambia. This section therefore only presents literature on some aspects of the supply environment highlighted in the study's conceptual framework such as accessibility to services, Contraceptive supplies, information access and quality of service delivery.

2.2.2.1 Accessibility to services

Men and women can only use services if they are accessible to them. According to Bertrand et al., (1995), accessibility to family planning services generally refers to the extent to which family planning services are available and the extent to which people in a given location who are seeking these services can obtain them. Foriet et al., however give a broader definition of access which encompasses geographic proximity, economic costs, administrative factors, client's perceptions and information access. Previous studies have shown that availability and accessibility of family planning services are important factors in contraceptive use (Magnani et al., 1999).

In some studies physical distance to the facility has been observed to be a barrier to contraceptive adoption. In a study to investigate barriers to contraceptive uptake in Malawi, female FGD participants mentioned distance to the facility and the cost of getting there as deterrents to their use of family planning services (Opportunities and Choices research consortium 2003a). Tuone et al., (2004) also noted that difficulty in accessing

family planning services by women in some parts of Lesotho contributed low contraceptive uptake in those regions. Service providers interviewed said women in the mountain region particularly, sometimes walked for as much as six hours to get to some facilities.

Some studies have however observed that physical distance to the facility does not affect contraceptive use. Thang and Anh (2002) in their study on 'Accessibility and Use of contraceptives in Vietnam' found that physical distance from family planning services does not have an important effect on use of modern methods. Although a higher proportion of urban women lived within one kilometre of a facility providing family planning services compared with rural areas, the proportion using modern methods in rural areas was similar to that in urban areas. A study in Nigeria by Mensch et al., (1994) found that well over a third of women interviewed preferred not to use family planning services located nearest their homes. The most common reason given was the better quality of services provided elsewhere.

Bertrand et al., (1995, p 65) describe administrative accessibility as 'the extent to which unnecessary rules and regulations that inhibit contraceptive choice and use are eliminated.' They may include opening hours of the facility, the mode of service provision (vertical or integrated) and so on. While some studies show that women do not mind waiting for services, it has been established by many studies that long waiting times and inconvenient opening times act as barriers to women's use of family planning services (Family planning Service Expansion and technical Support/ John Snow Inc., 2000; Opportunities and Choices research consortium, 2003a). Tuone (1999) also noted that opening hours and the days when the facilities open can influence women's use of family planning services. She observed that for some working class women, private sources such as pharmacies were more convenient as they are open after working hours while health facilities operated when they were at work.

2.2.2.2 Contraceptive supplies

The availability of a wide range of contraceptive methods is not only a reproductive right, it is also an essential element of quality of care in family planning service delivery. Expanding the contraceptive method mix can also result in a significant increase in acceptors. The addition of an extra method may meet the need of some clients, attract new clients and help dissatisfied clients to choose from other available methods. A classic example of the influence of contraceptive availability is the case of Matlab, Bangladesh

where women tended to accept a method because it was made available to them at individual and village level on a consistent basis. Steele et al., (1999) in their study in Morocco found that availability of family planning clinics and the number of contraceptive methods offered at the community level, were associated with contraceptive adoption, continuation and switching. In their study in Vietnam, Thang and Anh (2002) concluded that Increased contraceptive availability coupled with increased family planning awareness could lead to increase in contraceptive adoption.

Nevertheless, making contraceptive methods available within easy reach of the people may not be enough to motivate use. Past studies have shown that barriers in the form of individual fears and those arising from the family and community hinder the successful use of family planning and lead to high levels of unmet need. In Zimbabwe, for example, the decline in the level of unmet need was largely attributed to a strong family planning programme, which embarked on massive awareness campaigns and provision of quality services that offered a wide method mix and easily accessible services (Thomas and Muvandi, 1994).

In a study on 'Contraceptive User Method Shifting in East, Central and Southern Africa' (which included Zambia), it was found that the most common method of family planning (29%) was natural family planning. The study found that lack of information, limited choice of methods and fear of side effects were all influencing contraceptive use. The study recommended a reformation of the quality of family planning services offered that would address local needs, recruit more clients and discourage shifting between methods (Ameerberg et al. 1990).

2.2.2.3 Quality of service delivery

Numerous studies have demonstrated an association between service quality (or perceived quality) and an increased use of family planning services (Bertrand et al., 1995; Brown et al., 1995; Koenig et al., 1997; Magnani et al., 1999; Mensch et al., 1996, RamaRao et al., 2003). On the basis of empirical evidence, it is now generally hypothesized that quality of care strongly influences contraceptive behaviour. Besides access and availability of services, measures of quality of care also include, availability of infrastructure, equipment, supplies and trained staff.

The most thorough analysis on the subject of quality of care is perhaps that based on panel data from Bangladesh by Koenig and his colleagues (1997) who have demonstrated that good quality of care is linked to contraceptive use. They observe that the quality of service provider is significantly associated with the probability of contraceptive adoption. In their study, respondents who believed that they had received good quality of care from fieldworkers were more likely to adopt and continue using contraceptives than those who thought they had received poor quality of care. In another study, Tuone et al., (2003) noted that women in Lesotho living in communities served by the Lesotho Planned Parenthood Association which offered better quality of services than Government facilities were observed to have higher levels of contraceptive use than their counterparts who lived in area only served by the government.

The effect of the family planning providers has also been identified as an important element in contraceptive practice. As indicated by Kwan (1994), clients' satisfaction and acceptance of services largely depend on the attitude and the competence of service providers. In Tanzania, Speizer et al., (2000) found that provider bias in method promotion and age restrictions to the use of some contraceptive methods act as barriers to contraceptive use. Williams et al., (2000) also found that the characteristics of family planning services themselves may discourage men and women from using family planning services. In their analysis of data collected through exit interviews in eight Latin American countries, they demonstrate high levels of dissatisfaction with family planning services. In this study long waiting times and cost of services were mentioned as the main areas of dissatisfaction by clients.

2.2.2.4 Information access

The importance of information on family planning cannot be overemphasised. Information creates awareness, enables an informed choice, may generate demand for family planning and lead contraceptive adoption. It directly influences the demand for family planning by creating awareness. The lack of IEC programmes or poorly conceived IEC messages can misinform the public and consequently have a negative impact on the demand for contraception. On the other hand, awareness creation programmes can dispel myths and misconceptions about the way contraceptive methods work. According to Da Vanzo et al. (1989), the most common barriers to contraceptive use reported by women included lack of knowledge about methods and availability as well as concern about their health.

Besides the mass media and health providers, information on family planning can be obtained through informal networks such as friends, relatives, songs and drama. Health providers are a powerful resource of information for communities which they serve and the type of information they give to clients on methods may be critical in their use or non-use or continuation of a method. Because rumours and misconceptions are prevalent particularly in rural communities where levels of education are low, the role of the provider in family planning counselling is critical.

While many family planning programmes have made remarkable progress in raising prevalence levels, it has emerged from some studies that information exchange that takes place between the client and provider is sometimes inadequate thus comprising the quality of service delivery. A recent review of the family planning programme in India by Koenig et al., (2000) noted that clients were often not given adequate information, side effects of methods were not clearly explained and clients were not given enough information on how to deal with side effects. In some of the states, it was noted that although providers were very knowledgeable about methods and how they work, they communicated very little to clients. For example, in some cases clients were asked to return if they experienced any problems without explaining the potential side effects to them.

A study in China compared 204 women who received detailed counselling on the hormonal effects and probable side effects of injectibles with 217 women who received only routine counselling. After following up the women for more than a year it was observed that the discontinuation rates were higher among women who were given less information than those who got more information (Lei Z-W et al., 1996). A similar study conducted in Mexico produced similar results even though both the groups of women experienced the same side effects (Canto et al., 2001). While it is unclear for both the Chinese and Mexican studies whether the differences between the two groups were entirely caused by the amount of information received, these findings support the assumption that counselling about expected side effects beforehand increases clients' satisfaction with the method and continuation rates.

The use of mass media in creating family planning awareness has been observed to have a positive impact on contraceptive use levels. For instance, in Nigeria, Kenya and Uganda, increased exposure to family planning messages in the mass media was found to be

associated with increase in contraceptive use (Westoff and Rodriguez, 1995, Kigaru et al., 1996; Gupta et al., 2003). Exposure to family planning media messages is observed to increase acceptability of family planning and encourage continuation of use. Messages on the benefits of having fewer children, the dual function of condoms and availability of services for instance can impact the demand environment by providing information about the availability of services and how methods work.

Radio in particular has been observed to have the greatest impact in increasing awareness levels. Analyses of data from the 1994 Tanzania Knowledge, Attitudes and Practice Survey and in the 1991-1992 Tanzania DHS to assess the impact of mass media family planning campaigns on contraceptive behaviour found that women exposed to multiple media sources were more likely to practice contraception than those who were not. The study also observed that women exposed to media were more likely to discuss family planning with their husbands than those who were not (Jato et al., 1999). With reference to family planning the mass media in Zambia shows great potential in promoting methods. The huge success of the condom promotional campaigns carried out by the social marketing programme of in the country largely using various types of electronic and print media is testimony of the important role of media.

2.3 Male involvement in family planning

Historically, family planning has primarily focussed on addressing women's needs. The 1990s brought about heightened interest in men's participation in reproductive health, mainly as a consequence of the HIV/AIDS epidemic. The importance of men's reproductive health needs and men's role in women's reproductive health was emphasised at the 1994 ICDP (UNFPA, 1994). The 1995 United Nations Fourth Conference on Women held in Beijing also recognised the importance of encouraging men to take positive steps to achieving gender equality and better reproductive health. So far programmes that have focussed on men have endeavoured to meet their reproductive health needs by encouraging them to become 'active users of methods' (by using condoms, withdrawal, abstinence and vasectomy), 'supportive partners' (by allowing women to use methods) and 'advocates' of responsible reproductive health behaviour (UNFPA, 1994).

2.3.1 The rationale for men's involvement

According to Mbizvo and Bassett, (1996), the effect of family planning programmes in African countries has been weakened mainly because of their failure to incorporate men who are the major decision-makers in a household. The issue of gender inequality is critical in women's family planning practice. Gender inequality in sexual relationships in most of SSA, which result from traditional beliefs and practices and women's low socio-economic status, make it all the more important to include men in reproductive health programmes. Women in most SSA African countries have a subordinate position in relation to men at household and community level and men often control decision-making in productive and reproductive issues (Nzioka, 2000). Men's control of women's reproductive behaviour translates itself in their low use of contraception. According to Barnett (1999), women have often said that they would like to use family planning, but 'fear being chased or beaten by their husbands who would brand them as prostitutes'. In a desperate attempt to regulate their fertility, these women often 'resort to using methods like injectibles, which are relatively easier to keep secret'.

It has also been argued that involving men in reproductive health programmes can have a positive impact on the health of women and children. According to Foubi and Lovich (1997), men can be in a better place to control the number and spacing of births, prevent the spread of STDs to their partners and support women emotionally, financially and physically during pregnancy.

The rationale to involve men in family is even more strengthened by the HIV/AIDS pandemic. Studies conducted around the globe have established that men more often than women engage in risky sexual behaviour which predisposes them and their partners to the risk of HIV/AIDS/STD infection (Aggleton and Rivers, 1999). Reasons for women's vulnerability to HIV infection include their economic dependence on men, lack of access to education and employment, poverty, sexual exploitation and violence (Aggleton and Rivers, 1999). Gender roles in society make women less able to have control in sexual decision-making and empower men to determine the nature and timing of sex. The belief is that sexual pleasure is intended for the man who can have as many partners as he likes and can have sex on demand from his partner. (Meursing and Sibindi, 1995) observe that while women may be prepared to take measures to protect themselves from HIV infection, they

often face opposition from their male partners who are often unwilling to practice safe sex, particularly among married couples.

It is often assumed that men are opposed to family planning since they are the decision-makers on sex and reproduction in most African communities. Empirical evidence however shows that this hypothesis may be incorrect and misleading. For example, an analysis of men's contraceptive behaviour using DHS data for several SSA countries indicates that more men favour family planning than has been thought to be the case (Djamba, 1995; Ezeh et al. 1996; Roudi and Ashford, 1996). Findings from recent DHSs with men's data in SSA observe a similar pattern (Salem, 2004). Other evidence from DHS surveys conducted in SSA further strengthen the case for involving men in family planning. It is observed that men are generally more likely than women to know about family planning methods and that men who are knowledgeable about reproductive health issues are more likely to support their partner's use of methods and they themselves are more likely to use methods (Roudi and Ashford, 1996; Grady et al., 1996).

It has also been suggested that unmet need for family planning, which results in unwanted pregnancies and sometimes unsafe abortions, maternal morbidity and mortality and short birth intervals, for example, can be drastically reduced if men were actively involved in family planning programmes. Past studies shows that that involving men in reproductive health can result in increased contraceptive adoption, continuation and effective use of methods by women and couples (see for example Wang et al. 1998).

2.3.2 Past studies of male involvement

Green et al., (1995) observe that most research on men's reproductive behaviour have been influenced by various stereo-types. For example, men are both ignorant and irresponsible with regard to fertility control; they block women's contraceptive use and are sexually promiscuous. Men's participation in family planning has not been as widely researched as women's, therefore some of these prejudices have persisted. However, since the 1990s some Demographic and Health Surveys have included men and this has provided useful empirical evidence for understanding men's contraceptive behaviour. After examining DHS data from 14 SSA countries and other studies on men's attitudes and practice towards family planning, Roudi and Ashford (1996) summarise their main findings as follows: men in Africa play a significant role in family size and family planning decisions; African men

have high fertility aspirations which are also higher than the women's; spousal communication on family planning is strongly associated with couples' contraceptive use; the majority of men approve of family planning; contraceptive use varies by level of education and condom use levels are very high while use of vasectomy is marginal.

Key findings from the most recent comparative analysis of men's DHS data on 25 SSA countries by Salem (2004) do not differ much from the analysis by Roudi and Ashford (1996). These include the following: men want more children than women want; levels of family planning knowledge are high; men are less likely to approve family planning than women and men report higher use than women.

Although levels of contraceptive use among men have been low for a long time, a shift in this trend is beginning to emerge. Most DHS results indicate that men are using contraception much more than women (Salem, 2004). This pattern is similar to findings from other studies that have examined gender differentials in contraceptive use. When data from five countries (Central African Republic, Ghana, Haiti, Kenya and Zimbabwe) were used to explore gender differences in the reporting of contraceptive use, it was found that men (or husbands) reported greater contraceptive usage than women in all of the countries (Ezeh and Mboup, 1997).

Some of the patterns of contraceptive use observed among men are quite similar to those observed in women's surveys, while others are different. For example, with regard to the number of surviving children, men's survey findings reveal that the likelihood of using methods is lowest among men who do not have any children, just like women's survey results show (Zlidar et al., 2003; Salem, 2004). While the pattern of use according to the number of surviving children is more clear among women, that observed among men is not very clear. For instance, the DHS comparative study found that contraceptive use is highest among men who have two or three children.

Bauni and Jarabi (2003) observe that the higher the level of education the more likely that men will use contraception. Petro-Nustas (1999), made similar observations among Jordanian men. Salem (2004) also notes similar findings for all SSA countries surveyed in the DHS since 1990. Survey findings also reveal that men in rural areas are less likely than urban men to use methods in all the SSA countries with the exception of Rwanda where

rural married men have higher levels of use than urban men. Other developing countries such as Jamaica with very high prevalence levels show marginal differences among rural and urban residents. The age pattern of contraceptive use for men in SSA generally peaks at 30-49 years.

Using data from the 1989 and 1993 Kenya DHSs, Dodoo (1998) explored the relative strengths of men's and women's fertility preferences in determining fertility behaviour. He observed that contraceptive use increased when both husband and wife did not want any more children. However, he noted that the husband's preference for stopping childbearing had a powerful affect on contraceptive adoption, while the wife's preference was not important. In addition, whereas the wife's preference for stopping childbearing did not increase use of method, it was observed that contraceptive use was two to three times more likely to be used when the husband did not want any more children. These findings demonstrate the influence of Kenyan men in contraceptive and fertility decision making, a common feature in most SSA societies. In a study of DHS data collected from 1990-1998, Bankole and Singh (1998) examined the reproductive preferences and behaviour of married men and their wives in 18 developing countries. Their main objective was to understand the role of husbands in reproductive decision-making. The study reveals that couples are more likely to agree on having another child than to stop childbearing and that small family size preference occurs first among wives and determines husband's roles in achieving smaller families. It is also noted that couple's reporting of contraceptive use is inconsistent in all the countries studied. It has been suggested that these discrepancies between husband's and wives' reporting of use is because men tend to overstate a couple's contraceptive use. It could be that they are unaware of their spouse's contraceptive use or non-use of methods or want to be seen as responsible.

Some studies in Kenya and Zimbabwe show that lack of information and services on male methods such as vasectomy is a major obstacle to men's use of family planning (Green, et al., 1995; Kim et al., 1996). Some men hold negative views on methods such as vasectomy which is often regarded as castration. Studies also reveal that some men believe that vasectomy reduces sexual desire and physical strength (Nzioka, 2000).

A study among Zimbabwean men which aimed at raising awareness and promoting positive attitudes towards family planning use (own and partner's) and decision-making

revealed that men were keen to learn about family planning. Also communication materials directed at men had the tendency of changing their attitudes towards family planning and stimulated contraceptive use and spousal communication (Kim et al., 1996).

In an attempt to increase men's participation in family planning various approaches have been used. Some have scored considerable successes while others have not been as successful. These include adding services for men to already existing women's services establishing 'male-only' clinics; workplace programmes; condom social marketing; CBDs using male distributors; outreach to male youth and mass media campaigns (Chirambo, 1992; Rojanapithayakorn and Hanenberg, 1996; Agha, 1997; Armstrong, 1999; Kim et al. 1996; Gordon and Phiri, 2000). Although most of these programmes have been carried out on a small scale, some have yielded vital information for policy, while some can be applied in other areas as well. In Malawi, an increase in men's participation in one area was achieved through introducing 'child spacing clubs' for men. This resulted in an overwhelming response from other communities who wanted these clubs to be introduced in their areas as well. Similar programmes have been introduced in Nigeria (Father's club) and Ghana (Daddies clubs) as well. In all these examples, there have been positive results in relation to increasing numbers of both female and male acceptors. In Ghana, a Ministry of Health project which aimed at increasing knowledge, improving attitudes and motivating use of contraception among men and women, resulted in a significant rise in men's knowledge and practice of family planning. Green et al., (1995), suggest that men respond to messages that promote positive role models, appeal to their economic interests, use personal testimonials and improve their self-image, all of which can be delivered using mass media.

Economic hardships could act as a precursor to male involvement in family planning. For example in Zambia a male involvement campaign in 1987 carried out by PPAZ among working class men found that most of the men felt that family planning was good because it could help them in dealing with economic pressures (Chirambo, 1992). It would not be surprising if similar views were found among men working in different companies as well as non-working class men.

2.3.3 Challenges to male involvement

Whereas a number of new contraceptive methods for females have been developed over the past 30 years, vasectomy is the only new male method that has been created in the last

25 years (Family Health International, 1999). Male methods are limited to condoms, natural family planning, vasectomy and withdrawal and each of these has advantages and disadvantages. A wider range of methods may encourage increased male participation.

Many programmes on family planning have met with opposition or lack of interest partly because the people they were intended for were not involved at the beginning. Provider-prescribed programmes are bound to fail, while those reflecting the client's needs have more chances of being successful. In the case of men, it is of utmost importance to involve them from the start. While programmes may consider HIV/AIDS and family planning as priorities, men may consider other reproductive health issues as more important to them. For example a study in Australia found that the most common concerns among men were urinary symptoms, prostate cancer and lack of sexual function (Pinnock et al., 1998). In another study in India, it was found that men were most concerned about sexual weakness, early ejaculation and genital wounds (Ravi et al., 2001). Therefore in order to attract men reproductive health issues, there is need to look beyond family planning and STDs.

The way in which family planning services are provided, the quality of services and the quality of care are important issues in men and women's participation in family planning. It has often been observed that in obtaining services of any kind, men usually do not exercise as much patience as women. They more often respond to quick, efficient and readily available services which fit in with their working environment, thus if family planning services are going to be successful in getting men involved, these should be a priority. Men's interests and priorities, just like the conversations they have among themselves, differ from those of women. Whereas women's lives especially in rural areas revolve around activities in the home, men's lives tend to revolve around their work and other activities outside the home. Such lifestyle issues ought to be carefully considered when formulating programmes for men.

2.3.4 Men and family planning in Zambia

The involvement of men in family planning in Zambia is a recent phenomenon. Literature on men's involvement in family planning in Zambia is scanty as few studies have been undertaken on this subject in the country. In addition, programmes aimed at increasing men's participation in family planning are few. Notable ones include the employment-

based programmes in some urban areas and the CBD programme, the most significant being the programme in Eastern province.

A qualitative study undertaken by the Population Council in the late 1980s in Zambia and five other African countries on factors responsible for low use of modern contraceptives concluded that husbands have a significant influence over their wives' ability to use contraceptives successfully. Most women expressed concern that they were afraid that their husbands' would discover their covert use of contraception as side effects would show. The lack of spousal support can therefore undermine women's use of contraception. The Population Council, which has conducted numerous studies on family planning in many developing countries, estimates that where prevalence is less than 10%, there are often substantial numbers of secret or covert users. This also implies that prevalence rates could actually be higher even where use is reported to be above 10%, as covert users do not report use. A study in an urban area of Zambia (Biddlecom and Fapohunda, 1998) revealed that among 800 women who were interviewed, 7% were covert users. Their reasons for covert use included husband's disapproval, husband's desire for many children and difficulty in discussing family planning with their spouses. Husbands control over their wives' reproductive and contraceptive behaviour could therefore be an important determinant of family planning use in Zambia.

Agha (1998) observes that social marketing programs promoting and selling subsidised contraceptives through commercial outlets have increased in Zambia rapidly in the last five years with HIV/AIDS prevention as their major goal. Consequently, condoms are widely available and there has been a rise in use over that past five years. Although it is clear that most men are now using condoms to prevent getting infected with HIV/AIDS, use of condoms for family planning is still minimal as past DHS results indicate. More importantly perhaps is the use of condoms for dual protection and in the absence of an evaluation on study on this it is difficult to assess the impact of the social marketing programme on dual protection.

In 1997, a qualitative research study was conducted in Ndola, Zambia by Rutenburg et al., (2000) on assessing reproductive decision-making in the context of HIV/AIDS found the impact of HIV/AIDS on men and women's reproductive decision-making was weak in the absence of any symptoms of illness. The study however found that the presence of

symptoms of the illness tended to influence people's behaviour. It was also noted in this study that both men and women supported condom use and were against continued childbearing.

A multi-country study focusing on family planning and HIV/AIDS which involved both men and women was carried out in six Eastern and Southern African countries. Among the findings of the qualitative survey in Zambia are that study participants felt that HIV/AIDS was mainly spread by men because of men having extra marital affairs; the lack of spousal communication on HIV and STDs; the overwhelming use of condoms in premarital and extra marital sex and the association of condoms with sex workers, pre marital sex (Khanna, 1998).

A study by Chikamata et al., (2002) on 'Dual needs: contraceptive and sexually transmitted protection on dual protection in Lusaka' found that in the facilities visited although the potential for the promotion of dual protection existed, it was hampered by erratic supply of condoms and that barriers to open communication on sexual behaviour and STIs exist. Providers in this study expressed discomfort in discussing certain topics with clients. The study concluded that the levels of education of both the clients and providers could be barriers in information exchange between clients and providers and suggested that culturally responsive IEC approaches for communication of sensitive issues be explored.

2.3.5 Dual protection

Dual protection has been defined as the use of contraceptive methods to protect against both pregnancy and HIV/AIDS/STDs. The term is also extended to the use of two contraceptive methods against pregnancy and STD infection. Other ways in which dual protection can be achieved is by abstaining from penetrative sex altogether or mutual monogamy between uninfected partners. (Advance Africa, 2001; Spieler, 2000; Best, 2001; International Medical Advisory Panel, 2000; WHO, 1997). Prior to the HIV/AIDS scourge, condoms were primarily seen as a way of preventing STD infections. However, they have now been recognised as the only effective method that is able to offer dual protection against pregnancy and STDs. As a result, condoms have become one of the most important methods available today. This however is only guaranteed if they are used correctly and consistently. Although this prescribed method of use is unlikely to reduce the

spread of the virus, the reality is that condoms are more often than not used in pre marital and extra-marital sex. Even in this case, the correct and consistent use is not often adhered to

The relative ease of access and use of condoms, their ability to minimise transmission of HIV/AIDS/ STDs and prevent pregnancy and the fact that they have no side effects, are plausible explanations for their high use among men. There is, however, a need to establish the effect of this use on marital fertility as most men that use condoms often do so outside the marriage relationship for prevention of HIV/AIDS/STD infection. Hulton and Falkingham, (1996) argues that the reason why married men's use is relatively high compared to that reported by their female counterparts is perhaps because condoms are being used differentially inside and outside marriage.

Most family planning programmes have now adopted the integrated approach to service delivery following ICPD recommendations. While in some countries this has overburdened providers, the benefits may outweigh some of the disadvantages, as providers have had the opportunity of widening their scope of knowledge as well (Askew and Magwaa, 2002). A study on promoting dual protection in Nigeria by Adeokun et al., (2002) concluded that integrating dual protection counselling into family planning service delivery was viable as both providers and clients showed keen interest. An analysis of DHS data based on 18 countries including Zambia found that among other things, a substantial proportion of men who had used the condom previously had used it for pregnancy and disease prevention. The authors suggest that this result could imply that once people adopt condom use they are more likely to take advantage of their dual function. Such a result also suggests that there is room for further promotion of condom use for dual protection (Bankole and Singh, 2001).

In an article about young men's risk behaviour and dual protection in Kenya, Nzioka (2000) observes that early sexual experimentation, multiple partners, paid sex, and irregular and rare condom use constitute young men's risk behaviour. He proposes that factors behind young men's low condom use despite knowledge of its dual function range from ineffective AIDS awareness messages, programs failure to address gender power relations and cultural norms, young men's reluctance to seek treatment, misconceptions about condom use, and young men's belief they are invulnerable. He also notes that issues

such as cost of condoms and embarrassment to obtain condoms affects condom use. The barriers to use of condoms to for HIV/AIDS protection and pregnancy prevention could be similar among young people of other developing countries and among older men as well.

2.4 Summary

The literature review presented in this chapter shows demand and supply factors in contraceptive use have been observed to influence contraceptive use in many parts of the world. Although it is observed that regional variations in contraceptive behaviour do exist, they are often attributed to socio-economic factors rather than socio-cultural factors such as ethnicity or lineage.

Although similar findings have been observed in different areas where similar research studies have been conducted, in some instances, this has not been the case. For instance, studies have shown that demand factors such as female education and residence are not always positively associated with contraceptive use, while it is generally observed that supply factors such as information access almost always influence contraceptive use positively. Mass media exposure has been observed to have a direct relationship with contraceptive use in many areas where such studies have been conducted.

This chapter has also presented literature on social and cultural barriers to contraceptive use in Zambia. Also presented is a review of literature on male involvement in contraceptive use and dual protection. These are new areas in the field of family planning in which not many studies have been undertaken in many parts of the world and in Zambia in particular.

CHAPTER 3

BACKGROUND CHARACTERISTICS AND THE DEVELOPMENT OF FAMILY PLANNING IN ZAMBIA

3.0 Introduction

This chapter provides background information on Zambia and describes the development of family planning in the country. The chapter is divided into three main parts. The first part looks at background characteristics namely the geography, politics and economy. This leads into a brief discussion about the history of the people followed by highlights of trends in mortality, fertility and contraceptive use. The second section looks at the health sector, the Health Sector Reform (HSR) programme and the situation of HIV/AIDS in Zambia.

In the third section the development of family planning in Zambia, the policy context and family planning service provision are presented. The involvement of the Government and the private sector in provision of family planning in Zambia are also discussed and a summary of the chapter is given at the end.

3.1 Background information about Zambia

3.1.1 Geography

Located in the southern part of Africa, Zambia is a landlocked country sharing borders with, the Democratic Republic of Congo, Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, Namibia and Angola. The country is divided into nine provinces namely, Central, Copper-belt, Eastern, Luapula, Lusaka, Northern, North-western, Southern and Western. Administratively, the country is divided into 72 districts (CSO et al., 2003).

Zambia is endowed with mineral deposits, mostly of copper. The country has about five large lakes, namely Lakes Mweru, Bangweulu, Tanganyika, Iteshi-teshi and Kariba. Also a large part of the famous Victoria Falls is also located in southern Zambia.

Figure 3.1: Map of Zambia



Base 802736 (800492) 2-01

Adapted from General libraries, University of Texas (2003)

3.1.2 Politics

Since independence in 1964, the country has had three republics. In the first republic (1964-1972) under President Kenneth Kaunda the country was a multi-party state and United National Independence Party (UNIP) was the ruling party. In 1972, the multi-party state was abolished and a one-party system was instead adopted. The second republic

(1973-1991) was characterised by increased centralisation of the political and administrative system and the absence of rule of law (Bates and Rao, 2000).

In the 1980s the deterioration of the economy led to subsequent changes in national politics. Political unrest increased gradually forcing President Kaunda to reintroduce multi-party politics. Consequently, nearly 20 new parties were formed, most of which participated in the general elections held in October 1991. The Movement for Multi-Party Democracy (MMD) emerged victorious during these elections, and ushered in the third republic (1991-to date) under President Frederick Chiluba. The MMD manifesto included an overhaul of the economic sector and major changes in the health sector. However, progress was sluggish due to widespread corruption among government officials. The current president, President Levy Mwanawasa, who took office in 2001, has embarked on 'cleaning' the government of its corruption.

3.1.3 Economy

At independence, Zambia inherited a relatively strong economy largely supported by the copper-mining industry, which accounted for over 90% of total export earnings and 40% of Gross National Product (Maipose, 1997). With the aim of bringing about diversification, socio-economic development and indigenous control of resources, the economic reform process, 'nationalisation' was instituted in 1968. This led to increased participation of the state in the economy through the formation of parastatal companies. The government also embarked upon building infrastructure such as roads, schools and hospitals (Maipose, 1997).

During the mid-1970s, copper prices suffered a severe decline on the world market resulting in the devaluation of Zambia's currency, a rise in inflation and the genesis of economic decline. The heavy dependence on copper and the lack of investment and growth in agriculture and the manufacturing sector resulted in a rapid deterioration in the economy. In the 1980s the country turned to the International Monetary Fund (IMF) for assistance which led to the introduction of the economic Structural Adjustment Programme (SAP) (World Bank, 1994). Between 1987 and 1990 the government introduced the New Economic Recovery Programme (NERP) in an effort to redress economic decline. This included promoting the private sector and reducing the public sector through a comprehensive privatisation programme (World Bank, 1994). The severe conditions of the

IMF, which included the withdrawal of subsidies and floating of the local currency caused a sharp increase in the cost of living and exacerbated the poverty levels. The Government recognised that Zambia's future lay in diversifying and expanding the economic base by embarking on agricultural sector development and privatisation of parastatal companies. Consequently the copper mines, which provided the country's main revenue were privatized.

It was hoped that the privatization of the copper mines would result in growth of the Gross Domestic Product (GDP). This however did not happen and the withdrawal of Anglo-America from purchasing one of the mines affected the economy negatively (Versi, 2003). Although President Mwanawasa's government has embarked on resuscitating the economy, things are yet to get better. Currently, Zambia is characterised by shrinking public sector employment and an expanding but ill-funded and disorganised informal sector. The ailing economy has affected the health sector and other sectors of the economy as financial allocations from the national budget have been decreasing over the years. In the past decade there have also been countless job losses resulting from the downsizing of the public sector as part of a World Bank/ IMF condition for assistance. Thus regrettably, from being one of the wealthiest countries in the region, Zambia has become one of the poorest, with close to two-thirds of its population living below the World Bank poverty threshold of US\$1 a day (UNDP, 2003).

3.1.4 Population

3.1.4.1 A short history of the people

Archaeological evidence indicates that human life existed in Zambia as early as half a million years ago. According to Colson (1951), the Tonga of southern Zambia, who are a matrilineal ethnic group, were the first inhabitants of present day Zambia and are believed to have lived in this locality from as early as the 15th Century. Other early inhabitants originally came from the Luba-Lunda empire in present day Democratic Republic of the Congo and northern Angola. These migrants were later joined by the Ngoni from the south in the early 19th century (USAID, 1999). Eventually many of large ethnic groups found in Zambia today, such as the Bemba, Tonga, Nyanja and Lozi established territories (which became their traditional settlements). Although each of the nine provinces of Zambia is multi-ethnic, these historical movements have shaped their ethnic composition. Consequently, it is typical to find some ethnic groups concentrated in particular provinces.

Today, the country's 10 million inhabitants are distinguished by an estimated 73 Bantu ethno-linguistic groups which are officially grouped into seven major ethnic groups, namely, Bemba, Tonga, Luvale, Lunda, Kaonde, Lozi and Nyanja (Dzekedzeke and Nyangu, 1994). These ethnic groups either follow the matrilineal or patrilineal customary system of inheritance. Most are however matrilineal as the country lies in the 'matrilineal belt' which runs through several countries of south central Africa (Mbaya, 2002).

The growth of towns and cities in Zambia led to movements of mainly male migrants from their 'traditional homelands' to urban centres in search of employment. The nearby Northern, Luapula and North-western provinces provided much of the labour in the copper mining area now known as Copperbelt province. Most of those who migrated from Eastern and Central provinces took up clerical jobs in urban centres like Lusaka and Livingstone (Dresang, 1974 and Ohadike, 1981). These population movements which brought about interaction of the different ethnic groups coupled with urbanisation and exposure to new ideas on family life, contributed to cultural diversification. In Zambia, the concept of ethnicity was not given much prominence in the past by politicians as a way of breaking ethnic barriers. The founding President of Zambia (Kenneth Kaunda) embarked on politics of national unity by emphasising that all ethnic groups were important and promoted the slogan 'one Zambia, one nation'. This attitude helped people of different tribes to mix freely, embrace one another cultures and intermarry.

3.1.4.2 Demographic situation

So far, four national censuses have been conducted in Zambia. The 1969, 1980, 1990 and 2000 national censuses reported total populations of 4.0 million, 5.7 million, 7.8 million and 10.3 million, respectively. The population growth rates for the periods 1969-1980, 1980-1990 and 1990-2000 were 3.1%, 2.7%, 2.4% per annum, respectively (CSO, 1995 and CSO, 2003). These growth rates have been largely due to high levels of fertility and declining mortality for the last two to three decades.

The 2000 census revealed that Zambia has a youthful population with 46% of the population falling under the age of 15. With regard to internal migration, population movements from the rural to urban areas slowed down in the 1990s as Table 3.1 shows.

Table 3.1: Summary of selected demographic indicators for Zambia, 1969-1990.

Indicator	Census and ZDHS year					
	1969a	1980a	1990a	1996b	2000a	2002a
Total Population (million)	4.0	5.7	7.8	-	10.3	-
Population growth rate	-	3.1	2.7	-	2.4	-
Population density (/sq. km)	5.3	7.5	9.8	-	13.1	-
% urban	29.4	39.9	38.0	45.0	35.0	40.0
Total Fertility Rate	7.1	7.2	6.7	6.1	6.0	5.9
Infant Mortality Rate	141.0	97.0	123.0	109.0	110.0	95.0
Crude Birth Rate	47.7	50.0	44.0	-	36.0	-
Crude Death Rate	19.7	16.7	18.3	-	13.8	-
Contraceptive prevalence rate	-	-	-	14.4	-	22.6
% < 15 years	46.0	49.5	45.2	-	46.3	-
Life expectancy at birth: Males	41.8	50.4	46.1	-	48.0	-
Life expectancy at birth: Females	45.0	52.5	47.6	-	52.0	-
% women with secondary+ education	-	-	-	27.8	-	30.0
% married women	-	-	-	61.1	-	61.3

Sources: (CSO, 1973, 1985, 1995, 2003); - Information not available;

Note: 'a' denotes census year; 'b' denotes ZDHS year.

According to the 2000 census, Copperbelt province currently has the largest share of the country's population (16.1%). Lusaka province is the next most populous province with 1.4 million people. The inflow of migrants seeking better economic opportunities is largely responsible for the population size in the two provinces. The least inhabited province in Zambia is North-western province with just about 6% (584,000) of the total population.

3.1.4.3 Mortality and fertility trends

Zambia has generally had high rates of infant mortality and fertility, although these have been declining over the years. Although the Infant Mortality Rate (IMR) dropped from 107 to 95 between the 1992-2001 inter-survey period, it is still comparatively high. Besides poverty, poor sanitary conditions, poor water supply and an inefficient health care system, infant and child mortality in Zambia is also attributed to HIV/AIDS¹ (World Bank, 1994). Zambia's maternal and infant mortality rates are among the highest in the world. The 1996 ZDHS found a maternal mortality rate of 649, which increased in the 2001 ZDHS to 729 deaths of women per 100,000 live births every year. Although it was reported in the 1996 and 2001/02 ZDHS that over 90% of pregnant women in Zambia received antenatal care, less than 50% of the births were attended to by medically trained providers in both surveys (MOH et al., 1997 and CSO et al., 2003).

In Zambia boys and girls begin having sex at an early age; the median age at first sexual

¹ The HIV/AIDS situation is described further in a later section in this Chapter.

experience was 16 years for girls and 15 years for boys in the 1996 survey. This increased slightly to nearly 17 years for girls and 18 years for boys in the 2001/02 survey. Although the onset of sexual activity for both sexes has increased, it is still considered early in view of the lack of adequate information and family planning services for the Zambian youth. These factors are partly responsible for the high rate of teenage pregnancies. Both the 1996 and 2001/02 ZDHS found that about half of Zambian women are either mothers or pregnant with their first child by the time they are 19 (MOH et al., 1997 and CSO [Zambia] et al., 2003).

Although fertility has been high over the years, it has generally been declining (see Table 3.1). Over the 10-year inter-survey period the TFR has only decreased by 0.6 from 6.5 in 1992 to 5.9 in 2001. In Zambia, differentials in fertility according region and place of residence exist. For example, Luapula and Northern provinces have had the highest TFRs over the years of more than 7 children per woman on average, while the rates in Lusaka, North-western and Western provinces have been on the lower side, ranging between four to six children. Urban women and those with secondary or higher education also have much lower fertility than their rural counterparts or those with primary or no education. While pro-fertility views and low levels of socio-economic development may be contributing to the high fertility in the rural areas for example, in the urban areas, modernisation, increased availability and accessibility to health services, including family planning, may account for the comparatively low fertility levels.

3.1.4.4 Trends in contraceptive use

In Zambia, availability of nation-wide demographic information on contraceptive knowledge and use dates back to 1988 when a survey designed to collect baseline data on family planning use was conducted. From 1992, the country has had a consistent flow of nationally representative family planning and reproductive health information collected through Demographic and Health Surveys (DHSs). These have been conducted every 5 years by the Zambian government in collaboration with Macro International Incorporated of USA.

3.1.4.4.1 Contraceptive Prevalence Survey (1988)

The Contraceptive Prevalence Survey provided the first ever comprehensive data on levels of contraceptive knowledge and use among Zambian women of reproductive age. The

survey was conducted in 1988 by the CSO in collaboration with United Nations Population Fund (UNFPA). A total of 5,392 women were interviewed in this survey. Based on the assumptions that the proportion of women using contraception would be smaller among rural than urban women and that fewer women were living in rural (39%) than in urban areas (61%) at the time, in this survey more respondents were sampled from rural (5,022) than urban areas (370) (CSO, 1985; MOH and UNFPA, 1991). This type of sampling however could be problematic as it would lead to biased results.

Overall, two thirds of all respondents knew at least one family planning method and knowledge levels were higher among urban (75%) than rural women (61%). The study found an overall prevalence rate of 10%, with modern methods constituting 4.2%, while traditional methods accounted for 5.8% of use. Urban prevalence was higher (14%) than that of rural areas (9.7%). With reference to method choice, the pill was the commonest method (2.5%), followed by abstinence (2.0%). Use of other methods such as injections, IUD and sterilization was negligible (MOH and UNFPA, 1991).

3.1.4.4.2 Zambia Demographic and Health Surveys (1992-2001/02)

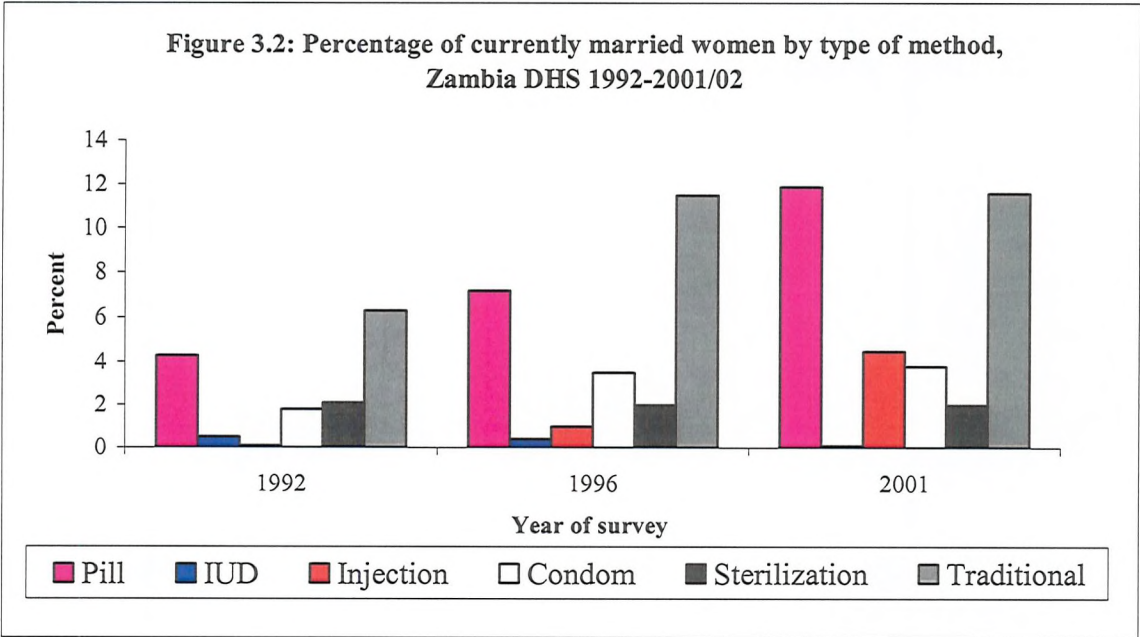
Three DHSs have been conducted in Zambia in 1992, 1996 and 2001/02. These surveys are designed to provide information on reproduction, fertility preferences, fertility regulation, infant, child and maternal mortality, sexual behaviour and HIV/AIDS/STDs and so on. While the 1992 ZDHS collected information only from women, in the subsequent surveys men were also included. All three surveys reported that about 90% of Zambian women knew at least one method. Among the men, in both the 1996 and 2001/02 surveys knowledge of contraception was nearly universal.

Evidence from these surveys indicates that the country has made significant progress in improving the levels of contraceptive use. The 1992-2001/02 inter-survey period witnessed a substantial rise in the proportion of married women using modern methods from 8.9% in 1992 to 14.4% in 1996 and then to a further 22.6% in the latest survey.

Although the Contraceptive Prevalence Rate (CPR) increased over the 1996-2001/02 inter-survey period, it is noted that the most significant changes have been in the use of pills and injectibles. Pill use for this period increased from 7.2 to 11.9 while use of injectibles increased from 1.0 to 4.5%. The survey period however shows slight differences in some

typical demographic indicators which may influence contraceptive use. For example, TFR only changed slightly from 6.1 in 1996 to 5.9 in 2001/02, IMR decreased from 109 to 95 infant deaths per 100 live births (see Table 3.1). It is also noted that the percentage of women with at least secondary or higher education did not vary much between the two surveys. For instance, in the 1996 ZDHS, to 28% of women reported having reached secondary or higher education, while in the 2001/02 survey this increased slightly to 30%. In both surveys the proportion of married women remained about the same (60%).

The contraceptive method mix shows that between 1992 and 1996 there was an increase in use of all the methods except for IUD and sterilisation as Figure 3.2 shows. During this period there was an increase in condom use among married women from 1.8% in 1992 to 3.5% in 1996 largely due to their widespread availability driven by the HIV/AIDS scourge in the country. However, between 1996 and 2001/02, condom use only increased marginally by 0.3%. Pill use increased from 4.3% to 11.9% between 1992 and 2001 and injectibles increased from 0.1% to 4.5% during the same period. Figure 3.2 shows that there has been a decline in the use of all the other methods during this period. Use of IUD has almost disappeared while use of sterilization has been consistently low over the years.



3.1.4.4.3 The Contraceptive Needs Assessment Study in Zambia (1995)

In 1995, with a view to testing the possibility of enhancing contraceptive choice by expanding the contraceptive method mix, the Government, Population Council and other

collaborating agencies conducted a needs assessment study. This study was conducted in five provinces, namely Lusaka, Western, Eastern, Copperbelt and Luapula provinces (WHO, 1995).

This study confirmed findings of earlier studies which had found that the pill was the most popular method among Zambian women. The study also found that up to 50% of family planning users in Zambia relied on private sources (WHO, 1995). Service provider bias and limited method mix were cited among reasons for low use of methods. Although the study strongly recommended the introduction of some new contraceptive methods, it was also suggested that some of the brands (i.e. *50mg estrogen-containing oral contraceptives* and *triphasic preparations*) be discontinued and that the service delivery system be upgraded. The study also suggested that IUDs and emergency contraception could play an important role in meeting contraceptive demand. The need to include these two methods and to remove barriers to provision of IUD, for instance were emphasised. The study concluded that service providers generally lacked the necessary skills and had very little motivation due to inadequate skills and lack of logistical support for their work. The lack of men's participation in family planning and the marginalisation of adolescents in service provision were also noted in this study (WHO, 1995 and MOH, 1997).

3.2 The health sector in Zambia

At the time of independence, Zambia had one doctor for every 11,400 people and public health facilities were few (Smith, 2004). With a pledge to provide free health care to all Zambians in both rural and urban areas, the number of health facilities increased remarkably particularly between 1964 and 1980 (see Table 3.2). The health sector flourished during the years of economic boom in the early 1970s, particularly in the rich copper-mining area of Zambia (Copperbelt province). The economic decline in the mid 1970s and 1980s adversely affected the health sector. Funding decreased substantially and the infrastructure began to deteriorate, leaving many health institutions without basic necessities such as water or sanitation facilities. For a long time to come, the health sector was to suffer from lack of equipment and shortages of essential drugs and trained staff (Smith, 2004).

By 1980, the doctor to patient ratio in the country had decreased to 1: 7,000. However, with increase in the population size to 7.8 million by 1990, lack of growth in health infrastructure and increased staff shortages, lead to the number of persons per doctor

increasing again to 10000 in 1994 and then to 14,000 in 2001 (The Economist Intelligence Unit, 2003). The population has since grown to nearly 10 million in the 2000 census and although a few health centres have been built in the last 10 years, there has not been marked improvement in access to services for the majority. The health institutions have also been overburdened with HIV/AIDS related cases with an estimated 42% of hospital beds being occupied by HIV/AIDS patients (Versi, 2003).

Table 3.2: Distribution of health facilities by type, Zambia, 1964-1990

Type of health facility	1964	1980	1990	Percent change	
				1964-1980	1980-1990
Hospitals	48	82	82	68.8	1.23
Government	19	42	42	121.1	0.0
Mission	19	29	29	52.6	0.0
Mine/ Other	10	11	11	10.0	0.0
Health centres	306	721	942	135.6	30.7
<i>Rural health centres</i>					
Government	187	469	661	150.8	40.9
Mission	63	66	73	4.8	10.6
<i>Urban health centres</i>					
Government	39	120	133	207.7	10.8
Mine/ Other	7	66	75	288.2	13.6
Total (hospitals and clinics)	354	802	1,024	126.6	27.7
<i>Number of beds and cots:</i>					
Hospitals	7,710	14,889	16,921	93.1	13.6
Health centres	3,140	5,630	7,647	79.3	35.8

Adapted from CSO, (1992).

Although Zambia has both state-run and privately owned hospitals and clinics, the health care system is dominated by the public sector. It is estimated that the government accounts for 75% of total health expenditure and 73% of service provision (MOH, 1997). Regarding private sector involvement in health provision, most private hospitals are run by church missions, private companies and individuals. Most privately owned health facilities are however out of the reach of many Zambians as they charge exorbitant fees and are mainly located in the urban areas. The copper-mining industry set up health services for its employees which were either sold or taken over by the government after the industry was privatised.

With respect to regional distribution, the number of public health facilities varies by province because of differences in population size. Highly populated provinces such as Lusaka and Copperbelt provinces have more facilities compared with the not so highly

populated provinces, such as North-western and Luapula provinces. However, the number of persons per bed was far greater in Lusaka (571) compared to North-western province (285) for instance, because of its comparatively larger population size as Table 3.3 shows.

Table 3.3: Distribution of health facilities and bed capacity in selected provinces, Zambia 1994.

Province	Population	No. of Health facilities		Bed capacity	No. of persons per bed
Lusaka	987,106	Hospitals	5	1,729	571
		Clinics	79		
Copperbelt	1,427,545	Hospitals	17	3,301	432
		Clinics	96		
Luapula	525,160	Hospitals	5	736	714
		Clinics	200		
North-western	387,552	Hospital	9	1,361	285
		Clinics	118		

Note: Population figures are based on the 1990 census

Adapted from MOH, 1995

Health care provision in rural parts of Zambia is rudimentary and since 65% of the population resides in rural areas the implication is that the majority of Zambians are underserved. With poor road and transportation networks in most rural areas, people sometimes walk long distances to get to the nearest health facility. Besides socio-cultural factors, the introduction of user fees and the limited access to health services sometimes causes people to seek alternative services such as those offered by traditional healers who often look for underlying spiritual or social causes of illness and charge high fees for their services (Nsemukila et al., 1999).

The general health of the Zambian population has deteriorated over the years. With increased poverty levels, overcrowding in the cities and the deterioration in the living standards, many of the health problems are linked to poverty-related factors such as, chronic food shortages at household level and poor water and sanitation (World Bank, 1994). Consequently communicable diseases such as diarrhoea, cholera and tuberculosis are among the major causes of morbidity and mortality. The situation is compounded by the high incidence of malaria, which is the leading cause of death for adults and children, and now increasingly by HIV/AIDS.

3.2.1 HIV/AIDS situation in Zambia

The HIV/AIDS pandemic is perhaps one of the biggest health challenges facing Zambia today. The HIV/AIDS pandemic has affected many sectors of the economy including the military, education and health sector through loss of valuable manpower. Since 1984 when the first AIDS case was diagnosed in Zambia, the disease has spread rapidly. Adult mortality has also risen in the last 10-15 years and life expectancy has declined substantially largely due to HIV/AIDS. By 1997, it was estimated that 20% of the adult population had the HIV/AIDS virus (MOH, 1997). The prevalence has since dropped to 16% according to estimates from the latest ZDHS largely as a result of the decline in the prevalence among adolescents. Males and females aged 15-19 have rates of 2% and 7% respectively. Female adults have a higher prevalence (18%) than males (13%). It has been observed that new AIDS cases in Zambia are declining as more people adopt safe sex practices. However, mortality rates are likely to continue increasing from persons who are already infected (USAID, 2003). It is reported that like other sectors the health sector has suffered substantial staff losses through HIV/AIDS deaths (Tawfik and Kinoti, 2003).

Mother-to-child transmission of HIV has also contributed significantly to disease burden in Zambia. Currently, over 20,000 infants are infected each year in Zambia. Latest DHS estimates suggest that by 2002, 15% of children aged 14 years and below had lost at least one parent to HIV/AIDS (CSO [Zambia] et al., 2003). In an effort to combat the spread of HIV/AIDS, the Government has adopted various prevention strategies and interventions. These include massive campaigns on the promotion of condom use, the ABC (Abstinence, Be faithful and use Condoms) campaign, Voluntary Counselling and Testing (VCT), Antiretroviral Drug Therapy (ART) programme and microbicides trials.

3.2.2 The status of abortion in Zambia

Since 1972 Zambia adopted a liberal abortion policy which allowed abortions to be performed on health and socio-economic basis (Bradley et al., 1991). However, the procedural requirements are complex and this, coupled with inadequate services and limited qualified health providers limit the number of legal abortions performed in the country. According to the Termination of Pregnancy (TOP) Act of 1972 an abortion can be carried out provided certain set criteria are fulfilled. For instance, three registered medical practitioners should be of the view that the pregnancy would involve a risk to the life or health of the women, there is substantial risk that if the child were to be born, they would

suffer from severe disability (SOURCE). The requirement of three physicians to consent to the abortion of whom one must be a specialist in the branch of medicine in which the patient is specifically required to be examined makes it difficult to reach eligibility as there are few specialist physicians spread through the country. The 1972 Act also stipulates that a legal abortion must be performed by a registered medical doctor in a hospital. In a country where doctors and hospitals are few, most women seeking the service end up not being able to end or resort to undergoing unsafe illegal abortions often performed by unskilled providers in the community. High fertility rates, low contraceptive use, unwanted pregnancies, high unmet need for family planning and limited access to contraception and legal abortion among other things have facilitated unsafe illegal abortions. Nsemukila et al., (1998) in their study on causes of maternal mortality in Zambia found that induced abortion was one of the causes of maternal deaths.

3.2.3 Health Sector Reform programme (HSR) in Zambia

In 1992 the Government in collaboration with the World Bank introduced the Health Sector Reform (HSR) programme. The main aim of the health reforms was to build a health care system which would provide Zambians with a 'cost effective, quality health care as close to the family as possible' (Bates and Rao, 2000). This involved a shift from relying on large hospitals to district health facilities.

During the implementation of the HSR programme (1993-1997), a number of strategies consistent with the 1994 ICPD Programme of Action were implemented. These included decentralisation, capacity building, development of information systems, provision of integrated reproductive health services, Essential Services Package (ESP) and reproductive health policy formulation (Nanda, 2000). As part of capacity building and decentralisation, new structures were created. For instance, a semi-autonomous body, the Central Board of Health (CBoH), was formed to act as a technical unit responsible for the delivery and implementation of health reforms. Other new structures included the District Health Boards, District Health Management Teams (DHMTs) and Hospital Management Boards (MOH, 1998). The DHMTs were established to manage health activities and programmes in the districts. Among important features of the HSR programme were the establishment of Neighbourhood Health Committees (NHCs) which would serve as a link between formal health services and the community and the constituting of an ESP (which included family planning) for different levels of service provision (MOH, 1998).

During the HSR programme, government and donor funding for the health sector also increased. For instance, government funding increased from 5.7% in 1991 to 13.7% in 1997 (Bates and Rao, 2000). In 2000, Government contributed 57% to funding of the health sector while 43% came from cooperating partners (Mtonga and Ndhlovu, 2001). Donor funds were administered through a 'basket fund'², to finance district activities. Interviews by Syacumpi and her colleagues (2003) identified some pitfalls in the system. For example, they learnt that sometimes funds did not reach the district health offices and Service Delivery Points (SDPs) in good time, thereby affecting the implementation of activities. In addition, the districts were at times under-funded making it difficult for them to implement some programmes. Previously, funds were given directly to the provincial or district offices by donor agencies. Although not as many problems were encountered with this system, the disadvantage was that financial support was usually concentrated only in areas where the donors had interests, leaving other areas deprived.

Although Zambia's HSR programme is generally considered a success by most of the outside world, its implementation has been hampered by various factors in the political economy and underfunding. Under the HSR programme, a Management Information System (MIS) was established to manage the financial and administrative sectors of the health care system effectively. The continuous flow of information was also key in monitoring the implementation process. However, it has been observed that the information flow from lower to higher levels of the health care system (and vice-versa) has sometimes been inadequate or completely absent. This has had an effect on the implementation of policies and programmes. The reform process has also been criticised for emphasising on the functioning of systems rather than on delivering services to the people (Mtonga and Ndhlovu, 2001). Despite the increased donor support, the period of the implementation of the health reforms has been curiously characterised by severe shortages of drugs and essential medical equipment, inadequate funding for district activities and repeated strike actions by health personnel (including medical doctors) largely due to poor conditions of service. Currently the implementation of the health reform programme is steered by the National Health Strategic Plan (NHSP) for 2001-2005 which provides the

² In Zambia, basket funding, common basket or pooled funding mechanism is one in which financing from donors is aggregated into one pool to support district health sector activities through the Central Board of Health (MOH, 1998; the Global Fund, 2003).

framework for the government's health programme. The NHSP focuses on public health priorities such as malaria, HIV/AIDS, integrated reproductive health and child health (USAID/Zambia, 2003).

3.3 History and development of family planning in Zambia

According to Van den Bourne et al., (1996), in Zambia modern family planning services in the early 1960s were only offered on a small-scale in a few urban areas. The health services were limited and characterised by racial restrictions. Consequently use of modern contraceptives among the indigenous population was very low although some anthropological literature suggests that fertility regulation existed (e.g. using breast-feeding and post-partum sexual abstinence) primarily for child-spacing among some ethnic groups. The MOH played a relatively small role during this time and did not actively offer family planning services until 1969 when the first Maternal and Child Health (MCH) unit was established at the University Teaching Hospital (UTH) in Lusaka. Family planning services were later incorporated and the unit which was renamed to Maternal and Child Health/Family Planning (MCH/FP) was eventually established in every public health institution in the country. Family planning services together with other health services were provided for free (Ald, 1984; NCDP, 1989; MOH, 1989; Euro Health Group, 1998).

Today's family planning environment in Zambia owes much of its growth and development to the efforts of the Planned Parenthood Association of Zambia (PPAZ), which played a key role in laying the ground for future work. It was established in 1972 as the Family Planning Welfare Association of Zambia (FPWAZ). Most of its early programmes focussed on awareness creation (PPAZ, 1999). The association later changed its name to the PPAZ and became affiliated to the parent body, International Planned Parenthood Association (IPPF) (Mutambo, 1990).

In the early years, there was considerable opposition to family planning in Zambia. Service providers were often harassed if they gave out methods without the consent of clients' spouses and single women were denied family planning services. During the early stages of its development family planning suffered from negative publicity from some politicians. For instance, throughout the 1970s the women's league of the ruling party (UNIP) campaigned actively against family planning (Van den Bourne et al., 1996). In some cases, family planning literature and contraceptives were confiscated and burned by

anti-family planning campaigners. Such attitudes stemmed from traditions of most ethnic groups in Zambia which advocate high fertility, elevate men's decision-making role and regard sex outside marriage as a taboo. In most of Zambia, stigmatization of family planning use by unmarried women and sex outside marriage (particularly for women) is not uncommon.

With growing awareness of the consequences of population growth largely resulting from the 1984 global conference on population held in Mexico, the government began to recognise the need to shift from being pro-natalist to addressing family planning issues in a more pragmatic way (UNFPA, 1985). The adoption of an explicit national population policy in 1989, which aimed at slowing the rate of population growth, attached some importance to the role to family planning in achieving this goal. The aims of the population policy included 'ensuring that all couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so in order to enhance the health of families and individual' (Ministry of Finance and Economic Development, 1997, p. 14). Prior to the health reforms, family planning service provision in Zambia followed a vertical program approach (Syacumpi et al., 2003). The integrated approach was adopted in the HSR programme in line with recommendations by the ICPD Programme of Action (UNFPA, 1995). According to Stewart et al., (1999), the vertical approach is where a programme has a single purpose of providing services, in this case family planning, while the integrated approach involves the provision of a constellation of different reproductive health services at the same time.

Although the government had begun offering family planning services in their health institutions for free, a review of the family planning programme before the introduction of the HSR programme, revealed that service provision was still dominated the private sector who sometimes charged for their services and had limited geographical coverage. The lack of political will in family planning service provision had various consequences. For example, although Zambia had been a site for clinical and introductory trials for various contraceptive methods since the 1970s the impact of these initiatives on the method mix and uptake of contraceptives was very marginal. The range of methods was limited to pills and condoms which have been the most widely available methods in the country. Limited Government involvement also meant that contraceptive supply was donor-driven. Donor

agencies determined the method mix, source of supply, quantities of stock and how these were distributed throughout the country. The lack of evidence from research to guide family planning service delivery and the lack of coordination among different providers and stakeholders also made it difficult to make judgements on demand and supply. In addition the responsibility for population issues fell under the Office of the President in the National Commission for Development Planning (NCDP) and the health ministry had limited input in population programmes (World Bank, 1992).

A World Bank commissioned review found that family planning counselling services were virtually non-existent and that adolescents had very limited access to contraceptive services, for example (Euro Health Group, 1998). The review also noted that although some laws had been revised such as the removal of spousal consent before obtaining family planning service, there were some which needed to be revised. For instance, the law prohibited trained nurses from acting independently of physicians in dispensing oral contraceptives and inserting IUDs. The Drugs and Poisons Act also prohibited advertisements of contraceptives obtainable by prescription. Such a law would have a negative impact on contraceptive social marketing, for instance.

3.3.1 Policy context

One of the most significant contributions to family planning in Zambia was the drafting of the national family planning programme in 1992. According to MOH (1997), the national family planning programme was designed to, promote family planning awareness and utilization of family planning services, maintain effective co-ordinated logistics and ensure capacity building. It also focussed on improving research capacity as well as co-ordination and collaboration among family planning agencies.

As part of the objectives of the national family planning programme, the national family planning and reproductive health policy framework was drafted in June 1997. The policy took into consideration the African Charter on Human and People's Rights and the 1994 ICPD Programme of Action. The main goal of the policy framework is 'to improve the standard of living and quality of life of all Zambians' (MOH and CBoH, 1997, p. 1). To achieve this goal, various objectives, strategies and recommendations were proposed in the policy guidelines and are outlined in Table 3.4.

Table 3.4: Summary of objectives, strategies and recommendations of the national family planning policy, 1997

Objectives
<ul style="list-style-type: none"> • prevent deaths and illnesses among mothers and children; • to ensure that all couples and individuals have the right to decide freely and responsibly the number and spacing of their children and have the means, education and information to do so and • to provide cost-effective quality family planning health care as close to the community as possible
Strategies
<ul style="list-style-type: none"> • address the reproductive health needs of couples throughout their reproductive lives • integrate family planning into primary health care activities; • expand family planning information and service delivery through community, commercial, employment and social marketing based programmes; • address family planning needs of special groups e.g. men, adolescents and disabled; • strengthen capacity building for health staff and • ensure a continuous flow of a range of contraceptive supplies.
Recommendations
<ul style="list-style-type: none"> • ensure that providers are trained in all available modern methods; • make barrier methods, particularly condoms and spermicides, available through a range of channels; • make combined oral contraceptives available through community-based providers who will use checklists based on the eligibility criteria and • make family planning methods available to women seeking post abortion care.

Adapted from MOH, (1997).

According to MOH, (1997), it was hoped that *integration of family planning services into reproductive health* would provide many benefits including improved quality of care, efficient utilisation of limited resources and increase accessibility to a range of services at the same time. On the *expansion of access to information and services*, the government proposed to broaden the network of providers by increasing the role of the private sector, NGOs and social marketing programmes. The government also hoped to increase the use of community-based and employment-based programmes.

The policy framework also addressed legislative issues concerning family planning. Some of the changes led to an increase of contraceptive social marketing programmes, for instance, which were not provided for in the previous Act of parliament. Also, the revised Nurses and Midwives Act of 1997 which was ratified in 2001, expanded the scope of practice and allowed nurses with appropriate skills to be able to insert and remove IUDs at health centres (Mtonga and Ndhlovu, 2001).

The co-opting of the local community through Neighbourhood Health Committees (NHCs) into the health care system is a notable achievement of the HSR programme. NHC members participate in the decision-making process for the health centres thus providing useful feedback between the community and health providers. The community also contributes to the health care system through user-fees for health services which were introduced in the HSR programme. Although user fees were introduced, family planning services are free.

3.3.2 Provision of family planning in Zambia

3.3.2.1 Quality of care

The 1995 contraceptive needs assessment study found that quality of service provision in Zambia was poor. The study concluded that this was generally attributed to factors such as provider bias, limited method choice, limited access to family planning services, shortages of supplies and inadequate knowledge of methods on the part of service providers. These factors have sometimes made women choose private rather than public facilities for family planning services. A situation analysis study of clinic-based family planning and reproductive health services conducted in Zambia in 1997 observed similar results as the 1995 study. The situation analysis noted that quality of care was compromised in some cases. For example, although the vast majority of clients were given information on how to use methods, only half were told about advantages and disadvantages of the method (Chinganya et al., 1998). It was also noted in this study that nearly half of the providers felt that a woman should have at least have a child before they could prescribe injectibles. Such provider biases are not unique to Zambia as Tuone et al., (2004) noted similar biases among providers in their study in Lesotho.

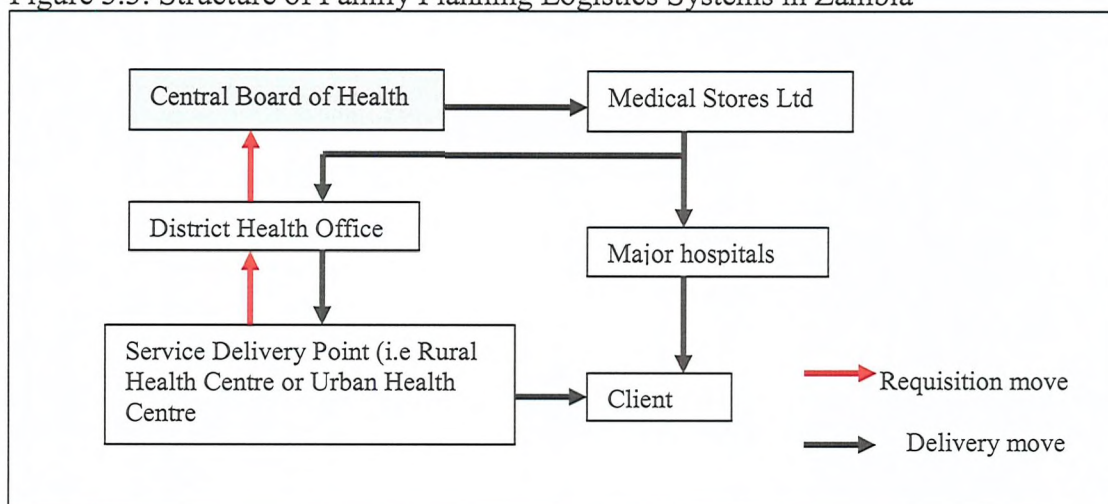
Since previous studies had indicated that most service providers were inadequately trained, capacity building was a priority area under the HSR programme. Training programmes to equip health staff with counselling skills, logistics management, record keeping and so on were put in place. The 1992 national family planning programme proposed a number of strategies that would constitute good quality of care. These included training service providers in counselling skills, providing health centres with equipment and providing family planning services at health facilities round the clock. Over the years the government has trained and re-trained health personnel involved in family planning service provision. Syacumpi et al., (2003) in their analysis on family planning and HIV/AIDS in Zambia

observe that capacity building in the health sector is however largely dependent on donor funds and not necessarily driven by the need to update service providers' skills.

3.3.2.2 Supply of contraceptives

A significant change brought about by the health reforms was that the district health offices would determine their own contraceptive needs, upon which the CBoH would act. This was seen as advantageous as district offices would be in a better position to monitor stock levels in their districts than the central office. In 2003, changes were made in the logistics system in Zambia; previously the district office would order supplies directly from the government supplier (Medical Stores Zambia Ltd), who keep the stock and distribute the supplies. Quality control checks were then carried out by the Drugs and Poisons Board after which the orders for supplies from the districts would be acted upon. In 2003, this procedure was slightly modified. According to a recent analysis of family planning and HIV/AIDS in Zambia by Syacumpi et al., (2003), orders for supplies from district offices now go to CBoH which then sends them to Medical Stores Ltd. Thereafter, Medical Stores delivers the supplies to the districts (see Figure 3.3). This added step in the logistics process has the potential to cause delays in the delivery of stock to health centres.

Figure 3.3: Structure of Family Planning Logistics Systems in Zambia



According to Setty-venugopal et al. (2002), For any contraceptive supply chain to work effectively, various factors have to be in place, such as good information systems throughout all the levels, flexible guidelines, trained personnel, finances, required equipment such as reliable transport, fax machines, telephones, stationary and so on. Some

may appear like details, but they are critical if the supplies will reach the clients at the right time in the right quality and quantity.

Currently the range of methods available in Zambia includes *pills (Microlut and Microgynon), Norpalnt, IUD, vaginal foaming tablets, injectables (Depo Provera and Noristerat), emergency contraceptives, sterilization and female and male condoms*. Although the method mix in Zambia appears to be wide, not all the methods are supplied in every health facility (see Figure 3.1). Moreover, shortages of contraceptive supplies are not uncommon. Miller et al (1998) noted that the method mix in Zambia was typically heavy on the pill and injectibles. An independent review of the HSR programme carried out in 1999 noted that there was little improvement generally in stock monitoring, quantification, supervision of drugs. The review also noted that procurement of contraceptive supplies in the country was still largely the responsibility of international donor agencies, such as DFID, UNFPA, USAID and SIDA which has been by far the most important provider (Bates and Rao, 2000). Besides deliveries of supplies to health facilities by Medical stores, the Ministry of health in collaboration with donor agencies provide contraceptive supplies to health facilities in pre-packed 'health-kits'. These health kits contain condoms and pills, besides other essential drugs.

In the past, there has been provider bias against the IUD and as a result, only a small proportion of women were using this method according to the 1992 ZDHS (WHO, 1995). As part of improving the quality of care, the MOH has revisited rules on IUD provision and re-introduced of injectibles (Depo Provera) As a result of negative publicity in neighbouring countries about the negative side effects of injectibles, they were also banned in Zambia in the 1980s (WHO, 1995). However, they were reintroduced in the 1990s and in the last few years their availability is proving popular.

With the objective of continuing expansion of the method choice, in 1997 the Society for Family Health (SFH) was launched as a non profit social marketing agency. SFH was created to widen access to methods by making low cost contraceptives available through a larger network of providers such as private clinics, chemists and trained community-based service providers (CBoH, 1997). SFH promotes *Maximum* condoms, *Safeplan* oral contraceptives, *Prolact* vaginal foaming tablets and *Reality* female condoms.

3.3.2.2.1 Accessibility of family planning services

The 1990 Census revealed that about 75% of Zambians live within a kilometre of the nearest health facility. According to the 1997 situation analysis study, the average walking time for clients to the facilities was an hour in rural areas and 30 minutes in urban areas. In Zambia, the Government is the largest provider of health and family planning services, although the 1996 ZDHS shows that 50% of users relied on non-clinic based services. In the latest survey about 61% said they rely on public sector sources (CSO [Zambia], 2003). The Government has also facilitated the widening of the network of service provision to include EBDs, CBDs, CHWs and TBAs and selling of condoms in shops, bars and kiosks as a way of meeting the goal of providing services as close as possible to the community.

The situation analysis study observed that while facilities located in urban areas offered family planning services on every weekday, in rural areas family planning services were only available one day in a week (Chinganya et al., 1998). This restrictive access to services in rural areas has implications for contraceptive use considering that rural residents mostly rely on government facilities and most women have to walk quite a distance to the facility. The Zambian government has so far not made any deliberate efforts to encourage the private sector to establish health services in rural areas. This could contribute to increasing access to services in these areas. In Zambia urban women are better served than their rural counterparts since urban areas have a concentration of family planning and related services. Previously family planning service provision in Government facilities was restricted to designated days and times. In trying to make services as widely accessible to the community as possible, the family planning policy guidelines proposed that services be provided round the clock ('supermarket approach') in all facilities as a way of increasing accessibility to family planning services.

Although one of the objectives of reproductive health policy framework is to ensure that 'all couples and individuals can exercise the basic right to decide freely and responsibly the number and spacing of their children, and to have the information, education and means to do so' (MOH and CBoH, 1997: p5), provision of family planning services in Zambia have largely focussed on women while men have essentially been left out. This has contributed to reinforcing the perception that family planning is a woman's domain. Although the national family planning policy outlines the importance of reaching under-served groups such as men, adolescents and the disabled, the challenge to bridge the gap remains

enormous. In trying to reach adolescents, NGOs like PPAZ and FLMZ have set up sexual and reproductive programmes for them. The youth are not only given family planning information and services; they are also offered other reproductive health services such as HIV/AIDS information and counselling.

3.3.2.3 Information access

For the success of any programme, the importance of awareness creation cannot be overemphasised. One of the principles of the national family planning programme which is in line with the ICPD recommendations is the right to Information, Education and Communication (MOH and CBoH, 1997) The ICPD recommended that information be made available to all to enable them make informed choices on family planning. Consequently family planning counselling has become an important aspect of service delivery. In 2003, the government in collaboration with ZHIP and UNFPA distributed ‘family planning counselling kits’ to all health centres in the country. The Family Planning Counselling Kit is a facility-based counselling tool for service providers. It includes guidelines on how providers can profile clients to meet their individual needs during each visit and counsel clients on dual protection (especially couples) (JHUCCP, 2003).

It has been recognised that there has been lack of systematic documentation and evaluation of family planning and reproductive health materials for sometime. Most of the materials are outdated and thus no longer relevant. Thus with the help of UNFPA, a number of IEC materials have now been revised by the Population Communication unit of the Ministry of Information and Broadcasting. One major weakness however is that pamphlets and brochures are mostly produced only in English and thus not useful to most women especially those in rural areas who are illiterate in English.

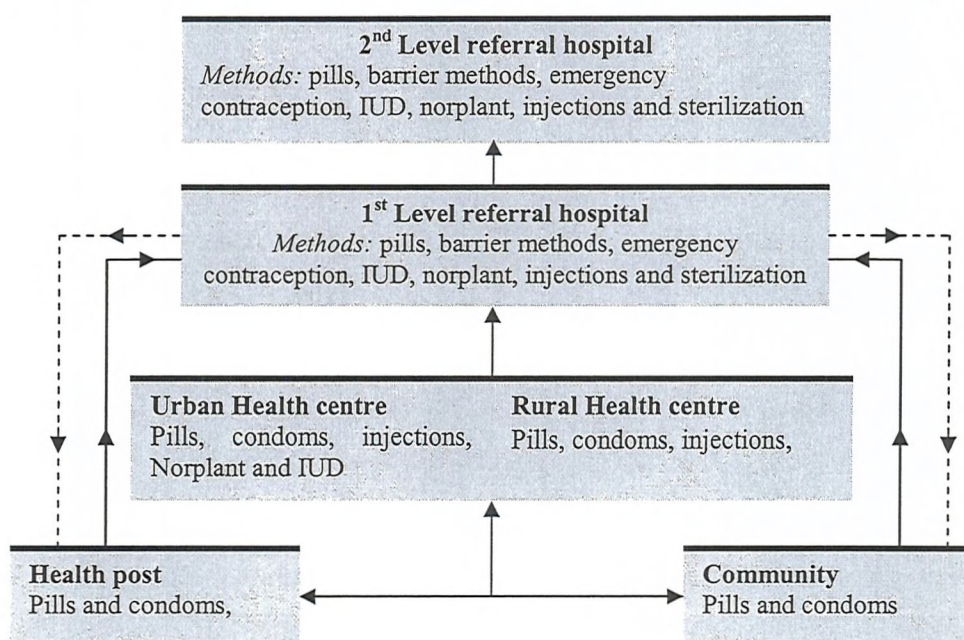
A positive development in IEC has been the training of media personnel in reproductive health reporting. With the help of USAID/ JHU communications unit, a network of media personnel specifically tasked to promote reproductive health in Zambia has been formed. This has led to an increase in positive coverage of reproductive health issues in the daily press. Research in family planning has also contributed tremendously to directing policies and programmes on family planning in Zambia. Vital information has been collected through DHS operations.

3.4 Government's role in family planning provision

Besides policy formulation, the Zambian government provides substantial support for the provision of family planning services in the country. The government is also the main provider of nursing education in the country and provides the bulk of health professionals in the private sector as well. Also unlike private sector organisations and NGOs which often only operate in selected areas (usually urban), government-run services are spread throughout the country. However, in the absence of the huge donor support for family planning service delivery in Zambia, Government input alone is inadequate.

There are different types of public sector health facilities in Zambia offering different types of modern family planning methods as Figure 3.3 shows. The least in the service delivery hierarchy is the Community and Health Post. This level offers basic health care, pills and condoms. At the community level, CBDs, CHWs, TBAs and traditional healers provide family planning services.

Figure 3.3: Hierarchy of health services in Zambia by type of modern methods offered



Sources: (MOH, 1997 and MOH, 1998)

The next level comprises the rural and urban health centres which are perhaps the most important in the health provision hierarchy in Zambia as they are, by design and geographical spread, accessible to the majority of the people. They also act as the first step towards medical treatment and if a patient cannot be treated at this level, they are referred

to a government hospital. From Figure 3.3 it is observed that a similar range of modern methods is essentially available at both rural and urban health centres. Plans to offer IUDs at the health centres were largely unsuccessful due to shortages of trained physicians to insert them.

The first level referral hospitals are the district hospitals while the General hospitals which are also the highest level of service provision in Zambia are the second level tertiary hospitals. Regarding family planning, besides pills, injections and condoms, surgical methods such as IUD and sterilization are only offered at these two levels in public institutions

3.5 Private sector involvement in family planning provision

A considerable amount of success has also been achieved in creating viable partnerships with the donor community and local NGOs. A number of international donor agencies increased financial, technical and logistical support to assist the implementation of the HSR programme. Family planning has specifically received considerable assistance since the implementation of the HSR programme. This is evidenced increases in research activities, efforts towards expansion of the method mix, capacity building and improved contraceptive supply, for instance. However family planning activities have been overtaken by HIV/AIDS largely due to the magnitude of the problem in the country.

Although a number of organisations are actively involved in family planning provision in Zambia today, only a select few are discussed here. It should also be noted that these organisations and many others working in the area of reproductive health are now focussing more on HIV/AIDS rather than family planning.

3.5.1 International collaborating partners

3.5.1.1. United Nations Population Fund (UNFPA)

The UNFPA became actively involved in Zambia in 1972 and in 1984 the first country programme was established. Important achievements emanating from this co-operation relating to family planning provision include the 1989 national population policy, the 1980, 1990 and 2000 censuses, support for the national family planning programme and other significant advances in the field of population and reproductive health. The major focus of UNFPA's support for family planning in Zambia has been towards building national

capacity through training, strengthening national institutions and reproductive health care services. UNFPA has also been involved in funding research activities, procuring and distributing contraceptives, and promoting IEC activities (UNFPA, 1996).

UNFPA has also played a leading role in assisting the government to co-ordinate the activities of donor agencies working in the area of reproductive health. The activities have been carried out in collaboration with the MOH, bilateral and international donors, the World Bank, other United Nations agencies and local NGOs (UNFPA, 1996). For example, UNFPA supported the Contraceptive Needs Assessment study and has supported all three DHSs. It has also supported the production of the family planning policy guidelines jointly with WHO.

During the 1997-2001 country programme UNFPA supported the improvement of health services in four provinces. This included expanding access to quality reproductive health services by providing medical equipment, materials and drugs. It also addressed quality of care issues such as counselling and client-provider interaction (UNFPA, 1997). UNFPA also proposed to assist in creating demand for reproductive and family planning services among women, men and adolescents as well as making the services more accessible to under-served groups (UNFPA, 1997).

The current country programme (2002-2006) emphasises the improvement of the country's sexual and reproductive health status. The funding of the country's reproductive health programme has increased from US\$6.5million in the 1997-2001 programme to US\$8.25 million in the 2002-2006 programme (UNFPA, 1997 and 2001). Also, much of the reproductive health activities are now concentrated in North-western province of Zambia which has been neglected in the past.

3.5.1.2 United States Aid for International Development (USAID)/Zambia

USAIDs' goal in Zambia is to support selected sustainable improvements in the health sector by assisting the government in providing integrated reproductive health services. The 2004-2010 Country Strategic Plan aims to provide assistance in the social marketing of condoms, supply of family planning commodities, support expanded method use, strengthen NHCs and community approaches to behaviour change and facilitate national discussion on the role of Community Health Workers and so on (USAID, 2003). In

Zambia, USAID implements its programmes through its agencies one of which is Population Services International (PSI).

3.5.1.3 Population Services International/ Zambia Social Marketing Project (PSI/ZSMP)

The PSI/ZSMP is a USAID funded project under PSI. The project, which is being carried out in collaboration with the Pharmaceutical Society of Zambia, is part of collaborative effort with the government to combat the spread of HIV/AIDS/STDs and increase levels of contraceptive use. Social marketing is a process that promotes the marketing and selling of health products in retail and wholesale outlets and institutional and community-based networks. Its primary aim is to bring about behavioural change. Further, by using attractive packaging, persuasive language and providing high quality health products at affordable prices, social marketing encourages product use. Consequently, social marketing assists in the wider distribution of and access to health commodities and also creates awareness and demand for them.

In Zambia, contraceptive social marketing has been used successfully to market condoms and oral contraceptives. On World AIDS day in 1992, PSI/ZSMP launched condoms whose brand name is *maximum* (Agha, 1998) (see Figure 3.1B in appendices). The initial reaction of the Zambian population was one of scepticism, mainly due to the stigma attached to condoms and because it is culturally inappropriate to discuss matters pertaining to sex in public. However, through intensive mass media advertising of their role in HIV/AIDS prevention, community-based education and the distribution of promotional items, people's attitudes begun changing and before long, 'maximum' condoms (see Figure 3.2) became a household name.

As a consequence of the wide publicity and availability of condoms since the inception of the social marketing programme in 1992, the country has observed a significant rise in condom use as the 1992-1996 inter-survey period revealed. The widespread availability of condoms in the country largely motivated by the HIV/AIDS pandemic has provided men and adolescents the opportunity to have relatively easy access to family planning as well. Both groups are still not yet well integrated into the family planning service provision programme in health institutions. Without this influx of condoms in the country as a direct result of social marketing together with consistent use which is necessary, the HIV/AIDS

epidemic as well as the levels of unwanted pregnancies could have been much worse than they are today.

With the aim of increasing contraceptive prevalence levels and at the request of the MOH, PSI/ZSMP has also been involved in the promotion of other contraceptive methods in Zambia, namely oral contraceptives called *Safeplan* and female condoms called *Reality*. These are available in commercial outlets and health institutions for distribution at a minimal fee. A packet of Safeplan (2 months' supply) costs K500 (£0.07p). Other health products that have been marketed by the project in Zambia are vaginal foaming tablets, and insecticide treated mosquito nets (PSI, 2000).

3.5.2 Involvement of local partners

3.5.2.1. The Planned Parenthood Association of Zambia (PPAZ)

PPAZ plays an advocacy and advisory role in the formulation of national regulations and policies. It operates through its branches spread in some rural and urban areas of Zambia and has a sizeable body of volunteers at the grassroots level (PPAZ, 1999). The association has been largely supported by its parent organisation, IPPF, UNFPA, Population Council, NORAD, SIDA, USAID and the Zambian government. It is reported that PPAZ and its sister organisations like FLMZ have been affected by the 'global gag rule' as USAID which funded some of their programmes have withheld funding (Population Action International et al., 2003). PPAZ was formed out of a concern for the high death rates resulting unsafe abortions as well as maternal and infant deaths (PPAZ, 1999). Other services included provision of family planning to a restricted clientele (mostly married women who had to have spousal consent) in selected parts of the country.

In most major cities of the country, PPAZ has established centres where good quality and comprehensive health services are provided. These include strengthening of follow-up services, counselling, STI diagnosis and treatment, training of staff and volunteers and health personnel in counselling. The PPAZ has been instrumental in procurement and distribution of contraceptives countrywide to public and private health facilities as well as commercial outlets. The association also provides family planning services through the CBD programme with its main programme in Eastern province (see Gordon and Phiri, 2000). PPAZ has also been involved in IEC campaigns, male involvement activities, women's empowerment programmes, family life education and youth development.

3.5.2.3 Churches Medical Association of Zambia (CMAZ)

The Churches Medical Association of Zambia (CMAZ) was established in 1970 as a mother body for health institutions and programs affiliated to churches in Zambia. This was with a view to representing churches and providing them with assistance aimed at improving health in Zambia. CMAZ has become one of the most important health care providers in the country. The association currently provides up to 30% of health coverage nationwide and up to 50% in rural areas (PPAZ, 1999; Mphuka, 2000). CMAZ relies heavily on public funds and collaborates with other local and foreign NGOs to facilitate the implementation of comprehensive health care services.

Through its various projects, CMAZ is involved in family planning service delivery such as counselling, contraceptive supply and IEC. Although CMAZ operates within the confines of the national family planning policy by seeking to provide a range of methods to clients, some of its member organisations lay emphasis on particular methods and do not provide some methods. For example, health institutions run by the Catholic Church emphasise the natural family planning method and are reluctant to dispense modern methods. There are also still some barriers to overcome, as some member organisations are reluctant to provide family planning services to adolescents and unmarried women while some still insist on written spousal consent before providing family planning services

3.6 Summary

This chapter has provided some background information about Zambia and also reviewed the history and development of family planning in the country. Zambia is characterised by high (but decreasing) fertility and declining mortality rates. The resulting high population growth rate has been unsustainable by the country's resources and efforts to slow down the rate of growth are evidenced in the growth of the family planning programme over the years. Modern contraceptive use has more than doubled in the 10-year inter-survey period (1992-2001/02) from 9% to 23%. In the 1990s, there was an increase in research activities in the area of family planning in the country which provided the much needed data to guide government policy. So far, three major country-wide surveys, which have provided valuable family planning and reproductive health information, have been conducted in the country.

In Zambia family planning developed from being a concern of just one NGO (PPAZ) to a nationwide programme. The ICPD programme and the health reforms staged the platform for the drafting of a policy framework on reproductive health and family planning. This was a significant step in the country's family planning programme. The health reforms also led to some positive changes in service provision. Donors and local NGOs have been instrumental in family planning in Zambia. The private sector plays an important role with close to 50% of users seeking services from these sources. The next Chapter presents the quantitative methodology used in this thesis.

CHAPTER 4

QUANTITATIVE METHODOLOGY

4.0 Introduction

This chapter aims to give a description of the data sources and quantitative methods of analysis used in this study. This thesis is based on quantitative data from the 1996 Zambia Demographic and Health Survey (ZDHS) and qualitative data from fieldwork conducted in selected parts of Zambia in 2003 (see Chapter 7 for qualitative methodology). In this study, the analysis of contraceptive use relates only to use of *modern methods* such as pills, IUDs, injections and condoms, while that of the choice of method refers to *any type of method* (modern or traditional). Therefore based on these two response variables this study's quantitative methodology is divided into two parts, namely contraceptive use and method choice. In this chapter, the type of data used, the survey design, data quality and management are also discussed.

A description of the data analysis procedures is also presented in this chapter. Bivariate analysis has been used to give a description of the characteristics of the study sample according to current use of modern contraception. The multivariate analyses employed use standard logistic and multinomial logistic regression methods. Logistic regression was used in the analysis of the factors affecting use of modern contraceptives and the modelling process involved five steps which have been described in this chapter. Multinomial logistic regression which was applied to the analysis of the factors affecting choice of contraceptive method has also been discussed in this chapter. A summary of the chapter is presented at the end.

4.1 Sources of data

The 1996 ZDHS which was the second of such surveys in the country was conducted by the Central Statistical Office (CSO) of Zambia on behalf of the Ministry of Health (MOH) between July 1996 and January 1997. Technical and financial assistance was provided mainly by USAID through Macro International Inc. of Maryland, UNFPA, the Swedish International Development Agency (SIDA) and the University of Zambia (CSO et al., 1997).

4.1.1 Questionnaire design

Unlike the first ZDHS in 1992 which only used the two standard DHS questionnaires (household and women's questionnaire), three questionnaires namely the household questionnaire, the women's questionnaire and the men's questionnaire were used in the 1996 survey. These were translated into the seven major languages spoken in Zambia, namely Bemba, Tonga, Luvale, Lunda, Kaonde, Nyanja and Lozi. The household questionnaire was used to list all the usual members and visitors of the household so that eligible women (15-49 years) and men (15-59 years) could be identified. Information on basic characteristics such as, age, sex, education and relationship to the head of the household was collected from each person who was listed. Additional information on household amenities and the materials used for the floor and roof was also collected.

The women's questionnaire was divided into the following sections: 1) respondent's background, 2) reproduction, 3) contraception, 4) pregnancy and breastfeeding, 5) immunisation and health, 6) marriage, 7) fertility preferences, 8) husband's background, and 9) height and weight. Two new sections were included in the women's questionnaire: maternal mortality and HIV/AIDS/STDs. This additional information was important, as nationally representative data on maternal morbidity and mortality was unavailable. Further, it was considered important to establish the levels of HIV/AIDS awareness countrywide in the wake of the pandemic in Zambia. The men's questionnaire was specifically used to collect information from male respondents aged 15-59 years on their background characteristics, reproductive history, knowledge and use of family planning methods, marriage and fertility preferences. In this questionnaire as well, information on HIV/AIDS/STDs was collected.

In both the 1992 and 1996 ZDHSs, the woman's questionnaire was based on the DHS Model 'B', which is designed for countries with low contraceptive prevalence (Curtis and Neitzel, 1996 and ORC Macro, 2001). In countries with high contraceptive prevalence, Model 'A' questionnaires are used. Questionnaires based on Model 'A' are designed to collect detailed information about a woman's contraceptive use history, pregnancy history and other related information for a five to six-year period prior to the survey using the DHS calendar (see Curtis and Blanc, 1997). Consequently, it is possible to study the dynamics of switching and discontinuation of contraceptive methods. The limitation of

questionnaires based on Model 'B' is that the study of contraceptive use and method choice is restricted to patterns, levels and trends.

4.1.2 ZDHS survey design

The 1996 ZDHS sample was selected from the same sampling frame which was used for the country's 1990 census. During the census operation the whole country was divided into 4, 200 Census Supervisory Areas (CSAs). These were further sub-divided into Standard Enumeration Areas (SEAs) of approximately equal size. According to CSO et al., (1997), the ZDHS sample was selected using a multi-stage sampling process involving three steps. Firstly, 312 Primary Sampling Units (PSUs) corresponding to the CSAs were selected from the sampling frame, with probability proportional to the number of households obtained from the 1990 census. Secondly, one SEA was selected from each CSA, again with probability proportional to size. Thirdly, a total of 8,016 households were selected from the SEAs out of which 7,286 were successfully visited during the survey. In these households, 8,021 eligible women were successfully interviewed and in every fourth household selected, eligible men were also interviewed. This resulted in a total of 1,849 male respondents being successfully interviewed (CSO et al., 1997).

In both the 1992 and 1996 surveys, the country's nine provinces (Central, Copperbelt, Eastern, Luapula, Lusaka, Northern, North-western, Southern and Western provinces) were stratified into urban and rural areas, resulting in a total of 18 strata. For three of the provinces, Luapula, Northern and North-western, it was not possible to allocate proportional samples that would yield reasonably acceptable sample sizes because of their small populations. According to CSO et al., (1997), results of similar surveys conducted in other countries indicate that a minimum of 800-1000 women is a requirement if the survey is to yield fertility and mortality estimates with acceptable levels of sampling errors. In this survey, it was decided that the three largest provinces (Lusaka, Copperbelt and Eastern) be allocated 1,000 women each and a sample of 800 women be allocated to the two smallest provinces (North-western and Luapula). The remaining four provinces were allocated 850 women each. However, in each province, the sample was distributed approximately proportionately to the urban and rural populations (CSO et al., 1997).

4.1.2.1 Accounting for the effects of the survey design

In this study, the quantitative data were analysed using the statistical package STATA Release 7.0. This particular package was chosen because it is able to estimate correctly standard errors for data from complex survey designs. Thus all the quantitative analyses in this study account for survey design features such as stratification, clustering, and unequal probabilities of selection, which are important characteristics of data collected in most surveys, including the DHS. These sampling design features affect data analyses and need to be accounted for in order to obtain unbiased estimators, realistic standard errors and confidence intervals (Brogan, 1997; Matthews et al., 2000; StataCorp, 2001 and Madise et al., 2003).

In the DHS for example, although the respondents are selected through a random process, the probabilities of being selected are not the same for different individuals. Weights are proportional to the inverse of the probability of being sampled. A weight of w_j for the j th individual means that the j th individual represents w_j elements in the population from which the sample is drawn. This means that if sampling weights are included in the analysis the estimators will be approximately unbiased. Weights also affect the point estimates and standard errors. Omitting the weights however may result in very biased estimators (StataCorp, 2001). Although multilevel models are ordinarily considered suitable for modelling hierarchical data (like DHS data), more complex procedures are required to take into account the impact of the complex survey design on parameter estimates as well as the hierarchical data structure. This is particularly true for hierarchical data with three or more levels. As a result of this limitation, this study employed this type of modelling using binary and multinomial logistic regression models using the statistical package STATA Release 7.0.

Like most surveys, in the DHS individuals are not sampled independently. Households, communities and villages, for example, are sampled as a group often referred to as a 'cluster'. The sampling procedure is often a multi-stage one and in the case of the 1996 ZDHS it involved three stages (see above), thus the data is hierarchical in nature. The units at the first level of sampling are called Primary Sampling Units (PSUs). The variance estimators in STATA are based on the first stage sampling, that is the PSUs and do not require information about secondary sampling units. Since they allow any amount of

correlation with the PSUs, it is possible to do secondary clustering thus making them suitable for use in DHS data, which is multi-stage. The variance estimators of the 'svy' commands in STATA produce variance estimates that are either approximately unbiased or biased towards more conservative estimates (StataCorp, 2001).

Another important aspect of survey designs which STATA is able to take into account is what is known as 'stratification'. According to Chantala (2001), stratification involves the division of a population into mutually exclusive parts called *strata* in order to draw a sample. Since sampling is done independently across strata, as was the case in 1996 ZDHS, they are statistically independent and can be analysed as such. Stratification leads to smaller estimates of the standard errors which are biased and therefore to overcome this problem, it is important to account for it when modelling.

4.2 Data quality and management

The analyses of contraceptive use and method choice undertaken in this study relate to the contraceptive method the respondent was using at the time of the survey, commonly referred to as 'current use of methods'. The question posed to male and female respondents during the survey was: '*Are you or your partner currently doing something to avoid pregnancy?*' Since there was no time factor involved, it is envisaged that these data are reliable as there would have been no recall problems. However, other variables used in this study, which sought retrospective information, are subject to various types of errors. Therefore evaluation of the quality of data cannot be overlooked. Recall errors due to memory lapses, age-heaping and event omissions which may be accidental or deliberate, are common and can lead to biased results. For example, it is quite common for respondents to erroneously report their ages as ending in 0 or 5, or sometimes as being even numbers when they are in reality neighbouring odd numbers. Consequently, it is important to be cautious when performing analyses involving respondent's age. An evaluation of DHS data collected in 22 countries did not however detect any serious errors that could affect the demographic estimates and could therefore be considered as being of good quality (Anwar, 2001). The problem of age-heaping may anyhow be slightly reduced by grouping respondents in five or ten-year age groups as has been done in this study.

In this study the Statistical Package for Social Sciences (SPSS) version 11.0 has been used for purposes of cleaning and managing the data (Puri, 2002; SPSS Inc. 2000). This

involved creating separate files for the specific study populations for both males and females. For both sexes, a file was created containing both users and non-users of modern contraception (to analyse modern contraceptive use) and another for contraceptive users only (to analyse contraceptive method choice). Since this study was also interested in examining the determinants of condom use among men, a separate file for only male respondents who reported using condoms at the time of the survey was created. Thereafter some variables were modified and new ones were also constructed to meet the study's objectives. Since cases with missing information cannot be used in data analysis, during data cleaning all the cases with missing information were dropped from the analyses altogether. Specific information about the numbers of excluded cases is given in subsequent sections.

4.3 Study population

4.3.1 Female sample

Sexually active Zambian women aged 15-49 years who were not pregnant at the time of the survey, constitute the sample for female respondents. Of the total sample of 8,021 female respondents, 892 of them had never had sex and were therefore excluded from this study. Also, 926 women were pregnant at the time of the survey and have also been excluded because they were not exposed to the risk of pregnancy. A total of 116 women who reported being non-Zambian were also excluded from this sample.

Of the 6,087 female respondents included in this study's sample, about 23% (1,405) of them were using a contraceptive method at the time of the survey. An examination of the predictor variables selected for this study revealed that 176 women had missing information (missing cases) in the variables of interest and were therefore also removed from the sample. They constitute about 3% of the sample for this study. The distribution of women in reproductive ages before and after the exclusion of these women is not very different, suggesting that the excluded cases were randomly selected. The analysis of modern contraceptive use was therefore based on 5,911 female respondents. The first analysis performed in this study was that of current use of contraception and it involved a comparison between non-users and users of *modern methods*. This study only focussed on use of modern methods primarily because formalised family planning programmes and policies are based only on modern methods. Users of traditional methods were grouped together with non-users of modern methods.

The second analysis was that of method choice which involved both use of *modern or traditional methods*. In this analysis, 102 women who reported using sterilisation or whose partners were sterilised at the time of the survey were excluded. This is because it is not clear how relevant currently measured characteristics would be for women who were sterilised long before the survey. This means that 1,303 women who were using a method at the time of the survey constituted the sample for the analysis of contraceptive method choice in this study.

4.3.2 Male sample

A total of 1, 849 men aged 15-59 years were interviewed in the 1996 DHS. Of these, 190 reported never having had sex and were excluded from the sample. Twenty men who reported to be non-Zambian were also excluded as the study only focused on Zambian men. Additionally, it was found that 56 (3.5%) of the cases had missing information in some variables of interest and were therefore dropped from the analysis. This means that the final male sample for this study consisted of 1,583 respondents which constituted the sample for modern contraceptive use.

The analysis of contraceptive method choice was based on 500 users of any contraceptive method with the exception of those who reported using male sterilisation or whose partners were sterilised at the time of the survey. In this study, only a few men (14) reported using sterilisation and at the time of the survey and were also excluded from the analysis.

4.4 Variables used in the study

Various socio-economic and demographic variables were identified as possible determinants of contraceptive use and method choice. Other independent variables which have been observed to be important in explaining contraceptive behaviour in some studies such as those relating to socio-cultural and programmatic factors were not included in this quantitative analysis as this type of information was not collected in the ZDHS. A qualitative study was therefore designed to collect such information (see Chapter 7). The selection of independent variables for this quantitative analysis was largely influenced by the study objectives, conceptual framework, the literature review and the information collected in the survey.

4.4.1 Dependent variables

The dependent variables (also known as outcome or response variables) for both the analysis of contraceptive use and method choice are categorical. For the analysis of modern contraceptive use among women and men, the dependent variable is *current modern contraceptive use*, which has two categories, labelled '0' for non-use and '1' for use of modern contraception.

When use of modern and traditional methods of family planning among users are compared, it is observed that in Zambia, there are slightly more women who are using modern (51%) than traditional methods (49%). According to the results of the 1996 ZDHS presented in Table 4.1, the most commonly used contraceptive method among Zambian women is the pill. Abstinence is the next most commonly used form of contraception (21%), while condom use accounts for about 19% of current modern contraceptive use and about 17% are using the withdrawal method. The rest of the methods constitute less than 5% of use among women in Zambia.

Table 4.1: Percentage of current users of contraception among Zambian women by type of method used, Zambia DHS, 1996

Contraceptive method	% Currently using	Number of women
Modern	51.20	667
Pill	27.32	356
IUD	1.46	19
Injections	3.38	44
Diaphragm/foam/Jelly	0.31	4
Condoms	18.73	244
Traditional	48.81	636
Abstinence	20.57	268
Withdrawal	17.04	222
Other	1.30	17
Strings	2.84	37
Breast-feeding	3.61	47
Herbs	3.45	45
Total	100.00	1,303

In the analysis of women's contraceptive method choice, in order to have a fairly reasonable distribution of respondents for the different types of contraceptive methods (as some of the methods had very small proportions of respondents), similar methods were grouped together as follows: pill/ IUD/ injections, condoms and traditional methods (withdrawal, abstinence, breast-feeding and herbs etc). The dependent variable for the

analysis of method choice (*Choice*) has three categories, namely, (1) pill/IUD/injections, (2) condoms and (3) traditional methods. According to this categorisation, among Zambian women, traditional methods (49%) are more popular than pill/IUD/injections (32%) and condoms (19%).

In the analysis of contraceptive method choice among Zambian men, the methods were re-coded differently from the women’s analysis primarily because of the very small proportions of users for some of the methods (see Table 4.2). Most of the individual methods accounted for less than 10% of contraceptive use. The most popular individual methods among Zambian men are condoms (43%), pills (21%) and abstinence (15%) as the results in Table 4.2 indicate. A comparison of modern and traditional methods among users shows that two thirds are using modern methods while a third are using traditional methods.

Because condoms are the most commonly used method among Zambian men and because of their growing importance in reproductive health and HIV/AIDS prevention, in this study condom use was treated separately. The proportions of men using the other barrier methods and injections were so few that it makes little difference to which category they belong. Therefore the other barrier methods and injections were put in the same category as pills, IUD, Injections.

Table 4.2: Percentage of current users of contraception among Zambian *men* by type of method used, Zambia DHS, 1996

Contraceptive method	% Currently using	Number of men
Modern	65.60	328
Pill	21.40	107
IUD	0.60	3
Injections	0.60	3
Diaphragm/foam/Jelly	0.40	2
Condoms	42.60	213
Traditional	34.40	172
Abstinence	21.00	105
Withdrawal	9.40	47
Other	0.60	3
Strings	0.80	4
Breast-feeding	1.20	6
Herbs	1.40	7
Total	100.00	500

All traditional methods were also treated together because of the small number of users of individual methods as well. The outcome variable for contraceptive method choice among men is therefore coded as follows: (1) condoms; (2) pill, IUD, injection (3) traditional methods (withdrawal, periodic abstinence, strings, breast-feeding and herbs).

4.4.2 Independent variables

Various socio-economic, demographic and access variables significantly influence contraceptive use and method choice since peoples' reproductive and contraceptive behaviour may be related to their individual and community characteristics. In addition, to avoid multi-collinearity, the use of closely related variables in the analysis was avoided. For example the level of education was maintained, while work status was dropped altogether and ethnicity was maintained while lineage was dropped from the analysis.

In this study, with the exception of two variables, ('known source of method' and 'home visit by family planning worker') which were not asked in the men's survey, the same set of independent variables have been used for both the female and male analysis. All the variables were coded in the same way for both the male and female analysis in order to facilitate gender comparisons. All the independent variables are categorical and have been classified into five groups as follows: *background variables; desire for children; region of residence; family planning variables and information access variables.*

4.4.2.1 Background variables

In this study, these are variables that define the characteristics of the respondent, such as age, education, number and sex of living children, lineage type, ethnicity, current and childhood place of residence.

Age. In this study, female respondents were aged between 15–49 years. Female respondent's age is traditionally re-grouped into seven five-year age groups. In this study, age was re-coded as (1) 15-19 (2) 20-29 (3) 30-39 (4) 40+. Regrouping respondent's age into 5 or 10 year age-groups makes it easy to examine the differences in contraceptive behaviour among women and men at different stages of their reproductive and life cycles. For instance, it is possible to distinguish between teenagers (15-19), young adults (20-29), middle-aged adults (30-39) and older adults (40-49).

Male respondents were aged between 15-59 years. For male respondents, age was coded similarly to the women. With the smaller number of male respondents in the 50-59 age group, it seemed reasonable to include them in the 40-49 age group instead of having a separate group. Therefore male respondent's age corresponds to the following categories: (1) 15-19 (2) 20-29 (3) 30-39 (4) 40+.

Education. Education can be represented by the number of years spent in schooling or the highest level of education the respondent has attained. In this study, the level of education was used as a proxy for Socio-Economic Status (SES). The preliminary analysis showed a strong correlation between the level of education and socio-economic status. The variable SES was constructed from an index of several household assets such as whether the household had electricity, a radio, television, telephone, refrigerator, and whether any member of the household owned a bicycle and a motorcycle. Therefore due to collinearity, SES was dropped and level of education was maintained in this analysis. In this study, female and male education refers to the highest level attained and has been re-coded into three categories, namely, (1) No education, (2) Primary and (3) Secondary+ (which is a combination of secondary and higher education).

Ethnicity. In this study, ethnicity refers to the ethnic group to which the respondent belongs. In the 1996 ZDHS final report, all the ethno-linguistic groups were re-grouped into seven broad ethnic groups on the basis of language similarity or geographic setting. All the tribes found in North-western province were classified as one ethnic group, referred to as 'North-western'. This particular categorisation was however not suitable for this study as it masks the ethnic and lineage differences which are of interest in this study.

According to Chondoka (1988), the various tribes found in North-western province are sub-groups of three broad ethnic groups, namely, Kaonde, Luvale and Lunda. Therefore using the raw DHS data containing the original reported tribes, the various tribes in North-western province were re-categorised into these three sub-groups accordingly. For both the men's and women's analysis, ethnicity in this study therefore refers to the following ethnic groups: (1) Bemba, (2) Tonga, (3) Luvale, (4) Lunda, (5) Kaonde, (6) Barotse, (7) Nyanja, (8) Mambwe and (9) Tumbuka.

Lineage. In Zambia, like in most of sub-Saharan Africa, ethnic groups are either of patrilineal or matrilineal descent. Subsequently, a variable referred to as 'lineage' was constructed by categorising the ethnic groups into these two types of social systems. Because of this close association to 'ethnicity' (as a result of the way it is constructed in this study), multi-collinearity is bound to occur, hence it is expected that one of the two variables will be dropped during the modelling process. Using information from literature, the ethnic groups have been regrouped as (1) Matrilineal (Bemba, Tonga, Luvale, Kaonde and Nyanja) and (2) Patrilineal (Lunda, Barotse, Mambwe and Tumbuka) (Chondoka, 1988, Richards, 1956).

Childhood place of residence. This variable refers to the type of place where the respondent spent his or her childhood (up to the age of 12). This variable is considered important in this study primarily because a respondent's background with regard to where they were brought up may influence their behaviour later in life. The response categories for this variable are (1) Rural (2) Urban.

Current residence. Since there are marked differences in socio-economic development between rural and urban areas and consequently the characteristics of the respective local populations, it is important to examine and compare the contraceptive behaviour of respondents residing in these two social settings. Current residence aims to find out the respondent's usual place of residence and is a dichotomous variable coded as (1) Rural (2) Urban.

Number and sex of living children. Family size may be determined by various factors, among them, is the sex of previous children. As a result, a variable combining both parity and the sex of the children was constructed and is used in this analysis. This variable is coded as follows: (1) No child (2) 1-3 Females (3) 1-3 Males (4) 1-3 Both sexes (5) 4+ Both sexes. The proportions of men and women with either four or more female or male children were quite small; therefore these categories were included in the last category (4+ both sexes). If a couple want to have three children, including at least one of each sex, for example, and they end up having three male or female children instead, there is a possibility that they may try again, in the hope that the next child will be a girl or boy respectively. This has implications for contraceptive use.

4.4.2.2 Desire for more children

The desire for more children is an important variable in the study of family planning as it measures a woman's motivation to control her fertility by either spacing or stopping childbearing. In order to compare the contraceptive behaviour of women who want to space births and those who want to limit child-bearing, the desire for more children was re-coded in this study as (1) Wants within 2 years, (2) Wants after two years (3) Wants no more. Sexually active women and men who do not want to have any more children are more likely to have higher levels of contraceptive use than those who still want to have more.

4.4.2.3 Region of residence

Contraceptive use and method choice is observed to differ according to the region of residence in Zambia. With the exception of Lusaka and Copperbelt provinces that are cosmopolitan and North-western province which has three predominant ethnic groups, the other six provinces are basically inhabited by people who speak the same language and share similar cultural beliefs and practices. The region of residence referred to in this study are the nine provinces, namely, (1) Central, (2) Copperbelt, (3) Eastern, (4) Luapula, (5) Lusaka, (6) Northern, (7) North-western, (8) Southern and (9) Western.

4.4.2.4 Family planning variables

In this study three variables are specifically referred to as family planning variables. These are spousal communication on family planning, respondent's approval of family planning and partner's approval of family planning.

Spousal communication on family planning. This variable is derived from information on discussions on family planning with one's partner. Since this study includes all respondents (regardless of marital status), a category for men and women who were not in union (no spouse) at the time of the survey was created. This makes it possible to compare married respondents with those who were not in union at the time of the survey. The categories for this variable for both sexes are as follows: (1) No spouse, (2) No discussion (3) Discusses.

Respondent's family planning approval. This variable measures the respondent's attitude to family planning. It is more likely that a respondent who approves use of family

planning will adopt a method. The response categories were coded as (1) Disapproves (2) Approves.

Partner's approval of family planning. In this study, men and women were asked if their partner's approved of family planning. For comparative purposes, a category has been included for respondents who were not in union at the time of the survey. For both sexes, this variable was coded as follows: (1) No spouse, (2) Disapproves, (3) Approves.

4.4.2.5 Information access variables

In the analysis of quantitative data in this study, 'access' refers to 'information access' only. Using DHS information, this is measured by media exposure variables ('reads newspapers', 'watches television' and 'listens to the radio' weekly); 'source of family planning information'; 'known source of family planning method' and 'home visit by a family planning worker'. The standard DHS format does not allow further probing into the type of family planning information obtained.

In this study a qualitative study was designed to explore some supply side issues (see Chapters 8 and 9). In the DHS, information relating to 'physical access' (e.g. distance to method source) in the individual woman's questionnaire was only confined to current users of modern methods. Since the analysis of modern contraceptive use in this study involves a comparison of users and non-users, this information could therefore not be used. Consequently, access in this quantitative analysis is limited to media exposure and source of family planning information. In the qualitative study, supply side factors influencing contraceptive behaviour such as access to family planning services which the DHS does not necessarily cover were explored.

Media exposure. Exposure to mass media has been found to play a key role in contraceptive adoption (Westoff and Bankole, 1997 and 1999). Since family planning programs now extend awareness creation campaigns to different types of mass media, it is likely that respondents who generally use media such as newspapers, radio or television as sources of information on different issues may come across information relating to families, childbearing and family planning. This may lead to adoption of a contraceptive method. During the interviews, the respondents were asked if they listen to the radio, read

the newspaper or watch television at least once a week. In this study these variables constitute media exposure and the responses were coded (1) No (2) Yes.

Source of family planning information. In the DHS, respondents were asked if they had specifically heard of family planning from different sources (e.g. radio, television, brochures, posters, health worker etc.). All the different variables relating to this were combined to form one variable called ‘source of family planning information’. Radio and television as family planning information sources were combined into one category referred to as ‘electronic media only’; newspapers, brochures, posters and billboards were combined as ‘print media only’, while a third category relating to health providers in the community or at the health facility was labelled as ‘health provider only’. This variable combined type of source as well as the number of sources since some respondents had more than one source of family planning information. A category for those who had more than one information source was therefore created. The categories for both men and women for this variable are as follows: (0) No source, (1) Print media only, (2) Electronic media only, (3) Health provider only, and (4) More than one source.

Known source of method. In the absence of information from all the respondents (users and non-users) on their *actual* source of contraceptive methods, the question asked in the DHS about the female respondent’s *known* source of method becomes an important one. It could be inferred (with caution) that the known source of a method may well be the respondent’s actual source of method. Since this variable only refers to modern methods, it has therefore only been used in the analysis of modern contraceptive use and not method choice which includes traditional methods. Respondents were asked if they knew of a place where they could obtain a method of family planning. Those who knew a place were then asked the name of the source. The limitation of asking for a single source of method is that some respondents may know more than one source which could either be public, private or both types. Thus the way the question is phrased in the DHS may not necessarily give an accurate picture. In this study this variable is referred to as ‘known source of method’. The response categories for this variable included sources such as government or private hospital, private clinic, mission hospital and shop. These responses were re-coded into three categories: (1) Public source, (2) Private source and (3) No source. Private sources in this study include sources such as shops, friends, church and relatives.

Known source for condoms. The question pertaining to the known source of condoms was only asked to the male respondents. The responses given include, government or private hospital, private clinic, mission hospital, friends and shop. This variable, which required the respondent to name the source he knew, was a follow-up question to ‘*Do you know a place where you can get condoms?*’ The responses were collapsed into (1) Public source (2) Private source (3) No source

Acceptability of family planning media messages. This variable is important in assessing the suitability of using radio or television in disseminating family planning information. Two variables relating to acceptability of family planning messages on either radio or television were combined to construct the ‘acceptability of family planning media messages.’ The response categories are (1) No (2) Yes.

Home visit from family planning worker. In some parts of Asia and Africa, it is not uncommon for health facility workers or community workers to visit clients in their homes to deliver family planning information or services. This is a particularly good strategy especially in areas where access to services is affected by women’s lack of autonomy which imposes restrictions on their movements outside the home (see Dyson and Moore, 1983; Phillips et al., 1993; Dharmalingam and Morgan, 1996). This information, which was only collected from female respondents, would therefore indicate how accessible family planning information and services are in the communities. Female respondents were asked if they received a visit from a family planning visit worker in the 12 months preceding the survey. The response categories were coded (1) No and (2) Yes.

Table 4.3 Summary of independent variables used in the male and female analysis.

Predictor variables	Value labels
Background characteristics	
Age	(1) 15-19 (2) 20-29 (3) 30-39 (4) 40-49
Education	(1) none (2) primary (3) secondary+
Ethnicity	(1) Bemba (matrilineal) (2) Tonga (matrilineal) (3) Luvala (matrilineal) (4) Lunda (patrilineal) (5) Kaonde (matrilineal) (6) Barotse (patrilineal) (7) Nyanja (matrilineal) (8) Mambwe (patrilineal) (9) Tumbuka (patrilineal)
Lineage type	(1) matrilineal (2) patrilineal
Childhood residence	(1) rural (2) urban
Current residence	(1) rural (2) urban
Number and sex of living children	(1) no child (2) 1-3 male children (3) 1-3 female children (4) 1-3 both sexes (5) 4+ both sexes

Table 4.3 (continued)

Desire for more children	
Desire	(1) wants no more (2) wants within 2 years (3) wants after 2 years
Region of residence	
Region	(1) Luapula (2) Central (3) Copperbelt (4) Eastern (5) Lusaka (6) Northern (7) North-western (8) Southern (9) Western
Family planning variables	
Spousal communication	(1) no spouse (2) no discussion (3) discusses
Respondent's family planning approval	(1) disapproves (2) approves
Partner's family planning approval	(1) no spouse (2) disapproves (3) approves
Information access variables	
Media exposure - Reads newspapers - Listens to radio - Watches television	(1) no (2) yes (1) no (2) yes (1) no (2) yes
Source of family planning information	(1) none (2) print media only (3) electronic media only (4) health provider only (5) more than one source
Known source of method *	(1) public source (2) private source (3) no source
Known source for condoms †	(1) public source (2) private source (3) no source
Acceptability of family planning media messages	(1) no (2) yes
Home visit from FP worker*	(1) no (2) yes

*: Indicates variable used in the analysis of contraceptive use among **women** only

†: Indicates variable used in the analysis of contraceptive use among **men** only

4.5 Data analysis

4.5.1. Logistic regression

Logistic regression is commonly used to estimate multivariate models where the response variable has two categories usually a success or failure, for example 'present or absent'. The classical regression analysis is unsuitable in such a case, as the response and the predictor variables cannot be related through a linear relationship. In demographic studies, logistic regression has been widely used to model contraceptive use (or non-use). In the study of modern contraceptive use, the model estimates differentials in use while simultaneously controlling for other factors associated with use of modern methods.

Logistic regression aims to find the best fitting model to describe the relationship between the dichotomous dependent variable and a set of independent variables. Since logistic regression does not make any assumptions about the distribution of the independent variables, such as normality or equal variance within each group, the independent or predictor variables can take any form (continuous, categorical or a mix of both). As a

result, logistic regression has an advantage over discriminant analysis which can only be used with continuous independent variables.

Logistic regression analysis applies maximum likelihood estimation after transforming the dependent variable into a logit variable (the natural log odds of the dependent variable occurring or not occurring). The logistic regression model is fitted to the data to estimate the probability that a woman with a certain set of characteristics is using a modern contraceptive method. In this study, the response variable, contraceptive use, has been assigned the value 0 if the respondent is currently *not using* a modern contraceptive method and 1 if the respondent is currently *using* a modern contraceptive method.

Various descriptions of logistic regression analysis have been put forward (see McCullagh and Nelder, 1989; Retherford and Choe, 1993; Kleinbaum, 1994). The basic form of the logistic regression odds of contraceptive use or non-use takes the form:

$$\log \left[\frac{p_i}{1 - p_i} \right] = x'_i \beta_i$$

where p_i represents the probability of using contraception for individual i with a set of independent variables x'_i , and β_i is the vector of coefficients related to specific independent variables (Kleinbaum, 1994).

4.5.1.1 Model fitting

In this study, a number of explanatory variables have been used to model modern contraceptive use. Since the explanatory variables have been placed in five groups, the modelling of modern contraceptive use involves five steps. The aim of the modelling is to assess how the different variables or 'blocks of variables' contribute to contraceptive use while holding other variables constant. To do this, the variables or blocks of variables referred to as 'models', are entered into the regression equation successively. During the modelling process, Wald's test of significance was used to test the effect of the variables added to a model.

The first block of variables (model I) includes those that define the respondent’s characteristics (background variables) such as age, education, number and sex of children, current residence, childhood place of residence and ethnicity. The second model (model II) only has one independent variable (desire for more children).

Since one of the objectives of this study is to examine regional differences in use of contraception, region of residence is added to the logistic regression equation in the third model (model III). This makes it possible to examine the relationship between region of residence and contraceptive use, while controlling for the respondent’s characteristics and the desire for more children. In models IV and V, information access variables and family planning variables are added to the regression equation respectively. The results of the logistic regression analysis are presented as odds ratios. Table 4.4 presents a summary of the logistic regression modelling process employed in this study.

Table 4.4: Summary of logistic regression modelling process

Models	Variables
MODEL I	Background characteristics
MODEL II	Background characteristics + Desire for children
MODEL III	Background characteristics + Desire for children + Region
MODEL IV	Background characteristics + Desire for children + Region + Family planning variables
MODEL V	Background characteristics + Desire for children + Region + Family planning variables + Information access variables

4.5.1.3 Odds ratios

The results of the logistic regression analysis are interpreted using odds ratios. The odds ratio takes values between zero and infinity. An odds ratio of 1.0 is the neutral value and means that there is no difference between the groups compared; values close to zero or infinity mean a large difference. An odds ratio larger than 1.0 means that the numerator event is more likely to occur than the denominator event. Although we use this interpretation, it is noted that odds ratios are not equal to relative risks (ratio of two probabilities).

The logit is converted into a statement about the odds ratio of the dependent variable by using the exponential function. For example, if the dependent variable is contraceptive use and the predictor variable is level of education, we can find out the chances of contraceptive use among women of different educational levels (‘no education’, ‘primary’

and 'secondary+') in comparison to the reference category. Suppose the reference group is 'no education' and the odds ratios for using contraception for women with primary and secondary level education are 1.006 and 2.502, respectively. The interpretation is that when compared to the reference group, there is no difference in contraceptive use among those who have no education and those with primary education. For women with secondary education, the odds of using contraception are more than double the odds for women who have no education.

4.5.2 Multinomial logistic regression

The logistic regression model can be extended to models where the response variable has three or more categories. This type of regression is known as multinomial logistic regression. In this study, multinomial logistic regression is used to examine the determinants of contraceptive method choice. The response variable, method choice, has three categories namely, 'pill/IUD/injection', 'condoms' and 'traditional methods' for both the female and male analysis. Examining the choice of method is an important aspect of family planning research as it enables the understanding of the determinants and characteristics of users of different methods. This provides useful information for method specific action and policy formulation. Although traditional methods are not efficient methods of contraception, it was necessary to include them in the analysis of method choice as use of these methods indicate women's intentions to regulate their fertility. The categories of the response variable must be mutually exclusive and exhaustive. This means that a sample member must fall in one and only one of the categories. The choice of the reference category for most statistical packages is often either the 'first' or 'last' category. However, with the statistical package STATA, it is possible to manipulate the data thereby choosing a reference category which suits the study's objectives.

According to Retherford and Choe (1993), the most suitable way of presenting the effects of predictor variables on the dependent variable in multinomial logistic regression is using a Multiple Classification Analysis (MCA) table. The results are presented as estimated probabilities of choosing a particular method over the reference category. To illustrate this, an example of contraceptive method choice is used.

Let:

P_1 = estimated probability of using pills

P_2 = estimated probability of using condoms

P_3 = estimated probability of using traditional methods

In this example, traditional methods (P_3) is used as the reference category and two categorical independent variables are used. These are the desire for more children (wants more and wants no more) and education (none, primary and secondary or higher education):

B: 1 if primary education, 0 otherwise

C: 1 if secondary+ education, 0 otherwise

D: 1 if wants more, 0 otherwise

It is hypothesised in this example that desire for more children and level of education influence method choice. The multinomial logistic model therefore consists of two equations (4a) and (4b) plus a constraint (4c). In log odds form, the model is as follows:

$$\log\left(\frac{P_1}{P_3}\right) = a_1 + b_1B + c_1C + d_1D \quad (4a)$$

$$\log\left(\frac{P_2}{P_3}\right) = a_2 + b_2B + c_2C + d_2D \quad (4b)$$

$$P_1 + P_2 + P_3 = 1 \quad (4c)$$

Where a_1 and a_2 are constants; b_1 , c_1 , d_1 and, b_2 , c_2 , d_2 are coefficients. The equations (4a) and (4b) can be rewritten as follows:

$$P_1 = P_3 e^{a_1 + b_1B + c_1C + d_1D} \quad (4d)$$

$$P_2 = P_3 e^{a_2 + b_2B + c_2C + d_2D} \quad (4e)$$

Since $P_1 + P_2 + P_3 = 1$, therefore, substituting in 4 (c) we obtain

$$P_3 \sum_{j=1}^2 e^{a_j+b_jB+c_jC+d_jD} + P_3 \quad (4f)$$

If we solve (4f) for P_3 , we get

$$P_3 = \frac{1}{1 + \sum_{j=1}^2 e^{a_j+b_jB+c_jC+d_jD}} \quad (4g)$$

Substituting (4g) into (4d) and (4e) and repeating (4g) we get the probability form of the model as follows:

$$P_1 = \frac{e^{a_1+b_1B+c_1C+d_1D}}{1 + \sum_{j=1}^2 e^{a_j+b_jB+c_jC+d_jD}} \quad (4h)$$

$$P_2 = \frac{e^{a_2+b_2B+c_2C+d_2D}}{1 + \sum_{j=1}^2 e^{a_j+b_jB+c_jC+d_jD}} \quad (4i)$$

$$P_3 = \frac{1}{1 + \sum_{j=1}^2 e^{a_j+b_jB+c_jC+d_jD}} \quad (4j)$$

where summations range from $j=1$ to $j=2$. In this example the functions P_1 , P_2 and P_3 correspond to equations (4h), (4i) and (4j) respectively and the estimated probabilities of using pills, condoms and traditional methods, respectively. The MCA table is constructed by setting the predictor variables to appropriate combinations of ones, zeros and mean values in equations (4h), (4i) and (4j). For example, the formulae for P_1 , P_2 and P_3 for those with secondary+ education are obtained by substituting $B=0$, $C=1$ and $D = \bar{D}$ in

(4h), (4i) and (4j). Statistical controls are therefore introduced by holding the control variables at their mean values in the entire sample which in this case consists of sexually active men aged 15-54 and sexually active, non-fecund women aged 15-49 years (Retherford and Choe, 1993). The formulae for P_1 , P_2 and P_3 for the desire for more children are obtained by substituting $B=0$, $C=B$ and $D=1$ in (4h), (4i) and (4j).

4.6 Summary

This chapter has described the 1996 ZHDS data which is used in the quantitative analysis of this study. The statistical software package SPSS version 11.0 was used in data cleaning and management, while the statistical package STATA Release 7.0 was used in the analysis of modern contraceptive use and method choice. This package was chosen because it is able to account for characteristics of sample surveys such as clustering, stratification and sample weights which if not taken care of can result in biased estimates. While the response variables for method choice differ slightly for the two sexes due to the small number of users for some methods among men, all the independent variables used in the male and female analysis were constructed in the same way to facilitate gender comparisons. These have also been described in this chapter.

This Chapter also described the bivariate analysis used to perform the preliminary analysis of contraceptive use and method choice. Multivariate analysis was- used in this study to determine the relative importance of the predictor variables when all other factors are accounted for. Binary logistic regression which was used in the modelling of modern contraceptive use has been described in detail and multinomial logistic regression which was used in the modelling of contraceptive method choice has also be described. The results of the logistic regression are discussed using odds ratios while those for the multinomial logistic regression are discussed with reference to estimated probabilities of using a method. The next two Chapters present the findings of the quantitative analysis.

CHAPTER 5

CONTRACEPTIVE USE AND METHOD CHOICE AMONG WOMEN IN ZAMBIA

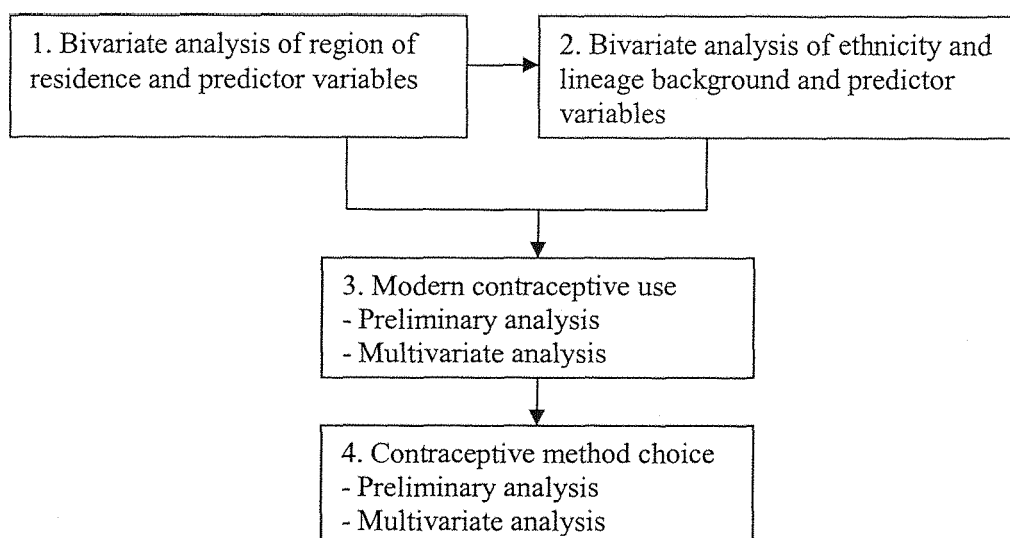
5.0 Introduction

This chapter seeks to examine the factors that influence a woman's use and choice of contraceptive method in Zambia. It is based on information collected in the 1996 ZDHS from *all sexually active, non-pregnant women*, aged 15-49 years. The analysis of current contraceptive use in this study involved a comparison between users and non-users of *modern methods*, while that of contraceptive method choice was restricted to current users *of any type of method*.

Previous studies have shown that contraceptive use and method choice are influenced by a range of factors. Based on the reviewed literature and the study's objectives, (see section 1.3 in Chapter 1), a number of predictor variables were selected for the quantitative analysis of women's contraceptive use and method choice. Multi-collinearity was taken into account so as to avoid closely related variables in the analysis. The selected predictor variables were grouped as follows: *background variables* (age, education, number and sex of children, childhood residence, current residence, ethnic and lineage background); *desire for more children*; *region of residence*; *family planning variables* (respondents' and partner's approval of family planning and spousal communication) and *information access variables* (reads newspapers, listens to radio, watches television, known source of method, family planning information source, acceptability of family planning media messages and home visit by family planning worker). All the variables except 'known source of method' were applied to both the analysis of contraceptive use and method choice.

One of the objectives of this study was to find out whether regional variations in contraceptive use are a result of ethnicity or information access for instance. Therefore in order to establish what factors may explain contraceptive behaviour, firstly bivariate analyses of selected predictor variables and the region of residence were performed. A similar analysis was also performed for ethnicity and selected background variables. Figure 5.1 presents an outline of Chapter 5.

Figure 5.1: Analysis of women's contraceptive use and method choice



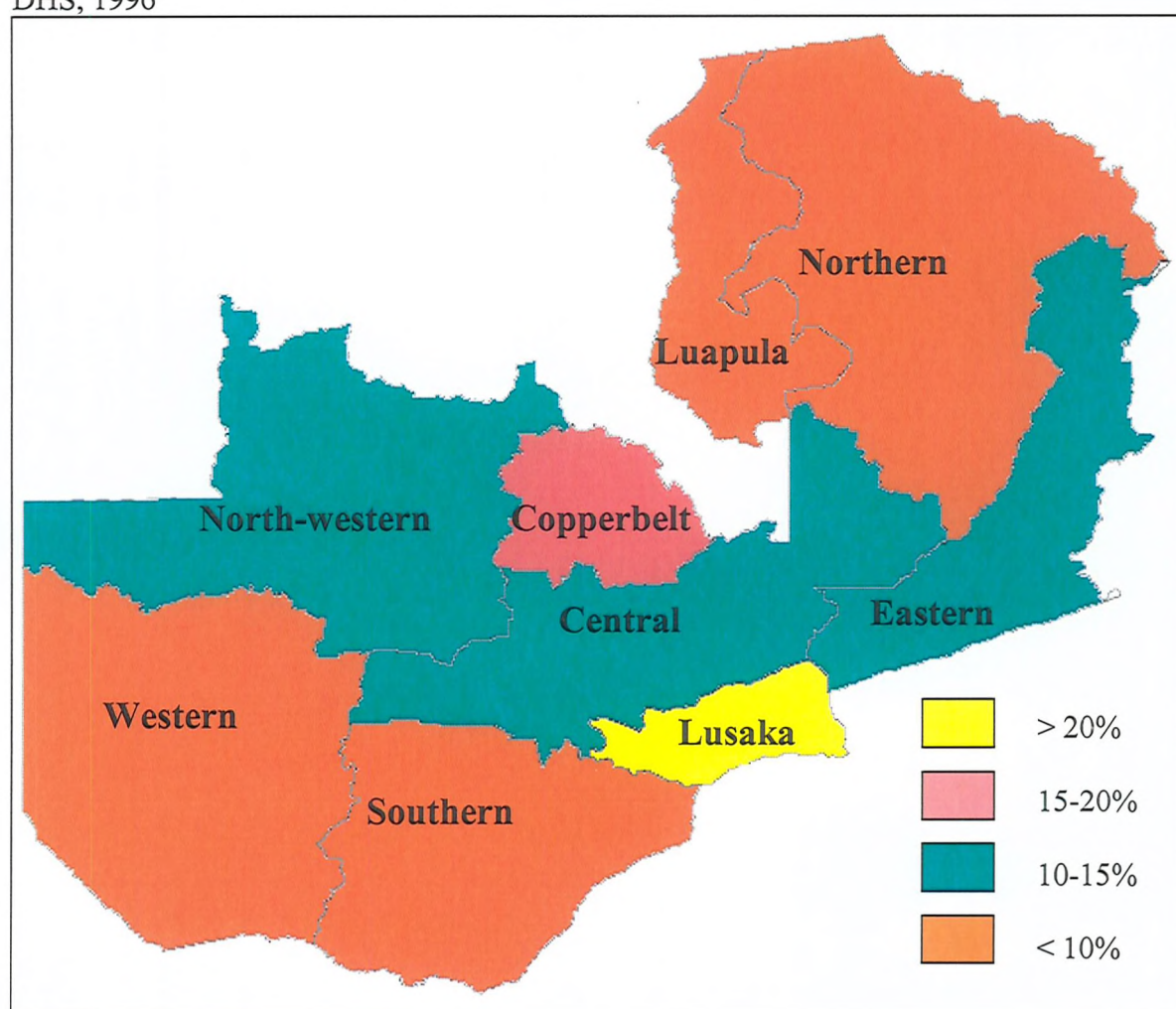
The next section in this chapter examines the pattern of contraceptive use according to selected explanatory variables. This was done in order to give an idea of the characteristics of the respondents by modern contraceptive use. To identify the relative importance of each individual predictor variable in determining modern contraceptive use, binary logistic regression analysis was performed. Preliminary analysis of contraceptive method choice was also performed in this study, after which multinomial logistic regression was applied in the analysis of contraceptive method choice. A summary giving an overview of the chapter is presented at the end.

5.1 Preliminary analysis of the effect of region of residence and ethnicity

5.1.1 Characteristics of respondents by the region of residence

According to Table 5.1 and Figure 5.2, use of modern contraception among Zambian women lies between 10%-15% in most of the country. The prevalence level exceeds 25% only in Lusaka province, followed by Copperbelt province with nearly 20%. The lowest level is 6% in Luapula province. These regional patterns are consistent with the findings of the 1992 ZDHS and other smaller studies. Based on the observed levels of modern contraceptive use, the provinces can be regrouped into four categories, namely, 'lowest use' (<10 %), 'low use' (10-15%), 'medium use' (15-20%) and 'high use' (>20%) provinces as Figure 5.2 illustrates.

Figure 5.2: Regional distribution of modern contraceptive use among women, Zambia DHS, 1996



The results in Table 5.1 show a similar age pattern across the provinces. In all the provinces the highest proportion of women are aged between 20 and 29 years. While Lusaka province has the lowest proportion of teenagers (13%), Western province has the highest (20%). As expected, both Lusaka and Copperbelt provinces have the highest proportion of women with secondary or higher education (42%). In these two provinces as well, over three quarters of the women live in urban areas. Eastern province has the lowest proportion of women with secondary or higher education as well as has the highest proportion of uneducated women and rural dwellers.

Regarding the type of lineage system, the results in Table 5.1 indicate that most of the respondents belong to ethnic groups of matrilineal descent. Two thirds or more of women in all provinces except Western province belong to ethnic groups of matrilineal descent. The general pattern reveals that the ethnic geography of Zambia is reflected in its

provincial sub divisions. The results show a distinct distribution of the ethnic groups in six provinces namely Luapula, Northern, Copperbelt, Eastern, Southern and Western provinces. Each of these provinces inhabits over 60% of women of a particular ethnic group. For instance, the results show that the Bemba are mainly found in Luapula, Northern and Copperbelt provinces, while the Nyanja are predominantly found in Eastern province. Tonga respondents were mainly found in Southern province, while those belonging to the Barotse ethnic group were predominantly found in Western province. In the remaining three provinces, the respondents were shared among several ethnic groups. For instance, in Central province the respondents were mainly of Bemba or Tonga origin, while in Lusaka province, most respondents were either Bemba, Tonga or Nyanja. Respondents in North-western province were spread among three ethnic groups, namely Lunda, Luvale and Kaonde. While the ethnic composition of Lusaka province is largely a consequence of internal migration, that of North-western province has been largely influenced by historical movements of the ethnic groups.

With reference to the desire for more children, women in Zambia most commonly want to have children after two years (see Table 5.1). In Western province however, equal numbers want more children now or want to wait until after two years. Also, while it is noted that about one in three women in most of Zambia are currently not in union, in Western province, the figure is much higher with nearly half of the respondents not being in union at the time of the survey. The 1996 ZDHS found that overall 76% of all women interviewed were in a marital union at the time of the survey. Further explorations reveal that approximately 30% of the women in Western province have never been married before. This could be explained by the comparatively high proportion of teenagers in the province. Also, except for Luapula and Western provinces, in all the other provinces the results in Table 5.1 show that the majority of spouses in Zambia approve rather than oppose family planning.

According to the results in Table 5.1, over 50% of women in the more economically developed provinces namely, Lusaka, Copperbelt and Central provinces have are regular radio listeners. Reading newspapers on a regular basis is not a popular thing among Zambian women. The results in Table 5.1 also reveal that the majority of women in Western province (44%) do not have a source of information on family planning, while surprisingly about half of the women in Luapula province, which is a comparatively

underdeveloped province, have multiple information sources. This result compares well with that of more developed provinces like Lusaka and Copperbelt provinces where over 50% of women have cognitive access to family planning information. It is also noted that compared with other provinces, Eastern province has a significantly higher proportion of women (45%) who rely on health workers for information on family planning. In both Luapula and Eastern provinces, the vast majority of women live in rural areas where access to health services is limited compared to the more developed provinces.

Table 5.1: Regional distribution of all women by selected characteristics, Zambia DHS, 1996

Characteristics	Luapula	Central	Copper-belt	Eastern	Lusaka
Total	640	554	787	837	750
<i>Using modern contraception</i>	6.00	13.19	18.54	11.29	27.53
<i>Age</i>					
15-19	15.16	15.93	17.15	15.54	13.37
20-29	38.62	40.31	39.29	38.89	44.80
30-39	14.67	15.79	15.65	16.65	15.23
40+	31.55	27.97	27.92	28.92	26.60
<i>Education</i>					
No education	16.87	8.68	6.37	33.75	7.30
Primary	66.05	60.19	51.86	57.80	51.15
Secondary+	17.08	31.13	41.77	8.45	41.56
<i>Current residence</i>					
Rural	80.44	59.81	15.83	89.92	9.86
Urban	19.56	40.19	84.17	10.08	90.14
<i>Number and sex of children</i>					
No child	17.83	19.75	19.86	16.30	18.54
1-3 male children only	11.25	14.77	15.95	13.05	16.75
1-3 female children only	15.52	14.46	15.82	13.99	16.79
1-3 both sexes	32.63	30.23	27.14	35.59	31.29
4+ both sexes	22.78	20.79	21.24	21.07	16.63
<i>Lineage type</i>					
Matrilineal	96.79	87.90	81.82	68.57	74.35
Patrilineal	3.21	12.10	18.18	31.43	25.65
<i>Ethnicity and lineage type</i>					
Luvale (matrilineal)	0.00	1.80	4.09	0.00	1.54
Bemba (matrilineal)	95.84	46.31	60.52	3.36	25.83
Tonga (matrilineal)	0.46	26.98	6.44	0.38	21.26
Lunda (patrilineal)	1.09	0.39	1.87	0.12	0.68
Kaonde (matrilineal)	0.17	4.07	3.67	0.15	2.04
Barotse (patrilineal)	0.15	4.22	3.13	0.12	7.48
Nyanja (matrilineal)	0.66	10.77	10.56	77.15	28.55
Mambwe (patrilineal)	1.30	2.57	4.57	0.64	4.76
Tumbuka (patrilineal)	0.33	2.89	5.12	18.08	7.86
<i>Desire for more children</i>					
Wants within 2 years	24.08	26.41	21.29	27.39	23.50
Want after 2 years	48.79	38.21	40.38	44.75	44.75
Wants no more	27.13	35.38	38.33	27.86	35.76
<i>Marital status</i>					
Not in union	29.49	33.42	36.59	25.05	36.35
In union	70.51	66.58	63.41	74.95	63.65
<i>Partner's FP approval</i>					
No spouses	29.49	33.42	36.59	25.05	36.35
Disapproves	37.84	31.27	23.04	31.70	20.42
Approves	32.67	35.32	40.37	43.25	43.24
<i>Respondent's FP approval</i>					
Disapproves	28.25	24.54	10.05	24.73	10.65
Approves	71.75	75.46	89.95	75.27	89.35
<i>Reads newspaper</i>					
No	92.70	88.54	62.57	83.15	52.71
Yes	7.30	11.46	37.43	16.85	47.29
<i>Listens to radio</i>					
No	51.53	45.49	20.63	64.10	21.91
Yes	48.47	54.51	79.37	35.90	78.09
<i>FP information source</i>					
No source	19.58	27.36	12.03	24.79	14.16
Electronic media only	5.46	8.28	6.68	4.39	6.73
Print media only	2.03	2.81	3.43	0.73	3.65
Health worker only	22.35	22.36	8.78	45.37	17.99
> One source	50.58	39.19	69.08	24.72	57.46
<i>Home visit by FP worker</i>					
No	95.36	94.29	97.41	94.70	94.61
Yes	4.64	5.71	2.59	5.30	5.39

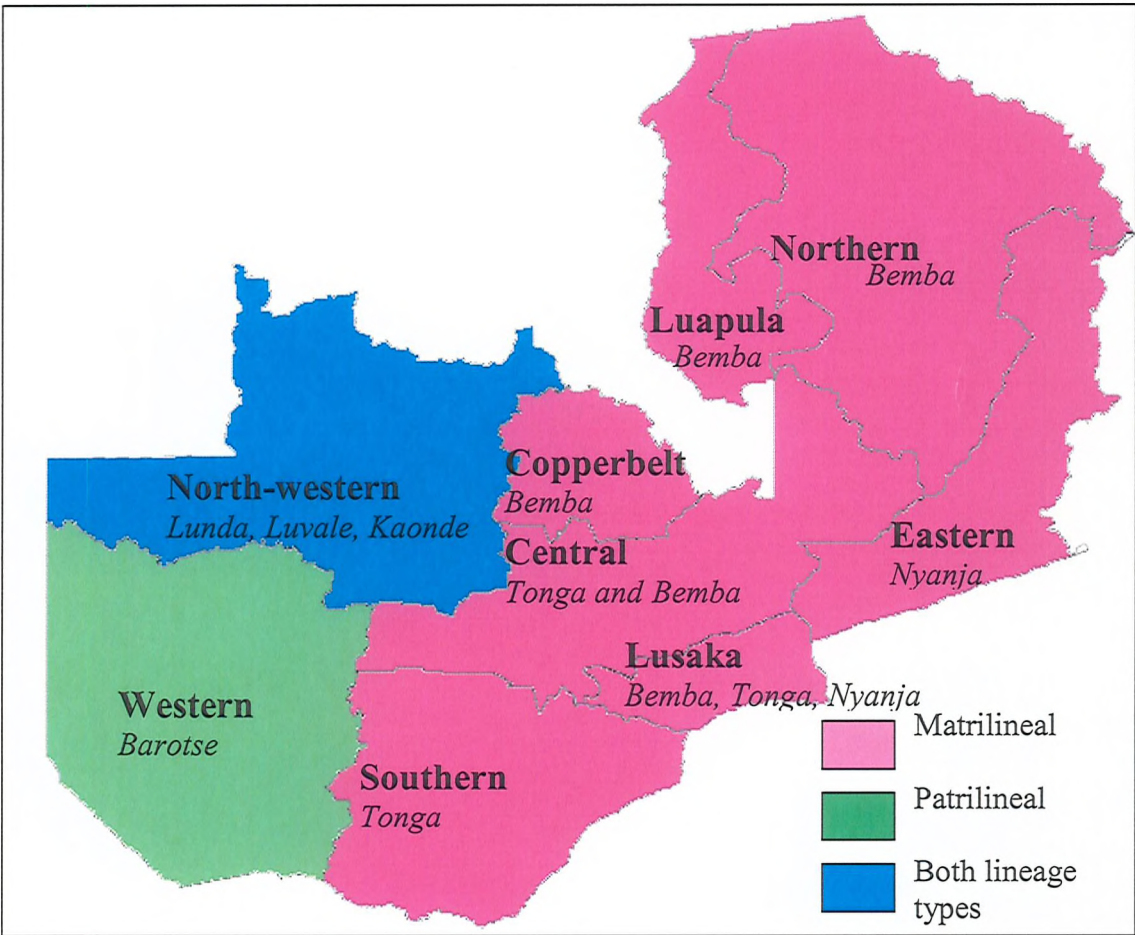
Table 5.1 (Continued)

Characteristics	Northern	North-western	Southern	Western
Total	557	451	642	693
<i>Using modern Contraception</i>	7.01	11.64	9.63	9.27
<i>Age</i>				
15-19	14.94	14.59	17.09	20.21
20-29	40.57	42.70	42.77	35.08
30-39	15.98	16.69	14.67	12.56
40+	28.51	26.06	25.47	32.16
<i>Education</i>				
No education	12.17	20.37	10.58	20.01
Primary	72.07	60.06	67.05	61.27
Secondary+	15.76	19.57	22.37	18.72
<i>Current residence</i>				
Rural	85.11	80.72	76.63	84.50
Urban	14.89	19.28	23.37	15.50
<i>Number and sex of children</i>				
No child	15.46	15.46	17.62	24.26
1-3 male children only	14.23	13.54	13.59	14.57
1-3 female children only	16.30	12.99	14.61	13.12
1-3 both sexes	30.40	37.11	34.12	32.75
4+ both sexes	23.61	20.90	20.06	15.30
<i>Lineage type</i>				
Matrilineal	66.53	62.46	88.98	36.16
Patrilineal	33.47	37.54	11.02	63.84
<i>Ethnicity and lineage</i>				
Luvala (matrilineal)	0.90	34.85	0.17	30.09
Bemba (matrilineal)	63.75	7.60	3.55	1.45
Tonga (matrilineal)	0.33	0.41	81.12	1.73
Lunda (patrilineal)	0.00	32.03	0.50	0.58
Kaonde (matrilineal)	0.19	22.73	0.21	3.31
Barotse (patrilineal)	0.19	1.07	7.75	61.82
Nyanja (matrilineal)	1.55	1.09	3.05	0.73
Mambwe (patrilineal)	29.69	0.00	1.00	0.30
Tumbuka (patrilineal)	3.40	0.21	1.13	0.00
<i>Desire for more children</i>				
Wants within 2 years	26.16	24.21	26.35	37.04
Wants after 2 years	44.68	42.27	43.71	36.81
Wants no more	29.16	33.52	29.95	26.16
<i>Marital status</i>				
Not in union	30.63	28.66	33.08	48.96
In union	69.37	71.34	66.92	51.04
<i>Spouse's family planning approval</i>				
No spouse	30.63	28.66	33.08	48.96
Disapproves	27.72	17.11	31.05	34.41
Approves	41.65	54.24	35.86	16.63
<i>Respondent's family planning approval</i>				
Disapproves	21.83	5.13	14.45	34.86
Approves	78.17	94.87	85.55	65.14
<i>Reads newspaper</i>				
No	94.45	86.81	68.71	94.46
Yes	5.55	13.19	31.29	5.54
<i>Listens to radio</i>				
No	58.61	61.32	52.20	66.92
Yes	41.39	38.68	47.80	33.08
<i>FP information source</i>				
No source	23.53	33.29	18.47	43.63
Electronic media only	2.68	5.46	2.43	4.19
Print media only	2.50	3.95	3.34	4.33
Health provider only	28.76	22.38	30.48	22.18
> One source	42.53	34.92	45.29	25.66
<i>Home visit by family planning worker</i>				
No	91.70	98.89	95.26	95.38
Yes	8.30	1.11	4.74	4.62

5.1.2 Characteristics of respondents by ethnicity and lineage

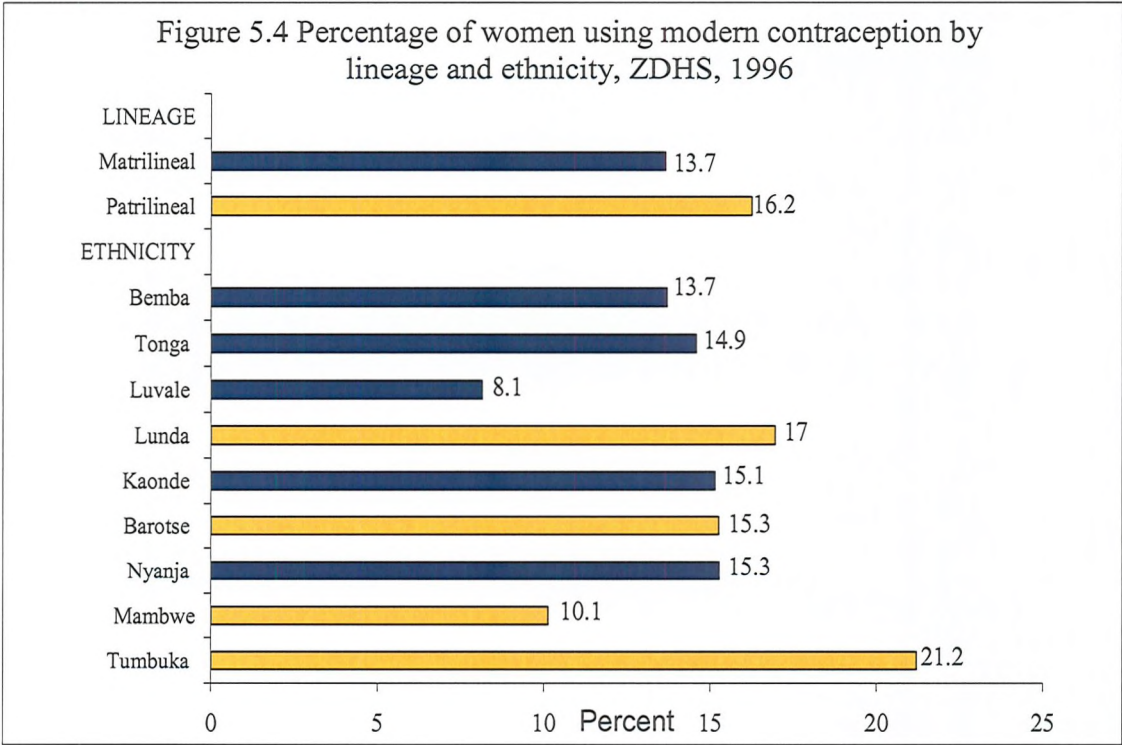
The results shown in Table 5.1 reveal some important differences in the characteristics of women by the region of residence which may be related to ethnicity and lineage background and could be key in explaining contraceptive behaviour. Figure 5.3 shows the geographical distribution of the different ethnic groups and lineage systems. In this study, a province is taken to be matrilineal or patrilineal on the basis of the lineage descent of the most predominant ethnic group(s) in that province according to the results in Table 5.1. Using this criterion it is noted that much of Zambia is occupied by ethnic groups of matrilineal descent.

Figure 5.3: Regional distribution of ethnic and lineage systems in Zambia



The distribution of modern contraceptive use according to lineage and ethnicity (Figure 5.4) reveals differences in use among the groups. The contraceptive use levels for most of the ethnic groups lie between 10-15%, but is observed to be higher among women belonging to patrilineal than matrilineal ethnic groups. The higher level of current use

among patrilineal women is as a result of the contribution of two ethnic groups, namely Lunda and Tumbuka which have comparatively higher levels of use; about one in five Tumbuka women and 17% of Lunda women are using modern contraception. The lowest proportion of users is among Luvale women (8%) who are matrilineal.



The results in Table 5.2 show a similar pattern of distribution for the number and sex of living children across the ethnic groups. In all the ethnic groups, the majority of women reported having up to 3 children of either sex. The Barotse have a significantly high proportion of childless women of 26% compared to the rest of the provinces. It is therefore not surprising that nearly a third of women from this ethnic group want to have children soon. The results in Table 5.3 also reveal that among almost all the ethnic groups, about two fifths of women want to have children after two years and between one fifth and one third want to have another child sooner.

Table 5.2: Percentage of all women by ethnicity and lineage according to selected characteristics, Zambia DHS, 1996

Characteristics	Luvala (M)	Bemba (M)	Tonga (M)	Lunda (P)	Kaonde (M)
Total	433	1977	937	180	197
<i>Contraceptive use</i>	8.14	13.70	14.58	16.95	15.14
<i>Age</i>					
15-19	18.43	15.50	16.60	17.90	15.93
20-29	39.78	41.05	40.42	43.36	38.46
30-39	15.31	14.98	15.92	19.64	10.91
40+	26.47	28.47	27.03	25.98	27.83
<i>Education</i>					
No education	18.18	9.79	9.09	19.64	10.97
Primary	63.98	59.73	62.81	58.86	65.92
Secondary+	17.85	30.48	28.10	21.51	23.11
<i>Current residence</i>					
Rural	68.58	46.37	70.64	62.93	50.86
Urban	37.07	53.63	29.36	37.07	49.14
<i>Number and sex of children</i>					
No child	21.72	19.27	16.40	11.84	19.23
1-3 Male children only	14.20	13.56	15.71	21.69	14.42
1-3 Female children only	14.84	15.76	14.62	12.64	14.59
1-3 Both sexes	34.21	29.57	33.31	32.23	31.50
4+ Both sexes	15.04	21.84	19.97	21.60	20.26
<i>Desire for children</i>					
Wants within 2 years	33.05	23.15	27.41	21.40	27.17
Wants after 2 years	37.56	43.60	40.44	44.55	41.13
Wants no more	29.39	33.25	32.15	34.05	31.70
<i>Respondent's approval</i>					
Disapproves	23.74	18.26	14.02	6.62	16.03
Approves	76.26	81.74	85.98	93.38	83.97
<i>Spouse's FP approval</i>					
No spouse	38.84	34.44	32.70	21.80	32.60
Disapproves	27.18	27.25	29.37	18.10	27.09
Approves	33.97	38.31	37.92	60.72	40.31
<i>Reads newspaper</i>					
No	88.64	77.11	68.66	82.21	83.28
Yes	11.36	22.89	31.34	17.79	16.72
<i>Listens to radio</i>					
No	61.64	38.49	45.63	52.10	37.50
Yes	38.36	61.51	54.37	47.90	62.50
<i>FP information source</i>					
No source	32.57	17.85	17.68	25.86	26.74
Electronic media only	6.30	5.41	4.42	6.44	8.96
Print media only	6.82	2.70	3.22	3.08	1.52
Health provider only	19.02	18.84	28.20	19.04	17.18
> One source	35.29	55.20	46.48	45.58	45.61

Table 5.2 (Continued)

Characteristics	Barotse (P)	Nyanja (M)	Mambwe (P)	Tumbuka (P)
Total	587	1041	269	290
<i>Contraceptive use</i>	15.26	15.27	10.13	21.20
<i>Age</i>				
15-19	19.44	15.65	11.97	12.62
20-29	40.31	39.25	38.30	43.93
30-39	11.53	16.45	18.77	14.40
40+	28.72	28.45	30.96	29.05
<i>Education</i>				
No education	14.15	24.78	15.24	15.36
Primary	51.89	57.79	59.65	55.71
Secondary+	33.97	17.43	25.11	28.93
<i>Current residence</i>				
Rural	62.82	53.84	49.88	52.71
Urban	37.18	46.16	50.12	47.29
<i>Number and sex of children</i>				
No child	26.49	16.67	15.16	15.10
1-3 Male children only	14.48	13.78	14.46	18.04
1-3 Female children only	14.45	15.36	15.22	15.01
1-3 Both sexes	29.50	33.23	31.98	35.84
4+ Both sexes	15.08	20.96	23.19	16.01
<i>Desire for children</i>				
Wants within 2 years	31.63	25.20	27.71	21.08
Wants after 2 years	42.24	41.79	39.28	46.29
Wants no more	26.13	33.01	33.02	32.63
<i>Respondent's approval</i>				
Disapproves	25.21	18.13	21.45	22.69
Approves	74.79	81.87	78.55	77.31
<i>Spouse's FP approval</i>				
No spouse	48.04	29.82	28.60	30.06
Disapproves	28.39	27.58	31.67	27.96
Approves	23.57	42.60	39.67	41.98
<i>Reads newspaper</i>				
No	78.63	75.79	78.53	69.56
Yes	21.27	24.21	21.47	30.44
<i>Listens to radio</i>				
No	51.00	46.28	47.31	44.48
Yes	47.90	53.72	52.69	55.52
<i>FP information source</i>				
No source	32.30	20.98	23.30	24.29
Electronic media only	3.27	5.33	4.64	7.06
Print media only	4.41	2.00	1.77	2.16
Health provider only	20.00	34.42	19.04	25.66
> One source	40.02	37.27	51.25	40.82

Note: (M) denotes matrilineal and (P) denotes patrilineal

Since lineage systems are distinguished by their emphasis on either males or females, sex preference could be important in determining contraceptive adoption. The assumption is that the male dominated patrilineal groups would prefer to have sons, while matrilineal groups would prefer daughters. For both lineage groups, contraceptive use is lowest among

women without children and that regardless of the number and sex of children, patrilineal women have higher levels of use than matrilineal women as Table 5.3 shows.

Table 5.3: Percentage of women currently using modern contraception by lineage type and the number and sex of children, Zambia DHS, 1996

Number and sex of children	Matrilineal		Patrilineal		All women	
	% using	No. of women	% using	No. of women	% using	No. of women
None	6.3	799	10.9	285	8.07	1084
1-3 Male children only	13.0	602	16.5	243	15.41	845
1-3 Female children only	11.6	654	17.3	225	13.79	879
1-3 Both sexes	14.1	1402	15.9	503	16.41	1905
4+ Both sexes	14.8	916	15.6	282	16.24	1198
Total		4373		1538		5911

5.2. Preliminary analysis of contraceptive use

Overall, close to a quarter of all Zambian women reported using contraception at the time of the survey. Of these, only about 13% were using modern methods. Table 5.4 is a summary of the characteristics of current users of modern methods among women in Zambia. Chi-squared tests were performed to show the association of the predictor variables with modern contraceptive use at 1%, 5% and 10% levels of significance. The results of the bivariate analysis indicate that all the selected predictor variables have significant association with contraceptive use.

With reference to the woman’s age, the results in Table 5.4 are in the expected direction, showing lowest use among women aged 15-19 years (9%), a peak of about 17% among women in their 20s, after which use declines for older women. Regarding the level of education, the results show that there is a positive relationship between female education and use of modern methods.

In this study, the pattern of contraceptive use according to the number and sex of children has also been examined. The results in Table 5.4 show that fewer than 10% of women are currently using family planning before the birth of their first child. However with increased parity, contraceptive use rises, although it declines marginally among those with four or more children of both sexes. Regarding the sex of the children, modern contraceptive use is slightly higher among women with 1-3 male children only, than among their counterparts who have only female children. This pattern of use may suggest that women are more satisfied once they have had at least a male child (and therefore will adopt modern

methods) than when they only have female children. Women's use of methods is also observed to rise if they have children of both sexes according to the results in Table 5.4.

Table 5.4: Percentage of all sexually active non-pregnant women currently using modern contraceptive methods by selected characteristics, Zambia DHS, 1996.

Characteristics	% Currently using	Number of women
Total	13.06%	5911
<i>Age* * *</i>		
15-19	9.22	949
20-29	16.78	2374
30-39	14.23	902
40+	13.64	1686
<i>Education***</i>		
No education	5.44	919
Primary	11.55	3575
Secondary+	25.17	1417
<i>Number and sex of children* * *</i>		
No child	8.07	1084
1-3 males	15.41	845
1-3 females	13.79	879
1-3 both sexes	16.41	1905
4+ both sexes	16.24	1198
<i>Childhood residence***</i>		
Rural	9.85	3536
Urban	19.76	2375
<i>Current residence***</i>		
Rural	7.88	3776
Urban	22.66	2135
<i>Desire for more children***</i>		
Wants within 2 years	7.47	1559
Wants after 2 years	16.00	2496
Wants no more	17.50	1856
<i>Marital status</i>		
Not in union	9.06	1979
In union	16.97	3932
<i>Spousal communication***</i>		
No spouse	9.06	1979
No discussion	4.73	1697
Discusses	25.84	2235
<i>Partner's family planning approval***</i>		
No spouse	9.06	1979
Disapproves	3.12	1507
Approves	24.86	2425
<i>Respondent's family planning approval ***</i>		
Disapproves	3.08	1167
Approves	16.85	4744
<i>Reads newspaper***</i>		
No	10.68	4690
Yes	25.87	1221
<i>Listens to radio***</i>		
No	8.03	2857
Yes	19.30	3054

Table 5.4 (continued)

Characteristics	% Currently using	Number of women
Total	13.06	5911
<i>Watches television***</i>		
No	9.81	4624
Yes	26.60	1287
<i>Known source of method***</i>		
No source	0.95	1273
Public source	14.03	3668
Private source	32.65	970
<i>Family Planning information source***</i>		
No source	4.50	1392
Electronic media only	8.81	305
Print media only	10.52	169
Health provider only	12.08	1476
> One source	20.78	2569
<i>Accepts FP media messages***</i>		
No	9.31	815
Yes	15.10	5095
<i>Home visit by FP worker***</i>		
No	14.08	5626
Yes	18.64	285

Note: * p <0.05, ** p <0.01, *** p <0.001

According to Table 5.4, for both the childhood and current residence the proportion of women using modern methods is significantly higher among urban than rural women. It is also observed from Table 5.4 that while there is a marked difference in contraceptive use between women who want to have another child soon and those who want to either space or limit births, there is hardly any difference in the contraceptive behaviour of women in the two latter groups.

In Zambia, modern contraceptive use is highest among women who discuss family planning with their spouses. While about a quarter of these women are using modern contraception, only 5% of their counterparts who do not discuss family planning with their partners are using contraception. Similarly, a quarter of all women whose partners approve of contraceptive use are using modern methods. Although the results in Table 5.4 show that modern contraceptive use is much higher among women who approve of family planning (17%) than among those who are unsure or oppose its use altogether (3%), it is still relatively low among those who approve.

The results in Table 5.4 reveal that women who are generally exposed to media such as radio, television or newspaper weekly have significantly higher levels of use of modern methods than their counterparts who are not. During the survey, women were also asked if

they knew where to obtain modern contraceptive methods. Although over half of them mentioned a public rather than a private source, the proportion using modern methods is observed to be significantly higher among the latter (32.7%) than the former group (14%). In this study a private source of family planning methods includes private hospitals, private clinics, pharmacies, shops, churches, relatives and friends.

With reference to access to family planning information, the results in Table 5.4 suggest that generally having some form of access to information puts women in a better position to adopt contraception than not having any access at all. Moreover, the more the sources of family planning information a woman has, the more likely it is that she will adopt a modern method. It could also be that women who want to use a method will learn about sources. It is however quite interesting to note that the proportion of women using modern methods among those who access family planning information from radio or television is not higher than that of women who access family planning information in print media. A possible explanation for this is the wider circulation of family planning in the form of print than electronic media in Zambia. Further, print media for communicating family planning information have been in use for a longer time compared to radio and television. Table 5.4 also reveals that only about one in five of those who had received a home visit from a family planning worker within the twelve months prior to the survey were using modern methods. Home visits by family planning workers in Zambia are quite rare as the results reveal. Only about 5% of women were visited at home by health workers in the 12 months prior to the study.

5.3 Multivariate analysis of contraceptive use

In order to find out the relative importance of the predictor variables in contraceptive use when all other factors are accounted for, logistic regression analysis was performed. The results of this analysis are presented in Table 5.5 in the form of odds ratios of modern contraceptive use. Overall, the results show that out of a total of 17 variables that were used in the modelling process, 11 are significant predictors of modern contraceptive use when all the factors are accounted for. These include *education, current residence, ethnic and lineage background, region of residence, known source of method, both the respondent's and the partner's approval of family planning and the source of family planning information*. The modelling process involved five steps, referred to as models in this study (see Chapter 4 for details).

The results presented in Table 5.5 show that all the variables are significant predictors of modern contraceptive use when background variables are accounted for in the first model (model I). Young girls in their teens are more likely to use modern methods than older women in their 40s when background variables are accounted for. As expected, the results show a positive correlation between female education and contraceptive use. Model I also shows that women with four or more children of both sexes are significantly more likely to use contraceptives than women who do not have any children or those with up to three children. Women who spent their childhood in urban areas and those who currently reside in urban areas have significantly higher chances of using modern methods than their rural counterparts. With reference to the ethnic and lineage background, Luvale ethnic group was used as the reference category since it has the lowest level of modern contraceptive use (see Table 5.2). It is observed that in model I, only four out of the nine ethnic groups, namely Tonga (matrilineal), Barotse (patrilineal), Nyanja (matrilineal) and Tumbuka (patrilineal) have odds ratios that are significantly different from 1.0.

In the second model (model II), the respondent's desire for more children was entered into the logistic regression equation. The results for this model show that all the background variables as well as the desire for more children are important determinants of contraceptive use. It is worth noting that spacers and limiters have the same odds of using modern methods when compared with the reference group. The addition of desire for more children in model II reduces the odds ratios for education, childhood residence, current residence and ethnic and lineage background slightly.

The region of residence was controlled for together with background variables and the desire for more children in model III. Luapula province was used as the reference group because it has the lowest proportion of contraceptive users (see Table 5.1). In this model, age and childhood place of residence cease to be important in explaining modern contraceptive use. It is observed that Copperbelt, Eastern and Lusaka provinces are significantly different for the reference group in this model. The addition of region of residence in model III also alters the odds ratios of most of the variables. For instance, while the odds ratios for education and desire for more children increase, those of other variables decrease slightly. The odds ratios for Tumbuka and Nyanja ethnic groups also cease to be significantly different from the reference ethnic group when the region of residence is added to the logistic regression equation.

Table 5.5: Odds ratios of current use of modern methods among all women by selected characteristics, Zambia DHS, 1996.

CHARACTERISTICS	MODEL I	MODEL II	MODEL III	MODEL IV	MODEL V
<i>Age</i>					
15-19 (R)	1.000	1.000	1.000	1.000	1.000
20-29	1.219	1.372*	1.340	1.202	0.950
30-39	0.766	0.899	0.872	0.839	0.662
40-49	0.676*	0.779	0.748	0.900	0.739
<i>Education</i>					
None (R)	1.000	1.000	1.000	1.000	1.000
Primary	1.956***	1.945***	2.054***	1.749***	1.454*
Secondary+	4.082***	3.903***	4.109***	3.314***	2.048***
<i>Number and sex of children</i>					
4+ both sexes (R)	1.000	1.000	1.000	1.000	1.000
1-3 males	0.434***	0.510***	0.494***	0.802	0.813
1-3 females	0.383***	0.442***	0.429***	0.715	0.724
1-3 both sexes	0.628***	0.679**	0.661**	0.808	0.781
No child	0.193***	0.249***	0.240***	0.673	0.721
<i>Childhood place of residence</i>					
Rural (R)	1.000	1.000	1.000	1.000	1.000
Urban	1.231*	1.229*	1.185	1.074	0.978
<i>Current residence</i>					
Rural (R)	1.000	1.000	1.000	1.000	1.000
Urban	2.587***	2.526**	2.096***	2.108***	2.229***
<i>Ethnicity and lineage background</i>					
Luvala (matrilineal) (R)	1.000	1.000	1.000	1.000	1.000
Bemba (matrilineal)	1.153	1.118	1.264	1.390	1.210
Tonga (matrilineal)	1.605*	1.587*	1.667*	1.800*	1.575
Lunda (patrilineal)	2.006	1.922	1.889	1.799	1.335
Kaonde (matrilineal)	1.524	1.507	1.464	1.644	1.551
Barotse (patrilineal)	1.658*	1.649*	1.606*	1.761*	1.756*
Nyanja (matrilineal)	1.717*	1.665*	1.331	1.417	1.247
Mambwe (patrilineal)	0.914	0.894	0.979	1.157	1.027
Tumbuka (patrilineal)	2.046**	1.971**	1.688	2.023**	2.128*
<i>Desire for children</i>					
Wants within 2 years (R)	-	1.000	1.000	1.000	1.000
Wants after 2 years	-	1.881***	1.914***	2.070***	2.114***
Wants no more	-	1.818***	1.839***	2.148***	2.196***
<i>Region of residence</i>					
Luapula (R)	-	-	1.000	1.000	1.000
Central	-	-	1.596	1.620	2.265**
Copperbelt	-	-	1.690*	1.552	1.294
Eastern	-	-	2.380**	2.066**	2.334**
Lusaka	-	-	2.746***	2.580***	3.021***
Northern	-	-	1.249	1.090	1.351
North-western	-	-	1.847	1.491	1.608
Southern	-	-	1.208	1.178	1.174
Western	-	-	1.751	2.390**	2.888***
<i>Respondent approves FP</i>					
Disapproves (R)	-	-	-	1.000	1.000
Approves	-	-	-	2.336***	1.657*
<i>Partner approves FP</i>					
No spouse (R)	-	-	-	1.000	1.000
Disapproves	-	-	-	0.902	0.900
Approves	-	-	-	3.886***	3.499***
<i>Reads newspaper</i>					
No (R)	-	-	-	-	1.000
Yes	-	-	-	-	1.324*
<i>Listens to radio</i>					
No (R)	-	-	-	-	1.000
Yes	-	-	-	-	1.280*

Table 5.5 (Continued)

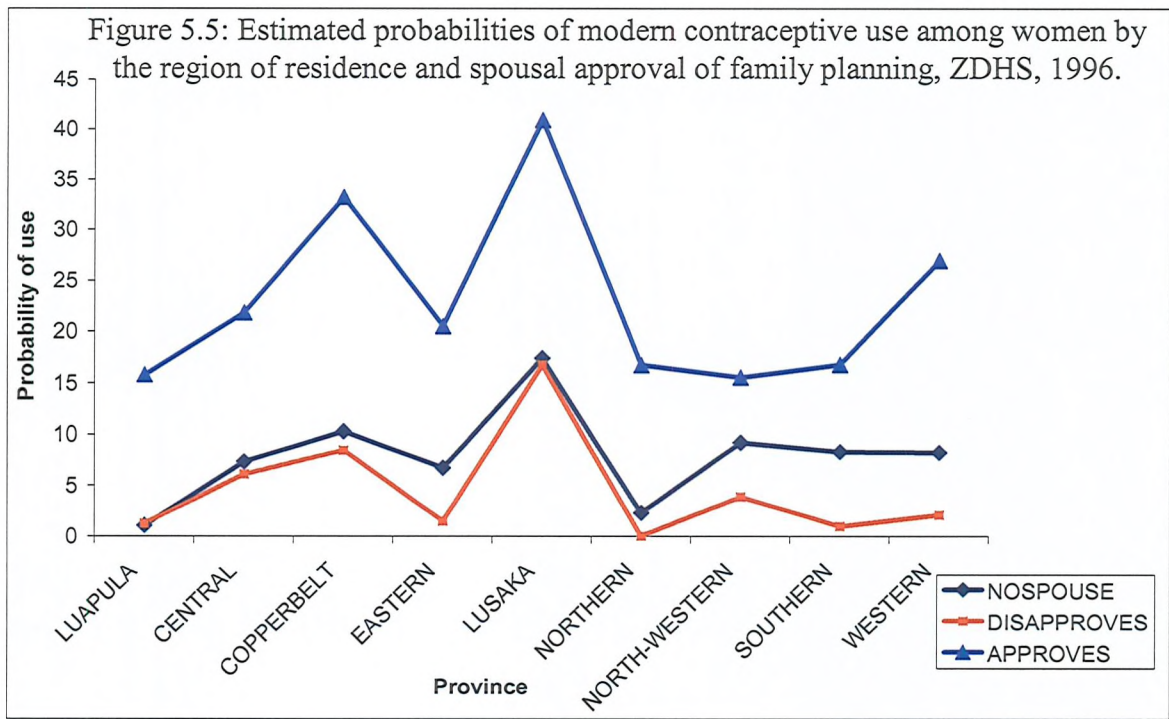
CHARACTERISTICS	MODEL I	MODEL II	MODEL III	MODEL IV	MODEL V
<i>Watches television</i>					
No (R)	-	-	-	-	1.000
Yes	-	-	-	-	0.015
<i>Know source of method</i>					
Public source (R)	-	-	-	-	1.000
Private source	-	-	-	-	3.760***
Don't know source	-	-	-	-	0.127***
<i>FP information source</i>					
No source (R)	-	-	-	-	1.004
Electronic media only	-	-	-	-	1.004
Print media only	-	-	-	-	0.918
Health provider only	-	-	-	-	1.602*
> One source	-	-	-	-	1.593**
<i>Accepts FP media messages</i>					
No (R)	-	-	-	-	1.000
Yes	-	-	-	-	0.920
<i>Home visit by FP worker</i>					
No (R)	-	-	-	-	1.000
Yes	-	-	-	-	1.162

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, - Not applicable

Model IV shows the pattern of modern contraceptive use once the family planning variables (spousal communication, respondent's and partner's family planning approval) are introduced into the logistic regression equation. During the modelling process 'spousal communication' was dropped from the model because of collinearity. In model IV all the variables that were significant in the previous model (model III) continue to be significant in model IV, except for the number and sex of children. It is also noted that there is a slight reduction in the odds ratios for some variables, while most variables experience a slight increase in the odds of using methods. For example, the odds ratios for the level of education decrease, while those for the desire for more children and ethnicity and lineage background increase slightly. Also, in model IV, Copperbelt province ceases to be significantly different from the reference category. It is also noted that while the odds ratios for almost all the provinces generally reduce, Western province becomes significantly different from Luapula province in model IV. Also, the odds of using contraceptive use among women in Western province compared with the reference group increase considerably in this model. Further explorations indicate that there is a significant interaction between spousal approval and region of residence in their association with contraceptive use. The easiest way to interpret the interaction is to plot a graph of estimated probabilities of use for the interaction factor as Figure 5.5 shows. Generally the notable differences in contraceptive use are between women whose spouses approve and those whose spouse's oppose family planning. Substantial differences in contraceptive use are



noted between women whose spouses approve or disapprove of family planning among those residing in Copperbelt, Lusaka and Western provinces.



In the final model, (model V), information access variables are controlled for along with the other correlates of modern contraceptive use. It is noted that models IV and V have similar variables that have significant association with contraceptive use. In addition, in model V, all the information access variables except for ‘watches television’, ‘accepts family planning media messages’ and ‘home visit by family planning worker’, are significant predictors of contraceptive use when all the correlates of contraceptive use are controlled for. The results in model V reveal that the odds of using modern methods among women with secondary or higher education are two times greater than for uneducated women. Also, women who have only reached primary education have a 45% greater chance of using contraception relative to their counterparts who have never been to school. The current place of residence is also observed to be a significant predictor of modern contraceptive use; urban women are twice more likely to use methods than their rural counterparts. The results in Table 5.5 also reveal that the odds of using modern methods among women who want to space or limit births are double those for women in the reference group.

Table 5.5 (model V) also shows that ethnicity and lineage background and region of residence are important determinants of contraceptive use among women in Zambia when all the factors are accounted for. However only two ethnic groups, namely, Barotse and Tumbuka (which are both patrilineal), are significantly different from Luvale ethnic group although the association is a weak one ($p < 0.05$). Women residing in Central, Eastern, Lusaka and Western provinces are 2.3 to 3.0 times as likely as those residing in Luapula province to use modern methods. It is also observed that Central province, which was previously insignificant (in models III and IV), becomes significantly different from 1.0 in model V. It is worth mentioning that the odds ratios observed for two categories, namely Eastern and Western provinces (both rural provinces) are significantly higher than Luapula province which is also equally underdeveloped. The results for region of residence also confirm the proposition that regional residence is correlated with ethnicity. Tumbuka and Barotse women who are significantly more likely to use modern methods than the reference group (in model V) are mainly found in Eastern and Western provinces respectively (see Table 5.2).

According to the results for model V, it is observed that women who approve of contraceptive use are about 66% more likely to use modern methods than those who oppose it. It is also noted that the odds of using methods among women whose partners approve contraceptive use are 3.5 times greater than for those for who are not in union. The findings in Table 5.5 (model V), also reveal that women who read newspapers weekly are 32% more likely to adopt modern methods than those who do not. Similarly, those who listen to the radio have a 32% greater chance of using contraceptives relative to those in the reference category. It is also observed that Zambian women who know a private source of method have an odds ratio nearly four times that of those who know a public source. Women who obtain family planning information from health workers or have multiple information sources also have about 60% higher odds of using modern methods than those without an information source.

One of the objectives of this study was to find out if regional differences in contraceptive use are as a result of ethnicity or information access. To examine this relationship, several regression models were applied (results not shown). In the first model region of residence was entered into the regression equation alone. Except for Northern, Southern and Western provinces the odds ratios of all the other categories are significantly different for Luapula

province in this model. Women living in Lusaka province have the highest odds of using modern methods of about six times that of the reference group (Luapula province). To observe the effect of ethnicity and lineage background, this variable was added to the regression model. Although ethnicity and lineage background is a significant variable in this model, the results reveal that this variable does not have a notable effect on region of residence as the odds ratios of the provinces remain virtually the same. In addition the categories with significant odds ratios for region of residence in this model are the same as those in the previous model (with only region of residence). Also, only two categories for ethnicity and lineage background (Barotse and Tumbuka) are significantly more likely to use contraception than the reference group.

Another regression with just region of residence and information access variables was performed. In this model, with the exception of Eastern and Southern provinces, all the other categories are significantly different from the reference group. While the odds ratios for Central, Eastern and Western provinces increase by nearly 1.0, those for Copperbelt and Lusaka provinces decrease considerably. The odds ratios of the rest of the categories in region of residence remain virtually the same. In this model, all the information access variables are significant except for 'acceptability of family planning messages' and 'home visit by family planning worker'.

5.4. Preliminary analysis of contraceptive method choice

The analysis of contraceptive method choice in Zambia is based on information collected from 1,303 current users of any method of contraception. In this study, the factors influencing choice of methods among Zambian women are examined with reference to any type of method categorised as follows: pill, IUD and injection; condoms and traditional methods (see Chapter 4 for details).

Bivariate analysis was performed in order to have an idea of the characteristics of the respondents according to the type of method (Table 5.6). When chi-squared tests are performed, all the explanatory variables with the exception of 'acceptability of family planning media messages' and 'home visit from a family planning worker', are significant at 1%, 5% and 10% levels of significance. Table 5.6 presents the percentage of all users by the type of contraceptive method according to selected characteristics.

Table 5.6: Percentage of all female users by type of contraceptive method according to selected characteristics, Zambia DHS, 1996.

Characteristics	Pill/IUD/ Injection	Condoms	Traditional methods	Number of women
Total	32.16	19.04	48.81	1,303
<i>Age***</i>				
15-19	14.74	47.77	37.49	140
20-29	39.30	21.51	39.19	635
30-39	35.97	12.67	51.36	232
40+	34.95	8.43	56.62	296
<i>Education***</i>				
No education	21.37	7.05	71.58	139
Primary	29.76	17.96	52.27	738
Secondary+	47.02	25.43	27.55	426
<i>Number/ sex of children***</i>				
No child	12.91	69.79	17.30	97
1 -3 males	32.97	31.25	35.78	189
1-3 females	37.09	24.64	38.27	190
1-3 both sexes	42.17	10.39	47.44	519
4+ both sexes	31.09	8.05	60.86	308
<i>Desire for more children***</i>				
Wants with 2 years	29.01	28.10	42.89	198
Wants after 2 years	34.22	22.02	43.76	697
Wants no more	39.51	11.91	48.58	408
<i>Childhood residence***</i>				
Rural	23.75	18.93	57.32	652
Urban	44.79	20.23	34.98	651
<i>Current residence***</i>				
Rural	20.85	15.79	63.36	691
Urban	46.92	22.79	30.29	612
<i>Lineage type***</i>				
Matrilineal	36.63	19.15	44.22	881
Patrilineal	31.76	20.77	47.47	422
<i>Ethnicity and lineage**</i>				
Luvale (matrilineal)	10.07	18.93	70.99	378
Bemba (matrilineal)	39.41	16.44	44.15	206
Tonga (matrilineal)	36.28	20.88	42.83	99
Lunda (patrilineal)	24.26	8.41	67.33	73
Kaonde (matrilineal)	17.92	30.99	51.09	42
Barotse (patrilineal)	39.00	27.18	33.82	123
Nyanja (matrilineal)	42.09	20.89	37.02	223
Mambwe (patrilineal)	19.90	7.40	72.70	72
Tumbuka (patrilineal)	33.07	31.88	35.05	87
<i>Region of residence ***</i>				
Luapula	40.24	14.94	44.82	53
Central	41.44	31.35	27.21	87
Copper-belt	41.34	22.13	36.52	182
Eastern	28.45	23.36	48.19	166
Lusaka	54.47	22.77	22.77	248
Northern	16.65	5.62	77.73	156
North-western	7.43	12.21	80.36	160
Southern	24.39	19.09	56.51	134
Western	27.43	20.48	52.09	117
<i>Respondent's FP approval***</i>				
Disapproves	11.18	21.31	67.51	77
Approves	36.61	19.53	43.86	1226
<i>Marital status</i>				
Not in union	30.02	41.52	28.46	228
In union	36.27	14.95	48.78	1075

Table 5.6 (Continued)

Characteristics	Pill/IUD/ Injections	Condoms	Traditional methods	Number of women
Total	32.13	19.06	48.81	1,301
<i>Partner's FP approval***</i>				
No spouse	30.02	41.52	28.46	228
Disapproves	20.14	7.65	72.21	201
Approves	39.98	16.63	43.40	874
<i>Spousal communication***</i>				
No spouse	30.02	41.52	28.46	228
No Discussion	6.92	5.92	87.15	136
Discusses	40.01	16.1	43.89	939
<i>Reads newspaper ***</i>				
No	29.94	16.23	53.83	916
Yes	45.50	26.37	28.13	387
<i>Listens to radio ***</i>				
No	21.40	16.90	61.70	506
Yes	42.55	21.11	36.35	797
<i>Watches television***</i>				
No	26.23	17.34	56.42	896
Yes	50.26	23.51	26.23	407
<i>FP information source***</i>				
No source	9.26	24.35	66.39	144
Electronic media only	22.90	24.48	52.62	49
Print media only	6.51	31.54	61.95	31
Health provider only	31.97	16.58	51.45	330
> One source	42.36	19.33	38.31	749
<i>Accepts FP media messages</i>				
No	27.90	15.11	56.98	108
Yes	35.85	20.06	44.08	1195
<i>Home visit by FP worker</i>				
No	34.67	19.99	45.34	1225
Yes	42.92	14.16	42.92	78

Note: * p < 0.05, ** p < 0.01, *** p < 0.001

It is evident from the results in Table 5.6 that the type of method a woman chooses depends on various factors. Use of the pill, IUD or injections is lowest among teenage girls (15%) and highest among women who are in their 20s (39%). The results also reveal a negative relationship between the woman's age and her use of Condoms methods. The opposite is observed for traditional methods.

According to Table 5.6, there is a direct relationship between the level of education and use of modern methods. Correspondingly, the proportion using traditional methods decreases as the level of education increases. With regard to the number and sex of living children, it is noted that women with up to three children have the highest proportion of use of pill, IUD or injection. Women who do not have any children have the lowest proportion using pill, IUD or injection and a significantly higher proportion of condom use

(70%) compared to women who have children. While less than 10% of those with four or more children of both sexes are using condoms, over 60% of women in this groups are using traditional methods.

While approximately 40% of women who want to cease childbearing are using pill, IUD or injection, only 12% of these women are using condoms. Women's use of traditional methods is higher compared to the other two methods regardless of whether they want to space or limit births. Table 5.6 also reveals that women who spent their childhood in urban areas and those who are currently living in urban areas generally have a higher use of modern methods than their rural counterparts. It is also noted that while the difference in use of condoms among women who spent their childhood in rural or urban areas is marginal, there is quite a significant difference in proportions using pill, IUD or injection among rural and urban women. As expected, the majority (63%) of women living in rural areas are using traditional methods.

With regard to the lineage type, the results show that the choice of methods between users of matrilineal and patrilineal descent is not very varied. A slightly higher proportion of matrilineal women are using the pill, IUD or injection, while use of condoms and traditional methods is slightly higher among patrilineal women. The differences in method choice among the ethnic groups are complex, but substantial. There is no obvious pattern to them. For example, while condoms are least popular in the two patrilineal ethnic groups, namely Lunda (8.5%) and Mambwe (7.4%), these methods are also more commonly used by women in the other two patrilineal groups, the Tumbuka (32%) and Barotse (27%), as well as among Kaonde women (31%) who are matrilineal. Pill, IUD, and injections are the most popular method among Nyanja and Barotse women compared to the other two methods. Also over a third of Bemba, Tonga and Tumbuka women are using these methods. Regarding traditional methods, generally over a third of women are using traditional methods in all the ethnic groups. The proportions using traditional methods are particularly high among Luvale, Lunda, Kaonde and Mambwe women with well over half of the women in these ethnic groups using these methods.

With reference to the region of residence, the apparent differences observed in the choice of method suggest that the type of method a woman chooses to use, partly depends on where she lives. Over half of the users who reside in Lusaka province are using the pill,

IUD or injections, while less than 10% of women residing in North-western province are using these methods. Additionally, about one third of the women in Central province are using condoms, while in Copperbelt, Eastern, Lusaka, Southern and Western provinces, about one in five are using these methods as well. Use of condoms is lowest among women living in Northern province (6%). While in most of the provinces traditional methods are more popular than the other two methods (40%), in the more developed and urbanised provinces such as Central, Copperbelt and Lusaka provinces, a higher proportion of women are using the pill, IUD and injections rather than condoms or traditional methods.

It is also observed from Table 5.6 that a significantly higher proportion of women who approve of family planning use are using pill, IUD or injection (36%) compared to those against family planning (11%). The results also indicate that there is hardly any difference in use of condoms between women who approve or oppose family planning. It is also observed that a significantly higher proportion of women who disapprove of using contraception are using traditional methods.

The results in Table 5.6 indicate that among women whose partners approve of family planning, the proportions using either pill, IUD and injection or condoms are twice those whose partners oppose contraceptive use. It is also worth noting that the overwhelming majority of women whose partner's are against contraceptive use or those who do not discuss family planning with their partner's are using traditional methods. As expected, the proportion of women using condoms among those who are not in union far exceeds that of currently married women.

According to the results in Table 5.6, a significantly higher proportion of women who read newspapers, listen to the radio or watch television weekly are using modern methods than their counterparts who are not exposed to any of the media weekly. Traditional methods are the most popular among the latter group. The results also show that whereas fewer than 10% of women without a source of information on family planning or those who get such information from print media only are using the pill, IUD or injection, a much higher proportion (42%) of women with multiple information sources are using these methods. Use of pill, IUD or injection is equally high among women who obtain family planning information from health providers only. The results in Table 5.6 also indicate that the

proportion of users for the other categories (no source, electronic media only and print media only) is higher for condoms than for the pill, IUD or injection.

5.5 Multivariate analysis of contraceptive method choice

Once all the selected explanatory variables are accounted for, only nine out of seventeen variables are significantly associated with contraceptive method choice (Table 5.8). These include *age, education, current residence, childhood residence, region of residence, partner’s family planning approval and family planning information source*. In order to examine the influence of the significant predictors on contraceptive method choice, a parsimonious model was fitted. The results of the analysis of contraceptive method choice presented in this section are therefore based on the parsimonious model and are presented in Table 5.8 in the form of estimated probabilities of using pill, IUD, or injections; condoms or traditional methods. The coefficients and standard errors for the parsimonious model are presented in Table 5.2A in Appendix A.

In the analysis of contraceptive method choice, ‘traditional methods’ category was used as the reference group. The results of the modelling process indicate that *age, region of residence and partner’s family planning approval* are important in the use all modern methods in comparison with traditional methods. *Current residence, listens to radio and family planning information source* are only significant in the use of the pill, IUD and injections compared with traditional methods, while *education, number and sex of children and childhood residence*, are only important determinants of use of condoms compared with traditional methods when all other factors are accounted for . Table 5.7 presents a summary of the variables significant in the use of either pills, IUDs and injections or condoms over traditional methods.

Table 5.7: Summary of results for variables significant in women’s use of either pills, IUDs and injections or condoms compared to traditional methods

Predictor variables	Pill/IUD/Injection Vs Traditional	Condoms Vs Traditional
Age	✓	✓
Education	✗	✓
Number and sex of children	✗	✓
Childhood residence	✗	✓
Current residence	✓	✗
Region of residence	✓	✓
Partner’s family planning approval	✓	✓
Listens to radio	✓	✗
Family planning information source	✓	✗

Note: ✓ Significant variables ✗: Insignificant variables

When all the factors are taken into account, the chances of teenagers using pill, IUD or injections are significantly lower than among women aged 20 years and above as the results in Table 5.8 reveal. Women in their 20s and 30s have roughly about the same likelihood of using pill, IUD or injection. Young women below the age of 20 are the most likely to use condoms methods. It is also observed from Table 5.8 that whereas the probability of using condoms decreases with age of the woman, the likelihood of using traditional methods increases with age.

Table 5.8 reveals a positive relationship between education attainment and the chances of using pill, IUD or injection. Women with secondary and higher education have a significantly higher probability of 0.43 of using pill, IUD or injection relative to traditional methods, while their counterparts with no education only have a 1.8 probability of using pill/IUD or injection. Their likelihood of using traditional methods is significantly higher than that for women with primary or secondary and higher education. While uneducated women only have a chance of 11% of using condoms, those who have reached secondary or higher education have a 25% chance of using these methods.

Table 5.8: Estimated probabilities of contraceptive method choice among women by selected characteristics, Zambia DHS, 1996.

Characteristics	Pill/IUD/Injections	Condoms	Traditional
<i>Age</i>			
15-19	0.136	0.464	0.400
20-29	0.354	0.206	0.439
30-39	0.349	0.121	0.530
40-49	0.318	0.081	0.601
<i>Education</i>			
None	0.179	0.110	0.710
Primary	0.288	0.173	0.540
Secondary+	0.427	0.247	0.326
<i>Number and sex of children</i>			
None	0.124	0.701	0.175
1-3 Males	0.291	0.296	0.413
1-3 Females	0.347	0.242	0.411
1-3 Both sexes	0.375	0.102	0.522
4+ Both sexes	0.295	0.081	0.623
<i>Childhood residence</i>			
Rural	0.219	0.183	0.598
Urban	0.424	0.198	0.378
<i>Current residence</i>			
Rural	0.202	0.159	0.638
Urban	0.456	0.225	0.319

Table 5.8 (continued)

<i>Region of residence</i>			
Luapula	0.396	0.151	0.453
Central	0.390	0.322	0.287
Copper-belt	0.423	0.220	0.357
Eastern	0.283	0.229	0.488
Lusaka	0.548	0.226	0.226
Northern	0.186	0.058	0.756
North-western	0.075	0.125	0.800
Southern	0.231	0.187	0.582
Western	0.274	0.205	0.521
<i>Partner's family planning approval</i>			
No spouse	0.280	0.399	0.320
Disapproves FP	0.169	0.075	0.756
Approves FP	0.367	0.162	0.470
<i>Listens to radio</i>			
No	0.194	0.162	0.644
Yes	0.403	0.208	0.390
<i>Family planning information source</i>			
No source	0.076	0.222	0.701
Electronic media only	0.204	0.245	0.551
Print media only	0.065	0.290	0.645
Health provider only	0.297	0.167	0.536
> One source	0.398	0.187	0.415

From the results in Table 5.8 and Figure 5.6 childless women have a significantly higher probability (0.7) of using condoms than women who have children, while those with four or more children of both sexes have the lowest likelihood of adopting these methods (8%). It is observed that there is no difference in the likelihood of adopting traditional methods among women with up to three male or female children only. Women with four or more children of both sexes have the highest chances of using traditional methods. Figure 5.6 illustrates the estimated probabilities of contraceptive method choice by the number and sex of children.

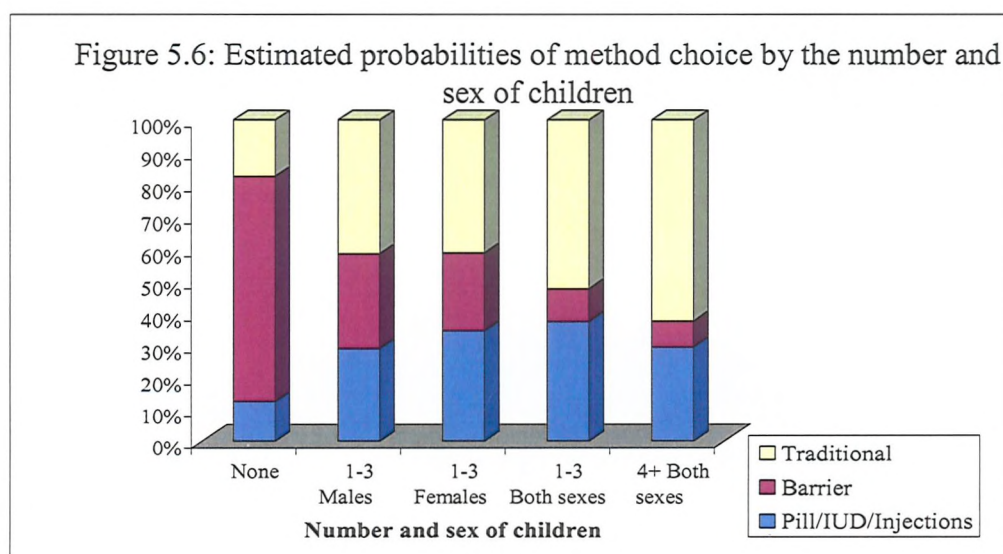


Table 5.8 indicates that women who spent their childhood in urban areas have double the chances of using pill, IUD or injection relative to traditional methods. The probability of using condoms among those who spent their childhood in urban or rural areas are nearly the same. With regard to current residence, urban women have over a 40% higher likelihood of using pill, IUD or injection compared with their rural counterparts who have a significantly higher chance of using traditional methods. It is also noted that urban women have a 23% chance of using condoms compared to traditional methods, while their rural counterparts only have a 16% chance of using these methods.

Region of residence is found to have significant association with choice of modern methods in this study over traditional methods. From Table 5.8 it is evident that regional variations in method choice among women in Zambia exist. The likelihood of choosing pill, IUD or injection over traditional methods is much higher particularly in four provinces, namely Luapula, Central, Copperbelt and Lusaka provinces when all other factors are accounted for. About a third of women in Central province are likely to be using condoms, while women in Northern province only have a 6% chance of using condoms when all other factors are taken into account. Generally the pattern of method choice reveals that for most of the provinces, women are more likely to use traditional than the other methods. However, women living in Northern and North-western provinces have significantly higher probabilities of over 75% of using traditional methods compared with the other provinces.

Regarding the partner's approval of family planning, it is observed from Table 5.8 that women whose partners approve of contraceptive use are the mostly likely users of the pill, IUD or injections when other factors are accounted for. It is also observed that the probability of using condoms is highest among women who are not in union (40%). It is not surprising that women whose partner's oppose contraceptive use have a low chance of using condoms (7.5%), which mainly constitute male condoms (see Table 4.1). These women however have a significantly higher likelihood (75%) of using traditional methods than the other methods.

It is also observed from Table 5.8 that listening to the radio weekly is important in determining use of pill, IUD or injection among Zambian women when all other factors are accounted for. Women who listen to the radio regularly have a 40% chance of using the

pill, IUD or injections, which is double that of their counterparts who are not regular radio listeners. The non-regular radio listeners are also less likely to adopt condoms and much more likely to adopt traditional methods (64%) than any other method.

Having multiple sources of family planning information increases the chances of using pill, IUD or injection as the results in Table 5.8 show. Women with more than one source of information have a nearly 40% chance of adopting pills IUD or injections compared with a probability of less than 10% among those without a source of information or those who access information using print media. It is also noted that women who obtain family planning information from health providers only have a 30% chance of using pill, IUD or injections. Women who use print media only are the most likely to use condoms. It is perhaps not surprising that women who do not have a source of information have a considerably much higher chance of using traditional methods.

5.6 Summary

This chapter has presented the results of the quantitative analysis of modern contraceptive use and contraceptive method choice. One of the objectives of this study was to find out if regional variations of contraceptive use are influenced by ethnicity and lineage background or information access. Therefore in the first place preliminary analysis of region of residence and selected predictor variables was performed. Thereafter, a similar analysis between ethnicity and the predictor variables was performed. This was done in order to give an idea of the characteristics of women in the different provinces and ethnic groups. The second part of the chapter involved bivariate analysis of selected predictor variables by modern contraceptive use. This was followed by multivariate analysis of modern contraceptive use. The results of this analysis have been presented in this chapter in the form of odds ratios of using modern contraception. The results indicate that out of 17 variables that were used in the logistic regression, 11 are significant predictors of women's use of modern methods.

In the analysis of modern contraceptive use, bivariate analysis was firstly performed to give an idea of the characteristics of women choosing to use different methods. In the women's analysis contraceptive method choice was categorised as Pill, IUD or injection, Condoms and Traditional methods. Multinomial logistic regression was applied to the analysis of women's contraceptive method choice. The results of this analysis reveal that out of a total

of 17 variables that were included in the modelling only nine are important determinants of women's contraceptive method choice in Zambia.

While these findings may have important policy implications for women's use and choice of methods, the problem is only dealt with in part if the factors influencing men's contraceptive behaviour are not considered. This is because women's use or non-use of methods is often as a result of their partner's influence as other studies have also observed (Mahler, 1999). Consequently an analysis of the determinants of contraceptive use and method choice among men in Zambia is presented in Chapter 6.

Population and Policy: Efforts to Control Population Growth

Lecture 7

How can population growth be controlled? Points of intervention

- Mortality
 - eliminating some members of the population – not usually seen as acceptable
- Migration
 - keep others out – 'fortress Europe'
 - encourage out-migration of surplus
 - Manipulate/control internal migration
- Fertility:
 - interventions to reduce fertility rates

2

Policy Instruments

- Social/Health Policy
- Legal Measures
- Economic Measures
- Instruments that are:
 - Enabling
 - Incentives (positive)
 - Disincentives (negative)
 - Coercive

3

Why a fertility policy?

- Perception that population size and or growth are or will be excessive – inconsistent with socioeconomic goals
- International pressure/support
- Desire to intervene
- Legitimacy of intervention in fertility
- Instruments are available and practicable

4

Family planning

- Explicit or implicit
 - Govt level discussion, consultation and formal policy
 - Govt establishes family planning system
- Policies can be top-down
 - Imposed or implemented by the state in order to further goals of government
- Or bottom-up
 - Driven by activism – women, doctors, public health officials, human rights advocates
 - 'Hidden demand' – high rates of abortion/infanticide

5

The importance of context and how it 'conditions' programmes

- Socio economic
 - Level of 'development'
 - Literacy (especially women), infant mortality
- Cultural
 - Gender
 - Pronatalism
- Religion
 - Attitudes to fertility control per se
 - Teachings re acceptability of methods

6

Context continued...

- Political
 - Funds
 - Stability
 - Legitimacy
- Demand
 - At the individual/family level
 - A wish or perceived need to control fertility
 - The tension between the individual and the state
 - eg spacing vs stopping

7

Bangladesh

- East Pakistan –under same govt as West Pakistan until 1971
- 1970 FP programme 'effort' stronger in West Pakistan
- Just over a decade later the situation was reversed
- Why?
 - Bangladesh as an anomaly – fertility decline occurred in spite of low levels of development

8

Why was the policy effective?

- Early and sustained programme effort
- Social advances
 - Education
 - Female employment
 - Water and sanitation
 - Electrification
 - Access to media (radio)
 - Improvements in the status of women
- But also a 'poverty led demand for contraception' (Khuda 1995) - landlessness

9

CHAPTER 6

MEN AND FAMILY PLANNING IN ZAMBIA

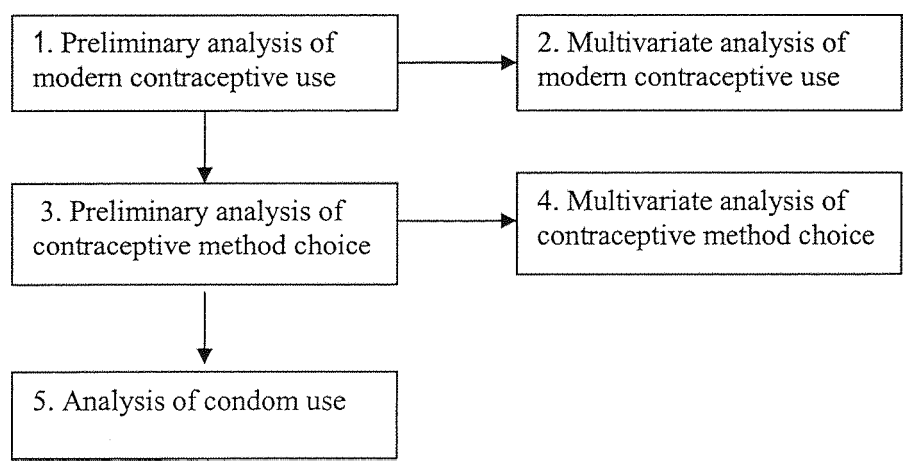
6.0 Introduction

This chapter begins with a preliminary analysis of modern contraceptive use based on 1,583 male users and non-users of *modern contraceptive methods*. This is followed by the results of binary logistic regression which was performed to find out the determinants of men’s use of modern methods when all the other factors are accounted for. With the exception of two variables (‘known source of method’, and ‘home visit by family planning worker’), the same predictor variables that were used in the analysis of women’s contraceptive use and method choice (see Chapter 5), are used in the men’s analysis.

The second part of this chapter is based on the analysis of contraceptive method choice. The outcome variable for men’s contraceptive method choice is coded as (1) Condoms; (2) ‘Pill/IUD/Injection’ and (3) Traditional methods. To find out the characteristics of men by method choice, bivariate analysis of method choice and the predictor variables was performed, while multinomial logistic regression was performed to identify the determinants of contraceptive method choice among when all the factors are accounted for.

Men's contraceptive behaviour in Zambia presented in this chapter is divided into five sections as Figure 6.1 illustrates.

Figure 6.1: Analysis of men’s contraceptive use and method choice



The third part of this chapter focuses on men’s use of condoms in Zambia. It was considered important in this study to examine use of condoms due to their dual advantage of serving as a contraceptive method and protecting against HIV/AIDS. In a country with low contraceptive use and high levels of HIV/AIDS, an investigation of the potential of condom use for dual protection is important. A summary of the chapter is given at the end.

6.1 Preliminary analysis of contraceptive use

According to the 1996 ZDHS, knowledge of family planning is nearly universal among Zambian men. The results also indicate that nearly a third of all men were using family planning at the time of the survey. Of these, about 21% were using modern contraceptive methods. Table 6.1 presents the percentage of men using modern methods by selected background characteristics. Chi-squared tests were also performed to show the association of the predictor variables with contraceptive use at 1%, 5% and 10% levels of significance. All the variables were significantly related to contraceptive use except age, number and sex of living children, lineage type and ethnicity.

Table 6.1: Percentage of men currently using modern contraceptive methods by selected characteristics, Zambia DHS, 1996

Characteristics	% Currently using	Number of men
Total	21.30	1583
<i>Age</i>		
15-19	18.68	289
20-29	25.40	585
30-39	21.16	213
40+	22.67	496
<i>Education***</i>		
No education	11.93	113
Primary	13.94	817
Secondary+	33.57	653
<i>Number and sex of children</i>		
No child	20.55	634
1 -3 Male children only	25.47	376
1-3 Female children only	19.89	159
1-3 Both sexes	22.86	138
4+ Both sexes	20.55	276
<i>Childhood residence***</i>		
Rural	17.82	919
Urban	28.26	664
<i>Current residence***</i>		
Rural	14.99	981
Urban	31.39	602
<i>Lineage</i>		
Matrilineal	23.39	1162
Patrilineal	20.61	421

Table 6.1 (Continued)

Characteristics	% Currently using	Number of men
Total	21.30	1583
<i>Ethnicity</i>		
Luvale	17.41	103
Bemba	20.92	516
Tonga	24.55	267
Lunda	24.02	45
Kaonde	22.15	37
Barotse	19.68	153
Nyanja	28.04	315
Mambwe	13.80	64
Tumbuka	23.53	83
<i>Desire for more children*</i>		
Wants within 2 years	17.80	420
Wants after 2 years	24.41	896
Wants no more	24.04	267
<i>Region and residence ***</i>		
Northern	8.61	144
Central	24.15	170
Copper-belt	27.53	247
Eastern	23.68	240
Luapula	13.26	174
Lusaka	35.75	187
North-western	22.41	74
Southern	12.77	163
Western	17.23	184
<i>Marital status***</i>		
Not in union	25.20	663
In union	20.78	920
<i>Respondent Family Planning approval***</i>		
Disapproves	4.48	326
Approves	27.20	1257
<i>Partner's Family Planning approval***</i>		
No spouse	25.20	663
Disapproves	7.03	232
Approves	25.35	688
<i>Spousal communication***</i>		
No spouse	25.20	663
No discussion	5.16	293
Discusses	27.27	627
<i>Reads newspaper***</i>		
No	15.84	906
Yes	30.39	677
<i>Listens to radio***</i>		
No	10.67	417
Yes	26.29	1166
<i>Watches television***</i>		
No	16.25	1098
Yes	32.80	485
<i>Source of condoms***</i>		
Don't know source	6.46	262
Public source	23.97	669
Private source	27.48	652
<i>Family planning information source***</i>		
No source	7.94	387
Electronic media only	10.43	157
Print media only	22.07	97
Health provider only	21.57	87
> One source	30.11	855
<i>Accepts Family Planning media messages***</i>		
No	12.28	255
Yes	24.67	1328

Note: * p <0.05, ** p <0.01, *** p <0.001

The results presented in Table 6.1 show that education is positively related to contraceptive use. It is also observed that men who spent their childhood in urban areas and those who currently live in urban areas have higher use of modern methods than their rural counterparts. According to the results, there is no difference in the contraceptive behaviour of men who want to wait more than two years to have another child and those who want to stop having children altogether. With reference to the regional patterns of contraceptive use, in most of the provinces contraceptive use ranges between 20-30%. Lusaka province has the highest prevalence (36%) of modern methods while Northern province has the lowest (9%).

According to the results in Table 6.1, contraceptive use is slightly higher among men who are not in union compared to those who are in union. Table 6.1 also shows that the proportion using contraception among those who approve contraceptive use far exceeds that of men who are opposed to its use. Further explorations of the data reveals that over 90% of Zambian men (users and non-users) approve of family planning. Table 6.1 also indicates that about 25% of men whose partner's approve of family planning and those who were not in union at the time of the survey are using modern methods. Also less than 10% of men whose partners disapprove of contraceptive use are using modern methods. With respect to spousal communication, just over a quarter of men who discuss family planning with their partner's are using modern methods, while a significantly lower proportion (5%) of men who do not discuss family planning with their spouses are using family planning.

Generally, men who are exposed to some form of media regularly have a higher use of modern methods compared to their counterparts who have no source information on family planning according to results in Table 6.1. With regard to the source of condoms, while the proportion of men using modern methods among those who reported using public and private sources are similar, only 6% of those who did not know a source of condoms are using modern methods. According to the results in Table 6.1, contraceptive use is lower among men who do not have a source of family planning information than among those who have. While less than 10% of men without a family planning information source are using modern contraception, a much higher proportion of over 30% is noted among those with multiple information sources. A quarter of those who accept family planning media

messages are using methods, while among those who do not, only 12% are using modern methods.

6.2 Multivariate analysis of contraceptive use

This section presents the results of the logistic regression analysis which was performed in order to determine the relative importance of the predictor variables in men's use of modern methods, when all other factors are accounted for. The results of this analysis are presented in Table 6.5 in the form of odds ratios. The results show that out of a total of 16 variables that were used in the modelling process, only six are significant predictors of modern contraceptive use when all the factors are accounted for. These are *the number and sex of children, current residence, region of residence, respondent's family planning approval, partner's family planning approval and source of condoms*. The modelling process involved five steps, which are referred to as 'models' in this study.

In the first model (model I), background variables were entered into the logistic regression equation on their own. In this model, the variable 'lineage' was dropped from the analysis due to collinearity. The results presented in Table 6.2 indicate that only education, current residence and ethnicity and lineage background are significant predictors of contraceptive use when background variables are accounted for. The desire for more children was added to the logistic regression equation in the second model (model II). The results for model II show that the desire for more children is not an important determinant of modern contraceptive use. Also the same predictor variables which were significant in model I continue to be important in explaining contraceptive use in this model as well. It is also observed that the addition of desire for more children in model II changes the direction of some of the associations as some of the odds ratios increase, while others decrease slightly.

In model III the region of residence was added to the equation. In this model, Northern province which has the lowest contraceptive prevalence among men (see Table 6.1) is used as the reference group. In this model, most of the variables that were significant in model II continue to be associated with contraceptive use. Region of residence as well as desire for children are also significant while ethnicity and lineage background becomes insignificant. Model III also shows that for region of residence, only two categories have odds ratios that are not significantly different from the reference category.

In model IV, the family planning variables (the respondent's family planning approval, the partner's approval of family planning and spousal communication) are entered into the equation. During the modelling process, 'spousal communication' was dropped from the regression equation due to collinearity, consequently in model IV only two family planning variables (respondent's and partner's approval of family planning) were added to the equation. Both family planning variables are significant predictors of modern contraceptive use in model IV. Although level of education, current residence and the region of residence continue to be important predictors in model IV as well, it is observed that the odds ratios of these variables reduce slightly compared with model III, except for the odds ratio for Western province which increases slightly. It is also observed that the desire for more children becomes insignificant in this model.

Table 6.2: Odds ratios of current use of modern methods among all sexually active men by selected characteristics, Zambia DHS1996.

	MODEL I	MODEL II	MODEL III	MODEL IV	MODEL V
<i>Age</i>					
15-19	1.000	1.000	1.000	1.000	1.000
20-29	1.333	1.413	1.464	1.481	1.375
30-39	1.074	1.161	1.179	1.268	1.235
40+	0.918	1.002	1.056	1.200	1.153
<i>Education</i>					
No education	1.000	1.000	1.000	1.000	1.000
Primary	1.224	1.218	1.380	1.211	1.023
Secondary+	3.104**	3.027**	3.398**	2.549*	1.876
<i>Number/ sex of children</i>					
4+ both sexes	1.000	1.000	1.000	1.000	1.000
1 -3 males	0.800	0.835	0.852	0.748	0.739
1-3 females	0.643	0.675	0.659	0.550	0.561
1-3 both sexes	1.052	1.076	1.072	0.992	0.966
No child	0.840	0.823	0.798	0.512	0.481*
<i>Childhood residence</i>					
Rural	1.000	1.000	1.000	1.000	1.000
Urban	1.095	1.085	1.036	0.948	0.946
<i>Current residence</i>					
Rural	1.000	1.000	1.000	1.000	1.000
Urban	1.854***	1.839***	1.777***	1.739***	1.697**
<i>Ethnicity and lineage</i>					
Mambwe (patrilineal)	1.000	1.000	1.000	1.000	1.000
Bemba (matrilineal)	1.559	1.586	1.262	1.288	1.207
Tonga (matrilineal)	2.217	2.287	1.876	1.720	1.622
Luvale (matrilineal)	1.618	1.632	0.894	0.903	0.900
Lunda (patrilineal)	1.888	1.896	1.179	1.097	1.077
Kaonde (matrilineal)	1.614	1.624	1.036	1.157	0.963
Barotse (patrilineal)	1.745	1.794	1.095	1.115	1.045
Nyanja (matrilineal)	2.676**	2.754**	1.371	1.290	1.230
Tumbuka (patrilineal)	1.566	1.599	0.942	0.942	0.853

Table 6.2 (Continued)

	MODEL I	MODEL II	MODEL III	MODEL IV	MODEL V
<i>Desire for more children</i>					
Wants within 2 years	-	1.000	1.000	1.000	1.000
Wants after 2 years	-	1.370	1.446*	1.272	1.302
Wants no more	-	1.278	1.284	1.003	1.042
<i>Region and residence</i>					
Northern	-	-	1.000	1.000	1.000
Central	-	-	2.491**	2.325**	2.095*
Copperbelt	-	-	2.096**	1.804	1.632
Eastern	-	-	3.972***	3.037**	2.700*
Luapula	-	-	1.656	1.290	1.257
Lusaka	-	-	3.077***	2.853**	2.470*
North-western	-	-	3.140**	2.360	2.485
Southern	-	-	1.054	0.939	1.049
Western	-	-	3.011**	3.237**	3.599**
<i>Respondent's FP approval</i>					
Disapproves	-	-	-	1.000	1.000
Approves	-	-	-	5.086***	4.517***
<i>Partner's FP approval</i>					
No spouse	-	-	-	1.000	1.000
Disapproves	-	-	-	0.243***	0.265***
Approves	-	-	-	0.575**	0.547**
<i>Reads newspaper</i>					
No	-	-	-	-	1.000
Yes	-	-	-	-	0.925
<i>Listens to radio</i>					
No	-	-	-	-	1.000
Yes	-	-	-	-	1.086
<i>Watches television</i>					
No	-	-	-	-	1.000
Yes	-	-	-	-	1.119
<i>Source of condoms</i>					
Public source	-	-	-	-	1.000
Private source	-	-	-	-	0.911
Don't know	-	-	-	-	0.380**
<i>FP information source</i>					
No source	-	-	-	-	1.000
Electronic media only	-	-	-	-	0.635
Print media only	-	-	-	-	1.208
Health provider only	-	-	-	-	1.774
> One source	-	-	-	-	1.582
<i>Accepts FP media message</i>					
No	-	-	-	-	1.000
Yes	-	-	-	-	0.849

Note: * p < 0.05, ** p < 0.01, *** p < 0.001

In model V, information access variables were controlled for together with all the other correlates of modern methods. In this model, education ceases to be important while the number and sex of children which was insignificant in all the previous models becomes significant (p<0.05). The other variables which were significant in model IV, namely

current residence, region of residence, respondent's family planning approval and partner's family planning approval continue to be important determinants of use in this model as well. Among the information access variables, only source of condoms is significantly associated with contraceptive use. It is noted that men who do not know a source of condoms are significantly less likely to use modern methods compared with those who know a public source. According to the results, men who have four or more children of both sexes are significantly more likely to use modern methods than those with no children. The results in Table 6.2 also indicate that there is a significant association between urban residence and modern contraceptive use: urban men have a 70% higher odds of using modern methods than their rural counterparts. It is also observed that the addition of information access variables to the logistic regression equation reduces the odds ratios of some variables, while those of other variables increase. A notable example is the odds ratio for Western province which increases from 3.2 to about 3.6.

With regard to the region of residence, it is observed that four categories namely, Central, Eastern, Lusaka and Western provinces are between 2.1 and 3.6 times as likely as men living in Northern province to use modern methods when information access variables are added to the model. Men living in Western province which is ranked as one of the rural provinces in Zambia, have the highest odds (3.6) of using modern methods when compared with the reference group. Some interaction terms between region of residence and information access variables were significant while others were not. Although there seems to be some association between region of residence and information access variables in this model, the associations are weak (results not shown). It is also noted that some variables and categories in some variables in the model with interaction terms dropped out due to collinearity.

Table 6.2 also reveals that the respondent's approval of contraceptive use is a strong and significant predictor of contraceptive use: men who approve of contraceptive use have about 4.5 greater chances of using modern methods than those who oppose it. It is also observed that men who are currently not in union are significantly more likely to use contraception than married men whose partners approve or disapprove of contraception.

Since one of the objectives of this study was to find out if regional variations in contraceptive behaviour was a result of ethnicity or information access, separate models

were employed (results not shown) having only region of residence, ethnicity and information access variables. When region of residence is entered into the regression equation on its own, all the categories are significantly different from the reference group except Luapula and Southern provinces. When ethnicity is added to the model, the same provinces which were significantly different for the reference group in the previous model continue to be significantly different from 1.0 in this model as well. It is also observed that the odds ratios of all the provinces reduce slightly and ethnicity is not important in explaining contraceptive use in this model. When information access variables are added in the equation which has only region of residence, it is observed that the odds ratios of all the provinces without exception decrease substantially. In this model region of residence, watches television, known source of condoms, family planning information source are significant predictors of family planning use.

6.3 Preliminary analysis of contraceptive method choice

In order to have an idea of respondent's characteristics by method choice, bivariate analysis of selected explanatory variables and method choice was performed (Table 6.3). When chi-squared tests were done, all the variables except 'lineage type', 'ethnicity', 'respondent's family planning approval' and 'acceptability of family planning media messages' are observed to be significantly related to method choice at 1%, 5% and 10% levels of significance.

According to the results in Table 6.3, the most popular method among men of different ages except those in their 30s is the condom. The level of condom use is particularly high (50%) among the teens. Nearly a third of men in their 30s are using 'pill/IUD/injections', while there is not much variation in use of these methods among men in the other age groups. Traditional methods are the most popular method among men in their 30s who also have the highest proportion of users of these methods. Table 6.3 shows the percentage of contraceptive method choice among *Zambian* men according to selected characteristics.

Table 6.3: Percentage of contraceptive method choice among male users according to selected characteristics. Zambia DHS, 1996.

Characteristics	Condoms	Pill/TUD/Injection	Traditional	No. of men
Total	42.60	23.00	34.40	500
<i>Age***</i>				
15-19	50.11	20.48	29.41	89
20-29	44.99	23.56	31.44	191
30-39	30.39	32.13	37.48	69
40+	41.65	23.57	34.78	151
<i>Education***</i>				
No education	48.29	0.00	51.71	12
Primary	47.37	24.39	28.24	162
Secondary+	40.58	24.86	34.56	326
<i>Childhood residence*</i>				
Rural	39.91	21.40	38.69	249
Urban	45.29	26.43	28.29	251
<i>Current residence***</i>				
Rural	42.44	16.02	41.54	249
Urban	43.20	29.63	27.17	251
<i>Number and sex of children ***</i>				
No child	48.51	22.98	28.51	219
1 -3 Male children only	38.95	31.00	30.05	45
1-3 Female children only	33.53	18.10	48.37	49
1-3 Both sexes	40.26	22.15	37.59	120
4+ Both sexes	37.94	32.01	30.04	67
<i>Marital status***</i>				
Not in union	79.06	8.05	12.07	174
In union	30.98	22.70	46.32	236
<i>Lineage type</i>				
Matrilineal	43.81	24.04	32.14	374
Patrilineal	40.03	24.66	35.30	126
<i>Ethnicity</i>				
Mambwe (patrilineal)	40.07	15.21	44.72	16
Bemba (matrilineal)	40.74	23.87	35.38	154
Tonga (matrilineal)	45.37	26.49	28.14	83
Luvale (matrilineal)	36.44	21.21	42.34	33
Lunda (patrilineal)	38.64	18.76	42.60	18
Kaonde (matrilineal)	36.40	42.23	21.37	10
Barotse (patrilineal)	42.67	48.83	8.50	31
Nyanja (matrilineal)	48.69	21.65	29.66	120
Tumbuka (patrilineal)	36.06	16.10	47.83	35
<i>Desire for more children***</i>				
Wants within 2 years	38.57	18.35	43.08	128
Wants after 2 years	50.65	22.39	26.97	289
Wants no more	21.73	39.25	39.02	83
<i>Region and residence ***</i>				
Northern	40.26	13.86	45.88	25
Central	47.31	21.20	31.48	59
Copper-belt	45.71	31.12	23.18	86
Eastern	48.60	14.90	36.50	89
Luapula	34.16	12.65	53.19	47
Lusaka	43.01	26.04	30.95	93
North-western	29.16	18.16	52.68	35
Southern	21.92	37.42	40.66	32
Western	53.48	34.71	11.81	34

Table 6.3 (Continued)

Characteristics	Condoms	Pill/IUD/Injection	Traditional	No. of men
Total	42.60	23.00	34.40	500
<i>Respondent FP approval</i>				
Disapproves	43.17	9.33	47.50	22
Approves	42.88	24.84	32.28	478
<i>Partner's FP approval***</i>				
No spouse	79.06	9.05	11.89	174
Disapproves	26.49	19.49	54.02	27
Approves	21.15	34.42	44.44	299
<i>Spousal communication***</i>				
No spouse	79.06	9.05	11.89	174
No discussion	32.96	10.19	56.85	36
Discusses	20.35	53.65	43.99	290
<i>Reads Newspapers**</i>				
No	41.20	18.78	40.02	235
Yes	44.10	28.03	27.87	265
<i>Listens to radio</i>				
No	35.93	18.46	45.61	79
Yes	43.97	25.08	30.94	421
<i>Watches television**</i>				
No	40.07	20.10	39.83	292
Yes	45.69	28.25	26.07	208
<i>FP information source***</i>				
No source	47.91	30.31	21.78	31
Electronic media only	45.04	10.29	44.67	29
Print media only	50.23	18.72	31.05	42
Health provider only	31.30	28.85	39.85	13
> One source	41.93	25.15	32.92	385
<i>Accepts FP media messages</i>				
No	42.38	23.48	34.15	29
Yes	42.93	24.25	32.82	471

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Although there are slight differences in condom use among men of different education background, it is noted the proportions using condoms among uneducated men and those with primary education are higher than those who have reached secondary or higher education. Table 6.3 also reveals that none of the men who reported having never been to school are using these 'pill/IUD/injection'. This result should be interpreted with caution as it is based on a small sample size (12). Traditional methods are more popular among uneducated men compared to men who have been to school as Table 6.3 shows. For both the childhood residence and the current residence a higher proportion of urban men are using modern methods compared with rural men. However, it is observed that the difference in condom use among current residents of rural and urban areas is marginal. The results also show that the proportions using 'pill/IUD/injection' among urban residents is twice that for rural residents. For both childhood and current residence, rural men have substantially higher use of traditional methods than urban men.

With reference to the number and sex of children, the results in Table 6.3 show that the majority of men without children are using condoms. It is also noted that condom use is lowest among men with up to three female children (34%), who also have the lowest proportion of users of ‘pill/IUD/injection’ (18%). Use of ‘pill/IUD/injection’ is highest among men with up to three male children and those with four or more children of both sexes. While the proportion using traditional methods for the rest of the categories for the number and sex of children are in the region of 30%, nearly half of those with three female children are using traditional methods and over a third of those with up to three children of both sexes are using traditional methods. The results in Table 6.3 and Figure 6.2 also reveal apparent differences in the levels of condom use among men who are currently not in union and those who are not currently in union.

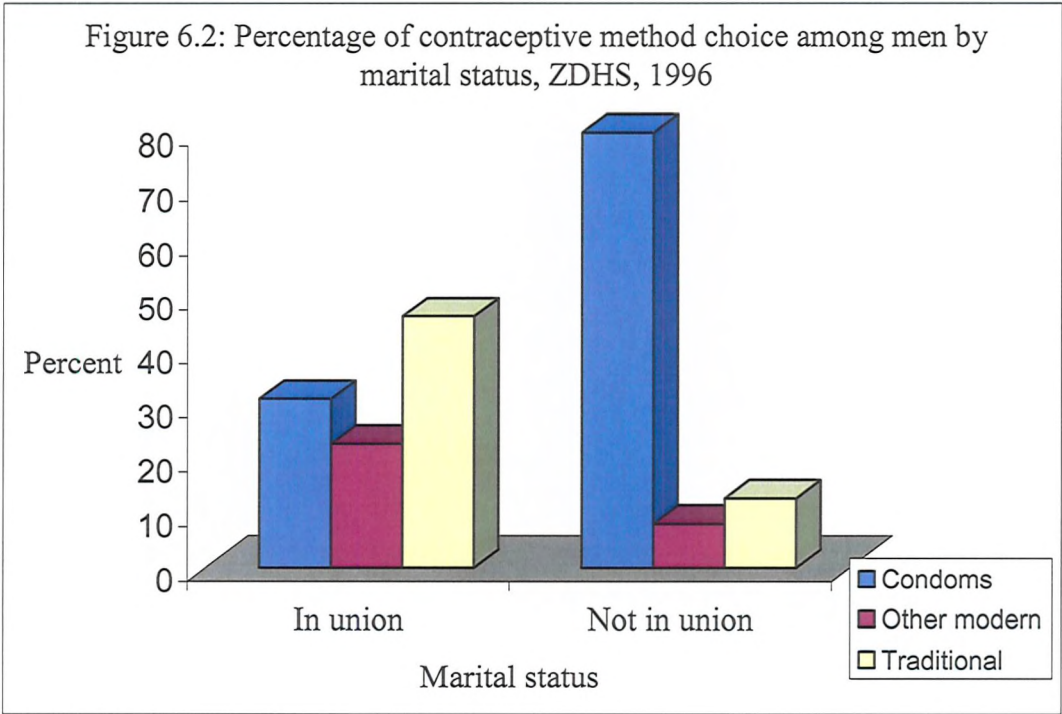
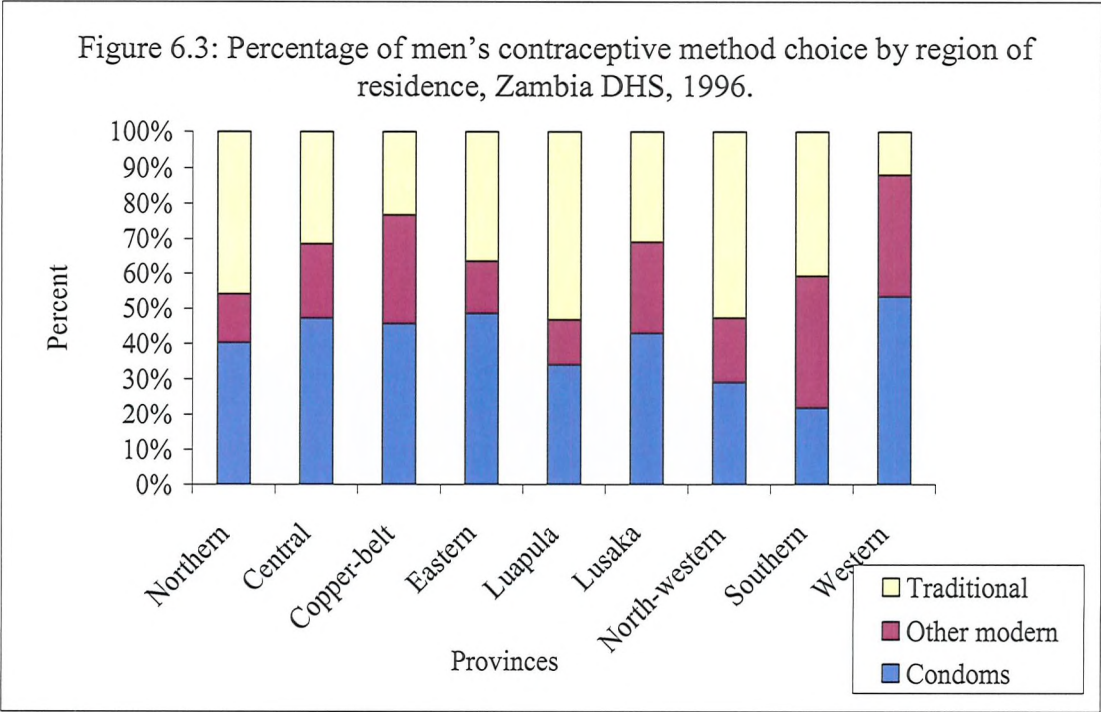


Table 6.3 shows that overall there is very little variation in the choice of methods among men with reference to lineage descent. However ethnic differences in choice of methods do exist. Generally, over a third of men in all the ethnic groups are using condoms, while nearly half of the Nyanja are using condoms. Barotse men have the highest proportion of users of pill/IUD/injection, while less than one in five of Lunda, Mambwe and Tumbuka men are using these methods. Use of traditional methods is highest among Tumbuka men and lowest among Barotse men. With the exception of the Nyanja and Bemba, the sample

sizes for the other groups are rather small hence the proportions should not be over-interpreted.

The results in Table 6.3 reveal that more than 50% of men who want to space births are using condoms. Most men who want to stop child bearing are choosing to use either ‘pill/IUD/injection’ or traditional methods. It is also noted that over 40% of men who want to have children soon are using traditional methods which mainly comprise abstinence (results not shown).

Table 6.3 and Figure 6.3 reveal regional variations in method choice among Zambian men. These results for the provinces should however be interpreted with caution as they are based on small sample sizes also in some of the provinces. Lusaka, Eastern, Central and Copperbelt provinces account for two-thirds of the respondents in this study. In all but two of the provinces over a third of the men are using condoms. In Western province, over 50% of the men are using condoms, followed by Eastern and Central provinces with about 48% of condom use each. Both Northern and Luapula provinces have less than 15% of men using ‘pill/IUD/injection’, while in Copperbelt, Southern and Western provinces, over 30% of men are using these methods. The results in Table 6.3 also reveal high levels of use of traditional methods in some provinces. For example, over half of the respondents in Luapula and North-western provinces are using traditional methods.



It is observed in Table 6.3 that there is no difference in condom use among men who approve or disapprove of contraceptive use. While the proportion using 'pill, IUD or injection' is much higher among men who approve than oppose family planning, close to 50% of those who oppose family planning are using traditional methods. It should however be noted that the results for men who oppose family planning are based on very few men (22) compared with 478 men who approve of use. It is also observed that a third of men who do not discuss family planning with their spouses are using condoms. As expected use of 'pill, IUD or injection' is substantially high among men who discuss family planning with their spouses than those who do not, while the reverse is true for traditional methods. It is also noted that a significantly higher number of users (290) discuss family planning with their wives than not (36).

With reference to media exposure, the proportions using condoms or 'pill, IUD or injection modern methods' among men who read newspaper or watch television weekly are higher than their counterparts who are not exposed to any media regularly. It is also noted that men who do not read newspapers, or listen to the radio or watch television regularly have higher proportions of use of traditional methods.

The results also indicate that half of men who obtain family planning information from print media only are using condoms. An equally high proportion (48%) is noted among men without a source of family planning information. It is also noted that one in three men who do not have an information source are using 'pill, IUD or injection' which is the highest proportion for this method. Also 29% of men who obtain family planning information from health providers only are using 'pill, IUD or injection'. Use of traditional methods is quite high among men who obtain family planning information from electronic media only, followed by those who get information from health providers only.

6.4 Multivariate analysis of contraceptive method choice

In the multivariate analysis of contraceptive method choice, 15 variables were used. Once all the variables are taken into account, only seven, namely, *education, the number and sex of children, current residence, ethnicity, region of residence, partner's family planning approval and family planning information source*, are observed to be significant predictors of contraceptive method choice among Zambian men. None of the variables are significant in the use of both condoms and 'pill, IUD, injection' compared with use of traditional

methods which is the reference category. A detailed presentation of the coefficients of the predictor variables and their standard errors is contained in Table 6.1A in Appendix A.

Table 6.4: Summary of results for variables significant in men’s use of either ‘Pill/IUD/injection’ or Condoms compared to Traditional methods

Predictor variables	‘Pill/IUD/injection’ Vs Traditional methods	Condoms Vs Traditional methods
Education	✓	✗
Number and sex of children	✓	✗
Current residence	✓	✗
Ethnicity	✓	✗
Region of residence	✗	✓
Partner’s family planning approval	✗	✓
Family planning information source	✓	✗

Note: ✓ Significant variables ✗: Insignificant variables

Table 6.4 shows that the education, number and sex of living children, current residence, ethnicity and family planning information source are significantly associated with use of ‘pill, IUD or injection’ relative to traditional methods when all the factors are taken into account. It is surprising to note that there is no virtually difference in the probabilities of using ‘pill, IUD or injection’ among men with primary or secondary and higher education. The expectation is that men with secondary or higher education will be more likely to report using pill, IUD or injection compared with those with primary education. In this study, none of the men who have never been to school reported using ‘pill, IUD, injection’. This result could simply be due to the fact that it was based on a very small sample size (12). As Table 6.5 indicates, uneducated men have a 54% chance of using traditional methods. A comparison of use of traditional methods between men with primary education and those with secondary or higher education reveals an unusual pattern. It is observed that the former have a lower likelihood (30%) of using traditional methods than the latter (36%).

With reference to the number and sex of children, it is noted that men without children are the, most likely to use condoms (48%), while those with up to three female children are the least likely (34%). The chances of using ‘pill, IUD or injection’ are highest among those with four or children of both sexes. Men with up to three female children only are the least likely to adopt ‘pill, IUD or injection’. Men in this category however have the highest likelihood of using traditional methods. Their counterparts with up to three male children have a probability of using ‘pill, IUD or injection’ of about 0.3.

While surprisingly there is hardly any difference in the likelihood of using condoms among rural and urban residents, the results in Table 6.5 reveal wide variations in the probabilities of using ‘pill, IUD or injection’ and traditional methods among rural and urban men: urban men are two times more likely to use ‘pill, IUD or injection’ than rural men, while rural men have a significantly higher likelihood of using traditional methods compared with urban men when all other factors are taken into account. Table 6.5 presents the estimated probabilities of using condoms, pill, IUD or injection or traditional methods for the seven significant variables.

Table 6.5: Estimated probabilities of using different methods among men by selected variables, ZDHS, 1996.

Predictor variables	Condoms	Pill/IUD/injection	Traditional methods
<i>Education</i>			
No education	0.463	0.000	0.537
Primary	0.460	0.239	0.301
Secondary+	0.407	0.233	0.360
<i>Number and sex of children</i>			
No child	0.477	0.222	0.301
1 -3 males	0.384	0.287	0.329
1-3 females	0.343	0.167	0.490
1-3 both sexes	0.408	0.204	0.388
4+ both sexes	0.373	0.307	0.320
<i>Current residence</i>			
Rural	0.418	0.162	0.420
Urban	0.433	0.297	0.271
<i>Ethnicity</i>			
Mambwe (patrilineal)	0.384	0.158	0.457
Bemba (matrilineal)	0.399	0.220	0.381
Tonga (matrilineal)	0.441	0.253	0.306
Luvale (matrilineal)	0.339	0.200	0.461
Lunda (patrilineal)	0.387	0.149	0.464
Kaonde (matrilineal)	0.405	0.382	0.212
Barotse (patrilineal)	0.466	0.464	0.070
Nyanja (matrilineal)	0.492	0.204	0.304
Tumbuka (patrilineal)	0.368	0.151	0.481
<i>Region and residence</i>			
Northern	0.429	0.147	0.423
Central	0.482	0.202	0.315
Copper-belt	0.454	0.314	0.232
Eastern	0.485	0.146	0.369
Luapula	0.341	0.126	0.533
Lusaka	0.430	0.257	0.313
North-western	0.292	0.174	0.534
Southern	0.215	0.353	0.433
Western	0.533	0.349	0.117
<i>Partner's family planning approval</i>			
No spouse	0.796	0.084	0.120
Disapproves	0.272	0.200	0.528
Approves	0.223	0.317	0.460

Table 6.5 (Continued)

Predictor variables	Condoms	Pill/IUD/injection	Traditional methods
<i>Family planning information source</i>			
No source	0.449	0.318	0.233
Electronic media only	0.434	0.103	0.464
Print media only	0.493	0.177	0.330
Health provider only	0.335	0.257	0.408
> One source	0.418	0.237	0.345

The results in Table 6.5 show a similar pattern of method choice with reference to ethnicity and region of residence. For instance, Nyanja and Barotse men have comparatively higher chances of using condoms. Similarly, men in Western province where most Barotse men reside (see Table 6.6) have over a 48% chance of choosing condoms relative to traditional methods. While Barotse men are the most likely users of ‘pill, IUD or injection’ (46%), the chances of men belonging to Mambwe, Lunda and Tumbuka ethnic groups are less than 20%. It should be noted that all three groups are patrilineal by lineage descent. These three ethnic groups also have significantly high chances of using traditional methods compared with the rest of the ethnic groups. Men living in Luapula and North-western provinces have over 50% greater chances of using traditional methods than men in other provinces. Those living in Western province are the least likely to use these methods. However, the same cannot be said about the condom use among Tonga men and Southern province where they are predominantly found (see Table 6.6).

Table 6.6: Percentage of men by region and ethnic background, Zambia DHS, 1996.

	Northern	Central	Copperbelt	Eastern	Luapula	Lusaka	North-western	Southern	Western
Total (500)	(25)	(59)	(86)	(89)	(47)	(93)	(35)	(32)	(34)
<i>Ethnicity</i>									
Mambwe	29.87	0.00	5.67	0.00	4.28	2.19	0.00	0.00	0.00
Bemba	62.34	40.26	55.76	2.42	89.28	20.55	8.67	8.54	0.00
Tonga	0.00	40.24	6.81	2.65	0.00	20.49	3.16	82.91	0.00
Luvale	0.00	1.50	3.40	0.00	0.00	4.39	39.34	0.00	31.94
Lunda	0.00	0.00	2.27	0.00	2.11	2.19	33.42	0.00	2.77
Kaonde	0.00	2.14	4.54	0.00	0.00	1.10	9.08	0.00	3.01
Barotse	0.00	0.03	1.13	1.09	0.00	4.39	0.00	8.54	62.28
Nyanja	0.00	8.58	14.75	76.75	2.17	33.72	6.33	0.00	0.00
Tumbuka	7.79	4.29	5.67	17.08	2.17	10.97	0.00	0.00	0.00

In this study, men who were not in a marital union at the time of the survey have significantly higher chances (80%) of choosing condoms over traditional methods than married men. The results show that there is not much variation in the likelihood of using condoms between men whose partner's approve of family planning and those whose partners are against its use. Men who are not in union have a low probability of 0.08 of using 'pill, IUD, or injection', while married men whose partners approve contraceptive use have much higher chances of using 'pill, IUD or injection' (32%). Men who oppose use of contraceptives however have the highest chance of using traditional methods (53%) when all other factors are taken into account.

The results in table 6.5 show that men who access family planning information from print media only are the most likely to use condoms while those who get information from health providers only are the least likely to use condoms when all other factors are accounted for. Surprisingly the chances of using 'pill, IUD or injection' over traditional methods is highest among men with no source of family planning information. Men who get information from health providers only also have a comparatively high chance of adopting 'pill, IUD or injection' when all other factors are accounted for, while men who get information from electronic media only have a 46% greater chance of using traditional methods than their counterparts who use other sources.

6.5 Analysis of condom use

The aim of the analysis presented in this section is to examine the characteristics of condoms users and explore the potential of condom use for dual protection in Zambia. The analysis of condom use is based on information collected from 216 men who reported using condoms for family planning at the time of the survey. This figure constitutes 43% of all the current users of contraception among Zambian men.

The distribution of men knowing either a public or private source of condoms shown in Table 6.7 reflects the wide availability of condoms in the country. The results also clearly reveal that there is widespread knowledge of HIV/AIDS in Zambia among current condom users. During the survey, the respondents were asked if they had changed their behaviour since hearing about HIV/AIDS. Those who said 'yes' were then asked about what changes they had made in the behaviour. Responses included, 'reduced the number of partners', 'asked spouse to be faithful', 'stopped using injections', 'had only one sexual partner' and

‘stopped having sex altogether’. Approximately 60% of the respondents said they had started using condoms since hearing about HIV/AIDS. It is also observed from Table 6.7 that while only about 20% of the men used condoms with their spouses at the last sex, over 70% of those had reported last sex with other women (e.g commercial sex workers etc) had used a condom. Table 6.7 shows the percentage of condom users according to selected predictor variables.

Table 6.7: Percentage of men by selected condom-related variables, Zambia DHS, 1996

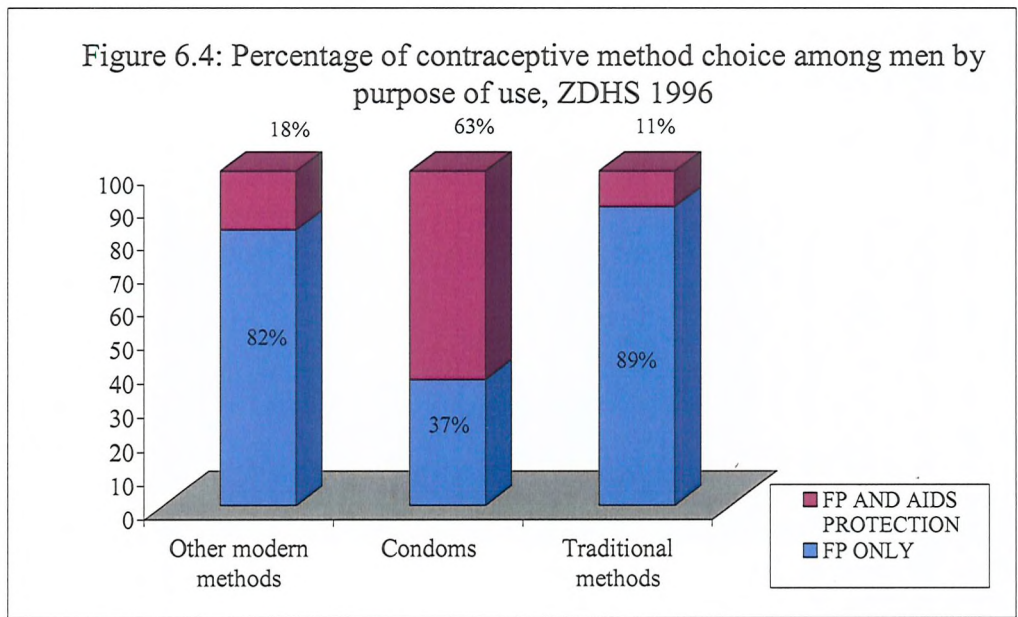
Variables	Percentage	Number of men
Total		216
<i>Known source of condoms</i>		
Don't know source	0.93	2
Public	47.22	102
Private	51.85	112
<i>Knowledge of HIV/AIDS</i>		
No	7.41	16
Yes	92.59	200
<i>Using condoms since hearing of HIV/AIDS</i>		
No	40.28	87
Yes	59.72	129
<i>Ever use of condoms by purpose</i>		
For Family Planning only	6.94	15
For Family Planning and STD	93.06	201
<i>Current condom use by purpose</i>		
For Family Planning only	36.75	87
For Family Planning and STD	63.25	129
<i>Condom used by type of partner (last sex)</i>		
Spouse	19.91	43
Casual partner	6.02	13
Other	74.0	160

6.5.1 Dual protection

With reference to past and current use of condoms, the results in Table 6.3 show that among condom users, the levels reported of *past use* of condoms for family planning and STD prevention were much higher than those of *current use*. Nonetheless, a significantly higher proportion of men are using condoms currently for family planning purposes than in the past. The result for ‘ever use’ of condoms needs to be interpreted with caution as ‘ever use’ is not a reliable measure of the levels of use. This is mainly because it has no time limit. Current use, which refers to ‘the time of the survey’, is a better estimate and upon which policies are made.

In order to establish the level of use of methods for dual protection among all sexually active men in Zambia currently using contraception, a cross-tabulation of the contraceptive

method choice and purpose of use was performed for all the current users of family planning (500 men). The results shown in Figure 6.4 indicate that the vast majority of men (63%) are using condoms for dual protection.



It is however rather surprising to note that a small proportion reported using ‘pill, IUD or injection’ and traditional methods for protection against HIV/AIDS infection. This could be due to ignorance of how the modern methods work and what they can do. Further explorations of contraceptive use for dual protection reveals that most of those who reported using ‘pill, IUD or injection’ were using the pill. Injections and diaphragms accounted for less than 1% of use each. The majority of those using traditional methods for dual protection were using abstinence, while use of other traditional methods for dual protection was negligible.

6.5.2 Profile of condom users

Since men aged below 30 years of age in this study constitute nearly three-quarters of all condom users, the profile of condom-users presented in Table 6.7 is distinguished by age. The analysis of contraceptive method choice discussed in an earlier section of this chapter revealed some notable variations in condom use among men with respect to age, parity and marital status. Among the three variables, the greatest differences observed was for marital status. The results in Table 6.8 show that half of the male condom users in Zambia are in their 20s. Further, typical condom users have generally reached secondary or higher

education, do not have children, are not in union, reside in urban areas and are using condoms more for dual protection rather than for family planning only. Young male condom users in their teens also have similar characteristics as men in their 20s.

Table 6.8: Percentage of condom users by age and selected characteristics, ZDHS, 1996.

	<20	20-29	30-39	40+	No. of men
Total	24.07	49.54	12.05	13.89	
	(52)	(107)	(27)	(30)	(216)
<i>Education</i>					
No education	1.38	1.76	0.00	4.42	4
Primary	42.23	22.55	33.95	12.75	57
Secondary+	56.39	75.69	66.05	82.83	155
<i>Number and sex of children</i>					
No child	100.00	64.16	17.62	2.29	126
1 -3 males	0.00	9.01	20.53	12.03	17
1-3 females	0.00	14.49	8.81	8.84	19
1-3 both sexes	0.00	10.93	36.34	52.85	39
4+ both sexes	0.00	1.41	16.70	23.99	15
<i>Current residence</i>					
Rural	43.79	34.03	56.49	39.82	105
Urban	56.21	65.97	43.51	60.18	111
<i>Current condom use by purpose</i>					
For FP only	20.46	35.71	63.88	49.45	87
For FP and STD	79.54	64.29	36.12	50.55	129
<i>Spouse's FP approval</i>					
No spouse	100.00	78.81	17.62	13.68	143
Disapproves	0.00	1.26	13.06	10.16	7
Approves	0.00	19.93	69.32	76.16	66
<i>Spousal communication</i>					
No spouse	100.00	78.81	17.62	13.68	143
No discussion	0.00	3.60	8.81	11.81	10
Discusses	0.00	17.59	73.57	74.50	63
<i>Marital status</i>					
Not in union	100.00	78.81	17.62	13.68	143
In union	0.00	21.19	82.38	86.32	73

Condom users who are in their 30s are more likely to have up to three children, be married and the majority are using condoms for family planning purposes only. Older men aged 40 years and above have similar characteristics as those in their 30s except that in this age-group, the proportion using condoms for family planning alone and dual protection are nearly the same.

The proportion of condom users among uneducated men is less than 10% for all the age groups. Men with secondary or higher education have the highest proportion of condom users irrespective of age. The results in Table 6.8 also show that all the teenage men who were using condoms in this study had no child and were not in union. There is marked difference in between men with only male or female children for those in their 30s and 40s,

condom use is much higher among men with up to three boys only compared with their counterparts who only have girls. Among those in their 20s, the opposite is observed.

From Table 6.8 it is observed that with the exception of those in their 30s, condom use is higher among urban than rural residents. The results in Table 6.8 also indicate that a higher proportion of men regardless of age discuss family planning with their spouses and have spouses who approve of family planning use compared with those who do not discuss family planning with their spouses or those whose partners oppose its use.

6.6 Summary

This chapter has examined the characteristics of contraceptive users among men in Zambia. The findings indicate that family planning knowledge is nearly universal and that 21% of the men are using modern contraceptive methods. In addition, the condom is observed to be the most commonly used method among all sexually active men. Pills account for about 7% of use, while condoms account for 13% of contraceptive use among all sexually active men, which is 43% of all users.

Generally, there is not much variation in modern contraceptive use with respect to most of the respondent's characteristics. Surprising results noted are for method choice according to the level of education and current residence. The factors influencing modern contraceptive use and method choice when all the factors are taken into account have also been examined. Ethnicity has been found to be important in choice of methods. The results show that ethnicity is important in the use of 'pill, IUD or injection' when compared with use of traditional methods, while region of residence has been found to be important in determining condom use compared with use of traditional methods.

Chapter 6 has also looked at the characteristics of condom users among Zambian men. It has also endeavoured to determine the levels of condom use for dual protection and family planning use only, with a view to exploring the potential of condom use for dual protection among men in Zambia.

CHAPTER 7

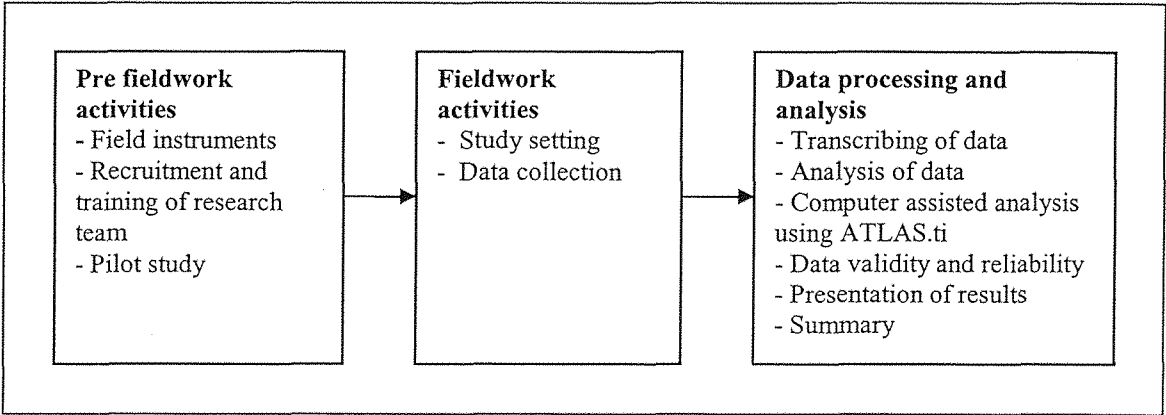
QUALITATIVE METHODOLOGY

7.0 Introduction

This chapter presents the methodology for the qualitative study of this thesis. The qualitative study was undertaken between April and June 2003 in selected districts of Zambia. This study was designed to explore the demand and supply factors influencing contraceptive use with a view of gaining further insights into the ZDHS findings. The study aimed to understand the socio-cultural context in which contraceptive behaviour occurs in selected study sites in Zambia, to investigate the potential of condom use for dual protection and to explore the differences and similarities between the contraceptive behaviour of different ethnic and lineage groups. In order to capture the client’s and service provider’s perspectives, information was collected from men and women in selected areas, personnel from the district health office and from health providers serving the respective local communities.

This chapter is divided into three main parts. The first section describes pre-fieldwork activities such as the preparation of the research instruments, recruitment and training of fieldwork assistants and the pilot study. The second part presents the study setting, data collection methods and how they were deployed in this study. In the third section, data processing and analysis procedures as well as data reliability and validity are presented. A summary of the chapter is given at the end. Figure 7.1 gives an outline of this chapter.

Figure 7.1: Outline of qualitative methodology chapter



7.1 Pre-fieldwork activities

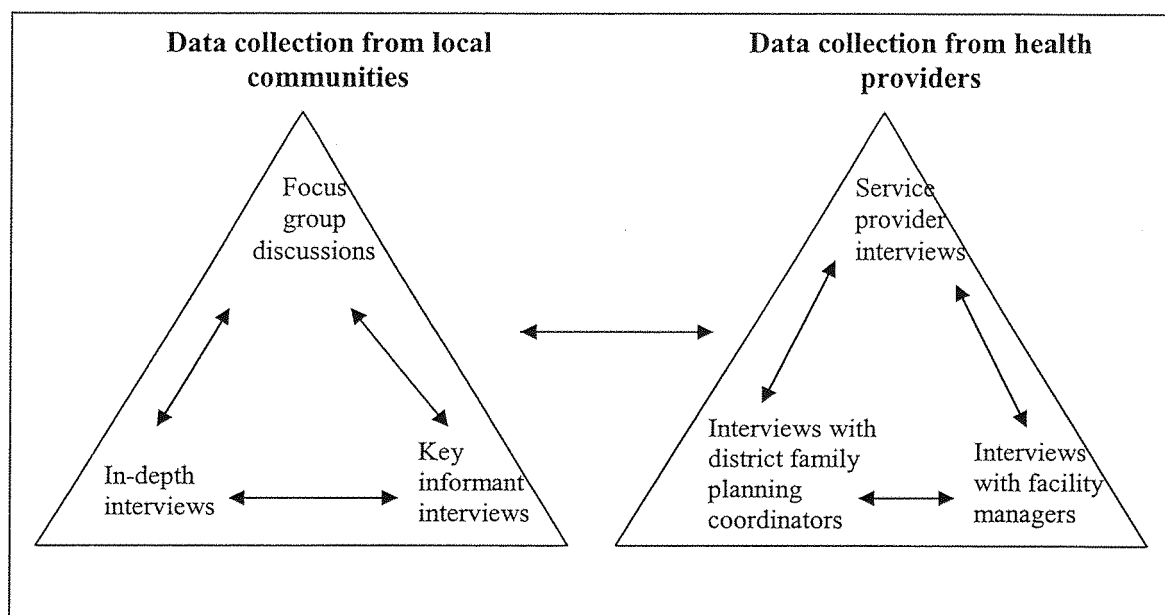
7.1.1 Field instruments

Prior to the fieldwork, the best way(s) of gathering qualitative information in view of the study's objectives were explored. This process involved extensive literature review and consultations with some experts in qualitative research. The qualitative approach was chosen as it is able to facilitate enquiry into perspectives of traditional norms, beliefs and practices, which quantitative methods like those employed in the DHS cannot accomplish. Kaplan and Maxwell (1994) have argued that when textual data are quantified, the understanding of phenomenon from the participants' viewpoint and its particular social and institutional context may be lost. Without making any comparisons with quantitative data, the detailed nature of the information that can be obtained in a qualitative study is of great value.

In this study, Focus Group Discussion (FGD) guides, In-Depth Interview (IDI) guides and key informant interview guides were developed for use in collecting information from members of the community in the selected areas. FGDs were found to be suitable for this study as they bring out general community attitudes, perceptions and behaviour on a given topic, while IDIs give deeper insights and enable individual's to share personal experiences since the one-to-one basis ensures privacy. Separate interview schedules were also developed for obtaining information from district family planning coordinators, facility managers and family planning service providers in selected health facilities.

Figure 7.2 summarises the methods used and sources from which information was obtained in this study. The arrows indicate links between information from the different instruments and sources. Since the information would be collected from the same catchment area in the selected sites, the views from different data sources could be comparable. Using a range of data collection methods and sources gives a broader perspective of the issues and acts as a check of the validity of the information.

Figure 7.2: Summary of qualitative methods and sources of data used in this study



7.1.2 Recruitment and training of research assistants

Although the fieldwork was conducted in Copperbelt and North-western provinces of Zambia, the research assistants were recruited from Lusaka, the capital city primarily because it was comparatively easier to find people with good research skills in Lusaka than in the prospective study areas. In this study, English and four local languages namely Kaonde, Lunda, Luvale and Bemba were to be used as they are the main languages spoken in the selected study areas. Therefore potential research assistants' linguistic skills were assessed by the principal researcher and other persons from the language department of the University of Zambia. Thereafter a team of eight male and female research assistants were recruited. It was important to have both male and female research assistants as the study involved collecting information from men and women.

The field assistants' training included an introduction to the research topic, study background, rationale and objectives. During the training, various examples, class exercises and role plays were used and by the end of the fifth day, all of research assistants had developed good moderating skills. Their fieldwork skills which were tested during the pilot study proved to be of high quality. This was an assurance that the data quality would not be compromised. While in the field, the research assistants conducted IDIs, FGDs and some key informant interviews, while the principle investigator interviewed all the health personnel and some of the key informants.

During the training, the field instruments were also translated into the local languages by the research team. To ensure linguistic equivalency, accuracy and consistency the instruments were back-translated into English by independent persons. The translations took into account the local culture, local terminologies and any factors that could inhibit or enhance participation. For example, extra caution was taken when translating sensitive topics such as those pertaining to sex, which are usually considered culturally inappropriate and private in most African societies (Helitzer-Allen et al., 1994).

7.1.2 Ethical clearance

Ethical clearance is an important aspect of good research practice. It seeks to ensure that the research will be conducted according to acceptable research ethics or guidelines and will not harm or disadvantage the study participants in any way. In this study ethical clearance was obtained from the Opportunities and Choices Research Consortium (which partly funded the research) and the Central Board of Health/ Ministry of Health (Zambia). Both organisations were furnished with the study proposal and the field instruments after which the study was given approval. The study also ensured that study participants took part in the research voluntarily by giving their consent willingly (see 7.3.1).

7.1.3 The pilot study

A pilot study may be considered a smaller version of the full scale study. Conducting a pilot study is advantageous in that it might give advance warning about potential pitfalls for the main study, whether the proposed methods and instruments are appropriate or not or give an idea of what procedures to follow in the field. For reasons such as these, a pilot was undertaken in an area within Lusaka (8km from the city centre), typifying rural conditions (e.g. socio-cultural and economic characteristics). This area is an overcrowded 'shanty compound' (slum area) with a population of about 60,000. It has a well established community organisation called the 'Residents Development Association' (RDA) which organises community development projects in the area. The RDA served as the research team's main link to the rest of the community.

With the help of the local RDA leader who acted as the key informant, community members were recruited for the pilot study. The RDA leader was briefed on the study's objectives and data collection procedures which involved collecting information from men and women through FGDs and IDIs. It was also emphasised that participation in this study

was voluntary and all the information collected would be confidential and anonymous. Over 50 men and women mainly from the nearby market and surrounding houses assembled at the RDA offices where the principal investigator briefed them about the study objectives and reasons for the pilot study. A sift questionnaire (see Appendix C) which is a short questionnaire designed to collect basic information on an individual (e.g. socio-demographic data) was administered. This information was used to allocate participants to the appropriate group. Two male and female participants with the most and least number of children among the study participants were recruited for the IDIs.

FGD participants were selected using random sampling and allocated to four groups of 6-12 people according to age (<35 and >35 years) and sex. The target was to have at least two groups of each sex and age group in each study area visited. Four teams of two persons each (a moderator and note-taker) conducted the FGDs and IDIs for each sex. It was important to stratify the groups according to sex and age because traditionally men and women do not discuss reproductive health issues together and in order to observe the differences in attitude between young men and women and the older ones. Having participants sharing similar characteristics in a group facilitates discussions. Therefore once participants were in their focus groups they were asked if there were any who were related to each other, held any positions of authority in the community or were involved in community health care.

Interviews were also conducted by the principal investigator with the facility manager and one family planning service provider at the local health facility. After the pilot study, the field instruments were revised. Some of the questions were rephrased or modified and new ones were also generated. The field assistant's moderation skills were also further refined.

7.2 Fieldwork activities

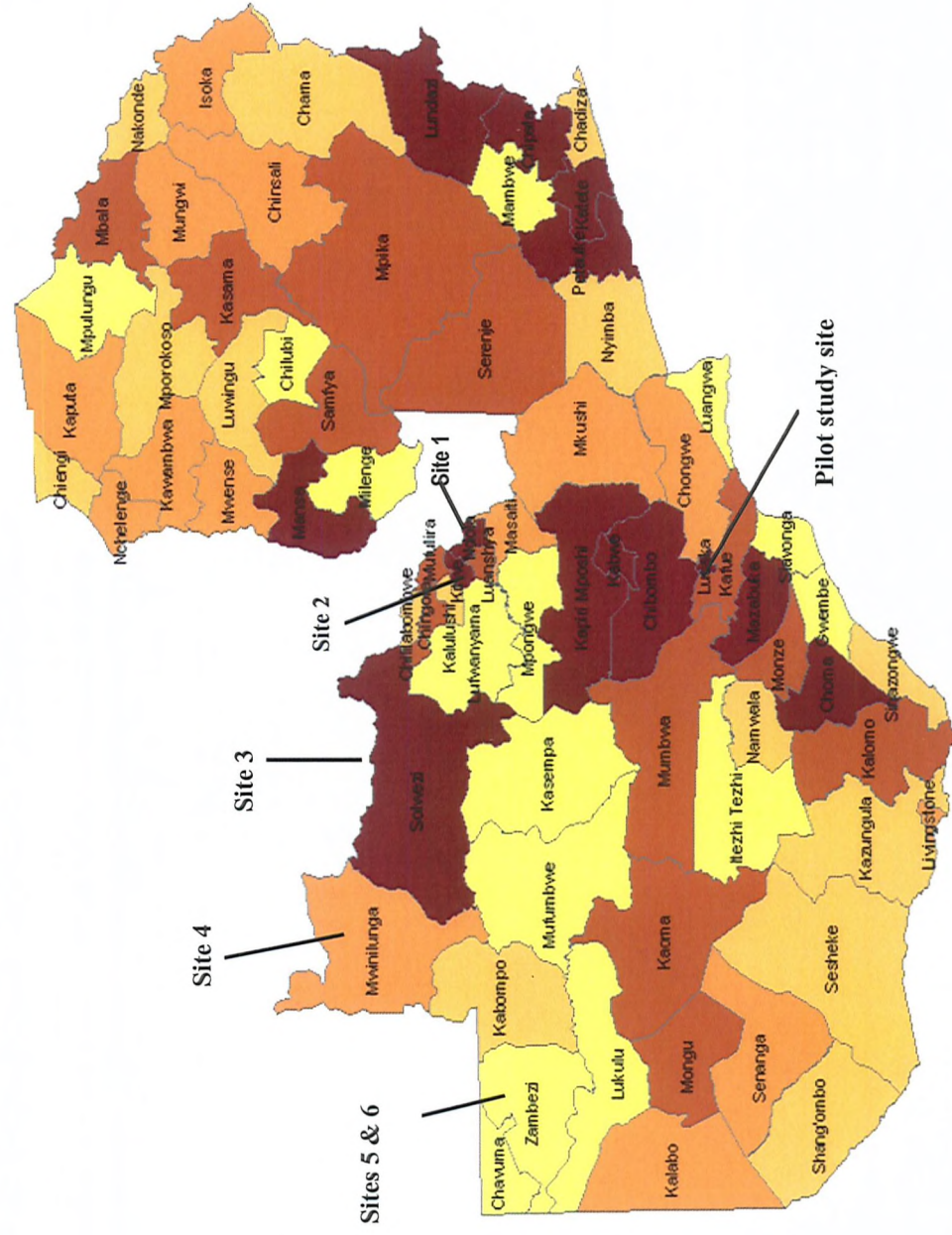
7.2.1 Study setting

A total of five districts in two provinces were visited during this study. This study was undertaken in *Ndola* and *Kitwe* districts in Copperbelt province and *Mwinilunga*, *Solwezi* and *Zambezi* districts in North-western province. Copperbelt province, which is one of the more developed provinces in the country provided the urban dimension of the study. The province was selected for a number of reasons. Its socio-cultural environment resulting from a history of labour migration of people from different parts of the country who

relocated in order to work in the copper mines resulted in ethnic diversity and a mix of both lineage in the province. These factors made it an ideal place to address the study's objectives particularly the relationship between ethnicity, lineage background and contraceptive behaviour. Secondly, Copperbelt province is comparatively well developed and at least a quarter of all women reported use of modern contraception in the 1996 ZDHS. This proportion has further increased to 38% in the 2001/02 ZDHS.

North-western province provided the rural dimension to the study as it is one of the rural provinces in Zambia. In this study only areas located in rural parts of the selected districts in North-western province were visited. Such locations would provide an ideal socio-cultural environment to address the study's objectives as the population living near urban centres (Boma) may be influenced by modernisation and possibly be ethnically diverse. Since this study was interested in exploring the contraceptive behaviour of men and women of different ethnic and lineage background, it was important that information be collected from participants living in a social environment largely dominated by traditional culture of either matrilineal or patrilineal ethnic lineage groups. Rural locations therefore seemed ideal as the likelihood of recruiting study participants of the same ethnic group and lineage descent living in the same area would be greater there than in urban areas. Therefore North-western province which is inhabited by ethnic groups of both lineage was selected. Figure 7.3 shows the map of Zambia indicating the selected sites visited during this study.

Figure 7.3: Fieldwork map for the study on the Socio-cultural context of contraceptive use and method choice in Zambia



7.2.1.1. Copperbelt province

Although the province is the second smallest in terms of land area in the country, it accommodates the largest population (16.1%) according to the 2000 Census. It is also the most densely populated region in the country with over 60 persons per square kilometre. The 1996 ZDHS found a contraceptive prevalence of about 19% among currently married women. Fertility and mortality levels in the province have been declining over the years: the 1996 ZDHS indicated TFR of 5.6 which dropped to 4.5 in 2001/02 and between the 1996 and 2001-2002 inter-survey period IMR dropped from 82 to 68 infant deaths per 1000 live births. Regarding HIV/AIDS prevalence, the province is the second most affected in the country with about 20% being HIV infected according to the latest ZDHS (MOH et al, 1997; CSO [Zambia], 2003; MOH and CBoH, 1997).

In Copperbelt province, Kitwe and Ndola districts which are the two most populous and industrialised districts in the province were chosen to provide the urban dimension in this study. In consultation with the District Health Office (DHO), in both Ndola and Kitwe districts two localities (High Density Residential areas [HDR]³ and Low Density Residential areas [LDR]⁴) were selected for purposes of making some comparisons about the factors influencing the contraceptive behaviour of men and women of different ethnic and lineage background living under different socio-economic conditions. Information was collected from members of the local community on knowledge and use of family planning, spousal communication, HIV/AIDS and use of family planning services. Information was also collected from health providers at the nearest health centre in the high density residential area on family planning policies and activities, factors influencing service delivery, factors influencing use of methods in the respective communities and so on (see Appendices). Since it proved difficult to recruit FGD participants in the LDR areas (details in later section), a different strategy had to be devised. It seemed feasible to recruit participants from LDR areas at workplaces rather than in their residential areas. Consequently, arrangements were made for FGDS to be conducted at selected workplaces with employees residing in LDR areas (see details in later section).

³ High Density Residential areas (HDR) in this study are characterised by low socio-economic status, high employment and informal sector employment, poor housing and sanitation. Participants from these areas are sometimes referred to as the 'urban poor' in this study

⁴ Low Density Residential areas (LDR) are characterised by high socio-economic status, high living standards and participants from these areas have been referred to as the 'urban upper class' in this study

7.2.1.2 North western province

Despite being rural, remotely located, comparatively disadvantaged economically and having low literacy levels (43%) compared with the national average of 78%, North-western province also has reasonably high levels of contraceptive use for a rural area compared to other provinces in the country. The 1996 ZDHS showed a contraceptive prevalence rate of 11% for modern methods which quadruples to over 40% when traditional methods are considered as well. While use of traditional methods in the province has decreased substantially from about 30% in 1996 to 12.5% in 2001/02, use of modern contraception has increased to about 16%. This relatively high level of use of modern methods in North-western province indicates that women in the province may have quite a high motivation to regulate their fertility, despite being in a rural area. It was envisaged that the reasons behind this type of contraceptive behaviour which is associated with urban areas could be explored in the qualitative study. Also few reproductive health studies have been conducted in the province to investigate the factors influencing contraceptive behaviour.

Between the 1992 and 2001/02 ZDHS TFR increased slightly from 6.0 in 1992 to 6.2 in 1996 to 6.8 in 2001/02 in the province. Regarding mortality, there has been a decline in infant mortality between 1996 and 2001-2002 DHS from 91 to 74 infant deaths per 1000 live births in North-western province. The province also continues to be the least affected with HIV/AIDS in Zambia; the 1996 ZDHS reported a prevalence rate of 11% in 1996 which has now dropped to below 10% in the 2001/02 survey.

North-western province is home to various ethnic groups residing in traditional settlements. The major ethnic groups are Kaonde, Luvale and Lunda. The Kaonde who are matrilineal are mainly found in Solwezi, Kasempa and Chizera districts, while the Luvale (also matrilineal) mainly inhabit Zambezi and Chavuma districts. Mwinilunga district is mainly home to the Lunda who are also found in Zambezi district on the East bank of the Zambezi river. In this study Solwezi, Mwinilunga and Zambezi districts where the Kaonde, Lunda and Luvale chiefdoms are located respectively, were chosen for this study. Although the Lunda of North-western province have two separate chiefdoms and are mainly found in Mwinilunga and Zambezi district, they are one and the same ethnic group with regard to language and historical origins. The distinguishing feature between the two groups is the lineage descent. The Lunda of Mwinilunga follow the matrilineal system while those in Zambezi district follow the patrilineal system as this study found. Most

literature does not make this distinction. Chondoka (1988) describes them only as patrilineal, while the Art and life in Africa project (1998) documents them as a matrilineal group. They suggest that the Lunda may have at one time been patrilineal, but as they conquered and incorporated various matrilineal ethnic groups, their political system transformed to reflect a matrilineal descent.

During the visits in North-western province, information was collected using FGDs and interviews in the community and at Rural Health Centre (RHCs) as well. The research team liaised closely with the District Health Office (DHO), the health providers at the local health facility and the local community leaders. Solwezi district which was the first place to be visited and an area located about 60km from the Boma was selected. In Mwinilunga district, fieldwork was conducted 56km from the boma. Zambezi district (East and West bank of the Zambezi river) was the last place to be visited. In Zambezi east, the team travelled 60 km from the Boma to the farthest place in the catchment area which was also quite near to the Angolan border.

7.3 Data collection process

In family planning programmes, the views of the community have become increasingly recognised particularly in light of the 1994 ICPD which emphasised a client-centred approach in service delivery (UNFPA, 1995). Consequently, family planning programmes try to place client's needs at the centre of service delivery. In order to collect family planning and reproductive health information, researchers have often employed a range of qualitative research methods. These include:

- a) exit interviews which involve getting clients' perspectives on services they have just received (see Williams et al., 2000; Bessinger and Bertrand, 2001);
- b) simulated (or mystery) client method which involves assessing service provision by using individuals posing as 'clients' (Schuler et al., 1985; and Huntington et., al 1990; Leon et al., 1994).
- c) observations which are based on observing the service delivery process (e.g. a provider-client consultations). They are designed to observe and measure the accuracy of provider's technical competence (Bessinger and Bertrand, 2001)
- d) focus group discussions and In-depth interviews which have been described in subsequent sections.

7.3.1 Data collection in the community

In this study, men and women's views (users and non-users) were primarily obtained using FGDs, IDIs and short interviews with key informants. All the FGDs and interviews were recorded manually and using audio tapes. Each respondent was briefly interviewed using a sift questionnaire to obtain brief socio-demographic information. The sift questionnaire included a section on the respondent's consent to choose to participate in the study or not. Respondents were asked whether or not they wanted to participate in the study by the moderator on an individual basis and they gave consent verbally.

7.3.1.1 Key informant interviews

According to Stewart and Cash (2000), a key informant is a person who can provide information on situations or a particular topic(s), assist in selecting study participants and help in securing their cooperation. Key informants usually act as the main entry point to the study area and are central in providing access to the potential study participants. They can also help the researcher understand the local culture and customs. For instance, in a study on maternal mortality in Zambia by Nsemukila et al. (1999), key informants played an important role in identifying households that had experienced a death of a woman aged 15-49 years in the 12 months preceding the study and identifying prospective respondents from those households. In this study, key informant interviews aimed at obtaining a general overview of the socio-cultural issues pertaining to sex, fertility, family planning and so on (see Appendices for question route). The key informants also played a leading role in organising men and women to participate in this study.

Information can be obtained from a key informant through informal or formal means such as written guides, telephone interviews, face-to-face interviews and group interviews. In key informant interviews, interesting and important ideas not previously thought of by the researcher may emerge which can be followed up in subsequent interviews and group discussions with community members. It could therefore be beneficial if key informant interviews were conducted before other interviews and FGDs in a study site. Because of these important aspects of the key informants the principle investigator conducted the interview while one of the research assistants recorded the information manually and on audio tapes. While key informants may provide valuable insights, they are not infallible and may exaggerate or withhold vital information. It is therefore important to be cautious and validate the information from key informants with other sources such as FGDs.

7.3.1.1.1 Recruitment and profile of respondents

In this study the key informants had to be knowledgeable about the people's lifestyles, culture, the area history and issues relating to the topics under study. Therefore persons such as the village headman, neighbourhood health committee member, Traditional Birth Attendant (TBA), community leader, or other influential persons in the community would be suitable. In each of the rural locations with the help of the local health providers the local chief was recruited as a key informant, while in the urban areas, the key informants were only identified for the high density residential sites, in this case the leader or deputy leader of the RDA. In all, six key informants (4 Chiefs and 2 RDA leaders) who were all male with at least secondary or higher education were interviewed in this study. They were aged between 40 and 60 years, married and with at least four or more children of both sexes.

The staff at the local health centre who were the research team's link to the community arranged introductory meetings with the local traditional leadership. The plan was to identify and recruit a suitable person as a key informant in the rural area who was familiar with the local culture and history of the tribe and area. Although it was not the intended plan, the local Chief at the first site was recruited as the key informant because he expressed interest in the study. In the remaining sites, the local chiefs were therefore recruited by the principal investigator to be key informants. The involvement of the traditional leaders was advantageous to the study as this resulted in a good response to participate in the study from men and women in the different areas visited.

7.3.1.2 Focus group Discussions (FGDs)

FGDs have been defined as 'a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research', (Powell and Single, 1996: p 449). Van Teijlingen and Forrest (2004) describe them as guided non-formal discussions on specific topics with a group of people that trigger off ideas in each other. FGDs were originally developed for sociological research by Merton and Kendall (1946). They were used in population control in the west and a notable demographer (John Knodel) used FGDs extensively to study fertility decline in Thailand (Knodel, 1995). The last few decades have seen focus groups become an increasingly popular method in social science research. Their usefulness in social science research extends to generating hypothesis and questions for survey questionnaires, investigating underlying factors of social phenomenon and to exploring a new area of

enquiry, for instance. In sub Saharan Africa and elsewhere, qualitative studies using FGDs are becoming an important way of gathering information on traditional beliefs and practices which are not captured in surveys like the DHS. The UNFPA for instance commissioned a social research programme using qualitative approaches with a goal of studying the impact of social and cultural factors on population issues.

One of the advantages of focus groups is that they use semi-structured guides or list of topics on the subject being investigated which are flexible as questions can be generated as the discussion progresses. This type of information-gathering allows for exploring new and in-depth information through probing techniques. The group approach is used to get a feel of the language, the values expressed, different meanings of issues, and also to identify areas in which there is agreement or disagreement among members of communities (Hennink and Diamond, 1999).

Morgan (1997) identifies three ways in which FGDs can be used as follows: as a self-contained method in studies in which they are the main source of data; as a supplementary data source in studies that have used another primary method such as a survey and in studies using multiple qualitative techniques where the use of one does not determine the use of the other(s). The third use as identified by Morgan (1997) is applied in this study. FGDs in this study were used as an independent method designed to meet the study's objectives by obtaining community views on topics such as fertility, sex preferences, knowledge and use of family planning, lineage issues, dual protection and family planning service provision. The use of FGDs in obtaining such information gives an idea of general attitudes and behaviour of the community towards the issues at hand.

In this study, focus groups comprising 6-12 participants with similar socio-economic and demographic characteristics were conducted by a trained facilitator separately for men and women in selected areas. In each of the six study sites, two FGDs were conducted for each sex. In Solwezi district, an extra male FGD comprising of village headmen was conducted, bringing the total of FGDs to 25 (12 for women and 13 for men).

7.3.1.2.2 Recruitment and profile of respondents

Different strategies were used to recruit FGD participants in the various study sites in the two provinces. It was the experience of this study that it is much easier to recruit participants in rural sites and HDR areas in urban areas than in the LDR sites in the areas

visited. In Copperbelt province, the social environment in the LDR areas made it difficult to recruit study participants; most houses in these suburbs have high walled fences around them and tight security. Additionally in these localities, community networks hardly exist as most people are economically independent and prefer to lead private lives unlike those living in densely populated urban locations or rural locations who may rely on community and familial support. It is also difficult to find people at their homes during daytime as most have 8am to 5pm jobs.

Taking the above factors into consideration, the best strategy for recruiting participants of high socio-economic status in both Ndola and Kitwe seemed to be at workplaces. A number of companies were proposed by the DHO. Out of these one was selected randomly as only one FGD was to be conducted for each sex in this sub-group. The human resource managers of the two companies selected in Ndola and Kitwe districts were asked to help with recruiting participants. It was critical that clear and specific criteria be established to make it easier for human resource managers to select potential participants without introducing bias. Men and women were asked if they wanted to participate in the study and thereafter a sift questionnaire was administered to potential participants. In the briefing given to human resource managers, they were asked to ensure that all the participants held similar positions in the company and that there were no relations in the group. Having participants with different hierarchy in the same FGD can affect the quality and type of information collected.

In the HDR urban sites and in the rural areas, recruitment of FGD participants was comparatively easier and straightforward. The key informants who were instrumental in organising participants were carefully briefed on the study's objectives, assurance of confidentiality and freedom to decline participation. In some of the rural sites, as many as fifty men and women turned up, while in others, especially where people left home early for the fields, the numbers were smaller. Once the people had gathered, more information on the research study was given and those who were willing to participate were briefly interviewed using a sift questionnaire.

The aim was to put participants with similar characteristics such age-group (< 35years and 35 years+) together to facilitate ease of communication and comparisons of results. In some areas it was inevitable to put younger and older participants in the same group because the number of participants was small. It was observed that this however did not

inhibit discussions among the mixed groups of younger and older participants. After the sift questionnaire interview potential participants were assigned numbers and participants were selected randomly. Randomization was used to narrow the number of participants and to avoid selection bias in recruitment which occurs when certain individuals are included or excluded from the study for reasons not specified in the research design (Krueger and King, 1998).

During the FGDs, measures were taken to ensure that there were no hierarchies of any sort in the same focus groups (e.g. leaders and subordinates, church leaders and members etc), and that there were no relations in the same group. This was done by simply asking the participants once in a group if any were related or if anyone held a position of authority in the community. According to Morgan (1997), FGDs with participants who are familiar with one another have weaknesses. For instance, the kind of issues raised and the way the moderator interacts with the participants could be affected negatively. However, Morgan (1997) also recognises that while having strangers in a group may be useful, in some cases it may be irrelevant and difficult to constitute FGDs of participants unknown to one another as was the case in this study. Since this study focussed on reproductive health issues, it was important to ensure that there were no community health providers such as Traditional Birth Attendants (TBAs), Community Health Workers (CHWs), Community Based Distributors (CBDs) or traditional healers in the groups as their presence could influence the discussions. Information is best collected from such individuals in IDIs.

According to the results in Tables 7.1 and Table 7.2 there were roughly a similar number of groups with older participants aged over 35 years than below 35 years. As expected for both sexes, rural participants had lower education levels compared with their counterparts in urban areas and in nearly all the focus groups, most of the men and women were married. There were more men who reported not having children compared to the women. In half of the groups, women reported having 4 or more children. Regarding ethnicity and lineage, the general pattern of the FGD composition for both sexes in Copperbelt province reveal multi-ethnic composition of the study areas. The results also show that the groups in the rural areas in North-western province were characterised by participants belonging to the same ethnic and lineage group. Table 7.1 and 7.2 present summaries of socio-demographic characteristics of female and male FGD participants respectively.

Table 7.1: Socio-demographic characteristics of female FGD participants.

Characteristics	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11	Group 12
<i>No. of participants</i>	6	9	10	8	6	6	10	6	6	6	10	11
<i>Location</i>	RMc	HDR	RMa	HDR	LDR	LDR	RMb	RP	RP	RMc	RMb	RMa
<i>Age</i>												
< 35	6	9	0	0	0	3	6	6	0	6	7	5
35 years+	0	0	10	8	6	3	4	0	6	0	3	6
<i>Education</i>												
None/ primary	4	7	9	5	0	0	10	6	3	6	10	11
Secondary+	2	1	1	3	6	6	0	0	3	0	0	0
<i>Marital Status</i>												
In union	4	7	5	7	3	6	8	5	5	5	3	11
Not in union	2	2	5	1	3	0	2	1	1	1	7	0
<i>No. of children</i>												
0	0	0	0	0	1	0	0	0	0	0	0	1
1-3	6	7	4	3	2	2	4	2	3	5	7	4
4+	0	2	6	5	3	4	6	4	3	1	3	6
<i>Ethnicity/ lineage</i>												
Lunda (matrilineal)	0	0	1	0	0	0	10	0	0	0	10	0
Lunda (Patrilineal)	0	1	0	0	0	0	0	6	6	0	0	0
Luvale (matrilineal)	6	3	0	0	0	0	0	0	0	6	0	0
Kaonde (matrilineal)	0	0	9	0	0	0	0	0	0	0	0	11
Bemba (Matrilineal)	0	4	0	5	4	5	0	0	0	0	0	0
Lozi (patrilineal)	0	0	0	2	1	1	0	0	0	0	0	0
Nyanja (matrilineal)	0	1	0	1	1	0	0	0	0	0	0	0

Table 7.2: Socio-demographic characteristics of *male* FGD participants.

Characteristics	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11	Group 12	Group 13
<i>No. of participants</i>	11	11	8	6	6	6	6	12	12	7	8	7	8
<i>Location</i>	RMa	RMa	HDR	RP	RMc	RMc	LDR	RMb	RMb	LDR	HDR	RP	RMa
<i>Age</i>													
<35	11	0	4	3	6	4	0	0	0	0	5	7	8
35 years+	0	11	4	3	0	2	6	11	12	7	3	0	0
<i>Education</i>													
None/ primary	6	8	1	6	4	5	0	12	12	0	5	3	2
Secondary+	5	3	7	0	2	1	6	0	0	7	3	4	6
<i>Marital Status</i>													
In union	11	11	4	5	3	5	0	11	12	4	8	6	6
Not in union	0	0	4	1	3	1	6	1	0	3	0	1	2
<i>No. of children</i>													
0	0	0	4	2	2	1	1	1	0	1	0	1	1
1-3 Females	4	0	0	1	2	4	2	1	1	3	5	3	5
4+	7	11	4	3	2	1	3	10	11	3	3	3	2
<i>Ethnicity/ lineage</i>													
Lunda (matrilineal)	0	0	0	0	0	0	0	12	12	0	1	0	0
Lunda (patrilineal)	0	0	0	6	0	0	0	0	0	1	0	7	0
Luvale (matrilineal)	0	0	0	0	6	6	0	0	0	1	3	0	3
Kaonde (matrilineal)	11	11	0	0	0	0	0	0	0	1	1	0	5
Bemba (matrilineal)	0	0	6	0	0	0	4	0	0	2	2	0	0
Tonga (matrilineal)	0	0	0	0	0	0	2	0	0	2	1	0	0
Lozi (patrilineal)	0	0	1	0	0	0	0	0	0	0	0	0	0
Nyanja (matrilineal)	0	0	1	0	0	0	0	0	0	0	0	0	0

Note: * Group 2 consisted of village headmen

7.3.1.3 In-Depth Interviews (IDIs)

In this study, IDIs were used to get an account of an individual's 'contraceptive history', views on discussions with spouses on family size, family planning and HIV/AIDS, sterilisation and family planning service provision. Reproductive health issues may be considered private especially in the African context since they relate to sex which is sometimes not talked about freely with others, as studies by many researchers such as Caldwell and Caldwell (1990) have established. An open-ended question route was used in the in-depth interviews. Probes were used to find out the underlying factors (particularly socio-cultural) that influence decisions to use or not to use, what to use, when to use and experience with the methods (see Appendix C2 for details).

Although focus groups are often conducted within the social and cultural confines of the local environment, it has been proposed that participants may be inhibited in expressing themselves freely because of the unnatural social setting of being in a group (Madriz, 2000). In this case, IDIs may be considered more suitable and may be viewed as yielding more accurate information than FGDs. When FGDs are compared with IDIs, it appears that the individual setting covers more ground as there is no interference from other participants.

Although it may be argued that interviews may give more accurate results because people usually express their opinions with ease in a one-to-one conversation than in a group-setting, interviewing also has its limitations. For instance, since they solicit personal information, the respondent's cooperation is critical. In this study, the moderators were given techniques on how to respond sensitively and appropriately when obtaining sensitive information from respondents. For instance, they were taught about knowing when to continue or terminate a discussion, paraphrasing questions without changing the meaning or suggesting to the respondent that they discuss a (difficult) topic later. Shedlin (2002) who has used qualitative methods to conduct research among persons living with HIV/AIDS proposes that when discussing a sensitive topic the interviewer must show interest, curiosity, empathy, encouragement and be flexible. In order to protect participant's identities, in this study names were not used on any document and only numbers were used on the sift questionnaires. Information was also carefully protected and only the principal investigator handled the sift questionnaires whose records were destroyed at the end. The participants were also only addressed by first names only during the FGDs and IDIs and the audio tapes were kept stored away safely after the analysis.

7.3.1.3.1 Recruitment and profile of respondents

A total of 25 men and women were recruited for the IDIs. Sift questionnaires were used in ‘screening’⁵ suitable respondents. In each site, the person with the most children and the one with the least were selected for the interviews out of the potential study participants. In cases where there was more than one respondent with the most and least children, the two respondents would be selected randomly. Table 7.3 summarizes the characteristics of the respondents of IDIs for this study.

Table 7.3: Summary of socio-demographic characteristics of IDI respondents

Characteristic	Men (n=12)		Women (n=13)	
	Frequency	Percent	Percent	
<i>Age</i>				
< 35	5	42	2	15
35 years+	7	58	11	85
<i>Education</i>				
None/ primary	8	67	3	23
Secondary+	4	33	10	77
<i>Marital Status</i>				
Currently in union	12	100	9	69
Currently not in union	-	-	4	31
<i>Number of children</i>				
0	-	-	-	-
1-3	3	25	3	23
4+	9	75	10	77
<i>Tribe</i>				
Bemba (m)	1	8	2	15
Kaonde (m)	3	25	1	8
Lozi (p)	1	8	1	8
Lunda (m)	2	17	3	23
Lunda (p)	2	17	3	23
Luvala (m)	3	25	2	15
Tumbuka (p)	-	-	1	8

Note: (m) denotes matrilineal; (p) denotes partilineal

7.3.2 Data collection from health providers

Health providers have a large influence on the success or failure of a family planning initiative and their role in service provision cannot therefore be overemphasised. Shelton (2001) states that their technical skills, knowledge, opinions, attitudes and advice have a big influence on what services clients receive and their subsequent behaviour. In this study, it was important to find out the views of health staff (both management and clinical) on the factors influencing family planning use and delivery of services in their respective areas. Interviews were held with management staff (district family planning coordinators and facility managers) and clinical staff (family planning service providers referred to as

⁵ Focus group researchers call established criteria for selection of FGD participants as screening (Morgan, 1997).

service providers in this study). Table 7.3 gives a summary of the socio-demographic characteristics of selected health providers interviewed in this study. Information on the socio demographic characteristics was only collected from service providers and facility managers and not district family planning coordinators.

Table 7.4: Summary of socio-demographic characteristics of selected health staff

Characteristics	Facility managers		Service providers	
	Number	Percentage	Number	Percentage
<i>Age</i>				
<35	1	16.7	1	16.7
35+	5	83.3	5	83.3
<i>Sex</i>				
Male	3	50.0	2	33.3
Female	3	50.0	4	66.7
<i>Marital status</i>				
In union	4	66.7	2	33.3
Not in union	2	33.3	4	66.7
<i>Number of children</i>				
0	1	16.7	2	33.3
1-3	-	-	-	-
4+	5	83.3	4	66.7
<i>Religion</i>				
Christian (protestant)	5	83.3	5	83.3
Christian (Catholic)	1	16.7	1	16.7
<i>Tribe</i>				
Bemba	-	33.3	-	-
Lunda	2	16.7	2	33.3
Luvale	1	-	1	16.7
Kaonde	-	-	2	33.3
Other	3	50.0	1	16.7
<i>Current method</i>				
None	3	50.0	5	83.3
Pill	-	-	-	-
Injectible	2	33.3	1	16.7
Sterilization	1	16.7	-	-
<i>Qualifications</i>				
Registered nurse	-	-	1	16.7
Enrolled nurse	4	66.7	4	66.7
Clinical Officer	2	33.3	-	-
Other	-	-	1	16.7

7.3.2.1 Interviews with district family planning coordinators

Interviews were held with management staff from the District Health Offices (DHO) responsible for family planning activities. In some of the districts these were planning and development managers, while in others they were district maternal and child health coordinators or Integrated Reproductive Health coordinators. The district health staff questionnaires were designed to find out how logistics relating to family planning are managed, how the family planning policy guidelines are implemented and the type of activities undertaken and about problems (if any) that they experience in family planning

service delivery. These interviews were important as they highlighted the existing family planning practices in the districts (see Appendix D1).

7.3.2.2 Interviews with facility managers

In each facility, information on family planning services was collected through interviews with the facility managers (popularly known in Zambia as the ‘in-charge’) at the facility. A total of six health facilities (one in each study area) were visited during the fieldwork. Specifically, information was obtained on the type of family planning services provided, contraceptive supplies, staffing levels, supervision of family planning services and coordination of family planning activities with other NGOs and the community. Interviews with facility managers included information on the characteristics of the facilities for the purpose of assessing the quality of services (see Appendix D2).

The facility managers were also asked to give their views on the factors that influence people’s contraceptive behaviour in their catchment area as well as on issues relating to family planning logistics and activities. As the results in Table 7.4 show, half of the facility managers interviewed were male. In two of the health facilities, the facility manager was the only provider at the facility and thus performed both clinical and administrative duties.

7.3.2.3 Interviews with service providers

In this study the interviews with service providers were crucial because service providers have direct contact with family planning clients and potential users of methods. The service provider questionnaire was designed to collect information on the type of services provided, operational issues such as facility opening times, procedures for assessing clients, contraceptive supplies and so on (see Appendix D3).

Service provider characteristics such as age, sex and marital status play an important role in determining utilisation of services. According to Table 7.4 the service providers were aged between 30 and 50 years and two out of the six were male. Three of the four providers who worked in the rural health facilities were enrolled nurses and the other was an environmental health technician. Both service providers in the urban sites were registered nurses. Four of the service providers were using a contraceptive method (injection) at the time of the study. All the service providers in North western province originated from the province and were quite familiar with the local customs. This could be

an important aspect in service delivery in rural areas in particular as the family planning hypothesis suggests (see Chapter 2).

7.4 Data processing and analysis

7.4.1 Recording and managing data

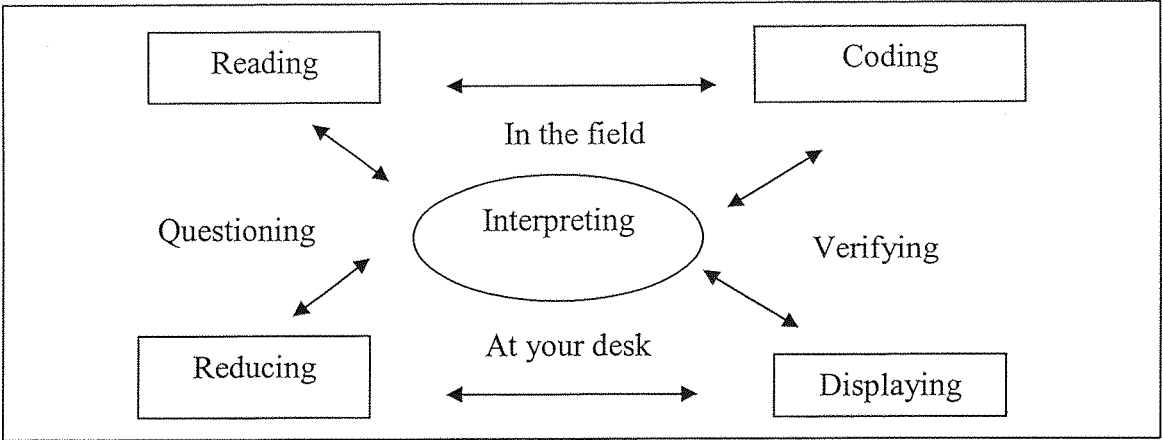
Audio tapes of all the interviews and FGDs conducted in this study which were transcribed and together with the written notes provided a descriptive record of the field data. Some of the written transcripts were in English as some interviews and FGDs were conducted in English. However most transcripts were in local languages and had to be translated into English, after which they were word processed. This raw data was then analysed and interpreted.

The preparation of transcribed material may depend on the level of analysis to be undertaken. In this study for instance, other non-verbal expressions such as sighs, laughter or lengthy pauses were taken note of as they could be important in interpreting the results. Although only sections of the data were analysed, all the original recorded tapes and handwritten field notes were kept safely for cross-checking at a later stage or checking for validity by other researchers. The fieldwork scripts (raw data) were reviewed a number of times and then edited to familiarize the investigator with the content and to correct mistakes occurring during transcribing. Since the scripts were transcribed word for word from audio tapes, it was necessary to edit them to remove material that was not relevant or directly related to the study. According to Miller and Crabtree (1992), editing is useful in that meaningful segments in the text are sought and data is rearranged and reduced to a level that summarises the text.

7.4.2 Analytical procedures

In analysing qualitative information the researcher aims to bring together the context and meaning of the results. Although there may be several ways of reaching the same conclusion, there are basic steps that are observed in qualitative data processing and analysis. According to Miles and Huberman (1994), these steps include creating memos of reflections and observations, assigning codes and identifying emerging themes and relationships, examining differences and similarities in a more focussed manner, interpreting the data and verifying the interpretations as Figure 7.4 shows.

Figure 7.4: Qualitative data analysis: step-by-step



Borrowing from this framework, in this study information collected from the different data sources which were recorded as scripts were reviewed a number of times while questioning what patterns were emerging in the process. The reviewing process resulted in the reducing of the results to *codes* and *code families* (groups of codes). *Quotations* constituted the major form of display of the findings.

7.4.3 Computer assisted qualitative data analysis using ATLAS/ ti version 4.2

In order to analyse the data obtained from the different methods and sources, in this study a systematic approach was adopted to ensure that the results would be as valid as possible. Consequently computer assisted qualitative analytical techniques were employed to ensure a sequential process. In this study, ATLAS.ti version 4.2 was applied to the qualitative data as it was the available package and one that this researcher was familiar with.

Before applying the software package to the data, the scripts (raw data) were typed in ‘word format’ and stored as individual files. The files were then converted to ‘rich text format’ which is a requirement before importing the data to ATLAS.ti version 4.2. The imported files were stored as a Hermeneutic Unit in ATLAS.ti and each individual file was stored as a ‘Primary Document’ (PD). During the analysis of the data, ‘Primary Document Families’ (PDF) were created according to the objectives and interest of analysis. In this study, PDs were in the first instance stored according to the different data collection methods used in this study (i.e. FGDs, IDIs, Health provider interviews etc). The next step involved creating PDFs for the different sources of data (e.g. women, men, service providers, key informants, facility managers and family planning district coordinators). Other PDFs were created also according to the levels of analysis required e.g. by province, place of residence etc.

The codes which were generated while reviewing the transcripts were then assigned to the data. Similar codes were grouped together into ‘code families’ which represented a main topic or theme. Examples of code families generated in this study are given in Table 7.5. Code families in the ATLAS.ti framework are simply named sets of codes (Muhr, 1997). Other new themes also emerged during the analysis such as youth and family planning and general health concerns.

Table 7.5: Example of arrangement of study’s data using ATLAS.ti

Primary Documents	Primary Document Families	Codes	Code Families	Quotations
<ul style="list-style-type: none"> ▪ IDI in RMa ▪ FGD in HDR area 	<ul style="list-style-type: none"> ▪ male FGDs ▪ female FGDs ▪ male IDIs ▪ Female IDIs ▪ service provider Interviews ▪ facility manager interviews ▪ district health staff interviews 	<ul style="list-style-type: none"> ▪ popular methods ▪ least popular methods ▪ reasons for choice ▪ reasons for condom use ▪ reasons for non-use of condoms 	<p>METHOD CHOICE</p> <p>CONDOM USE</p>	

Grounded theory which partly provided the premise for the development of ATLAS.ti was used in this analysis. According to Glaser and Strauss (1967), the theory aims to help the researcher to remain close to the data by developing the analysis from work that is ‘grounded’ in the data. The principle idea of the grounded theory approach is to read texts a number of times and identify or label variables (categories and concepts) and their interrelationships. This enables an understanding of the issues emerging from the perspective of the source since the data is allowed to ‘speak for itself’.

In this study, although some of the analytical categories or themes were determined before hand, others emerged from the data during the reviewing process. The information was then sorted into various categories and these were later revised. The text in the different categories or themes which were in form of ‘quotations’ were reviewed a number of times to observe for patterns in the data. These were then examined in light of existing literature. According to Oona et al. (1999), the type of analysis is iterative as it is based on making constant comparisons, contrasts and conceptualisation of the data. In the use of grounded theory approach, the information was analysed using a process known as content analysis. According to Holste (1968, p. 608) content analysis is “any technique for making

inferences by systematically and objectively identifying special characteristics of the message.” The identification of these special characteristics involves coding segments of texts usually referred to as topics or categories (Oona et al., 1999). In this study, content analysis was considered suitable as the qualitative study was carried out with the aim of enhancing the understanding of the socio-cultural factors that influence contraceptive behaviour in the areas visited. Thus themes that emerged during the discussions as well as the pre-determined ones, guided the analysis.

7.5 Data reliability and validity

Issues of reliability and validity ensure data quality in qualitative research. According to Rance (2002), *reliability* has to do with whether the results are dependable, that the research process is consistent and carried out with careful attention to the rules and principles of qualitative methodology. *Validity* refers to the extent to which data accurately represents or assesses a phenomenon under study in the study area. For instance, are the findings of this study a true reflection of the communities visited? A clear and logical connection between the research questions, purpose and design, comparability of data from different sources and having the same data collection procedures throughout the study are some pointers that ensure reliability and validity of the data (Mason, 1996; Rance, 2002). Ensuring that the data are dependable does not necessarily mean that the same answers are expected from different study sites, however as Miles and Huberman, (1994) proposed, there should be a logical consistent pattern of responses that remains reasonably stable over time, across researchers and methods.

In this study to ensure that the data collected were of the highest quality a number of measures were adopted. For example, various consultations were made during proposal development with experienced qualitative researchers and suggestions were incorporated. The research assistants recruited were either university students or teachers and were fluent in the local languages used in the study areas. The research assistants were also given rigorous training on conducting the study (see in earlier section). To ensure linguistic accuracy, the field instruments were translated into local languages and back translated into English by independent persons. To improve data reliability, all the discussions were recorded on audio tapes and transcribed verbatim.

During the analysis of the results, the transcripts were checked constantly to verify conclusions and contradictions. A few of the field transcripts were coded by other

researchers to check for consistency between them. To ensure reliability of the information collected the study participants were assured of confidentiality. Secondly, the FGDs and IDIs were held in private and quiet areas such as a school classroom, community hall, inside a home or in a back garden. Except for the interviews with the Chiefs where a messenger was present (though sitting at a distant), in all the other interviews no other person apart from the respondent, interviewer and note-taker were present.

The same data collection instruments were used in all the study areas visited to ensure consistency in the data. The fieldwork in this study was arranged in a way that could enable validation of information obtained from various sources such as health personnel, key informants and male and female FGD participants. It was important to use different data sources and methods to collect the information to broaden the perspectives on the same issues and because explanations for an issue raised by one source (e.g. community members) using one method (e.g. FGD) could be provided by another source (e.g. service provider) using a different method (e.g. interview). In social science research this is commonly referred to as triangulation.

Triangulation has been used by researchers to check and establish validity of the qualitative studies (Schwandt, 1997). Silverman (1993) however expresses reservations about its use in qualitative research since different methods and data sources may provide different insights and conceptualisations of the same situation rather than contribute to a single emerging picture of results. However, this may be a strength rather than a weakness as examining a research problem from different angles may enrich rather than weaken the research findings. Marshall and Rossman (1995) in support the use of multiple sources and methods propose that this can also greatly strengthen the study's usefulness for other settings. Some past studies have also successfully used different sources to explore how far findings might be generalised and strengthened (Keen and Packwood, 1996).

Triangulation was first used in the social sciences to show the use of multiple methods to measure a single construct (Campbell 1956; Campbell and Fiske 1959; Garner, Hake and Eriksen 1956). According to Guion (2002) there are different types of triangulation, namely *investigator triangulation* (which consist of the use of multiple, rather than single observers or investigators); *theory triangulation* (which consists of using more than one theoretical idea in the interpretation of the phenomenon) *data triangulation* and *methodological triangulation*. Data and methodological triangulation have been used in

this study. Data triangulation involves the use of different sources and this study the different data sources included health personnel and community members. According to Denzil (1970) and Guion (2002), methodological triangulation involves the use of multiple qualitative and/or quantitative data collection methods. In this study FGDs and IDIs were used to collect qualitative data. The advantages of combing these methods have already been highlighted in an earlier section of this chapter.

7.6 Guideline for presentation of qualitative study results

The findings of the qualitative study are presented in Chapters 8 and 9. Chapter 8 primarily focuses on the demand side factors influencing contraceptive behaviour, while Chapter 9 is mainly based on supply side factors. In presenting the results, verbatim quotations from study participants have been used. Some of the information has also been presented in form of Tables and Figures. Some excerpts from FGDs include responses from more than one respondent belonging to the same focus group. In some instances dialogue vignettes between the interviewer and the respondent have been presented. Table 7.6 gives guidelines to the abbreviations used and other information which will make it easier for the reader to follow the presentation of the results in Chapter 8 and 9.

Table 7.6: Guidelines for subscripts used for the quotations from qualitative data

<i>I</i>	refers to the interviewer
<i>R</i>	refers to male or female IDI respondents
<i>SPK#</i>	refers to <i>female</i> FGD speaker where more than one speaker is quoted.
<i>SPKM#</i>	Refers to <i>male</i> FGD speaker where more than one speaker is quoted.
KEY INFORMANT #	Subscript the quotations from the two urban key informants
TRADITIONAL LEADER#	Subscripts for the four traditional leaders
Identity features HDR LDR	HDR refers to High Density Residential area in urban area LDR refers Low Density Residential area in urban area
RM	RM refers to a rural site in an area dominated by matrilineal ethnic groups. There were three such sites visited during this study. These are distinguished by the letters <i>a, b, and c</i> and the numbers <i>1 and 2</i> to distinguish the FGDs (e.g. <i>Rma1, Rma2</i> etc)
RP	RP refers to a rural site with predominantly patrilineal ethnic groups. In this study there was only one such site. However the FGDs in this site are distinguished by the numbers <i>1 and 2</i> (i.e. <i>RP1 and RP2</i>)
Speaker characteristics	These include ethnicity, gender, age, education, marital status, number of children and the study site identify feature. They are indicated in brackets at the end of each quotation from an IDI respondent or FGD participant e.g. (<i>Bemba female, 35 years+, secondary education, married, 3 male children, RP2</i>)
<i>PROVIDER#:</i>	refers to the family planning service provider;
<i>FM#:</i>	refers to the facility manager
<i>DC#:</i>	refers to the district family planning coordinator.

7.7 Summary

This chapter has presented the methodology for the qualitative study which was conducted in Zambia. The study aimed to investigate demand and supply factors within a socio-cultural context that influence contraceptive behaviour within a socio-cultural in selected districts of two provinces, namely Copperbelt and North-western provinces. The study also explored the potential of condom use for dual protection (against pregnancy and HIV/AIDS/STIs).

In this study various qualitative data collection methods were used to collect information from different sources. Since the study was interested in the client and providers perspectives, information was obtained from men, women and health personnel in selected study sites. The fieldwork work process which included a pilot study has been extensively discussed in this chapter. The different types of methods used and the sources of information have also been described. The Chapter has also presented the steps taken in the analysis of the qualitative information whose results are presented in chapters 8 and 9.

CHAPTER 8

THE SOCIO-CULTURAL CONTEXT OF FAMILY PLANINNG IN ZAMBIA

8.0 Introduction

This chapter which presents the results of the qualitative study on the socio-cultural context of family planning in Zambia focuses primarily on demand side factors influencing contraceptive behaviour in the selected study areas. The results presented in this chapter are largely from interviews with key informants and from FGDs and IDIs with members of the community in the selected study areas. The views of health providers in the different selected study areas are also presented.

The results from all the different data sources have been presented concurrently in this chapter to make it easier to compare views on the different topics. The use of the multiple data sources is aimed at gaining a richer understanding of the socio-cultural context in which men and women's contraceptive behaviour occur. From the outset, it is important to mention that the results of the qualitative study do not reveal any notable differences in contraceptive behaviour among the different ethnic or lineage groups. As such the results in this chapter reflect differences in views according to background characteristics, such as gender, rural or urban residence and socio-economic status. It is observed that these factors rather than ethnicity and lineage background accounted for some of the differences observed in this study.

The results are presented under different sub-headings such as Knowledge and awareness of family planning, Information access, Attitudes and practices of family planning, Covert use of family planning, Male involvement, Spousal communication and Socio-cultural factors. Finally, a summary of the chapter is given at the end. It was observed that information from the IDIs provided useful information although there was no particular in-depth interview that had unusual results among both men and women and thus could be presented as a case study. The views from the IDIs basically mirrored those from the FGDs in the respective areas. Thus results from IDIs and FGDs are presented concurrently in this chapter.

8.1 Knowledge and awareness

The study findings reveal generally high levels of awareness of family planning among male and female study participants. For example, many men and women in most FGDs and IDIs in the different areas could mention at least two modern methods. The most widely known traditional method for pregnancy prevention among men and women in this study are ‘strings’⁶. They are said to have been in use since ages past and are so well established in some of the local cultures that they even have local names, for example ‘Impimpi’ in Bemba and ‘Mapingo’ in Kaonde. Most men and women especially in the urban areas were however unable to name herbs or trees from which traditional methods are made. Some blamed their ignorance on traditional doctors who they said refused to reveal their secrets, while others claimed that they knew the names but were not allowed to share them with ‘strangers’ as these were secrets of the tribe. Some male focus groups in rural areas also mentioned a tree known locally as the ‘Kalabalala’ tree whose fruits are to be eaten together with *nsima*⁷ to prevent pregnancy.

In descending order, strings, pills, condoms, abstinence and injections were most frequently mentioned among men. Table 8.1 also shows that pills, sterilization and strings were mentioned in more than half of the women’s FGDs. In the two urban upper class female FGDs, it is mostly modern methods such as pills, injections, sterilisation and condoms that were mentioned, while among rural women and the urban poor, pills and traditional methods (strings and abstinence) are widely known.

Table 8.1: Number of FGDs in which family planning methods were mentioned

Method	Female (n=12)	Male (n=13)
<i>Modern</i>		
Condom	6	11
Pill	11	11
Injection	6	8
IUD	2	1
Sterilisation	7	5
<i>Traditional</i>		
Abstinence	6	11
Withdrawal	2	4
Strings	7	12
Herbs	3	6
Breastfeeding	1	2
Natural method	2	2
<i>Other</i>		
Lemon juice	1	0
Salt solution	1	0
Seeds	1	0

⁶ These are pieces of sticks which are tied to a string and are worn round the waist. Two of the sticks should be front and the other two at the back. The sticks are traditional medicines which perform some ‘magic’ to stop fertility. (Nsemukila et al., 1999)

⁷ *Nsima* is a traditional dish in form of a hardened porridge prepared from maize flour (mealie meal)

Among the urban poor, unusual methods were also mentioned as the following quotations reveal.

*"The other method is that you squeeze a lemon in a cup. You get cotton wool and dip it in the lemon juice. Before you make love, you dip that cotton wool in your body. From that lemon you can't be pregnant." (Kaonde **female**, 35 years+, no education, married with no children, HDRa).*

*"Some say you take certain seeds called 'mono' to prevent pregnancy. If you take five seeds, it means it will take five years before you can conceive again. Once the seed dissolves inside fertility is hindered. I have never used it though." (Bemba **female**, <35 years, secondary education, not married, 3 male children, HDRa)*

*"I also heard about using a salt solution to be taken, a cup everyday. The solution should be very strong." (Lunda **female**, <35 years, none/primary education, married, 4+ both sexes, HDRb)*

Although most male and female participants were generally familiar with how to use pills, injections and condoms, some participants particularly among rural and urban poor sub groups lacked in-depth knowledge on modern methods. Myths and misconceptions on side effects of some methods such as pills, condoms, injections and sterilization were prevalent among male and female study participants regardless of background characteristics, particularly female study participants. The single most common misconception cited in this study which cut across background characteristics was the belief that *'the pill causes cancer'*.

*R: "I have heard that the pill will cause cancer of the cervix and many other complications even breast cancer. When I ask medical people about this, they will just dismiss me like hey, what is she talking about now?" (Tumbuka **female**, <35 years, secondary education, married, 3 children both sexes, LDRb).*

Also some older men (35 years+) in the FGDs in rural areas expressed ignorance about modern contraceptives while others said they had never seen condoms and had only heard about them in relation to AIDS. Some women in FGDs also believed that pills also caused infertility and growths in the stomach as they accumulated in the body. A few rural men and women who had reservations about the condom thought that it could burst during sex and remain in the woman's body and cause disease.

*"We were told to go to the hospital to be given pills to space births and prevent pregnancy. Now because we full of fear we think that if you take a pill, you will have a growth in your stomach. It is fear that is making us not to take pills, otherwise we have heard about them". (Luvala **female**, <35 years, no education, married, 3 children of both sexes, RMc1)*

“Condoms bring a lot of diseases and can remain in the woman’s body that is the fear people have. That’s why they don’t use them. And for the pills, we fear that they will destroy our fertility”. (Luvale female, <35 years, no education, single, 3 male children, RMc2)

In one of the areas visited there were divergent views on what methods men and women knew: while the female participants expressed complete ignorance about modern contraceptives and said they only knew abstinence, among the men there was a consensus that condoms and female sterilization were commonly known in the area.

Female FGD

SPK3: “We don’t know any method, we just give birth every time, we don’t know what will help us”. (Lunda female, <35 years, none/primary education, married, 1-3 boys, RPb)

SPK5: “We don’t know anything about family planning. We just hear about it. Even after birth we don’t even know what to do next”. (Lunda female, <35 years, none/primary education, married, 1-3 boys, RPb)

Male FGD

SPK2: “Yes sir, this time they are bringing us condoms and these are helping in some cases to prevent pregnancy. Also when a woman is having complications when having children she can be operated on at the hospital through sterilization. By so doing she can stop having children.” (Lunda male, 35 years+, no education, married, 4+ both sexes, RPb)

ALL SPEAKERS: “Yes that is correct”. (RPb)

The male FGD participants in this area said they obtained condoms from health workers who visited occasionally or from kiosks. Further probing into *knowledge* of fertility regulation methods in the female FGD did not yield any results. It was however surprising that when discussing the types of methods used to regulate fertility and dual protection, the women said that they had heard about pills but had never used them before because..... *“we don’t have them in our area”, “the clinic is very far” and “the elders say it is bad and brings diseases to our bodies”*. These women had apparently heard about condoms during HIV/AIDS talks at the local primary school. It was however evident that they did not associate condoms with family planning as they only talked about them in relation to HIV/AIDS. They stated that they did not know of any method that could prevent pregnancy and at the same time protect against HIV/AIDS. It should be noted that this particular area is remotely located and the female participants had never been to school or had only reached primary school level. According to the key informant of the area, hardly any programmes on family planning had been carried out in the area and the health providers from the nearest facility (30km away) only made periodic visits to the area for programmes on malaria, AIDS and polio.

8.1.1 Sources of information

In this study participants were asked about their source of information on family planning (see Figure 8.1). Popular sources among women regardless of background characteristics include the health facility, friends and elders, while in men’s FGDs common sources included elders (grandparents in particular) and the radio. Elders, parents and grandparents are said to be sources of information on traditional methods mostly by rural participants and the urban poor. It is not surprising that television and workplace seminars were only mentioned by urban upper class men and women as these are more common in urban than rural areas. ‘Safe motherhood clubs’, ‘Growth monitoring groups’ and ‘Under-5 clinic posts’ were mentioned only in the female FGDs among the urban poor. This is because these services primarily target female clients and are currently only offered in the high density residential localities of selected urban areas in Zambia. In two instances, male FGD participants who mentioned the health facility as an information source stated that they did not actually go the clinics themselves but got the information from the clinics through their wives.

Figure 8.1: Men and women’s sources of family planning information

Women only	Both sexes	Men only
Safe motherhood clubs, Growth monitoring groups and Under-5 clinic posts	Friends, Health facility, Television, Hospital, School, Elders, Seminars/ workshops, Parents, PPAZ, Radio	Bars, Newspapers, Magazines, CBDs, Church, Outreach activities, Spouses, the Red Cross and the Neighbourhood Health Committee

On the type of information received, female FGD participants in some of the sites said that service providers essentially told them about the different types of methods, how to use the method (pill), the advantages and disadvantages of the methods and to go back when they had nearly run out (of the pill) or were due for their next injection. In both FGDs among the urban upper class sub group, the women felt that some service providers did not give adequate information on the side effects of methods. Interviews with service providers revealed some gaps in the information given to clients before being given a method. For example, while nearly all the providers in this study discussed multiple methods with new clients, only half discussed advantages and disadvantages and a third did not discuss side effects with the clients at all (see details in Chapter 9). A few male rural participants mentioned that elders advise them against sleeping with their wives when they are breastfeeding and to use the withdrawal method when their wives are pregnant.

8.1.2 Channels for reaching men

Regarding the best way(s) of reaching men with family planning messages service providers in the rural sites felt that the involvement of traditional leaders in disseminating information would be a good strategy because of their position in society. Among rural men formation of men's groups was the commonest response (mentioned in five out of the six FGDs), followed by radio, drama and having talks with doctors (mentioned in half of the rural FGDs). In the urban sites, three out of the four male groups proposed door to door visits and drama. Among urban upper class men, targeting men at social clubs and workplaces were considered good strategies. It was also noted that in some of the rural FGDs, some men felt that they did not need to be given information on family planning because it was not their responsibility, but women's.

*"I think in my opinion women should continue going to the health centre for the family planning lessons while men continue with their work of just producing children". (Luvale **male**, 35 years+, no education, married, 3 male children RMc)*

8.2 Attitudes and practices of family planning

The service providers interviewed revealed that in their respective areas, some of the women and men (particularly those below 35 years), were beginning to appreciate the benefits of a smaller family size. Except for some older women, most of the women in the areas visited generally spoke favourably about family planning as Figure 8.2 shows. While views on family planning of most urban men regardless of socio-economic status were generally positive, in the rural areas, the views were mixed: some supported family planning, others opposed it and others were ambivalent about it as selected quotations below suggest.

*SPK6: "If you take your wife to the clinic and get an injection or the pill it might help to reduce on families. Otherwise without these methods it's not easy to control ourselves... So it is better to go to the clinic so that you are given ways of preventing pregnancies" (Kaonde **male**, <35 years, married, none/primary education 4+ children, RMa)*

*SPK4: "Women should know how to avoid getting pregnant because they are the ones who carry the baby." (Lunda **male**, 35 years+, no education, married, 4+ children, RMb)*

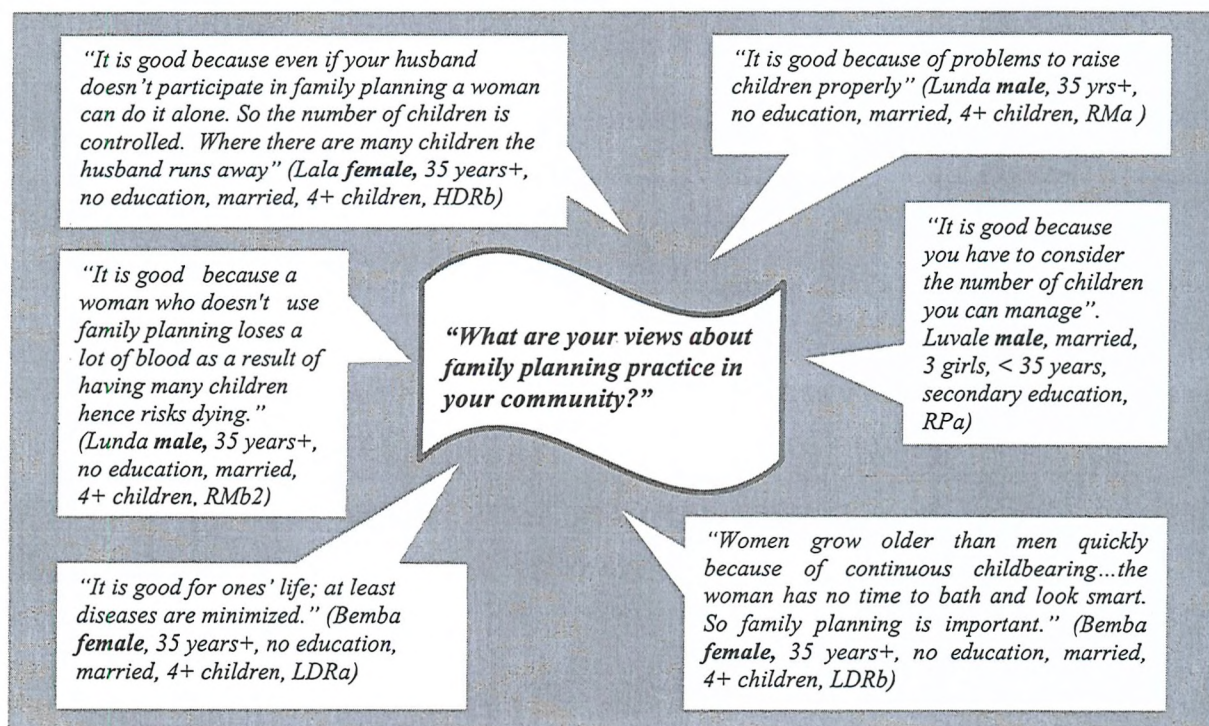
KEY INFORMANT 4: "Family planning use is not good. Women who use family planning usually engage in promiscuity. They use their bodies for monetary gains and do not want to get pregnant." (RP)

Also, whereas the commonest reason for men's support for family planning related mainly to economic hardships only, women's reasons included economic support, health concerns and the quality of life for the family.

"The situation is different now because many husbands are out of employment. Here in this area mothers are the ones who are looking after families, dressing them and feeding them. It is worse if you have a lot of children. Also, it is not easy to do business with a baby on one's back; it is better and easier to trade when you are free and alone. All this is because most of our husbands have no employment, so we need family planning here". (Bemba female, 35 years+, secondary education, married, 4+ children, HDRb).

Figure 8.2 presents a range of positive views on family planning use from across the study areas which can be summarised as health concerns, economic reasons, quality of lifestyle and women's independence.

Figure 8.2: Men and women's reasons for using family planning



Before obtaining information on a respondent's contraceptive use from the time of puberty (to the time of the interview), during the IDIs, it was necessary to establish whether or not the respondent had been sexually active during adolescence. The results in Table 8.2 and 8.3 show that while only five of the 13 female respondents had had sex during adolescence, this was nearly universal among the men with the exception of one respondent. All the three female respondents who had not used contraception during adolescence said they had been unaware of family planning at the time and consequently

two of them ended up becoming pregnant. Male respondents either said they did not know about family planning at the time had not anticipated a pregnancy or thought the girl was taking precautions to avoid pregnancy. From the 'contraceptive histories' presented in Tables 8.2 and 8.3, there appears to be no distinct pattern with reference to ethnicity or lineage descent for both men and women. In sum, most of the female respondents interviewed did not use contraception during adolescence, adopted a method at some stage in their marriage and then switched to another method later or were not using anything at the time of this survey.

Table 8.2 reveals two groups of 'contraceptive histories' for male respondents: In both cases contraceptive use was absent during adolescence. One group adopted modern methods during marriage, while the other used traditional methods. The former group was either using modern methods at the time of the study or had stopped using methods altogether while the latter group was not using any method. IDI male respondents who had used modern methods such as pills and injections with their wives revealed that they had not experienced any problems with the methods. These men generally felt that family planning was good because it helped them have few children. The most common reasons given by male and female participants who were not using any method at the time of the study were that they were either too old or their spouses were past child bearing age. Tables 8.2 and 8.3 present summaries of female and male respondents' contraceptive histories, respectively which were generated from the data collected in the IDIs.

Table 8.2: Contraceptive histories of *female* IDI respondents

Ethnicity and lineage	Parity	Study location	Pre-marital stage		Marriage		Reason for switching or stopping method
			Sex	contraception	Past use	Current use	
Bemba (matrilineal)	4+	HDRa	No	No method	Injection	Sterilization	- Had 10 children
Bemba (matrilineal)	4+	LDRa	No	No method	Pill	None*	- Too old for child bearing
Kaonde (matrilineal)	4+	RMa	Yes	No method	Pill	None*	- No more intentions of childbearing because of age
Lozi (patrilineal)	1-3	LDRb	No	No method	Pill	None*	- Too old to have children
Lunda (matrilineal)	4+	RMb	No	No method	Strings	Pill	- Strings did not work
Lunda (matrilineal)	4+	HDR	Yes	Safe days	Breastfeeding, abstinence, pill, withdrawal	Injection	- Traditional methods waste of time. - Injection more convenient than pill.
Lunda matrilineal	4+	RMb	No	No method	Traditional methods	Pill	- Traditional methods did not work
Lunda (patrilineal)	4+	HDR	Yes	No method	Withdrawal/ safe days	Injection	Traditional methods are unreliable
Lunda (patrilineal)	1-3	RP	No	No method	Nothing	Nothing	-
Lunda (patrilineal)	4+	RP	No	No method	Pill	Pill	-
Luvale (matrilineal)	4+	RMc	No	No method	Abstinence	Abstinence	- Widowed/ no longer sexually active
Luvale (matrilineal)	4+	RMc	Yes	No method	Abstinence	None*	-
Tumbuka (patrilineal)	1-3	LDRb	Yes	Pill/ condom	Pill/ condom	Condom	- Fear effects of prolonged pill use

Table 8.3: Contraceptive histories of *Male* IDI respondents

Ethnicity and lineage	Parity	Study location	Pre-marital stage		Marriage		Reason for switching or stopping method
			sex	contraception	Past use	Current use	
Bemba (matrilineal)	3	LDRa	Yes	No method	Condom	Injection	- Condoms were uncomfortable and injections are convenient and cheap
Kaonde (Matrilineal)	4+	RMa	Yes	No method	Pill / condom	Nothing	
Kaonde (matrilineal)	4+	HDRa	Yes	No method	Pill	Nothing	
Kaonde (matrilineal)	4+	RMa	Yes	No method	Condom	Condoms and separating beds	
Lozi (patrilineal)	4+	LDRb	Yes	Pills	Pill/ condom	Pill	
Lunda (matrilineal)	3	RMb	Yes	No method	Abstinence/ withdrawal	Nothing	
Lunda (matrilineal)	4+	RMb	Yes	No method	Abstinence	Nothing	- Ceased child bearing
Lunda (patrilineal)	4+	RP	No	No method	Abstinence	Nothing	
Lunda (patrilineal)	3	RP	Yes	No method	None	None	
Luvale (matrilineal)	4+	RMc	Yes	None	Pill/ condom	Pill/ condom	
Luchazi (matrilineal)	4+	RMc	Yes	None	Traditional herbs/	Injection	
Mbunda (matrilineal)	4+	HDRa	Yes	Withdrawal	Withdrawal/abst inence	Withdrawal	

Among the least popular methods mentioned in this study, strings and separating beds (a method of abstinence) were mentioned by rural women and natural family planning method was mentioned by rural men and some male participants among the urban poor. In the two FGDs among urban upper class females, the loop and traditional methods were said to be unpopular.

*SPK2: "It is understood that you actually conceive then you abort. So a lot of women in my circles don't use it (loop) because they say they don't want to be aborting every month. Even churches stop women from using the loop" (Bemba **female**, < 35 years, secondary education, married, 3 male children, LDRb)*

*SPK1: "Traditional methods are unreliable and they can disappoint you" (Bemba **female**, 35 years+, secondary education, married, 4+both sexes, LDRb)*

*SPK4: "I don't think I can go for a loop most people are discouraging use. I had a friend who used to have a heavy period. She went to the doctor and he admitted that the loop can cause this in some women". (Bemba **female**, < 35 years, secondary education, married, 3 male children, LDRb)*

*SPK6: "The one where you have you have to wait until after 14 days of your wife's period (abstinence), that one is not easy. But for some it's only when you go away on a trip that's when you can manage to abstain, but if you are around it's not possible to abstain". (Kaonde **male**, 35 years+, no education, married, 4+both sexes, HDRb)*

Since this study was interested in finding out the factors influencing family planning use, a considerable amount of time was spent on discussions relating to contraceptive use and method choice. The subsequent sections present men and women's views, attitudes and use of pills, condoms, sterilization, traditional methods and injections. These methods have been singled out because most of the discussions revolved around them. It was also in the interest of this study to investigate the potential of condom use for dual protection. It was also considered important to establish men and women's views on sterilization which has had minimal contribution to family planning in Zambia.

8.2.1 Pills

Among most female participants there was constant reference to microgynon (oral contraceptive brand) which has become synonymous to the pill in Zambia. This is the oldest and most well known contraceptive method in the country. According to female FGD participants in nearly all the areas visited, the pill was the most popular method, contrary to views of some of the service providers that injections were more popular than pills. There were mixed views concerning pills among women in this study. While most female FGD participants across the study mentioned side effects as the most common reason for not using the pill, some rural and urban female participants however said they

liked the pill and had no problems with it. Urban upper class women talked of easy availability and accessibility as reasons for choosing pills... *"You can buy it over the counter in chemists as well", "it is free in government clinics" and "usually no appointment with the nurse is required"*.

All the female IDI respondents who had used the pill before also gave favourable comments on the pill and did not complain of any side effects. One urban upper class woman said *"It is the best method because my husband and I never felt anything bad at all when I was on the pill. If he had felt something bad he was going to say it"*. A male IDI respondent described how he and his wife switched from pills to the natural method, to condoms and then back to pills again.

R: "I noticed that the time my wife was using pills she was getting fat, so I thought it could be the same tablets (pills). So at one time we stopped using them and started using the natural method. But those were dangerous days because we ended up having the 3rd (laughs) and then the 4th child. So we started using condoms a bit. But we realized that condoms were not good in our home, especially with man and wife, they are not very good, because you can't use one several times (laughs), it's only one per time . It is uncomfortable if you use it many times, so you have to change....."

....From my experience with the tablets (pills) you really don't worry much because the tablet is doing the job. Eventually my wife and I went back to the pill and we had peace of mind and did not fear accidental pregnancy." (Lozi **male**, 35 years+ years, married, 4 daughters, secondary+, LDRb).

Some of the urban upper class women however also wondered about the long-term effects of hormonal methods such as pills and injections. They talked of women in their circles 'taking breaks' from the pill because of health concerns such as cancer, tumours and barrenness. During an interview with an upper class female, this investigator was challenged by the respondent to *"to come out in the open and tell the truth about the pill."* The respondent disclosed that she had been on the pill for 15 years and was very worried about its long term effects on her health. She had therefore decided to discontinue use on the pretext that she had developed hypertension as that was the only way her husband would agree to switch to condoms. *"He was not very happy because he hates sex using condoms, but since I said my health was in danger he agreed. Now I will just go for sterilization,"* she said.

In some female FGDs among the urban poor it was learnt that the pill was often blamed for all sorts of illnesses. For instance, one woman said *"I was on the pill and when I gave birth*

to a disabled baby, everybody said it was because of the pill". An elderly participant in another focus group in the same area talked of how she feared that her daughter had become infertile because she had been on the pill for two years and had not yet conceived again. Surprisingly, other participants in the group sympathized with her and advised her to get traditional medicine for her daughter. This type of reaction from the other participants reveals the existence of misconceptions about the pill among these participants.

In one rural location, female participants stated that pills were unpopular in their area because *'they are bad'* and *'they cause heavy bleeding and no one is using them'*. These views were confirmed by the local service provider who mentioned that he had only managed to recruit seven new acceptors during post-natal clinics in the 12 months prior to this study. He blamed rumours and misconceptions about the pill for this low uptake. In another area, the service provider lamented about the difficulty in promoting family planning because of the influence of a dominant religious group in the area which discourages its members from using modern contraceptives like pills and condoms. It appears that the concerns about the health effects of pills from FGD participants were not substantive but rather speculative as they were all made with reference to *"we hear that..."*. It must however be mentioned that FGD participants are not expected or encouraged to share personal information about themselves, because of lack of privacy. In the IDI, one female respondent mentioned having experienced some side effects (heart palpitations) from using pills.

8.2.2 Condoms

With regard to the source of condoms, urban women mentioned colleges, clinics, hospitals, shops and workplaces while rural women in some areas mentioned clinics, hospitals, kiosks and PPAZ centres. Male study participants mentioned taverns, football matches, shops, clinics, kiosks and workplaces as their sources of condoms.

Current use of condoms among male and female IDI respondents was low. Only one female respondent reported using condoms at the time of this study, while two out of 12 IDI male respondents were using condoms with their spouses (see Tables 8.2 and 8.3). Experiences with condoms were mixed among the female IDI respondents; while some found them to be alright, some said that sex was the same with or without a condom and others said they found them to be uncomfortable and messy. One rural female IDI respondent said although she found them to be alright, *'the only difficulty is that when the*

man ejaculates the sperms will not go in the woman's vagina, but will be in the condom, that is wasteful.'

In this study it was observed that male and female FGD participants generally gave negative views about condoms. These observations were also confirmed by the service providers and key informants in the rural areas who said people in their respective areas generally disliked condoms. The reasons for non-use of condoms given by men and women in this study are presented in Table 8.4.

Table 8.4: Summary of men and women's reasons for *non-use* of condoms

Men's reasons
<ul style="list-style-type: none"> • Spouses' opposition* • You and your wife are one body so why use condoms • Sex is not enjoyable* • Your spouse will think you have a disease • Condoms promote immorality* • Spouse will suspect adultery • Waste of energy and time • Fear of condom bursting, lodging in the woman and bringing complications* • Partner trust* • Bad in God's sight • Sometimes unavailable* • Uncomfortable to use* • Service providers are young people
Women's reasons
<ul style="list-style-type: none"> • Fear that condom may burst during sex and result in disease or death* • Spouses' objection* • Not user-friendly • Sex is not exciting* • Uncomfortable* • Don't know how to use it • Partner trust* • Messy • Too smelly • Not available* • Frequent use causes a woman to become watery • Associated with prostitutes* • Brings diseases

Note: * similar views between men and women

Some of the urban female participants from HDR and LDR areas indicated that they would want to use condoms to avoid diseases because they knew that their spouses had girlfriends. Some women in the different study sites mentioned that it was difficult to ask a man to use a condom because he would think you were suspecting him of misbehaving. Although a few men and women in FGDs said they did not mind using condoms with their

spouses, it was observed that discussions on use of condoms in marriage were rather uncomfortable. In some of the rural women's FGDs, there was an awkward silence when the moderator asked about use of condoms in marriage. This was followed by brief comments from the participants such as "*they are not good*", "*it's uncultural*", "*they are for prostitutes*" etc. Although the list of men and women's reasons for non-use of condoms given in Table 8.4 are comparable, in this study, men's opposition against using condoms in marriage appeared to be stronger than that of women as could be judged by their body language, the language used and the tone of voice when discussing the subject. Some of the men insisted that it was their spouses who were against condom use, while others made chauvinistic comments or said condoms were uncomfortable to use.

"I paid for her, why should I waste my energy? Let her use the pill or something else, not me a condom, never!" (Lunda male, <35 years, secondary+ education, married, 4+ children RMB).

"It is embarrassing to use condoms with my wife. How will she feel using a condom?" (Bemba male, <35 years, no education, married, 1-3 both sexes (LDRa)).

"Is it good for me to use a condom with my wife? No that is bad in the sight of God. It is better to separate beds then to use condoms. Condoms can be suitable for young people not us elders". (Kaonde male, 35 years+, married, 4+ children, RMa)

It was observed that male FGD participants were more open than IDI respondents regarding use of condoms outside marriage. This is primarily because this is personal information which relates to an individual's private life. While reluctance of interview respondents to divulge information should be respected, this can be overcome by constantly reassuring the respondent of confidentiality and anonymity of the information in reporting the results. This approach was used by the moderators in this study and consequently some respondents were able to discuss freely.

R: "Condoms are not very comfortable. You only use them if you are going for a 'suicide mission' (casual sex) outside the town (laughter)." (Lozi male, 35 years+ years, married, 4 daughters, secondary+).

One male respondent had this to say about why he and his wife switched from condoms to injections.

R: "...I found it to be very uncomfortable, so even our second child was born because of the discomfort I was having with the condom. I would use it and in the process remove it and go direct and that's how the second child was conceived. So after that we decided to change to another method." (Bemba male, married, 1-3 children, 35 years+, secondary education, LDRa).

I: "Which method did you change to?"

R: *"Injectible."*

In this study, male FGD participants in most of the areas visited talked excitedly and freely about use of condoms outside marriage. This could be attributed to the fact that the discussions were general and did not reflect anyone's particular behaviour or experience, whereas the IDIs elicited information on personal experiences. It was noted that in some of the male FGDs, particularly in the urban areas, participants did not seem to mind talking about their own use of condoms with girlfriends. In more than half of the men's focus groups, some men freely disclosed that it was common for men to use condoms outside marriage primarily because they feared contracting diseases. *"Sometimes we even ask one another if we are short (of condoms), especially when you meet a nice girl at a bar"*. In at least every area visited female FGD participants said that they were aware that men used condoms with their girlfriends. Surprisingly some women from the HDR and LDR areas in the urban areas felt that this was okay because *"at least they are doing something to protect themselves and will not bring diseases home"*.

In some of the rural sites visited, study participants revealed that condoms were also being used for non-contraceptive purposes such as balloons and bicycle valves) besides their intended purpose. This confirms the findings of an earlier study by Chisumpa et al., (2003) which made similar observations.

I: *"Have you ever used condoms in your marriage?"*

R: *"No we just see them with children using as playing toys. "*
(Lunda **male**, 35 years+, no education, polygamist, 4+ both sexes, RMb)

SPK1: *"Some just go to get condoms for other purposes. Like these days these condoms are used as valve tubes for our bicycles. So many these days just go to get for wastage not to use in sexual relations"* (RMc).

TRADITIONAL LEADER 1: *"I have been seeing them (condoms) being used by children as balloons. They are supposed to be used by their parents for family planning, but the parents haven't been educated enough, they haven't been taught the positive aspects of condoms and that these are new family planning methods... So they get them thinking it's for their children and they give it them as balloons. Balloons are too expensive, so they get the condoms and give the children...."*

..... *Some of the men have even been getting condoms and using them as valves on their bicycles. When they are pumping their bicycle tubes, where they used to use that small valve popularly known as the 'vara tube', they now use condoms. They say the condom is tougher. Others say it's because they have no money to buy valves for the bicycles so they go to the clinic since there it's free of charge and would be given plenty"*.(Kaonde **male**, <35 years, secondary+ education, married, 3 female children, RMa)

8.2.3 Sterilization

In this study, it was observed that discussions on sterilization were limited and mainly characterised by lack of interest. Some male and female respondents had basic information about it, saying “*we hear it is an operation*”. Male IDI respondents gave more negative views about sterilization than their female counterparts. Out of the 25 male and female respondents, only in five cases were positive views given about female sterilization and virtually all the comments on vasectomy given by men were negative. A handful of urban upper class women however spoke positively about vasectomy. According to them this would make men responsible about family planning.

SPK: “It would be very important to have sterilization as another method of family planning for men and women because some of us are just having children without planning for them. You will not be able to educate them, you will fail to dress them and feed them”. (Bemba female, 35 years+, secondary education, married, 4+ both sexes, HDRA)

All the key informants in this study (who were all male) and most male participants dismissed the idea of vasectomy saying it was “*traditionally unacceptable*”, “*unthinkable*” and “*a taboo*”.

TRADITIONAL LEDEAR 3: “We think it's the woman that must be sterilized. It is uncultural to go for vasectomy”.

I: “Do you think men in your area would go for sterilization?”

TRADITIONAL LEADER 1: “I think that would be a problem because men think it's their right to have children Even when they are old, they will still marry a teenager Having a castrated male is a taboo you know.” (RMA)

R: “It scares me because sometimes you find that a woman volunteers to have it (sterilization) meanwhile a man starts looking for women to have children with. So it's better if both are sterilised. That way there can be peace in the home.” (Kaonde female 35 years+, secondary education, married, 4+ both sexes RMA)

Some participants especially men, were concerned about the consequences of being sterilized when one's spouse dies. Also, besides cultural reasons, men's fears appeared to be due to lack of proper information on sterilization.

“It's very bad. It's like castrating a cow. The idea of becoming abnormal like that.....no it's not in order..... on cultural and religious grounds. It's abnormal, God made us in His own image, now how can you start making your own image of human beings.” (Lozi male, 35 years+, secondary education, married, 4+ female children LDRb)

“In my opinion it (vasectomy) cannot work because male sterilization means that the organs stop functioning” (Lunda male, <35 years, no education, married, 4+ both sexes, RMB)

*"A proper man cannot go for vasectomy." (Lunda **male**, 35 years+, no education, married, 3 children both sexes, RMc)*

*"Women should go for sterilization not men. In case of death, even if she remarries she can tell the man that I cannot have children. But for me the man I need children to take the generation ahead." (Lunda **male**, 35 years+, no education, married, 4+ children RMb)*

*'For me just as I said I cannot accept it because for me a man undergoing sterilization while my wife still has eggs would not be helpful' (Luvale **male**, 35 years+, married no education, 4+ both sexes, Rp)*

Most of the views against female sterilization given by female participants related to religion, culture, fear or ignorance.

"A woman's role is motherhood. So if you take that away, her life is finished" (Lunda female, 35 years+, no education, married, 4+ children RMb)

*"I think sterilization is against religion because giving birth is a God-given role." Luvale **female**, 35 years+, married no education, 4+ both sexes, Rp)*

Generally women and men who supported sterilization thought it was the best method if a woman had poor health or experienced complications during pregnancy and child birth.

*SPK: "My daughter-in-law had difficulties during her second pregnancy. So we thought of her having an operation so that she can stop having children. Since that time she has been having difficulties with her health. So I think it's up to an individual." (Luvale **female**, 35 years+, married, no education, 4+ both sexes, RMc)*

*R: "If my wife ever had a complicated pregnancy I would allow her to go ahead with sterilization". (Bemba **male**, 35 years+, secondary education, married 3 children both sexes, HDRa)*

*SPK: "Female sterilization is just okay because women lose a lot of blood during childbirth and they actually grow old quickly. It is better for my wife to undergo sterilization because this can protect her life, even children can grow well". (Tonga **male**, 35 years+, secondary education, married 4+ both sexes, HDRa)*

*R: "There is no problem which I myself face but for my friend she can have complications. So it is better to reduce childbearing so as to give her an opportunity to gain good health. If a woman has many children it causes her lose her life quickly because she will have little blood in the body and the veins would not work properly". (Luvale **male**, 35 years+, no education, married, 4+ both sexes, RMc)*

8.2.4 Traditional methods/ medicine

Similar to earlier findings from the 1996 Zambia DHS (see Chapters 5 and 6) and those by Chisumpa and his colleagues (2003), this study also found that traditional methods were mainly popular particularly among the urban poor women or those living in rural areas visited. Withdrawal, abstinence and strings were reported to be the most commonly used traditional methods among these sub-groups, although in a few FGDs strings and

abstinence were named among the least popular methods. The traditional leaders also stated that some traditional practices used by their tribesmen such as strings, beads, traditional herbs, breastfeeding and abstinence were observed by their ancestors long ago. These methods were also alluded to by men and women in focus groups and interviews, especially those in rural areas. In the words of one urban male participant ...*“when my Mother gave birth she went somewhere to make sure that during that period we could reach a certain age, then my Father would be able to meet her freely and have another child. We didn't know it was family planning but they were doing it and it worked.”*

Generally traditional methods were discounted as being unreliable particularly among urban participants. Some women among the urban poor however stated that they did not use these methods because they were not easily available in their areas, otherwise they would use them. They argued that their grandparents used them and they worked for them. Some of the women in one FGD in the HDR area mentioned that women often got supplies of traditional methods from their relatives in the villages.

“The natural family planning method disappointed me. I was using it but when my friend who was also using it got pregnant I switched and went for the pill.” (Lozi **female**, 35 years+, married, secondary+, 3 male children, LDRb)

“I used the traditional method but it was not very good because I ended up having eight children. So I now use pills and I have not found any problems with them.” (Lunda **female**, 35 years+, no education, married, 4+ both sexes, RMa).

“There is a young lady in the neighbourhood who conceived again when the first born was only a few months old. This was a source of concern and she started seeking help to space her children. So after investigations she came across an herbalist who agreed to assist her. She was given two short sticks which were to be sewed through using a white thread. The sticks (tumapingo) had to be dry and worn around the waist. ‘Once you wear this you will not conceive until you remove It’, she was told. Unfortunately, she misunderstood the instructions. She instead got three wet pieces of sticks and sewed them to a white thread and tied it around her waist. As the sticks were drying up, productivity was also drying up. One day, the sticks just broke and dropped. She never conceived again and her child is now 5 years old.” (Tonga **female**, 35 years+, no education, single, 4+ both sexes, HDRb).

“I remember when I needed such help I was told that there is a string which one can wear in the waist. But once you take it off and by misfortune a rat eats it, it means even your fertility is gone for good. The other method I know is the withdrawal method.” (Bemba **female**, <35 years, no education, single, 3 male children, HDRa).

“A woman I knew used strings and could not conceive again. Up to now she only has one child. Many people are not using these traditional medicines because the effects are far reaching. People prefer modern methods because they allow conception anytime” (Tonga **female**, 35 years+, no education, single, 4+ both sexes, HDRb).

It was also learnt from elderly men and women that some taboos and practices helped men and women regulate their fertility. Taboos such as those relating to sleeping with a breastfeeding mother or sleeping with one's wife before the baby began to walk were mentioned among rural participants.

8.2.5 Injections

This study found that women from all types of backgrounds chose injections primarily because they found them 'convenient to use' as the following quotations indicate:

"they can be used without the partner's knowledge." (LDRb);

"they don't need to be carried around." (RPa);

"there is no danger of forgetting to use it." (RMa);

"you can space children very well (even up to 5 years)." (HDRa) and

"It's quick and easy. Just one prick and that's all." (LDRa)

All the female IDI respondents who reported having used injections before said that they had not experienced any problems and injections were a convenient method for them. Service providers had also noted that female clients were happy with the injection because they required only periodic visits to a health facility, had long term action and clients did not need to remember to take them everyday like the pill. The service providers in some urban and rural locations said they had seen an increase in the number of women switching from pills to injections. Also most of the new acceptors were opting for the injection mainly due to what they had heard from their friends.

DC5: "Injectibles, injectibles! There are so many who like them. They say it's easy because you don't have to think. When you take the pill you have to remember, but when with the injection you just have to remember the day you have to go back to the health centre." (Rp and RMc)

PROVIDER 3: "They say sometimes they forget to take the pill. It is hard to remember every time, but injections they take it just once and two minutes they feel the pain, that's all. The pill it's every time taking, taking." (HDRb)

One female respondent among the urban poor explained why she switched methods from pills to injections.

"I never used to space my children and it was a problem. But later I heard about family planning and that's how I put myself on the pill. However, I had a lot of palpitations. It wasn't good for me. Then I discovered that there were injectibles and that's how I got a 5-year injection from 1996 to 2000 without any problem. In 2000 I only stayed for 3 months my periods started and in the 4th

month, I conceived and delivered a healthy baby without any complications. So for me injections are the best". (Lala female, 35 years, no education, married, 4+ children, HDRb).

At one rural facility, the service provider said that women in her catchment area preferred to use pills to injections. The provider blamed the erratic supply of injections for their low use stating that they had been quite popular when supply had been regular. There was also an element of provider bias driven by environmental factors (flooding) which for part of the year made it impossible for women to have contact with the service provider and vice versa (see Chapter 9). The service provider acknowledged that because of the physical barriers she advised women to use condoms or pills and gave them ample supply up to six months (the normal supply lasts 3 months).

While some female participants in rural areas stated that they preferred injections to pills or condoms, some however complained that the absence of menstruation sometimes caused them to worry about what was happening to them as this was unnatural. Some of the older women in the same groups suggested that lack of menses was a sign that fertility had stopped. This study also noted that the 'convenience' of injections sometimes superseded concerns for their negative side effects among some switchers and first time users.

"It's nice to take a rest from (menstrual) periods once in a while." (Bemba female, <35 years, secondary education, married, 3 children, HDRb).

For example a male urban upper class IDI respondent who had switched from condoms to injections stated that his wife did not mind the irregular bleeding or the amenorrhoea she experienced. The respondent also gave a number of other reasons for switching to injections (see Box 8.1).

Box 8.1

R: "I like the injection because it is economical. Although most women say it has more side effects, I feel it doesn't have. They just avoid it because of certain side effects they experience. These side effects are not bad as such. When my wife gets the injection, her monthly cycle gets disorganised. Sometimes she can go for 3 or 6 months without menstruation and I enjoy that. Menstruation used to (laughter).... in a way I didn't like it."

I: "Disturb things?"

R: "Yes, even herself, she didn't like it because it was expensive. She had to buy pads (sanitary towels) and wool and then sometimes had heavy periods. So injections save her from such things. Buying pads and budgeting for them every month is expensive....."

...Then things like nausea, taking of the pills is cumbersome, maybe she forgets one day and we continue meeting. With the injection you don't worry about this. My wife has never missed the date of her injection. I think injections are more effective than other methods. They are cheaper and are done once every quarter, so I feel they are convenient. They are certainly cheaper than maintaining a child." (Bemba male, 35 years, married, secondary+ education, 1-3 both sexes)

Although there were more favourable comments made in FGDs about injections than other methods, it was also noted that more than half of the side effects reported by study participants related to use of injections. Those cited included, vaginal bleeding, irregular periods, amenorrhea and weight gain. Although the injection was mentioned in most of the women's discussion groups as proving to be a popular contraceptive choice, in one area some female participants feared becoming barren.

*"We are not interested in the injection because we are told that once you get injections you will get disease that cannot be cured". (Luvala **female**, <35 years, no education, married 3 male children, RMc1)*

*"As for me I still want children, so if I get injected I will become barren. I cannot use it (injection) because I still want more children." (Luvala **female**, <35years, no education, not married, 3 female childrenRMb1)*

It was also noted that discussions on injections among male participants were rather limited in comparison with those among the women. Most rural and urban participants knew that injections were given periodically by health providers, however some of them were unsure of how long an injectible protects a woman for. While some rural and urban men felt that injections were convenient because they were long-acting, some male rural participants said that injections were bad and feared that they would one day result in disease and barrenness, referring to them as a '*time bomb*'. In one FGD among the urban poor, some male participants talked of the preference for injections among women who travelled a lot on business trips because they did not have to carry them around. Men in this focus group generally disapproved of this because they felt injections encouraged promiscuity since the women knew that they were 'safe from pregnancy'. Concealed use of injections was also mentioned by men and women in most of the areas visited.

8.3 Covert use of family planning

This study found that some women in the areas visited used family planning methods secretly. This however appeared to be more widespread in the urban than rural sites visited and particularly among the urban poor. In this study injections, pills, traditional methods and sterilization (mentioned in one case) are among methods used surreptitiously by women.

MODERATOR: "Do some women in this community hide their use of contraceptives from their husbands?"

SPK4: "Yes some do. If a man doesn't allow you to use, just you hide. You find that a woman wants to advance in her career and then the man says no contraceptives in this house. There is

no way you can have children year after year". (Bemba **female**, <35 years+, secondary education, married, 3 male children, LDRb)

SPK3: "Some women use family planning secretly for example if the husband can't agree on the number of children, say a woman wants two and he wants ten". (Bemba **female**, 35 years+, secondary education, married, 4+ children, LDRb)

SPK1: "There was a woman I knew. The number of years of her not conceiving worried her husband and they started quarrelling. After investigations the husband discovered that she had used traditional medicine (strings) without his knowledge. The husband got so annoyed that they ended up divorcing". (Tonga **female**, 35 years+, no education, single, 4+ both sexes, HDRb).

SPK2: "We are told each time we go for antenatal to use family planning. Previously, men could not allow women to go for family planning. Some of us could just hide family planning use from our husbands." (Bemba **female**, 35 years+, secondary education, married, 4+ children, LDRb)

In one of the rural areas visited however, male FGD participants stated that it was impossible for women in their area to hide their family planning use because the nurse at the local health facility did not give out contraceptives unless she met both husband and wife. This was later confirmed in the interview with the service provider.

PROVIDER 3: "I tell them to come together because I prefer to give the methods to both the woman and her husband."

I: "What are your reasons for this?"

PROVIDER 3: "You have less problems later. People here can be difficult. A husband can come to me and say why did you give family planning to my wife?"

The reasons for covert use given by men, women and service providers in this study include, "...husband's disapproval of contraception", "fear of being beaten or divorced" or "maybe the man has refused to use and the woman feels she needs to rest, so she goes ahead and uses" and "because they see that the family is big and feeding is a problem".

"Previously, for a woman to start family planning a husband had to write a letter of approval and this was not always easy to get. But now anyone can get it (family planning) from anywhere. Even if the man doesn't want, you can just hide and tell him that suddenly it has become difficult to conceive, yet you know what you are doing." (Bemba **female**, 35 years+, secondary education, married, 4+ both sexes, HDRb)

In one female FGDs among the urban poor it was noted that some women used injections secretly or advised friends with spouses opposed to family planning to use this method.

"I have a neighbour who doesn't space her children and because of poor feeding her children look very unhealthy. So we advised her to start taking pills and not tell her husband. But later he discovered the secret and he was annoyed. The wife stopped, but later resorted to injections which

the man could not see and that's how the children grew up to 4 years undisturbed". (Bemba female, 35+ years, Secondary education, married, 4+ both sexes, HDRb)

"Some women go to the clinic to get pills in secret and hide them fearing that when the husband sees them he will throw them away. He might get annoyed and say why should you stop the fertility which God gave you?" (Kaonde male, 35+ years, Secondary education, married, 4+ both sexes, RMa)

According to the findings of this study, service providers can also sometimes influence women to practice covert use. In one rural site a provider confessed to advising women to use injections if they had too many births or if their husbands opposed contraceptive use (and told them not to tell their husbands) (see Box 8.5).

Box 8.2	2
<p style="text-align: center;">1</p> <p><i>PROVIDER 4: "In some churches we have found difficulties and in some villages the men are so difficult when it comes to family planning"</i></p> <p><i>I: "Tell me about it."</i></p> <p><i>PROVIDER 4: (laughs) "Men are so difficult. They believe that if a woman is using family planning then she has affairs with other men. Many women are therefore not allowed to use family planning by their husbands. If they use it they have to do it secretly. If you just want to help them, for the sake of that woman and her children you just advise her to do it secretly."</i></p> <p><i>I: "Is that what you tell them?"</i></p> <p><i>PROVIDER 4: "Yes! (laughs)...you know it's very touching. You find a woman is pregnant and has a one year old child and the other one is 2 years. It is very difficult for such a woman to bring those children for under-5 clinic. If the child is sick, it's the woman who suffers, the man is just sitting at home. So for the sake of that woman, you just do it privately and give her injections if you have and forget about it."</i></p>	<p><i>I: "So when you tell them to do it privately, what method do you recommend?"</i></p> <p><i>PROVIDER 4: "OK, I just recommend injections because the man will not know that she is doing anything. He will just say what is happening? And she will say she doesn't also know (laughs). So the secret is just between me and her..."</i></p> <p><i>.... They come here for advice. So the only advice I give is 'why can't you just do it secretly for your sake?' They always accept that and they say that's why they came."</i></p> <p><i>I: "I see, so has there been a case where the husband finds out?"</i></p> <p><i>PROVIDER 4: "No most of the time it's difficult, unless if it's the pill they do discover and get angry. The injectibles they don't."</i></p> <p><i>I: "Do you have many clients who are using family planning secretly?"</i></p> <p><i>PROVIDER 4: "Yes I do."</i></p>

In some of the men's focus groups, strong opinions were expressed against women's covert use of family planning. Comments like *"she has no right to go against my wish"*, *"we have the authority over them"*, *"they must seek permission"* and *"the husband's decision is final"*, gave the impression that the consequences of a woman's secret use family planning being found out may be unpleasant. One male IDI respondent shared his experience on covert us:

"It happened to me. My wife was using family planning without my knowledge and imagine, I was the Chairman for the Neighbourhood Health Committee. I used to think she doesn't use family planning and I would talk against it that it brings illness, without knowing that she had started a long time ago without us talking about it. One day I discovered pills under her pillow. After that we talked so I believe women do hide their use of family planning."

Concerning his reaction the respondent said...

"I strongly rebuked her that there is need for agreement on such matters. I told her if I didn't trust her I would call her an adulterous woman. She asked for forgiveness. Others even fight and divorce. I have witnessed such things." (Mambwe **male**, 35 years+, Secondary education, married 4+ children, HDRb)

On covert use of family planning, one traditional leader stated that traditionally, spouses were not supposed to keep secrets from each other and therefore using contraceptives without the knowledge of one's spouse was unacceptable in his community. Key informants, men and women in the different study areas all intimated that clandestine use of contraceptives once discovered could lead to divorce, verbal abuse or domestic violence.

"Many young girls have lost their marriages because of wanting to space their children through using family planning. This is especially the case when a wife hides her use of family planning and then the husband discovers. Some have ended up being divorced." (Tonga **male**, 35 years+, none/primary education, single, 4+ both sexes, HDRb)

In two of the focus groups, men agreed that ... *"instead of beating the woman, it is better to seek an audience with her relatives because you never know what she will do next."* Some other male FGD participants in rural areas stated that a woman who did such things was not to be trusted. It was also noted with interest that while men gave speculative responses concerning the consequences of discovering covert family planning use, women (who also shared similar views) were more explicit and cited real life examples from their respective communities as the quotations below reveal. Some women of the same area talked of pills being hidden in the kitchen, at the neighbour's house and in other unusual places as the following three examples show.

SPK1: Woman A's story: *"I have a sister-in-law who was conceiving whenever the baby was only 6 months old. So on the 3rd child I told her about family planning and she didn't hesitate and started using it immediately. Unfortunately when the husband discovered she was beaten severely to the point that her head got swollen. But I encouraged her all the same and she went ahead and started hiding the pills at the rubbish pit where he could not suspect. Whenever it is time to take it (the pill), she digs it up, drinks and buries again. The husband is primitive."* (Lala **female**, 35+ years, no education, married, 4+ both sexes, HDRb)

SPK3: Woman B's story: *"There are some husbands who cannot allow their wives to use family planning. Sometimes they go to the extent of beating their wives and even crushing the pills. Currently in this community there is someone who is behaving like that so that the wife hides the*

*pills by burying them until evening when she digs them up and reburies them again. Up until now the husband doesn't know what the wife is doing. Everybody knows he beats his wife because of family planning. So husbands especially the sleepy and uneducated ones, those who have no idea what difficulties each time a woman is in labour passes through are a problem.” (Bemba **female**, 35+ years, no education, married, 4+ both sexes, HDRb)*

*SPK4: “Some women have chosen to use injections to hide their use of family planning. Others go for the pill and hide it at the neighbour's house. They pretend they are going to see their neighbour when in fact they are going to drink the pill.” (Bemba, **female** 35 years+, secondary+ education, married, 4+ both sexes, HDRb)*

In one of the FGDs, women mentioned that men also hid their use of condoms from their wives as they used them with girlfriends. The women stressed that it was not right for either spouse to hide their use of methods. They also added that it was unfair that the women should be punished for using methods secretly while the men just got away with using condoms with girlfriends even if the elders were aware of it.

*SPK4: “Yes they do hide them in their pockets. When you want to wash the clothes you find them and when you ask him, he will agree that they are his condoms but he won't use them on you. Then you know that he is using them somewhere outside your marriage.” (Luvala **female** <35 years, secondary+, education, married, 3 male children, RMc).*

Interestingly, men too admitted that they hid their use of condoms from their spouses because they used them with girlfriends.

*SPK4: “It's worse with men, especially condoms. You shouldn't make a mistake for your wife to find them in the pockets, it brings fights.” (Bemba **male**, 35 years +, secondary education, married 4+ children, HDRa)*

*SPK2: “They don't use them at home with their wives for fear of being told that even outside you use condoms so those who go outside they just hide.” (Bemba **male**, 35 years +, secondary education, married 4+ children, HDRa)*

8.4 Men's participation in family planning

During the survey it was noted that regardless of background characteristics men in this study shared similar views on most topics discussed. For instance, when asked about men's contraceptive practice, in nearly all the study sites discussions in men's FGDs revolved around women's use of methods rather than men's. Some of the men justified this by saying that fertility regulation was a woman's job and men had nothing to do with it. A widespread concern expressed by the men in this study was that they feared that contraceptive use would cause women to become promiscuous. Some men however simply said they would not allow their wives to use contraceptives because they wanted to have many children. Table 8.4 summarises men's views on family planning.

Table 8.5: Summary of men's views about family planning

<i>Positive views</i>	<i>Negative views</i>
<ul style="list-style-type: none"> ▪ It is good ▪ Improves the quality of life ▪ Helps with child spacing ▪ Children can grow well. ▪ Life is difficult with many children ▪ It helps you have the number of children you can manage ▪ It preserves the life of the woman ▪ It is a sin to have many uncared for children, so family planning helps 	<ul style="list-style-type: none"> ▪ Men don't carry the baby, it's not for them to use family planning ▪ Family planning is a woman's job ▪ Limits the number of children which is a bad thing ▪ Makes women become promiscuous ▪ Destroys fertility ▪ Condoms remove respect ▪ It's bad because it interferes with God's plan ▪ It disturbs the growth of the clan ▪ Children are a useful resource Some children may die better to have plenty ▪ The bible says fill the earth

Condoms were the most common family planning method used by men in this study, followed by withdrawal and abstinence which were mentioned mainly by rural participants. There was a consensus of views among service providers on involving men in family planning because of their role in women's use of methods. Service providers also envisaged that involving men could lead to an increase in contraceptive adoption. Some of the providers felt that besides cultural factors, men's opposition to women's use was also due to ignorance. One provider in a rural location talked of how men would listen attentively to talks on malaria, cholera and HIV/AIDS during community outreach meetings, but would leave the meetings when the subject of family planning was brought up saying that it was women's talk and did not concern them.

PROVIDER 4: "These men enjoy entertainment. You find that if we give a drama presentation during outreach instead of just talking most men will stay to watch even if it is on family planning." (RMb).

The traditional leaders who were interviewed attributed men's lack of interest in family planning to lack of awareness programmes, the lack of provision for men in the family planning service delivery system and traditional teachings that portrayed fertility regulation as a woman's role.

TRADITIONAL LEADER 3: "Fertility and child bearing are seen as women's roles and the man's role is making his wife pregnant. The only thing the man has to do with regard to fertility regulation is to cooperate and not sleep with his wife until the child is weaned and was able to walk" (RP).

It was also pointed out in some of the men's FGDs that men's roles in the household were sometimes weakened by western influence. Some elderly men in FGDs stated that women in their villages were expected to listen to their husbands and never to question their decisions.

*"Women in this community respect the traditional roles of husbands as heads. So if the man has not allowed family planning the woman will not use it. If they come to the clinic it would be in secret since they don't want to be seen as rebellious to husbands." (Kaonde **Male**, <35 years, secondary education, single, no children, RMa)*

It was noted that all the traditional leaders interviewed supported the idea of male involvement in family planning. Their reasons for this are summed up as economic difficulties and consequently a rise in household poverty levels, poor child nutrition and high maternal mortality.

TRADITIONAL LEADER 1: "The biggest problem that I have seen is that these family planning talks are primarily for women, the man is not involved and is not called to attend the family planning clinic. When the woman is given condoms to use and gives them to her husband he will say, 'what you are talking about?' Men are not willing to accept these things because they are one-sided. We must deliberately target the men. They must be involved in these discussions, so that they also know that the survival of their woman and family depends on family planning." You see a woman who has had more children may die easily because she is weaker." (RMa).

TRADITIONAL LEADER 1: "If men were involved in family planning some things would not be happening in our community. For example, up to the EDD (Estimated Date of Delivery) the woman carries heavy loads on her head. I think it is lack of knowledge. Those that are knowledgeable are probably helping, but the majority still don't help. It is a normal thing for a woman even while pregnant to perform household chores. If she is woman enough she will do it, that's the belief." (RMa).

TRADITIONAL LEADER 3: "I would like health workers to also sit with the men and explain to them so that they don't harass their women when they go back home from the clinic. It is better if you draw up a programme and give to the Chief of the area. I have the authority to organise men for such a programme." (RMc)

It was reported by the service providers and male participants in this study that men hardly ever used family planning services at the health facilities. One of the providers thought perhaps men felt shy because most of the family planning clients are women, while most female FGD participants said that it was because men considered family planning a woman's domain. The quotations below indicate some views from male FGD participants on reasons for men's reluctance to use family planning services.

"Usually men are shy. For you to go to the clinic where there is a female nurse, one feels shy. That's why most of us fail to go there and get." (RMa)

“Men become shy when they fail to space well to get to the health centre they fear to be shouted at by health personnel.” (RMc):

“We don’t have proper Doctors.” (RMb)

“The opening times are unsuitable.” (LDRa)

“The nurse is a woman and it is difficult to share your problems with a woman. Why can’t they bring us a man?” (RMa)

“I prefer to buy condoms from the kiosks because when you go to the clinic they tell you they are finished we are expecting some tomorrow.” (RMb)

One man narrated his visit to the clinic.

*“One day I went to the clinic to get some condoms. The nurse came out of the consultation room and told me that this queue was not for people with malaria and other diseases, it was for family planning. I felt embarrassed as I was the only man there and that’s how I left and never went back.” (Kaonde **male**, <35 years, no education, married, 4+ both sexes, HDRa)*

It was also noted that although some men opposed family planning and branded it as a women’s affair, some (both in rural and urban areas) were however willing to learn more about it and said that they would use family planning if methods and services were provided. In some of the FGDs in rural areas some elderly men said they would like services for sexual health.

*“At our health centre here they just give us chloroquine, we need more medicines and nurses. Also there is no medicine at the clinic to make men strong when it comes to having sex.” (Luvala **male**, 35 years+, no education, married, 3 female children, RMb)*

*“There is no medicine to help men increase their ability to bear children.” (Luvala **male**, 35 years+, no education, married, 4 children, RMc)*

8.5 Spousal communication

This study also sought to find out about communication between couples on family size, family planning and HIV/AIDS. Concerning decision-making on family size, some urban upper class women felt that couples should decide the family size together while others felt that the woman alone should decide because she suffered with the pregnancy and went through labour. While most female FGD participants in the rural areas also felt that the couple should decide together, the majority were of the view that the man should decide alone on family size because he is the head of the household. Also only in three female FGDs were the responses *“it’s up to God”* or *“the extended family should decide”* given. Concerning contraceptive decision-making rural women said they either made the

decisions alone, with spouses or with relatives. A few said the service provider helped them decide on use. The most common response however was decisions made with spouse.

Among the male FGD participants generally the commonest response to ‘who decides’ and ‘who should decide’ on family size was joint decision by husband and wife followed by the man alone and then God. Some of the male rural participants and the urban poor also mentioned that deciding on one’s family size was something unheard of, but they had observed that *“these things happen among our educated friends”*.

Having discussions on HIV/AIDS with one’s spouse was noted to be common among all the IDI respondents in this study while discussions relating to family planning were reported by all the respondents with the exception of four (2 male and 2 female). One of the men said he did not discuss family planning with his wife because they had no problems with spacing their children, while the 2 female respondents (R1 and R2) had this to say:

R1: “No I don't talk about family planning with my husband. But there was a time when my husband told me that he needs more children. He told me that we should look for a traditional doctor to help me have more children, nevertheless my parents refused. They said the four children were enough. Maybe it was God's will for me to stop having children.” (Luvala, female, 35 years+, secondary+, married, 4+ both sexes, RMc)

R2: “My husband is not very supportive because he says we will discuss what method we will use, but we never do. He just leaves everything up to me, like he won't remind me to take it (pill) if I have forgotten. I would love it if he was a bit more concerned like reminding me every evening to take the pill.” (Tumbuka female, <35 years, secondary+ education, married, 3 children both sexes, HDRb)

Generally men in this study indicated that discussions with their spouses on AIDS revolved around prevention and protection (e.g. being faithful to each another and educating each other on AIDS). Most men in this study said that it was not very easy to talk about AIDS with their spouses because it could raise suspicion or bring quarrels. Although women generally said they also discussed prevention and protection with their husbands, most urban women in this study said they feared that their husbands would contract AIDS and give it to them. Most women stated that it is women who often start conversations on HIV/AIDS between couples because they are more worried about the disease than men are.

Men’s comments

R: “With my wife we started talking about it when we saw that the times were hard, diseases are many and AIDS is also on the increase. So we have given ourselves rules in our marriage on how

*to take care of ourselves. None should leave a friend and go outside marriage to have sex.” (Lunda **Male**, <35 years, no education, married, 3 children both sexes, RMb)*

*R: “My wife mentions to me each time I go out to be careful because these days there are so many diseases. She tells me to think of the family first before you do anything. So I keep in my mind that I have left kids at home and if I get something out here they will suffer.” (Lozi **male**, 35 years+, secondary education, married, 4 female children, LDRb)*

Women’s comments

*SPK4: “We are complaining because our husbands are misbehaving. So we are telling our husbands to behave and not to bring the disease in the house.” (Luvale **female**, <35 years, non/primary education, married, 3male children, HDRa)*

*SPK2: “We worry about what will happen to our children if we get AIDS and die.” (Bemba **female**, 35 years+, secondary education, married, 4+ children, LDRb)*

*R: “Basically, I am just forth right with him. I say look, if AIDS is going to come into this family it's not going to come from me because I know that I am keeping myself safe, I don't know about you. Okay, maybe earlier on in marriage we used to talk openly about it, but now I have found that he is a bit withdrawn and I don't know whether he is approaching mid-life crisis. The other way of putting the message across to him is by visiting people with HIV, those who are on the brink of death etc, then I know that the message is sinking.” (Tumbuka **female**, <35 years, married, 3 children both sexes, secondary+ education, HDRb)*

In this study, participants were also asked about their perception of their own and their partner’s risk of getting infected with HIV/AIDS. Some female study participants in the urban areas argued that their risk of getting HIV/AIDS was directly connected to their spouses’ behaviour. It was observed that some of the women’s comments were filled with emotion as observed by the tone of voices and body language.

*R: “Yes I feel I can have AIDS because my husband can bring AIDS in our home. Otherwise me alone I cannot get AIDS.” (Lozi **female**, 35 years+, secondary education, married, 3 male children LDRb)*

*SPK7: “Yes we do think that we are at risk of getting AIDS. Especially us married people we do think that when husbands go out they meet with their girlfriends, hence they bring AIDS in our homes. So everyone is worried because AIDS is real.” (Luvale **female**, <35 years, no education, married, 3 male children HDR)*

*R: “If I was not married I would say I will never get it (AIDS), but with men you will never know. He knows I do not trust him 100%. Maybe if I was a widow I could say I will never get AIDS now with a man around, I am not too sure.” (Tumbuka **female**, <35 years, secondary education, married, 3 children both sexes, LDRb)*

Unlike the women, the men in this study distanced themselves from their views on perception of risk of getting HIV/AIDS. General comments like “everyone is at risk”, “this disease is everywhere”, “we will all die” were common among men and there was a tendency to agree with one another on the subject of HIV/AIDS in most male FGDs. It was

also noted that some of the male FGD participants' comments were concerned about the extent of the disease in their areas.

SPK6: "I agree with my friend. We are worried. They say that where there are ten people, maybe only two are not infected the rest are, so we perceive ourselves to be at risk." (Luvalé male, 35 years+, no education, married, 4+ children, RMc)

Sp4: "Yes we do perceive to be at risk since even in this area we have lost a lot of friends, others were friends to our wives, so we are aware that even here AIDS is there." (Bemba male, 35 years+, secondary education, married, 4+ both sexes, HDRa).

On perception of spouse's risk, nearly half of the male respondents thought it was possible for their spouses to get the virus while the other half either said they could not tell or that it was not possible because their wives were faithful. The following are some excerpts from interviews with three different respondents identified as R1, R2 and R3.

I: "Do you perceive your wife to be at risk of contracting AIDS?"

R1: "No, it's not easy."

I: "Why not?"

R1: "Well since I got married she is the only woman I have ever shared a bed with. Even when I was a young man, I had limited sexual relationships. My wife cannot go out with any other man and I cannot go out with another woman, there is no possibility. You see before we got married we did an HIV test and we were both negative. She is so faithful just like me. So unless by other means, we can't get it through sex."

R2: "I wouldn't know, it's up to her. I believe my wife is a faithful and is not the type of person that goes out anyhow. I know her very well. Anyway, you never know how people are, but I believe I have got a lot of faith in her."

R3: "My wife to think of her like that? Well maybe because we don't see what is in someone's heart. But considering the years we have been together, I don't think she can be unfaithful to me."

SPK5: "This issue is a very difficult one and it usually brings quarrels in marriage. Like for us men you just come home at night the woman starts shouting 'you want to put me in problems!'. Usually women think it's the husbands who can infect them and not vice-versa. But women forget that they also move about and could also get AIDS and infect their husbands." (Bemba, male, 35 years+, secondary education, married, 4+ both sexes, HDRb)

8.6 Socio-cultural factors influencing family planning

In the subsequent sections, the views of study participants on socio-cultural factors influencing contraceptive practice are discussed with reference to fertility, family size and fertility regulation. The section also looks at traditional laws governing lineage descent with regard to inheritance of children, leadership and property and their influence on contraceptive behaviour. An important finding in this study is that regardless of lineage or

ethnic background, the views of the men and women in this study on the social context of fertility and fertility regulation were generally similar.

8.6.1 Views on fertility and family size

One of the findings of this study is that some men and women in the areas visited have high fertility aspirations and desire to have large families. This was noted among men and women of different ethnic and lineage background. Their reasons included expectation of future child losses, high infant mortality, high esteem accorded to women with high parity, prestige and having children as an investment for the future. However, there were some women in both urban and rural areas of different lineage background who acknowledged that having fewer children was much better than having many children in the present economic conditions. An interesting observation made during this study is that most young women in the rural areas and the majority of urban women of different social classes were in favour of small families.

Some elderly men and traditional leaders recalled how important it was long ago to have many children as the economic sustenance of the family largely depended on having a large clan. In explaining the social context of high fertility in the rural areas, one key informant said that although the need for children to help with tiling the land was less nowadays, the existing social environment made it conducive for women to have babies frequently. He cited lack of recreational activities (including traditional forms of entertainment), the breakdown of social structures (e.g. initiation ceremonies), lack of education and employment opportunities and boredom as contributing to the high fertility levels. Traditional leaders shared similar views with FGD participants in their respective areas on fertility issues. For example, it was pointed out by the traditional leaders and men's focus groups that long ago it was necessary to have many children because people's livelihood was agriculturally based and children were a source of labour.

TRADITIONAL LEADER 3: "Such ideas are changing as things are now different with the introduction of formal education and a cash economy, for instance." (RP)

TRADITIONAL LEADER 1: "There is virtually nothing for people in the villages to do besides tilling the land. And with the absence of entertainment, even sex has become an entertainment on its own. People spend more time at home and the natural thing to do is to have sex. So we end up having more births....."

....When it is under-five clinic day at the health centre you would be shocked. You would think there is a baby boom. Because there's nothing for women to do here, they look at childbearing as an occupation and compete to have babies or envy their friends with new babies" (RMa).

It was noted that teenage pregnancy was a common problem in all the areas visited without exception. One traditional leader blamed the high levels of fertility especially among young girls on modern culture, loss of respect for moral values and the eroding of important cultural systems such as initiation ceremonies. However, it was observed that in spite of acknowledging that teen pregnancies were common, men and women in rural areas and some in urban areas (particularly elderly participants) generally opposed the idea of use of contraceptives among the youth saying that it would make them sexually immoral.

TRADITIONAL LEADER 1: "If you let them use family planning, it's like you are giving them a licence to say go ahead. Pre-marital sex is not allowed in our culture." (RMa)

TRADITIONAL LEADER 3: "Like you find there was a lot of fear long ago. Girls did not move about anyhow...but with modernisation and things like schools, they are free to move about and mix with boys. Long ago girls just used to sit at home with their Mothers and Grandmothers". (RP)

With regard to ideal and average family size, there were contrasting views between men and women's groups irrespective of study site. In most of the areas visited the figures given in men's focus groups were generally much higher than those given by the women. In one of the urban sites visited men put the average family size at between eight and ten while women said it was about four and six children.

"The number 12 is too small. You need many children because some will be intelligent while others won't. They cannot all be intelligent while others may die but if you have only four and suddenly they all die, who will help you?" (Lunda male, 35 years+, no education, polygamist, 4+ both sexes.) (RMb)

"According to our traditions, most people have six or eight children and others who are polygamists could have eight with one wife and five with another. So others could have nine and others ten of their own children." (Luvala male, 35 years+, none/primary education, polygamist, 4+ both sexes, RMb)

Generally in this study figures for family size given by women and urban upper class male participants seemed more realistic and in-keeping with national statistics from sources such as the 2000 Census of Population and Housing and the 1996 Zambia DHS. Both groups also had lower figures averaging between three and five children for ideal family size.

SPK3: "In fact nowadays you are not supposed to have more than three children because the economy is very bad. So it's better to have limited number of children." (Tonga male, 35 years+, secondary education, married, three female children, LDRb)

R: *"We had to plan for our family because I come from a very big family of more than 15 children and it was so difficult for my Father to look after us. I am still looking after some of my siblings, that's why I just want to have three children, besides I am a working woman, if the children are too close it becomes difficult to work. (Lozi female, 35 years+, secondary education, 3 male children, HDRb)*

While most men with high fertility aspirations gave cultural and religious reasons for their ideal family size, women and men who desired to have fewer children cited difficulty in raising many children in the prevailing economic conditions for their choice. Notably, regardless of background characteristics, men and women across this study stated that they did not prefer to have children of one sex or the other.

"It's better to have both sexes because either sex has its own advantages and could be helpful in different ways." (Lunda female, 35 years+, secondary education, 4+both sexes children, RMb)

"Children are the ones who will take care of us. It does not matter which sex it is." (Bemba male, 35 years+, secondary education, 4+both sexes children, HDRa)

8.6.2 Views on fertility regulation

In this study distinct views on fertility regulation were noted: It was the common view in this study regardless of ethnic or lineage background that fertility regulation long ago was used primarily for spacing and not limiting births. All the traditional leaders stated that fertility was (and in their opinion should be) regulated solely for child-spacing purposes (*"to avoid the children falling sick"*) and *not* limiting the family size. There was a widespread view across the study that it was a disgrace to have closely spaced children as this brought shame. Some rural male and female participants and traditional leaders talked of restrictions imposed by society on having sex with a nursing mother as a way of avoiding short birth intervals. According to the key informants such traditional norms greatly assisted in achieving well-spaced births long ago. Some of them gave examples of children in their ethnic groups being breastfed for two to six years and parents achieving good spacing of births as a result. According to the ZDHS, the average breastfeeding period was 20 months and 21 months in the 1996 and 2001/02 surveys respectively. Studies conducted in the region show that women in SSA achieve spacing through prolonged breastfeed and an average of 18 to 26 months has been recorded in most of the region (Jolly and Gribble, 1993).

TRADITIONAL LEADER 2: "In our tribe, it was a taboo and totally unacceptable to sleep with a breastfeeding mother. The baby would breastfeed up to 5 years or so. So you were able to judge that there are able to practice birth control." (RMb).

TRADITIONAL LEADER 1: *"We learnt to space the children so that a couple would only be able to have another child when they had successfully weaned one. The acceptable spacing for children in our tribe was 2 years. Now that could only be possible if there was a method. Where that spacing was not done and one child came too soon after the other and we would say the child will have nutritional problems ('Mwana ubela buse')....."*

.....So to avoid that, the child had to be able to survive without the breast milk, then it would be safe to have another. Women wore traditional roots around the waist. They believed that as long as they wore them, they would not conceive and somehow whatever the science behind, it used to work (laughter). They also used the natural method. They knew when it was easier to conceive and what the safe days were though they never had calendars." (RMa)

TRADITIONAL LEADER 3: *"Our people are very disciplined people. If a woman has got a very young child, usually we don't allow her to sleep with anyone, whether she is your wife, we don't allow that. Unless the young child has grown up it's when they are allowed to meet. Long time ago they used to be very strict. Nowadays, unless the child knows how to walk, then you can meet."*(RMc).

I: *"What would happen then if the woman became pregnant before the child began to walk?"*

TRADITIONAL LEADER 3: *"The man responsible would feel very ashamed. He wouldn't even move about and mix freely with others because everyone would be talking about him. It was a very shameful thing, like a curse. African customary laws are very firm and people were forced to observe them. Sometimes a man would become a polygamist so that when one wife is breast feeding, he has another wife. But where a husband has only one wife he had to observe those cultural values and that's how child spacing was achieved."* (RMc).

The traditional leaders interviewed in this study felt strongly that couples should be encouraged to have the number of children that they could afford to look after. Although they all talked of the need for increased family planning education, involving men and 'cautiously' welcomed modern family planning (mainly due to the hardships their people were facing), they also emphasised the importance of using the local traditional methods too. One of the chiefs stressed the need for more research on traditional methods and side effects particularly in view of widespread beliefs about the pill causing cancer and infertility. *"There could be evidence could be lying out there to support women's claims of side effects..... It is inconceivable that the women are just imagining these things."* It is also worth-noting that none of the chiefs supported the use of contraceptives by unmarried or young people as they feared that they would abuse contraceptives. The words of one of the traditional leaders summarises the leaders views..... *"Family planning is about families. What families are single people planning for?"*

In nearly all the focus groups regardless of study location, female and male participants felt that the elders (especially the females) generally did not support family planning for various reasons. Some of the female elders in rural areas believed it brought disease and infertility and feared complications. Others said they wanted large families, while some felt

that family planning encouraged promiscuity. Some elderly male participants were also particularly opposed to condoms and sterilization which they said were inappropriate for cultural reasons.

Service providers in all the areas visited talked of opposition especially from elderly women and singled out grandmothers as being instrumental in discouraging family planning use and encouraging high fertility saying, *“it causes cancer and all these other diseases”*, *“you will become barren”*, *“these diseases have come to Africa because of family planning”* and *“before the invasion of family planning, Africa was free of such diseases.”* It was also noted that some younger women in FGDs in particular were quite negative about what elders thought of family planning. Some of young participants in mixed groups (both younger and older participants) openly disagreed with the elderly women saying that things were different now and having many children was not economical.

SPK2: *“Grandmothers can send you to the grave because they want a baby every year. They are totally against family planning. They even tell you that if you do not bear children your husband will divorce you. But the good thing is that I am not easily swayed by what she says because it's me who feels the pain and all the complications so I don't listen to what she says. I just space my children.”* (Bemba **female**, <35 years, no education, married, 4+ children, HDRa)

SPK4: *“They are against family planning because they say children are never enough. In fact who knows may be the ones you are killing through family planning are the ones who are supposed to look after you in future.”* (Lala **female**, <35 years, no education, married, 4+ children, HDRa)

In the men's focus groups it was mentioned that generally elders encouraged large families but discouraged having closely-spaced children. It was also noted that there were mixed views among men about elders thoughts on using family planning to reduce the family size. In some of the men's groups it was revealed that while some elders still held on to old traditions of having many children (*“to perpetuate the clan for instance”*) others were now advising couples to have fewer children primarily because *“times are hard”* and *“so that children can grow well and not suffer from malnutrition”*. Some elderly men who advocated for the use of traditional methods wondered why young people could not practice self control which was needed to use traditional methods (e.g. separating beds, abstinence and withdrawal).

8.6.3 Lineage issues

Lineage systems are distinguished by laws governing inheritance of leadership, property and children (in the event of death or divorce). For instance, in the matrilineal social

systems, inheritance is through the female line, while in the patrilineal system it is through the male line. It was the interest of this study to find out if these issues influence contraceptive behaviour among matrilineal and patrilineal ethnic groups.

This study observed that participants of matrilineal and patrilineal descent all agreed that lineage descent had no influence on fertility decisions and fertility regulation. In some of the female groups it was revealed that the extended family played a part in such decisions. Some participants felt that perhaps long ago when people strictly observed these cultural norms, this might have been the case. On whether people of different lineage background preferred children of particular sex, the majority of the study participants in both rural and urban areas stated that in their communities people generally did not prefer one sex over the other because “*children are the same*” and “*you never know which child might be more helpful to you, so it’s better to have both*”. It was a commonly held view across the study among men and women of different lineage descent that when people got married they did not think about who the children belonged to because they regarded them as theirs together.

In this study FGD participants in the rural locations were usually of the same ethnic and lineage background. In the urban areas however, FGDs were made up of participants of different ethnic and lineage background (see Tables 7.1 and 7.2 in Chapter 7). It was noted that men in this study were generally more knowledgeable than their female counterparts on issues relating to lineage descent regardless of place of residence. Among the FGD participants of matrilineal descent in both rural and urban FGDs, there was a consensus that the rights to the children belonged to the woman and in the case of divorce or death the children would go to her (or her family). This view was supported by a traditional proverb cited by men and women of matrilineal descent and whose literal translation is “*the cock produces but the chicks are for the hen*” (“*Jangana ba nzoro ba nkanga ba Tumbuka*” in Kaonde, “*Kusema chandemba vana vachali*” in Lunda). This means ‘the man only produces, but the children belong to the woman and therefore follow her wherever she goes’.

Traditional leaders also argued that the issue of child inheritance was not adhered to presently. Throughout the study it emerged that traditions to do with rights to children were not strictly followed and were treated merely as guidelines. Men and women mentioned that modernity and inheritance laws formulated by the Government had made it

difficult for people to hold on to their traditions on rights to children. Some men of matrilineal descent said it was unfair for children to be taken by their mother and that nowadays men preferred to take care of their own children rather than taking care of their nephews because in reality it was children who took care of their parents in their old age and not nephews. Harsh economic times were also said to have had an influence in child inheritance rights as relatives on the woman's side were no longer not as willing to take the children as in the past in the case of death. Consequently, it was now not uncommon to find children being shared between the two families.

*SPK3: "Nowadays in event of death the families sit down to make a decision as to who should take care of the children. They also they have to weigh the economic capacity of the family to be given the responsibility to look after the children." (Bemba **female**, 35 years+, secondary education, married, 4+ children, LDRa)*

*SPK5: "In fact these days when a woman is working, she is the one who remains with the children more especially when we look at the new laws of succession. A long time ago a woman would be taken by another man so that he looks after the children. But it is not longer like that because women are working and are able to look after the children." (Lozi **female**, 35 years+, secondary education, married, 4+ children, LDRb)*

*R: "I think even those rights now are becoming diluted because of poverty. If a person was rich, relatives will have interest, otherwise they would not even bother. They will talk about the kids being theirs but they won't physically take them and look after them. Even the family ties are kind of weakened, so they are not really influenced by our traditional practices." (Tumbuka **female**, <35 years, secondary education, married, 3 children both sexes, LDRb)*

Some of the male participants however also mentioned that these traditions of long ago were difficult to follow in the urban areas because parents were close to their children and therefore it was now more common for children to remain with the surviving parent rather than go to the relatives.

It was also noted that study participants of Tonga origin (which is documented as a matrilineal tribe) claimed to be patrilineal and not matrilineal by descent and that in their tribe the rights to the children belonged to men rather than women. This confirms earlier findings by Price (1995). There were also some contradictions among Bemba (who are matrilineal) participants. While some said children belonged to their mother's side, some said that they belonged to the man "*because he paid bride price*". One male participant of Luvale origin also stated that his tribe had started following the patrilineal system with regards to rights to children and other participants in the group agreed with him.

According to a key informant the rights to children among ethnic groups of patrilineal descent belong to the man. However while some FGD participants agreed with the key

informant, about half of the FGD participants (particularly women) mentioned that the children belonged to the woman and her family and even cited the same proverb quoted by among participants of matrilineal descent.

"In most cases it is the mother's side which is their village. Because sometimes the man may even tell the children to go their Uncle's village because he knows that the Uncle's side is the village for his children. In most cases during divorce the woman takes most of the children and goes with them and maybe leaves you the man with only one child. In some cases she may even carry all. There is a saying that children are for the woman. The woman is the one who takes the children when divorce takes place." (Lunda male, 35 year+, no education, married, 4+ both sexes, RMB)

Concerning inheritance of leadership and property, in almost every FGD, it was stated that the nephew of the deceased (Sister's son) inherited property and the throne among tribes of matrilineal descent. The nephew was the most important male in the clan and would assume the role of father to the deceased's children. Among the patrilineal groups however, with regard to leadership inheritance, a distinction was made between ascent to the royal throne of Chieftainship and to village headman ship.

TRADITIONAL LEADER 1: "Long ago property sharing used to be 50-50. But now there is confusion among matrilineal tribes like ours. People still want property to be shared in half between the two families like it used to be, but the government has brought confusion. Today if a man dies, the children get 50% and the wife 20%, which means most of the wealth, goes to the woman's side. That has caused a lot of confusion and people are not happy about that rule because they have violated our traditional norms. But we are matrilineal. So even chiefs are only from the mother's side. You see my children cannot be Chiefs, but my Sister's sons can because we are matrilineal." (RMB).

The key informant also revealed that whereas inheritance of Chieftainship runs through the male line and *only* sons can inherit the throne. However, regarding village headman ship, there is a striking resemblance with the ethnic groups of matrilineal descent because maternal nephews or grandsons inherited the throne of headmanship as this is passed through the female line.

Most study participants of both lineage stated that the traditional system of inheritance was no longer observed as it was now the children that were inheriting their father's property. While some of the male participants attributed this to the new Government laws and were happy with it, others felt it had destroyed the culture and that it was unfair to be taken to court for getting your relative's property. Inheritance to the throne had however not changed as the nephew or grandson still assumed the throne of the deceased because '*he is the offspring of the clan*'

It was also revealed in some male FGDs that this was also changing as sons were now inheriting village headman ship and not nephews and grandsons...*“So that the children also benefit. At first people were ignorant but now they are enlightened as such they go to the father’s side. The position that the nephew occupies has now been given to one’s own children.”* (Lunda **male** patrilineal 35 years+, married, no education, 4+ children)

“In my case it is opposite to what my colleagues have said since we are patrilineal. If I die today and my children are old enough, they will not go with the Mother, but will remain with my brothers. If they are still young they will go with their mother. The idea is that if she leaves the village the children will follow and it will be difficult for us to live with them. Our belief is that children grow well when their biological mother is around and it used to work very well. You find somebody has died and left 3 or 5 children. We believe that their estate is with the Father’s side not the Uncle.” (Tonga **male**, 35 years+, secondary education, married, 3 female children)

With regard to inheritance of leadership, participants stated that nephews inherited the throne among the matrilineal tribes and Tonga participants insisted on following the patrilineal system with regard to leadership and indicated that property was inherited through the male line. Concerning property inheritance, nephews were said to inherit on the father’s side for the patrilineal as the case among the Lozi. However, in most of the FGDs participants also mentioned that the law was now in control of everything and that culture was laid aside.

“Tongas are patrilineal. You never find a woman leader in Southern Province. Whether her Father was a Chief, they get an Uncle or someone else to take over the position.” (Tonga **male**, 35 years+, secondary education, married, 4+ children, LDRa)

“And on that one if to my Mother’s side there is inheritance of headman ship, then they have to produce cows to pay my father for them. I will say no to my father’s side and I will no longer be counted, but to my Mother’s side. For me to become headman at my Mother’s place, they have to pay cows.” (Tonga **male**, 35 years+, secondary education, married, 3 female children).

8.7 Summary

This chapter has presented findings of the demand side factors influencing men and women’s contraceptive behaviour with a socio-cultural context. The results presented in this study were derived from interviews with key informants, FGDs and IDIs with members of the community in the selected study areas as well as interviews with health providers.

In this chapter, the results from all the different data sources and instruments have been presented concurrently to make it easier to compare views on similar topics and across gender, place of residence, socio-economic status and lineage and ethnic backgrounds. The

combination of the different data sources is aimed at gaining a better understanding of the socio-cultural context in which men and women's contraceptive behaviour occur. Since the findings show that there were generally no notable differences in contraceptive behaviour across ethnic or lineage groups, the results presented in this chapter take into account background characteristics, such as gender, rural or urban residence and socio-economic status. It is observed that these factors rather than ethnicity and lineage background accounted for some of the differences observed in this study.

The results in this chapter are presented under different themes which emanated from the data collected and those that were generated before the study was undertaken. These include Knowledge and awareness of family planning, Information access, Attitudes towards family planning, Covert use of family planning, Male involvement, Spousal communication, Socio-cultural factors and Lineage issues. These results are then deliberated upon in the discussion section and thereafter a summary of the chapter is given at the end. The inclusion of traditional leaders is significant in that it has revealed that the potential for engaging community leaders in family planning exists. The importance of this cannot be emphasised especially in view of activities on men's involvement in family planning which can benefit from the support of community leaders. Men in the areas visited without exception are still largely alienated from the responsibility of family planning despite their critical role in reproductive decision-making. Issues in the service delivery mechanism presented in Chapter 9 may shed some more light on the findings from the qualitative study on the socio-cultural context of family planning.

CHAPTER 9

FACTORS INFLUENCING FAMILY PLANNING SERVICE DELIVERY

9.0 Introduction

This chapter is based on results of the qualitative study on the socio-cultural context of family planning in Zambia (see Chapter 7 for details). In the absence of information on supply side factors from the ZDHS such as policy context, logistics, accessibility to methods and so on, a qualitative study was designed to investigate some supply factors influencing contraceptive practice in the areas visited.

In this chapter, the views of health providers and men and women in the areas visited on the supply factors influencing the uptake of contraception among women and men in Zambia are presented. Some suggestions given by study participants on improving family planning service delivery are also given. The findings of this qualitative enquiry are synthesised and discussed in Chapter 10.

9.1 Policy context

In 1997, the Ministry of Health (MOH) of Zambia formulated policy guidelines and framework of operations for family planning and other reproductive health services (see Chapter 3 for details). With the aim of examining the role of policy guidelines in determining family planning service delivery, in this study, district family planning coordinators and facility managers in the areas visited were asked about their knowledge and views of the family planning policy guidelines. They were also asked about factors that hindered or facilitated the implementation of the family planning policies in their respective districts.

In some of the districts visited, the district family planning coordinators seemed unfamiliar with some of the existing policy guidelines relating to family planning. A few of them mentioned having seen the document containing the guidelines while others said they had just heard about it. Suffice to say, all the health personnel interviewed stated that there were only a few policy guidelines that sometimes made it difficult for them to deliver family planning services. Some policy guidelines which were considered helpful in service delivery were also cited by some of the health staff. It should be mentioned that views

were varied as Table 9.1 shows and that some policy guidelines were mentioned by some and not others.

Table 9.1: Health provider’s views on policy guidelines relating to family planning

Positive policy guidelines
<ul style="list-style-type: none">- Removal of spousal consent- Expansion of service delivery network (e.g. chemists, kiosks, TBAs, CHWs, CBDs, shops, bars, workplaces etc)- Wide availability of methods,- Supermarket approach- Provision of services to youths- Free provision of family planning services- Involvement of men in family planning
Negative policy guidelines
<ul style="list-style-type: none">- Supermarket approach- Contraceptive logistics management- Limited method mix
Gaps identified
<ul style="list-style-type: none">- Lack of policies on male involvement- Lack of policies addressing religious beliefs- Lack of policies addressing traditional beliefs and practices

9.1.1 Policy context for service delivery

In all the areas visited, district family planning coordinators commended the removal of ‘spousal consent’ in order to obtain family planning services and the provision of free family planning services to all. However some of the comments made by some male and female FGD participants in the rural areas indicated that some service providers may not be adhering to these policy guidelines.

“When you reach the clinic, you tell the Sister that I have come here for family planning. She will always want information to show that your husband has allowed you to start family planning medication. If you don't have a letter she will tell you to bring your husband.” (Kaonde female, <35 years, no education, married, 4+ children, RMa)

It was also observed that some of the men and women in some of the areas visited lacked knowledge about the policy guidelines. For instance, while most women in the areas visited knew that family planning services were free, some male FGDs participants in rural sites thought that one had to pay for family planning services.

In this study although the views of family planning district coordinators on most policy guidelines were similar, some differences were noted. For example, while health providers

in the urban areas welcomed the ‘supermarket approach’⁸ of delivering services, their counterparts in the rural districts criticised it saying it was an unfair policy considering the conditions they were operating in.

DC4: “Supermarket approach cannot work here. It cannot work because of lack of staff and also the (consultation) room itself is not conducive. You cannot offer services efficiently in a small room like this at any time on any day.” (RMb)

In the urban areas, the district coordinators highly commended the government for the wide availability of a range of methods. In contrast, their rural counterparts complained about the limited choice of methods, stating that they were only supplied with condoms, pills and injections. The district coordinators working in the rural areas suggested that Government should make other methods such as Norplant and IUD more easily accessible in Rural Health Centres (RHCs) as well.

DC4: “Sometimes we have inadequate supply of contraceptives and choice is very limited. In most cases we only have one type, that is Microgynon (pill). We are supposed to have injection, but it doesn't always come” (RMb).

DC3: “It would be good if they could supply us with many different types of contraceptives” (RMa).

I: “Like which ones?”

DC3: “Some districts in Copperbelt province for example offer so many methods. They have implants, Depo Provera, Noristerate and loops which we don't have. I think the government should revisit its policies on contraceptive choice for the rural areas. Most of the people live in rural areas, but most of the commodities go to the few who are in urban areas. Is that fair?” (RMa)

While some of the rural district coordinators expressed concern about the absence of policy guidelines on male involvement in family planning, those in urban areas mentioned that these guidelines existed, although it was acknowledged in one of the districts that activities involving men had not been undertaken in that district.

Some of the district family planning coordinators also identified some gaps in the policy guidelines as indicated in Table 9.1, which they felt could lead to contraceptive adoption if addressed. For example, some service providers in rural sites felt that policies addressing religious and traditional beliefs and practices that discouraged men and women from regulating their fertility would be helpful in service delivery as the following quotations reveal:

⁸ Supermarket approach is one ‘in which services are provided in the same place at the same time, and clients are considered holistically rather than separated by function and body part.’ (Banda et al., 2004, p11)

DC2: *"If the traditions were addressed this would help because our people here are using all sorts of things for family planning. Also the culture says you must have as many children as possible."* (HDRb)

DC3: *"The other problem that we encounter are the church groups. Some do not encourage use of modern methods, just natural family planning. They do not even accept condoms in their clinics. We have two such centres in this district."* (RMa)

DC4: *"I think the government should talk to churches about the benefits of family planning because people are being hindered from using it. If the church hears that people are using family planning they chase them from the Church. The government must look into this."* (RMb)

DC3: *"Sometimes women are not using family planning because their Grandmothers tell them that the family needs children to enlarge the clan."* (RMa)

As part of involving adolescents in reproductive health, one of the strategies of the policy framework is to provide 'young people with the family planning methods they request, subject to them meeting the agreed eligibility criteria without the interference of personal opinions or preconceived biases of the service providers' (MOH and CBoH, 1997, p6). With the added concern of preventing of HIV/AIDS, the Government introduced youth friendly services in some districts which mainly distribute condoms to young people and provide sexual and reproductive health counselling. In the rural areas, some male FGD participants and traditional leaders stated that the use of condoms by young people was against their culture as it encouraged pre-marital sex, something which is prohibited. One man in a HDR area complained that he would not go to the health facility to obtain condoms because they were given out by youths.

I: *"Would you consider using condoms for family planning?"*

R: *"Yes, but the problem is that at our clinic they have assigned youths to be giving out condoms. And so older people like me do not feel free to get them. They should put elderly people there since we are not happy about being given condoms by the youths. The youths do not have respect".* (Lunda male, 35 years+, secondary +, single, 4+ both sexes, HDRa)

9.1.2 Family planning logistics

Generally an effective and efficient logistic and supply system should ensure that service delivery points have adequate contraceptive supplies with good shelf life. This study noted widespread dissatisfaction among the health providers about the way the family planning logistics were managed. It was revealed that the new family planning logistics system which was introduced about six months prior to this study had caused some problems in delivery of contraceptive supplies to some facilities. District health staff and facility managers revealed that whereas in the past district offices ordered supplies straight from

the Government supplier (Medical stores Ltd), in the new system the requisitions had to be sent to the Central Board of Health which would then order the supplies (see Chapter 3 for details). The result, as this study established in the areas visited, were unwanted delays in the delivery process leading to supplies running out before the next order arrives. Some of the district coordinators also wondered whether it was possible to reclassify contraceptives as essential drugs so that they could follow the same delivery protocol as other essential drugs such as TB drugs, which according to them were usually in good supply. Some health providers also felt that the information given on how the new logistics system would work before it was implemented was inadequate. Later after the fieldwork trip, a source⁹ at the CBoH refuted these claims stating that a logistics team had visited every district in the country to explain the new system to service providers.

Box 9.1

DC4: "The availability of the pill is a problem in the district".

I: "How long ago did this district run out of pills?"

DC4: "It was within the last quarter, for about a month."

I: "Did you send the requisition for supplies on time?"

DC4: "Yes, but Medical Stores did not honour it. Instead they just sent us different items. But just when we were about to send someone to Lusaka we received the supplies".

DC4: "The supplies are supposed to come with the other drugs. But I think the people at Medical Stores do not know the importance of having the family planning methods on time, because sometimes they leave them out of the deliveries ...

... We actually order the contraceptives three months before the stocks run out. There is supposed to be that continuity of service delivery, but it does not happen like that. I think Medical Stores has to make an effort to put all the required items on the truck so that they deliver everything that we order at the same time."

9.2 Staffing levels and training

Use of family planning services can be influenced by the levels of staffing as well as service providers' knowledge and skills. In this study, poor staffing levels were prevalent in all the facilities visited without exception. District family planning coordinators blamed poor working conditions such as low salaries, lack of incentives to work (especially in rural areas) and lack of equipment as factors for the low staffing levels. In two RHCs the staffing situation was very critical as there was only one person providing all the clinical services and doing administrative work on top of that. This meant that when the family

⁹. It was not possible to interview the MOH logistics manager at CBoH as she was reported to be out of town and there was no-one else available who could supply the information on logistic operations.

planning provider was absent from the facility or busy with other duties, family planning services could not be provided.

PROVIDER 3: 'I give health education during children's clinics. But I think I should do much more, like talking to one client at a time. You see when we talk in public some women influence others. Some may want to use family planning, but others may influence them. I would really like to see one client at a time, but the main problem is not enough time because I am alone here.' (RMa)

The findings of this study also highlight the inadequacy of the skills of service providers in the facilities visited. District family planning coordinators expressed concern in the skills gap of service providers, particularly those working in the rural areas.

DC3: "We have a shortage of trained nurses, especially in family planning. Most of them are working without being trained in family planning service delivery." (RMa)

DC2: "It's the enrolled nurses who are working the rural areas. Maybe the curricular of the enrolled nurses needs to be revised. Actually there isn't much taught on family planning during their training, it's very basic. I was a Nursing tutor so I know what is taught." (HDRb)

This study noted that two of the providers in this study had not covered family planning in their basic nursing training as the results in Table 9.2 show. While one of them had attended a refresher course since 1993, the other has never had any training on family planning. Four of the providers reported having covered family planning during basic nursing training. Among these, two of them felt that the subject of family planning had not been adequately covered as the comments below suggest.

PROVIDER 3: "We looked at family planning during the basic training, but it was very brief. We did not go into details. Like on some of the methods, they just said there is this and that. For example, sterilisation, they just mentioned it, that's all." (RMa).

PROVIDER 4: "It's like the course was just designed to give you an idea of what family planning is all about. In my view it was not very helpful because the situations we deal with here are very different and the training is not very helpful." (RMc).

Although all the service providers with the exception of one, had over 18 years work experience, most of those working in RHCs felt that they would have benefited from more training in family planning service delivery during their basic training. They emphasised that more regular hands-on training would benefit them a great deal. All the providers, except for one, had attended at least one refresher course since 1993 which included general clinical skills in family planning and five of the providers had also received some training in HIV/AIDS/STI treatment and counselling.

It also came to light that in some of the RHCs service providers were performing duties that they were not trained for as the quotations below reveal.

I: What is the most difficult thing about your job?

PROVIDER 5: [You know], I am just a nurse running this RHC. It is supposed to be run by a Clinical Officer and I have not been given any training on how to run it (RMc).

Box 9.2

I: "Do you do deliveries here?"

PROVIDER 3: "Yes"

I: "Do you have a delivery room?"

PROVIDER 3: "Yes"

I: "So you are a midwife as well?"

PROVIDER 3: No, I am just an enrolled nurse...But there's nothing else I can do because I am the only one at the centre. I have to perform deliveries."

I: "Have you had any training in delivering babies?"

PROVIDER 3: No, I have just been learning through experience."

I: "Does the MOH know that you are conducting deliveries without training?"

PROVIDER 3: Yes they know (RMa).

Table 9.2 presents a summary of skills and type of training family planning providers had received. While the two family planning service providers in the urban sites were Registered Nurses (RGN), all those in rural areas with the exception of one (who was an Environmental Health Technician) were Zambia Enrolled Nurses (ZEN).

Table 9.2: Summary of training background and skills of family planning service providers

Questions	Service provider					
	PROVIDER 1	PROVIDER 2	PROVIDER 3	PROVIDER 4	PROVIDER 5	PROVIDER 6
1. When did you start working at this facility?	2000	1993	2000	2002	2002	2001
2. When did you finish basic training?	1986	1981	1986	1983	1998	1972
3. Did the basic training cover family planning?	Yes, though brief	Yes but not detailed	No	Yes	Yes	No
4. Have you attended any refresher course related to family planning or HIV/AIDS/STIs counselling and treatment since 1993?	Family planning (2000) HIV/STI Yes (2000)	Yes (1996) Yes (1996)	No Yes	Yes (2001) Yes (1995)	Yes (2002) No	Yes (2000) Yes (2000)
5. Did that training include the following?						
General clinical skills in family planning	Yes	Yes	No	No	Yes	Yes
Family planning counselling	Yes	Yes	No	No	Yes	Yes
IUD insertion/ removal	No	Yes	No	No	No	No
Female sterilisation	Yes	Yes	No	No	Yes	No
Vasectomy	Yes	Yes	No	No	Yes	No
Exclusive breastfeeding	Yes	Yes	No	No	Yes	No
Natural family planning	Yes	Yes	No	No	Yes	No
STI screening	No	Yes	No	Yes	Yes	Yes
HIV/AIDS testing	No	Yes	Yes	Yes	No	Yes
HIV/AIDS/ STI counselling	No	No Yes	Yes Yes	No Yes	No No	No Yes

9.3 Service delivery factors

9.3.1 Commodities and equipment inventory

According to Table 9.3, only two facilities had run out of injections in the six months prior to the study. None of the facilities visited had offered IUDs, diaphragms, spermicides, Norplant or emergency contraceptives in the six months prior to the survey or at the time of the survey. Also, none of the study participants across the study sites mentioned having heard of or used spermicides, emergency contraceptives or diaphragms. An inventory of contraceptive supplies showed that pills and condoms were available in all the facilities on the day of the study while injections were available in only four of the facilities.

All the service providers without exception also complained about inconsistent supplies of contraceptives. Some of them admitted that although stock levels for the last 6 months were okay, shortages of pills and injections of up to a month or more in their facilities were common. In one of the districts, the district coordinator mentioned that when stocks run out at the DHO (which distributes the supplies to the health centres), she gets supplies from other health facilities within the district which have adequate stock and then redistributes them to other facilities with low supplies.

Although contraceptive supplies were available in nearly all the facilities at the time of this study, it was revealed that this was not the case all the time as FGD results indicated, a finding consistent with the views of service providers. Women in most rural FGDs and those in the urban poor sub-groups complained of the non-availability of pills and injections at the facilities sometimes, while some of the male FGDs participants in rural sites complained of shortages of condoms. In the two urban sites among the urban poor, it was mentioned that sometimes injections were not available and the nurse would ask them to go back after a few days.

Table 9.3: Contraceptive supplies available at facilities

Type of method	Available at time of study		Available in last 6 months	
	Yes	No	Yes	No
Combined pill	6	-	-	6
Mini Pill	6	-	-	6
IUD	-	6	-	6
Injection	4	-	4	2
Condoms	6	-	-	6
Diaphragm	-	6	-	6
Spermicides	-	6	-	6
Norplant	-	6	-	6
Emergency contraception	-	6	-	6

In family planning service delivery different contraceptive methods require different equipment. The WHO (1996) set a minimum standard for equipment that should be available for the safe provision of contraceptive methods. For instance, safe provision of pills and injections requires monitoring the clients’ weight and blood pressure, while for insertion and removal of IUD, equipment such as trochar and canula, forceps, scissors, sterile gloves and local anaesthetic are required. Facility managers were asked about whether or not the facilities had necessary equipment for examining clients before prescribing methods. In this study, a health facility is considered to have the minimum equipment needed if it met the requirements shown in Table 9.4. All of the facilities had at least basic equipment such as blood pressure machines, adult weighing scales (which are necessary for the provision of pills) and examination couches as Table 9.4 shows.

Table 9.4: Checklist for equipment inventory

1. Are the following available and in working condition at the facility?	No. of facilities with equipment	No. of facilities without equipment
Operating theatre	-	6
Recovery room	1	5
Sterilising equipment	5	1
Gynaecological lamps	4	2
Blood pressure machines	6	-
Adult weighing scales	6	-
Needles	6	-
Syringes	6	-
Examination couch	6	-
Procedure area for IUDs and or injections	6	-

9.3.2 Supervision and protocols

Supervision is an essential component of evaluating service provision in health facilities by ensuring that service delivery protocols are being followed and that appropriate levels of quality of care are being maintained. In Zambia, district family planning coordinators act as supervisors for health facility staff in their respective districts and are required to make supervisory visits every quarter. All the facilities visited reported having had a supervisory visit from the district office in the three months prior to this study’s fieldwork. Some of the district family planning coordinators in the rural areas however said that sometimes it was not easy for them to arrange regular visits to monitor the delivery of services in RHCs because of factors such as lack of transport, fuel shortages and environmental factors (i.e. flooding in the rain season).

Written guidelines or protocols for the delivery of reproductive health services such as treatment of STIs, prescribing of pills or injections and pre-natal care act as important guidelines of operation for service providers. These were available at all the facilities visited. In two of the facilities these protocols were seen physically by the investigator. Protocols for sterilization, IUD insertion, pregnancy and HIV testing were not available in any of the facilities primarily because these services were not offered in the facilities visited.

9.3.3 Accessibility of services

In this study, among the facilities visited only one had been offering family planning services for more than 10 years. The rest had been offering these services for six years or less. Men and women can only use family planning services if they are accessible to them. In this study, all the facilities visited opened every weekday (8:00 am to 4:00 pm), on Saturdays for half a day and on Sundays for two hours in the morning. Various types of reproductive health services were offered at the facilities as Table 9.5 shows.

Table 9.5: Type of reproductive health services provided in health facilities visited

1. Does this facility usually provide the following services? (Tick appropriately)	No. of facilities providing service
Family planning	6
Female sterilization	-
Male sterilization	-
Natural family planning counselling	4
Infertility counselling	2
Exclusive breastfeeding counselling	6
Dual method counselling	3
Pregnancy testing	-
HIV/AIDS counselling	6
HIV/AIDS testing	-
Diagnosis of STIs	5
Treatment for STIs	6

Although all the facilities opened seven days a week, access to family planning services was restricted to designated days and times particularly in the RHCs due to staff shortages. This was confirmed in the female FGDs. In some of the rural areas however the women said that sometimes they were not able to get the services because the provider was not available. The women also mentioned that family planning services were offered only on days and times that coincided with children’s clinic days. In another area, one female FGD participant said that *“if the service provider was not very busy you can get supplies, otherwise you will have to go back another day”*. This is one of the areas where the service

provider was the only staff member at the health facility. The magnitude of workload at this facility was evident by the long queues on the day of the field trip.

In the urban areas accessibility to services appeared to be comparatively better as the quotations below suggest. The pharmacy as a source of methods was only mentioned by women from the LDR areas.

"We are usually attended to within a short time when we go to the clinic" (HDRa).

*"The chemist is very convenient. You just go in and buy and you don't have to wait for your blood pressure to be checked. I think some women have found it convenient to go and buy the pill over the counter because it's quick" (Bemba **female**, <35 years, secondary education, 3 male children, LDRb).*

It was noted that regardless of background characteristics, men did not have much to say concerning their use of family planning services. The main reason cited in most male FGDs was that they hardly ever used the services. Low attendance of male clients was also mentioned by all the service providers interviewed. On the question of why they did not use the services, men's views from rural and urban sites are summarised in the following quotations.

*"Usually men are busy working. Some work from 5 am to 5 pm. So there is no time for them to go to the clinic because it will be closed when they finish work. Some just ignore it saying there is nothing important they can tell me there". (Mambwe **male**, 35years+, secondary+ education, married, 4+ children, HDRb)*

*"I feel the services at the Clinic are not provided properly. They just give condoms there. We don't know why the health facilities and the Government cannot think about us also". (Luvale **male**, 35 years+, no education, married, 3 male children, RMc)*

*SPK6: "Usually men are shy. For you to go to the clinic where there is a female nurse, one feels shy. That's why most of us fail to go there and get". (Kaonde **male**, <35 years, no education, married, 4+ children, RMa)*

*SPK3: "We feel shy to go and start asking for condoms from a female nurse. Unless you are very outgoing....". (all laugh) (Kaonde **male**, <35 years, secondary education, married, 4+ both sexes, RMa)*

*SPK10: "We should have male nurses so that even if you go there you can talk freely than to a female nurse. You could be thinking that she would be thinking that you are promiscuous". (Kaonde **male**, 35 years+, no education, married, 4+ both sexes, RMa)*

9.3.4 Choice of methods

This study found that the only family planning methods clients could obtain from the health facilities visited in both rural and urban areas were injections (Depo provera or

Noristerate (which was only available in the urban areas)), pills (Microgynon and Microculut (mini pill) and condoms. Although IUD was not offered at any of the facilities visited, one urban provider said she had been trained on how to insert IUD, but was not very confident with performing the procedure although she had successfully inserted it in a fewer than five clients.

All the providers in this study said that they gave one packet of pills to first time users. The other two said they gave old clients three packets. This was done to ensure that the client returned so that the service provider could follow-up on the pill use. Four of the providers also mentioned that they gave one packet of pills as well to those who had successfully used the pill for 12 months. Some of the providers in the rural areas said they gave 20-30 condoms to clients (who were usually young men) per visit to the facility.

Some of the service providers mentioned that the shortages in contraceptive supplies sometimes discouraged women from continuing use or adopting methods for the first time. These views were also echoed in the women's FGDs among the urban poor. One provider said that sometimes when pills were out of stock, she advised the women to buy pills (safe plan) at the facility or buy them from the chemists. In two of the sites, it emerged that sometimes pills were unavailable not because of stock-outs but because they had expired.

I: "Do you currently have adequate stocks of contraceptives?"

DC1: "Yes we do, except for Microlut which is expiring in June (this interview took place in May). It's not fast moving because it's a mini- pill" (HdRa).

DC4: "The one which we had, (Microgynon) expired last month. The one we have in stock is Microlut which is only good for breastfeeding mothers. We also have safe plan which we buy from Society for Family Health, but it is also out of stock. It finished this morning" (RMb).

In two other areas women said that their main difficulty was that the methods never reached them because their village was remotely located. They complained that the Community Health Worker (CHW) only had malaria tablets and that outreach workers who visited the area occasionally only seemed concerned about AIDS issues. The latter view was also expressed in the men's FGD in this area.

Concerning sterilization, this study noted that most urban upper class women were in favour of female sterilization and felt that if proper mechanisms were in place, more women would opt for this method. According to them, the procedure for ascertaining

medical eligibility for sterilization takes quite long and in the process many women get discouraged. In addition, the urban upper class women stated that sterilization was out of the reach of most women for a number of reasons as the following quotations reveal:

*SPK3: "Most women who have reached the stage of not wanting anymore children want TL (tubal ligation), but it is expensive at K250, 000.00, who can afford that? I think they should offer such services at a cheaper price say K100, 000 it's quite affordable not K250, 000.00. It is quite discouraging and you found that a lot of women who will end up having 5 children instead of 4. I am talking from experience laughter". (Bemba **female**, 35 years+, secondary education, married, 4+ children, LDRb)*

*SPK5: "There is a clinic where I went and I was told to come with my husband" (Lozi **female**, 35 years+, secondary education, married, 4+ children, LDRb)*

*SPK2: "It is a bit illegal to do that as but when I go to get my pills they don't ask me to bring my husband.....They will ask you how many children do you have by the way and why do you want to have TBL? And you are still young and these are some of the attitudes". (Bemba **female**, <35 years, secondary education, married, 3 male children, LDRb)*

ALL SPEAKERS: Laughter.

*SPK7: "For sterilization, I think the health personnel shouldn't make it difficult for some of us who want to be sterilized because each time you go there to make an appointment they say you go and think about it because now I think even at the age of 35, 36 it is advisable to go for sterilization. Once you go there you discuss with your husband that's it". (Lozi **female**, <35 years, secondary education, single, no children, LDRa)*

*SPK4: "I think they [service providers] should listen to the woman, especially those with a lot of children and who have difficult husbands. So if the hospital can sterilize the woman soon after delivery it can be better". (Ngoni **female**, <35 years, secondary education, single, 3 female children, LDRa).*

Some rural female participants in one area stated that access to tertiary health institutions for sterilization was difficult because of their local provider's bias against the method. It was revealed that service providers turned away women who wanted to be sterilized because they had three or less children or were too young in their opinion. For example, a 26 year old FGD participant talked of how she was denied sterilisation after her third child because of her age and parity. The local service provider refused to refer her to the Government hospital for sterilisation and without the referral letter the woman said it was unlikely that she would have been attended to at the hospital.

Provider bias against sterilisation was also noted during the interviews with some of the service providers. It was quite apparent that some of them were reluctant to refer clients for sterilisation, while others stated that they would only make a referral if the woman was

having problems in pregnancy or had high parity *and* her spouse was in agreement with the decision.

9.3.5 Dual protection

In this study it was noted that there was generally a lack of understanding among study participants and service providers alike of what was meant by ‘dual protection’. After the interviewer gave the meaning, all the providers said that they had heard about it and talked about it to clients. All of them however admitted emphasising HIV/AIDS protection rather than pregnancy prevention in relation to condom use. One rural provider mentioned that some women in the catchment area did not associate condoms with family planning but rather they associated them with HIV/AIDS prevention (see details in Chapter 8).

Most of the providers spontaneously talked about ‘dual method use’ (use of any two any contraceptive methods to prevent pregnancy). Dual method counselling was only provided in three out of the six facilities visited. The three providers mentioned that they only gave this type of counselling if a client was found with an STI. If the client was on the pill or injection they would be advised to use another method such as condoms or abstinence.

9.3.6 Physical barriers to use of family planning services

In one of the rural sites visited, it was learnt that the high levels of water during the rain season caused severe flooding for close to six months and thus made it virtually impossible for clients to access the health facility during this period. Consequently, the service provider said she gave clients an ample supply of pills for this period. She stated that the situation was a bit complicated for the few clients who were using Depo Provera because they needed a re-supply after three months.

I: “So what do you do about clients on injectibles?”

PROVIDER 6: “Luckily there are only a few on injectibles, I give them condoms or ask them to use pills.”

I: “What is the women’s reaction to this?”

PROVIDER 6: “Some, they take the condoms others don’t. But like I said only few women here use injectibles because of poor supply. In fact I think currently there are only two who come here.” (RMc)

Distance to the facility was also an issue of concern in some of the rural and urban sites. Participants in the FGDs mentioned that because the clinic was far, it was difficult for them

to seek services. In two of the areas visited with catchment areas as far as 10-18 km from the health facility, women complained about the long distant to the facility. On the supply of methods, some of the women in these areas wondered why they could not be given enough pills to last for six months instead of three months.

*SPK12: "The Clinic is far (12 km) from here and there is no transport from here. When I went there this morning I was so scared that I was running most of the time. I couldn't see where I was coming from and where I was going because it was dark. It is so scary that if one is attacked she can easily be raped". (Bemba **female**, <35 years, secondary+ education, single, 3 male children, HDRa)*

*R: "The clinic is far and the path is bushy. There are no houses in between..... Sometimes the staff at the clinic pledge to come, but they fail saying they have no transport, so you have no choice but to walk there". (Lunda **female**, secondary+ education, single, 4+ children, HDRa)*

*"We would like the clinic to be brought in this are, so that we can have information about family planning and AIDS. The clinic is far (38km) from here." (Lunda **female**, <35 years, no education, married 3 male children, RPb)*

ALL SPEAKERS: "Yes"

9.3.7 Information exchange

The type of information given to clients plays a vital role in ensuring an informed choice of family planning. Informed choice is supported by two basic human rights namely, the right to decide freely how many children to have and when to have them and the right of access to family planning information and services. Most countries including Zambia, have incorporated these two principles in their national population policies. According to Bruce (1990), clients should be given information about the range of methods available, proper use of methods, potential side effects, contraindications of methods, both the advantages and disadvantages, possible impacts on sexual practice and information on follow-up services that are available.

Using a series of questions it was possible to determine the type of information service providers gave to new clients (see Table 9.6) and also the type of information they obtained from clients in order to assess and understand their family planning needs (see Table 9.7). While nearly all the providers stated that they discussed multiple methods and how they are used with new clients, only half of them mentioned discussing the advantages and disadvantages of the methods. Also two of the providers did not talk about side effects with clients. The study noted that only one provider said they discussed danger signs or perception of HIV/AIDS risks with clients or told them to inform their doctor that they

were on the pill. Table 9.6 shows the type of information on family planning service providers give to new clients

Table 9.6: Type of family planning information given to new clients

Type of information	No. of providers who gave information
Discuss advantages	3
Discuss disadvantages	3
Discuss side effects	4
Discuss multiple methods	5
Discuss how to use methods	5
Other (<i>Specify</i>)	
Danger signs	1
To inform Doctor about their pill use	1
Perception of HIV risk	1

Part of the interaction between the client and the provider before prescribing a method involves an assessment of the clients’ needs from the information they give. The main objectives of this assessment are to determine that the client is not pregnant, to assess whether any conditions requiring precaution exist for a particular method and to find out whether the client has specific problems that require further assessment, treatment or follow up (JHPIEGO, 1998). The Technical Guidance/Competence Working group and WHO/Family Planning and Population Unit (1996), recommend that a client should also be asked about their reproductive intentions, breastfeeding status, preferred method, previous use of method(s), sexual relations and symptoms of STDs.

In this study it was observed that some of the providers did not mention obtaining some important information (such as that highlighted above) from clients. This type of information would enable providers to make a good judgement of the clients’ needs. For instance, only one out of six providers asked clients about their breastfeeding status, number of sexual partners or regularity of their menstrual cycle. In the absence of a pregnancy test, information on the last menstrual cycle and date of last delivery is important before prescribing hormonal methods. It was noted that information on the last menstrual period was not mentioned by two of the providers, while the date of last delivery was surprisingly not mentioned by any of them. Table 9.7 gives the checklist used to understand and assess new family planning clients’ needs.

Table 9.7: Checklist to understand and assess new clients' family planning needs

Type of information	No. of providers who mentioned information
Number of children	3
Wants more children	2
Method she prefers	3
Breastfeeding status	1
Last menstrual period	4
Number of sex partners	1
Regularity of cycle	1
Partner preferences	-
Level of education	-
Date of last delivery	-
Age	2
Other (<i>specify</i>)	
Reason for use	2

9.3.8 Information, Education and Communication (IEC)

IEC can play an important role in creating awareness and communicating vital information to clients about services. IEC materials have been extensively used in health facilities to inform clients. However some have criticized materials such as posters saying that they often just end up being decorations on the walls rather than vital pieces of information. Posters and brochures on HIV/AIDS and STIs were available in nearly all the facilities visited from newly acquired 'family planning kits' containing guidelines on family planning provision and counselling. Table 9.8 gives an indication of IEC materials available at health facilities visited.

Table 9.8: IEC materials available at health facilities visited

IEC material	No. of facilities having Posters	No. of facilities having brochures/ pamphlets
Family planning methods	4	5
Family planning counselling	2	2
HIV/AIDS	3	4
Other STIs	4	2
Pregnancy testing	-	-

Four of the facilities had posters on family planning (all in English) displayed. Some of the facilities had run out of brochures and only had single copies left. All the providers interviewed complained that the materials given by the Ministry of Health were all in English and therefore not very useful as most of their clients were either unable to read English or could only read a local language. However, although these materials are useful for providing additional information, they are not a substitute for counselling particularly in areas where literacy levels are low.

PROVIDER 2: “You know there was one client, after attending to her I gave a brochure and told her to go and read it at home. When she reached the door, she asked me ‘Sister what should I do with this letter you have given me?’ I told her it wasn’t a letter and that she should go and read it at home because it had some more information on the methods. She then said it was not possible because she didn’t know how to read English” (HDRb).

PROVIDER 1: “These pamphlets are in a way just a waste of money. Some of the women take the pamphlets but they cannot read. You find they have thrown them outside or are using them at the market for wrapping vegetables”. (HdRa).

9.3.9 Procedures for providing methods

In all the facilities visited, service providers reported measuring client’s blood pressure and weight before prescribing the pill. According to WHO (1996), weight is not relevant for eligibility of combined pills, but there may be some concern regarding weight gain with injections. Except in two facilities, all the other providers performed these two examinations before prescribing injections as well. It is recommended that pelvic examinations and screening for STIs be carried out for the safe use of IUD and are not essential in the prescription of methods such as pills and injections (JHPIEGO 1998). The majority of providers did not screen for STIs before prescribing pills or injections. Further, pelvic examination was performed only by three providers before prescribing pills and by only two (out of five) before prescribing injections. Table 9.9 gives a summary of the procedures carried out before prescribing methods.

Table 9.9: Procedures carried out before prescribing methods.

Procedure	Type of method	
	Pill	Injections
Blood pressure	6	5
Weight	6	5
Medical history	4	4
Breast examination	4	4
Screening for STIs	2	2
Pelvic examination	3	2
Urine test	0	0
Haemoglobin test	0	0

In one of the rural health facilities, the provider (who was male) stated that he was unable to perform pelvic examinations because it was considered culturally inappropriate for a man to examine a woman in that way.

PROVIDER 4: “Today there was a woman who was on injections but after a month she developed lower abdominal pains and backache. She came back saying maybe it's the injection. When I was counselling her I said maybe she has PID (Pelvic Inflammatory Disease) because the injection does not cause abdominal pains”. (RP)

I: “So did you do a pelvic examination?”

PROVIDER 4: "No. You see some of these things here are cultural. It's difficult to do a pelvic examination on a client. If I do a pelvic examination on a woman who comes for family planning many will not come back. I can do it if she is sick, but for family planning they will say men are undressing us and they won't come back".

In some of the rural sites visited having male or female providers attend to clients of the opposite sex was also considered culturally inappropriate as the following quotations reveal.

KEY INFORMANT 1: "The nurse at the health centre is female. It's uncultural for her to talk to men, to other people's husbands about sex issues. It's a taboo. We need fellow men in the MOH to get more involved in these family planning issues." (RMa).

I: "Do you think men will use family planning services if the providers continue to be females?"

KEY INFORMANT 1: "No, it's very unlikely. Probably some would come under cover of night to ask for family planning, but not openly. Don't we have men that are trained in this? We need male service providers to educate their fellow men, conduct a clinic just for men, have a men's talk etc. How would the nurse talk to the men? If she has to demonstrate how to use it (condom), how will she do it? It would be a taboo, you would see all the men would not look at her in the face and believe me it would be taken as an insult" (RMa).

9.3.10 Characteristics of facilities

The provision of good services requires good infrastructure among other things. This study also sought to find out whether physical infrastructure necessary for the provision of family planning services such as running water, adequate space and so on were available and appropriate. In all the facilities visited, water supply was generally problematic. The two facilities which had piped water experienced erratic supply and staff often had to draw water from other nearby areas. In the two areas where boreholes were the main source, it was revealed that the water was contaminated with bilharzia in one and in the other with waste products (from pit latrines located a few metres away from the borehole). The problems in water supply mentioned above may indicate that the provider is unable to observe good hygiene practices like washing of hands before and after each consultation, thereby increasing the possibility of spreading infections.

Except for one, all the facilities had electricity but only one had a working electricity generator. Although all of them had separate working toilets (pit latrines) for male and female clients, it was noted that in two of the three facilities which had flush toilets, these were exclusively for staff use, despite being in an area easily accessible to clients. In the other facility flush toilets were for staff and in-patients only, primarily because of the poor water supply.

PROVIDER 4: “Yes we have flush toilets for in-patients and staff and pit latrines for out –patients. When we don't have water we use them too, but that's rare.” (RMb)

All the facilities visited had waiting areas for clients and in five of the six facilities this was situated alongside a corridor outside the consultation room. While in three of the facilities there was sufficient seating for the clients, in the other three, facility managers mentioned that it was common for clients to stand while waiting to be attended to because of insufficient seats. It was observed that all the facilities maintained good standards of cleanliness in the examination areas. In two of the six facilities it was possible for others to hear the conversation in the consultation room. In two of the facilities visited there was lack of privacy as it was possible for other clients to partially observe an examination taking place as the provider and client are only shielded by a flimsy curtain screen.

DC4: “This room (consultation room) is not good. You can't work all the time in a small room like this. There is no privacy and others can even hear you talking to the client.” (RMb).

There was generally a shortage of office accommodation in most of the facilities. For instance, in four of the facilities, there was no designated consultation room for family planning services. In two of the facilities, a consultation room was also used as a storeroom. In one facility each time someone entered the consultation room to get something, the consultation was interrupted. This observation was made by the investigator while at the facility. In the other facility, clients had to wait before getting supplies until consultations had finished in the consultation room where contraceptive supplies were kept. Such factors as highlighted above can affect the quality of care given and the clients' satisfaction with the facility. One key informant had this to say:

KEY INFORMANT 2: “The number of rooms at health centres should be looked into, because you find that the health centre has few rooms, how do you achieve privacy? Some they just use a curtain to partition and if I know your voice I will say oh it's X getting family planning. What I would recommend is that there should several rooms: a maternity room, recovery room, one for critically sick people to rest, two for consultation rooms, files, there should be a place for files and store rooms.” (LDRa)

9.3.11 Monitoring of service provision

In two of the facilities a ‘suggestion box’ was used to obtain feedback from clients on the quality of service provision, while four facilities obtained feedback through meetings with the Neighbourhood Health Committees (NHCs). One service provider talked of a group called ‘Circle of friends’¹⁰ which also gives feedback on family planning services

¹⁰ These are small groups of 3-5 women who come together to share information and experiences about family planning. They also try to recruit new users by inviting them to join the group.

specifically. In this study only two facilities had received feedback from clients which had led to some changes in the six months prior to this study. In two of the facilities, clients wanted injections and temperature readings taken each time they visited the facility (regardless of the illness). In one case meetings with the NHC over these complaints were not fruitful and in the other, staff decided to take temperature readings for all clients. The request for injections on every visit was however ignored as it was considered unethical. Other changes implemented as a result of client’s suggestions included increased community involvement in special health events such as ‘Malaria day’ and ‘World AIDS day’ as well as improvement in the reception given to clients at the facility.

This study noted that staff meetings were the most popular way of receiving feedback from staff members in all the facilities visited. Some suggestions from these meetings had been implemented in the six months prior to the survey in the facilities visited. These suggestions from different facilities included, administrative changes, involvement of all staff in outreach activities, introduction of outreach register, improvement of staff towards work and clients and improvement in monitoring of drug stock.

9.3.12 Suggestions for improvement of family planning service delivery

Study participants and service providers were asked to give suggestions about what could be done to improve delivery of family planning services in their respective areas. The suggestions given are summarised in Table 9.10. Some of the suggestions were mentioned by the community while some were mentioned exclusively by health personnel interviewed in this study. For example, poor staffing levels and training of health personnel was mentioned by all the study participants.

Table 9.10: Suggestions for improvement of family planning service delivery

FGDs, IDIs and Key informant interviews
<ul style="list-style-type: none"> - Removal of users fees (men’s FGD) - Improve staff attitude - Have both male and female providers - More staff required - Train more male providers (men’s FGD) - Improve supply of methods - Expand health facility infrastructure - Increase number of facilities in catchment areas so that the distances are short - Health education (men’s FGD) - Provide funding for community activities - Have programmes for men and women of different ages - Have both male and female providers in centres

Table 9.10: (continued)

District family planning coordinators
<ul style="list-style-type: none"> - Funding for training of local district staff in family planning service delivery - Formulate new policies on religion and traditional beliefs - Improve logistics management - Improve conditions to attract and retain nurses - Improve transport situation - Revise of enrolled nurse curricular - Health education for community leaders - Increase involvement of men - Strengthen CBD, CHW and TBA programmes - Expand method mix especially in rural areas - Improve contraceptive supply - Refresher courses for nurses at the facility
Service providers
<ul style="list-style-type: none"> - Have policies and programmes to involve men - Increase involvement of TBAs, CHWs and traditional leaders - Increased donor involvement. - Increase awareness through IEC programmes - Strengthen activities such as circle of friends - Formulate laws on religious and traditional beliefs - Improve availability of contraceptive supplies - Expand infrastructure - Improve staffing - Capacity building
Facility managers
<ul style="list-style-type: none"> - Improve water supply - Improve facility infrastructure - Improve roads to facilities - Revise logistical management - Expand method mix - Increase staffing levels - Update health staff skills

9.4 Summary

In sum, this chapter has looked at the supply factors influencing the family planning supply environment and how these have impacted service delivery and shaped the context in which men and women's contraceptive behaviour occur. The study has also been able to identify some factors that have facilitated delivery of family planning services. For instance useful policy guidelines that have helped in service delivery such as broadening of the service provision network, provision of youth friendly services and the removal of spousal consent requirement were mentioned by providers. It is also suggested that besides poor provider competence levels revealed in some of the areas visited

Various barriers to service delivery have been identified by health personnel at different levels in the different districts visited. They prevent health providers from offering good quality of care and also act as barriers to men and women's use of methods in this study. Those highlighted include, inadequate staffing, poor working environment, limited method

mix, shortages of contraceptive supplies and inadequate training of staff and poor logistics management. These results along with those presented in Chapter 8 are discussed in Chapter 10.

CHAPTER 10

DISCUSSION AND CONCLUSIONS

10.0 Introduction

This chapter begins with a summary of the thesis. The discussion of the main findings of the qualitative and quantitative analysis presented in Chapters 5, 6, 8 and 9 constitute the bulk of the chapter. The first part of the discussion focuses on the results of the quantitative analysis of contraceptive use and method choice. The section begins with a discussion of the results of the analysis of women's contraceptive use and method choice. This is followed by a discussion of the men's results. The second part of the discussion is based on the results of the qualitative study. The results are discussed with reference to the socio-cultural context of family planning in Zambia and the factors influencing family planning service delivery. This is followed by the conclusions and policy implications of the findings. The Chapter ends with some thoughts for future work.

10.1 Summary of the study

The conceptual framework for this study is largely borrowed from ideas of earlier work by Bertrand et al., (1996). A range of demand and supply factors such as socio-economic, demographic, socio-cultural, political, administrative and service delivery factors have been observed to influence contraceptive behaviour through various ways. The main aim of this thesis was to explore the underlying demand and supply factors influencing *women* and *men's* use of modern contraception and method choice in Zambia. Specifically, the study aimed to: investigate the determinants of contraceptive use and method choice among women and men in Zambia; determine whether regional variations in contraceptive use and method choice are a result of demand factors such as ethnicity and lineage, or supply factors such as access to information; investigate the potential of condom use for dual protection; explore the differences and similarities in the contraceptive behaviour of different ethnic and lineage groups and to understand the socio-cultural context of family planning. Both quantitative and qualitative data were used in this study.

The 1996 ZDHS provided the quantitative data for this study. The statistical software package SPSS version 11.0 was used in managing and cleaning the data. The statistical package STATA Release 7.0 was used in the analysis of modern contraceptive use and

method choice as it is able to account for the survey design. Bivariate analysis was used to determine the characteristics of men and women according to contraceptive use and method choice. Standard and multinomial logistic regression models were used to isolate the effects of various determinants of contraceptive use and method choice respectively. The results of the logistic regression were presented as odds ratios while those for the multinomial logistic regression were presented as estimated probabilities of using a method.

The qualitative information for this study was collected through FGDs and IDIs conducted in 2003 in selected districts of Copperbelt and North-western provinces of Zambia. The main aim of the qualitative study was to understand the socio-cultural context in which contraceptive behaviour occurs, to explore underlying reasons for some of the findings of the quantitative analysis and to identify supply factors influencing contraceptive behaviour which were not addressed in the ZDHS. Information was collected from men and women in the selected areas and from district health personnel and health providers at local service delivery points in each study site visited.

From the results of both the quantitative and qualitative analysis used in this study, it has been established that both demand and supply factors as outlined in the conceptual framework by Bertrand et al., (1996), which was adapted for this study, influence men and women's contraceptive behaviour. It should be mentioned that while it has been observed that contraceptive use is driven by demand and supply factors independently, contraceptive behaviour is also influenced by a combination of both demand and supply factors among men and women in Zambia. For example men in some of the rural areas visited attributed their lack of use of family planning services to the lack of male service providers at the facilities. Another example is that of the demand for contraception being affected by shortages of contraceptive supplies. Some of the women in this study women mentioned that they sometimes got discouraged from using methods because of erratic supply of contraceptives at their local health facility.

This study has also noted important similarities and differences between the factors influencing men and women's contraceptive behaviour which are presented in subsequent paragraphs. Some key findings are that *the place and region of residence, partner's approval of family planning and family planning information source* are important determinants of *both* men and women's contraceptive use and method choice in Zambia.

This study has also observed that some of the results from the men's analysis reveal a different pattern from what has been observed in other studies. For instance, most studies have noted that men with secondary or higher education have the highest probability of using modern methods and are the least likely to use traditional methods. This study has however observed that the chances of using condoms are higher among men with primary education than secondary or higher education while the reverse is observed with regard to traditional methods. The results also show that there is no variation in the chances of using 'pill, IUD or injection' between men with primary or secondary education. Another surprising finding is that urban and rural men virtually have the same likelihood of using condoms. The typical finding in most studies is that urban men are more likely to use condoms than rural men.

Generally the results of this study are not very different from those observed in other studies in the SSA region. At the beginning of this study, it was thought that ethnicity and lineage background would be important in explaining men and women's contraceptive use. However, it has been established that although ethnicity is associated with contraceptive use, the association is a weak one. In addition, the qualitative study conducted found that knowledge, attitudes and practices of family planning are quite similar among men and women of different ethnic and lineage groups. The observed differences among the study participants are due to socio-economic and demographic factors, such as gender, place of residence and socio-economic status rather than ethnic differences. Factors in the supply environment such as poor contraceptive supply, poor logistics and so on are also found to influence contraceptive uptake in the areas visited. In light of the similarity of these findings with those observed in other countries in the region, it is possible to develop generic family planning programmes that can be implemented regionally.

10.1 Discussion of results

The role of knowledge, awareness and education in family planning

DHS data collected in most of SSA over the years indicate that levels of contraceptive knowledge among men and women are considerably high and comparable to those of developed countries. However, most research studies have found that knowledge and awareness of family planning does not necessarily result in contraceptive adoption. Despite high levels of knowledge, contraceptive prevalence levels are still quite low in most SSA countries including Zambia. This study found high levels family planning knowledge and awareness among the qualitative study participants in the areas visited, a finding which

corroborates ZDHS results. DHS results on knowledge can however be misleading as the surveys are designed to find out 'what methods respondents have heard of' without determining 'what they know about the method', for instance. In this study, this limitation was overcome by designing question routes that would also solicit in-depth information.

The qualitative study revealed lack of in-depth knowledge on some methods as misconceptions of how some methods work and perceived side effects of methods such as pills, injections, condoms and sterilization were common particularly among the less educated study participants. The most common misconception noted in this study is that pills cause cancer and infertility. These views were noted particularly among rural men and women and the urban poor. The belief that pills cause cancer and infertility is not peculiar to this study as other studies elsewhere have found similar views. For instance, a study on the factors influencing the uptake of contraceptive use in Malawi, found that women feared getting cancer as a result of using the pill (Opportunities and Choices Programme, Fact sheet 14, 2003). Controversies about whether or not pills cause cancer have been long standing among researchers. Some independent population-based case-control studies suggest that the pill has the advantage of protecting women from developing ovarian cancer (Ness et al., 2000; Westhoff et al., 2000). While a recent study by Marchbanks et al., (2002) dismissed the link between breast cancer and pill use, an earlier study found that menopausal women who had used the pill for over 10 years had a slightly elevated chance of getting breast cancer than those who had not (Collaborative group on hormonal factors in breast cancer, 1996). Although there is no evidence so far to support the association between infertility and pill use, this was a commonly held view, one that has been noted in other studies as well (Castle, 2001; Rutenburg and Watkins, 1997).

While the fears of the risks of getting cancer or sterility are largely based on rumours and misconceptions among rural communities, urban women are more educated and sometimes more well informed and thus their perception of risk could be based on substantive information rather than just rumours. In this study, women were more concerned about side effects than the men and were able to correctly identify known side effects of pills and injections, such as dizziness, excessive or irregular bleeding and nausea. Side effects were also the most commonly cited reason for discontinuation by Bangladeshi women who used the pill (Klitsch, 2002). Concerns about health risks were often cited as a major reason why women decided against pill use in this current study, a finding similar to that observed by Rutenburg and Watkins (1997) in their study in Kenya.

Men and women residing in low density urban areas during the qualitative study were the most knowledgeable about methods probably as a result of their high levels of education and exposure. The role of education in contraceptive adoption has been established in various research studies. A typical result of most research studies including this study is that female education is an important determinant of contraceptive use and method choice (see for example Lutalo, 2000; Bertrand et al., 2001; Gupta et al., 2003; Zlidar et al., 2003). Educated women may value the health and economic benefits of smaller families more than uneducated women and are also more likely to be aware and use modern methods to protect themselves from unplanned pregnancies.

Although both female and male education typically have a direct relationship with contraceptive use, this study has found that the relationship between male and female education and the different methods may not necessarily follow the same pattern. While female education is positively related to use of modern methods, the opposite is observed for traditional methods. In a recent article, Magadi and Curtis (2003) also observed that use of modern methods is higher among Kenyan women with better education while uneducated women tend to prefer traditional methods. Among the men however, this study found an unusual relationship between use of modern methods, traditional method and level of education. For instance, the likelihood of choosing condoms declines as education increases: men with primary education are more likely to use condoms than their counterparts with secondary or higher education. This finding differs from findings of a number of studies which have observed that condom use is positively related to education (Ezeh et al., 1997; Bankole et al., 1999; Adetunji, 2000; Salem, 2004). The marginal difference in the chances of using 'pill, IUD or injection' between men who have primary education and those with secondary or higher education is also an unusual result. Use of modern methods such as pills, IUDs and injections is generally noted to increase with men's education attainment (Dang, 1995; Petro-Nustas, 1999). Some studies have noted that men may misreport use of female methods such as pills, IUDs or injections because they may not be aware of their partner's use or non-use of such methods, particularly if some women use family planning secretly due to husband's opposition. This could therefore account for the result observed in this study. During this study's fieldwork, injections, pills, sterilization and traditional methods were mentioned among methods that women use secretly. Injections were the most commonly mentioned methods for covert use, followed by pills. Injections were said to be easy to hide, whereas pills can be

discovered. Women in this study stated that they use family planning secretly to regulate their fertility as they were finding it difficult to take care of their children in the face of economic difficulties.

It is observed that the probability of using traditional methods is significantly higher among men with secondary or higher education compared to men with primary education. It has been observed in most studies that men with primary education are more likely to use traditional methods compared with their counterparts with secondary or higher education. Further exploration of the data reveals that a large proportion of men with secondary or higher education are aged 40 years and above. This could explain the unusual result since older men are more likely to use traditional methods than younger men. Thang and Anh (2002) also observed a similar pattern in their study on 'Accessibility and use of contraceptives in Vietnam'. The preference for modern methods among educated women could be due to the fact that they are better informed about such methods compared to their counterparts who have never been to school, for instance.

Rural and urban residence and family planning

So far, the most consistent difference in contraceptive use that has been observed over time, is that between rural and urban residents. Various studies including this one have observed that levels of use are higher among urban than rural women (Curtis and Neitzel 1996; Tuone, 1999; Magadi et al., 2001; Katende et al., 2003). According to Salem (2004), in the 25 SSA countries where DHSs have been conducted since 1990, contraceptive use is consistently higher among urban than rural men except in Rwanda where rural men have higher levels of use than urban men. Whereas favourable conditions (e.g. easy availability and accessibility) for using modern methods are prevalent in urban areas, service provision in most rural parts of Zambia is rudimentary and access to services such as family planning is limited. Further, the rural areas in Zambia are characterised by low socio-economic development, poor road and transport networks and comparatively lower female education levels.

The results of the DHS analysis also reveal that current residence is an important predictor of women's and men's choice of methods. In the qualitative study, urban poor sub-groups and rural women and men exhibited better knowledge and higher use of traditional methods than urban participants of high socio-economic status. Possible explanations could be that these methods are easily available in the rural areas and the urban poor may

have stronger links with the rural areas than urban women of high socio-economic status. This study also found that rural women and men in the urban poor sub-groups shared similar views on traditional practices of fertility regulation. It is likely that some of the urban poor populations are migrants from rural areas who have carried their traditional beliefs and practices with them and share similar characteristics such as low education and employment levels, with rural women. Omondi and Ayiemba (2003) in their recent article based on the 1998 Kenya DHS propose that rural to urban migrants may either adapt to the reproductive behaviour of those in the destination area or bring with them limited knowledge, fertility values, and fertility regulation practices from the rural areas.

Urban women in this study have significantly higher chances of choosing all types of modern methods compared with their rural counterparts, a conventional finding in most studies, while among men this is true only for use of pill, IUD or injections. These results conform to the hypotheses that urban residents are more likely to use modern than traditional methods, and that use of traditional methods is higher among rural than urban residents. Traditional methods are more readily available and accessible than modern methods in rural areas. In addition, women living in rural areas are under more pressure to conform to traditional beliefs and practices which encourage the use of traditional methods of fertility regulation rather than modern methods. Programmatic factors such as an erratic supply of modern contraceptives in rural districts as well as a limited method mix are also partly responsible as the qualitative component of this study found.

The surprising pattern of condom use among rural and urban men which shows that they have similar chances of using condoms departs from the typical result of most studies. Most studies have found that urban men are more likely to use condoms than their counterparts in rural areas. (Adetunji 2000; Kiragu et al., 1996; Roudi and Ashford, 1996). This result could be explained by the theory that when a method is widely available and use is widespread, the differences in the different segments of the population are not large. For example in countries where contraceptive methods are widely available like developed countries, the differences in use among sub-groups of the population are minimal (Zlidar et al., 2003). Thus among Zambian men, the widespread availability of condoms in the country appears to have bridged the gap between rural and urban areas. The widespread availability of condoms in the country has been largely influenced by the response to the HIV/AIDS pandemic by Government, NGOs and social-marketing programmes over the years. The study results also reveal wide variations in use of 'pill, IUD or injection' and

traditional methods among rural and urban men. While urban men have a higher probability of using 'pill, IUD or injection' than rural men, the opposite is true for traditional methods. Use of 'pill, IUD or injection' (which mostly constitute of pills in this study) has been observed to be strongly associated with urban residence mainly due to relative ease of availability and accessibility of these methods in urban areas.

Region of residence and contraceptive use

Throughout the modelling of women's and men's contraceptive use in this study, the region of residence is observed to be a significant variable. Four provinces, namely Central, Eastern, Lusaka and Western provinces are found to be significantly different from the respect reference groups for sex. Whereas the results for Lusaka and Central provinces conform to this study's assumption, it is quite surprising that Copperbelt province is not significantly different from the reference category. Copperbelt province is one of the best-endowed provinces with health and education facilities, having been the centre of mining activities in the country for a long time. For the women's analysis it is noted that Copperbelt province is significantly different from Luapula province (see Table 5.5) until family planning variables (respondent's and spouse's approval of family planning) are added to the regression equation. Adding these variables to the model confounds the relationship between contraceptive use and region of residence. A test of significance found that only the relationship between region of residence and spousal approval is significant. The results also show that there is a significant interaction between region of residence and spousal approval. The results suggest that spousal approval has a significant effect on women's contraceptive adoption, particularly in Western province.

Sometimes regional variations may reflect local differences in demographic, socio-economic characteristics and the supply environment (e.g. availability and accessibility of family planning services). A comparison of the characteristics of women in Eastern and Western province such as education, age or rural-urban residence do not reveal much variation with Luapula province. A possible explanation for the result for Eastern province could be the comparatively wider availability of modern methods in this province compared to Luapula province. Eastern province has had a strong Community Based Distribution (CBD) programme, with emphasis on rural coverage since 1994 as part of a public-private partnership in family planning service provision between the Government and the PPAZ (Gordon and Phiri, 2000). The influence of CBD on raising contraceptive use levels has also been observed in a recent study in Zimbabwe by Muwhava (2003) who

examined the effect of the family planning service environment on contraceptive use. He found that women in clusters where CBD was in operation were more likely to use modern contraceptives than those living in areas which did not have the programme. The well-known door to door visits of family planning fieldworkers in Matlab, Bangladesh have now become a mark of success for increasing prevalence levels through community-based interventions. Kirsten and Valente (2003) in their study on Community-based programs in Madagascar found that men's use of modern methods was also associated with communicating directly with a CBD agent. When information access variables are controlled for the regional differences between Western province and the reference group are magnified. Interactions between region of residence and information access variables were performed. The results indicate that only the interactions between region and residence and 'listens to radio', source of condoms and family planning information source are significant.

Region of residence is also found to be significantly associated with women's choice of methods in Zambia. The results indicate that women living in Lusaka province are the most likely to use pills, IUDs or injections. This result is not surprising because the province has a concentration of both public and private health and related services and consequently access to modern methods and family planning services is comparatively easier. Lusaka province also has the largest proportion of educated women, female labour force participation and has a higher proportion of women residing in urban than rural areas. In North-western and Northern provinces, which have comparatively low levels of use of pill, IUD or injection, conditions for adopting modern methods are not as favourable as these provinces are largely rural and disadvantaged in terms of service provision. Most NGOs and other private organisations working in the area of family planning are based in Lusaka province or other urban locations particularly along the line of rail. Unattractive conditions in some of the provinces such as low socio-economic development, lack of appropriate infrastructure, roads and communication could be among the reasons for not setting up programmes in the more rural provinces.

The comparatively lower use of methods such as pill, IUD or injections in the different provinces compared with condoms is largely due to the fact that use of 'pill, IUD or injections' are not as common among Zambian men as is condom use. Reported use of modern methods such as pill, IUD or injection may be low because men may be unaware of their partner's use of these methods since they are female methods and may be used

without the partner's knowledge. Variations in use of traditional methods are also noted. Men in Luapula and North-western are the most likely to use these methods, while those residing in Western province are the least likely users. While the result for North-western and Luapula provinces are expected as these are largely rural provinces and rural populations tend to use traditional methods of contraception more than urban populations, the result for Western province is unusual as it is an equally underdeveloped and rural province. Explorations of the data to try and establish other underlying factors that may be influencing this result do not provide sufficient evidence to explain the results.

Attitudes and practices of family planning

Attitudes towards family planning play a critical role in determining the levels of contraceptive uptake. This study noted that both the respondent's and spouse's approval of family planning are significantly associated with women's use of modern methods. These are important findings with implications for family planning programmes. Further explorations of the data reveal that more women approve than oppose family planning in Zambia. Approval of family planning is a good indication of potential to use methods rather than if one is against family planning in the first place. Some women however may not use contraception despite having positive attitudes towards family planning because they lack access to methods for instance.

Although men in the rural and urban areas visited have high fertility aspirations, this study also noted that men are not necessarily opposed to family planning, a finding similar to that observed in the ZDHS results. Most men in this study also stated that they would be willing to participate in family planning. Like the women, the most commonly cited reason to regulate fertility among men is economic difficulties facing their households. The positive views about family planning expressed especially by women (and some men) in this study indicate a potential for increases in contraceptive use levels if certain factors were taken into account. When asked about what they thought of their spouse's use of methods, it is apparent that some of the men in both rural and urban areas are uncomfortable with it. According to them, contraception undermines their authority and could lead to women becoming promiscuous.

Men and women particularly in the rural areas and traditional leaders interviewed opposed the idea of young people using family planning methods. It was generally felt that family planning was for people with families. Traditionally, young women are supposed to be

virgins when they get married. This study observed that in all the rural areas visited the potential for engaging traditional leadership in family planning exists as they generally had positive attitudes towards family planning particularly for birth-spacing. As was the view of one traditional leader interviewed in this study, issues relating to fertility and its regulation should be talked about all the time among all members of the society.

During the qualitative study, it also emerged that pills are the most popular method among women followed by injections. The reasons given for the popularity of the pill among women in FGDs include easy accessibility and availability. Pills are more commonly used among urban than rural women in the areas visited. Rural women prefer to use traditional methods such as strings, periodic abstinence and withdrawal, than pills because of myths and misconceptions highlighted already. The effectiveness of strings is something that has never been tested clinically. However, some of the female participants in this study mentioned that if the instructions on using strings are followed properly, they are a reliable family planning method, though the consequences of incorrect use include infertility. In spite of fears expressed by some of the urban women residing in low density areas about the effects of prolonged pill use, pills are still the most popular method in this sub-group. The pill is the oldest method in Zambia and is easily available particularly in the urban areas. Better levels of education and modern lifestyles which revolve around formal sector employment could have a greater influence on urban upper class women's use of methods compared with the urban poor or rural women who are mostly self employed or unemployed. In the rural areas visited during this study, it was noted that access to modern methods is often hampered by shortages of supplies especially in the rural areas as study participants and service providers revealed.

An important finding in this study is the generally favourable attitude towards injections among women in the areas visited regardless of background characteristics. The most popular reason cited was that they are 'convenient to use' as they do not have to be carried around, they required only periodic visits to the health facility and could be used without the partner's knowledge, for instance. For some women, these factors override even the side effects of the method such as amenorrhoea or spotting. In Zambia, injections were reintroduced into the method mix in the 1990s after being withdrawn in the 1980s. In this study some of the service providers interviewed mentioned that some first time users in their respective areas preferred injections and that more women were switching from pills to injections. These findings agree with results from Demographic and Health Surveys

which indicate an increase in the uptake of injections among women in Zambia over the 1996-2001/2 inter-survey period. While only a mere 1% of women reported using injections in 1996, 12% declared intentions to use injections in the next year or so. The 2001-2002 ZDHS indicates that the proportion using injections has risen to 4.5% among currently married women, while the intention to use injections in the future has increased to 31%.

While male and female sterilisation are relatively common contraceptive methods in some Western countries and parts of Asia, in SSA use of such methods is negligible. The views of some men and women in this study on sterilisation indicate that the horizon for its acceptance in some of the areas visited seems quite far. Negative views against female sterilisation and vasectomy were more common among men than women in this study. Among the FGD participants, it was noted that there were more favourable attitudes towards female sterilization among some men and women in both rural and urban areas. Pregnancy complications and health concerns were among the major reasons for this. These findings suggest that there is a possibility for female sterilization being an option that women may consider in the areas visited. While another study in Zaire revealed strong cultural barriers to the adoption of voluntary surgical contraception among women, in Kenya, results of a similar study found a more favourable attitude towards female sterilization among couples who considered it as a logical choice for the future (Bertrand et al., 1989).

Clearly, socio-cultural barriers and misconceptions about sterilization exist in the areas visited and do influence the non-use of this method. According to this study's findings, the belief that vasectomy affects sexual performance was the biggest concern for most of the men regardless of background characteristics. The findings of this study are in agreement with those of past studies on sterilization. For instance a qualitative study on attitudes towards voluntary surgical sterilization also found uniformly negative attitudes towards vasectomy in the FGDs (Bertrand et al., 1989). It was noted that most of the men's views were characterised by apathy, ignorance and mainly cultural beliefs, while women's views against sterilization had to do with religion, culture, fear or ignorance. In a study of rural men in Ethiopia, Dibaba (2001) observed very low levels of knowledge on vasectomy. However after explaining the method to study participants, over three quarters expressed favourable views towards vasectomy. Those that were against it stated possible child loss, death or divorce as their reasons.

Spousal approval of family planning

Various studies have reported that spousal opposition to family planning is a powerful obstacle to women's use of methods, therefore the importance of the spouse's approval of family planning cannot be overemphasised (Bhushan, 1996; Biddlecom and Fapohunda 1998, Mahler, 1999 and Castle et al., 1999; Miller et al., 2001). Like most of SSA, men in Zambia tend to dominate couple's decision-making about family size and contraceptive use. Undoubtedly, women *may* be reluctant to use methods if their spouses are against it or may resort to using the methods secretly as has been noted by Biddlecom and Fapohunda (1998) in a study conducted in parts of Zambia. The researchers observed that spousal opposition against contraceptive use influenced covert use indirectly through spousal communication. Socio-cultural norms such as high value placed on children or preference of one sex over the other usually override men's desire for fewer children. As the case is in most SSA countries, in Zambia men are not yet well integrated into the family planning service delivery system and this could affect their use and appreciation of family planning and its benefits. In countries where men have been targeted for family planning, women's use and compliance to methods has been observed to improve (Wang et al., 1998; Population Council, 1995). The Zimbabwe male motivation campaign of 1993 and 1994 demonstrated that involving men in family planning increases couples' communication which ultimately may lead to increased use of methods (Kim et al., 1996).

It is perhaps not surprising that in this study the partner's approval of family planning is significantly associated with women's and men's choice of methods. Further explorations of the data also revealed that the vast majority of men (users and non-users) in Zambia approve of family planning. This finding corroborates other studies which have found that more men approve rather than oppose contraceptive use (Roudi and Ashford, 1996; Ezeh and Mboup, 1997; Salem, 2004). Another study by Ezeh and his colleagues (1996) found that with the exception of West African countries, men's approval for and intentions to use family planning methods are observed to be similar to that of women's. The result indicating the importance of spouse's approval in women's use of methods is not a peculiar in view of the fact that men control their partner's reproductive decisions and their attitudes towards family planning are important. Women may therefore need their husband's permission to use methods such as pills, IUD or injectibles. In a study in Malawi, Zulu (1996) found that while men expected their wives to consult them and get consent about use of modern contraception, they traditionally played a limited role in decision-making relating to use of traditional methods of contraception and initiation of

childbearing. Since condoms are male methods, women require their spouse's cooperation and approval in order to use them as a family planning method. While the probability of using modern methods among women whose spouses approve of family planning is higher than among those whose spouses oppose family planning, women with spouses who oppose family planning are significantly more likely to use traditional than modern methods. It is likely that the spouses' opposition to family planning is with reference to modern than traditional methods. It is also noted in this study that the likelihood of using condoms is significantly higher among single than married women generally. The association of condoms with sex outside marriage may be a reason for their low use among married women. Among single women, their desire to prevent unwanted pregnancies and thus avoid pre-marital child bearing could be influencing their use of these methods.

In this study, it has been observed that married men who approve or oppose family planning use are significantly less likely to use condoms when compared to those who are not in union. This comparatively higher use of condoms (which largely constitute of condoms in this study) among unmarried men confirms findings of other studies which have demonstrated that condom use is much higher among unmarried than married men (Salem, 2004; Alan Guttmacher Institute, 2004). Since condoms are the main contraceptive method used by men in this study, the comparatively lower use of contraceptives among married men in this study suggests that these men and their wives are pre-disposed to the risk of contracting HIV/AIDS, since sexual behaviour studies and other studies have shown that extra-marital sex does exist. Both the 2000 and 2003 sexual behaviour surveys found that about 30% of married men reported having had their last sex encounter with a regular partner. The results of the surveys showed a slight increase in the proportion who reported using condoms during the last sex with a non-regular partner from 39% in 2000 to 42% in the 2003 survey (Mwanamwenge et al., 2004). Using nationally representative data from 16 countries which had detailed histories of contraceptive use, Ali et al., (2004) examined the contraceptive effectiveness of condoms versus pills among other things. They observed that although condoms were less effective for contraception than the pill to prevent pregnancy, the effect on pregnancy rates of couples switching from the pill to the condom would be negligible. They therefore support the promotion of condom use in marriage particularly in view of the HIV/AIDS pandemic.

It is worth noting that men whose partner's approve of family planning have a lower probability of using condoms compared with those whose partners disapprove of use. The

expectation is that men would be more likely to use condoms if their partners approve of family planning than if they do not. The results also indicate that men whose spouses approve of family planning have a higher probability of using 'pill, IUD or injection' than those whose partners disapprove of family planning. The findings of this study suggest that condom use patterns vary widely between married and unmarried men in Zambia. According to Adetunji (2000), levels of condom use may be higher among single than married men because single men are most likely engaged in short-term relationships and may want to avoid unwanted pregnancies and HIV/AIDS/STDs. A comparison of married men who approve or disapprove of family planning and single men reveals that single men are far less likely to have a partner who uses 'pill, IUD or injection'. It is possible that unmarried men are much more unlikely to be aware of their partner's use of methods such as pills, IUDs or injections as these methods can be used without the partner's knowledge. The findings of this study on the existence of covert use of family planning in the areas visited conform to results of an earlier study in parts of Zambia by Biddlecom and Fapohunda (2000). A Ugandan study also observed that some of the women indicated using family planning surreptitiously due to lack of agreement on use with their spouses and sometimes women went ahead and used methods secretly if they anticipated a negative attitude from their spouses (Blanc et al., 1996).

In this study more women among the urban poor than any other sub-group mentioned that covert use of methods existed in their respective communities. In the rural areas however, covert use was mentioned only in a few FGDs in some areas and was said to either be rare or non-existent. The reported low prevalence of covert use in rural areas could be due to the fact that rural women are more subservient to their husbands and fear being found out and the consequences thereof. Both male and female participants mentioned that the consequences of discovery of covert use include divorce and domestic violence. Other studies conducted elsewhere have also noted similar reactions among men to women's covert use (Choque et al., 1994; Blanc et al., 1996; Bawah et al., 1999). The striking difference in men and women's style of reporting of the consequences of covert use are worth noting. Men often distanced themselves from their views on the consequences of covert use while women even sighted examples in their communities. Men would rather give socially acceptable responses, give general views and be seen to be responsible. In this study, it was clear that men are the main decision makers in the home and they have control over their spouse's use of methods. This was found to be the case regardless of

ethnic or lineage background. Although urban women seemed to have more freedom in making decisions about family planning, in the rural areas men control such decisions.

The role of ethnicity and lineage in fertility regulation

It is also observed that ethnicity is a significant predictor of women's contraceptive use and is also a significant predictor of men's method choice in this study. Although ethnicity is a statistically significant variable, the contraceptive prevalence for various ethnic groups is still very low and thus bears relatively little programmatic importance. In the final model, only two ethnic groups, namely Barotse and Tumbuka, are significantly different from the reference group (Luvale). It is also noted that the association between ethnicity and contraceptive use is a weak one. Women from these two ethnic groups mostly reside in Western and Eastern provinces respectively, as this study observed. These two provinces are also significantly different from the reference category as has already been highlighted in the preceding paragraph. The similarity of the results of these two variables suggests that a possible relationship exists between ethnicity and the region of residence. It could be argued that ethnicity is indeed a proxy for region of residence. Explorations of the data indicate that compared with women of Luvale ethnic origin (reference group), Barotse and Tumbuka women are better educated. Also, a comparatively higher proportion of women from these two ethnic groups reside in urban areas.

Among the men, the chances of using 'pill, IUD or injection' are comparatively higher among those belonging to Kaonde and Barotse ethnic groups. These results should however not be over-interpreted as both ethnic groups had very few respondents. There are marked regional differences in method choice. The probability of using condoms is highest among Nyanja men, the majority of whom reside in Eastern province (see Table 6.6). This finding reaffirms the proposition that the CBD programme in Eastern province has had a positive effect on the contraceptive behaviour of men and women in that province. A study in Mali also observed significant differences in condom use among men before and after the CBD program was introduced. Katz and her colleagues (1998) observed that in villages where the CBD program was introduced, levels of use among men and women were much higher than in those where only education programmes were introduced.

Although ethnicity is a statistically significant predictor of men and women's contraceptive use and method choice, the levels of use among the different ethnic groups are still quite low and the associations between region and contraceptive use are low. This result

compares with the results of the quantitative study which observed that men and women's views, attitudes and practices of fertility regulation, were very similar regardless of ethnic and lineage background. This study has also established that while men seem to have high fertility aspirations, women generally do not. Roudi and Ashford (1996) noted that men's ideal family size was higher than women's in their findings of men's family planning practice in Africa using DHS data. It was particularly interesting to note that educated men living in low density residential urban areas shared similar views on high fertility with their counterparts in rural areas and the urban poor. Similarly young rural women and women from the urban poor sub groups had similar fertility aspirations of having few children like the urban upper class women. It appears that the fertility desires of urban upper class women, the urban poor and young rural women are influenced by the economic hardships they face in caring for their children. Urban and rural women in this study also expressed concern for their health as a result of difficult deliveries as one of the reasons for their desire to limit child bearing. Among those who felt there was need to limit family size, poor household economic conditions may act to reverse men's desire for large family sizes as men expressed concern about the high cost of living.

In the study areas, issues of lineage descent such as the rights to children, property and inheritance do not appear to influence fertility decisions, fertility regulation or sex preference among the different ethnic and lineage groups. Additionally, there were no distinctions noted in attitudes or practices of family planning according to ethnicity or lineage type. Beliefs and practices operating in the social environment that influence contraceptive use are not necessarily associated with a particular tribe or lineage in the areas visited. Some studies have also observed that traditional beliefs, values and norms governing fertility and its regulation are similar across ethnic and lineage type (Miller et al., 2001). For instance, Miller et al., (2001) observe that in both matrilineal and patrilineal ethnic groups in Malawi fertility is said to be regulated solely child spacing purposes and not limiting the family size. To achieve this, traditional values and practices such as taboos on sleeping with a breastfeeding mother, physical abstinence and traditional medicines are used. This was also observed in the rural areas visited regardless of ethnic or lineage group. Total abstinence which was commonly practiced long ago is still alive in the rural area, as this study found. This physical separation is meant to help the woman regain her strength after delivery and the absence of sexual contact between the couple helps them to space their children. It is also observed that child inheritance in the event of death or divorce is influenced more by economic factors rather than cultural norms and practices.

Similarly, it is noted that inheritance and property rights do not influence fertility decisions or fertility regulation in the areas visited.

Sex preference in matrilineal and patrilineal ethnic groups do not appear to exist in the areas visited although generally men stated that they would be more satisfied if they had at least a male child as well. In some strong patriarchy societies in West Africa, having a son or sons is the ambition of every man (Isuigo-abanihe, 1994). Some studies in parts of Asia have however noted that son preference particularly in patrilineal societies significantly influences contraceptive behaviour (Population Council, 1997). A recent article by Leone et al., (2003) notes that in Nepal, sex preference decreases contraceptive use while others observe that sex preference decreases contraceptive use and is an important barrier to the increase of contraceptive use.

Information access

It is also noted in this thesis that women and men with multiple sources of information (cognitive access) and those who obtain information from health providers only are better off in their use of methods than their counterparts who have no source of information. Multiple information sources can create a synergistic effect: the more the sources of family planning information, the more likely a person will adopt a contraceptive method. In Tanzania, Jato et al., (1999) found that the more types of media sources of family planning messages women were exposed to, the greater the chances of adopting contraception. Similarly, Kane et al. (1998) found that contraceptive use and was positively associated with obtaining information on family planning from multiple media sources. The source of family planning information is also important in men's choice of methods. Surprisingly, the probability of using 'pill, IUD or injection' is highest among men who do not have a source of family planning information. A plausible explanation for these results is that since it is their partner's who are using these modern methods, they are the ones who seek information and services on these methods.

The results of this study emphasise the importance of the known source of methods. While information on the 'actual' source of information may be more relevant for policy interventions, information on the known source of method provides a good indication of what could be the actual source. The results highlight the importance of private sources relative to public sources. The private sector has been noted to contribute substantially to contraceptive use in Kenya for example, where the strong private-public partnership

eventually translated into a successful family planning programme which has yielded significant results over time (Sai, 1994).

Among the media exposure variables, only listening to the radio regularly is a significant predictor of women's method choice. According to the results of this study, listening to the radio is associated with using pills, IUDs or injections. In Zambia the past five to ten years have witnessed an increase in contraceptive social marketing campaigns on radio where programmes relating to family planning and HIV/AIDS are frequently broadcast. Previous studies have demonstrated the impact of radio family planning programmes on contraceptive adoption (Valente et al., 1994; Vaughan et al., 2000; Kincaid, 2000; Sharan and Valente, 2002). This study has also highlighted the significance of the source of information on family planning among women in Zambia. Cognitive access to family planning information and obtaining information from health providers increases the chances of adopting methods such as pill, IUD or injections. This result is not unusual as 'medical methods' such as pills, IUD and injections are mostly clinic-based and are dispensed by health providers in Zambia.

Ethnicity or information access

One of the objectives of this study was to find out if regional differences in contraceptive use are a result of demand factors such as ethnicity or supply factors such as information access. The results of the analysis performed reveal that among Zambian women, regional variations in contraceptive use can be explained by both ethnicity and information access variables. Specifically regular exposure to newspaper or radio, known source of method and the source of family planning information are important predictors. The importance of these information access variables is also noted in the final model of the logistic regression analysis that was performed with all the correlates of contraceptive use selected for this study. Access to information is a form of empowerment and can lead to contraceptive decision-making. According to the findings, women who read newspapers or listen to the radio regularly are more likely to adopt modern methods than their counterparts who do not. These findings confirm those of other studies that media exposure increases contraceptive uptake (Witwer, 1997; Olenick, 2000 and Vaughan et al., 2000; Islam and Hasan, 2000; Gupta et al., 2003). The importance of exposure to radio in contraceptive adoption is a significant finding in a country where over 50% of women are illiterate. The advantage of the radio is that it is able to reach more people because programmes can be broadcast in local languages and it has wider geographic coverage. An evaluation of the

effects of a radio soap opera on family planning in Tanzania found that family planning adoption among listeners increased. The study also observed an increase in discussions on family planning among couples and peers as a result of listening to the programme (Rogers et al., 1999),

For the men's analysis when separate models were applied for region of residence, ethnic and lineage background and information access variables to establish whether regional differences in men's contraceptive use can be explained by differences in ethnicity or information access, it was observed that only information access and not ethnicity is an important determinant of men's use. While information access variables such as regular exposure to television, source of condoms and family planning information source are found to be important in explaining the regional variations in use, it is however important to note that when all the correlates of modern contraceptive use in this study are taken into account, the source of condoms is the only significant predictor of men's contraceptive use among the information access variables. Unsurprisingly men who do not know a source of condoms are significantly less likely to use methods than those who know a public source (reference category). This result merely confirms the fact that knowledge of a source is an important indicator of contraceptive adoption.

Desire for more children

According to the results, in Zambia, the desire for more children is also an important predictor of women's use of methods. It is observed that 'limiters' and 'spacers' are twice as likely to adopt modern methods as women who want to have children soon. The results of the bivariate analysis for this study indicate that prevalence levels are quite low and are surprisingly about the same for both 'limiters' and 'spacers'. It would be expected that limiters would have much higher levels of use than spacers having made a decision to end child bearing. Observations from DHS data from some SSA countries show that in most countries, spacers either have higher use of methods than limiters, or the levels of use are about the same for both groups (Robey et al., 1996). The desire for fewer children is usually expressed in a rise in contraceptive use, therefore the low prevalence levels observed suggest that there are some underlying factors which are preventing women from using methods. Previous studies by Westoff and Bankole (1995) and many other researchers have observed that unmet need for family planning is common in most of SSA. An array of studies have identified factors such as lack of service availability, poor

provision of services, lack of knowledge, fear of side effects, cultural norms which discourage contraceptive use, spousal opposition and the lack of male involvement in family planning as being responsible for the gap between the desire to avoid or postpone births and contraceptive use (Bongaarts and Bruce, 1995; Ezeh et al., 1996; Zulu, 1996; Bankole and Singh, 1998; Dodoo, 1998; Stash, 1999).

Age and parity and contraceptive use

This study observed that young women in their teens are also more likely to use condoms than older women. These results are not exclusive to Zambia as other studies have had similar findings. For example, Chen and Guilkey, (2003) also found that women in their teens have a lower likelihood of using hormonal methods such as pills and injections than older women above 20 years of age. It has also been observed in this study that use of traditional methods rises as the women grow older. Older women usually prefer to use traditional methods as they are towards the end of child bearing and may be experiencing sub-fecundity, thus have reduced need to use more effective methods.

The number and sex of living children is also significantly associated with women's method choice in this thesis. It is hardly surprising that women who do not have any children have a significantly higher likelihood (70%) of using condoms, than their counterparts with children. Further explorations of the data reveal that most women who had not had a child yet were not in union and were aged below 20 years. Condoms may be more suited to this group because they may be engaged in short term relationships and sex may be spontaneous and sporadic. Their low use of hormonal methods could also be explained by the way reproductive health services for adolescents in Zambia are designed. To increase access to family planning and reproductive health service, youth friendly services were established in some of the health facilities. Peer educators provide reproductive health services and counselling to young people. The programme is strongly biased towards HIV/AIDS and condom distribution is one of its primary goals. Methods such as pills and injections are not provided in these services and can only be obtained through mainstream family planning services which the youth hardly use, hence they have limited access to hormonal methods. It could also be that young women who do not have children are reluctant to use hormonal methods because of fears of their effect on their future fertility. Castle (2003) found that young Malians were reluctant to use pills or injectibles because they believed that these methods would make them sterile. The young Malians indicated strong preference for condoms.

It is not surprising that men who are not yet fathers are significantly less likely to use modern methods than those who have four or more children of both sexes. Compared with men without children, men with high parity and children of both sexes have higher motivation to regulate their fertility as they have most likely achieved their reproductive goals. Childless men on the other hand have unfulfilled aspirations of fatherhood and hence their lower use of modern methods.

As other studies have shown, men who do not have children have the highest likelihood of using condoms while those with high parity (four or more children of both sexes) are the most likely to use 'pill, IUD or injection'. The association between sex of the children and method choice is not straight forward. It is noted that use of modern methods is lower among men with at least three female children compared to those up to three male children only, while the reverse is observed for traditional methods. This may imply that some men without sons may prefer not to use modern methods until they have a son, while those with up to three male children only appear to be more satisfied with having only boys. Arnold (1997) argues that method choice is associated more with the parent's satisfaction of the sex distribution of the children than with the preference of one sex over the other.

Condom use, HIV/AIDS and dual protection

The results of the analysis of condom use indicate that in Zambia the typical male who is using condoms to prevent pregnancy is *young, unmarried and has no children*. It is observed however that the differences in condom use according to marital status are greater compared with those for age or the number of living children. Other similar studies have also found that use of condoms is far much higher among unmarried than married men and younger than older men (Roudi and Ashford, 1996; Serbanescu and Morris, 1997; Gorgen et al., 1998 and Adetunji, 2000). This study's results also confirm results of similar studies conducted in Lusaka and elsewhere which have found that an increasing proportion of unmarried men are using condoms to avoid HIV/AIDS infection (Agha, 1998; Mwanamwenge et al., 2004).

Condoms feature prominently in studies on dual protection as they are about the only method besides abstinence, that is able to protect against both pregnancy and HIV/AIDS infection. It is particularly interesting to note that a significant proportion of Zambian men who are currently using family planning methods are now using condoms to prevent

pregnancy and protect against HIV/AIDS/STDs. This is an important finding in a country with a high HIV/AIDS prevalence. The analysis of condom use for dual protection in this study was however quite limited due to limitations in the data available in the ZDHS. Past research studies on dual protection are also few as this is a relatively new subject. Some which have been conducted focus on the role of IEC and counselling in promoting dual protection. Although the DHS results indicate a potential for men to use condoms for dual protection, readiness of service provision to enhance this may be weak in some areas. For instance, in this study dual method counselling was only provided in three out of the six facilities visited. All the service providers however mentioned that they sometimes told clients about the ability of condoms to protect against HIV/AIDS and prevent pregnancy. All of them however admitted to focussing more on HIV/AIDS protection rather than pregnancy prevention in relation to condom use.

Negative attitudes by men and women towards condoms have been reported in most studies conducted in SSA and this study is no exception. Service providers and key informants in the rural areas said people in their respective areas generally disliked condoms. Although condoms are also known as a family planning device in the areas visited, they are largely associated with HIV/AIDS protection and not family planning. Men and women reported that condoms are largely used by men in non-marital relationships to protect against disease and not in marriage as HIV/AIDS/STDs infection is not really considered a threat. Common reasons given by men and women in this study for non-use of condoms include spousal opposition, partner trust, lack of access (particularly mentioned by some rural participants) and reduced sexual pleasure. Other barriers against condoms identified in some studies include, infidelity, promiscuity, dislike for condoms, perception of HIV risk and stigma attached to condoms (Kigundu et al 1995; Bond and Dover, 1997; Dodoo and Adomako, 1998; Ankomah, 1998; Johnston, 2000; Population Services International (PSI), 2002). With regard to dual protection, while faithfulness, condoms and abstinence were the three methods mentioned that could be used in dual protection, a few rural male and female participants expressed ignorance about the dual function of condoms. Generally more men than women felt it was more important to prevent HIV/AIDS than pregnancy because they wanted to have children. Such views together with the association of condoms with non-marital sex and HIV/AIDS rather than family planning have implications for their promotion for dual protection.

This study also found that communication between couples about HIV/AIDS was said to be more common compared with discussions on family planning. It was noted that men and women have various ways of encouraging fidelity by talking about fears, risks, prevention, prevalence and consequences of HIV/AIDS infection. This suggests that men and women are addressing the issue of HIV/AIDS prevention in their homes. Zulu and Chepnengo, (2003) also made similar observations in a recent study in Malawi. Dodoo et al., (2001) also observed that men and women even use non-verbal communication to inform their partner of their fears and risks of HIV/AIDS infection. This could be due to the sensitivity of such discussions as they reflect lack of partner trust.

Family planning service provision factors

The level of provider's skills is critical in provision of family planning services as it impacts on quality of care. This is important particularly in view of the fact that female education in Zambia determines use and method choice and that the majority of women in Zambia have only reached up to primary school level of education. In addition, the myths and misconceptions noted in this study act as a barrier to contraceptive uptake. In the qualitative study, provider incompetence was reflected in the information provided by service providers and the type of examinations carried out before prescribing methods and the type of information exchange between the provider and client. In some studies client-provider interactions and provider's competence are assessed through observations of the consultations and by conducting exit interviews with clients (Bessinger and Bertrand, 2001). It was however not possible to use these two methods due to time and financial limitations.

The lack of adequate information exchange noted in this study casts doubts on the quality of service provision in the areas visited. The information from the client is critical as it enables the provider to establish the client's needs, while information given to the clients enables the client to make informed choices about contraceptive use. Many studies have shown that good quality of care leads to increase in contraceptive adoption. A recent article based on a longitudinal study in Bangladesh by Koenig et al., (2003) provides compelling evidence that improvements in quality of care are likely to lead to continued use and greater acceptance of methods. 'High quality' of health worker (in the case fieldworker) was found to be associated with a greater chance of adoption of methods. 'High quality fieldworker' was defined as one who responds to clients questions, appreciates client's privacy and provides of enough information. In the areas visited during this study posters

and brochures on HIV/AIDS and STIs were available in nearly all the facilities, however, in some of the facilities visited these were all in English and were virtually of no use as the majority of the people in those areas cannot read English.

Although contraceptive supplies (pills, condoms and injections) were available during the visits to the health facilities, it was established that this was not the case all the time as shortages of methods such pills and condoms were reported to be common. Shortages of contraceptives are often cited as reasons for non-use or discontinuation of methods in most SSA (Zlilar et al., 2003). None of the facilities visited in this study had offered IUD, diaphragm, spermicides, Norplant or emergency contraception in the six months prior to the survey. This confirms the fact that in reality the method mix only has three methods in the areas visited although the method mix in Zambia supposedly consists of at least 10 methods. Interestingly none of the study participants across the study sites mentioned having heard of or used methods such as spermicides, emergency contraception or diaphragm. A study on family planning service provision in Lesotho also found that method mix was limited to pills, injections and condoms (Tuone et al., 2004). This method mix was also typical in the 12 SSA countries where situation analyses were conducted (Miller et al., 1998).

The quality of services provided can also be affected by the levels of staff able to attend to clients at the service delivery point. In this study poor staffing levels were prevalent in all the facilities visited without exception. These were blamed on poor working conditions such as low salaries, lack of incentives to work (especially in rural areas), high turnover of nursing staff and lack of equipment. It was claimed that many health personnel had left for greener pastures in other countries. In two of the RHCs the staffing situation was very critical as there was only one person providing all the clinical services and doing administrative work on top of that. It was also observed that the poor staffing levels resulted in services not been provided as and when clients need them (which is according to government guidelines) and generally the quality of care was poor. Poor staffing levels can also lead to low staff motivation. In two instances, service providers were offering services for which they had not received any training.

Accessibility of services

Without access, family planning services cannot be utilised. In this study family planning services in most of the facilities were only offered on some days and at designated times

due to staff shortages in spite of the 'supermarket approach' policy. All the health facilities visited in this study offered family planning services and other reproductive health services such as diagnosis and treatment of STIs. Although distance to the facility was a problem in a few of the areas visited, the role of outreach programmes such as those using male and female CBDs is an important one.

This study has also revealed that providers and clients in some of the areas visited were unclear about the eligibility for sterilization. There was also provider bias against sterilization which limited access to this method. Other barriers identified against the use of female sterilization are cost, bureaucracy and limited provision of services. Although female sterilization is not popular and its contribution to family planning effort in Zambia is negligible, the favourable attitudes of women in this study (particularly those of high socio-economic status) towards female sterilization suggest that it could be an option worth considering if service delivery barriers such as cost, provider bias, and bureaucracy which were noted in this study are removed.

It was noted that regardless of background characteristics, men did not have much to say concerning their use of family planning services. A major reason given in FGDs was that they hardly ever used family planning services. While rural men stated that the fact that staff at the facilities are mostly women discourages them from using services, urban men stated that they are unable to visit facilities as they are only open when they are at work. Some of the male FGD participants mentioned that they would prefer to be served by a male service provider because they did not feel free to share with the female providers. This suggests that men are uncomfortable to discuss health issues with female providers or may trust a male provider with information more than a female. Research studies in Kenya found that men were concerned about the quality of service and the gender and calibre of the service provider (Fapohunda and Rutenberg, 1999; Nzioka, 2000). Some studies have found that provider bias against men exists and that some providers make men feel uncomfortable and unwelcome (Reveising, 1999; Pile et al., 1999). In some of the areas visited, some participants preferred older providers whom they considered mature and experienced enough.

Policy context and logistics management

Although health providers in this study knew some policy guidelines on family planning and identified those which they felt were helpful and those which were not helpful in their

work, the findings generally reveal lack of familiarity with policy issues among health providers (at all levels) and the public in this study. This is an indication of how some of the health reform objectives are failing to be realised.

This study also noted widespread dissatisfaction among the health providers about the way the family planning logistics are managed. They stated that poor delivery systems cause unwanted delays and erratic supply of methods in their facilities. The service providers complained of lack of good flow of information in the supply chain as well as lack of guidelines and updates of logistics management. Lack of availability and accessibility to contraceptives have been cited in numerous studies, as reasons for non-use of methods. These two aspects are directly dependent on the contraceptive logistics system. If the supply chain is operating smoothly, service delivery points will undoubtedly be well stocked and taking into account the theory that access leads to increases in contraceptive adoption, the role of good logistics cannot be overemphasised. A good logistics system is one that ensures that the right product gets to the right place in the right quality and quantity at the right time. Countries that have achieved considerable success in raising prevalence levels have often had a functioning logistics system. Zambia uses the 'pull' distribution model where health facilities request for supplies from a central body. This method can be effective if there is a good flow of information back and forth through all the levels (Setty-venogopal et al., 2002). As the level of contraceptive use in Zambia rises, the need to coordinate logistics more effectively is imperative if this momentum is to be maintained and even surpassed. Zimbabwe which has had one of the best family planning delivery systems in SSA has maintained consistent distribution of family planning and reproductive health supplies through public and private sectors by having a good logistics system in place. Another example is that of Kenya which has an automated system that collects data when supplies are delivered to district offices. This information is then used to calculate the amount of supplies needed to maintain stocks for the next six months, to schedule deliveries and to plan effective transportation strategies so as to prevent stock-outs (Wilson and Nzoka, 2000).

10.3 Conclusions and policy implications

The findings of this study have highlighted the importance of both demand and supply factors in influencing the contraceptive behaviour of women and men in Zambia. The findings suggest that strategies aimed at promoting the use of contraceptive methods

among men and women in Zambia should recognise the importance of background characteristics and the supply environment.

The significance of female education in the adoption of modern methods is an important finding. Nevertheless, since reaching relatively high levels of education is not feasible in the near future, facilitating cognitive access to family planning information may be key in raising contraceptive adoption. Carefully designed IEC messages disseminated through radio and newspapers can help demystify family planning and inform the public about available services and where to get them. Family planning programmes could maximise use of radio and newspaper as they are found to be highly associated with contraceptive use and method choice. It is important that both English and local languages be used because some sections of the populations are illiterate and these messages may not be of use to them as the qualitative study found. It is suggested that 'drama series' and other types of radio programmes on family planning be designed by local experts who can incorporate local cultural values into the messages. These programmes should have a wide target audience as well since age is observed to be an important factor in women's method choice. Access to newspapers among Zambian women is quite limited mainly due to low literacy, cost and limited availability particularly in rural areas. Nevertheless since regular exposure to newspapers has been found to be a significant factor in women's contraceptive use, it is suggested that family planning be promoted in local newspapers through advertisements and feature stories about family planning.

Perceptions of the risks of contraceptives, particularly pills are often exaggerated. Increased educational efforts by health care providers should emphasize the health benefits of contraception and attempt to dispel the common misconception. Thus in view of the prevalence of rumours and misconceptions and the perceived risk of getting cancers, it is important the IEC messages be designed to specifically educate men and women about the health benefits of contraceptives and their potential side effects so as to enable them to know the 'facts' and the 'myths'.

The importance of current residence in men and women's contraceptive use and method choice has policy implications. These results are reinforced by the findings of the qualitative study which highlighted rural-urban differentials in attitudes and practices as well as family planning service provision in the areas visited. It is proposed that the Government should improve contraceptive supply and expand method mix in the rural

areas as a priority as this was cited as a limiting factor to women's use of methods. Widespread availability of condoms in rural and urban areas should continue as the results reveal similar chances of using condoms among urban and rural men, for instance. It could be that if the provision of pills, IUDs and injections was increased as well, levels of use of these methods would increase too. Government policy can be used to direct NGOs and other collaborating partners in family planning to focus some of their activities in rural areas as well. Kenya particularly achieved substantial increases in contraceptive prevalence which resulted in massive declines in total fertility mainly through close collaboration with the private sector in family planning service delivery (Sai, 1994). Zimbabwe's family planning programme, which is another success story, has had strong emphasis on rural areas right from the beginning.

With reference to the region of residence, programme initiatives should target all the provinces without bias considering the generally low level of use of modern methods among Zambian women which lies between 10-15% for most of the country. However more emphasis should be directed to the provinces whose odds ratios were insignificant when all other factors were controlled for in the modelling of contraceptive use for both sexes. These are Northern, North-western, Southern, Luapula and Copperbelt provinces. It is proposed that the CBD programme in Eastern province which could be the likely explanation for the relative success of contraceptive uptake in that province should be examined closely with a view to introducing the programme in other provinces. Establishing a strong national CBD programme involving both male and female agents could be a step in the right direction considering that the majority of Zambians reside in rural areas and may not easily access services at health facilities which are few and may be located far from the people.

Of importance in this study is the influence of the partner's approval of family planning on women's and men's use and choice of methods. As long as men are kept at bay, women's use of modern methods will remain low, while covert use of methods and its unpleasant consequences could rise. Although fertility aspirations among men are generally high, the realities of difficult economic conditions prevailing in the country appear to be influencing a positive attitude towards fertility regulation among them. However, the lack of use of family planning services by men noted in this study needs to be addressed. In spite of policy guidelines on male involvement the family planning programme still largely focuses on women's needs. It is proposed that a national programme on male involvement with

strategies aimed at promoting use and favourable attitudes towards family planning among men and boys and adopting a male friendly approach to family planning service provision could be designed. In rural areas, these programmes could be developed in consultation with community leaders, so that important cultural aspects that negate or encourage the fertility regulation are addressed. Community leaders can encourage people to seek family planning services, but they can also block attendance if they feel uncomfortable about it.

Men's approval of family planning methods observed in this study indicates that possibilities for dialogue in getting men involved in family planning in Zambia do exist. This can be exploited towards the enhancement of reproductive health for themselves, women and children. Agha (1998) concludes that programs directed at men are more likely to succeed in encouraging condom use than are those aimed at developing women's skills in negotiating condom use because of inequalities between men and women in sexual relations. Since partner's approval is important for both men and women's contraceptive practice, it is suggested that programmes target couples in addition to targeting individual men and women. If men are fully integrated as individuals and couples are counselled together it is possible that there would soon be no need for covert use and its consequences.

The study findings also reveal that young men and women who are not married and have low parity are the likely users of condoms. However, since there is no reproductive age limit for men and the fact that HIV/AIDS affects everyone regardless of age, programmes aimed at promoting safe sex through condom use, for instance, should target married men and women as well. In recognition of the achievement of the national HIV/AIDS program efforts in lowering the incidence of the disease among Zambian youth in the last five years, it is suggested that HIV/AIDS programmes focus attention on promoting condom use for dual protection among couples while at the same time strengthening adolescent programmes. The high proportion of men using condoms for dual protection among condom users in this study shows that the potential exists for promoting condoms for dual protection among all sexually active men. This can be done by modifying condom social marketing strategies to address 'dual protection' and not just HIV/AIDS as has been the case in Zambia. There is need to educate health providers and men and women on dual protection as the results of the qualitative study in the areas visited reveal that such knowledge is limited.

The generally negative attitude towards condoms expressed by the study participants were also confirmed by the service providers, give little hope to its success as a family planning method in the areas visited, unless vigorous promotion campaigns are undertaken. With the extent of the HIV/AIDS epidemic in the country, it is important to educate providers and clients about dual protection. The reluctance of men to obtain condoms in some of the health facilities visited because they are dispensed by young people (in youth friendly corners) should be taken seriously. Such services could be best delivered by service providers themselves as is the case in some of the facilities visited. It is commendable however that family planning services are now available in every health centre in the country, thus ensuring that the services reach even the remotest part of the country as long as there is a health centre.

There is also need to strengthen capacity building and increase recruitment of health providers as the qualitative study found poor skills and staffing levels in the areas visited. One limitation of this study was the lack of examination of the curricular for nurses' training in Zambia. Therefore this study is unable to criticise or recommend changes in the curricular based on the findings in the areas visited. Nevertheless, the results of the qualitative study clearly reveal provider incompetence in service provision which inevitably affects quality of care and contraceptive uptake. Instead of attending short 'chance' courses, all service providers should be given in-service training regularly to update their knowledge and skills. It is also suggested that each supervisory visit should include a 'skills assessment' to ensure that providers are up to date with their skills and knowledge. It is proposed that recruitment strategies be adopted to train more nursing staff and attract men to the nursing profession to specialise in family health nursing. These male providers could serve rural areas in particular where cultural issues predominate. The availability of male providers could increase rural men's access to services.

This study has highlighted the need for a good contraceptive logistics system with good flow of information and understanding of how the system works by providers at all levels. It may also be necessary to eliminate intermediaries in the supply chain such as CBoH and revert to the old system. A strong management information system is also critical if the logistics management is to function properly. An examination of best practice contraceptive logistics mechanisms from other countries which have scored successes in increasing levels of use even among rural populations, such as Zimbabwe and Kenya is strongly recommended. This study also suggests that the information system be improved

so that there is a flow of information back and forth through all the levels, staff be given fresh and clear instructions and training (including Medical Stores staff) on logistics. The added level in the supply chain (i.e. CBoH) has affected supply negatively and should be removed and the old system be re-instated. However, all other systems related to logistics such as transport, telecommunications, personnel etc must be looked into critically. The government should liaise with the donors who supply the commodities so that only supplies with a longer shelf-life are imported and dispatched to the districts promptly.

Communicating policy guidelines to health providers and the general public cannot be overstated. There is need for widespread consultation within the health sector before policies are formulated and the results should be disseminated to all staff involved in service provision. The findings of this study have also highlighted the importance of feedback from all the service providers to policy makers. Unless such issues are looked into, women and men will continue to be underserved in these respects.

Besides embarking on increasing contraceptive use levels, there is need to expand the modern method mix and to shift emphasis from the pill to other modern methods as well. The method mix largely consists of pills, condoms and injectibles. The relatively low use of injectibles (although they are steadily gaining popularity) suggests that more needs to be done in making these methods available to women with ease and promoting them as a safe method owing to their past history of negative publicity in the country in the 1980s. It is necessary to increase publicity and availability of longer-acting methods, especially to rural women. The advantage of such methods is that they do not require frequent supply and administration and may be easier to comply with than the pill, especially among less educated and rural women. The fact that they are clinically based may, however, be a problem in areas where there are few health facilities which may not be easy to reach.

IUD and sterilization still play a marginal role in contraceptive uptake and although the 1997 family planning policy guidelines and the Nurses' act (Article No. 31) was ratified to include insertion and removal of IUDs, this is far from being accomplished in the areas visited during this study. The lack of appropriate skills and equipment for the delivery of IUD were major barriers towards its provision. There is need to address the service delivery issues in the provision sterilization so that it is accessible to women as long as they fulfil the medical eligibility criteria. There is also need for awareness creation if this method is going to be embraced as a family planning in the areas visited. Traditional

leaders could be key in educating older men and women and those with high parity on methods such as sterilization, as cultural factors besides misconceptions were observed to be barriers against sterilization.

Increased awareness campaigns, coupled with adequate provision of a large range of methods and services, facilities with adequate trained male and female providers may go a long way in increasing uptake in the areas visited during this study. Service delivery can also be complimented by CBD. The HIV/AIDS crisis with its consequences of increased burden of care on the part of the remaining relatives could also bring a turn about of cherished cultural norms such as high fertility. While interviews and FGDs yielded important findings in this study, it is acknowledged that the use of other methods as well such as exit interviews and observations which provide a better assessment of the quality of services provided on the day of the survey would have enhanced the results further. The importance of targeting men and couples has been highlighted by the importance of the partner's approval of family planning for both sexes.

Finally, the similarity of the findings of this thesis and those of other studies conducted in the region on a similar subject suggests that it is possible to have similar family planning programmes that will address family planning in the region. The determinants of contraceptive use are quite uniform with those of other demographic and health surveys in the region. In addition, the supply side factors influencing contraceptive uptake in the areas visited are not any different from those observed in other SSA countries. In the absence of wide literature on family planning in Zambia, it is hoped that the findings of this study will provide some information on men and women's contraceptive practice in Zambia and some insights upon which further work can be built upon.

10.3 Future work

The rationale of this study was based on the premise that various factors influence women and men's contraceptive behaviour in Zambia. It was not possible to study the dynamics of contraceptive use in Zambia to provide insights into switching and discontinuation of methods due to the generally low levels of use of modern methods. Such applications are possible in countries where the levels of contraceptive use are very high. It is hoped contraceptive use levels in Zambia will reach high levels in the near future so that it would be possible to perform such an analysis, thus enriching the understanding of the context of men and women's contraceptive behaviour in Zambia. There is also a need to examine the

factors associated with the high level of unmet need for family planning for spacing and limiting among women in Zambia.

While this thesis has established that demand and supply factors that impact on men and women's use of modern methods and their choice of methods, this study also found that the interaction of the two factors provide the context within which contraceptive behaviour occurs. While the past ZDHSs have focussed on the demand side of contraceptive and a pattern of characteristics of users and non-users is now emerging, a Service Provision Assessment study on a national scale is yet to be conducted and this could provide a complete picture of the supply side of family planning for the country as a whole.

Although the supply of contraceptives has improved over the years and has led to an increase in uptake, erratic supplies of methods still exist as the findings of the study reveal. It is suggested that a comprehensive assessment of the factors hindering the existence of an effective logistic system be examined. Best practice examples in logistics management could be borrowed from countries within the region that have overcome such barriers.

Issues in service delivery to do with staffing and training emerged as a major issue in this study and reflected a poor quality of service provision. Also the fact that most health providers commented on inadequacy of training on family planning in basic nurse training there is therefore need to re-examine the training syllabus of both enrolled and registered nurses in Zambia. This study also identified the need to design in-service training programmes for family planning providers to be undertaken on a regular basis in order establish an on-going system for updating skills and addressing issues confronted in service delivery in the different areas of the country.

Community involvement in activities has often been at the heart of programme success. A feasibility study to investigate formation of reproductive health forums addressing men, women and couples reproductive health needs could be undertaken. This may facilitate involving men in family planning through the establishment of men's clubs and male motivation programmes as those in other SSA countries. There is also need to investigate the possibility of strengthening and expanding the CBD programme to cover every area of the country, particularly rural areas where access is sometimes hampered by lack of access to services.

10.4 Limitations of this study

Some limitations were noted in this study. While the quantitative data used in this study were collected in 1996, the qualitative data were collected in 2003. At the time of this study, the latest DHS for Zambia was the one conducted in 1996. Therefore the time lapse between the 1996 ZDHS and the qualitative study which collected data in 2003 could be a limiting factor since the respondents' characteristics are likely to have changed over the six years. However, the results of the 1996 and 2001/02 ZDHS as well as the 1990 and 2000 census for most indicators (see Table 3.1) which are likely to influence contraceptive use did not change significantly over the time period thus their influence on the results is likely to be minimal. Thus it was possible to make some comparisons between the results obtained from the two data sources.

A key factor in the supply side factors is access to contraceptive services which is usually measured by distance or travel time to the nearest service delivery point. According Bertrand et al., (2001) the suitable methodology to examine 'access' is to link data from a household survey to data from a facility-based survey in the same geographic area. Some of the DHS have used a service availability module which covers the supply side factors in more detail. The survey is designed to provide quantitative information on access to family planning and health services (e.g. distance to source, travel time to source, type of family planning services available etc). Although the service availability modules provide useful information on service delivery, one limitation of these modules is that there is little information on the infrastructure of the facilities, the operation, or on provider bias. This particular module was however not included in the 1996 Zambia DHS, thus, it was not possible to examine the role of access to family planning services on contraceptive use in this study.

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APPENDIX A

Table 5.1A: Logistic regression coefficients and standard errors of women's contraceptive use by selected characteristics. Zambia DHS, 1996.

Predictor variables	Standard Errors	P value	95% Confidence Interval	
Age				
15-19 (R)	0.000	-	-	-
20-29	0.164	0.765	0.676	1.334
30-39	0.158	0.085	0.414	1.058
40-49	0.169	0.186	0.472	1.158
Education				
None (R)	0.000	-	-	-
Primary	0.268	0.001	1.011	2.090
Secondary+	0.446	0.285	1.335	3.144
Number and sex of children				
None (R)	0.000	-	-	-
1-3 Males	0.157	0.285	0.555	1.062
1-3 Females	0.141	0.098	0.493	1.062
1-3 Both sexes	0.118	0.101	0.580	1.050
4+ Both sexes	0.173	0.174	0.449	1.157
Childhood residence				
Rural (R)	0.000	-	-	-
Urban	0.116	0.854	0.775	1.235
Current residence				
Rural (R)	0.000	-	-	-
Urban	0.340	0.000	1.651	3.010
Ethnicity				
Luvale (R)	0.000	-	-	-
Bemba	0.276	0.403	0.773	1.896
Tonga	0.402	0.076	0.953	2.603
Lunda	0.552	0.485	0.592	3.014
Kaonde	0.554	0.220	0.768	3.134
Barotse	0.415	0.018	1.102	2.796
Nyanja	0.322	0.394	0.750	2.073
Mambwe	0.336	0.936	0.539	1.955
Tumbuka	0.657	0.015	1.159	3.907
Desire				
Wants within two years (R)	0.000	-	-	-
Wants after two years	0.308	0.000	1.587	2.815
Wants no more	0.383	0.000	1.558	3.096
Region				
Luapula (R)	0.000	-	-	-
Central	0.653	0.005	1.284	3.993
Copperbelt	0.361	0.356	0.747	2.242
Eastern	0.647	0.002	1.353	4.026
Lusaka	0.902	0.000	1.678	5.438
Northern	0.408	0.320	0.746	2.447
North-western	0.547	0.163	0.834	3.140
Southern	0.363	0.604	0.639	2.158
Western	0.925	0.001	1.538	5.423
Respondent's approval				
Disapproves (R)	0.000	-	-	-
Approves	0.373	0.026	1.064	2.580
Partner's FP approval				
No spouse (R)	0.000	-	-	-
Disapproves	9.00	0.529	0.648	1.250
Approves	3.450	0.000	2.783	4.400

Note: * p < 0.05, ** p < 0.01, *** p < 0.001; (R): Reference category.

Table 5.1A (continued)

Reads newspaper

No (R)	0.000	-	-	-
Yes	0.149	0.013	1.061	1.652

Listens to radio

No (R)	0.000	-	-	-
Yes	0.148	0.034	1.019	1.608

Watches television

No (R)	0.000	-	-	-
Yes	0.141	0.915	0.772	1.335

Known method source

Public (R)	0.000	-	-	-
Private	0.469	0.000	2.942	4.807
Don't know	0.045	0.000	0.064	0.255

FP Information source

No source (R)	0.000	-	-	-
Electronic media	0.284	0.990	0.575	1.751
Print media	0.295	0.789	0.488	1.726
Health worker	0.309	0.015	1.096	2.342
> One source	0.276	0.008	1.132	2.241

Acceptability of FP messages

No (R)	0.000	-	-	-
Yes	0.154	0.617	0.662	1.278

Home visit by FP worker

No (R)	0.000	-	-	-
Yes	0.239	0.466	0.775	1.743

Note: * p < 0.05, ** p < 0.01, *** p < 0.001; (R): Reference category.

Table 5.2A: Coefficients and Standard Errors for the logistic regression model (with interaction terms) of women's contraceptive use by selected characteristics. Zambia DHS, 1996.

Predictor variables	Standard Errors	P value	95% Confidence Interval	
Age				
15-19 (R)	0.000	-	-	-
20-29	0.167	0.884	0.696	1.366
30-39	0.160	0.098	0.423	1.076
40-49	0.173	0.217	0.479	1.183
Education				
None (R)	0.000	-	-	-
Primary	0.259	0.064	0.981	2.024
Secondary+	0.424	0.002	1.277	2.995
Number and sex of children				
None (R)	0.000	-	-	-
1-3 Males	0.159	0.311	0.562	1.203
1-3 Females	0.146	0.122	0.499	1.086
1-3 Both sexes	0.120	0.121	0.585	1.065
4+ Both sexes	0.174	0.192	0.461	1.169
Childhood residence				
Rural (R)	0.000	-	-	-
Urban	0.115	0.862	0.777	1.235
Current residence				
Rural (R)	0.000	-	-	-
Urban	0.336	0.000	1.565	2.909
Ethnicity				
Luvale (R)	0.000	-	-	-
Bemba	0.279	0.388	0.777	1.914
Tonga	0.400	0.075	0.954	2.596
Lunda	0.531	0.517	0.584	2.905
Kaonde	0.536	0.253	0.746	3.034
Barotse	0.412	0.019	1.096	2.777
Nyanja	0.315	0.426	0.740	2.035
Mambwe	0.324	0.946	0.509	1.878
Tumbuka	0.641	0.017	1.141	3.820
Desire				
Wants within two years (R)	0.000	-	-	-
Wants after two years	0.311	0.000	1.600	2.843
Wants no more	0.385	0.000	1.570	3.113
Region				
Luapula (R)	0.000	-	-	-
Central	-	-	-	-
Copperbelt	7.002	0.096	0.718	55.816
Eastern	9.888	0.047	1.027	78.444
Lusaka	12.964	0.023	1.410	101.141
Northern	0.000	0.000	2.350	1.140
North-western	11.407	0.132	0.527	127.064
Southern	-	-	-	-
Western	8.613	0.048	1.019	65.215
Respondent's approval				
Disapproves (R)	0.000	-	-	-
Approves	1.211	0.648	0.285	7.467
Partner's FP approval				
No spouse (R)	0.000	-	-	-
Disapproves	1.985	0.495	0.276	14.226
Approves	12.717	0.001	0.296	78.689

Note: * p <0.05, ** p <0.01, *** p <0.001; (R): Reference category.

Table 5.2A (continued)

Reads newspaper				
No (R)	0.000	-	-	-
Yes	0.152	0.011	1.070	1.673
Listens to radio				
No (R)	0.000	-	-	-
Yes	0.150	0.042	1.009	1.604
Watches television				
No (R)	0.000	-	-	-
Yes	0.142	0.813	0.788	1.354
Known method source				
Public (R)	0.000	-	-	-
Private	0.482	0.000	2.990	4.908
Don't know	0.046	0.000	0.064	0.258
FP Information source				
No source (R)	0.000	-	-	-
Electronic media	0.273	0.920	0.559	1.691
Print media	0.287	0.761	0.487	1.693
Health worker	0.299	0.025	1.057	2.263
> One source	0.274	0.010	1.117	2.218
Acceptability of FP messages				
No (R)	0.000	-	-	-
Yes	0.152	0.639	0.669	1.280
Home visit by FP worker				
No (R)	0.000	-	-	-
Yes	0.233	0.484	0.774	1.714
Iregion_2	6.118	0.102	0.704	46.790
Iregion_8	2.920	0.000	0.7820	1.750
Iregion2 X approva11	1.311	0.826	0.162	9.790
Iregion3 X approva11	0.645	0.672	0.970	4.505
Iregion4 X approva11	1.047	0.894	0.183	6.988
Iregion5 X approva11	0.809	0.865	0.131	5.528
Iregion6 X approva11	-	-	-	-
Iregion7 X approva11	1.060	0.867	0.064	10.498
Iregion8 X approva11	-	-	-	-
Iregion9 X approva11	1.233	0.770	0.208	8.322
Iregion2 X husapp2	0.947	0.872	0.089	7.809
Iregion2 X husapp3	0.221	0.128	0.034	1.535
Iregion3 X husapp2	0.596	0.591	0.072	4.469
Iregion3 X husapp3	0.210	0.104	0.043	1.340
Iregion4 X husapp2	0.168	0.095	0.015	1.401
Iregion4 X husapp3	0.180	0.077	0.032	1.197
Iregion5 X husapp2	0.812	0.810	0.100	6.077
Iregion5 X husapp3	0.182	0.070	0.041	1.136
Iregion6 X husapp3	0.458	0.427	0.049	3.606
Iregion7 X husapp2	0.619	0.580	0.047	5.527
Iregion7 X husapp3	0.152	0.047	0.031	0.975
Iregion8 X husapp2	0.098	0.045	0.006	0.945
Iregion8 X husapp3	0.116	0.021	0.024	0.734
Iregion9 X husapp2	0.253	0.198	0.019	2.279
Iregion9 X husapp3	0.237	0.137	0.048	1.520

Note: * p < 0.05, ** p < 0.01, *** p < 0.001; (R): Reference category; husapp denotes partner's approval of family planning

Appendix A1: Tables for the analysis of women's contraceptive method choice

Table 5.3A: Multinomial logistic regression coefficients and standard errors of contraceptive method choice by selected characteristics. Zambia DHS, 1996.

Predictor variables	Coefficient Log (P_1 / P_3)	S. Error	Coefficient Log (P_2 / P_3)	S. Error
Constant	-2.865***	0.709	-2.074	0.723
Age				
15-19	0.000	-	0.000	-
20-29	0.743*	0.321	-0.268	0.260
30-39	0.570	0.374	-0.558	0.354
40-49	0.290	0.394	-0.965*	0.441
Education				
None	0.000	-	0.000	-
Primary	0.152	0.290	1.081**	0.380
Secondary+	0.621	0.333	1.416***	0.430
Number and sex of children				
None	0.000	-	0.000	-
1-3 Males	0.019	0.321	1.129**	0.407
1-3 Females	0.226	0.323	0.962*	0.415
1-3 Both sexes	-0.077	0.237	-0.034	0.350
4+ Both sexes	-0.230	0.582	2.414***	0.507
Childhood residence				
Rural	0.000	-	0.000	-
Urban	0.258	0.173	-0.449*	0.207
Current residence				
Rural	0.000	-	0.000	-
Urban	0.640**	0.206	0.405	0.253
Region				
Luapula	0.000	-	0.000	-
Central	0.361	0.439	1.096*	0.510
Copper-belt	-0.428	0.384	0.125	0.468
Eastern	-0.204	0.378	0.315	0.444
Lusaka	0.558	0.381	0.669	0.465
Northern	-1.142**	0.371	-1.507**	0.544
North-western	-2.075***	0.452	-1.006*	0.472
Southern	-0.657	0.379	-0.212	0.459
Western	0.048	0.406	-0.074	0.492
Partner's FP approval				
No spouse	0.000	-	0.000	-
Disapproves	-1.020***	0.304	-1.314***	0.368
Approves	0.199	0.259	-0.078	0.256
Listens to radio				
No	0.000	-	0.000	-
Yes	0.532**	0.177	0.205	0.206
FP Information source				
No source	0.000	-	0.000	-
Electronic media	0.434	0.539	-0.251	0.482
Print media	-0.915	0.874	-0.920	0.573
Health worker	1.489***	0.370	-0.019	0.311
> One source	1.272***	0.360	-0.102	0.293

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; (R): Reference category. P_1 : Estimated probability of using hormonal methods, P_2 : Estimated probability of using modern 'barrier' methods and P_3 : Estimated probability of using Traditional methods (R).

APPENDIX 2A: Tables for the analysis of men's contraceptive use and method choice

Table 6.1A: Logistic regression coefficients and standard errors of *men's* contraceptive use by selected characteristics. Zambia DHS, 1996.

Predictor variables	Standard Errors	P value	95% Confidence Interval	
Age				
15-19 (R)	0.000	-	-	-
20-29	0.297	0.142	0.899	2.103
30-39	0.397	0.512	0.656	2.327
40-49	0.381	0.667	0.602	2.208
Education				
None (R)	0.000	-	-	-
Primary	0.391	0.953	0.482	2.171
Secondary+	0.752	0.118	0.852	4.129
Number and sex of children				
None (R)	0.000	-	-	-
1-3 Males	0.276	0.418	0.355	1.540
1-3 Females	0.179	0.070	0.299	1.050
1-3 Both sexes	0.235	0.886	0.598	1.559
4+ Both sexes	0.173	0.043	0.236	0.978
Childhood residence				
Rural (R)	0.000	-	-	-
Urban	0.133	0.692	0.717	1.248
Current residence				
Rural (R)	0.000	-	-	-
Urban	0.296	0.003	1.205	2.391
Ethnicity				
Mambwe (R)	0.000	-	-	-
Bemba	0.600	0.705	0.454	3.212
Tonga	0.886	0.377	0.553	4.756
Luvale	0.565	0.867	0.262	3.095
Lunda	0.625	0.898	0.343	3.377
Kaonde	0.707	0.959	0.227	4.087
Barotse	0.624	0.941	0.323	3.387
Nyanja	0.697	0.715	0.403	3.752
Tumbuka	0.517	0.793	0.259	2.810
Desire				
Wants within two years (R)	0.000	-	-	-
Wants after two years	0.236	0.147	0.911	1.862
Wants no more	0.242	0.858	0.661	1.645
Region				
Northern (R)	0.000	-	-	-
Central	0.729	0.034	1.056	4.154
Copperbelt	0.586	0.174	0.805	3.307
Eastern	1.131	0.018	1.183	6.159
Luapula	0.483	0.552	0.590	2.676
Lusaka	1.006	0.027	1.108	5.507
North-western	1.195	0.059	0.965	6.404
Southern	0.483	0.917	0.424	2.596
Western	1.673	0.006	1.442	8.985
Respondent's approval				
Disapproves (R)	0.000	-	-	-
Approves	1.433	0.000	2.419	8.434
Partner's FP approval				
No spouse (R)	0.000	-	-	-
Disapproves	0.096	0.000	0.130	0.541
Approves	0.117	0.005	0.360	0.833

Note: * p < 0.05, ** p < 0.01, *** p < 0.001; (R): Reference category.

Table 6.1A (continued)

Reads newspaper				
No (R)	0.000	-	-	-
Yes	0.159	0.651	0.659	1.298
Listens to radio				
No (R)	0.000	-	-	-
Yes	0.243	0.711	0.700	1.686
Watches television				
No (R)	0.000	-	-	-
Yes	0.239	0.599	0.735	1.703
Known method source				
Public (R)	0.000	-	-	-
Private	0.136	0.533	0.678	1.223
Don't know	0.118	0.002	0.205	0.702
FP Information source				
No source (R)	0.000	-	-	-
Electronic media	0.223	0.197	0.317	1.269
Print media	0.419	0.586	0.610	2.393
Health worker	0.676	0.134	0.838	3.757
> One source	0.432	0.094	0.924	2.707
Acceptability of FP messages				
No (R)	0.000	-	-	-
Yes	0.237	0.557	0.490	1.470

Note: * p < 0.05, ** p < 0.01, *** p < 0.001; (R): Reference category.

Table 6.2A: Multinomial logistic regression coefficients and standard errors of men's contraceptive method choice by selected characteristics. Zambia DHS, 1996.

Predictor variables	Coefficient Log (P ₁ / P ₃)	S. Error	Coefficient Log (P ₂ / P ₃)	S. Error
Constant	-20.454***	1.100	2.854**	1.030
Education				
None	0.000	-	0.000	-
Primary	19.772	0.000	-0.249	0.624
Secondary+	19.323***	0.298	-0.364	0.617
Number and sex of children				
None	0.000	-	0.000	-
1-3 Males	0.160	0.586	0.122	0.605
1-3 Females	-1.300*	0.577	-0.795	0.505
1-3 Both sexes	-0.733	0.456	-0.234	0.453
4+ Both sexes	-0.400	0.419	0.043	0.414
Current residence				
Rural	0.000	-	0.000	-
Urban	1.440***	0.363	0.337	0.354
Ethnicity and lineage				
Luvala (Matrilineal)	0.000	-	0.000	-
Bemba (Matrilineal)	0.523	0.682	0.280	0.622
Tonga (Matrilineal)	1.364	0.829	1.178	0.771
Lunda (Patrilineal)	0.059	0.924	-0.951	0.842
Kaonde (Matrilineal)	0.389	0.997	0.368	0.953
Barotse (Patrilineal)	1.088	1.154	1.660	1.194
Nyanja (Matrilineal)	2.914**	1.139	1.326	1.340
Mambwe (Patrilineal)	0.963	0.787	0.771	0.739
Tumbuka (Patrilineal)	-0.022	0.906	0.520	0.728
Region				
Luapula	0.000	-	0.000	-
Central	0.162	0.790	-0.542	0.737
Copper-belt	0.427	0.724	-0.430	0.670
Eastern	0.066	0.812	-0.017	0.713
Lusaka	-0.243	0.802	-1.444*	0.647
Northern	-0.361	0.791	-0.987	0.691
North-western	-0.161	0.872	0.287	0.788
Southern	0.109	0.874	-1.438	0.871
Western	1.194	1.121	1.037	1.202
Partner's FP approval				
No spouse	0.000	-	0.000	-
Disapproves	-0.108	0.657	-2.783***	0.550
Approves	0.335	0.444	-2.938***	-0.334
FP Information source				
No source	0.000	-	0.000	-
Electronic media only	-2.452**	0.983	-1.021	0.772
Print media only	-0.995	0.817	-0.566	0.749
Health provider only	-0.312	0.972	-1.293	1.005
> One source	-0.771	0.653	-0.480	0.587

Note: * p <0.05, ** p <0.01, *** p <0.001; (R): Reference category. P₁: Estimated probability of using hormonal methods, P₂: Estimated probability of using modern 'barrier' methods and P₃: Estimated probability of using Traditional methods (R).

APPENDIX B

Figure 2.1A: Maximum condom label



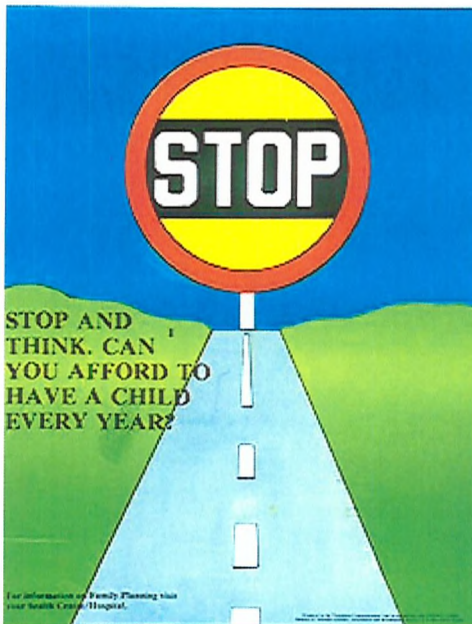
Source:

Figure 2.2A: The family planning logo in Zambia



Source:

Figure 2.3A: Family planning posters



Source:



APPENDIX C

SOCIO-CULTURAL CONTEXT OF FAMILY PLANNING USE IN ZAMBIA:
WOMEN'S FOCUS GROUPS

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia.
(Stating mission: what) We are carrying out a study on family planning to find out what factors influence men and women use or non-use of family planning. We are interested in understanding your opinions on what people like yourselves feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** We feel that talking to people like you can help us find the best practices and opinions about these issues and enable us to help improve service provision in this community. **(Confidentiality)** We would like to assure you that the information you provide is very important and will be treated with confidentiality. **(Participants consent)** We will appreciate your participation and would like to find out if you would be willing to be part of the discussion?

Before we begin our discussion, I will greatly appreciate your help in responding to a short interview. Would you take some minutes to answer a few questions? I will start by asking questions about yourself.

(Interviewer's instruction: Please circle appropriate response)

BACKGROUND INFORMATION: WOMEN'S FGD SIFT QUESTIONNAIRE

		Categories
Q1	Province	1. Copperbelt 2. North western
Q2	District	1. Ndola 2. Kitwe 3. Solwezi 4. Zambezi A 5. Zambezi B
Q3	Village	
Q4	Catchment area	
I would like to ask you about your family life?		
Q5	How old are you?	1. 15-24 2. 25-34 3. 35+
Q6	What is the highest level of education you have reached?	1. None or primary 2. Secondary+
Q7	What is your marital status?	1. Currently in union 2. Currently not in union
Q8	Do you have any children of your own?	1. No > END 2. Yes > GO TO Q9
Q9	How many daughters/ sons do you have?	1. 1-3 females 2. 1-3 males 3. 1-3 both sexes 4. 4+ both sexes

(Show appreciation) Thank you for answering the questions. We are holding a discussion group (*give time and venue*). This will be an informal discussion with 6-12 women like yourself.

(Before the FGD begins) I would like you to be as comfortable as possible throughout the talk. **(Ask for consent for note-taking and recording)** During the discussion, **(note-taking)** my colleague will be taking notes to keep track of the discussion and to remind us if we forget to ask certain things. **(Tape recording)** However, we will also record the discussion on tape in case we do not write what you say properly. Please do not let that worry you. The tape and written material will be kept safe and not shared outside the research team. After writing our report, all the tapes and written notes will be erased, so no-one will know what you said.

WOMEN'S FOCUS GROUP DISCUSSION GUIDE

FERTILITY AND SEX PREFERENCES

(Instruction: Do not spend too much time on this section as it is just a warm-up to get the discussion going)

- How many **children (own)** does the average family in this area have?
- In your opinion, is that **too many, too few or ideal**? *(Probe: cultural etc reasons)*
- Who **decides** on the number of children a couple should have? *(Probe: why)*
- Who do you think **should** decide on the number of children to have? *(Probe: why)*
- Do people in this area **prefer female, male** or children of **both sexes**? *(Probe why separately form men and women)*

FP KNOWLEDGE AND AWARENESS

- Can you tell me about **ways of preventing pregnancy** that you **know of**? *(Probe: modern/traditional).*
- **Where** did you find out about these methods? *(Probe: radio, peers describe messages)*
- **How** are the methods you have mentioned used?
- In this community **what advice** is given to **young people** about FP?
- What do you think are the **best ways of giving information about FP** to people of this community?

Moderators are asked to take time when doing this section. Probe carefully to solicit as much information on socio-cultural issues as possible)

CONTRACEPTION

- Can you tell me about what people in this area **DO to prevent pregnancy**? *(probe trad./modern ways, why/ why not)*
- From what you have just told me what is more **commonly used** in this community? *(Probe why: cultural, religious, etc for each method mentioned)*
- From the methods you have mentioned what are the **least popular methods** in *this community*? *(Probe reasons: cultural, availability etc for each method mentioned)*
- Generally in this community, **what kind of people** are most likely to use FP methods? *(Probe: sex, marital status, parity etc)*

DUAL PROTECTION

- Do you know of any method which can **prevent both unwanted pregnancy and STIs**? *(probe: methods if yes)*
- Is it common for people in this community to use the methods you have mentioned to **prevent pregnancy and STIs**?
- What do you think about the use of such methods?
- What are people's **views** in this community about using **condoms for FP**?
- Where do people **obtain condoms** in this community?
- Do women in this community **perceive** themselves and their partner's to be at **risk** of getting **HIV/AIDS**? *(Probe separately for men and women: Why/ Why not?)*
- What are people in this community doing to avoid getting HIV/AIDS?
- Do men, women and couples here talk about **HIV/AIDS/STDs**? *(Probe content)*
- Are there any **cultural beliefs and practices** in your community about protection against HIV/AIDS/STIs? *(probe for details)*

PERCEPTIONS

- In your view is **FP use good or bad** for your community *(Probe: why/ why not?)*
- Do you think **unmarried people** should use FP? *(Probe: Why?/ Why not?)*
- Who do you think **should be responsible** for FP use between men and women?

- What do you think the **elders** in this community feel about FP use?
- In your view is it more **important** to use a method to **prevent pregnancy or to prevent STIs**?

SPOUSAL COMMUNICATION

- Do women in this community **talk about FP** with their spouses? (*Probe: why?/ why not?, Details of discussions*)
- Who has the **final say about FP** use among couples in this community?
- What do the women in this community feel about **their own** use of FP?
- What do the women in this community feel about **their partner's** FP use?
- Do some wives **hide their FP use** from their husband's? (*Probe: if yes, why*)
- In your view what would the **husband's do** if they find out?

FP SERVICE PROVISION

- Where do people in this community get FP methods from? (*Probe why? distance, convenience, etc.*)
- What factors **make it easy** for people of this community to use FP services? (*Probe separately for men and women*)
- What factors **make it difficult for** people of this community to use FP services? (*Probe separately for men and women*)
- What do you think about the FP services available in your area? (*probe*):
- How best do you think **access to FP methods** in your community can be improved ?
- What sort of improvements would you like to see made to the services that offer family planning in your area? (*probe for: methods preferred, facilities, timings etc.*)

SOCIO-CULTURAL CONTEXT OF FAMILY PLANNING USE IN ZAMBIA: MEN'S FOCUS GROUPS

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia.
(Stating mission: what) We are carrying out a study on family planning to find out what factors influence men and women's use or non-use of family planning. We are interested in understanding your opinions on what people like yourself feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** We feel that talking to people like you can help us find the best practices and opinions about these issues and enable us to help improve service provision in this community. **(Confidentiality)** We would like to assure you that the information you provide is very important and will be treated with confidentiality. **(Participants consent)** We will appreciate your participation and would like to find out if you would be willing to be part of the discussion?

Before we begin our discussion, I will greatly appreciate your help in responding to a short interview. Would you take some minutes to answer a few questions? I will start by asking questions about yourself.

BACKGROUND INFORMATION: MEN'S FGD SIFT QUESTIONNAIRE

		Categories
Q1	Province	1. Copperbelt 2. North western
Q2	District	1. Ndola 2. Kitwe 3. Solwezi 4. Zambezi A 5. Zambezi B
Q3	Village	Q4 Catchment area
I would like to ask you about your family life?		
Q5	How old are you?	1. 15-24 2. 25-34 3. 35+
Q6	What is the highest level of education you have reached?	1. None or primary 2. Secondary+
Q7	What is your marital status?	1. Currently in union 2. Currently not in union
Q8	Do you have any children of your own?	1. No > END 2. Yes > GO TO Q9
Q9	How many daughters/ sons do you have?	1. 1-3 females 2. 1-3 males 3. 1-3 both sexes 4. 4+ both sexes

(Show appreciation) Thank you for answering the questions. We are holding a discussion group (*give time and venue*). This will be an informal discussion with 6-12 men like yourself.

(Before the discussion begins) I would like you to be as comfortable as possible throughout the talk. **(seek consent to take notes and record discussion)** During the discussion, **(note taking)** my cooleague will be taking notes to keep track of what we have covered and to remind us if we forget to ask certain things. **(Tape recording)** However, we will also record the discussion on tape in case we do not write what you say properly. Please do not let that worry you. The tape and written material will be kept safe and not shared outside the research team. After writing our report, all the tapes and written notes will be erased, so no-one will know what you said.

MEN'S FOCUS GROUP DISCUSSION GUIDE

FERTILITY AND SEX PREFERENCES

(Instruction: Do not spend too much time on this section as it is just a warm-up to get the discussion going)

- How many children (**own**) does the **average family** in this area have?
- In your opinion is that **too many, too few or ideal**? (*Probe: cultural etc reasons*)
- Who **decides** on the number of children a couple should have? (*Probe why?*)
- Who do you think **should decide** the number of children to have? (*Probe: why*)
- Do men in this area **prefer female, male or children** of both sexes? (*Probe: why separately for men and women*)

FP KNOWLEDGE AND AWARENESS

- Can you tell me of **ways of preventing pregnancy** that you know of? (*probe trad./ modern*)
- **Where** did you hear about these methods? (*Probe if Radio, T.V., Posters describe*)
- Can you **tell me how** these methods are used? (*probe for each method*)
- What do you think are the **best ways of telling men about FP** in this community?
- What **advice** is given to **young people about fertility regulation** in this area?

Moderators are asked to take time when doing this section. Probe carefully to solicit as much information on socio-cultural issues as possible)

CONTRACEPTION

- What do men in this area **DO or use anything** to prevent making a woman pregnant? (*probe trad./ modern way*)
- With whom do they use the methods you have mentioned? (*Probe: inside marriage, outside marriage, why for each method*)
- From what you have told me what are the **common methods**? (*Probe reasons for each method e.g. cultural, religious, availability etc*)
- From the methods you have told me, what are the **least popular** methods? (*Probe: why for each method mentioned*)
- Generally, what **kind of people** are most likely to use FP (*probe for methods*) in this community? (*Probe: sex, marital status, family size etc*)
- Are there any **cultural beliefs and practices** observed by the men in this area with regard to FP? (*Probe for details*).
- In your view are these **traditions** helpful or not? (*probe: why/ why not?*)

DUAL PROTECTION

- Do you know of any method which can **prevent both unwanted pregnancy and protect against STIs**?
- Is it common for people in this community to use these methods to **prevent pregnancy and STIs**?
- Where do people in this community get condoms? (*Probe: cost, easily accessible*)
- What do men in this community think about using condoms for FP? (*Probe for details*)
- What factors influences the decision to use condoms? (*probe: type of relationship; when etc*)
- Do you think men in this community **perceive** themselves and their partner's to be at **risk of getting HIV/AIDS**? (*Probe separately regarding men and women*)
- What are men in this community doing to **avoid getting HIV/AIDS**?
- Do husbands and wives **talk about** issues related to HIV/AIDS/STDs?
- Are there any **cultural beliefs and practices** in your community about HIV/AIDS prevention? (*probe for details*)

PERCEPTIONS

- In your view is FP use **good or bad for your** community? (*probe: why/ why not?*)
- What do you think about unmarried men and women using FP? (*Probe: reasons*)
- Who do you think should be responsible for FP between men and women? (*probe*)
- What do you think the elders in this community feel about FP?
- In your view is it more important to use FP to prevent a pregnancy or to prevent STIs?

SPOUSAL COMMUNICATION

- Do men in this community **talk about** FP with their wives or girlfriends? (*Probe: Why?/ Why not?*)
- What do couples talk about concerning FP? (*Probe: decision to us, method etc*)
- Who has the final say about FP use among couples?
- What do men of this community feel about **their own FP use**?
- What do men of this community feel about their **partner's** use of FP?
- Do some women hide their use of family planning from their husband's? (*Probe: Why/ why not?*)
- What do you think would be their husband's reaction if they find out?

FAMILY PLANNING SERVICE PROVISION

- Generally, what type of services do men in this area frequently use at the health facility?
- Where do men in this community **get FP methods** from? (*Probe: why: distance, convenience, etc*)
- What factors **discourage** men from using FP services in this area? (*Probe: place, provider characteristics, etc*)
- What factors **would encourage** men to use FP services in this community? (*Probe: place, timing etc*)
- In your opinion would men use FP services if these things you have mentioned were in place? (*Probe: f not, explain*)
- What FP methods would you like to be offered in your area?
- What other medical or health services besides FP, do you think men in this community would like to be offered to them?
- How best do you think these services you have mentioned could be offered to men? (*probe: for details*)

WOMEN'S CASE STUDY GUIDE

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia.

(Stating mission: what) We are carrying out a study on family planning to find out what factors influence men and women to use or not use family planning. We are interested in understanding your opinions on what people like yourself feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** We feel that talking to people like you can help us find the best practices, opinions and feelings about these issues and enable us to help improve health service provision in this community.

(Explaining nature of interview) I would like you to share with me **the experiences you have had concerning fertility regulation throughout your life** that is, from when you reached **puberty, before you got married, during marriage and up until now**. You may find some of the questions I am going to ask you on family planning a bit sensitive. **(Confidentiality)** I assure you that the interview is completely confidential. Your name will not be written on this form and will never be used in connection with any of the information you tell me. You do not have to give me an answer to a question you do not wish to respond to.

I would like you to be as comfortable as possible throughout the talk. **(seek consent for note taking and tape recording)** During the discussion, **(note taking)** I will be taking notes to keep track of what we have covered and to remind me if I forget to ask certain things. However, I will also record the discussion on tape in case I do not write what you say properly. Please do not let that worry you. The tape and written material will be kept safe and not shared outside the research team. After writing our report, all the tapes and written notes will be erased, so no-one will know what you said. **(Participants consent)**. I will appreciate your participation and would like to find out if you would be willing to be interviewed?

Before we begin our discussion, I will greatly appreciate your help in responding to a short interview. Would you take some minutes to answer a few questions? I will start by asking you a few questions about yourself.

BACKGROUND INFORMATION: CASE STUDY SIFT QUESTIONNAIRE

		Categories
Q1	Province	1. Copperbelt, 2. North western
Q2	District	1. Ndola 2. Kitwe 3. Solwezi 4. Zambezi A 5. Zambezi B
Q3	Village	
Q4	Catchment area	
I would like to ask you about your family life?		
Q5	How old are you?	1. 15-24 2. 25-34 3. 35+
Q6	What is the highest level of education you have reached?	1. None or primary 2. Secondary+
Q7	What is your marital status?	1. Currently in union 2. Currently not in union
Q8	Do you have any children of your own?	1. No > END 2. Yes > GO TO Q9
Q9	How many daughters/ sons do you have?	1. 1-3 females 2. 1-3 males 3. 1-3 both sexes 4. 4+ both sexes

WOMEN'S CASE STUDY GUIDE

Introduction: I would like to begin by asking you to tell me about what you know about family planning. (MAKE THIS SECTION AS BRIEF AS POSSIBLE).

KNOWLEDGE AND AWARENESS

1. Can you tell me of the ways you know of preventing pregnancy that can be used by men or women? (*probe: how method is used*)
2. Where did you find out about these methods? (*Probe: if radio, T.V., posters, school, parents, peers. Also describe messages*)

Now I would like to talk about the experiences you have had in your life regarding everything to do with fertility regulation. I would like you tell me these issues beginning from when you reached puberty.

PUBERTY

Filler: I know that there are traditional ceremonies that take place in this community which girls go through e.g initiation ceremonies. Did you go through one? (IF THE ANSWER IS NO, ask her to tell you what she knows all the same).

3. Can you tell me about what advice you were given about avoiding pregnancy? (*Probe for details*)
4. Did you find this advice useful? (*Probe: did she use it etc*)
5. Can you tell me what advice was given to you about relationships with the opposite sex? (*Probe: teachings on sex practice etc*)

Now I want to talk about the time when you began to have male friends who were interested in you as a young lady before you got married. Was there such a time? (If yes proceed with question-route; if no modify questions to generalize

Pre-marriage period (Courtship)

6. Did you have relationships with the opposite sex before you got married?
7. Did you think the relationship (s) would result in pregnancy or STIs? (why/ why not?)
8. If yes to Q7, what did you do to avoid pregnancy?
9. What did you do to avoid getting STIs?

MARRIAGE

Filler: I know that there are marriage rites that people in this community go through before they get married. Did you go through these rites? (if the answer is no, still ask her to tell you what she knows).

Teachings and advice

10. Can you tell me what advice were you given about fertility issues? (*probe: pregnancy, children, childbearing etc*)
11. Where you given any advice about what to do to avoid pregnancy? (*Probe for details*)
12. Did you find this advice useful? (*probe: using advice? Ask for details*)

Now I would like to talk about your experiences with family planning in your marriage

Past use of FP

13. Have you ever tried to do something in your marriage to avoid getting pregnant? (*probe reasons: socio-cultural, religious, health etc*) IF ANSWER IS NO ASK WHY NOT AND GO TO Q14)
14. What did you actually do/ use to avoid pregnancy? (*probe: modern traditional ways, source of methods*)
15. Why did you choose the method (s) you have told me about? (*probe for each method: access, socio-cultural, etc*)

16. I would like you to tell me about what your experiences were with using these methods?
(Probe: side effects, user-friendliness, availability, spouse's attitudes etc)
17. Did you consider using any other method? (probe: why/ why not?)

Current use of FP

18. What are you currently doing to avoid getting pregnant? (probe: reasons for method, reasons for using/ not using)
19. Where do you get your supply of FP methods? (probe why? e.g distance etc)
20. From your experience, what factors have made it **easy** for you to use FP services?
21. Can you tell me about any factors that have made it **difficult** for you to use FP services in your area?

FP Communication with spouse

Now I would like us to talk about fertility regulation in relation to you and your husband

22. Have you ever talked about family planning with your husband? (Probe: why?/ why not?/ aspects discussed)
23. At what stage (s) in your marriage did you talk about FP with your husband? (probe: number of children, marriage duration, other factors)
24. In your home who makes the final decisions about FP use? (probe: why)
25. Is your husband always aware of your FP use? (Probe: what his views)
26. Have you ever had to hide your FP use from your husband? (Probe: if yes, why)

Condom use

These days there is a lot of talk about AIDS and alot of people are dying from it.

21. Can you tell me of any ways you know of preventing HIV/AIDS infection?
22. Do you and your husband ever talk about HIV/AIDS/STDs? (Probe: aspects discussed)
23. Have you ever used condoms for FP in your marriage? (Probe: why/ why not) **(IF NO TO Q23 GO TO Q25)**
24. I would like you to talk about your experiences with using condoms? (Probe: user-friendliness, availability, spouse's attitudes etc)
25. Would you ever use condoms in your marriage? (Probe: why/ why not?)
26. Do you perceive yourself and your husband to be at risk of getting HIV/AIDS? (Probe separately for husband and wife: Why/ Why not?)
27. What are you doing to avoid getting HIV/AIDS?

Sterilization

There is a method of family planning which men or women can use to stop having children altogether. It involves a small operation and it can be done on either the man or the woman.

28. What do you think of female sterilization? (Probe: for details)
29. Is it something you would consider if it was made available at the health facility? (Probe reasons: socio-cultural, religious etc)
30. What do you think about male sterilization? (probe: for details)
31. Is it something you would want your husband to undergo? (probe: why/ why not? Socio-cultural, religious etc reasons)

MEN'S CASE STUDY GUIDE

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia.

(Stating mission: what) We are carrying out a study on family planning to find out what factors influence men and women to use or not use family planning. We are interested in understanding your opinions on what people like yourself feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** We feel that talking to people like you can help us find the best practices, opinions and feelings about these issues and enable us to help improve health service provision in this community.

(Explaining nature of interview) I would like you to share with me **the experiences you have had concerning fertility regulation throughout your life** that is, from when you reached **puberty, before you got married, during marriage and up until now**. You may find some of the questions I am going to ask you on family planning a bit sensitive. **(Confidentiality)** I assure you that the interview is completely confidential. Your name will not be written on this form and will never be used in connection with any of the information you tell me. You do not have to give me an answer to a question you do not wish to respond to.

I would like you to be as comfortable as possible throughout the talk. **(seek consent for note taking and tape recording)** During the discussion, **(note taking)** I will be taking notes to keep track of what we have covered and to remind me if I forget to ask certain things. However, I will also record the discussion on tape in case I do not write what you say properly. Please do not let that worry you. The tape and written material will be kept safe and not shared outside the research team. After writing our report, all the tapes and written notes will be erased, so no-one will know what you said. **(Participants consent)**. I will appreciate your participation and would like to find out if you would be willing to be interviewed?

Before we begin our discussion, I will greatly appreciate your help in responding to a short interview. Would you take some minutes to answer a few questions? I will start by asking you a few questions about yourself.

BACKGROUND INFORMATION: MEN'S FGD SIFT QUESTIONNAIRE

		Categories
Q1	Province	1. Copperbelt 2. North western
Q2	District	1. Ndola 2. Kitwe 3. Solwezi 4. Zambezi A 5. Zambezi B
Q3	Village	
Q4	Catchment area	
I would like to ask you about your family life?		
Q5	How old are you?	1. 15-24 2. 25-34 3. 35+
Q6	What is the highest level of education you have reached?	1. None or primary 2. Secondary+
Q7	What is your marital status?	1. Currently in union 2. Currently not in union
Q8	Do you have any children of your own?	1. No > END 2. Yes > GO TO Q9
Q9	How many daughters/ sons do you have?	1. 1-3 females 2. 1-3 males 3. 1-3 both sexes 4. 4+ both sexes

MEN'S CASE STUDY GUIDE

Introduction: I would like to begin by asking you to tell me about what you know about family planning. (MAKE THIS SECTION AS BRIEF AS POSSIBLE).

KNOWLEDGE AND AWARENESS

1. Can you tell me of ways of preventing pregnancy that can be used by men or women that you know of? (Probe: description of HOW methods are used)
2. Where did you find out about these methods? (Probe: if radio, T.V., posters, school, parents, peers. Also describe messages)

Now I would like to talk about the experiences you have had in your life regarding everything to do with fertility regulation. I would like you tell me these issues beginning from when you reached puberty.

PUBERTY

Filler: I know that there are traditional ceremonies that take place in this community which young men go through e.g initiation ceremonies. Did you go through one? (IF ANSWER IS NO, ask him to tell you what he knows all the same).

3. Can you tell me about the advice you were given about avoiding pregnancy? (Probe for details)
4. Did you find this advice useful? (Probe: did she use it etc)
5. Can you tell me what advice you were given about relationships with the opposites sex? (Probe: teachings on sex practice etc)

Now I want to talk about the time when you began to have female friends who you were interested in before you got married. Was there such a time? (If YES proceed with question-route; if no modify questions to generalize)

PRE-MARRIAGE PERIOD (COURTSHIP)

5. Did you ever have sex with anyone before you got married?
6. What did you do to avoid pregnancy? (probe for details: what, source of method)
7. Where did you get information from about what to do to avoid making a girl pregnant before you got married? (Probe: Type of information)

MARRIAGE

Filler: I know that there are marriage rites that people in this community go through before they get married. Did you go through these rites? (if the answer is no, still ask him to tell you what he knows).

Teachings and advice

8. Can you tell me what advice you were given about fertility issues? (probe: pregnancy, children, childbearing etc)
9. Where you given any advice about what to do when you want to avoid pregnancy? (Probe for details)
10. Did you find this advice useful? (Probe: using advice? Ask for details)

Past use of FP

11. Have you ever tried to do something to avoid your wife having children? (probe: why/ why not, socio-cultural reasons, religious, parity, sex preferences etc? If answer is NO ASK WHY NOT AND GO TO Q 15)
12. What did you actually do to avoid pregnancy? (probe details: traditional or modern methods,)
13. Why did you choose the method(s) you have told me about? (probe for each method: access, socio-cultural, number and sex of children, sex preferences etc)

14. I would like you to tell me about what your experiences were with using these methods?
(Probe: side effects, user-friendliness, availability etc)

Current FP use

15. What are you currently doing to avoid having children? (probe: reasons for method, reasons for using/ not using e.g number and sex of children, sex preferences etc. **If answer is NOTHING go to Q18).**
16. Where do you get your supply of FP methods? (probe why? e.g distance etc)
17. From your experience, what factors have made it **easy** for you to use FP services?
18. Can you tell me about any factors that have made it **difficult** for you to use FP services in your area?

FP Communication with spouse

Now I would like us to talk about fertility regulation in relation to you and your wife

19. Have you ever talked about family planning with your wife? (Probe: why?/ why not?/ aspects discussed)
20. In your home who makes the final decisions about FP use? (probe reasons: socio-cultural reasons etc)

Condom use

These days there is a lot of talk about AIDS and alot of people are dying from it.

21. Do you and your wife ever talk about HIV/AIDS/STDs? (Probe: aspects discussed)
22. Have you ever used condoms for FP in your marriage? (Probe: why/ why not?/ experiences using condoms)
23. Would you ever use condoms in your marriage? (Probe: why/ why not?)
24. Have you ever used condoms with anyone else other than your wife? (probe: why/ why not?)
25. Do you perceive yourself and your wife to be at risk of getting HIV/AIDS? (Probe separately for husband and wife: Why/ Why not?)
26. What are you doing to avoid getting HIV/AIDS?

Sterilization

There is a method of family planning which men or women can use to stop having children altogether. It involves a small operation and it can be done on either the man or the woman. Have you ever heard of this method?

27. What do you think of male sterilization? (Probe: for details)
28. Is it something you would consider doing if it was made available at the health facility? (Probe reasons: socio-cultural, religious etc)
29. What do you think about female sterilization? (probe: for details)
30. Is it something you would want your wife to undergo? (probe: why/ why not? Socio-cultural, religious etc reasons)

KEY INFORMANT INTERVIEW GUIDES (MEN AND WOMEN)

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia.
(Stating mission: what) We are carrying out a study on family planning to find out what factors influence men and women to use or not use family planning. We are interested in understanding your opinions on what people like yourself feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** We feel that talking to people like you can help us find the best practices, opinions and feelings about these issues and enable us to help improve health service provision in this community. **(Confidentiality)** We would like to assure you that the information you provide is very important and will be treated with confidentiality. **(Participants consent)** We will appreciate your participation and would like to find out if you would be willing to be part of the discussion?

Before we begin our discussion, I will greatly appreciate your help in responding to a short interview. Would you take some minutes to answer a few questions? I will start by asking questions about yourself.

BACKGROUND INFORMATION: MEN'S FGD SIFT QUESTIONNAIRE

		Categories	Codes
Q1	Province	Copperbelt North western	1 2
Q2	District	Ndola Kitwe Solwezi Zambezi A Zambezi B	1 2 3 4 5
Q3	Village		
Q4	Position		
Q5	Catchment area		
I would like to ask you about your family life?			
Q6	How old are you?	15-24 25-34 35+	1 2 3
Q7	What is the highest level of education you have reached?	None or primary Secondary+	1 2
Q8	What is your marital status?	Currently married Ever married Never married	1 2 3
Q9	Do you have any children of your own?	No Yes	1 > END 2 > GO TO Q10
Q10	How many daughters/ sons do you have?	1-3 females 1-3 males 1-3 both sexes 4+ both sexes	1 2 3 4

(Before the discussion begins) I would like you to be as comfortable as possible throughout the talk. **(seek consent to write notes and tape record and explain why)** During the discussion, I will be taking notes to **(note taking)** keep track of what we have covered and to remind me if I forget to ask certain things. However, we will also **(tape recording)** record the discussion on tape in case I do not write what you say properly. Please do not let that worry you. The tape and written material will be kept safe and not shared outside the research team. After writing our report, all the tapes and written notes will be erased, so no-one will know what you said.

(Show appreciation) Thank you for answering the questions. Ask them if there any related issues which we could discuss.

KEY INFORMANT INTERVIEW GUIDE

FERTILITY

1. About how many **children on average** do people in this community have? (*probe reasons*)
2. Is it important for your people to have **female, male** or children of **both sexes**?
3. What is the **role of men** in this community regarding fertility decisions? (Number of children, when to have them etc)
4. What is the **role of women** in this community regarding fertility decisions?
5. What role does the **extended family** play regarding fertility decisions?

FERTILITY REGULATION

6. Can you tell me about what people in this community **use/ do** to regulate their fertility? (*probe: source of methods*)
7. What factors influence those who use these methods?
8. Why factors deter some people from regulating their fertility?
9. What is the role of *men* and *women* in fertility regulation in this community?
10. In your view is the practice of family planning good for your community?

SEXUAL BEHAVIOUR AND HIV/AIDS/STDs

11. What are people's attitudes towards sex in this community?
12. Can you tell me about young unmarried people's sexual behaviour in this community? (*Probe: prevalent? Teen pregnancies? Abortions? Etc*)
13. Can you now tell me about **married people's** sexual behaviour in this community? (*probe : extra marital sex etc*)
14. What are the people of this community doing to protect themselves against HIV/AIDS/STD infection?
15. What do people in this community feel about the use of condoms outside marriage?
16. What do people in this community feel about the use of condoms inside marriage?

CULTURAL BELIEFS AND PRACTICES

17. Can you tell me about traditional beliefs and practices that are held in this community concerning sexual behaviour?
18. What traditional beliefs and practices are held in this community concerning fertility and fertility regulation?
19. Do people in this community practice these traditions? (*Probe: what, why/why not?*)
20. In your opinion do you think some of these traditions are valuable or not? (*probe: which ones? why/why not*)
21. Did the forefathers of this community use anything to limit or space births? (*Probe: If yes, what did they use? If no, why did they not use anything?*)

HEALTH SERVICE PROVISION

22. What are the major health concerns in this community? (*probe for men and women separately*)
23. Do men in this community play any role with regard to their wife's health? (*probe for details*)
24. What factors **discourage** men and women from FP services in this community?
25. What factors **encourage** men and women to use FP services in this community?
26. In your opinion, what should be the **role of men in family planning issues**?
27. What in your opinion are the concerns of men regarding their health in this community? (*probe: why, where they seek help, what can be done?*)

APPENDIX D

HEALTH FACILITY MANAGER INTERVIEWS GUIDES

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia. **(Stating mission: what)** We are carrying out a study on family planning services in Zambia. We want to find out what factors influence men and women to use or not use family planning. I am interested in understanding your opinions on what people like yourself feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** I would like to talk to you about protocols and guidelines used in this facility. **(Confidentiality)** We would like to assure you that the information you provide is very important and will be treated with confidentiality. **(Respondent's consent)** I appreciate your participation and would like to find out if you would be willing to be interviewed?

The information collected with recommendations will be presented to programme managers of family planning organisations and to the Ministry of health so that they can address the situation.

Date	
Province	1. Copperbelt 2. North western
District	1. Ndola 2. Kitwe 3. Solwezi 3. Zambezi A 4. Zambezi B
Designation of staff member:	1. Doctor 2. Clinical Officer 3. Nurse 4. Midwife 5. Other _____
Name of facility	
Type of facility	1. District hospital 1. General hospital 2. Health centre 3. Other _____
Locality	1. Rural 2. Urban
Estimated population in catchment area	

A. FACILITY HISTORY

1. When was this facility established?	
2. How long ago did this facility start to provide family planning services?	Months..... Years.....
3. What changes have occurred in this health facility since 1991?	

B. INFRASTRUCTURE

1. Does the facility have the following?	Yes	No
Piped running water		
Electricity		
Working toilets		
Sufficient seating for clients		
2. OBSERVE the condition of the facilities	Comment	
Auditory privacy		
Visual privacy		
Cleanliness		

C. OPENING TIMES

1. What time did the health facility open today?	Time Could not be determined.....	
2. What time does the facility normally open?	Time	
3. On which days and at what time are family planning services available at this facility? (Tick appropriately)	Open	Close
	Monday
	Tuesday
	Wednesday
	Thursday
	Friday
	Saturday
	Sunday
4. OBSERVE: Record whether the facility opening times are displayed clearly outside the clinic.	Clearly displayed..... Not clearly displayed..... Not displayed.....	

D. SERVICES PROVIDED

1. Does this facility usually provide the following services? (Tick appropriately)	Yes	No
Family planning		
Female sterilization		
Male sterilization		
Natural family planning counselling		
Infertility counselling		
Exclusive breastfeeding counselling		
Dual method counselling		
Pregnancy testing		
Termination of pregnancy		
HIV/AIDS counselling		
HIV/AIDS testing		
Diagnosis of STIs		
Treatment for STIs		

E. FAMILY PLANNING METHODS SUPPLY

1. Does the facility usually provide the following contraceptive methods?			2. IF YES TO Q1, in the last 6 months did this facility run out of supplies?	
Method	Yes	No	Yes	No
Combined pill				
Mini-pill				
IUD				
Injectable				
Condoms				
Diaphragm				
Spermicides				
Norplant				
Other (specify)				
Emergency contraception				

F. EQUIPMENT INVENTORY

1. Are the following available and in working condition at the facility?	Yes	No
Operating theatre		
Recovery room		
Sterilising equipment		
Gynaecological lamps		
Blood pressure machines		
Adult weighing scales		
Needles		
Syringes		
Examination couch		
Procedure area for IUDs, injectables		

G. IEC MATERIALS AVAILABLE

1. OBSERVE if there is a sign outside the building stating the services available at the facility.	Sign stating services available..... Sign but services not stated..... No sign.....	
2. Which materials on the following topics are available in this facility?	Poster	Brochure/ pamphlet
Family planning methods		
Family planning counselling		
HIV/AIDS		
Other STIs		
Pregnancy testing		

H. RECORD KEEPING

1. How are the client's records maintained at this facility? (Tick appropriate response)	
Kept in clinic	
Kept by client	
No cards	
Other	
2. ASK TO CHECK RECORDS: Could you show me the records of the number of clients by year and contraceptive method used from 1991? RECORD ON SEPARATE PAPER	

I. PROTOCOLS AND GUIDELINES

1. Please show me the most recent versions of written guidelines and protocols for the delivery of family planning services.	1. Available and observed	
	2. Date of latest version	
	3. Available but not observed	
	4. None available	
	5. Don't know	
2. Are protocols present for each of the following services?	Yes	No
Female sterilisation		
Vasectomy		
Termination of pregnancy		
Insertion of IUD		
Delivery of injectable		
Treatment of common STIs		
Prescribing the pill		
Routine pre-natal care		
Pregnancy testing		
HIV/AIDS testing		

J. USE OF INFORMATION IN FACILITY MANAGEMENT

1. What methods do you have for determining clients' opinions?	1. None 2. Client suggestion box 3. Provider asks client 4. Other staff asks clients 5. Other
2. In the past 6 months have any changes been made in the facility based on clients' suggestions?	1. Yes 2. No 3. Don't know
3. (IF YES) Please describe the changes that have taken place?	
4. What methods do you have for finding out staff opinions about services offered by this facility?	1. None 2. Staff suggestion box 3. Staff meetings 4. Internal facility evaluations 5. Other
5. In the past 6 months have any changes been made in the facility based on staff suggestions?	1. Yes 2. No 3. Don't know

K. STAFFING

1. How many of each of the following health care providers are assigned to this facility and how many are in post? (record number)	Full time	Part time
Doctors		
Nurses		
Midwives		
Health Assistants		
Counsellor		
CBD Worker		
Health Worker		
Others		

L. SOCIO-DEMOGRAPHIC PROFILE

How old are you?	1. 15-24 2. 25-34 3. 35+
What is your religion?	
What is your tribe?	
What is your marital status?	1. Currently in union 2. Currently not in union
Do you have any children of your own?	1. No 2. Yes
How many daughters/ sons do you have?	1. 1-3 females 2. 1-3 males 3. 1-3 both sexes 4. 4+ both sexes
What FP method are you and your partner currently using	

THANK YOU FOR YOUR CO-OPERATION.
FAMILY PLANNING SERVICE PROVIDER INTERVIEWS GUIDES

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia. **(Stating mission: what)** We are carrying out a study on family planning services in Zambia. We want to find out what factors influence men and women to use or not use family planning. I am interested in understanding your opinions on what people like yourself feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** I would like to talk to you about protocols and guidelines used in this facility. **(Confidentiality)** We would like to assure you that the information you provide is very important and will be treated with confidentiality. **(Respondent's consent)** I appreciate your participation and would like to find out if you would be willing to be interviewed?

The information collected with recommendations will be presented to programme managers of family planning organisations and to the Ministry of health so that they can address the situation.

Date	
Province	1. Copperbelt 2. North western
District	1. Ndola 2. Kitwe 3. Solwezi 3. Zambezi A 4. Zambezi B
Designation of staff member:	5. Doctor 6. Clinical Officer 7. Nurse 8. Midwife 5. Other _____
Name of facility	
Type of facility	1. District hospital 4. General hospital 5. Health centre 6. Other _____
Locality	3. Rural 4. Urban
Estimated population in catchment area	

A. TRAINING

1. When did you start working at this facility?		
2. When did you finish basic training?		
3. Did the basic training cover family planning?		
4. Have you attended any refresher course related to family planning or HIV/STIs counselling and treatment since 1991?	Year	Course
5. Did that training include the following? (Tick appropriately)	Yes	No
General clinical skills in FP		
FP counselling		
IUD insertion/ removal		
Female sterilisation		
Vasectomy		
Exclusive breastfeeding		
Natural family planning		
STI screening		
HIV/AIDS testing		
HIV/AIDS/ STI counselling		

B. SERVICE PROVISION

1. Do you yourself provide the following services to clients at this facility? (Tick appropriately)	Yes	No
Family planning		
HIV/AIDS testing		
Other STI counselling		
Other STI diagnosis		
STI treatment		
Pregnancy termination services		
2. In the last 12 months have you yourself provided family planning to clients?		
3. IF YES TO Q2 did you provide the following to clients in the last 12 months?	Yes	No
Combined pill		
Mini pill		
IUD		
Injectable		
Norplant		
Condom		
Diaphragm		
Spermicides		
Female sterilisation		
Vasectomy		
Natural family planning		
Exclusive breastfeeding		
Emergency contraception		
Other (specify)		

4. What procedure do you normally follow before giving the following methods	Pill	Injectable	IUD
Blood pressure			
Weight			
Medical history			
Breast examination			
Screening for STIs			
Pelvic examination			
Urine test			
Haemoglobin test			

C. CLIENT-PROVIDER ASPECTS

1. Which FP methods do most client’s who use this facility prefer? (Circle all metioned)	1. Combined pill 2. Mini pill 3. IUD 4. Diaphgram 5. Condom 6. Spermicides 7. Natural family planning 8. Female sterilisation 9. Male sterisation 10. Exclusive breatfeeding 11. Emergency contraception 12. Other (specify)
2. Why do you think they prefer the methods you have mentioned?	
3. In your opinion are there factors that prevent women from using family planning services in this community?	
4. Why do people in this catchment area seek family planning? (PROBE	

5. Are there factors that prevent men in this community from using family planning services? ((PROBE FOR DETAILS)	
6. What do you think can be done to improve family planning service delivery in this area?	
7. Are there FP methods that you recommend for some clients who want to delay or space births assuming there are no contraindications?	1. Yes 2. No 3. Depends on client's health 4. Depends on client's preference
8. IF YES TO Q7 Can you tell me the methods and the reasons for your suggestions.	
Method	Reason
9. Are there FP methods that you recommend for clients who do not want to have anymore children assuming there are no contraindications?	1. Yes 2. No 3. Depends on client's health 4. Depends on client's preference
10. IF YES TO Q9 Can you tell me the methods and the reasons for your suggestions.	
Method	Reason

14. Are there FP methods that you would never recommend under any circumstance?	1. Yes 2. No 3. Depends on client's health 4. Depends on client's preference
15. IF YES TO Q14 Can you tell me the methods and the reasons for your suggestions.	Reason
16. How many packets of combined pill do you routinely supply to a client who is using the pill for the first time?	
17. How many packets of combined pill do you routinely supply to a client who has successfully used the pill for 12 months or more?	
18. What advice is normally given to a client who comes for a re-supply of contraceptives?	
19. What advice do you give to an FP client who appears to be at risk of STI?	

D. SOCIO-DEMOGRAPHIC PROFILE

How old are you?	1. 15-24 2. 25-34 3. 35+
What is your marital status?	1. Currently in union 2. Currently not in union
Do you have any children of your own?	1. No 2. Yes
How many daughters/ sons do you have?	1. 1-3 females 2. 1-3 males 3. 1-3 both sexes 4. 4+ both sexes
What FP method are you and your partner currently using	
What is your religion?	
What is your tribe?	

THANK YOU FOR YOUR CO-OPERATION.

DISTRICT HEALTH STAFF INTERVIEW GUIDE

Greeting

(Introducing self: who and where) My name is _____. I am from the University of Zambia.

(Stating mission: what) We are carrying out a study on family planning to find out what factors influence men and women to use or not use family planning. I am interested in understanding your opinions on what people like yourself feel about family planning and what can be done to improve provision of family planning services for men and women in this community. **(Why)** We feel that talking to people like you can help us find the best practices, opinions and feelings about these issues and enable us to help improve health service provision in this community. **(Confidentiality)** We would like to assure you that the information you provide is very important and will be treated with confidentiality. **(Respondent's consent)** I appreciate your participation and would like to find out if you would be willing to be interviewed?

Date	
Province	1. Copperbelt 2. North western
District	1. Ndola 2. Kitwe 3. Solwezi 3. Zambezi A 4. Zambezi B
Total number of health facilities in district	1. Hospitals Govt. _____ Private _____ 2. Health centres 3. Health posts
Designation	

ISSUES AFFECTING FAMILY PLANNING PROGRAM

1. Policy issues	

FACTORS AFFECTING IMPLEMENTATION OF NATIONAL FAMILY PLANNING POLICY

Can you describe to me the logistical management of family planning stock in your district? (probe: - frequency of contraceptive supply - type of methods - clinical protocols	
From your experience, are the financial resources allocated to family planning activities in your district are adequate?	
Do you have adequate staff delivering family planning services in your district?	

District office operations regarding family planning

- Describe to me the type of family planning activities that have been embarked upon in your district in the last 12 months
- Are there any problems that you encounter in your district with regard to family planning activities? (Probe: if yes, explain)
- Can you tell me about the kind of coordination your office has with local NGOs (in the district) and co-operating partners with regard to family planning activities