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SOCIO-DEMOGRAPHIC ASPECTS OF YOUNG PEOPLE'S REPRODUCTIVE
BEHAVIOUR IN MALAWI

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ABSTRACT
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The population of Malawi has a youthful age structure, with almost half the population aged below 17 years. Malawi is characterised by early childbearing: young age at first intercourse, young age at first marriage and age at first birth. The Malawi Demographic and Health Survey (MDHS) of 1992 and the Malawi Knowledge, Attitudes and Practices in Health Survey (MKAPH) of 1996 showed that half the women were sexually active by 16 years and were married by the age of 18. By the age of 19 almost 65 per cent of females had already started childbearing. In addition, the use of modern methods of contraception is low at all ages. Another major concern for Malawi is the high rate of HIV infection and AIDS-related mortality, with an HIV prevalence rate of seven per cent (National AIDS Control Programme, 1996). The prevalence rate for young women aged 15-24 years is almost four times that of males in the same age group. Young people experience problems in accessing reproductive health services as they face age discrimination, restricting their access to already scarce services. This study aims at identifying socio-demographic aspects of the reproductive behaviour of young people in Malawi, focussing on childbearing, contraceptive use and HIV/STI prevention behaviour.

The study uses both quantitative and qualitative methodologies. Data from the 1996 MKAPH are used to analyse factors affecting sexual initiation and contraceptive behaviour. The 1992 MDHS dataset is used to examine the association between early childbearing and the subsequent fertility. Event history analyses are used to examine the association between socio-demographic factors and sexual debut, timing of first and subsequent births. Binary and multinomial logistic regression analyses are employed in the examination of contraceptive behaviour of young women. Qualitative information was collected through focus group discussions with young people, coupled with in-depth interviews with key informants, service providers and programme managers. The qualitative data were used to identify the community attitudes, norms and values concerning young people's sexual behaviour and attitudes towards current service provision.

The results show that although the Government of Malawi has policies and programmes to address early childbearing and high HIV among young people, they have not enhanced behavioural change. High levels of education are associated with lower risk of early initiation of sexual activity for females and higher odds of using contraception. The demand for contraception is proportional to the number of living children. Attending initiation ceremonies is associated with early sex, but its effect is dependent on the level of education (for females). Those who had gone through initiation are more likely to use contraceptives and have a high unmet need. Contraceptive use is higher among the single, although after the first birth married young women are more likely to use contraception. Young age at first birth is associated with a faster speed of childbearing and higher fertility levels. Women with high levels of education delay first birth and have lower fertility levels. The reproductive behaviour of young people in Malawi takes place in an environment lacking in both accurate information and services. As a result, young people have little knowledge of the consequences of early sexual activity and participate in sexual risk taking behaviour, leading to early childbearing and an increased risk of HIV infection. The findings suggest that strategies aimed at addressing young people's reproductive health in Malawi should recognise both the influence of socio-cultural factors and the need for a multi-sectoral approach to the delivery of reproductive health services.

DEDICATION

*This thesis is dedicated to my grandmother, aNambewe
and her four generations of offspring.*

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ACRONYMS AND ABBREVIATIONS

- AIDS - Acquired Immuno-Deficiency Syndrome
- AIDSEC - National AIDS Control Programme Secretariat
- BLM - Banja La Mtsogolo
- CBD - Community Based Distribution
- CDMLMIS - Contraceptive Distribution Logistics Management Information
- CHAM - Christian Health Association of Malawi
- CMS - Central Medical Stores
- CPEP - Community Based Non Formal Population Education
- CPR - Contraceptive Prevalence Rate
- CSP - Child Spacing Programme
- DFID - Department fund for International Development
- DHS - Demographic and Health Survey
- DoY - Department of Youth
- EU - European Union
- FLE - Family Life Education
- FPAM - Family Planning Association of Malawi
- FPP - Family Planning Programme
- GABLE - Girls' Attainment in Basic Literacy and Education
- GOM - Government of Malawi
- GTZ - 'German Agency for Technical Cooperation'
- HIV - Human Immuno- deficiency Virus
- HSA - Health Surveillance Assistant
- ICPD - International Conference on Population and Development
- IEC - Information Education and Communication
- IPPF - International Family Planned Parenthood
- JSI - John Snow Incorporated
- MACRO - Malawi AIDS Counselling Resources Organisation
- MCH - Maternal and Child Health
- MIS - Management Information System
- MKAPH - Malawi Knowledge, Attitudes and Practices in Health Survey
- MoHP - Ministry of Health and Population

MoY - Ministry of Youth
NACP - National AIDS Control Programme
NFPCM - National Family Planning Council of Malawi
NFWCM - National Family Welfare Council of Malawi
NGO - Non-Governmental Organisation
NSO - National Statistical Office
PHC - Primary Health Care
PHRDU - Population and Human Resource Development Unit
PSI - Population Services Incorporated
PTA - Parents and Teachers Association
RH - Reproductive Health
RHU - Reproductive Health Unit
SOMARC - Social Marketing of Contraceptives
STAFH - Support to AIDS and Family Health
STI - Sexually Transmitted Infection
TA - Traditional Authority
UNAIDS - United Nations AIDS
UNDP - United Nations Development Programme
UNFPA - United Nations Fund for Population Activities
UNICEF - United Nations Children's fund
USAID - United States International Development
VCT - Voluntary Counselling and Testing
WFS - World Fertility Survey
YAO - Youth Arm Organisation
YTSC - Youth Technical Sub-Committee

CHAPTER ONE

INTRODUCTION

1.1 Overview of young people's sexual behaviour

The study of sexuality in the social sciences has primarily focussed on the consequences rather than on the process itself. Demographers have been interested in sexuality in as far as it relates to fertility (Caraël et al., 1994). In the last decade, interest in sexual behaviour has broadened in the light of HIV/AIDS, and in turn this has led to the realisation of the importance of responsible sexual behaviour (Eisen and Zellman, 1992). This study has similarly taken a broad approach and examines sexual and reproductive behaviour as well as the influence of HIV in Malawi.

Sub-Saharan Africa has a number of unique socio-demographic factors that make it a prime area of study of sexual behaviour, which include: a young population, young age at first sexual intercourse, adolescent marriage, early childbearing, low contraception use and 'high risk' sexual behaviours in relation to spread of STIs (Sexually Transmitted Infections) and HIV (Bledsoe and Cohen, 1993; Dixon-Mueller, 1993; Ingham, 1992; Moore and Rosenthal, 1993; UNAIDS, 1998).

In most sub-Saharan Africa countries the population is young with approximately a quarter aged between 10-19 years. In comparison, on a world scale the 10-19 year age group constitutes approximately 20 per cent, and about 85 per cent of them live in the developing countries (WHO, 1997; UNAIDS, 1998).

Young ages at first sexual intercourse are not uncommon in sub-Saharan Africa. Approximately a third of young women aged 15-19 had first intercourse by the age 15. Over two-thirds of young women aged 20-24 had sexual intercourse by the age of 18 in a number of DHS countries in sub-Saharan Africa (Way and Blanc, 1998). The age of menarche has declined and consequently the age of first sexual activity (UN, 1989; Udry and Cliquet, 1982; Zabin et al., 1986).

Sexual behaviour is typically regulated by societal norms and taboos and is often expected to take place in a marital union, as sanctioned by a ceremony or common law

(Marques, 1993). However, not all sexual activity takes place within a marital union, it is also prevalent premaritally. In two DHS rounds in sub-Saharan Africa, between 25 and 40 per cent of 15-19 year old unmarried women were sexually active (Westoff et al., 1994; Meekers, 1994) and a higher proportion were married, which suggests teenage marriages (Blanc and Way, 1998; McCauley and Salter, 1995). Blanc and Way (1998) suggest that premarital sex probably precedes marriage in most cases.

The age at first marriage has been increasing in many parts of sub-Saharan Africa due to the improvement in educational opportunities for women and modernisation. Girls now spend a greater number of years in school and in tertiary education (Bledsoe and Cohen, 1993; Kiragu and Zabin, 1995; Singh, 1998). This delay in age at first marriage means an increased likelihood of premarital sexual relationships (Caldwell et al., 1998).

Young unmarried and educated women have been found to be more likely to report pregnancies that are unwanted or mistimed than their counterparts (Meekers, 1994; McCauley and Salter, 1995). In addition, young people are less likely to use contraception than adults. Evidence from sub-Saharan Africa, shows that although there has been an increase in contraceptive prevalence rates, the proportion of users among young women remain consistently lower than in the older age groups (Lema and Thole, 1994, Lema et al., 1998; Toroitich-Ruto, 1998).

Premarital sexual relationships may also be casual and noncommittal with a wide network of partners, and these carry a high risk of sexually transmitted infections (Meekers, 1994; Waisserheit, 1992). These infections are common in areas with rising populations of young people with limited resources (Cates and McPheeters, 1998; Grosskurth, et al., 1995). Thus, the young unmarried population in sub-Saharan Africa have a high exposure to HIV infection and are more prone to the risk of unwanted pregnancy and HIV infection.

This thesis is a study of the socio-demographic factors affecting sexual behaviour and the reproductive health of young people in Malawi. The focus is on the individual factors, the social context and policy and programme interventions associated with young people's reproductive behaviour.

1.2 The research problem

The population in Malawi is young, with almost half of the population aged below 17. The population aged 15-24 alone constitutes about a quarter of the population (National Statistical Office (NSO), 1997). The Malawi Demographic and Health Survey (MDHS) of 1992 showed that sexual activity starts early; half the women were married by the age of eighteen, 75 per cent of them by age 20 and effectively all women by age 25. There is early initiation of childbearing: about 65 per cent of the females aged 15 and 19 years had already started child bearing. Although on average both males and females start sexual activity at almost the same age, men marry about four to five years later. Hence, there is the need to study sexual behaviour given the young population, the early onset of sex and the environment of HIV.

Childbearing is also highly valued in many African societies such that the single status poses no impediment to having or wanting to have children (Preston- Whyte, 1994; Meekers, 1994). For example, a workshop on the value of children in Malawi noted that legitimization of children was of secondary importance. The birth of a child is welcomed regardless of how the child was conceived (Demographic Unit, 1987:36). Such a pronatalist environment may encourage early sexual activity.

Premarital and unplanned teenage pregnancies may lead to early departure from school, more limited career opportunities, or increased health risks from pregnancy complications and abortion (Kane et al., 1993). Very young mothers are high risks- they are more likely to have complications. Scholl et al., (1992; 1994) noted that some adolescents who had not completed their growth in stature, and invariably, in pelvic size, continued to grow during their pregnancy, competing for nutrients with the growing foetus and resulting in low birth weight. In a West African study, LeGrand and Mbacké (1993) found that mothers 18 years and younger had higher incidence of low birthweight than those aged 20 and above, after controlling for socioeconomic and demographic variables. Thus, it is important to examine the factors of early childbearing.

Adolescent pregnancies have added risks because, compared to pregnancies at older ages, a high proportion of them are primiparous, which already carry higher risk of negative

consequences for both the mother and child than subsequent births (Scholl et al., 1994). Pregnancy monitoring does reduce the associated risks of first births. However, adolescents are likely to report their pregnancies later than adult women and less likely to seek prenatal care or to seek it later in pregnancy (Buvinic and Kurz, 1997). A high proportion of births in Malawi and many parts of Africa are to teenagers, underscoring the need for service providers to assess uptake, quality and effectiveness of antenatal care and delivery for the young mothers. Adolescents are also highly sensitive to attitudes of health workers (Stevens-Simmond et al., 1992; Brabin et al., 1996). In some cases, pregnant girls attempt to have the pregnancy terminated using unsafe methods which can lead to serious complications or even death. In a teaching hospital in Blantyre, Malawi, abortion formed about 70 per cent of all gynaecological admissions and adolescents accounted for more than 20 per cent of all in-patients (Lema and Thole, 1994). Therefore, there is need to study the availability and access of reproductive health services to young women.

Although young people are aware of the risks of HIV transmission associated with unprotected sexual intercourse, there is evidence to show that they do not perceive themselves to be at risk of contracting the virus. Studies conducted in Africa and in the UK, have found that often young people did not perceive themselves to be at risk of HIV infection although they were sexually active and did not practise safer sex (Abrams et al., 1990; Bandawe and Forster, 1996; Miles, 1993; Ingham, 1994; Woodcock et al., 1992). Regardless of what societal values and individual rationalisations there may be, early initiation of sexual activity often has critical consequences for HIV transmission.

In sub-Saharan Africa heterosexual sexual contact is the single most common mode of HIV transmission (Owuamanam, 1995; UNAIDS, 1998). The estimated infection rate for the sexually active men and women aged 15-49 in Malawi is about 16 per cent (UNAIDS, 2000). However, in the age group 15-19, female cases outnumber male cases by at least four fold and in the age group 20-24 by at least twice (National AIDS Control Programme, 1996). This pattern is in line with trends for the eastern and southern Africa (for example Preston-Whyte, 1994). Young females are especially more susceptible to HIV infection than males for a number of biological and behavioural reasons (Cates &

McPheeeters, 1998). Compared to males, the female reproductive tract is more susceptible to sexually transmitted infections, especially in young girls (UNAIDS, 1998). Due to gender expectations, male partners may coerce girls to have sex with them (UNAIDS, 1998; Gage, 1998). Girls may also have sexual relationships with older men (sugar daddies) for socioeconomic benefits. Power and resource imbalance means that young women may not be able to determine their own sexual and reproductive lives (Gage, 1998; Lema, 1990; Preston-Whyte, 1994). Young girls are often targeted because they are believed 'safe' and uninfected with HIV (UNAIDS, 1998). This notion is precipitated by some healers in some countries in Southern Africa who recommend that having sex with a virgin can cure the disease (Gage, 1998; Murphy, 1998).

Malaŵi has recently changed from a dictatorial to a democratic system of government and one of the results has been a greater openness about the social problems of the country. The media has highlighted the problem of adolescent pregnancies and HIV/AIDS. The Government of Malaŵi has also developed various policy guidance documents, among them Population, Family Planning and Youth Policy documents. The Population Policy states the need for adolescents to be made aware of the dangers of early pregnancies, STDs, HIV/AIDS and induced abortions (Government of the Republic of Malaŵi, c. 1994: 24). Although the Population Policy and Youth Policy documents of the Government of Malaŵi (of 1994) have sections on strategies to address young people's sexuality, their implementation has yet to be carried out.

There are indications that progress has been made in some areas of reproductive health in Malaŵi. After going through a long take-off period, stalled by socio-political factors, the policy guidelines for the provision of family planning have been liberalised, mainly removing some parity-related restrictions for methods such as injection and sterilisation. This has resulted in an increase in the use of both modern and traditional methods from less than five per cent in 1984 to 22 per cent in 1996 (NSO, 1987; NSO, 1997).

The role of the private sector in the provision of reproductive health services has become significant in Malaŵi. The main source of condoms is commercial outlets, made available through social marketing of contraceptives (NSO, 1997). Since health facilities are not easily accessible for some people, especially in the rural areas, community based

distribution of contraceptives is also increasing. The current family planning programme stipulates that contraceptive methods should be made available to whoever needs them. It would be interesting to assess if this change has improved contraceptive methods provision to unmarried adolescents.

It has been found elsewhere in Africa and in some studies in Malawi, that adolescents do not have the right information about reproductive issues (Hickey, 1997; Mc Auliffe and Ntata, 1993). Most information is obtained from friends, schoolmates and the media while parents and guardians are the least common source of information. In the matrilineal society, initiation ceremonies are an important source of information on the facts of life, but it is questionable whether the knowledge imparted is correct since most of the older women themselves have been shown not to have accurate information on reproductive health (Demographic Unit, 1987; NSO, 1994). In recent years the Government of Malawi has made efforts to provide accurate information through IEC (Information Education and Communication) on family life education.

Within the education sector there have been changes in the formal national curriculum to include population and AIDS education in the primary, secondary and college syllabi. In addition, anti-AIDS clubs have been formed under the auspices of organisations such as UNICEF and Scripture Union. The Ministry of Youth has embarked on a Family Life Education Programme especially targeting out-of-school youth. Other than just IEC of family life education, youth programmes have changed orientation towards equipping the youth with life skills for empowerment and employability.

1.3 Objectives of the study

The overall objective of this study is to identify the demographic and socioeconomic aspects of young people's sexual behaviour and reproductive health in Malawi. The specific objectives are to:

1. Investigate the social context of young people's sexual behaviour in Malawi. Special focus is made on the community attitudes, norms and values of sexuality and how these may influence early childbearing and HIV infection risk of young people in Malawi

2. Examine the association between early childbearing and subsequent fertility of women in Malawi. The focus is on the timing of the first birth and its effect on the pace of subsequent childbearing (birth intervals) and achieved fertility (mean number of children);
3. Examine the factors associated with sexual initiation of young people;
4. Investigate factors of contraceptive behaviour among young women aged 15-24 years. The focus is on contraceptive use, method choice and the demand for contraception with an emphasis on unmet need; and
5. Review and evaluate the existing policies and programmes concerned with addressing adolescent fertility and reproductive health in Malawi;

The 1992 Malawi Demographic and Health Survey collected information which will be used to analyse the association between early childbearing and subsequent childbearing. The 1996 Malawi Knowledge Attitudes, and Practices in Health (MKAPH) survey collected information on sexual behaviour such as age at first intercourse and number of sex partners. UNICEF (Malawi) and the UNFPA Community-based Population Education Programme have also sanctioned some small scale studies touching on sexual behavioural change in Malawi (Mc Auliffe and Ntata, 1993; Shawa et al., 1994). The existing studies do not examine the various factors of sexual and reproductive behaviour of young people in Malawi from an individual and community perspective.

Both quantitative and qualitative methods are used in order to gain better understanding of socio-demographic factors of young people's sexual and reproductive behaviour. The strength of this study therefore, lies in the fact that it takes a multi-disciplinary approach to understanding young people's sexual behaviour and reproductive health in Malawi.

It is intended that the results will provide an insight into the important issues of sexual and reproductive health of young people in Malawi and assist the government and other relevant organisations in developing appropriate policies and programmes aimed at improving young people's sexual and reproductive health. The study will also contribute

to the debate about factors affecting young people's sexual and reproductive behaviour in the light of early childbearing and high HIV rates for young people.

1.4 Organisation of thesis

This thesis is organised into nine chapters. This chapter presents the background to the thesis on understanding the socio-demographic aspects of young people's sexual behaviour and reproductive health in Malawi. Chapter two reviews the literature on young people's sexual and reproductive health with a main focus on sub-Saharan African countries. The conceptual framework for the thesis is presented prior to the literature review, outlining the factors associated with young people' sexual behaviour at the individual, community and country level.

The chapter three discusses the data and the methods in the study. There is an explanation of the qualitative method's analysis for the field data. The quantitative data sets used are outlined and the key analyses are described.

The fourth chapter describes the socio-cultural context in which young people operate and how this may influence their sexual behaviour. The factors that lead to early childbearing and increased risk of HIV for young people are examined. The attitudes of opinion leaders and other service providers on sexual behaviour of young people are described. This analysis is based on the findings from field interviews conducted in early 1998.

In the fifth chapter, the demographic consequences of early childbearing in Malawi are analysed. First, the timing of first and subsequent births according to the timing of the first birth is examined using event history analysis and proportional hazards models. Second, the levels and trends of fertility for different age cohorts by the age at first birth are established using cohort analysis based on the 1992 MDHS.

Chapter six investigates the sexual behaviour of young people by examining the timing of first sex and entry into a sexual union. First, bivariate analysis of initiation of sex and extent of premarital sex is performed. Second, discrete time hazards models are used to

identify the socio-demographic factors associated with the onset of first sexual intercourse.

Chapter seven examines the contraceptive behaviour of females aged 15-24. The likelihood of contraceptive use for young women with various socio-demographic characteristics is examined. Second, contraceptive method choice is analysed based on a subset of contraceptives users. Third, contraceptive need is assessed by focussing on unmet need and demand for contraceptives. The analyses in chapters six and seven are based on 1996 MKAPH.

Chapter eight describes and evaluates the policy and the programmes in the area of reproductive health and youth development in Malawi. This is a review of ongoing programmes for youths according to official reports and field interviews of national programmes on sexual and reproductive health and youth development.

The last chapter of the thesis summarises the major findings and draws conclusions and provides policy and research implications arising from the research.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews the literature on adolescent and young people's reproductive behaviour in developing countries, with a particular emphasis on sub-Saharan Africa. Wherever necessary, however, reference is made to literature from developed countries to fill in gaps in data and to provide comparison. A conceptual framework for the study of the socio-demographic factors of young people's reproductive behaviour in Malawi is described to provide a background to the literature review.

The review starts with defining the terms 'adolescents' and 'young people'. Then, a number of areas relevant to the understanding of young people's reproductive behaviour are discussed. These are: the levels and trends in reproductive behaviour; the social context in which such behaviour takes place; the consequences of starting the reproductive process at a young age; and the programme and policy interventions effected to address the reproductive health needs of young people in Malawi. The review examines several aspects of reproductive behaviour such as contraceptive use, age at menarche, age at first intercourse, age at first marriage, age at first birth, and the characteristics of sexual partners. The social context of reproductive behaviour is examined describing the norms and values of the individual, family, peers and the wider community, including education and the media. The programme and policy interventions in the area of youth reproductive health and development are also reviewed.

2.1 Conceptual framework

The conceptual framework for the study of young people's sexual behaviour in Malawi recognises the interaction of individual, community and national level factors to determine the reproductive behaviour outcomes of the individual (Figure 2.1). Based on empirical research and theoretical considerations, the framework seeks to describe the reproductive behaviour of young people as determined by their own socio-economic and psychosocial factors, the community they live in, and interventions operating at the national level. In the framework the thick lines represent associations which are

examined in this thesis. The dotted lines indicate possible relationships which are not investigated in this study due to lack of data and time limitations.

The reproductive behaviour outcome variables, presented at the far right of the framework, are: the risk of first sex; contraceptive use, including method choice, unmet need and reasons for non-use of contraception; and consequences of early childbearing, examining the pace of childbearing and the achieved level of fertility. These are analysed using statistical and demographic techniques to describe associations, trends and patterns in the various indicators of reproductive behaviour.

The socio-economic factors of an individual, such as level of education, employment status, area of residence and exposure to the media can determine their reproductive behaviour in conjunction with the psychosocial factors.

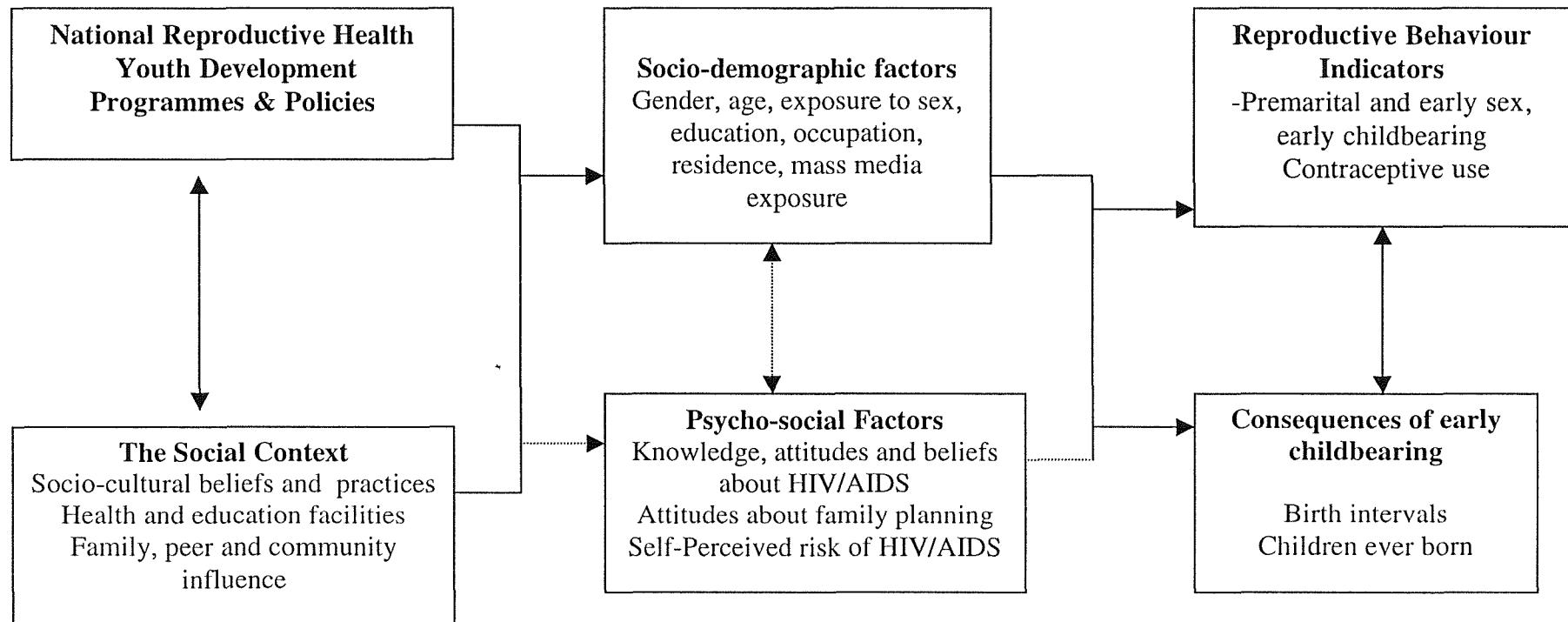
Psychosocial factors as identified by various behavioural theories influence the perception of the risk of HIV infection and unwanted pregnancy, and also the belief that the individual behaviour can have desired outcomes. Some of the behavioural models are the Health Belief Model (Janz and Baker, 1984), Theory of Reasoned Action (Ajzen, 1985) and the AIDS Risk Reduction Model (Catania et al., 1990). The factors are knowledge, attitudes, and beliefs about HIV/AIDS and family planning. The factors are shaped by an individual's sets of beliefs and attitudes, individual behaviour depends on perceived expectations of 'significant others' (people whose opinion one values) and the ability of an individual to adopt the desired behaviour. These models are not applied in the study due to the nature of the data which could not be used to quantify the various components of the model.

People within the same area are believed to be affected by the same factors such as: local beliefs, information diffusion, and service availability. The availability of services can influence attitudes through access to information and services. Young people's reproductive behaviour is also shaped by their family values and beliefs. Apart from the family influence, young people interact with their friends and spend much of their time in school, and have role models in their own community and in the media, factors which may weaken parental values (Zabin and Kiragu, 1995; Twa Twa, 1997). The analysis at

this level is based on field interviews with the young people themselves, opinion leaders, and service providers at local level. This is referred to as the social context of the study.

At the national level are programmes and policies in the areas of family life education, youth development programmes, family planning and AIDS control which are aimed at addressing the reproductive behaviour of young people. However, what is important is for the programme and policy interventions to reach down to the grass roots level. Hence, the analysis of national programmes and policies involves the review of government policy documents and field interviews conducted with programme representatives to examine their potential effectiveness in addressing reproductive behaviour of young people in Malawi.

Figure 2.1: Conceptual Framework for the Study of Young People's Reproductive Behaviour in Malawi



2.2 Defining adolescents and young people

Adolescence is a transitional phase from childhood to adulthood. It is defined as a specific age group, biologically, or socially depending on the cultural context (Gage, 1995; McCauley and Salter, 1995; WHO, 1993;). The age span of adolescence varies amongst demographic studies. Some have defined adolescence as the age group 15-19 while others have used 10 to 19 or 15-24 age groups (Blanc and Way, 1998; Gage, 1998). For the broader age range up to age 24, the term 'young people' has often been used (WHO, 1993; Caldwell et al., 1998).

Whatever age range is used adolescence is characterised by the sequence of significant life events: puberty, first intercourse, first marriage and childbearing (McCauley and Salter, 1995; Senanayake and Ladjali, 1994). McCauley and Salter (1995) argue that puberty marks the biological start of adolescence. Puberty changes the reproductive system, the sexual response system, and the way young people regard themselves and are perceived by others. These developmental changes give rise to new behaviour which may be determined by the level of physical, psychological and social maturity (WHO/UNFPA/UNICEF, 1999; Zabin et al., 1986).

The upper end of adolescence is determined more socially than biologically, marked by age, or onset of marriage or childbearing (Senanayake and Ladjali, 1994). Although McCauley and Salter (1995) clearly identify the beginning of adolescence, they do not identify its end. Adolescence is therefore relative; whereas one young person in one part of the world is still in school, a counterpart elsewhere is marrying and beginning a family (Aggleton and Rivers, 1999; Cates and McPheeers, 1998).

The term 'young people' has been used as a neutral term in preference to the term 'adolescents' because of the assumptions and associations made regarding their behaviour, taking unnecessary risks and conforming to peer pressure (Aggleton and Rivers, 1999; Ingham, 1992). Therefore this thesis will use the definition 'young people' to encompass the population aged 15-24, and to include the population that has experienced childbearing.

2.2.1 Lengthening adolescence

The period of adolescence has been gradually increasing in many cultures (Blanc and Way, 1998; Bledsoe and Cohen, 1993; Caldwell et al., 1998; McCauley and Salter, 1995; Singh, 1998; Udry and Cliquet, 1982). Age at puberty has been observed to be declining in developed countries and developing countries (Bledsoe and Cohen, 1993; Lema, 1990). In developed countries there has been a decline in the age at menarche over a period of approximately 100 years, levelling in the last decades at a mean age of around 12.8 years (Zabin et al., 1986). In sub-Saharan Africa, age at menarche between 12 and 15 years has been reported, with ages as low as 10 (Lema 1990).

Age at marriage, however, has been rising (Westoff et al., 1994). Modernisation, through full-time education for girls up to tertiary level, and the pursuit of a career has delayed the start of marriage for many, thereby exposing them to a longer period of risk of premarital sexual activity than their predecessors (Singh, 1998). In addition, the age at first sexual intercourse has been declining (Ajayi et al., 1991; Ingham, 1992; UN, 1989). This means that first sexual experience and childbearing may take place in different personal and social contexts to previous previous generations (McCauley and Salter, 1995). This presents two configurations of adolescent childbearing: one in which childbearing takes place within marriage, and another before marriage. The former is socially acceptable in most developing countries, but the latter is a cause for concern for many societies due to social consequences (Bledsoe and Cohen, 1993; Gage, 1997; Meekers, 1994). The International Conference on Women, Beijing (1995) focused on the problem of the 'girl child' marrying at a very young age. The lengthening period of adolescence has also been a cause for concern in the era of HIV/AIDS, since young people who engage in sexual intercourse are not likely to be in a stable sexual union, nor are they likely to practise safer sex, and will therefore have increased risk of HIV infection.

2.3 Defining reproductive and sexual behaviour

The definition of young people's reproductive behaviour covers elements such as the age at first intercourse, the age at first marital union, the extent of premarital sex, the age at first childbearing, contraceptive knowledge and use (Bongaarts and Cohen, 1998).

Sexual behaviour, according to Dixon-Mueller (1993), is described as 'actions that are empirically observable (in principle at least): what people do with others or with themselves, how they present themselves sexually, how they talk and act' (p273). It is argued that sexuality is a wider concept that includes both personal feelings, desires, beliefs, socially accepted attitudes, norms and meaning of interaction with the same and opposite sex. According to Varga (1997), sexual behaviour denotes 'physical actions associated with the act of sexual intercourse, such as penetration, contraceptive use,... or ejaculation' (p54). The author further distinguishes 'sexual decision making' and 'sexual negotiation' phrases. 'Sexual decision making' refers to decisions, preferences and resolutions made by an individual regarding the conditions, such as timing of intercourse or contraceptive use, under which sexual relations occur. 'Sexual negotiation' encompasses verbal and non-verbal communication and dynamics between partners in deciding how and when intercourse will take place', both influenced by what is perceived as gender-appropriate behaviour. Since sex is not a solitary activity, it is deduced that sexual behaviour is a combination of partners' sexuality, decision making, and negotiation (Dixon-Mueller, 1993, 1996; Varga, 1997; Zeidstein and Moore, 1996).

In addressing young people's sexuality, the focus has often been on documenting sexual behaviours, such as the proportion of teenagers who are sexually active, the age at first intercourse, the numbers of reported partners, partner characteristics, coital frequency in the past month, incidence of teenage pregnancy, the use of contraception, and 'high risk' sexual behaviours in relation to spread of STIs and HIV (Dixon-Mueller, 1993; Ingham, 1992; Moore and Rosenthal, 1993). In this thesis sexual and reproductive behaviour are used interchangeably since in the literature the issues covered overlap.

2.3.1 Age at first intercourse

The age at first intercourse marks the beginning of exposure to the risk of pregnancy and STI more accurately than the conventional question on age at first union since some sexual activity and childbearing is premarital (Blanc and Rutenberg, 1991; Blanc and Way, 1998). The age at first intercourse along with information on whether an individual has ever had sexual intercourse is used to determine the proportion of a population who are sexually active by a specified age, usually by age 20 (Wulf and Singh, 1991).

Some studies have pointed to evidence of lowering age at first intercourse (Ingham, 1992). Although there is more extensive evidence from developed countries, similar trends have been observed in developing countries (UN, 1989). The declining age at menarche has generally been suggested as one of the reasons for the decline (Udry and Cliquet, 1982; Zabin et al., 1986). In sub-Saharan Africa the early initiation of intercourse has been attributed partly to the early age at marriage; the reported percentage of women aged 15-19 who had sexual intercourse by age 15 ranged from 2 per cent in Rwanda to 32 per cent in Côte d'Ivoire. For women aged 20-24 years, the majority had sex by age 18. The median age at first intercourse is higher than 18 only in Namibia (18.6), Zimbabwe (18.8) and Rwanda (20.9 years) (Blanc and Way, 1998). The WFS showed that in a few countries in the region, over two thirds of women had sexual intercourse by the age of 19 years (Carballo et al., 1991 cited in Ingham, 1992). In a study among South African black teenagers, Preston-Whyte (1994), noted an early sexual activity, by age 15 for most boys and girls.

Comparatively low proportions of women initiating sexual intercourse during their teenage years have been recorded in the South East Asian region (Blanc and Way, 1998). In the Philippines, the 1993 DHS reported that less than a third of the women had engaged in intercourse by the age of 20. In Singapore, only 2 per cent of women aged 15-19 reported being sexually active. These lower percentages of teenage sexual activity could possibly be due to strong cultural and religious values which discourage engaging in or reporting of premarital sex (Blanc and Way, 1998; Carballo et al., 1991 cited in Ingham, 1992). The Latin America and the Caribbean region also have low levels of teenage sexual activity. According to the DHS conducted between 1991 and 1995, only

four to eight per cent of women aged 20-24 had sexual intercourse by the age 18 years. The median age at first intercourse ranged from 18.7 years for Guatemala to 20.9 years in Peru (Blanc and Way, 1998).

2.3.2 Non-marital sexual activity

A comparison of the age at first sexual intercourse with the age at first union is used to estimate the amount of time during which a woman is exposed to the risk of premarital sex, and becoming pregnant. In international surveys such as the DHS and Global Programme on AIDS (GPA)/WHO, marriage is broadly defined to include all unions as sanctioned by law, religion, or custom, as well as informal consensual unions. The GPA/WHO surveys included sexual unions that lasted for at least a year, and any which the respondent regarded as a regular relationship. The age at first marital union is assumed to be an indicator of entry into a sexual union and marks the beginning of the exposure to the risk of childbearing in most societies (Bongaarts and Cohen, 1998; Caraël et al., 1994; Westoff, et al., 1994). The proportion of married women who had sexual relations before marriage, and the extent of sexual experience among never married women are the main indicators of prevalence of premarital sexual relations (Blanc and Way, 1998). In addition, inter-cohort comparisons of exposure to risk of pregnancy can be made to establish trends over time (Blanc and Rutenberg, 1991).

In a review of demographic and health surveys between 1986 and 1991, Westoff et al. (1994) observed that more never-married women had sexual intercourse and started childbearing in sub-Saharan Africa than in Latin America. The percentage of women who had premarital sexual relations ranged from 5 per cent in Burundi to 85 per cent in Botswana. Namibia and Botswana were especially noted to have high prevalence of sexual relations outside marriage due to non cohabitation of sexual partners. The countries with a low percentage of premarital sexual activity were probably a reflection of early entry into marriage which reduces the risk of sexual intercourse outside stable unions. In 12 of the 17 African DHS countries with information on premarital sexual relations, at least 40 per cent of those never married reported having had sexual intercourse (Meekers, 1994; Westoff et al., 1994).

An examination of premarital sex, based on the DHS surveys between 1991 and 1995, indicated similarly high rates of premarital sexual experience as in the 1986 round (Blanc and Way, 1998). In sub-Saharan Africa the percentage of women with sexual experience among those who were never married ranged from 5 per cent in Rwanda to 62 per cent in Côte d'Ivoire, with lower rates in Latin America and Asia. In addition, the percentage of ever married teenage women who had sex before marriage ranged from 5 per cent in Niger to 60 per cent in Kenya. In Asia, in the Philippines and Kazakstan, the levels were 13 and 19 per cent, respectively. Overall, the level of premarital sex is high in Africa as evidenced by premarital sex prevalence of 25 per cent or more in 11 of the 17 DHS sub-Saharan African countries.

Generally, a lower percentage of never married young women had premarital sex than those who were ever-married. Some of the variation could be due to the fact that never married adolescents are younger, thus they had been exposed to the risk of first sex for a shorter period. It is also possible that young adults who had premarital sex go on to marry as teenagers (Blanc and Way, 1998). This is supported by McCauley and Salter (1995), who observed that among women aged 15-19, most of the sexual activity takes place within marriage. In sub-Saharan Africa, the proportion of sexually active adolescents who were married ranged from 20 per cent in Zimbabwe and Kenya, to 75 per cent in Mali. The exception was Botswana (six per cent) and Burundi (seven per cent).

The apparent high prevalence of premarital sex may also be due to a general increase in age at entry into marital unions. Westoff et al. (1994), reported a pattern across cohorts of a movement toward higher median age at marriage in many African countries. McCauley and Salter (1995) commented on an increasing trend in age at first marriage in all regions except in sub-Saharan Africa whereby nearly two thirds of women marry by the age of 20. Although the percentage is still high, in 9 out of the 21 countries they studied, the percentage married by the age of 20 had decreased by at least 10 per cent. Despite the higher prevalence of premarital sex documented for cohorts in their early 20s than those women in their 40s, this observation has to be treated with care. The reporting of the age at first sexual intercourse data may be dependent on expected behaviour,

especially if it was premarital and with a partner other than the respondent's regular partner (Blanc and Rutenberg, 1991).

In summary, there is little doubt that sexual intercourse starts at a young age, a phenomenon which may be linked to earlier age at menarche, which determines the physiological and partly social readiness for sexual activity (Udry and Cliquet, 1982; Zabin et al., 1986). With the delay in entry into a marital union, young people are exposed to the risk of premarital conception for longer periods than in the past.

2.3.3 Sexual partnerships

This section considers a variety of factors: the number of sexual partners; the timing and duration of sexual partnerships throughout the person's lifetime; the characteristics of the partners (age, socio-economic characteristics, type of relationship); the conditions under which each partnership occurs; and the rate and conditions of partnership change. The number of sexual partners and their characteristics are commonly included in sexual networking models (Dixon-Mueller, 1993). This discussion will, in particular, focus on the timing of first sexual intercourse; the frequency of intercourse; the age differences of sexual partners; the number of sexual partners and sexual networking.

Timing of sexual partnerships

Effective communication with a sexual partner has been suggested as one of the conditions for adopting safer sex practice (Ingham et al., 1991). Such communication is facilitated by knowledge of the sexual partner, which in turn is a function of time; and how long the sexual partners have known each other before the first sexual intercourse. Knowledge of a partner provides a proxy for the amount of information young people can gather about their partners, in particular the exchange of information about their sexual history. This could also serve as a proxy measure of the significance of a relationship (Ingham, 1992).

The concept of social script describes the idea of choice of points, where different courses of action can be chosen or terminated (Gagnon, 1977, cited in Ingham, 1992; Kent and Davies, 1992). The social script offers clear guidance for behaviour. With 'sexual

script', however, there is no determined sequence of behaviours from the first meeting to sexual intercourse. Yet people learn to regard themselves as in a progression of growing physical intimacy, which culminates in intercourse. For young people the sexual script is often not well formed and practised, thus they are unlikely consistently to use contraceptives (Gagnon, 1977).

The time elapsed between first contact to first intercourse is particularly short amongst young males. In a South African study, involving young men who had a sexual relationship with adolescent girls that resulted in a pregnancy, men insisted that sex must take place within the first few weeks of a relationship in order for it to be regarded as serious (Varga, 1997). About 27 per cent of the respondents in a survey of young people in the south of England had first intercourse within 24 hours since becoming 'a couple'. In contrast, females generally delayed intercourse for longer than males (Ingham et al., 1991). On a global scale, young men report having intercourse with casual acquaintances, whilst young women usually report that they had their first and subsequent sexual intercourse with a steady boyfriend or fiancé (McCauley and Salter, 1995). Thus, the gender differences in partner communication and expectations need to be examined.

Age of sexual partners

Age differences between partners are important in order to understand power relations. Few studies have given any indication of the age patterns of sexual partners. Males tend to have first partners slightly younger than themselves, while females tend to have partners who are older than themselves, and in some cases considerably older (Cates and McPheeetters, 1998). For example, cases of older men, 'sugar daddies', who go out with younger females, usually in their teens, and probably still in school, have been widely reported in sub-Saharan Africa (Hughes and McCauley, 1998; Ingham, 1992; Meekers and Calvès, 1997; Preston-Whyte, 1994; Rutenberg and Diamond, 1993). Cates and McPheeetters (1998), quote the ages of male partners as between 3.6 and 5.2 years older than their female partners in Latin America. Although not directly addressing the question of age differences, Lema (1990) found that 73 per cent of sexually experienced schoolgirls in Nairobi had had their first sexual experience, at least, in the man's house

or room, suggesting that that they may have been involved with more mature, self-supporting male partners.

Number of sexual partners and networking

Data on the numbers of sexual partners in a lifetime, in the past year or last month, and on the type of partner ('regular' and otherwise) have been collected in many countries participating in the DHS programme. The number of partners an individual has is important in studying sexual networking patterns among males and females in order to understand paths of HIV and STI transmission. Young men report having multiple sexual partners more often than young women (McCauley and Salter, 1995; Owuamanam, 1995). Young single males have the tendency to exaggerate the number of sexual partners they have had in order to gain prestige, and young females conceal such behaviour (Kiragu and Zabin, 1995). Despite this, the pattern of higher sexual partnerships for young males has been consistent in a number of surveys (Owuamanam, 1995; Kiragu and Zabin, 1995). Furthermore, among young men in Africa, having multiple sexual partners is common. There is usually the main girlfriend whom they expect to marry, and one or other girlfriends, for whom there are no such expectations. This continues into marriage when casual relationships run simultaneously with the marital relationship (Meekers and Calvès, 1997; World Bank, c.1997).

Sexual networking data include the number of times individuals had intercourse and with whom. Identifying the number of sexual partners and their characteristics, and their partner's partners helps to trace the route of transmission of disease. In addition, the social and economic context in which sexual exchanges take place needs to be understood by researchers (Dixon-Mueller, 1993; Orubuloye et al., 1991).

Separate surveys on sexual networking involving young people in a rural Ugandan community and street youth in Ghana, identified complex sexual networks involving spouses, boy or girl friends, other friends and commercial sex workers (Anarfi and Antwi, 1995; Konde-Lule et al., 1997). The partners for young males were mainly younger students and housemaids, whereas the young females' partners were mainly older traders and salaried workers. Males reported higher rates of concurrent sexual

relationships than females. In Uganda, of about 390 adolescents, 214 reported 339 sexual relationships; and 52 concurrent relationships were reported by 35 adolescents (Konde-Lule et al., 1997).

To conclude, it has been found that the time to first intercourse from the first meeting for young men is very short. In sexual partnerships, males are generally older than the female partners. Males also tend to have a higher number of sexual partners than females. Sexual networking data are more informative in understanding paths of HIV/STI transmission than just information on the number of partners.

2.3.4 Early marriage and childbearing

Early marriage characteristically coincides with early childbearing; in developing countries, much of the early childbearing is to women who are in a marriage or union (McCauley and Salter, 1995; Singh and Samara, 1996; Westoff et al., 1994). A one-year gap between the median age at first marriage and first birth has been observed for women aged 25-49 in most of sub-Saharan Africa, Latin America and the Caribbean. In the Near East and North Africa the interval between the two median ages is between one and two years, and in Asia it is slightly above two years (Westoff et al., 1994). Therefore, this section discusses age at first marriage, teenage childbearing and premarital childbearing in the developing world.

2.3.4.1 Age at first marriage

The timing of first marital union has important implications for the understanding of women's reproductive behaviour and the adoption of family planning methods. Although inconsistent, there has been evidence in North Africa, Asia, and to a lesser extent in Latin America, that increases in age at marriage have ordinarily preceded adoption of family planning (McCauley and Salter, 1995; Singh and Samara, 1996).

Women with some education were less likely to be married before age 20 and had a high median age at marriage. This suggests that education has become a factor in delaying marriage (Bledsoe and Cohen, 1993; Singh and Samara, 1996; Westoff, et al., 1994).

2.3.4.2 Teenage childbearing

Various indicators are used to detect the changes in levels of adolescent childbearing. For example, the age specific fertility rate for women aged 15-19 is used to measure the incidence of teenage pregnancy. Other measures used are the median age at marriage and birth, and the proportion of adolescents married and giving birth by age 20 (Bledsoe and Cohen, 1993; McCauley and Salter, 1995; Singh, 1998; Singh and Samara, 1996; Westoff et al., 1994). These age-specific fertility rates are useful in estimating the extent of childbearing in early adolescence (up to three years after puberty) which are high risk births, due, in part, to the small size of the birth canal (Moerman, 1982; Scholl et al., 1990; Scholl et al., 1994).

Sub-Saharan African countries have the highest levels of adolescent childbearing in the developing world (120 to about 200 births per 1000 women), followed by Latin America and the Caribbean (80 to 100), and most of Asia, North Africa and Middle East have low to moderate rates (30 to 65) (Singh, 1998). Using the proportion of women aged 20-24 giving birth by age 20, DHS data show that sub-Saharan Africa has substantial levels of adolescent childbearing. In 17 out of 20 DHS countries studied, Singh (1998) found that the proportions of women giving birth by ages 20, 18 and 15 range between 47 to 75, 25 to 40 and 8 to 14 per cent, respectively. In Latin America, a third of the women have at least one child by age 20. The rates are lower in North Africa, Middle East and Asia, ranging from 20 to 30 per cent, with exceptionally high rates of 41 and 66 per cent in Yemen and Bangladesh (Singh, 1998).

A comparison of women who have had a child by the age of 20 a generation apart shows a high proportion of young women are still having one child under age 20, but that fewer are having two or more children during their teenage years in sub-Saharan Africa. It has been observed that, in a few sub-Saharan African countries where fertility has begun to decline, the declines in adolescent fertility are preceding declines at older ages, in association with lowering age at marriage (Westoff et al., 1994).

2.3.4.3 Premarital childbearing

In some cultures, a pregnancy can precipitate marriage because of the strong social stigma against a single woman having a child. However, with urbanisation, and changes in values and behaviour, there is a high proportion of young unmarried mothers in some countries of sub-Saharan Africa, and a non-significant proportion in Latin America (Singh, 1998). In other cultures, premarital relationships are condoned, and sometimes encouraged, as a form of trial marriage, and proven fecundity leads to formalizing the union (Bledsoe and Cohen, 1993).

The ratio of premarital births to all births to women under age 20 is an indicator of adolescent premarital childbearing. As with premarital sex, Westoff et al. (1994) observed that more never-married women had started childbearing in sub-Saharan Africa than in Latin America. The range in premarital childbearing was wide, from 2 to 3 per cent in Mali and Burundi, to over 40 per cent in Botswana, Liberia, and Namibia. They also observed that in sub-Saharan Africa, there has been a slight to a sharp increase in the proportion of teenage births that occur before marriage, Botswana and Zimbabwe being at the sharp end. In a Kenyan study, the proportion of women giving birth prior to marriage went up from 25 per cent in 1977 to 35 per cent in 1993 (Njogu and Martin, 1998).

Overall, marked increases in premarital childbearing took place among young women with secondary education and living in urban areas. In most countries female enrollment in secondary school and age at marriage increased. Although it may be expected that the risk of having a premarital birth would be indeed high with the lengthening adolescence, Gage-Brandon and Meekers (1993) observed this exposure is partially offset by increased use of modern contraceptives in six sub-Saharan Africa countries. In some cases, the prevalence of premarital childbearing was found to be higher, particularly among those with primary school education.

In conclusion, although a significant proportion of teenage childbearing is marital in sub-Saharan Africa, pre-marital fertility has also increased due to improved education. It is

not clear whether this is a genuine increase or a change in acceptability and reporting of premarital births.

2.3.5 Contracepting behaviour of young people

An increase in contraceptive use among adolescents is vital in lowering fertility levels in sub-Saharan Africa because of the high incidence of adolescent childbearing. Once adolescents begin to adopt family planning it is expected that future cohorts will contracept for the purpose of spacing and limiting births throughout the reproductive span, rather than during a period when trying to postpone childbearing (Bledsoe and Cohen, 1993; Lema et al., 1998).

This section provides an overview of contracepting behaviour, particularly contraceptive knowledge, approval and use of contraceptives. Furthermore, the dynamics of contraceptive use are discussed.

2.3.5.1 Contraceptive knowledge and approval

In general, knowledge of contraceptive methods is widespread among young people in most developing countries (Blanc and Way, 1998). In the demographic and health surveys conducted between 1986 and 1996 in Africa, Middle East, Asia, and Latin America, contraceptive knowledge among adolescents was at least 90 per cent in a majority of countries. In sub-Saharan Africa the levels were lowest in Madagascar and Nigeria where fewer than half of all teenagers know of some methods of contraception. In Asia and Latin America, even the countries with low levels of knowledge had proportions exceeding 50 per cent (Blanc and Way, 1998; Gage-Brandon and Meekers, 1993). Although knowledge is high among female adolescents, their knowledge is lower and more limited than that of women aged 20-49 in a majority of countries. The overall difference was in the range of 10 to 20 per cent points in 28 of 37 DHS countries reviewed.

Overall, the pill and the condom are the most widely known modern methods of contraception among young people in the majority of developing countries. The injection, female sterilization and the IUD were observed to be more well known outside sub-

sub-Saharan Africa. Periodic abstinence is the most widely known traditional method in most countries (Blanc and Way, 1998). In sub-Saharan countries levels of knowledge of the rhythm or 'safe period' method were found to be low, as indicated by the inability of young people to identify the fertile period of the menstrual cycle in Botswana, Burundi, Ghana, Kenya, Liberia and Zimbabwe (Gage-Brandon and Meekers, 1993; Kiragu and Zabin, 1995).

Comparisons of currently married and never-married adolescents showed that generally those who were married were more likely to know about specific methods. This may not seem surprising since those who were unmarried may not yet have the need to seek contraception. However, the knowledge of condoms is higher among those who were never married, probably due to the AIDS education campaigns which emphasise condom use (Blanc and Way, 1998)

Regarding approval of family planning use, a review by Blanc and Way (1998) showed that most adolescents have a positive attitude to family planning. They express surprise that never-married women were more likely to approve of family planning than currently married women. They speculate that this is likely to be due to the fact that never married young women are better educated and more likely to live in urban areas. Kiragu and Zabin (1995), on the contrary, identified myths and misinformation regarding contraceptive use in a focus group of high school students.

2.3.5.2 Contraceptive use dynamics

This section looks at contraceptive use dynamics focussing on the timing of first use, contraceptive discontinuation and failure and unmet need. Sexually active young people are less likely to use contraception than adults, even though they are married, this may be because of the desire to have a child or because the marriage was a result of a premarital pregnancy. This was depicted in all regions of the developing world, except in Latin America (McCauley and Salter, 1995). The likelihood of use was consistently higher among married than unmarried adolescents; and substantially higher among adult women. In Kenya, although the contraceptive prevalence rate has been increasing for all age groups, the proportion using contraception among women aged 15-24 is smaller than

in the older age groups (Toroitich-Ruto, 1998). Likewise, adolescents formed only 10 per cent of family planning clients at the central hospital in Blantyre, Malawi, compared to 17 per cent for those aged above 35 years (Lema and Thole, 1994; Lema et al., 1998).

a. Timing of first use of contraception

Few adolescents are likely to use contraceptives the first time they have sexual intercourse (Bongaarts and Cohen, 1998; McCauley and Salter, 1995; Zabin et al., 1986). The most cited reason that young men and women give for not using contraception is that they did not expect to have sexual intercourse (McCauley and Salter, 1995). The first few sexual encounters are the most crucial for adolescents. Studies in the US have shown that the greatest risk of adolescent pregnancy is in the first months after sexual debut. Half of all premarital conceptions among teenagers occur in the first six months after commencing sexual relations (Zabin et al., 1979). This period is likely to be shorter amongst adolescents in developing countries who typically have low levels of contraceptive use.

Much of the research in the developing world in this area has concentrated on Latin America and the Caribbean. It was universally found for both men and women, that the probability of using contraceptive at first sex increases with increasing age at first sex (Morris et al., 1995 cited by Blanc and Way, 1998). In a Kenyan study only the frequency of intercourse among males was found to affect the likelihood of contraceptive use at first and last intercourse (Kiragu and Zabin, 1995).

The number of living children an individual has at first contraceptive use is an indicator of the start of family planning in the family formation process. On a global scale, with very few exceptions, the majority of sexually active adolescents who have ever used contraceptives, do so to postpone first birth; otherwise, they usually use contraception after the first birth (Blanc and Way, 1998; Remez, 1990). The most commonly used method was the condom, although in isolated cases the pill was also reported, particularly for females (Morris et al., 1995 cited by Blanc and Way, 1998). Thus, young people are unlikely to use contraceptives at first intercourse, due to it being unplanned sometimes.

b. Contraceptive discontinuation and failure

It is important that, once adolescents adopt family planning, they continue to do so to prevent unwanted pregnancies or STIs and HIV infection. Single young people, however, face more barriers in accessing family planning services than married adults. The reasons are often personal, such as the costs and side effects of methods. Other reasons are related to service provision, such as inadequate supply and the negative attitude of staff. In addition, adolescents are likely to have spontaneous and irregular intercourse, as well as inadequate knowledge of the ovulatory cycle, and knowledge of effective use of methods (Blanc and Way, 1998; McCauley and Salter, 1995). Ineffective use of contraception may include skipping birth control pills or intermittent use, and not using a barrier method on each occasion of sexual intercourse (Greene and Westoff, 1998). Furthermore, the menstrual cycles of young women do not settle into a regular pattern until some years after menarche (Bongaarts and Bruce, 1995). This means that methods such as periodic abstinence are unlikely to be an option for young women. These factors are important in understanding discontinuation of contraception.

The monthly calendar of contraceptive use, as recorded in the DHS for countries with medium to high contraceptive prevalence rates, allows the examination of discontinuation probabilities by reasons for discontinuation. Firstly, contraceptive failure, described as segments whereby the respondent became pregnant while using a method. Secondly, contraceptive switching, segments that were followed in the next month by use of a different method. Finally, abandoning the method, defined as segments that were followed in the next month by non-use. 'Abandon' is divided into two categories: those abandoning contraception but remaining in need of contraception; and those abandoning contraception but not in need of contraception due to a desire to get pregnant, infecundity or menopause, or no sexual intercourse. Although women may have more than one reason for discontinuing the use of contraceptives, only the main reason is recorded (see for example Curtis and Hammerslough, 1995).

Discontinuation probabilities of contraception among young women in Bangladesh, Colombia, Egypt, Indonesia, Peru and Zimbabwe, are described by Blanc and Way (1998). In all six countries, adolescents are more likely than older women to discontinue

use of contraception within the first year of use. The switching rates are lower in Zimbabwe than in other countries amongst both young and adult women. The authors suggest that switching rates have more to do with the provision of family planning services than the characteristics of individual factors. Failure rates are also higher for adolescents than for adults in all study countries. This is particularly evident for periodic abstinence and withdrawal methods, which require correct knowledge and cooperation of the male partner (Blanc and Way, 1998). These results suggest that young women using contraceptives are more vulnerable to having an unwanted pregnancy or to abandon contraception while still at risk of pregnancy.

c. Unmet need

Unmet need refers to sexually active people who do not desire a pregnancy but are not using contraception (Westoff and Bankole, 1995). Computation of unmet need has traditionally focussed on married women and omitted the young and the unmarried; yet these form one of the largest groups whose reproductive health needs are inadequately met. Using DHS data from 1988 to 1993, Westoff and Bankole (1995) estimated that in sub-Saharan Africa eight per cent of unmarried women aged 15-19 had unmet need for contraception. The proportion was as high as 34 per cent in Botswana and 25 per cent in Ghana and Zimbabwe.

Unmet need is also reflected in high rates of STIs, premarital conception, and unplanned pregnancy and in mortality and morbidity from unsafe abortion among young people (McCauley and Salter, 1995). The following sections discuss unwanted pregnancies and unsafe induced abortion among young people.

i. Unintended pregnancy

In the DHS questionnaire, women were asked whether each birth in a recent period of time such as the last three or five years, or simply the last birth, was wanted at the time the woman had a child, whether it was wanted later (mistimed) or not wanted at all (unwanted). Tsui et al. (1997) use the term 'unintended' to include both 'unwanted' and 'mistimed' births. It has been recognised that women in general are less likely to admit that they would rather not have had a child at the time. To overcome this limitation

respondents were asked about the future; if they were to become pregnant would they feel 'happy' 'unhappy' or 'it would not matter'. Meekers (1994) studying seven African countries found that in each country at least 40 per cent of women aged 15-24 reported that they would be unhappy if they became pregnant.

Young women are more likely to say that their recent birth was mistimed than to say it was unwanted (Singh, 1998). Furthermore, in countries with many unmarried young mothers, the proportion of unintended pregnancies is expected to be higher than for those with children born within wedlock (McCauley and Salter, 1995; Letamo, 1993; Meekers, 1994; Singh, 1998). For example, in Kenya DHS, the percentage of current pregnancies among adolescents aged 15-19 reported as unintended was 7 per cent among married and 74 per cent among unmarried young women (McCauley and Salter, 1995). Meekers (1994) also found that young women were more likely to report a birth as unintended if they were literate. However, it has to be realised that some adolescent women really want to have children. Thus, young unmarried or educated women are more likely to report an unintended birth than if they are married or uneducated .

ii. Unsafe Induced Abortion

Although the actual figures for unsafe abortion among young women in the developing world are difficult to estimate, there is no doubt that the scale is enormous (Zabin and Kiragu, 1998). Unsafe abortions may result in life-long morbidity, infertility or in the extreme case, maternal mortality. The implications are more grave among young unmarried women who may take time to acknowledge their pregnancy and seek abortion from backstreet practitioners because of shame, lack of access or money. In some parts of Africa, there are widespread anecdotal accounts of women known to use twigs, drink detergents, take overdoses of chloroquine or penicillin (Demographic Unit, 1987). The fear of getting dismissed from school is also a reason for seeking abortion. Eventually they end up seeking medical care for abortion complications (Salter et al., 1997; Zabin and Kiragu, 1998).

Direct data on unsafe abortion are difficult to collect and even where this is possible, the data are grossly underreported because both women and providers are unwilling to

discuss the topic (Barreto et al., 1992). The fact that abortion is illegal in some countries makes it difficult for people to acknowledge it so that they are not seen to be breaking the law (Remez, 1995). Even in countries where it is legal, it is not always easy to have the procedure performed. For example in Zambia, one of the few African countries with liberal abortion laws, abortion is only performed for the welfare of existing children. It requires the signatures of three doctors before it is performed, one of whom must be a psychiatrist. This makes it difficult for most young women to access safe abortion services (Biddlecom and Kaona, 1998).

Various sources of abortion statistics point to the fact that adolescents account for a substantial proportion of all abortions. For example, in Cuba, where abortion is legal, adolescents make up a third of all abortion cases (Singh, 1998). In Malawi, adolescents formed 21 per cent of all of all gynaecological admissions due to induced abortion (Lema and Thole, 1994). Ajayi et al. (1991) report that in Kenya a quarter of all sexually active 12-15 year old girls and a third of those aged 16-19 had attempted an abortion.

Improvements in contraceptive delivery are likely to lead to a reduction in induced abortion (Remez, 1995). Focus group discussions amongst young people in Nigeria indicated that young people have better and more accurate information about induced abortion than they have about family planning. Their knowledge about abortion demonstrated an ability to weigh its costs and benefits (Barker and Rich 1992). This, the authors suggest, is an opportunity to motivate them to use family planning services. The scale of induced abortion among young women shows the extent of unmet need of family planning.

Overall, unmet need for contraceptives is high among unmarried adolescents. Young women are likely to report that a pregnancy was mistimed than unwanted. Unmarried or educated young women are more likely to report unwanted births. Though hard to document, there is evidence that induced abortions are high among adolescents.

2.4 HIV/STI transmission

The levels of STIs and HIV infections remain high in the developing world in spite of recent global efforts to prevent sexually transmitted infections. On a global scale, at least

330 million people are infected with curable STIs and another 20 million are infected with HIV (Cates and McPheeers, 1998). These infections are common in areas with expanding populations of young people, and limited resources, which compound the STI epidemic (Cates and McPheeers, 1998; Grosskurth, et al., 1995). There is a strong association between STIs, lifestyle and HIV infection. The behaviour of STI patients and the very presence of STI increases their susceptibility to HIV infection (Cohen et al., 1997; Dallabetta, et al., 1993; Lule et al., 1997; Verkuyl, 1995; Wynendale et al., 1995). However, there is also evidence to say STIs are not related to HIV (Grosskurth et al., 1995).

The major mode of HIV transmission in sub-Saharan Africa is through heterosexual sexual intercourse (Burtley et al., 1994; Cohen et al., 1997; Dallabetta et al., 1993; Kaluwa, 1997). In a major hospital in Malawi, 23 per cent of women who received antenatal care had HIV-1. The risk factors for HIV included history of STIs and multiple sexual partners (Dallabetta et al., 1993). Among 705 STI patients, almost 62 per cent were found to be HIV positive (Lule et al., 1997). In a rural Uganda community, adolescents who reported having genital sores in the past 12 months had 17 per cent seroprevalence, compared to 5.3 per cent of those who did not (Konde-Lule et al., 1997).

2.4.1 STI/HIV data collection

Information on STI infection in many surveys is often based on self-reporting of symptoms such as genital sores and discharge. Since, however, most sexually transmitted infections are asymptomatic, especially among young women, this leads to underreporting (Zabin and Kiragu, 1998). Marked differences have been observed in STI infection rates between self-reported and clinical examination data. In Malawi, Dallabetta et al. (1993) found low levels (11 per cent) of STI infection based on self reporting, in marked contrast to high levels (42 per cent) found on physical examination among antenatal women. Similar contrasts were observed in Tanzania (Grosskurth et al., 1995). This suggests that survey data based on self-reporting of STIs should be treated with caution.

In order to determine the association between sexual behaviour and sexually transmitted infections, it is ideal to complement medical data with information on sexual behaviour. However, such a study depends on the availability of laboratory facilities, willingness of participants to have specimens taken, and the right and willingness to know the results, among other ethical issues. In the case of HIV testing, Verkuyl (1995) noted in Zimbabwe unwillingness to request one, and to know the results among patients due to a fatalistic attitude to AIDS.

Some studies on sexually transmitted infections have managed to combine both medical and behavioural data. In Rwanda and Uganda, cross sectional surveys screened young, sexually active women to determine the incidence of HIV-1 and associated risk factors. Young marital age, multiple sexual partners, and a history of STIs were strongly associated with the incidence of HIV-1 (Burtleys et al., 1994; Konde-Lule et al., 1997).

A sexually transmitted disease control programme in rural Mwanza, Tanzania conducted HIV and serological tests, STI treatment and questionnaire interviews concerning sexual attitudes and practices of individuals. With no apparent change in sexual behaviour, Grosskurth et al. (1995) concluded that the STI treatment intervention, which shortened the duration of infection, probably lowered the incidence of HIV. A three-wave survey to examine the rates of HIV-1 and STI among pregnant and postpartum women between 1990 and 1995 at the central hospital in Blantyre, Malawi also observed reductions in STI prevalence, with no substantial change in sexual behaviour, as measured by condom use (Taha et al. 1998).

These studies show a strong association among HIV/STI infection, behavioural factors, and equally important, STI treatment intervention, although the link between STI and HIV is debatable. This suggests that for a thorough understanding of the AIDS epidemic among young people complementary research methodologies have to be employed. However, in the absence of epidemiological data and with the knowledge of this association, high risk behaviours can be identified based on widely available demographic and health survey data.

2.4.2 Age-sex pattern of STI/HIV

Most newly affected cases of HIV are those in the 15-24 year age group, who engage in unprotected heterosexual intercourse, and who live in Africa (UNAIDS, 1998; Cates and McPheeters, 1998). The age-sex pattern of HIV infection in sub-Saharan African countries such as Uganda, South Africa and Tanzania consistently shows that young women are particularly at high risk compared with young men of the same age (Burtleys et al., 1994; Grosskurth et al., 1995; Konde-Lule et al., 1997; Preston-Whyte, 1994; Zabin and Kiragu, 1998). In Malawi, female cases out number male cases by at least four fold in the age group 15-19, and two fold in the age group 20-24 (National AIDS Control Programme, 1996).

Further data suggest that HIV rates are higher among younger women than among older women (Grosskurth et al., 1995; Konde-Lule et al., 1997). At the central hospital in Blantyre, Malawi, Taha et al. (1998) noted an HIV incidence of around 6 per 100 person-years in women aged less than 20 years, which declined steadily in older women. In a rural area south of Malawi, among girls (aged 10-19) with a first pregnancy, a high percentage of HIV infections was noted which suggests that a sizeable number of them were exposed to sexually transmitted infections almost from the start of their sexual lives (Brabin et al., 1998).

2.4.3 Socio-biological factors of STI transmission

Both biological and behavioural factors can contribute to adolescent susceptibility to sexually transmitted infections. The association of high infection with early sexual debut and multiple partners is well documented (Cates and McPheeters, 1998; McCauley and Salter, 1995; Zabin and Kiragu, 1998). A study in the US found that the human papilloma virus (HPV)¹, the most prevalent sexually transmitted organism among the adolescent population aged 14-19, affected 15 per cent of this age group and, was strongly related to the number of sexual partners (Moscicki et al., 1990).

¹HPV is a viral infection strongly linked to development of cancer of the uterine cervix

Among teenage women, the biological immaturity of the cervix associated with normal adolescent development may leave the adolescent cervix susceptible to sexually transmitted infections (Moscicki et al., 1990). A larger area of the cervical ectopy facilitates male-to-female HIV-1 transmission through a direct mechanism or indirectly through a higher invulnerability to gonococcal or chlamydial infections. The HIV-1 virus also seems to be passed more efficiently from male-to-female than female-to-male (Burtleys et al., 1994).

Young people may regard themselves as invulnerable to STIs; and if they get infected there is a sense of denial and shame. Although two thirds of adolescents in a survey in Malawi considered their age group as being most likely to contract HIV, slightly over a third of the girls could not give a reason why they thought they could not be infected by HIV (Phiri et al., 1997).

The available information shows that young women who have sex with older men increases their risk of infection (Burtley et al., 1994; Cates and McPheeters, 1998; Meekers and Calvès, 1997). The long incubation period between the initial infection and the development of symptoms of HIV means most STI-related HIV infections acquired as teenagers are not manifested until later years (Cates and McPheeters, 1998). The age-sex pattern of HIV prevalence in Malawi suggests that HIV is being transmitted from older men to younger girls, who, when they marry men of their own age, consequently pass it on to them (Kaluwa, 1997).

The HIV incidence is changing in some parts of Africa, reflecting higher infection rates among adolescents. Taha et al. (1998) observed higher HIV incidence among urban young women than older women, in contrast to higher prevalence among older women. Between 1990 and 1996 the peak of age-specific HIV prevalence shifted from younger age groups to older age groups, which suggests an aging cohort of women who became infected at a younger age (Taha et al., 1998).

In summary, young women are specially vulnerable to HIV and STI infection for physiological reasons and are great risk of contracting an STI due to their sexual relations with older male partners. Young people also generally do not regard themselves as being

at risk from sexually transmitted infections. HIV acquired during adolescence has implications for the age-pattern of the HIV prevalence.

2.4.4 Condom use in STI/HIV control

With the spread of HIV and AIDS among the sexually active population, 'safer sex', particularly condom use was promoted in many countries, as well as chastity and monogamy. In view of the context and the behavioural characteristics of teenage sexuality, Preston-Whyte (1994) doubts the feasibility of the last two options. The condom has dual purpose, as a contraceptive and as a barrier method in preventing STIs and HIV infection. In sub-Saharan Africa despite the condom being widely marketed it has been beleaguered by cultural resistance, inconsistent use, and seen as an impediment to sexual pleasure in a 'trusted' relationship (Miles, 1993; Ocholla-Ayayo et al., 1993; Preston-Whyte, 1994).

Condom use is generally low in sub-Saharan Africa, not just among young people, but among the sexually active adult population as well. In Uganda, although 36 per cent of adolescents reported being sexually active only 6.2 per cent (11 per cent males, and 2.4 per cent females) reported that they had ever used a condom (Konde-Lule et al., 1997). Taha et al. (1998) reported an increase in condom use from 5.8 per cent in 1989 to 15 per cent in 1993, among women in Blantyre, Malawi. In the same period, however, seroprevalence increased from 19 to 30 per cent. Thus, Taha et al., (1998) concluded that women either over-report condom use or under report sexual activity. Consistent condom use peaked at 62 per cent in the first year, but declined to 6 per cent in the second year of the study (Taha et al., 1996; 1998).

Condom use has come to be associated with STI and HIV protection rather than a contraceptive method. As such, discussion of use in a sexual relationship suggests moral implications of infidelity and sexual diseases. Studies among South African youth suggest that barrier methods raise doubts about the love and fidelity between the partners (Preston-Whyte, 1994; Varga, 1997). In Nigeria, the common notion among young men and women was that 'for a boy to wear a condom, it means he does not love the girl'.

Those who used condoms said they did so to prevent contracting STIs rather than to prevent pregnancy (Amazigo et al., 1997).

Young adults use condoms inconsistently even when they know about STI and HIV. In Malawi, Bandawe and Forster (1996) found that although urban secondary school students seemed worried and preoccupied with AIDS-related issues, they not only perceived themselves to be at low risk, but 56 per cent of them did not use condoms, even though they reported themselves as being sexually active.

In summary, condom use is generally low in sub-Saharan Africa. When used, it is less for contraception than for STI/HIV control, and it is used inconsistently. Even then the suggestion of its use in sexual relations is not easily accepted as it brings into question the nature of the relationship.

2.5 Social context of reproductive behaviour

It is clear from the preceding discussion that young people's decisions about their reproduction are a function not just of their individual, but also dyadic, family, community, economic and socio-cultural factors. These factors are so closely intertwined that one cannot just study the individual effects of young people's reproductive behaviour to the exclusion of the other factors.

2.5.1 Social norms

Social norms refer both to what people characteristically do in all areas of life and to people's expectations of others. With reference to adolescent sexual behaviour, there is extensive literature suggesting that peer groups can facilitate or inhibit sexual risk-taking among adolescents. Understanding how these social forces shape their lives is key to adolescent reproductive health and development. In particular, attitudes and norms concerning early sexual activity, childbearing, and access to information about reproductive health, need to be addressed (Barker and Rich, 1992; Gage, 1997; Senanayake and Ladjali, 1994; WHO/UNFPA/UNICEF, 1999).

Some social norms particularly influence unequal gender relations, in particular the societal acceptance for young men to have multiple sexual partners but not to tolerate the

same behaviour from women (UNAIDS, 1998). A young woman who has more than one partner is looked down upon across many cultures. For example, in South Africa among the Zulus, a woman with many lovers is branded '*isfebe*' which means '*whore*', whereas a man with many partners is called an '*isoka*', which is a compliment for '*real man*'. A man with one partner is called an '*isishimane*', an insulting label (Miles, 1993; Varga, 1997).

Social norms regarding early childbearing are very strong in many parts of Africa. Fertility is highly valued in sub-Saharan Africa and being unmarried may not be an obstacle to the bearing and raising of a child (Demographic Unit, 1987; Meekers, 1994; Preston-Whyte, 1994). For instance, Gage-Brandon and Meekers (1993) remarked on the intolerance of premarital sexual activity for young women among some patrilineal societies. Whilst in some matrilineal societies, where lineage is more important than nuptial ties, children were often welcomed as an addition to a woman's lineage regardless of her marital status. In addition, the community and family expect girls, once they reach menarche, to act as mature adults. The girls also view themselves as mothers and wives (Hickey, 1997). Davison (1993), in a comparative study of parental attitude towards educating girls in rural areas of Kenya and Malawi, noted that the social pressure to marry early was stronger in Malawi.

2.5.2 Motives for sexual intercourse

Young people engage in sexual relationships for various reasons such as expression of love, marriage, or economic reasons. Females generally report strong emotional commitment as the major factor for first intercourse, males who have intercourse relatively early in the relationship, cited 'fun' or 'curiosity' as the motivating factor (Ingham, 1991). Some authors have claimed that both males and females view sex as the absolute necessity of a normal relationship (Varga, 1997). The literature is not clear whether the young women have sex to be loved or they have sex because they are in a 'committed' relationship. Some boys feel that without sex, the girl does not love them or is cheating on them; the girls feel obliged to have sexual intercourse with the boys as a sign of love (Hickey, 1997; Varga; 1997).

Sexual relations of young people in sub Saharan Africa often have an element of socioeconomic exchange associated with them, to various degrees, either motivated by poverty to meet basic needs or the desire to lead a better life (Gage, 1997; Meekers and Calvès, 1997; Twa Twa, 1997). Despite having an economic incentive, Meekers (1994) concluded that having children with a lover may be a rational decision sometimes. The economic motive observed was not just to be confined to girls. In Cameroon, some males in focus groups reported going out with girls or 'sugar mummies', to cook for them or to help them financially (Meekers and Calvès, 1997).

Decisions regarding sexual activity, condom use, and more broadly contraceptive use require a mutual commitment from both partners. However, culturally entrenched male control over reproductive decisions contribute to young women's vulnerability to the risk of unintended pregnancy and STIs (Gage, 1998). The socioeconomic and age differences between partners can create a situation of power imbalance in a relationship, which may in turn affect a young woman's ability to enforce her preferences in a sexual relationship (Bongaarts and Bruce, 1995; Gage, 1998; Mensch and Lloyd, 1998; Moore and Rogow, 1994; Varga, 1997).

2.5.3 Sources of information on reproduction

Young people turn to different sources of information at different stages of their lives and interpret messages differently according to their own sexual development and experience (Andre et al., 1991). Studies in the UK and Kenya have shown that a considerable amount of information acquired by young people came from informal sources such as mass media, magazines or books and peers (Barker and Rich, 1992; Cooper et al., 1992; Lema, 1990). In Uganda, Twa Twa (1997) summarised factors influencing students' sexual activity as parents, peers, economic factors and AIDS education. Traditional sources of information such as initiation and traditional dances, popular in some rural areas of Africa are also reviewed.

a. Family

Parents (and other kin) do not just influence young people's sexual behaviour through information, values and attitudes, but also through their authority and control over social

and economic resources. For example, in Uganda, children of single parents and orphans were more likely to have had sex than those from families with both parents (Twa Twa, 1997). Ocholla-Ayayo et al. (1993) found that, in Kenya, adolescents aged 10-19 years with either parent dead had higher levels of sexual activity than those with both parents alive. This, they explained, was partly due to the breakdown in the traditional ties of extended family to take care of the children.

Positive parent-child communication is essential for shaping of healthy sexual behaviour. However, this is not easy. Many young people in focus groups in Kenya and Nigeria said they found it impossible or uncomfortable to talk about sexuality with their parents or other family members (Baker and Rich, 1992). This apprehension seems to be mutual, with hesitation on both the parents and children to start a discussion. Daughters appear to discuss issues with their mothers to a greater extent than do sons with either parent. The onset of menarche apparently provides an opportunity for discussion for females (Ingham, 1992). Although parents, especially mothers, warn their daughters not to become pregnant, they offer little guidance on how to achieve that goal (Trussell, 1988).

Some of the key barriers to parent child-communication on reproductive health matters have been identified as children perceived to be being too young to receive information, parents not knowing what to say, lack of knowledge about contraceptive methods, and parents not taking time to talk to children about reproductive health (McCauley and Salter, 1995; Ram, 1975 in Jaccard and Dittus, 1993).

There is no simple relationship between parent and child communication and adolescent sexuality (Kirby, 1997). In the US, Newcomer and Udry (1984) found that although the sexual behaviour of a mother, when she was an adolescent, is related to the sexual behaviour of her child, there was little mediating influence of mother-child interactions. The mother's current attitudes, control behaviour or communication with the child about sex, whether measured by the child's report or the mother's report, did not seem to have any significant effect on the daughter's sexual behaviour. It was suspected that the relationship between mother's and daughter's sexual behaviour works partly through their biological relationship to one another, as early maturers are associated with younger age at sexual debut (Udry and Cliquet, 1982). Jaccard and Dittus (1993) reviewing

studies in the US, also expressed pessimism regarding parent-teen communication as a means of preventing unintended premarital pregnancy.

Rather than just getting information on parental-child communication on sexuality issues, it is fundamental to know the content of parents' communication with their children. Parental beliefs and values regarding sexual and contraceptive behaviour topics also need to be known, whether it is for teenagers not to engage in premarital sexual intercourse, or not to get pregnant. In an examination of various studies on communication between parents and their teenage children in the US, traditional attitudes about marriage and family life were found to be associated with lower sexual activity among daughters (Jaccard and Dittus, 1993).

The content of parental discussion with adolescents in Kenya concerned topics such as how to behave properly in society, school work and career. Reproductive health topics, particularly contraceptives were discussed least often. If contraception was discussed, then it was in the context of avoiding relationships because of the risk of pregnancy and disease; some parents actually warned their daughters not to use contraceptives before marriage (Kiragu and Zabin 1995; Varle et al., 1998).

Researchers need to be clear on the topic areas when discussing parent-child communication and sources of information on reproductive behaviour. Hepburn (1983) identified three levels of communication about sexual topics among 48 couples and their daughters in the US. Level one refers to a specific conversation, usually involving mother and daughter, taking place just before or at puberty, discussing menstruation, reproduction, and sexual intercourse. Level two communication is a continuous mother-daughter conversation, from early to middle adolescence, often initiated by the daughter, and subjects may include, among others, birth control, abortion, rape, and teenage pregnancy. The father is left out in these talks, more for convenience than anything else. The last level lasts into adulthood, involves social issues and is neither personal nor private, and includes all family members. The topics are general such as fornication, adultery, illegitimacy, abortion, and rape, among others (Hepburn, 1983). Although this was a small sample and in a middle class American setting, the universal relevance is that it offers an indication of the timing and topic content of sexual issues for adolescents.

Premarital childbearing is rarely a burden to the teenage mother because normally the extended family helps in child rearing in sub-Saharan Africa. Whereas parents do not approve of premarital pregnancy, the importance of having children is imparted to girls from a very young age (Hickey, 1997). In some cases they may allow a girl to have sexual relationships with a suitor who may be providing for her economically as a guarantee of continued flow of aid (Gage, 1997). In Botswana and South Africa it was found that although parents were angry and disappointed when a girl gets pregnant, they are delighted to have a grandchild who they readily accept into their home (Letamo, 1993; Preston-Whyte, 1994).

b. School setting

The formal education system has changed the traditional methods of transferring knowledge to younger generations. School going young people spend a considerable amount of time in school, away from their family who would provide restraints on sexual activity. Kiragu and Zabin (1993) suggested that peer influence could be a reason for the observation that boarding school males were more likely than those who live with both parents to be sexually active. For day scholars, peer influence acquired at school may be offset by interacting with both parents daily.

There is no doubt about the potential of schools to impart knowledge on sexual issues to young people. Nevertheless, there has also been a dilemma as to whether it is the responsibility of parents or teachers to prepare adolescents for adulthood. Teachers have generally expressed discomfort to discuss sexuality with young people (Ingham, 1992). Schools have usually taught only the biology of sex and omit important topics of sexuality and pregnancy prevention. Parents also often feel that it is the responsibility of schools; while education authorities are hesitant to introduce family life education in schools for fear of parental resistance (McCauley and Salter, 1995; Meekers, 1994).

With more time spent in school by young people, teachers are increasingly taking up educational roles which formerly rested on the family and community. The need to train teachers to increase their awareness of reproductive health issues so that they can comfortably teach family life education has increasingly been stated by many researchers

(Baker and Rich, 1992; Kiragu and Zabin, 1992; McCauley and Salter, 1995; Rogo et al., 1987)

c. Peers

During adolescence young adults are in a transition from parental authority to independence, and tend to turn more to their friends and others in the wider community. Sexual behaviour has been found to be the area with the most disagreement between parents and adolescents (Salter and McCauley, 1995). Several studies conducted in Kenya over a decade have consistently concluded that peers play an important role in the diffusion of information regarding sexuality, family planning, and abortion (Ajayi et al., 1991; Barker and Rich, 1992; Lema, 1990; Rogo et al., 1987; Varle et al., 1998).

Among secondary school students in Uganda, Twa Twa (1997) found that sex, age, number of friends, and friends who take alcohol, were amongst the most important predictors of having had sexual intercourse and multiple partners. The influence of friends was stronger in males than in females. In a survey of 3,000 students drawn from primary to vocational schools in Kenya, Kiragu and Zabin (1993) found that young men who socialize with sexually experienced peers were nearly seven times as likely as those whose peers were not sexually active to have had sexual intercourse themselves; for females they were three times as likely.

d. Mass media

‘Mass media’ is a term that describes a wide array of information provision interventions which can target and reach large audiences. Mass media and entertainment activities which provide information can increase knowledge, influence attitudes and social norms, and encourage the changing or continuation of behaviour (WHO/UNFPA/UNICEF, 1999). Since the media is an influential source of information for young people, it can be used to reach young people with positive sexual messages through various innovative approaches such as popular songs on the radio and television, soap operas, telephone hotlines, magazine and comic books (Barker and Rich, 1992; Senanayake, 1992).

e. Traditional channels

Traditional channels of communication such as initiation and traditional dances provide an educational setting for adult life and socialisation. It is not clear, however, how much and what reproductive behaviour information is imparted to young people through such channels. In Tanzania, Van de Walle and Franklin (1996) described a traditional dance '*digubi*' which is performed at puberty and marriage. However, it was observed that more information was transmitted through personal contact at first birth with older women than through the '*digubi*' dance. In Malawi, boys go through initiation once, and girls have two or more at puberty, first pregnancy and birth (Kornfield and Namate, 1997). Due to accusations of graphic sexual content in the Malawi context some churches also conduct initiation ceremonies which are shorter, with censored sexual content (World Bank, c.1997; Kornfield and Namate, 1997). It is also not clear how effectively the information is assimilated due to the young age of initiation in some cases. In Malawi, young people who had gone through initiation did so between average ages of 10 to 16 years, with older ages in the patrilineal areas. Some went through initiation at a young age of 6 years (Hickey, 1997; Kornfield and Namate, 1997; World Bank, c.1997).

Religion has a strong influence on the lives of many African people. Religion is expected to have a restraining effect on premarital sexuality. However, various studies show the minimal effect of religion on the sexual behaviour of individual adolescents. Devoutness matters more than just nominal membership (Twa Twa, 1997). Although the influence was found to be strong in Kenya, young people found the advice they received from the church to be too negative and unaccommodating. (Kiragu and Zabin, 1995; Varle et al., 1998). The Catholic church in Kenya is noted for its strong opposition to family life education (Varle et al., 1998).

Mixed messages

The society subjects young people to confusing messages concerning sexual behaviour (McCauley and Salter, 1995). Adults may tell them not to indulge in sexual activity but their own behaviour is not exemplary. The heroes of adolescents in the media extol sex as a normal and integral part of life, yet they get contradictory messages regarding

negative aspects of sexual activities. Meanwhile, their peers may consider sex and sexual relationships exciting and pleasurable. As a result young people may discern and reject messages about sexual behaviour that seem hypocritical, and they distrust adults who try to hide the positive aspects of sexuality (Aggleton and Rivers, 1999; McCauley and Salter, 1995; Paxman and Ferguson, 1997; Trussell, 1988).

Cultural and religious beliefs heavily influence sexuality health education in Kenya. Abstinence is the main message passed to young people; schools, churches, health centres, community and family members advise young people that abstinence is the proper and best method of preventing unplanned pregnancy and STIs. Rarely is the condom or other contraceptive use recommended as a means of protection (Varle, et al., 1998). It is doubtful if the abstinence message is adhered to.

In conclusion, the perceived usefulness of different sources of sexuality information as measured in research is subjective. It is important, however, to identify which aspects are important: new information to the adolescent, trustworthy source, non-intimidating source and a source that will respect the young people's confidence (Jaccard and Dittus, 1993).

2.6 Interventions for young people's reproductive health

The issue of young people's reproductive behaviour demands a multi-sectoral approach applicable in many settings in which young people can benefit, such as the home, school, health centres, work place, the street, religious groups, community organisations, through policies, legislation, mass media and entertainment. The physiological, psychological and developmental issues of the adolescent need to be well understood (Kiragu and Zabin, 1995; Kulin, 1988; WHO, 1997; WHO/UNFPA/UNICEF, 1999). Young people should also not be treated as one homogenous group. They comprise various groups which can be separate or overlapping such as young men and women, students, those not in school, married, unmarried, sexually active, and those not yet sexually active. All these have separate needs (Senanayake, 1992).

There is little agreement on whether adolescent pregnancy is an issue of health, morals or economics. For example, Trussell (1988) identified three arguments that support

public intervention to 'solve' the problem of teenage pregnancy in the US. Two pertinent arguments are cited here.

Single young people should not engage in sexual intercourse, the solution of which is to go on a campaign to promote values of chastity among the unmarried, to the exclusion of any other strategies such as availability of contraception and abortion services. Senanayake (1992) argues that adults in such a case view adolescents' sexual interests more as an inconvenience than an inevitability of a social and biological process. In the US, six studies assessing the impact of interventions that primarily advocated abstinence until marriage, without any instruction on contraception did not find any consistent and significant programme effects on delaying the onset of intercourse. At least one study found strong evidence that the programme did not delay sexual debut (Kirby, 1997; Grunseit, 1997). However, Kirby (1997) contends that the intervention programmes reviewed did not operate long enough to be evaluated.

The second is that a large proportion of adolescents are sexually active, and that it is only proper to furnish them with accurate information on reproductive biology and contraception from an early age. However, such information should be accompanied by a wide availability of contraceptive services (see also McCauley and Salter, 1995). There is a lack of concurrence among the advocates of the various arguments as to whether it is sex, pregnancy or childbearing that is the main aspect of the problem.

2.6.1 Programmes

In the light of the heterogeneity of attributes and needs of young people, various social programmes can exert an influence on social change and reproductive behaviour (Paxman and Ferguson, 1997). There are those programmes that aim to improve the socioeconomic status of young people, especially basic education programmes. These in turn serve to effect proximate determinants of fertility such as age at marriage. The second group, reproductive health programmes, integrate family planning and HIV control programmes, which cater for the general population, and some specifically geared towards young people. Finally, social programmes whose main aim is to deal directly with reproductive needs of young people.

Education programmes

Although family life education (FLE) is widely acknowledged, there are opponents who fear that discussion of sex will arouse young people's curiosity, remove their innocence about sexual matters, and encourage sexual activity (Grunseit, 1997; Kirby, 1997; Senanayake, 1992). However the terminal nature of AIDS has brought a new urgency to resolving the conflicting views and stand points of opposing parties (Grunseit, 1997).

In a review commissioned by the WHO Global Programme on AIDS, it was found that exposure of young people to HIV/AIDS and/or sex education either did not lead to any changes in their sexual behaviour, or if there was an effect it was usually a postponement of the onset of sexual activity (Gruinset and Kippax, 1997; Grunseit, 1997). In an analysis of 35 different studies, Baldo et al. (1993) found that in six of the studies sex education led to a delay in sexual activity or reduced overall sexual activity. US evaluation studies found that those who had sex education on HIV/AIDS, contraception and resisting pressure to have sexual intercourse, had delayed onset of intercourse, fewer sexual partners, less frequent sexual intercourse and were more likely to use condoms (Kirby, 1997).

For messages on reproductive behaviour to young people to have the desired result, timing is vital. In the UK, those who had sex education said it was taught either 'too early' or 'too late' (Woodcock et al., 1992). Several FLE programmes have found that, if they reached young people before they first had sex, they increased contraceptive use once young people started sex (McCauley and Salter, 1995). In a study in Mexico, however, FLE did not affect contraceptive use among students who were already sexually active when they took the course (Pick de Weiss, et al., 1990).

Sex education programmes do not easily have a measurable effect on attitudes and sexual behaviour; sex education is just one of many factors which shape sexuality (Ford et al., 1992 cited in Ingham, 1992; Grunseit, 1997). In a review of outcomes of population and family planning programmes in a school environment in Africa, Asia and Latin America, Ford et al. (1992, cited in Ingham, 1992) noted about the lack of evaluative evidence of

such programmes having a measurable effect upon attitudes and behaviour. They recognise limitations of the approaches in having an impact of sexual behaviour.

Reproductive health programmes

Integrated MCH/FP and STI/HIV services could be regarded as a step towards providing integrated reproductive health services as consolidated by the International Conference on Population and Development (ICPD) in Cairo and the UN Conference on Women in Beijing (1995). Integration mainly takes two forms: a supermarket approach, in which all services are available at all times from a particular outlet; or for different services such as antenatal care, child immunisation, family planning and HIV/STI counselling to be offered at different days or from different staff (Lush, 1997; Mayhew, 1996). The justification for integration of reproductive health services includes better utilization of scarce resources, avoiding duplication, and improving cost effectiveness and quality of services. It is counter argued, however, that offering a broad range of services would result in loss of focus and possible reduction in quality of services. There would be a need for training of staff in STI management and family planning provision (Lush, 1997; Mayhew, 1996; Tsui et al., 1997). STI/HIV and FP programmes can co-ordinate without necessarily being integrated (Zaba et al., 1998).

Young people have been reported not to fully benefit from mainstream family planning and STI control programmes, since they are sometimes subjected to provider prejudice. For example, clinic staff in South Africa perceived condoms as a poor choice of contraceptives and their use was discouraged. The staff, in addition, felt constrained by the large numbers of people they had to attend to and the lack of facilities (Abdool Karim et al., 1992). Hickey (1997) blamed low use of contraceptives among young women in Malawi on the unwelcoming reception by some personnel at family planning clinics.

Youth reproductive health programmes

Young people are generally healthy and do not feel the need for use of health services, yet they indulge in unhealthy sexual behaviour. Therefore to attract youth to adopt preventive health measures, some successful sexual health programmes have integrated

FLE with another focus of development such as youth centres or, an income generating activity (McCauley and Salter, 1995; Senanayake, 1992).

In Zimbabwe and Tanzania youth education programmes have been complemented by parent education programmes to help parents discuss sexuality with their children. Parental opinion has to be solicited from the design stage, and an on-going basis and also involved in evaluating the programmes (Senanayake, 1992; UNFPA, 1993). Young people themselves have cited parents and community leaders as respected providers of sexuality education, therefore other community members can be used from an early stage to support sexuality education programmes (e.g Kiragu and Zabin, 1995).

Youth development programmes

Education conditions values and ideas that favour marriage postponement and decision-making power related to contraceptive use. However, by delaying marriage, it prolongs adolescence, and increases the chances of premarital sexual relations (Caldwell et al., 1998; Cohen and Bledsoe, 1993; Singh and Samara, 1996). Apart from formal schooling, it has been argued that other forms of formal training can delay and reduce fertility. Youth development programmes, designed to improve life skills or life options, rather than just focus mainly on sexuality issues have a lasting effect on responsible sexual behaviour (Kirby, 1997).

Work outside the home and earning one's own income, changed the traditional concept of adolescence early marriage and childbearing. Amin et al. (1998) noted that in Bangladesh young female garment workers develop a peer network that appears to delay marriage and births because of high opportunity costs of leaving the work force. Once they get married they were seen to be more assertive and autonomous in their fertility decisions than their traditional counterparts.

Peer programmes

In 1991 Barker and Rich reported that peer promoters with the Family Planning Association of Kenya highly recommended peer counselling as a way to reach the youth. In 1998 Varle et al., quoted youth commending the 'teach-teach' programme (with an

emphasis on teaching others) based on the experience that peers offered trusted advice and practical information and also acted as role models. Dickinson (1978, cited in Jaccard and Dittus, 1993) using 1964 and 1974 survey findings of sex information in the United States among black and white high school students, found that although parents were the most preferred source of information in both years, the largest overall increase in preferred source of information was in friends.

The involvement of youth in the planning and implementation of programmes that concern them rather than just treating them as targets has far reaching impacts. The advantages of involvement include making the programme appealing to many young people. A positive approach is that the young people be asked what they want (McCauley and Salter, 1995; Senanayake, 1992). In focus groups in Ibadan, Nigeria, participants said they wanted more information on the 'safe period' and pregnancy prevention than on biology and physiology of reproduction (Barker and Rich, 1992).

2.6.2 Policy

Political support is needed for programmes to operate successfully. Policy should be used to enable change, since no activities can be carried out at national level without a legal framework (McCauley and Salter, 1995).

Given the limited resources faced by many African governments, it is necessary to have a conducive environment to enable Non Governmental Organisations (NGOs) and international donor community support. In Kenya, NGOs have been in the forefront of supporting the government in the provision of family planning services. International donors are the largest contributors towards the government of Kenya's family planning programme (Toroitich-Ruto, 1998).

Since early marriages and childbearing are associated with adverse demographic indicators, enforcement of the legal minimum age for marriage is one way that governments can use to increase women's age at first marriage through coercion or incentives (Singh and Samara, 1996). In view of early marriages in Indonesia, some as young as 12, a marriage act was passed to establish a minimum age of marriage of 16 years for women and 19 for men. Sensitisation of the legislation included training of

Moslem and traditional marriage counsellors on the health impact of early marriage and specific alternatives to early marriage such as education and skill development (Dornside and Mahomed, 1987 cited in Paxman and Ferguson, 1997). The evaluation of fertility change revealed that increases in age at marriage was the most influential factor affecting fertility in Indonesia in the 1980s (World Bank, 1984). Legislation of minimum age at marriage, however, can be met with mixed success in Malawi where there are no birth certificates to validate age, and in the absence of proper machinery to enforce the law.

The education act can be amended to curb drop out rates due to pregnancy by readmitting young mothers back to school. The policy regarding readmission of pregnant school girls is varied in Africa. Some countries have an accommodating policy whereby pregnant girls resume studies after a year; whilst most have a permanent expulsion rule. Cohen and Bledsoe (1993) reviewed policies on readmission of pregnant school girls in eight African countries and found they all opted for some form of expulsion, without any opportunity of re-entry after delivery. They noted that less than 20 per cent and 30 per cent of girls who dropped out of school because of pregnancy, in Zimbabwe and Côte d'Ivoire, respectively, were readmitted after delivery. However, it is not just the policy that determines the return of pregnant young mothers to school, but also the availability of fostering facilities for the baby and the existence of a conducive environment at school once they return.

2.6.3 Elements of successful interventions

There are no strict rules as to what constitutes successful interventions for youth reproductive behaviour. It is not easy to attribute any changes in reproductive behaviour to any one intervention. What is clear, however, is the fact that certain northern European countries have managed better than the US, to attain good indicators of young people's sexual behaviour. The important elements are reviewed.

In northern Europe social norms supporting responsible sexual behaviour, open parent-child communication, sex education, counselling, contraceptive services and emphasis on personal responsibility and goals for young people have been attributed to the lowest rates of youth pregnancy, STI, and abortion rates among the countries of the developed

world (Jones et al., 1985; Trussell, 1988). Successful programmes had in common clear values and presented messages that strengthened individual values and group norms against unprotected sex (Kirby, 1997).

The US, whose governmental policy is ambivalent towards sex education, was found to have the highest teenage pregnancy and abortion rates among the developed countries (Grunseit and Kippax, 1997; Kulin, 1988; Trussell, 1988). Fursternberg (1998) cites the United States as an example of the conditions developing countries may learn to avert as they experience rising levels of young people's sexual activity. Young people are taught to abstain from sex before marriage, yet their instructors know in private they are unlikely to adhere to this teaching. Although they are advised to use birth control, this message is not passed on with sincerity.

In summary, this discussion has demonstrated that no single programme can address the issue of young people's reproductive behaviour, but requires a multi-sectoral approach. Good programmes should involve all stakeholders, particularly the young people themselves, from planning, through implementation, to the evaluation stage. There is no doubt about the favourable effect of policy direction, translated into human and financial resources, in addressing young people's sexual behaviour.

2.7 Conclusions

This chapter has identified the main issues of the research on young people's sexual behaviour as being the individual factors, the social context and national programme and policy interventions. At the individual level the review focussed on the onset of sexual activity, non-marital sex, sexual partnerships, early childbearing, contraceptive use and dynamics, and factors of HIV/STI prevention. A discussion on the social context showed the importance of family, friends, social services, and the media on young people's sexual behaviour. The policy and programme interventions at the national level in areas of reproductive health, education and youth development were found to be important in shaping the social context and individual sexual behaviour of young people.

The literature review highlights information gaps in the understanding of young people's reproductive behaviour in Malawi. For instance, there is a lack of nationally representative data on sexual behaviour indicators such as the onset of sexual experience, sexual partnerships and networking. It was noted that there are gaps in the literature on contraceptive use dynamics such as the timing of first use, contraceptive discontinuation and failure, unmet need and extend of unwanted pregnancies among young females. There is also very little known about the social context of young people's sexual behaviour in Malawi, especially the interaction of an individual with family members, peers, school environment, mass media and other traditional sources of information. Despite the importance of the programme and policy interventions on young people's sexual behaviour, they can not be easily evaluated due to their multi-sectoral nature and diversity of the elements of successful interventions. This study, therefore, examines young people's reproductive behaviour indicators at the individual level and investigates the social context that behaviour. In addition, on going programmes and policies are reviewed to assess their potential effect on sexual behaviour change in Malawi. The next chapter describes the various data and methods used in this study.

CHAPTER THREE

DATA AND METHODS

This chapter describes the data and methods used in this study. The first section reviews the need for use of quantitative and qualitative data in the study of sexual behaviour. Secondly, a description of the quantitative data sources is made, examining issues of data quality with a synopsis of the models used. A detailed description of the fieldwork conducted is presented, describing the process of qualitative data collection and analysis.

3.1 The integration of quantitative and qualitative Data

The integration of quantitative and qualitative research techniques in the social sciences is now widely recognised. In the field of health research, Shafritz and Roberts (1994) noted the synergism of conducting research combining qualitative and quantitative techniques in a multi- country study on immunisation coverage. They noted that focus groups, probably the most widely used qualitative method (Knodel, 1997), were strong in providing the reasons for poor vaccination coverage, whilst quantitative data were important for situational analysis. The study of sexuality in the context of HIV/AIDS transmission has taken a multi-disciplinary approach involving among others, the perspectives of anthropologists, demographers, epidemiologists and psychologists. In a study of young people's sexual activity Ingham (1992) noted that it was vital to adopt a multi-method approach to be able to examine fully sexual activities amongst young people. However, a researcher may find it difficult to incorporate the qualitative and quantitative methodologies (Knodel, 1997).

Ethnographers spend a long time with the subjects they are studying in order to have an in-depth understanding of social phenomena in their natural surroundings without researcher influence. Researchers from a quantitative background (such as this author) interested in incorporating qualitative data and analysis in their research, will find, for all practical purposes, that they do not have the abilities, training, time nor inclination to become competent anthropologists, and vice versa (Knodel, 1997: 848).

In this study quantitative data from the Malawi Demographic and Health Survey 1992 (MDHS) and the Malawi Knowledge, Attitudes and Practices Survey 1996 (MKAPH) and qualitative data collected by the author in between November 1997 and March 1998 are integrated to study young people's sexual behaviour in Malawi.

3.2 Quantitative data

The quantitative data from the 1992 MDHS and 1996 MKAPH relevant to the current study were related to: age at first sex, maternal history, and contraceptive use for pregnancy prevention. MDHS fieldwork was conducted between September and November 1992. A two-stage stratified sampling strategy was used. At the first stage 225 enumeration areas (EAs) were selected from the 1987 population census-based sampling frame with 8,652 EAs selected with probability proportional to population size. In the second stage, a systematic sample of households was selected from each EA based on a household listing (National Statistical Office [Malawi]; 1994; 1997). Since the North and urban areas have smaller populations they were over sampled to produce rural/urban and regional estimates which have similar precision for all areas. This study uses the DHS individual female questionnaire and the individual male questionnaire: a total sample size of 4849 women age 15-49 years and 1151 men age 20-54 was collected (National Statistical Office, 1994).

The MKAPH is based on a sub-sample of the MDHS, a systematic random sample with random selection of 116 EAs. The survey was undertaken from June to October 1996. In the MKAPH, the lower age limit for males was 15, producing 2658 interviews, and 2683 individual females age 15-49 interviewed (National Statistical Office, 1997). Ideally, the two datasets would have been used to establish levels and trends for the two time periods, however they are not entirely comparable. The 1992 survey has no data on sexual history (age at first intercourse, number of sex partners); whilst the 1996 data has no birth history data. In this study the 1992 MDHS is used in the analysis of timing of first birth and subsequent fertility (Chapter 5). The MKAPH is used to examine sexual behaviour and contraceptive use. Table 3.1 is a summary of the information used for this study by availability from 1992 MDHS and 1996 MKAPH.

Table 3.1: Data availability in the 1992 MDHS and 1996 MKAPH.

Variable or Information	1992 MDHS	1996 MKAPH
Background information		
- Ethnicity	✗	✓
- Been through initiation ceremony	✗	✓
Sexual union		
- age at first intercourse	✗	✓
- sexual partnership history	✗	✓
- marriage history	✓	✓
Fertility		
- Maternal history	✓	✗
- Children ever born	✓	✓
Contraceptive use		
-ever use; number of children at first use; current use	✓	✓
-duration of use; reason for not using	✗	✓
-reason for not intending to use; intention to use a method or delay pregnancy; preferred method	✓	✗
Desired fertility		
-wanted status of last pregnancy	✓	✓
-desired birth interval	✓	✗

Key: ✓ - available ✗ - not available

3.3 Methods of analysis

Various statistical and demographic techniques are used for the different analyses in this study. Table 3.2 summarises the main methods of analysis for each aspect of this research. Detailed descriptions are provided in the respective chapters.

Table 3.2 Summary of analyses used in the study and the area of application

Model / Technique	Area of application
Life table analysis	- timing of first and subsequent births (Chapter 5)
Cox proportional hazards model	- risk of first and subsequent birth (chapter 5)
Discrete time hazards model	-modelling of timing of first sex (Chapter 6)
Logistic regression	- contraceptive use or non-use (Chapter 7)
Multinomial Logistic regression	- contraceptive method choice (Chapter 7) - contraceptive need and use (Chapter 7)

3.4 Data quality

3.4.1 Age data quality

Demographers are commonly interested in age patterns of events. In Malawi, as in many countries with low literacy levels and where there is poor knowledge and documentation of dates of events, age reporting is problematic. Due to such problems, demographers have devised ways of improving the quality of age recording both during data collection and data analysis. To facilitate the estimation of age during census and survey data collection, enumerators are trained to probe for the year and month of birth. One method is to estimate an individual's age based on the records of their peers whose ages are known. An alternative technique is to use a calendar of historical events which occurred at national as well as at local level. In Malawi, the age distribution from census data has been shown to have irregular patterns arising from the use of such estimation techniques (National Statistical Office, 1984). The typical errors are heaping at certain ages arising from the reference to some important event in the past.

In this study, the date of birth of the respondent is the basis for the computation of current age of the respondent, age at first sexual intercourse, age at first birth and subsequent births, which are the key variables in this study. To obtain current age, the respondents were asked the month and year they were born, followed by a question about their age at last birthday as a consistency check. Given the date of interview and date of birth, an exact age in years and months can be calculated. In the DHS data files dates are presented as months and years and also as century month codes (CMC), which is the number of months since the beginning of the century (Macro International, 1994).

Only imputed dates appear in the data files. However, 'date flag' variables have been included in the files to show what the status of the age data was before the imputation (Macro International, 1994). The date flags variables are used in this study to evaluate the quality of age data reporting. Table 3.3 presents the status of the age data reporting for 1992 and 1996. The table examines extent of completeness of reporting of age, year and month of birth for the computation of the current age of respondent. It is observed that in 1992 the proportion of respondents with year and month of their birth incomplete tends to increase with increasing age. For the respondents with incomplete information on age, the highest proportion is for the category that had the month of birth missing.

This proportion ranges from a high 41 per cent for the women aged 40-49, to 16 per cent for those in the youngest age category.

Table 3.3 Percent distribution of women and men by completeness of reporting of current age by age of woman, MDHS1992 and MKAPH 1996

Survey and current age of respondent	Month & year given	Year & age- month imputed	Other imputations	Number of women
Women 1992 MDHS				
15-19	83.8	15.9	0.9	1082
20-29	72.9	26.4	0.5	1717
30-39	64.1	35.1	0.8	1196
40-49	57.7	40.8	1.5	855
Women 1996 MKAPH				
15-19	67.4	29.6	3.0	626
20-29	61.0	36.1	2.8	983
30-39	43.8	52.0	4.2	648
40-49	29.6	64.8	5.6	426
Men 1996 MKAPH				
15-19	75.2	22.8	2.0	600
20-29	77.5	21.4	1.1	896
30-39	72.3	26.4	1.3	622
40-54	61.3	37.0	1.7	540

In 1996, the percentages of women with complete age information are lower than in 1992. The percentages range from only 67 per cent for women aged 15-19 to a low 30 per cent for those aged 40-49 years. About 30 per cent of women in the age group 40-49 did not have a record of their month of birth. Up to 5.6 per cent of women had the year and month of their birth imputed with only the age reported.

The quality of age reporting for men for MKAPH 1996 is examined in the third panel of Table 3.3. The standard of reporting is slightly better than that for females in the same year, although not as good as that of females for 1992 MDHS. The age group with the most complete information is 20-29 (about 78 per cent). This proportion decreases with age to 61 per cent for men aged 40-54. Less two per cent of men in all age groups had information on age and had their year and month of birth imputed.

This age reporting analysis implies that most people in Malawi know their age and year of birth but the reporting of the actual month is not accurate. Precise ages are necessary

for calculating durations between two events. In this study, durations are calculated in years, rather than months so that the imprecise information about the month of birth (or other events) will not greatly affect the results.

Since information on age is the basis for the calculation of all duration data used in event history analysis in this study, it is vital that it be of utmost quality. For the analyses in this thesis, the duration data are predominantly in years, hence the data can be used confidently.

3.4.2 Quality of Sexual Activity Data

Information on sexual activity is important as a measure of the risk of pregnancy in a monthly fertile period and as an indicator of the risk of HIV infection. Despite their importance, questions on sexual behaviour have been omitted in fertility surveys, and their reliability and validity has been questioned (Blanc and Rutenberg, 1991). The 1996 MKAPH questionnaire includes questions on current sexual activity (the frequency of coitus in the four weeks preceding the survey, and the time elapsed since the last sexual intercourse). A question on the age at first sexual intercourse is also included, serving as an indicator of the beginning of the exposure to the risk of pregnancy more accurately than the conventional question on age at first union. Age at first union is valid on the presumption that all childbearing takes place within a union, which is not always the case in some countries in Sub-Saharan Africa, including Malawi (Blanc and Rutenberg, 1991; Westoff et al, 1994).

In the 1996 MKAPH, information on the number of sexual partners during a specified reference period was not collected from the 'never married' respondents. An examination of the model questionnaire indicated that the skip and filter rules were responsible for the omission of the unmarried population.

The age at first intercourse is recorded as reported by the respondents. They were not asked about the actual date when they had first intercourse; they were just asked about the age at which they had first sex. As such, data on age at first intercourse should be regarded as not very precise and cannot be subjected to the consistency checks applied to the other age data. In addition, one potential weakness associated with the age at first

sexual intercourse data is the reporting based on expected behaviour, especially if the onset was premarital or with a partner other than the respondent's current one (Blanc and Rutenberg, 1991). In the MKAPH 1996, the distribution of age at first intercourse for the population aged 15-24 does not suggest any irregularities.

3.4.3 Quality of Age at first union

The age at first union is obtained by subtracting the date when the respondent started living with their first partner from their date of birth. Where sexual relations are triggered by marriage, this age marks the beginning of the exposure to the risk of childbearing. The Demographic and Health Surveys collected information on the time when a respondent first got married or started living with a man/woman. However, not all sexual relations start within marriage, hence a variable was constructed from age at first union and age at first sex and birth to measure the extent of premarital sexual intercourse and births.

Figure 3.1 shows that between 10 and 25 per cent of women from the youngest to the oldest age group, respectively, did not report month of their first union. The completeness of reporting of both year and month decreases with age of the respondent, down to 66 per cent of women aged 40-49. This suggests that in Malawi it is difficult to assign an exact single date to a marriage, since the month is usually not specified.

As shown with current age, the degree of completeness of reporting of age at first union for women in the 1996 MKAPH is less than that for 1992 MDHS. The percentage with complete information for age at first union ranges from approximately 50 per cent to about 80 per cent, being inversely related to age (Figure 3.2). The age group used in the analyses in this study is 15-24 years which is fairly well reported.

Figure 3.1: Completeness of information on age at first union for women aged 15-49, 1992 MDHS

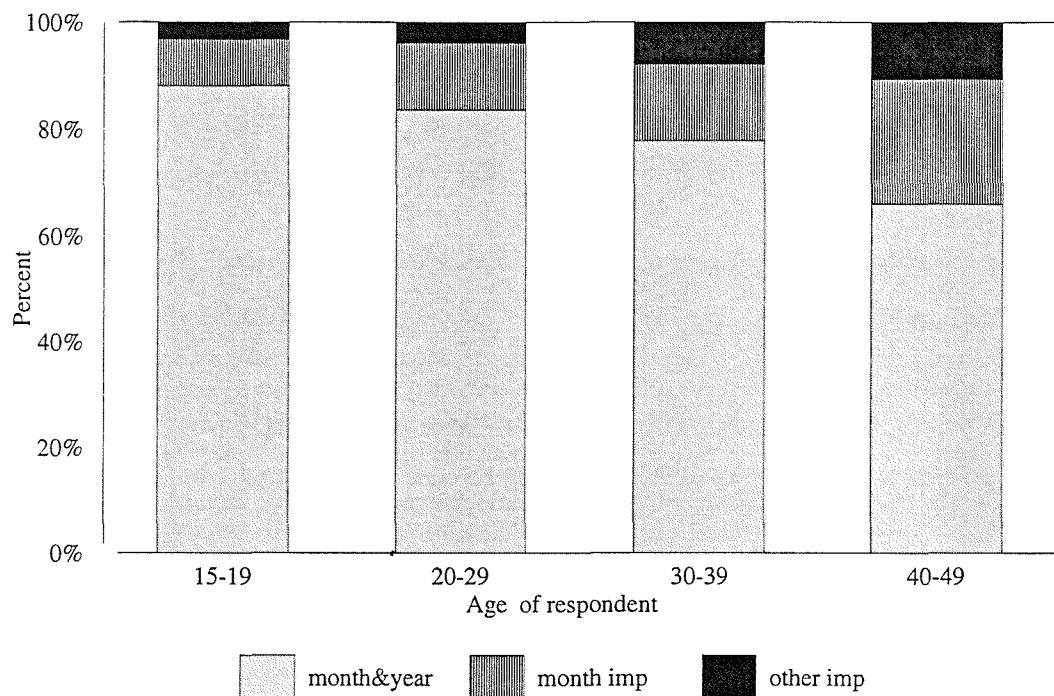
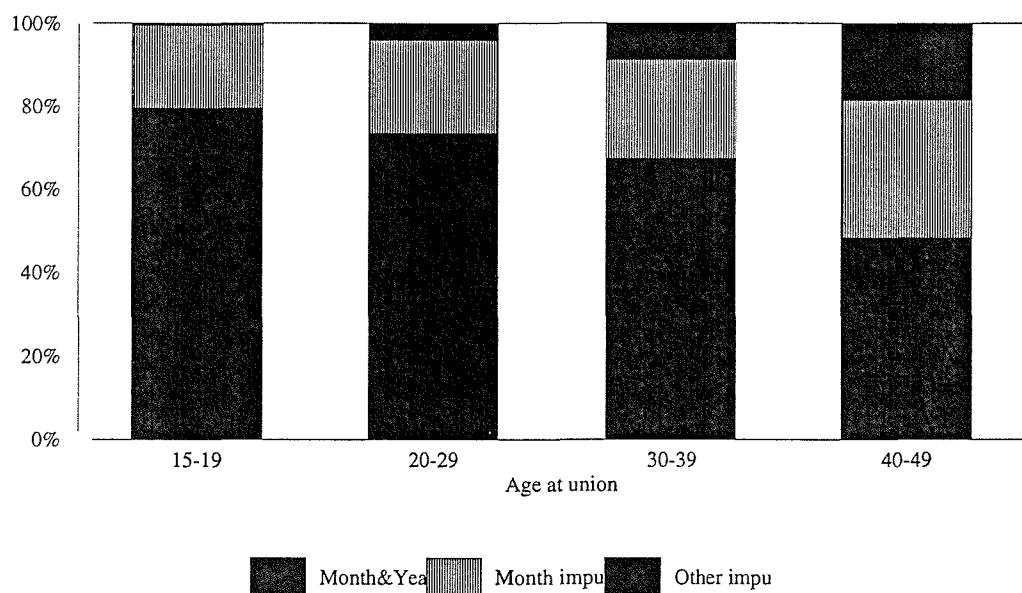


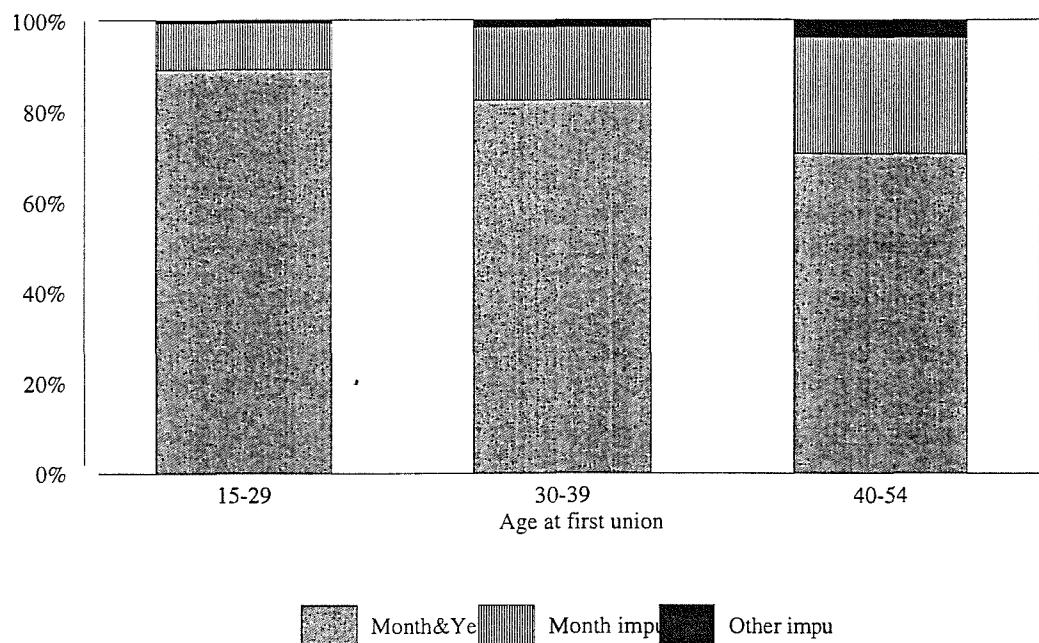
Figure 3.2: Completeness of information on age at first union for women aged 15-49, 1996 MKAPH



The age at first union information for men in the 1996 MKAPH suggests that the magnitude of incomplete reporting of age and year data is minimal compared to that of

women in the same survey. Figure 3.3 shows that there are at least 70 per cent of male respondents with completed records, with 90 per cent for the men aged 15-29.

Figure 3.3: Completeness of information on age at first union for men aged 15-54, 1996 MKAPH



3.4.4 Quality of data on age at birth of a child

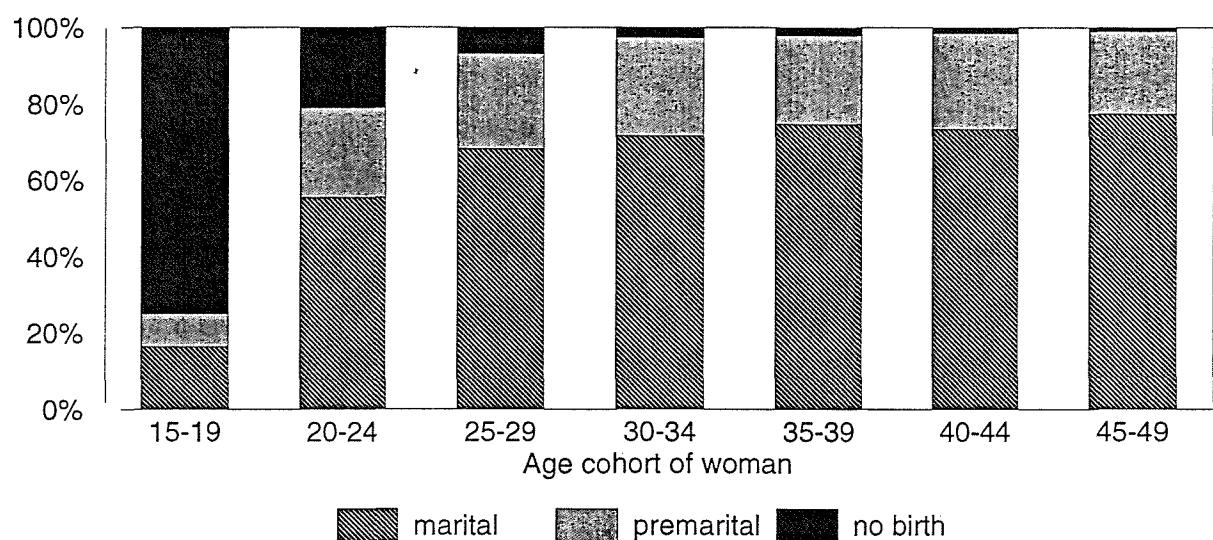
The maternal history of each woman in the 1992 MDHS facilitates the computation of the age at first birth or any other later birth by subtracting the date of a specific birth from the date of birth of the woman. There are limitations associated with the use of maternal history data, since the data are retrospective, mainly based on the recall of dates of birth of a woman's children. An examination of the birth history data presented in Table A3.1 in the appendix shows that the dates of the first four births to a woman for 1992 MDHS are reasonably well reported for all birth orders and all ages of women. At least 90 per cent of women had completed information on year and month.

Premarital childbearing

Further assessment of the age at first birth is done by examining the marital status of a woman at first birth in Figure 3.4. It illustrates that the majority of women were reported

being married at first birth, although there could be a substantial percentage of premarital pregnancies in all age groups. The percentage of marital first births increases with age. The proportion of women with no births decreases with age to almost one percent for women aged 45-49, which implies that almost all women in Malawi proceed to have a child during their reproductive years. From age 20 years, the fraction of women with premarital births does not differ that much by age cohort, hovering between 20 and 23 per cent.

Figure 3.4: The percentage distribution of women according to the status of their first birth, 1992 MDHS



3.4.5 Aggregated data

The previous sections have demonstrated that older women tend to have more omissions of dates of events than younger ones. This may be attributed to recall errors. However, aggregated data such as median or mean ages may help to attenuate any unexpected and irregular patterns. Median measures are not prone to the influence of extreme values, hence a better indicator than means. Table 3.4 uses median values to highlight the cohort trends.

Table 3.4: Median age at first intercourse, union and birth for women aged 15-49 and men 15-54, 1992 MDHS and 1996 MKAPH

Survey and age group	Female			Male		
	Age at first intercourse	Age at first union	Number	Age at first intercourse	Age at first union	Number
1996 MKAPH						
15-19	15	16	204	15.5	17	18
20-24	17	18	474	17	20	200
25-29	17	18	425	17	22	314
30-34	17	18	382	17	23	326
35-39	17	17	258	18	23	273
40-44	17	18	261	18	22	203
45-49	17	18	162	18	22.5	210
50-54	-	-	-	18	22.0	122
1992 MDHS						
Females						
Age group	Age at first union		Age at first birth		Number	
15-19	16		17		276	
20-24	17		18		779	
25-29	17		18		747	
30-34	17		18		648	
35-39	17		18		506	
40-44	18		19		451	
45-49	18		19		311	

Dash (-) = Not available

The median age at first sexual intercourse does not differ much by age cohort of respondents. It is 17 years for both males and females, except for men aged 35 and older, whose median age is 18 years. This may be due to the fact that older respondents reported normative age at first intercourse rather than the actual date of the event (see Gage, 1995). The median age at union for females is constant at 18 years, apart from age

group 35-39 (17 years) and 15-19, where it is 16 years. The age at first union for men has an inverted J-shape relationship with age, with a peak at 23 years for the age group 30-39. There is a gender difference in age at first union of two to four years. There is a one year gap between age at first intercourse and union for females, consistent across all age groups.

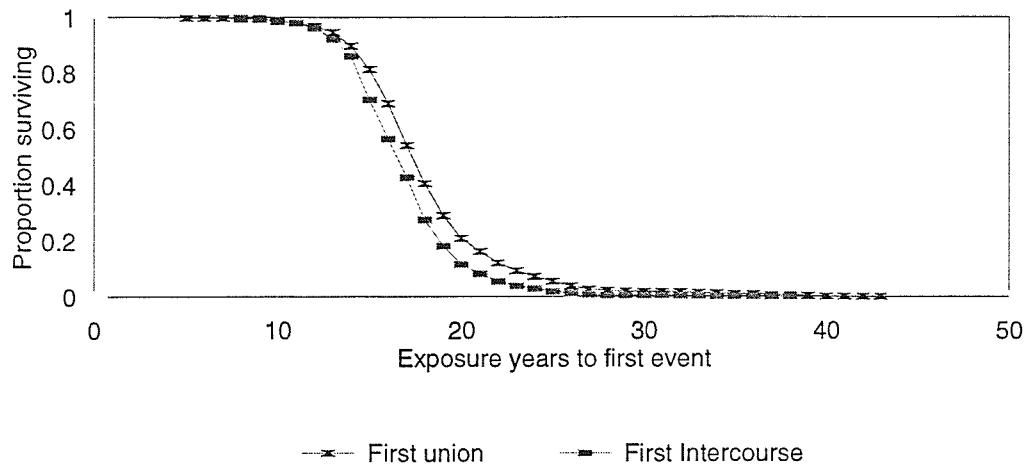
Age at first union and birth for women in MDHS 1992 are presented in the lower panel of Table 3.4. First births take place within the first year of marriage, with a median age at first union of 17 years. For the cohort of women aged 40 and older, median ages of first birth and first union are one year higher than younger women.

3.4.6 Duration data

Event history analysis is used to study durations of exposure to experiencing events such as first intercourse, first union and first and subsequent births. The duration of exposure to the risk of first sexual intercourse for the 1996 MKAPH cohort started at age six for both men and women to the oldest age by which the whole of the study cohort had experienced first sex or was censored by the survey date. Their contribution to the exposure period is up to that date.

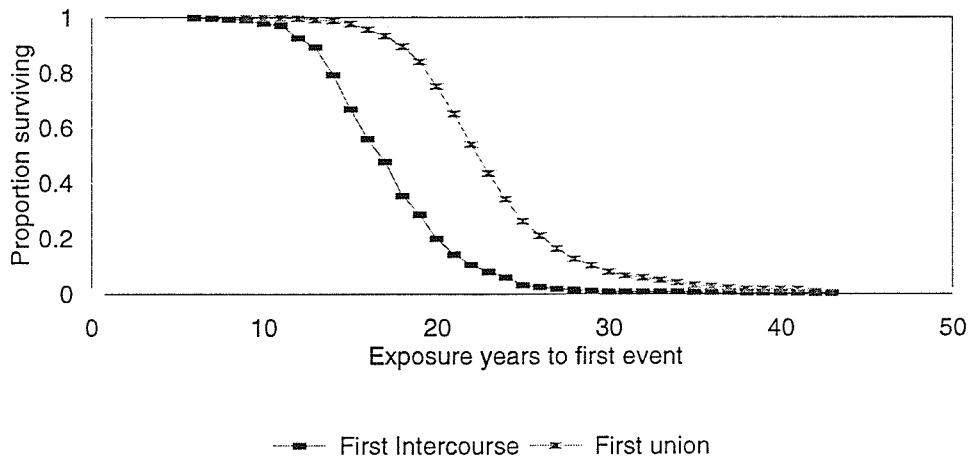
Figure 3.5 presents the survivor functions for exposure to the risk of first intercourse and first union for women from the 1996 MKAPH. Age at first intercourse and union seem almost to coincide in the short and very long term periods of exposure. The figure shows that the majority in the middle of the range, have premarital sex, preceding first union by about a year. The figure also illustrates that the rate of attrition of the cohort of women to first intercourse and union, respectively, is very rapid during the teenage years, suggesting early sexual activity.

Figure 3.5: Proportion of cohort of women surviving exposure to the risk of first intercourse and union, 1996 MKAPH



The survival curves in Figure 3.6 show that for the male population the gap between age at first intercourse and first union is evidently wider than that for the female cohort, as long as 10 years for a large part of the survival functions. The slope for the risk of first intercourse is also slightly steeper than that for first union, suggesting the chances of a man having first intercourse are higher than that of entering into a union.

Figure 3.6: Proportion of cohort of men surviving exposure to the risk of first intercourse and union, 1996 MKAPH

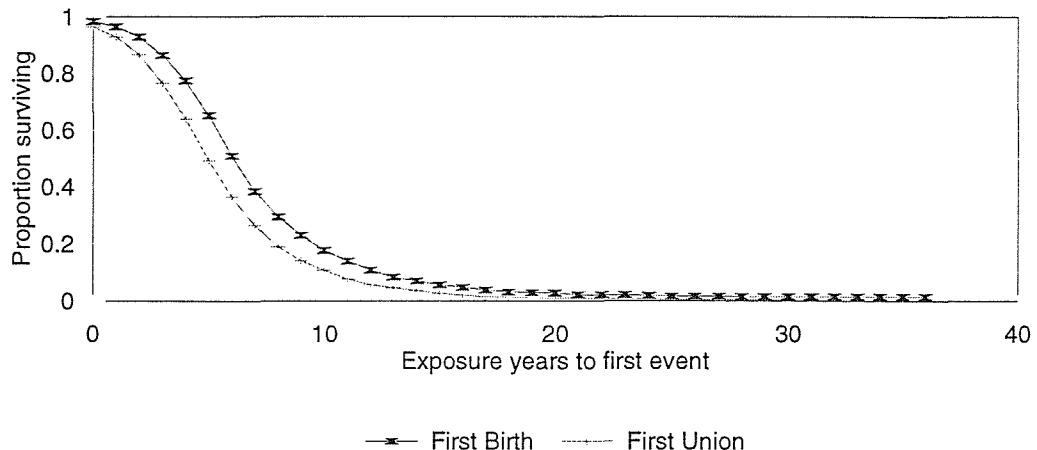


As noted before, the age at first union can be used to estimate the beginning of the exposure to the risk of childbearing. However, in the 1992 MDHS 20 per cent of women had their first births before first union. For age at first union the youngest reported ages

was eight for both males and females in the MKAPH. The youngest reported age at first birth and union in the 1992 MDHS was also eight, which suggests some problems with the data. Therefore, the beginning of exposure to the risk of having a first birth was adjusted to 12, the average age at menarche, at which a woman would be considered physiologically able to conceive, regardless of marital status (Ajayi et al., 1991; Becker, 1993). However, the ages are indicative of how early the exposure to the risk of HIV infection through sexual intercourse starts in the study population.

The survivor functions for the exposure to the risk of first birth and first union for women in the 1992 MDHS are presented in Figure 3.7. As noted from the basic examination of median ages, the life table survival functions confirm that first birth seems to follow immediately after the first union.

Figure 3.7: Proportion of women progressing from singlehood status to first union and childless status to first birth, 1992 MDHS



The assessment of the data quality for the two survey datasets used in this thesis shows that the quality of age data as reported in years is of acceptable standard. However, for more precise dates in month, the data have to be treated with care because of recall errors. The data on date or age at first union seems to be more lacking than the timing of the other events. A large proportion of women were able to report complete information on date of first and subsequent births. The examination of the timing of age at first sex, birth and union has shown a consistent pattern of the age difference of the three events. The 1992 MDHS further highlights the need to be cautious with reporting of first events by

women aged 40 and older, whose average ages at events are higher than the younger cohorts. This may not necessarily indicate a trend towards lower age at first experience of the events, but may be a sign of bias caused by recall error or more acceptability to admit first sexual experience at younger ages.

3.5 Qualitative data

Qualitative data were collected in a field study conducted in 1997/98 to enhance the understanding of young people's sexual behaviour and reproductive health aspects based on the quantitative data from the two DHS datasets for 1992 and 1996. The field study included two approaches: programme-based and community-based. The first approach was a national-based study whereby policy makers and programme managers in Malawi were targeted to gain an insight into the policy and programmes in the area of reproductive health, with special interest on young people. Existing organisations in the field of reproductive health and youth development were listed, and at the same time a snowball approach was used to contact those not on the original list. This method also helped to establish the importance of some key offices or individuals based on how much they interacted with other organisations. Although not all those in the area concerned were captured, we were able to contact the major programmes and personnel.

In the second approach respondents were recruited from the community, rather than from service delivery points. The intention was to find out from the people in the community what services they have access to. Focus group discussions were conducted with young people, and in addition, interviews were held with key informants such as opinion leaders and service providers in the community. The main objective was to see if the young people were aware of any reproductive health services in their neighbourhood and whether they had access to these.

Focus groups and in-depth interviews are used in the current study because they are commonly used methods in demographic research and were found suitable for this study. In-depth interviews are conducted on a one-on-one basis. The interviewer provides the respondent with flexibility to express their definition of the situation. Such interviews are suitable for a detailed account of the respondent's opinions and attitudes (Knodel,

1997). Focus group discussions are a useful technique for examining many aspects of people's beliefs, attitudes, opinions or behaviour. "They are an appropriate tool for exploratory, evaluative and explanatory research" (Hennink and Diamond, 1999: 116).

Focus groups have the advantage of allowing participants who have some common characteristics to discuss the topics under study in a free manner, with the guidance of a facilitator. Although the topics in a focus group discussion are predetermined by a 'question route', the participants are free to raise related issues of interest in their own context. Moderators have flexibility in allowing topics to be introduced at various points, in line with the flow of the discussion and allowing the exploration of issues raised by participants and relevant to them. However, the moderator has to ensure that all issues on the question route have been discussed. The benefit of focus group discussion in family planning research has been documented by other researchers (Shafritz and Roberts, 1994; Cooper et al, 1992).

3.5.1 Selection of study areas

A two stage selection design was used to reflect demographic, social and cultural factors of the population of Malawi. At the first stage, two districts, one from each marriage (descent) system category, were purposively selected from the DHS sample: these were Dedza and Mzimba from the matrilineal and patrilineal systems, respectively. In addition, Blantyre City was selected under the National Statistical Office classification of "Major Urban Areas". During the pilot testing, two focus groups with single young people were conducted in Zomba, an urban area.

At the second stage, two census Enumeration Areas (EAs), as mapped by the National Statistical Office, were selected in each district to capture any diversity within the district. Then, focus groups and in-depth interviews were conducted in the selected EAs. Although the study is not statistically representative of Malawi, it was designed to be illustrative of the social context of reproductive behaviour of the young people in Malawi.

The approximate locations of the sites on the map of Malawi are presented in Figure 3.8. Table 3.5 shows the study sites selected in consultation with the Malawi National Statistical Office and later the district commissioners of the three districts.

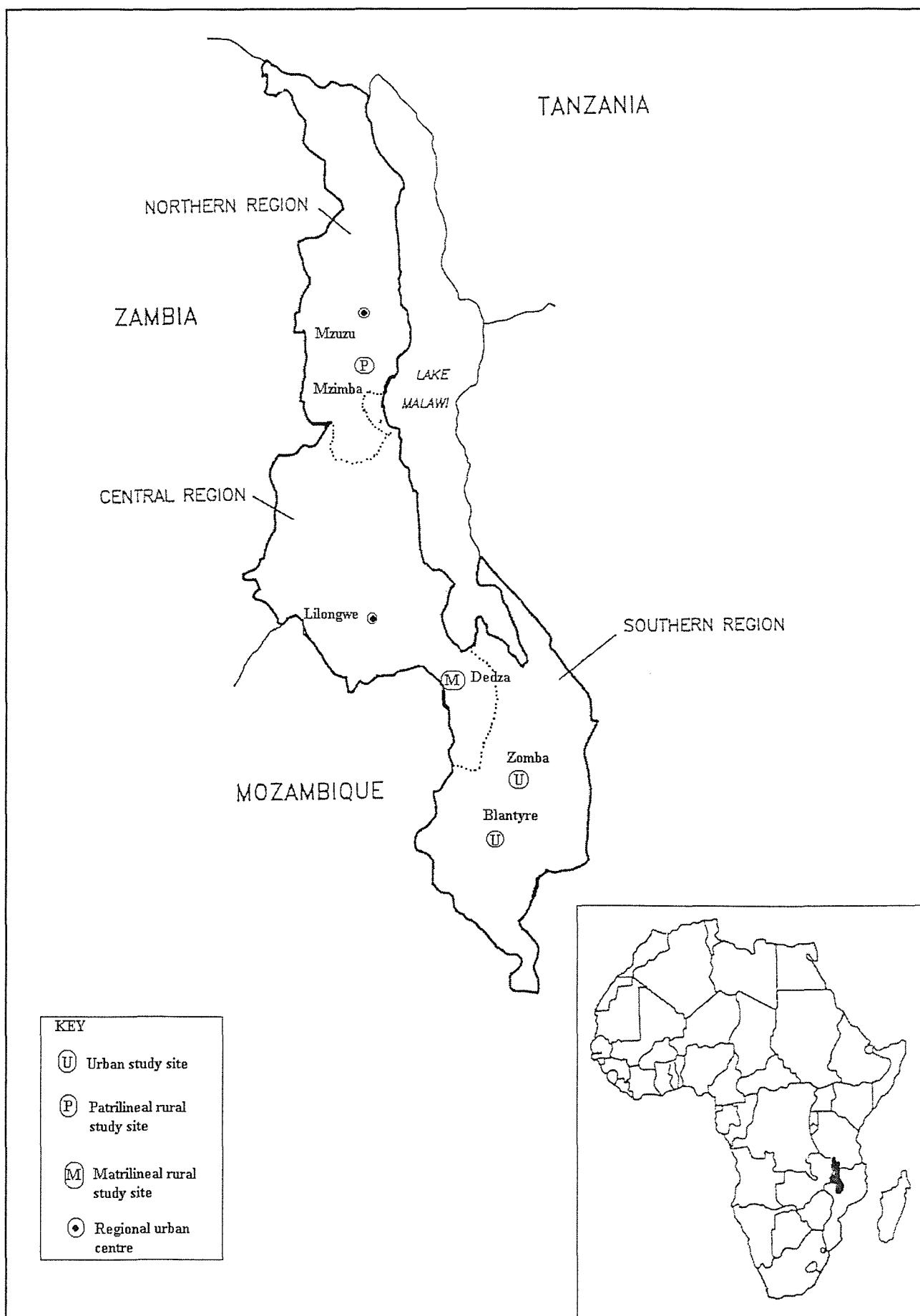
Table 3.5: List of areas for field study

AREA	DISTRICT	LOCATION	CLUSTER NO.
Urban	Blantyre City	Limbe West (Kan jedza)	385
		Chitawira	386
	St Mary's		370 (Pilot survey)
Rural-Matrilineal	Dedza	Traditional Authority (TA) Pemba headquarters - Maonde Court T.A. Kasumbu HQ. (Machese Court)	242 248
Rural-Patrilineal	Mzimba	T.A. Kampingo Sibande, Bondera Nyirenda Village T.A. Mzikubola, Ngubani Banda village	127 138

i) Patrilineal study area

In a patrilineal society in Malawi the family lineage is traced through the male members (father, sons, grandsons etc.). A woman born into a patrilineage leaves at marriage, to live in her husband's village. A marriage is endorsed by the transfer of wealth (*lobola*), traditionally cattle, to the bride's family. The bridal wealth effectively transfers a woman's reproductive capacities from her own lineage to that of her husband's. A woman's wealth in a patrilineal social system is recognised by the number of children she is able to produce for her husband's agnatic lineage (Kishindo, 1994:62). In some parts of Africa, patrilineal societies have generally been observed to condone premarital sexual relations for boys and not girls (Kiragu and Zabin, 1995).

Figure 3.8: Map of Malawi showing location of study sites



The ethnic groups in the study sites in Mzimba district are a mixture of the *baNgoni* and Tumbukas. The first site is Bondera Nyirenda village in TA Mzikubola. It is located about 40km south west of Mzuzu city. The area is sparsely populated with scattered settlement. There is a primary school in the village and the nearest health centre is about 20 km away. The people are predominantly Seventh Day Adventists, probably the influence of the Lunjika Mission situated about 20 km west of the village.

The second site is Ngubani Banda village in TA Mzikubola, about 60 km south west of Mzuzu city, including a school and a two churches. The nearest health centre is located at Chikangawa. However the village is not that far from the main road so that access is easier than for Bondera Nyirenda village. One striking feature about this area is that the people generally value education. Some key informants bragged about having educated children working in the cities with good jobs. All focus group participants had at least eight years of education.

i) Matrilineal study areas

In a matrilineal arrangement in Malawi when women get married, the husbands resides in the wife's village. As with patrilineal system great emphasis is placed upon women producing children for their lineage. The traditional control of the father is never strong: he is regarded as a "stranger" in his wife's village. It is the brother or uncle of the wife who makes decisions on issues such as allocation of farm land, and any issue concerning children (Demographic Unit, 1987: 22). Marriage dissolution have been observed to be higher in matrilineal societies in Malawi (Kornfield and Namate, 1998). This may be a reflection of the power that women have in a union since the husband is only regarded as someone to assist in building the clan.

Two sites were selected within Dedza District in the central region of Malawi. It is situated about 80km south of the capital, Lilongwe. Dedza was purposively selected for this study because it has unique ethnic diversity within the matrilineal cultural group: there are mixtures of the Chewas, Ngonis and Yaos in various parts of the district. T.A. Pemba is a Ngoni chieftainship, but the area has a fusion of Ngoni and Chewa cultures. The Chewa influence is evidenced by the high number of Ngoni young men inducted into

the ‘Nyau’ cult as a way of having freedom of the area. The cluster selected for the field research is the area around Maonde Traditional Court, the chief’s headquarters, about 40km north east of Dedza district headquarters. It borders Mozambique, and most people have relatives on both sides of the border, including the chief herself. They actually share some social services such as a market, health centre, maternity clinic and schools with their Mozambican neighbours, all within walking distance. The cluster consisted of three villages of about 200 people. The settlement pattern is nucleated, clustered huts within green maize fields.

The second study area, TA Kasumbu is a Yao chieftainship, but has a significant presence of Chewa people. The study site, Chikuse Traditional Court, is situated about 25km West of Dedza district headquarters. There is a primary school, a health centre, a mosque and a small market, all within easy reach of the court. The settlement pattern is linear, with huts lined along the village roads. There are about 200 dwelling units within the cluster. Most of the Yaos are Muslims. A few participants of focus groups discussions had actually gone through initiation ceremonies and some of the young men reported that they had been circumcised.

iii) Urban area

Blantyre was selected for the study partly because it is the largest urban area in Malawi, so it offers a selection of sites which can be labelled ‘typically urban’. The sites selected, Kanjedza and Chitawira townships, consist of housing estate residences built in the early 1970s. A similar housing estate, St Mary’s in Zomba, was selected for the pilot study.

3.5.2 Methodology

a) The topics

Young people’s reproductive behaviour is influenced by individual, dyadic, family, community, economic and socio-cultural factors. In particular, societal values and norms determine what people characteristically do in all areas of life and people’s expectations of others (Barker and Rich, 1992; WHO/ UNFPA/ UNICEF, 1999). The study of the values and norms of young people’s childbearing were operationalised in terms of the

following issues: views and expectations of boy-girl relationships, marriage and having children; knowledge of reproductive issues and the sources of such knowledge; and availability of reproductive health services.

The field study focussed on the societal dictates of the sexual reproductive behaviour of young people. However, to gain information on sensitive topics concerning reproductive health issues, the question routes referred to hypothetical situations: “*What would you advise a friend to do if...?*”.

In the focus groups two different question routes were developed: one for the single participants (Appendix 3.2.A) and another for those who had started childbearing (Appendix 3.3.A). The issues covered relate to: the social environment of the participants in terms of daily work and leisure activities; views and expectations of boy-girl relationships, marriage and childbearing; knowledge of reproductive issues and the sources of such knowledge; and availability of reproductive health services.

Key informants were identified after consulting the community. They could be a chief, a school teacher, or just an ordinary member of the community who is highly regarded and respected in order to get their perspective of young people’s reproductive behaviour. Interviews with the opinion leaders would highlight any discrepancy in the inter-generational views to young people’s reproductive issues. For the researcher the objective was to view the world from the various perspectives of the informants. The guidelines for the in-depth interviews are presented in Appendix 3.4.

Semi-structured interviews were also carried out with service providers at the local level as identified from the focus groups and/or the in-depth interviews with opinion leaders. The service providers interviewed were family planning providers; traditional and church youth counsellors; and representatives of youth non-governmental organisations (NGOs) (Appendix 3.5). The topics covered were: the services provided, the targeted clients, the problems encountered, and their view of young people’s reproductive behaviour. For both the opinion leader and service provider interviews, it was left to the informants to bring up the topic of young people’s sexual behaviour as an issue. It is only when they

had not raised it in their answer to the question on social problems facing their community, that the issue was raised.

b) Recruitment of research team and training

Several criteria were considered in recruiting research assistants for the field research. Given the sensitivity of the issues for discussion in the focus groups, it was felt important for free discussion, that the interviewer and recorder should be of the same sex and about the same age as the participants. Four research assistants were recruited: two male and two female, aged between 21 and 25. Language was another important factor. Although Chichewa is the national language and widely understood in Malawi, Tumbuka is commonly spoken in the chosen patrilineal areas. Hence, one male and one female assistant were recruited on the basis of their knowledge of Tumbuka. One other important criterion was the ability to transcribe interviews, especially the ability to translate interviews from the local language into English.

An understanding of the issues being researched was vital. Upon hiring the research assistants, they underwent training for one week to familiarise themselves with the research questions and methodology. The training focussed on familiarisation with the research objectives, focus group facilitation, note taking, translation and role playing. Role play helped to highlight potential problems that were likely to arise in the field. The question routes were pilot-tested in Zomba, just for the singles' interviews because those with children or married were not easy to recruit within the time limit.

It is recommended that participants of a focus group should not be familiar with each other before the focus group and are unlikely to meet again. These conditions would ensure that they are free to talk frankly (see Folch-Lyon and Trost, 1981). Although the requirement of non-familiarity of participants of focus group discussions was not fulfilled, this did not effect the easiness with which the discussions were held, for two reasons: first, the information was solicited using hypothetical situations, therefore, not personal; and second, group discussions are commonplace both in the urban and rural areas, especially for the young people. Men have their forum for discussion, usually while playing '*bawo*' (a local game of numeracy). Women have even more meeting

opportunities, for example, while drawing water, when pounding and at the market. The main deciding factor was whether acquaintance was likely to affect their ability to discuss the topic. In a study of family planning information dissemination in Cameroon using focus groups among members of a women's group that met regularly, it was observed that familiarity of participants heightened their participation and enriched the data collected (Jato et al, 1994).

The discussions were tape recorded, but at the same time there was a note taker. The author sat in the male focus group for part of the time. However, the moderator signalled to him to leave the room, since he noticed that the participants were not as free as they were before he walked in. The uneasiness arose perhaps not only because they were teenagers, much younger than the researcher, but possibly because the focus group facilitator introduced him as my '*Bwana*' (boss). For the following interviews the hierarchy in the team was not made obvious to the participants to avoid interviewee bias. The author took part only in the focus groups for the older groups, the married or those with children.

The team went through the initial recordings to assess how well they were conducted. The main problem noted was that the focus groups were more of a 'question and answer' session than a discussion, as the participants were not left to discuss the topic at their own pace before the facilitator asked another question. In addition, participants in focus groups for females were unusually quiet. The participants were assured the information collected was just on views and opinions and there were no incorrect answers. There was improvement in these areas in the subsequent interviews.

d) Identification of respondents

The data were collected using focus group discussions with the young people, in-depth interviews with key informants and service providers and semi-structured interviews for programme representatives. Between November 1997 and February 1998, 24 focus groups were conducted among four groups of respondents:

- i) single female adolescents (15-19 years) with no children;

- ii) single male adolescents (15-24) with no children;
- iii) married females (under 25 years old) or those with at least one child;
- iv) married males (under 30 years) or those with at least one child.

These groups were selected to represent young men and women at different stages of their reproductive lives: those who have started the childbearing process and those who have not. This age range is thought to be appropriate because legally 14 years is the age of consent for sexual intercourse for girls in Malawi. There has also been anecdotal evidence of early initiation of sexual intercourse, at ages lower than 12, especially for girls. Although some of the eligible population in the upper age bracket would already be married and had children, it would be important to collect information from them as well since they are around the peak of the age specific fertility curve, which is around age 25 for females in Malawi. Since generally young people are more receptive to change, this age group can be targeted with reproductive health services.

Although age was a deciding factor for the selection of participants, it was not fixed. The field assistants used their discretion to recruit some individuals who were outside the specified age ranges on the basis of the demographic events they had experienced or how old they appeared. For example a girl less than 15 could be allowed to participate in a focus group discussion if she looked older, or a female aged older than 19 without a child and not yet married would join the singles focus group.

Two different participant recruitment styles were adopted for the urban and rural areas, canvassing ourselves and using the chief, respectively. However, in both areas a sift questionnaire (Appendix 3.1) was used to allocate the respondents to appropriate groups. We would normally set out to recruit participants with specific characteristics. In the urban areas when we came to a study site, we would walk around the housing estate, while on the lookout for young people who suited our criteria. Once identified, the young people were asked to report to an arranged venue, usually a school classroom, at a specified time in the afternoon of the same day.

The recruitment of participants went all very well except for the group of young women who were either married or had children. This problem was partly to do with the fact that some of the women in towns had gone to work during the daytime, or they were simply not interested. In addition, single young mothers were difficult to recruit, since although we were directed to their houses they denied that they had children. This suggests that premarital childbearing bears a social stigma and is not readily disclosed to strangers. Some of the girls who accepted the invitation to the session in the afternoon did not turn up, although we said that we would offer refreshments². As a result, in the urban areas, focus groups for this category always had number of participants less than the recommended minimum of six. Folch-Lyon et al (1981) state that each group should consist of six to 12 participants. Thus, the difficulty in the recruitment of young women who were either married or had children in the urban areas reflects the unacceptability of premarital childbearing and the pressing demand women have on their time, in general.

The recruitment of respondents was easier in the rural areas in the sense that we availed ourselves of the organisational structure of the chieftainship, the gatekeepers to a village. We would normally obtain a letter of introduction from the District Commissioner and arrange with the chief to ask people meeting our specifications to gather at one place. Once gathered, we would vet those meeting our requirements for the focus groups and release the rest. Whereas in the towns we encountered the problem of shortage of participants for the focus group for females with children, in some of the rural areas over 30 people would turn up for one focus group and we had to be discreet in releasing the ones who were not needed.

e) The interviews

A pair of research assistants conducted the same sex focus groups: one specialised as a moderator and the other as a note taker. In a focus group the moderator would welcome the participants to the discussion and encourage them to be free to express their opinions on various subjects to be discussed. The participants were assured that the responses were important and that there were no right or wrong answers. The main topic of

² The refreshments were given at the end of the focus group as an incentive and as a token of appreciation to the participants for their time.

discussion was not disclosed from the start; the moderator would say they are holding discussions on ‘the life of the young people- how they live and what they do’. Such an introduction helped to establish a rapport with the participants before leading to more sensitive topics.

During the session, the moderator would go through the question route to guide the discussion. Some issues which were not in the guide were spontaneously raised by the participants. For example, in two focus groups, the participants outlined the various means of abortion. This added to the value of the discussion. However in some cases, unrelated topics were brought into the discussion. In such cases, the moderator steered the discussion back to the main issues.

In some of the focus group discussions it was not uncommon to have opposing opinions among the participants. The discussions reflected either variations or consensus in opinions. For example, in some groups there was disagreement among the participants on the ideal age at first marriage. There were some cases where views held by some of the participants were clearly ignorant of the issues under discussion they would refer to the researchers for a correct answer. It was agreed during the training that the moderator would answer any queries at the end of the discussion. For example, in one focus group for girls in an urban area, the participants had an argument about whether boys also menstruate. At the end of the discussion, the research assistants explained about puberty and how it differs for boys and girls.

After the focus groups the participants were asked to fill a short individual questionnaire written in the local dialect, to obtain basic personal information about the participants. This questionnaire was anonymous. For participants who were unable to read or write, one of the researchers would ask them the questions and administer the questionnaire on their behalf. The questions asked were: personal characteristics; sexual experience; and information on services ever used (see Appendix 3.2B).

f) Language

Focus groups were conducted in the native language of the study areas: Tumbuka in the patrilineal study areas, Chichewa in the other areas. The tape recorded interviews were

then translated and transcribed verbatim, taking into account even the non-verbal language in the transcriptions such as long pauses, fidgeting, hesitations, speech fillers (e.g ‘you know, I mean, mmm...’). These were useful in the discourse analysis of the transcriptions in identifying how things were said.

During the training, translation of some phrases from English to the local languages posed some problems. Here, the skills of the research team in translation and their knowledge of the research issues were an asset. This approach therefore, has an advantage over using formal translators since they may use standard terms and miss out on the richness of the data. For example, some of the terms such as ‘reproductive health’ were not easy to translate directly such that the phrase had to be split into: sexual health, family planning and HIV/AIDS control. This caused confusion among participants in the early interviews, as the terms were treated as separate and not as part of one entity.

For quality assurance in translation, the research team practised transcribing and translating sections from the interviews during the training, first of all, each one of us separately, then comparing our notes to see if we had similar understanding of the discussion. Two main issues were noted at that stage: the first was summarising the discussion rather than a verbatim transcription; second, some special expressions in the local language, for example metaphors and euphemistic phrases, had to be literally translated or an equivalent expression obtained in English to maintain the flavour of the original statement. For example, the word used for a pregnant woman in Chichewa is ‘*woyembekezera*’ (*expectant*) if the woman is married and ‘*wamimba*’ (*pregnant*) if she is not.

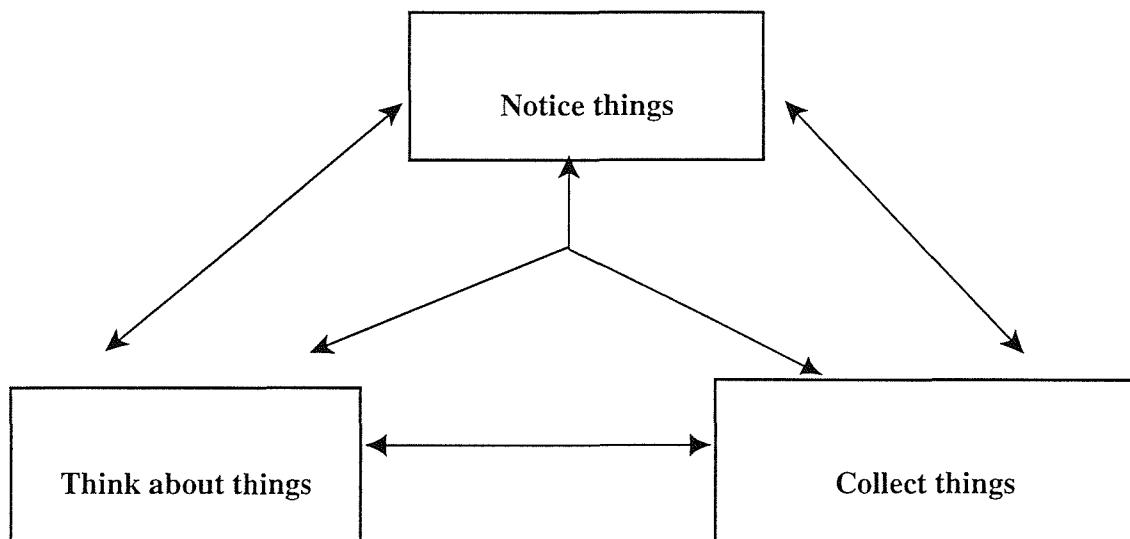
At the transcription stage, the research team transcribed the tape recorded discussions in the language they were conducted in and then translated them into English. However, since it took too much time, it was resorted to translate and transcribe the taped interviews simultaneously. The research assistants equally divided the workload amongst themselves. The author closely monitored the transcriptions to ensure consistency within the team and between interviews. Since the team were staying in one place, any problems with the translation were discussed as they arose.

3.5.3 Data processing

The data processing started from the time the interviews were conducted. Seidel (1998) presents a simplified model (Figure 3.9) of the qualitative data analysis process which consists of three parts: noticing, collecting and thinking about interesting things; and describes this process as iterative and progressive, in that the cycle repeats itself; recursive, because one part can call you back to a previous part; and holographic in that each step in the process contains the entire process (p2).

In this study the main issues to be investigated using qualitative data were identified during the review of the literature on young people's reproductive behaviour and after doing some preliminary analysis of the 1992 MDHS. The decision on what topics to focus on was also determined based on the 1996 MKAPH questionnaire. The 1996 MKAPH dataset was not yet ready at the time of the fieldwork.

Figure 3.9: The qualitative data analysis process



Source: Siedel, 1998

All interviews were tape recorded, and the note taker wrote sketchy notes, paying special attention to the identity of speakers so that when transcribing the tapes a name

could easily be linked to the voice. The research assistants were asked, soon after each interview, to write notes about the interview, and to take note of any problems encountered. These were discussed in a team meeting in the evening. We continuously reviewed a sample of interviews before proceeding to the next set of interviews. Any problems noted would be used to improve later interviews. If there were any new avenues opening, which were not thought of before, they were pursued in subsequent focus group discussions.

Transcripts hand written by the research assistants had to be written in electronic form for processing. The possibility of using voice activated software to type the transcripts was explored in the early stages but this was abandoned because of practical problems. Instead, all the manuscripts were inputted in by the author. This generated a great deal of contextual data. All the text files were imported into QSR Nud*ist 4, a qualitative data analysis (QDA) programme (Qualitative Solutions and Research, 1997). QSR Nud*ist, like other QDA programmes, is used for contextual data management, which some authors have called 'code-and-retrieve' programmes (Keele, 1997). It performs basic functions, such as indexing and cross references or hyperlinks. QSR Nud*ist was opted for analysis because it is powerful in searching of text and coding.

In the current study the indexing of the textual data was guided partly by the objectives and invariably the topic areas included in the question route, and also by the emerging themes as determined by the focus group discussions. The codes derived according to themes to support what was observed in the quantitative data analysis or to explore areas which could not be explored using quantitative methods.

Line-numbered files in QSR Nudi*ist were used to break the data into categories- the long coding process. Coding is the core of qualitative data analysis involving a review of transcribed field notes, disassembling them meaningfully, while keeping the intra and inter-relations intact. The codes are tags or labels for attaching meaning to large amounts of information compiled during the study (Miles and Huberman, 1994: 56).

The second step involved assembling and dismantling ('sorting and sifting') the data set based on the coding scheme (see Appendix 3.7). After reading the text files several times

a set of nodes (themes) were derived and organised either into ‘free nodes’ or an ‘Index Tree’, a hierarchical organisation of the codes. An Index tree organises the nodes into categories and subcategories to help clarify concepts according to the themes identified. For example ‘radio’, ‘parents’, ‘newspapers’ could be sub-categories of ‘sources of information on reproductive health’ category. The sorting and sifting was then done on the basis of the nodes, and similarities and differences were clearly identified.

Discourse analysis was used, guided by, but not restricted to, the question routes used in the interviews. The discourse analytic approach was open to themes as raised by participants, within the realms of the research topic, rather than the analysis being confined to restricted dimensions of formal models used in health-related behavioural research (Ingham, 1994) . Discourse analysis of field interviews helps to identify important themes of reproductive health of young people. The motivation for the qualitative data analysis is from Holloway’s interpretive discourse analysis (Holloway, 1989). It studied heterosexual relations in terms of discourses: ways of talking and thinking about events and relationship which are set in normal conversation, media, and other areas of life so that they become taken for granted. It identifies discourses which surround gender expectations of and it believed that different versions of these discourses run in various cultural contexts (Miles, 1993).

a) Issues of data quality: reliability and validity

The data collected have to meet reliability and validity requirements to ensure their high quality. Reliability is about whether the process of the study is consistent, reasonably stable over time and across researchers and methods (Miles and Huberman, 1994). Data validity is about checking if the findings make sense, if they are a genuine representation of what we are trying to measure (Walker, 1985; Miles and Huberman, 1994).

To ensure data of the highest quality were collected, a number of procedures were adopted. First, the field research proposal was widely circulated and subsequently revised. Second, a strict interview process was used to recruit field assistants. Only those candidates with excellent skills in interviewing, on-the-spot translating, and transcribing were hired. These went through rigorous training to ensure that they clearly understood

the objectives of the study and could conduct the interviews with confidence. An ‘enumerators manual’ was prepared to explain: the objectives of the study; duties of interviewers; and how to conduct interviews, in general. The author supervised the research assistants personally during the fieldwork.

In order to ensure reliability of the information collected the participants were assured of the confidentiality of the discussions and it was ensured that the venue selected had no intruders, no matter what position they held in the community. For example, in some focus group discussions children who were listening in were sent away. In an another instance, our guide, the chief’s assistant, was asked to leave by the participants themselves.

Question routes used in the focus groups ensured some consistency of data collection. Furthermore, each interview was tape recorded and transcribed verbatim to guarantee data reliability. Interview venues were selected to ensure good quality of tape recording. To fulfill Knodel’s (1997) Litmus test, the transcripts were word processed, stored and can be retrieved by other researchers for validation.

The field research was designed in such a way that it would permit information validity obtained from various people such as the opinion leaders, male and female young people. During analysis, when developing themes, the transcripts were constantly consulted to check conclusions and contradictions. To ensure validity of interpretation, a sample of transcripts was circulated to peer researchers to code them and review the consistency between them.

3.6 Use of quotations

In this thesis, extracts from the transcripts have been used to illustrate and shed light on findings being discussed. In some cases the quotations from the interviews speak for themselves. Some excerpts from focus group discussions include responses from more than one participant. This helps to reflect the interactions within the focus group in order to capture the various views present.

Formatting guidelines for quotations from in-depth interviews and focus group discussions are:

- a) For the interviews, I: refers to the interviewer; R#: refers to the respondent number, where more than one speaker is quoted.
- b) 'Text' refers to the quoted speech; '[*explanation*]' is text inserted by author to help explain an extract. '...' refers to an incomplete sentence or where some part of the quotation have been omitted.
- c) Identity features [sub-group of interview, study area #] for focus group and key informant interviews , e.g [unmarried young men, matrilineal area 2].

[profession, major group field of practice] for programme managers and service providers interviews, e.g [service provider, family planning].

These identify features are used to protect the confidentiality of the respondents.

3.7 Summary and Conclusions

This chapter has described the data and methods used in this thesis. A description of the relevant sections from the quantitative datasets, 1992 MDHS and 1996 MKAPH Survey were presented, and a basic examination of the quality of age data used in the analyses was performed. A narrative of the qualitative data process used for the 1997/98 fieldwork was made.

Each of the two datasets lacks some information: the 1992 MDHS has no information on sexual activity, whilst the 1996 MKAPH lacks birth history data. Although the two data sets cannot be used to establish levels and trends of reproductive behaviour indicators, they do indicate the situation at each point in time. In addition, the qualitative data collected in 1997/98 were used to enhance the understanding of young people's reproductive behaviour based on the quantitative data from the 1992 and 1996 DHS datasets. There is no doubt that during the six year period there could have been some changes in the reproductive health provision in Malawi. For example, family planning provision in Malawi only started in 1992 and restrictions were liberalised in 1996.

Hence, the various sources of data have to be appreciated in that time frame and the purposes which they intend to fulfill. The next chapter discusses the social context of young people's sexual behaviour in Malawi, setting the scene for quantitative analyses..

CHAPTER FOUR

SOCIAL CONTEXT OF YOUNG PEOPLE'S REPRODUCTIVE BEHAVIOUR IN MALAWI

This chapter examines community attitudes, norms and values concerning sexuality and how these affect the reproductive behaviour of young people in selected areas of Malawi. The reproductive process has been described as a sequence of events in a woman's life, beginning with puberty, initiation of sexual intercourse, birth of first child through to the last child (Rodríguez et al., 1984). Puberty is closely related to sexuality, and marks the biological readiness for sexual intercourse and the capability to procreate. Sexual behaviour is a wide concept which includes personal feelings, desires, beliefs, socially accepted attitudes, norms and the meaning of interaction with the same and opposite sex (Dixon-Mueller, 1993).

Social norms include both individuals' typical actions in all areas of life, and people's expectation of others (WHO/UNFPA/UNICEF, 1999). An understanding of how social norms shape young people's lives is key to understanding their sexual behaviour and reproductive health. Individual intentions to perform a certain behaviour depend on what they think 'significant others' (people whose opinion one values) would want them to do. Hence, the discussion of the social context of reproductive behaviour includes the social norms surrounding puberty and childbearing.

Malawi is characterised by early childbearing: young ages at first intercourse, first marriage and first birth. In addition, statistics show that HIV infection rates are higher among young people (aged 15-24) than for older age groups, and within this age group teenage girls appear to be especially more vulnerable to infection with HIV rates about six times higher than in boys of the same age (National AIDS Control Programme, Malawi, 1996).

The findings presented in this chapter are based on focus groups conducted among young people. The young people's discussions are complemented with in-depth interviews involving key informants in the study areas. Extracts from the transcripts are included

to illustrate and illuminate the results being discussed. The respondents were drawn from the urban and rural areas. The rural areas are sub-divided into those with matrilineal and those with patrilineal systems of marriage (descent).

Discussions in this study focussed on practices and beliefs regarding puberty, sexual relationships, marriage and childbearing. The QSR NUD*IST software was used to search the text in the transcriptions and to code common themes (QSR, 1997). The details of the qualitative research and analysis are presented in Chapter Three on Data and Methods.

The findings are presented in six main sections. The first section presents the profile of the participants in the study. Second, the way young people in the study areas socialise, with respect to sexual behaviour, is described. Third, the beliefs and practices surrounding puberty are described. Next, the norms and motivation for sexual relationships are examined. The last two sections cover the socio-cultural context which is conducive to early marriage and childbearing in Malawi.

4.1 Profile of study participants

Four focus groups in each of the three different communities, involving 219 participants were conducted. In each community separate focus group discussions were conducted according to gender and marital status or childbearing experience (single or ever married/ever given birth). The intention was to view social norms of reproductive behaviour from the perspective of those already sexually active and with consequences of childbearing, (the married/with child category) and the single group who although may be sexually active have not had a child. Furthermore, at least one in-depth interview was conducted with opinion leaders in each community to complement the information obtained from the focus group discussions. A summary of the characteristics of the key informants is presented in Appendix A4.1. Table 4.1 shows the characteristics of the participants of focus groups based on an individual questionnaire completed after the group discussions (see Appendix A3.2B). Although focus groups were held for both unmarried and married young people, there were usually less participants in the married group, especially in the urban areas due to other commitments. The typical level of

education was eight years; the education level of participants ranged from none to some university education. Nearly all the single participants were either still studying or unemployed and still dependent on their parents.

Among the single participants, 34 out of 65 males and 42 out of 60 females reported not being in a relationship. Young men who were sexually active had their sexual debut typically at 15 years and for females it was 16 years. The typical number of children was one. The majority of first births occurred at 22 years for males and 18 for females. More single males had ever used contraceptives than single females. About half of the married males reported having ever used some form of contraception; the most widely used method was the condom (20 out of 65 single and 17 out of 54 married young men). Only two single females out of 60 had ever used contraception, and the methods were traditional (rhythm and withdrawal). For married females six out of 40 had used the injection and four had used the pill.

Table 4.1: Characteristics of participants in focus group discussions, Rural and Urban Malawi, 1998

Characteristics	Description
Number of participants	<ul style="list-style-type: none"> -Single Male: 22 in Urban; 21 in Matrilineal Rural; 22 in Patrilineal Rural ; total 65 -Single female: 18 Urban; 19 Matrilineal; 23 Patrilineal Rural; total 60 -Married Male: 12; 19; 23; total 54 -Married female: 9; 16; 15; total 40
Age	<ul style="list-style-type: none"> -Single male, range 14-25 years, most common age 17; -Single female 13-22, typically 16 years -Married male- range 17-29 years, typically aged 23; -Married female- 16-24, most common age 22 years
Education ³	<ul style="list-style-type: none"> - On average 8 had years of schooling, except for married females with 7 years - Lowest- no education for all, except for single males 2 years - Highest 3rd year university for single males; 1st year university for single females; 4 years tertiary for married males; and form four for married females
Occupation	<ul style="list-style-type: none"> -Employed: 2 out of 65 single males; 2 out of 60 single females; 8 out of 54 married males; 1 out of 40 married female -Farming/ business: 7 out of 65 single males; 6 out of 60 single females; 33 out of 54 married males; 22 out of 40 married females -Student: 40 out of 65 single males; 45 out of 60 single females; 6 out of 54 married males; 1 out of 40 married females -Unemployed dependant: 16 out of 65 single males; 7 out of 60 single females; 7 out of 54 married males; 16 out of 40 married females
Relationship	<ul style="list-style-type: none"> -Single (parents, never married): 34 (7) males; 42 (3) females -In a relationship: 31 males; 18 females; 3 males with child; 5 females with child -In a marital union: 39 males; 26 females -Divorced/separated/widowed: 4 males; 6 females
Ever had sex	-46 out of 65 single males; 15 out of 60 single females.
Age at first sexual intercourse	-Youngest 10 years; typical age- males at 15 years and females at 16 years
Age at first marriage	-Youngest 14 years; typically males at 20 and females at 18 years
Age at first birth	-Youngest 16 for males and 14 for females; common age males at 22 years and females at 18
Children ever born	-Most had 1 child; Range 0-6
Ever use of contraceptives	<ul style="list-style-type: none"> -21 out of 65 single males; 2 out of 60 single females; -26 out of 54 married males; 16 out of 40 married females
Contraceptive method used	<ul style="list-style-type: none"> -Condom: 20 out of 65 single males; 17 out of 54 married males; 3 out of 40 married females -Pill: 1 out of 65 single males; no single female; 3 out of 54 married males; 4 out of 40 married females -Injection: 3 out of 54 married male; 6 out of 40 married female -Traditional (rhythm, withdrawal): 2 out of 60 single female; 2 out of 54 married males; 3 out of 40 married females

3 The levels of education observed here are typical of young people aged 15-24 years in the general population, who are generally more educated than the older population (NSO, 1997). See Table A4.2. for the percentage distribution of men and women by level of education and marital status. The appendix also presents a description of the structure of the education system in Malawi.

4.2 Social activities of young people

The type of social activities that young people take part in, both at home, under parental surveillance, and outside the home, where they associate with friends and other members of the community may influence their reproductive behaviour. Knowledge of how young people spend their time may give some indication of the potential or opportunities for sexual behaviour. An understanding of the socialising habits of young people is important to understand the extent of parental control and the restrictions on the activities of the young people, especially regarding opportunities for mixed sex socialising which may provide a conducive atmosphere for sexual relationships.

When asked about how they spend their day, most young people reported that the day starts with doing some housework. Boys are involved in domestic tasks such as sweeping around the homestead. In contrast, girls are involved in household duties including meal preparation. Both boys and girls in rural areas also assist in farming. Apart from going to school, boys have more opportunities to be out of the home for leisure than girls. Male adolescents would be '*just walking*' (*kungoyenda*), whereas young women would be running errands such as '*going to the market*'.

In terms of leisure, a few urban boys had the opportunity to '*go to the library to read the paper*', '*go jogging*', and '*watch movies*'. Football is the most typical pastime for males of all ages in the rural and urban areas, either as players or spectators. Drinking is common in both the rural and urban areas for both single and married young men. Most single males also mentioned that girlfriends are a way of passing their free time; similarly, girls mentioned '*chat with boys*' as a way of relaxation. In one urban focus group for unmarried female adolescents, one participant pointed out '*There are few who just chat with girls only, for many it's boys*'. This suggests that there are opportunities for boys to mix with girls and possibly develop sexual relationships. This appears to be a new development as one opinion leader notes:

... in the past when a child became of age, she was not supposed to greet a boy, but nowadays, you find that many children have been spoilt by loose behaviour. [Female Opinion Leader, Patrilineal rural area 2]

Wedding ceremonies were cited as a form of entertainment for rural residents and to a lesser extent by urban participants. Traditionally, wedding functions are not by invitation in Malawi but members of the community freely take part in the celebrations. In the rural areas the wedding festivities can start a few days before the wedding day. The celebrations are marked by overnight traditional dances which offer a chance for young men and women to mix freely without parental control. For most traditional dances, women normally dance in a circle and the men watch. Apart from just entertainment, this is an occasion for girls and boys to socialise with the members of the opposite sex and possibly start relationships. One dance, *Mbwiza*, popular at weddings and initiation ceremonies in the matrilineal rural areas was described as “*a ‘hot’ dance, such that if one has a lot of ‘fire’ that day he’d be in trouble! When dancing a boy and a girl hold hands.*” [Single young men, matrilineal rural area 2]. Nevertheless, in one patrilineal area one young woman in a focus group described the dancing at night as ‘*foolish*’ whereby ‘*the boys and girls hold each other...*’.

Girls in the urban areas also mentioned parties and live band concerts which take place either during the day or at night, as a form of leisure. In one focus group, single female adolescents said that they enjoy parties “*since there are no parents, so people do whatever they want*”. However, it was apparent in two focus groups with young women in the urban area that there was some parental control over girls’ movements when they said “*there are certain girls who take heed of their parents’ advice [not to stay out late]... It’s desirable that they should find good husbands*” [Married young women, urban area 3]. Those girls who go to live band concerts said they preferred to go there with other girls because “*some boys... can do bad things to you. They can attack you without thinking twice!*” [Single young women, urban area 1].

In general, girls appeared to experience more parental control in their socialization than boys. However, there appears to be increasing opportunities for boys and girls to mix without parental control.

4.3 Puberty- rite of passage

At puberty there are social changes regarding the way adolescents view themselves and are viewed by others (McCauley and Salter, 1995; Zabin et al., 1986). This section presents the social context of menarche (first menses) and spermarche (first ejaculation of sperm) in the three study areas.

4.3.1 Menarche

Traditionally, when a girl attains menarche the mother summons some elderly women in the village or community who are especially appointed by the chief to play the role of counsellors ('*aNankungwi*' or '*aPhungu*') to pubescents (*aNamwali*). An adolescent would then be taken into seclusion ('*dambwe*' or '*kanyumba komata*') where she would be counselled by the elderly women. In general, initiation ceremonies for boys and girls are practised to teach children to be diligent, self-disciplined, to be respectful of elderly people, among others. The instruction is done through songs, riddles and puzzles to help the initiates (*aNamwali*) retain the messages. Initiation ceremonies are normally held periodically, usually during the school holidays. A ceremony would be held for all girls who have gone through menarche during a specified period. In some cases, however, a girl would be counselled on her own if the next ceremony was too far or if the parents did not prefer anything formal. In exceptional cases, if a mother felt that her pre-pubescent daughter was growing too fast and feared that she might prematurely get pregnant she would ask the chief to arrange a special ceremony (called *Chipindira*) for her (Gwengwe, 1998). In the matrilineal and patrilineal areas studied they have comprehensive rites of passage lasting anything from a few days to over a week in seclusion, with a feast held at the end when the initiates can be seen by the public to commemorate their entry into womanhood.

Initiation ceremonies are epitomised by secrecy and confidentiality. The culture of mystery surrounding menarche is reinforced and maintained from one cohort of pubescents to another, from the experienced to the inexperienced. The initiates are urged not to disclose the knowledge they have acquired to the non-initiates. For example, there was a reluctance by the *aNankungwi* and some participants of focus groups who had been initiated to

disclose details to our research team of what is discussed in the initiation ceremonies. Therefore, it is difficult establish what information the initiates are being given.

After one has gone through an initiation ceremony he or she is no longer treated as a child but an adult. One is addressed using the respect form of you, '*inu*', and not the informal '*iwe*' (equivalent to '*vous*' and '*tu*' in French). Thus, once one has gone through initiation there is a '*sense of pride and conquest*', as one informant stated.

In one rural matrilineal community, the culture of mystery surrounding menarche was particularly strong, to the extent of giving misleading information to the curious pre-pubescent, perpetuating what they had gone through themselves before they attained menarche. This culture is evident in the following excerpts of a discussion on how female participants of a focus group would assist someone interested in information on puberty;

R3: Some also tell you if you want your breasts to grow you should let a wasp sting you! ... Even if it's itching, you should not scratch, so the breast becomes swollen, but afterwards it gets back to its normal size! We were also told the same thing!...

R2:... so we'll tell her the same!

R1: The others should also feel the same... because I felt the pain! [Young women, single, matrilineal rural area 1]

However, later in the discussion one participant reported that she would not hold such information to herself. Her response suggests the benefit of socialising in a school environment in the dissemination of information on puberty and reproduction;

...I would tell her, ...now since there's nothing to hide and everybody knows and in my class we even have children who haven't reached puberty, but they know how it goes, so I can tell her!
[Young women, single, matrilineal rural area 1].

A typical statement made by female adolescents in the urban area was; '*We can just tell her to wait until she reaches puberty when she will see for herself*'.

In the patrilineal area, although, the secrecy notion was also prevalent, the girls reported that they would refer the pre-pubescent to an elder member of the extended family such as a grandmother, or an aunt, although there was doubt that they would tell her anything before she had reached puberty;

R9: Maybe we can tell her to go and see her granny.

R2: Or aunt.

R8: Auntie? Can she tell her about the changes in her body? (Laughs)

R6: She cannot tell her.

R8: They'll tell her that she should become of age first, that's when they'll tell her.

R10, R6.: They know that she's still young. [Young women, single, patrilineal rural area 2]

The culture of mystery surrounding menstruation is also enhanced by a number of taboos and behavioural restrictions associated with it, as cited by participants in rural areas. For example, girls are warned to stay away from boys and men for fear of premarital pregnancy, although they are not told how they would get pregnant.

R1: They say don't play around with boys, otherwise you will get a bush [out-of-wedlock] child'.

R4: Among the Chewa they say don't sleep with a man when you're menstruating because you will kill that man. [Young women, single, matrilineal rural area 2].

There is a myth that if a girl cooked food or even applied salt to a dish during her menstruation she would make people sick.

There are some days, when she can't cook! They say she can 'infect' the people taking the food.
[Young men, single, patrilineal rural area 1]

The price of not adhering to such taboos, it is claimed, can be some misfortune which would befall not just the girl, but also other members of her family or the family's livestock. These were cited in one patrilineal area.

R1: the women tell her [pubescent] not to go to her father's bedroom, that's what they teach her...

R10: Sometimes you're not allowed to speak to men, you should not go behind the teacher's back, they are afraid you may not repeat [menstruation], mm!

R1: They also say that you should not go around a cattle pen because you'd never bathe [menstruate].

R2: If you go round a cattle pen when you have reached puberty, some livestock may actually die.
[Young women, single, patrilineal rural area 2]

4.3.2 Spermarche

Traditionally, parents and other elders in the community played an important role in preparing boys and girls for puberty. However, apparently the information imparted to boys was given as a warning without providing them with the facts. Male adolescents were

warned not to mix with girls without explicitly stating the reasons as indicated by the following excerpt;

R2: Mmmh. For young men... in the past it was happening...by way of advice only. You'd tell a young man or grandson "you are now a grown up, you must not be wandering around anyhow." We were being counselled by the grandparents. But they were not explaining what exactly. [Opinion leaders in rural patrilineal area 2].

Generally pre-pubescent boys are left to discover the onset and results of puberty for themselves. In most cases, the first ejaculation, a sign of puberty, is nocturnal emissions (wet dreams). The most typical responses were: '*for boys, they just know by themselves*', or '*then after that [first wet dream] when you see a girl your heart beats fast*', implying that they just become aware of a new sexual response. Others claimed to have been surprised by their first experience, thinking they had some kind of sickness, to the extent that they consulted other people to understand what was going on, as illustrated by the following excerpts;

R3... sometimes in your sleep you dream that you're sleeping with a girl, and you release things you have never seen before... You may think that you're sick, because the things that come out look like puss, and you think that you have wounds in your stomach... so you ask the elders if they know the cure for the disease... So they tell you what it is.

R2: Sometimes you go to your friends for help to tell you about what you have released. So they tell you. [Male adolescents, matrilineal rural area 1]

Out of four rural sites visited, it was only in one matrilineal area that boys went through a rite of passage into adulthood marked with circumcision, which may be performed before adolescence, '*when they are clever enough to understand the messages*'. This was a predominantly Muslim area, where religious requirements of circumcision for all males are reinforced by customary initiation ceremonies. The initiation ceremony for boys is called '*Jando*'.

There is widespread resistance by those who work in adolescent sex education to the messages given to initiates which encourage them to indulge in sexual activity. One key informant disclosed to us that each male initiate has a guardian (*Mlombwe*) within the seclusion camp who in theory is a sexual competitor. Initiates are told that if they fail to '*eat*' (have sex with a woman) before their guardian does '*their skin will remain dry and dusty in spite of all the lotions they may apply*'. This is a form of a curse for a young

Malaŵian whose glowing skin is a symbol of virility and health. Hence, by performing the sexual act the initiates feel they are ‘*shaking off the dust*’ (*kuchotsa fumbi*) to remove the curse.

4.3.3 Parental role in sex education

It was clear from the focus group discussions and in-depth interviews with opinion leaders that parents need to take an active role in imparting sexuality information to their children. In the past some women in the community would be entrusted with the role of counselling pubescents. In recent years, in the light of the HIV/AIDS epidemic and high school drop out rates of girls due to pregnancy, there has been a movement against such practices because the messages passed to the pubescents have been criticised for promoting early initiation of sexual activity. Thus, often parents seem to be in a dilemma about how to pass on information about puberty to the new pubescents. The quote below illustrates this:

R3: Because what happens is when she has become of age, the mother is hesitant of who to ask... R4: That was in the past! That "I'll go to so and so and tell them my daughter has reached puberty". These days a mother who knows what to do should advise the daughter on her own, because your neighbours may just advise her here and there. Most do it on their own... [Young women with children, urban area 2]

In a separate focus group discussion with urban girls, it was noted that the girls did not feel able to discuss freely with their mothers although they acknowledged they were an important source of information on puberty. However, the existence of a family member who the young people can look up to was reported as important to adolescents. A grandparent is one such trusted member of the family, for both female and male adolescents.

Or maybe you can go to your granny because they are the ones who don't hide anything. [Female adolescents, urban area 1].

R6: If he's shy with these older relatives, then he can go to his grandpa who can assist him and he can tell him the truth. [Male adolescents, urban area 2]

In Malaŵi, grandparents have a pastoral relationship with their grandchildren, whereby the grandchildren can confide in the grandparents about matters which they would not otherwise discuss with their own parents. In the patrilineal area, apart from the

grandparents, other trusted members of the family were aunt and in-laws, brother or sister.

In summary, the group discussions reveal that often there is no information on the transition from childhood to adulthood, until one experiences puberty. Menarche is a more closely guarded secret than spemarche by those who have experienced it, reinforced by behavioural restrictions and taboos. Mothers, though an important source of information on puberty, do not feel free to talk about sexuality. Grandparents and other elderly relatives usually counselled pubescents.

4.4 Sexual Relationships

Apart from the personal reasons that motivate young men and women to engage in sexual relationships, their sexual behaviour is also shaped by the expected and normal behaviour in their society. For example, whether it is acceptable behaviour for adolescents to be in a sexual relationship, the motivation for such relationships, or whether sexual intercourse would be expected in such a relationship. The issues discussed in focus groups included involvement in relationships, motivations for involvement in relationships, and opinions of those who are in a sexual relationship.

4.4.1 Prevalence of relationships

It is demonstrated in Chapter six that sexual activity starts at a young age in Malawi. Table 4.2 shows that the proportion of respondents who have had sex increases with age. A higher percentage of males than females had sexual intercourse before age 17. Overall, about half of the males had sexual relationships by age 16, a year younger than for females. This section investigates the social context in which sexual relationships take place.

Table 4.2: Percentage distribution of young males and females aged 15-24 who ever had sex by current age and the median age at first sex, Malawi MKAPH 1996.

Current age	Male			Female		
	Median age	%	Number	Median age	%	Number
15	13	38.7	141	14	22.7	148
16	14	47.9	133	15	37.8	113
17	15	61.4	99	15	57.1	111
18	15	68.2	116	16	72.0	124
19	15	77.6	111	16	94.2	130
20	16	87.5	126	16	95.7	125
21	16	92.6	101	17	97.2	123
22	16	94.9	91	18	97.5	115
23	16	90.2	83	17	100.0	97
24	17	97.6	118	17	97.4	88
Overall	16	73.4	1119	17	75.0	1174

It was revealed that for most adolescents being in a sexual relationship is more the norm than the exception, and '*many girls get pregnant!*' . In one focus group for single females in a matrilineal rural area, some participants added that '*even the married ones have affairs!*' The only focus group where the participants said not many of their friends had relationships was one entirely composed of primary school boys, aged 14 to 19 in standard 3 to 8, who were recruited at school. They reported that although they suspected that some of their colleagues had girlfriends, they did not know for certain '*because they do such things in secret*'.

It was interesting to note that in a focus group with single male adolescents in a matrilineal area, the group claimed that the reason why most of their colleagues did not have girlfriends was because the girls marry very young to men who are polygamous. As such the girls were thought not to enjoy their adolescence;

R1: Some have girlfriends, but there's a shortage of girls, when they reach a certain stage, the girls rush into marriage...

R7: There are some men who already have many [wives], so they come and since they are polygamous they take on a young girl. So many girls do not enjoy their adolescence.
[Young men, single, matrilineal rural area 2]

4.4.2 Motivation for sexual relationships

Young people have various reasons for engaging in sexual relationships such as love, marriage, economic reasons, or pressure from friends or a partner. Whereas males often view sex as physical involvement, females will often be driven by emotional attachment (Ingham et al., 1991; Hickey, 1997; and Varga, 1997). Decisions regarding sexual activity are also determined by various practices regarding the use of contraceptives.

In the focus group discussions for single adolescents questions were specifically asked about the reasons for sexual relationships. It was revealed that some young people had girlfriends or boyfriends to '*please their bodies*', implying sexual gratification. To examine the various reasons and practices in sexual relationships, participants were asked hypothetical questions about a friend who comes to them to seek some help on having sex for the first time, one who is being pressurised by other friends or partner to have sex, or whose partner was refusing to have sex with him or her. The broad reasons identified for sexual relationships among the participants fall under the following themes: 'sexual drive'; 'have-hold'; 'economic reasons' and 'peer pressure'. The first two identify the implicit features of cultural gender-based expectations (masculinity and femininity) in sexual relationships, whilst the last two do not necessarily follow a gender dichotomy.

4.4.2.1 Male sexual drive

'Male sexual drive' discourse assumes that the central feature of masculinity is the desire/need for sex and it is the role of females to fulfill this need (Holloway, 1989). The discussion on 'male sexual drive' in this thesis focusses on the intervening factors between the 'male sexual drive' and actual sexual activity such as the perception of the risk of HIV infection, alternatives to male sexual drive, and social factors such as religion. For males, engaging in sexual activity is considered '*natural*' and a basic instinct which is difficult to control. The belief in the 'male sexual drive' seemed to be strong not only amongst males but also among female discussants. Males believed that '*practice makes perfect*', and they have to prove their manhood before they go into marriage;

...when you've reached puberty... you just say you can't help it, you should get a girlfriend! So you get a girlfriend, as people say, you need to practise. If you don't have a girlfriend, you can be

barren or things like that. So we want to follow that, you do those things so that you know yourself. [Young men, single, matrilineal rural area 2].

R1: ...if one does not have sex until he gets married, he may blunder when he gets married, he finds it difficult to do it..., his in-laws should not talk ill of him, he should not be ridiculed...

R6: It's important that before you work in a big field, you should be given a hoe to practise in a garden first. [Young men, single, matrilineal rural area 1]

Similarly females hold the same view, and acquiesce to male sexual prowess; expecting the man to take the initiative and control in a sexual relationship. Young women commented that a novice would learn about sex from a partner; *She'll see for herself! The man is going to tell her in the house!* [Young women, married/with child, matrilineal area 2].

R1: I would just tell her that a man grabs you...(laugh) ... and then separates your legs...after holding you, he'll separate your legs and tell you something... to have sex with you! [Young women, single, patrilineal rural area 2].

There was a general view among young men that if one is in a relationship, then sex is natural and inevitable;

R4: Ah, this issue of relationships... it's like nature. [Young men, single, matrilineal rural area 1].

R2: But it's difficult to be in a relationship and just be chatting. Sometimes that girl comes to see you twice or thrice, you tell her not to come again and you find that she's back again. So you can not do otherwise, you discover that you've already done it!
[Young men, single, urban area 2].

However, in the same focus group one participant disagreed with his colleagues' general belief and noted that girls are not just sex objects. The discourse analysis of the transcripts revealed psychosocial factors which may help the young men to contain the 'male sexual drive'. These were identified as perceived vulnerability to the risk of HIV, alternatives to sexual intercourse, and religious values.

a) Perceived risk of HIV infection

Despite the fact that sexual relations seem to be the norm, young people were aware of their vulnerability to HIV, and appear to know of transmission and prevention modes of STIs, yet they engage in unsafe sexual relationships. This is particularly true in respect to the prevention of sexually transmitted infections. The theme '*history*' or '*familiarity*' of sexual partner have been identified in the context of STI prevention (Ingham et al., 1991;

Kent and Davies, 1992; Miles, 1993). It is clear to the young people that HIV is an important factor in the choice of partner in sexual relationships, especially someone to marry. They know what to do, that is, either check their partner's sexual history or use a condom if they do not know it. Although the condom was used in the first few times in the sexual relationship, it was often abandoned once there was some familiarity. Some were even reported to pierce the condoms since the condoms were thought to impede sensual pleasure.

Young men in the urban area realised the importance of taking preventive measures such as undergoing 'a test' before starting sexual relationships and the use of condoms as the following quote shows;

R1: Find a good woman, and go to the hospital to have an AIDS test. Because sometimes you can find a good woman, but you don't know that she has AIDS. [Young men, married/with child, urban area 2]

Although in one rural patrilineal area the participants were aware of the need to know the sexual history of the partner by having a test, the facilities were not available in the locality, as the following remark made at the end of a discussion group illustrates;

...when you want to marry a girl, can you go to the hospital so that both of you get tested, so that you know how your bodies are? [Young men, single, patrilineal area 2]

One focus group of unmarried young men with children, had the following to say about condom use among young men;

It's foolish for a man not to move around with a condom. Nowadays everybody moves around with a Chishango [condom brand name] in the pocket for protection. In other words we say 'in emergency push out glass'...no one keeps 'your parcel of life'⁴, but yourself! [Young men, married/with child, urban area 3]

Much as the young men in the urban area are aware of their vulnerability to HIV infection and the preventive measures to take in sexual relationships, the discussion on the theme of having a test showed it was unlikely to be put in practice. The concept of 'safe partner'

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The phrase 'parcel of life' (*phukusi la moyo*) is a catch phrase used in the IEC messages for AIDS control.

was prevalent. Partners were considered 'safe' based on 'known behaviour', 'good looks' or 'good repute' as the following quotes illustrate;

R2: You would first of all find out about her behaviour. And if you hear that it's OK, you can do without a condom. But if you hear that she's bad news but you really desire to do it, then use a condom.

R8: No! Can't tell who's a good girl! ... Condoms are there, yes, but it so happens that at certain times putting on a condom looks like delaying. And because she's your girl whom you trust, she's yours and you just decide that you'll use condoms next time. That's how things happen. [Young men, single, urban area 2]

Although the young men reported they would use condoms, they are not used in the 'heat of passion' or if the relationship is seen to be a stable one.

For the participants of the focus groups, it seems that situational decisions outweigh the long term benefits of adopting low-risk sexual behaviour. For instance;

R6: Try to investigate through your friends... because she can't accept to go to hospital, and even for you to go to hospital...

R1: Whom would you ask assuming the girl has come from Chitipa [suggesting somewhere far]?

R8: And even for yourself to go to the hospital it's difficult. You just do it and pretend that you've been tested! [Single young men, urban area 1].

The following quote shows that there is potential loss of respect if you ask your prospective marriage partner to go for a test;

If you want to get married, you can go for a blood test. But it's not respectful, you agreed to marry, but now that one of you is infected, then you don't marry. [Young men, married/with child, matrilineal rural area 1].

There is also evidence of some young people resigning to fate in their perception of risk to HIV virus. They suggested that human beings are destined to die, and AIDS is just one of the causes of death;

... however, there are some people who say "AIDS came for us people and did not come for animals". [Single males, patrilineal area 2]

You tell them you'll die fast because you're going to catch AIDS. They answer 'AIDS came for the people'. So they say an elderly person has nothing to say. [Opinion Leaders, male, matrilineal rural area 2].

Advice is regarded suspiciously and viewed as covert competition for girl friends during adolescent years;

R1: You tell him "this is not Okay", but he thinks that you're jealous of him and that you...

R8: ... want his girlfriend!

R1: He doesn't realise that you care for him. He turns against you in the end. This is what a lot of boys do. [Single young men, urban area 1].

It is clear that the awareness of condom use is also present in rural areas. However, the motivation to satisfy the 'male sexual drive' seems to prevail over the health benefit of barrier methods of contraceptive;

There are some who put on the condom but they pierce it at the tip... and in the end you find that you're pregnant. And he starts denying it 'didn't we use a condom?' ... If it's a disease, he'd say "didn't we do it with a condom? You're the one with a disease!". [Young women, Married, matrilineal rural]

Sometimes that girl says "Use a condom, without it you can't make love to me!" So once you put it on; all the way! But you cut off its tip. And you say "let's fire!" Then she just finds that they [sperms] have heaped up somewhere. She would then ask "I thought you put on a condom?" Then you would tell her "it burst!". That way you've caught the disease! [Adolescent males, urban area 1]

b) Alternatives to sexual intercourse

In the masculinity discourse it was believed that sperm can cause discomfort and therefore must be released. Autoeroticism practices such as masturbation and nocturnal emissions were referred to in one focus group as a natural way to relieve that tension.

Sometimes when your 'back is tired', the sperms just come out on their own. It means that those things that were giving you problems have now come out and you start to feel better. Sperms! These things can give you problems at times! (laugh) [Young men, single, matrilineal rural area 2]

Masturbation was also identified as a way of controlling the 'male sexual drive' in one focus group;

I just drink and when I'm tired I just do 'secret abortion'... But what one can do these days is just to... imagine having sex with a woman. You wouldn't tell her! [Young men, married/with child, urban area 3]

c) Religion

Religion provides a set of social values that act as a way of suppressing the ‘male sexual drive’. Religion generally has the potential effect of decreasing premarital and extra marital sexual activity (Twa Twa, 1997). Some participants quoted passages from the Bible and the Koran to substantiate their stance on sexual behaviour as illustrated by the following quotes;

If your girlfriend wants you to meet her, just tell her that she must open Exodus 20 from verse 4 onwards. The word of God says that "thou shalt not commit adultery". That way you can find a good way of controlling yourself. [Young men, single, patrilineal rural area 2]

The holy Koran also says that "do not associate yourself with promiscuity because it's dirty". Just having the desire is like doing it, because by taking a condom we are being promiscuous. Even the Bible says that just by envying a woman, you've slept with her. Those who are old enough should just get married. [Young men, married/with child, matrilineal area 2]

In summary, male discourse, affirmed by female discourse, has shown that the normative sexual behaviour for young males in the study areas in Malawi is that it is ‘natural’ to indulge in sexual behaviour and a young man needs to acquire sexual skills before he enters a marital union. There was wide acknowledgment, however, that this sexual drive carries with it risk of sexually transmitted diseases, and therefore one needs to take precautions such as knowing the sexual history of a sexual partner, take an HIV test or use a condom. Nevertheless, these precautions are often ignored because of situational influences in which the health benefit of safer sexual behaviour is overcome by sexual desire. Other alternatives to sexual intercourse to contain the ‘male sexual drive’ were identified as wet dreams and masturbation. Finally, the influence of religion to restrain the ‘male sexual drive’ was also raised in some focus groups.

4.4.2.2 ‘Have-hold’ femininity discourse

The cultural expectation in Malawi, as in other parts of Africa, is that young women view their future role as a mother and a wife, and they desire a secure relationship with a man in which they can attain these goals (Hickey, 1997; Miles, 1993). In their sexual relationships, women will generally aim for marriage, which is regarded as a pre-requisite for sexual relations. Holloway (1989) identified the ‘have-hold’ discourse, in which

females are more inclined than males to get and hold onto a partner in a committed, long term relationship such as marriage. The following discussion illustrates the goals of young women in a relationship;

... it's not always that when one is in a relationship then all the time you think about sleeping together, and all that. There are people who have their thoughts set on a marriage, they don't do those things! They can just be chatting, discussing other issues, and not related to that. [Single young women, urban area 2]

The 'have-hold' rationale that it is good to marry is likely to be a suppressing factor of a premarital sexual relationships and pregnancy, unless there are prospects of marriage with the man;

If your parents know the man, and maybe if you see there are signs that you'll marry each other, you can do it. [Single young women, urban area 1].

R4: Marriage is good because when you're alone, you can go astray, and confuse yourself... like having a child without a father, before you're married. [Young women, married/with child, patrilineal rural area 2]

Unlike for boys who were mainly concerned about the risk of sexually transmitted infections, girls' primary concern was the fear of premarital pregnancy. There was little awareness that every act of sexual intercourse carries the risk of pregnancy. Those who knew of these risks appeared not to know how to prevent pregnancy. The situational influence of their engaging in spontaneous sexual intercourse outweighed the long term consequences;

R4: It's not that when you have sex with the aim of pleasing your body or whatever then it'll result into pregnancy...

R3: ... you just realise a month has passed! (laugh)

R4: It's not the moment you come from there you know that you're pregnant, but after 2 or 3 months, you start wondering, "what's happening to me?" Forgetting what you did in the past...

R2: Yes! Because sometimes others say that you can have sex when you have just finished your period or just before. So maybe she will miss, and she'll do something else, and she'll blame you, saying that "you...

R3: ...misled me..." [Young women, with child, urban area 2].

To conclude, although boys are more afraid of HIV/AIDS and girls are more afraid of pregnancy, the discussions suggest neither fear has a major impact on their sexual behaviour.

4.4.2.3 Socioeconomic reasons of sexual relationships

Studies have shown that some young people, especially girls, are motivated to go into relationships for economic gains, either driven by poverty to meet basic needs or attracted to higher quality of life (Gage, 1997; Meekers and Calvès, 1997; Twa Twa, 1997). There was evidence of such tendencies reported in the study population, for example;

“It's because a lot of girls are needy. They usually follow their friends who have relationships so that they too could find some money for soap.” [Young women, single, matrilineal rural area 2].

The economic motivation may also be a quest for a better quality life; *“It's also to have fun, just like if they wanted money or maybe have things bought for them enjoying themselves.”* [Single young women, urban area 2].

In exchange for the economic incentives given to the young female adolescent, the man expects sex;

... we receive the money, and in the end the money is ‘claimed’, so that's how many get pregnant... like the way boys talk, that, “this girl I can have sex with her because she has already eaten something of mine”. [Young women, single, patrilineal rural area 1]

The excerpt below from a key informant summarises the typical motive of each party in a socioeconomic transaction between a ‘sugar daddy’ and a female student, involving sex and money. The girl has sex with an older man to show that she loves him after he has provided her with a lift instead of using public transport;

Middle aged men... are the ones who have changed you children [addressing female researchers] a lot... you refuse that we [parents] should take you to the bus stop... But he says that he'll pick you up and drop you... at college. So that way how can he be avoided? Will you not sleep with him? So that he can see that you love him very much. Because our love, we women ... for him to trust you very much that you love him, you are supposed to undress for him. [Opinion leader, female, Urban area 2].

4.4.2.4 Pressure to have sex

Adolescents are at a stage of their life when conformity plays an important role in shaping their identity (Barker and Rich, 1992; Cooper et al., 1992; Lema, 1990). Pressure to indulge in early sexual activity may come from peers, ‘significant others’ or take the form of coercion from a male partner. Sexual behaviour is an area in which they want to adhere

to group norms. Hence, young people may engage in sexual activities because they do not want to be excluded from the circle of friends, or their peers may influence to have sex just to get them in trouble. Single young people were asked what they do if they want to know about sex, the following are some excerpts of the discussion;

R3: Some copy from their friends, a friend has one so I should also have one.

R5: Others do not talk in your presence when they're discussing their stories, they chase you because they have affairs but you don't have.

R3: So may be you get attracted so that you want to have one...

R6: ...there are some girls who don't wish their friends well. It may be possible that they didn't actually do it, but they are just telling their friend knowing that she may be carried away and also do the same. If they are not in school it may be that they just want her not to finish school so that she should be in trouble. [Single young women, urban area 1]

R4: ...Some people, when they see their friends have a girlfriend, they also want to have one, not knowing what goes on in a relationship. Sometimes, they do it ignorantly. They get themselves in trouble before too long. [Young men, single, matrilineal rural area 1].

Some girls engage in sexual relationships out of coercion by the potential sexual partner, as the following quotes show from separate focus groups of young men and young women;

They propose to the girl and she accepts... Sometimes the girl refuses but it's the man who forces her and she accepts. [Young women, single, patrilineal rural area 2]

If that girl is still playing hard to get, you take her to the bush for a walk, far from home, where you can grab her without problems and do it without hassles. [Young men, single, matrilineal rural area 21]

4.4.2.5 Influence of Mass Media on Reproductive Behaviour

Adolescents are at a stage of their life where the 'significant others' are also personalities in the media (Barker and Rich, 1992; Senanayake, 1992). With modernisation, mass media cuts across international borders, and its influence on sexual behaviour of young people can be both positive and negative. The direct influence of mass media on sexual behaviour in the study sites was referred to in the context of 'blue movies' which entice young men to indulge in sexual activity. Discussions with unmarried young men (in a matrilineal rural area) on what a boy would do if he wanted to have sex for the first time, led to references to pornographic movies (shown in urban centres) as means in which some young men learn about sex; "*like in town you just tell him to do whatever happens when*

we watch in videos, blue movies!" Respondents said such films were not shown in the rural areas. For example;

Like myself, I was influenced to sleep with a lot of girls because of films, 'blue movies'. I saw how it happens, in the end I made a girl pregnant, because of the desire to sleep with women. Lust after them. Curiosity to find out what happens when one sleeps with a girl. [Young men, married/with child, urban area 2]

In summary, the discussion on sexual relationships among young people suggests that sexual activity is common. The reasons for initiating sex are varied by gender. For boys, the sex drive fosters an early start of sexual relationships, but the fear of sexually transmitted diseases deters it. However, in most cases the 'sexual drive' motive dominates. Girls are motivated by the desire to procreate in a stable relationship. Nevertheless, factors such as socioeconomic reasons and the desire for sexual gratification prevail over the suppressing factor of 'have/hold'. Peer pressure was found to be influential in promoting early sexual relationships. There was also evidence of coercion of girls to have sex against their will. The direct influence of the media on sexual behaviour was not widely reported.

4.5 Socio-cultural context of Marriage

Marriage is almost universal in Malawi and the age at first marriage and childbearing is young (median age 17 and 18 years, respectively). Social norms with reference to early childbearing are very strong in Malawi, as in other parts of Africa (Bledsoe and Cohen, 1993; Demographic Unit, 1987). Traditionally, puberty marks the readiness for marriage. A young woman can marry soon after puberty as long as she is able to 'cook for her husband'. Similarly, for a young man, the ability to carry out farming tasks which enable him to feed his family was enough of a qualification for marriage. These norms are mediated by several factors which either accelerate or delay marriage and childbearing, such as education of girls, role of IEC media messages, risk of STIs (HIV), social status symbol, fear of 'being left on the shelf' for men, and parental home situation.

In this study, respondents were asked if there were many young people who were married in the local community, their opinion on marriage and children, and the ideal age for marriage and childbearing. These questions were posed to both the young people and

opinion leaders. It is apparent in the study findings that, for most people, marriage and childbearing decisions are made simultaneously and are not easily separated, as childbearing was given as the primary purpose of marriage. Nevertheless, a more detailed discussion on childbearing is presented in Section 4.6.

It was also noted that in making marriage decisions it is the ability to shoulder the responsibility of marriage that is more important than just the numerical age as demonstrated by the following quotes;

...because for a male to propose marriage that means he regards himself to be a grown up person. There's a sign which a man sees before he proposes marriage to a girl. But we just accept them, not knowing how he is, we ask each other's ages later. [Young women, married/with child, matrilineal area 2]

But in this area, people don't marry according to age, because parents don't follow age. Provided a girl has reached puberty, she can marry, her time has come! What really matters is the work she is able to do, which makes someone ready to get married. [Young women, single, patrilineal rural area 1]

4.5.1 Socio-cultural roles of spouses

As in most African cultures, a young man should be able to provide for his family by either being able to manage his own crop field or by having good education to get a paid job. The term 'mental maturity' was often cited as an indication of a young man's readiness for marriage. For a young woman, she should be able to do housework, and more important, be 'biologically mature' to nurture a child. It is clear that both types of 'maturity' denote physical and emotional development. The traditional role of a married man as 'the provider' and his being 'mentally mature' to carry out that role are often the deciding factors for the potential wife;

In my opinion a man is supposed to marry when he's grown up, because a girl can marry at any age, even at 15, but the man is supposed to be mature, being mature in the mind!
[Single young women, urban area 2]

... if he marries at a young age, then it's his father who'd always come to help him out with manly chores; constructing a granary for him, even a hut, or mending a broken fence. Because he married before reaching maturity. But at 21 a male's attitude to life is quite mature. [Opinion leader, female, matrilineal area 1]

...a man is the head of the family, he's supposed to think of what he'll do for the wife when he marries her. "Will I manage to buy soap? Or will I manage to give her what she needs?" So that's why men have to mature first unlike for us women, because we just wait to receive!

[Young women, married/with child, patrilineal rural area 1]

The traditional role of a wife as a care giver for the husband was also clearly reinforced by both and young men and women in the rural areas;

R11: It's good to marry. Cooking becomes no more problem. All the housework is done by the wife.
[Young men, married/with child, patrilineal rural area 1]

R7: When she reaches 19, she'll have learnt all the domestic work from her mother's house, so there won't be any problems when she gets married. [Young women, married/with child, patrilineal rural area 2]

R3: Because of problems sometimes he needs to get someone to cook for him. He'll be able to fulfill his duties very well, like farming, buying fertiliser... [Young women, single, patrilineal rural area 2].

A young woman is expected to have 'mature bones'⁵, before she takes upon the role of a mother;

R2: From the twenties upwards...because at that stage her bones are mature and her body is fit.

R1: If one has a child at a young age, the body is not ready and the child can..

R2: ... be born with some deformities...

R1: ... polio. Or else the mother, may become handicapped.

R2: Or even death, if it's a premature birth. [Young women, married/with child, matrilineal rural area 1]

R1: 'Bones on the waist' should mature, otherwise she'll suffer a lot at the hospital.

R2: Sometimes they go to Lilongwe (150km away) for operation when giving birth because the bones are not mature. It's not good. [Young men, single, matrilineal rural area 2]

Young men and women in the study areas submit to the traditional roles of spouses in their preparation for marriage and childbearing. Since they require 'maturity' which is acquired through time, it would be expected that early marriage would not prevail.

⁵ FP messages encourage adolescents to delay childbearing to age 18 or older to let the 'bones mature' so that the young mother should not have problems at delivery

4.5.2 Intervening factors of early childbearing

This section examines the intervening factors that may either increase or reduce age at first marriage and childbearing. Education, exposure to the mass media, prevalence of STIs and spousal age differences featured prominently in all discussions in regard to factors influencing age at marriage and childbearing.

4.5.2.1 Education

The role of education on marriage decisions is illustrated by the link between timing of marriage, timing of childbearing and educational attainment. Respondents generally agreed that the right age for one to get married and have children ranged from 18 to 25 years and older. This age range was typically linked to the social norm commonly referred to as to '*finish school*' [*kumaliza sukulu*] at form four (year 12, qualifying year to university). However, 'finishing' can be at any age because it is not mandatory for pupils to stay in school up to a specified age, although the official minimum age of entry is six years. In addition, in Malawi if one fails a class one repeats a class. Thus the age at which one may 'finish school' may vary from 18 to the 20s. Common responses included;

R2: It depends on the age one finishes school and gets a job. Whether you're 23, but if everything is all right, then go ahead. [Single young men, urban area 1]

R9: Any age when one is through with school, because some people can be 25 but they have not finished school.

R4: So long as one is through with school,... maybe around 18. [Single young women, urban area 1]

R2: For me, I think a man should get married at 25 upwards... he should have an education because it'll help him in future. He can marry after having an education because it is education which helps us think better in life. [Young men, married/with child, patrilineal rural area 2]

There is some evidence of early childbearing and marriage in the study areas as indicated by responses to questions on whether the majority of the participants' peers were married or had children. In the rural areas, the majority of young people had children and were married unlike in the urban areas. It is possible that education opportunities accounted for the rural-urban differences.

In a focus group discussion in an urban area participants discussed the instability of marriages in modern days and the importance of education;

R3: But these days school and marriage don't get along, because marriage is sweeter than school... But you should study first and get married when you have a job. Sure, these days marriages are like chaff they don't last! (laugh) [Young women, with child, urban area 2]

In the rural areas there was evidence of unequal distribution opportunities for education. Such unequal education opportunities have an influence early childbearing in an area, as the following quotes illustrate;

R6: The majority are the married, because many people fail at Standard 8, and they are forced to marry. Sometimes because of poverty people are forced to marry so that they can be supported by their partner.

R1: ...like at this primary school, sometimes only 2 pupils proceed to secondary school, and MCDEs⁶ [Malaŵi College of Distant Education] are very expensive, many parents can't afford. So a lot of girls can't continue with school, they get pregnant. [Young women, single, matrilineal rural area 1]

I2: Some boys as early as 14?

R2: That is common among those who drop out of school. They just stay idle without anything to keep them occupied and so end up getting married early. [Young men, married/with child, matrilineal area 2].

They are not that many because like here girls go to MCDEs which have just come recently. [Young women, married/with child, patrilineal area 2].

Poverty is also an obstacle to educational attainment. For example, in a matrilineal rural site, one girl asked at the end of an interview '*what if someone who got pregnant by accident wants to go back to school?*' [Young women, married/with child, matrilineal rural area 1]. Her practical hindrances were '*things that one needs to be in school like soap, pocket money*'. She said that she had approached the education authorities '*but these days they are useless, even if you tell them something, they don't care!*'.

It is clear marriage decisions are ideally related to education. Young people would like to get married after 'finishing school' and consequently get a good job. However, the

⁶ MCDEs follow secondary school curriculum. MCDEs are meant for those who did not have the opportunity to pursue secondary education in the mainstream education system. However, they usually have inadequate resources due to poor funding.

pyramidal system of education in Malawi means that only a fraction of the capable students progress to higher classes. Coupled with unfavourable economic situation at home, they get expelled due to pregnancy or become pregnant soon after they have dropped out. They fail to 'finish school' thus, sustain early marriage and childbearing.

4.5.2.2 IEC Media messages

One of the major goals of the family planning programme in Malawi is to reduce early childbearing. The main message disseminated is not to start childbearing before the age of 18 because the mother is not physiologically ready to bear and rear a child. In response to the question on their preferred age at first birth and marriage respondents in all areas referred to this media message;

R5: We hear from the radio that starting from 18...

R1: but when married.

I: Okay, is that based on the radio or it's what you think?

R5: That's what we hear, and our opinion we also know it's like that. [Single young women, urban area 2]

R1: Ah... I know, when I say 18 I heard on the radio that a woman can marry at 18 so that at the hospital she should not have difficulties because her bones are not mature! Because some even get ill for the whole week without getting better. A person who's 18 can't suffer that way. [Young women, single, matrilineal rural area 1]

R2: But according to the rules ('dango'), one is supposed to marry at 18.

R5: But at church they say 18. [Young women, single, patrilineal rural area 1]

It is hoped that the media message that a woman should not have a child until she reaches 18 (which is the median age at first birth) may delay early childbearing in Malawi.

4.5.2.3 Sexually Transmitted Infections

It was revealed in the discussion groups that the risk of contracting sexually transmitted infections is likely to change young people's behaviour in favour of early marriage to avoid being promiscuous and run the risk of contracting STI. This was largely mentioned in focus groups with married participants in the matrilineal rural area for both young men and women. It was raised in only one focus group with married males in the patrilineal rural area. There was particularly special emphasis on the societal influence of change of

behaviour in the light of HIV/AIDS, with the use of phrases such as '*in our culture*', '*these days men are afraid*', and '*people might say...*'. The fears of STIs are expressed in the following quotes;

R6: ...if they didn't get married they would have been fooling around and as a result catch diseases like AIDS... These days men are afraid to stop and chat with a girl because they are afraid if their wife hears about it there'll be trouble. Also girls should get married fast! [Young men, married/with child, matrilineal rural area 1]

R10: But it's good to control yourself because the times are bad due to this AIDS disease. If a person gets married, he's controlled by his wife instead of just hanging out anyhow. [Young men, married/with child, patrilineal rural area 1]

Although the fear of contracting HIV virus was reported to be a motivation for early marriage it was pointed out that early marriage would not necessarily solve their problems since married people continued to have affairs, as in the following quotes;

R3: So weddings are taking place soon after they start going out because they want to avoid contracting the virus.

R4: But when they rush to marry and not be satisfied, behind the back of his wife a man can continue to have affairs. [Young men, married/with child, matrilineal rural area 1]

...if both get married at 18 they easily run into problems and the marriage breaks up. Now both the husband and wife tend to have affairs because they think they now know what marriage is all about. [Young men, married/with child, patrilineal rural area 1]

The fear of contracting sexually transmitted infections is likely to accelerate the start of marriage and childbearing. However, those who marry early were reported to continue to have other sexual partners, hence defeating the purpose of controlling STIs.

4.5.2.4 Spousal age difference

Some young men felt that if they did not marry early their chances of being accepted by girls of marriageable age would be reduced. The reasons identified varied by study area. Those in the urban areas feared competition with older men who were going out with adolescents, while those in the rural areas were worried about not finding a girl of their own age group to marry. However, both concurred on increased HIV risk if marriage was delayed;

The main problem with waiting up to 25 years before you have your first child is that the older men are fighting over girls aged 19, 16 years. So where are you going to find one to have a child with? I was thinking that it's better to have yours, because if you wait until 25 you may find that you already have Aids, and you can't catch a good looking babe. [Young men, married/with child, urban area 2]

... beyond 25 you won't find a girl of your age. You marry an older lady than yourself. It's because when you're old, and you propose to girls in your area, they tell you that you're too old. [Young men, single, matrilineal rural area 1]

... if he delays, the girls will refuse him saying he's too old... (all laugh). That's why you need to marry at 18 before the face wastes away, so that the girls accept your proposal... [Young men, married/with child, patrilineal rural area 1]

Thus, the fear of not finding a wife seems to be a motivation for early marriage. This issue was raised mainly in the focus groups with young men who had already started their childbearing process, which may explain why they started the childbearing process early. According to the 1996 MKAPH survey data there was a difference in the median age at union for the two sexes of 2 years for those aged under 25 years and at least four years for the older ones. This suggests that there could be more to the fear of not finding a wife than we were able to capture from the focus groups.

4.5.2.5 Social Status

Marriage is thought to accord a social status symbol to the married partners, typified by increased responsibility. A married person "*is no longer considered a young person, but an adult*", whereas "*an unmarried person is just like a piece of furniture in a house (dependant)...*" [Young men, married/with child, matrilineal area 2]. Marriage was seen to have a taming effect on men in their sexual behaviour, drinking habits, and expenditure. Young women felt marriage and being a mother gave one a sense of fulfilment and being provided for. These rationales are illustrated in the following excerpts;

... when you get married, you stop some bad habits, like if you were drinking heavily, you stop, because a wife also wants the money to use for other purposes, so you find that you have very little money for drinking. [Young men, married/with child, matrilineal rural area 1]

... those without children just wander anyhow without thinking about anything. But if you have a child, when you're wandering around, you say to yourself "I have a baby!" [Young women, married/with child, matrilineal area 2]

R6: ... because you don't do things you would do if you were single.

I: What kind of things?

R9: You may lack things like soap, clothes, and the like, so you sleep around to get these things!

I: When you're married?

R6: The husband buys. You're no longer promiscuous! [Young women, married/with child, matrilineal area 2]

4.5.2.6 Mutual support

A number of reasons were cited which allude to the mutual benefit of marriage, where there is interdependency of need and being needed by someone; each partner derives some emotional support as well as socio-economic benefit from the other;

In marriage, there's respect indeed, and there are two minds, we help each other. Where there are two minds there are also better ideas. [Young men, married/with child, patrilineal rural area 2]
When you get married, you live longer because the wife counsels you... [Young men, married/with child, urban area 2]

On the issue of farming, we help each other... [Young women, married, matrilineal area 2]

...marry her to keep each other... and you trust each other, you'll be doing things with your friend in mind because you promised to marry each other... [Male adolescents, matrilineal rural area 1]

While the 'mutual support' motive shows that marriage is good, it may not be clear how it might influence age at marriage.

4.5.2.7 Parental home situation

Although the choice of spouse is largely an individual choice, poverty at home, orphanhood and parental pressure to marry were raised as factors influencing early marriage. Someone without parents may get married to get emotional and economic support;

R2: It's good to marry because if you have lost your mother, your wife will take care of the surviving parent. [Young men, married/with child, patrilineal rural area 1]

R5: Sometimes the man is raised as an orphan, so when he has grown up he says, "Let me marry, maybe I'll have somewhere to stay, with that partner." [Young women, married/with child, patrilineal rural area 1]

Economic reasons made some parents to force their dependent children into marriage to relieve themselves of the burden of looking after them;

R9: Another problem is poverty, a girl is forced to marry so that the husband can feed her.

R8: Some parents want sons-in-law to help them till the fields, so you find some girls marrying as young as 12 years old. [Young men, married/with child, matrilineal area 2]

R7: ...sometimes if you have finished school, parents struggle to feed you, ...So the parents reach a point when they get tired of you, so they force you to get married. Parents rest when you...move to the wife's village the parents are relieved of that burden....

R4: Yes, I am the example, only last night, they did that to me! ... They saw that I'm just staying at home although I finished school five years ago... So they called me yesterday, to tell me that I should marry... I agree with that, because I'm going to marry indeed! [Young men, married/with child, matrilineal rural area 1]

For parents, the social expectation of marriage is to maintain the clan lineage and please the elders, this view was cited by both the young people and the opinion leaders;

If a person gets married, you're building the nation. The nation rests on the family... children come from families. So if we say you should not get married, the nation will end at your generation. Will there be any more births that way then? [Opinion leader, female, urban area 2]
Marriage makes the elders happy, they know that the village will develop. [Young men, single, patrilineal rural area 1].

However, the view that parents force young people to marry was not supported by some discussants in rural and urban areas. They felt that marriage is an individual decision and no one can be forced to marry by anybody. There was one focus group in which there was a lengthy debate on the topic;

R5: It's true ... that parents pressurise us to marry, that's how we end up marrying young at the age of 19 and our thinking is not yet mature...

R6: Ah, those who marry at 19 do so at their own wish because what we know is that if a person is getting married it depends on him to make a decision that "I'll marry at this time". You find yourself in a pit, they don't look at you, if you marry they abandon you. So for us to say that people marry young because they're pressurised by their parents, we're lying. It's their own desire to marry! [Young men, married/with child, patrilineal rural area 2]

R1: But you need to marry at your own will. You should not be told by parents to do so, saying "You have to marry". This type of marriage does not work out.... Yes! There are certain parents like that, you find people from the home village coming to town! [Single young men, urban area 1]

There was indeed some evidence that even in the more traditional areas, young people have autonomy in marriage partner choice sometimes to the displeasure of the elders;

...Marriages in the past followed the formal procedure. These days there's some change because if you tell a young man not to get married in a certain village... he'll tell you 'father whom shall I marry then?' ... But for us in the past,...the relationships were started by our elders... So things

need to be done in the right procedure whereby the parents organise everything and consent that their son can marry the girl, and she'll will work on the farm, and the son can also visit the parents-in-law... If they say don't do this', they know it's bad... [Opinion leader, male, patrilineal area 1]

The lack of parental guidance was cited in one focus group as a reason for early childbearing although there was also undoubtedly concern for early childbearing by the elders, as illustrated in the following citations;

If she' 20 years old then it's Ok. But nowadays things have changed, even a 15 year old person weds. This shouldn't be the case. But at the age of 20 it's good. [Opinion Leaders, matrilineal area 1]

But these days, girls marry at a very young age, even 15 years. At 15 you find that she has a child already. [Opinion Leader, female, urban area 2]

There was also certainly a sense of regret registered by some young people who married early. Both male and female participants felt they should have given themselves more time to be get some education and be able to provide for a family;

(Soothing crying baby) For me it would have been good if I continued with school. Because marriage is good sometimes, but when you have problems it's not good. [Young women, married/with child, patrilineal rural area 2].

Like myself, I have a wife, but I'm 22 years old. So I told her that I cannot live with her right now, I'm not yet prepared, so she understands that I'm saying the truth because I cannot get her only to starve her. [Young men, married/with child, urban area 2]

R3: I married early and I met a lot of problems, I didn't have any job and it was difficult to buy clothing,... So I just stayed with her because I was already married... No money to buy soap, right now things are better off, but it's not good to marry early. [Young men, married/with child, patrilineal rural area 2]

To conclude, the discussions on marriage and childbearing in this section show that there is early marriage and childbearing in the study areas in Malawi. Marriage is determined by social age, which requires time for preparation (maturity, education). However, there are some factors (poverty, orphanhood, sexual desire) which over-ride this preparation time, and thus result in early marriage.

4.6 Childbearing

Traditionally, children were regarded as a source of future security and large families were desirable to have more labour on the family farm (Demographic Unit, 1987). Participants were asked about their opinion on children, premarital childbearing and childlessness.

4.6.1 Premarital childbearing

There are diverse views on children born out of wedlock in the study areas. Although a child is a welcome addition to the family regardless of how the child was conceived, the interviews with young women and elders show that the absence of an acknowledging father to the child places a heavy socio-economic burden on the young mother and the rest of her family. The MDHS 1992 statistics show that 26 per cent young females aged 15-24 in the rural areas and 15 per cent in the urban areas had premarital births. With the experience of the field team in the recruitment of unmarried mothers for the focus group discussions in the urban areas, these percentages may be an underestimate of premarital childbearing.

4.6.1.1 Fatherhood

The analysis of the views of the participants on children born out of wedlock identifies characteristics of masculinity in the area of premarital pregnancy, that a real man makes a girl pregnant, denies responsibility and is exonerated. In the in-depth interviews with opinion leaders, they recognised the problem of boys making girls pregnant and denying responsibility, although the traditional laws may attempt to pass a ruling to make the men face up to their fatherhood responsibilities;

Some can actually say "Ok, I'll take care of the mother", just to avoid a law suit. But later they deny her! [Opinion Leader, female, Matrilineal area 1].

A lot of girls fail to finish school because of sex with boys. A boy does not bear the burden of a pregnancy, so he still continues with school despite fathering a lot of children before marriage. [Opinion Leader, Male, Matrilineal rural area 2].

Young women affirm the enormity of the burden of a pregnancy out- of- wedlock that is not admitted by the responsible father;

He'll deny me and I'll start going to people asking for some medicine so that I should abort and then I'll die! That boy whom I had sex with, will just be walking free but I will suffer... [Young females, single, Patrilineal area 1]

The young men themselves attest to the common practice of denying responsibility for a pregnancy;

What happens here is that a 'bush child' [born out-of wedlock] is denied by the father when the girl becomes pregnant, and you can't force her on the young man. He denies totally. Sometimes he just says "You can fine me but I'll not marry her" ... [Young men, married/with child, patrilineal rural area 1]

In a focus group with young men in a matrilineal rural area, they outlined the various ways in which a young man can deny responsibility in a pregnancy case;

R2: Sometimes boys as we are, we think in a mature way, we think deeply and make plans, sometimes you may not like the girl you've impregnated that much. So... when there's a case [at the Chief's] you deny it! Yea!

R5: If you get along with girl, you can ask her to mention somebody else instead of yourself. So if the girl mentions that guy and he denies as well, it's like the case is quashed.

R3:... pregnancy cases, they're not a problem for boys because they can deny... [Young males, single, matrilineal area 1].

Similar masculinity attitude was identified in the urban area. In addition, there was also evidence of misconceptions about how a young man can get a girl pregnant; some felt having sexual intercourse with a girl just once would not get her pregnant. However, this was disputed by other participants who also noted that modern medical technology could be used to establish the true paternity of the child;

R10: ...you would ask her how many times you slept with her for her to say it's you who made her pregnant...

R12: It's false, because you can sleep with her once and she can get pregnant. It happens! You don't know what happens after that.

R7: I understand that at the hospital they do some tests... They are able to tell who's responsible for the pregnancy and you can't deny. So you can only accept and see how it goes. [Young men, single, urban area 2]

4.6.1.2 Motherhood

Participants of the focus groups in the urban areas revealed that they would not expect any difference in the care for children regardless of how the child was conceived. Sometimes premarital births would be cared for by the family of the young mother while she goes back

to school, hence the burden is not entirely borne by her. They argued that even if one of the young parents starts a new family the child should be treated like all the other children in the family. There was only one focus group amongst married men (matrilineal site) who shared this view.

In a patrilineal community the parents of a girl get a bridal price from the family of the prospective husband. In case of premarital pregnancy, a reduced bridal price is paid. The views in the following quote contrast the reaction to a wedding and premarital pregnancy;

... when a son has found a good girl to marry, we get some cattle to pay the bride price and everyone is happy. But...when the girls just get pregnant anyhow, we get very disappointed. [Opinion leader, male, patrilineal area 2]

A child born out of wedlock is stigmatised by the community;

Sometimes the mother can get married to someone else, she leaves the child behind. Which means that the child will be without a mother, and people start insulting him saying, "Thanks to your (laughs) ... mother who undressed anyhow to have you!" Yes this happens! [Young women, married/with child, patrilineal rural area 2].

It is clear that children without an acknowledged father lack basic needs, and that premarital pregnancy carries with it a social stigma such that sometimes there could be forced marriages to ensure that support for the child is provided. The following conversation is on the opinion of focus group participants on children born out of wedlock;

R4: Why are you hiding when speaking, can't you just say children born out of adultery. It's usually a problem. ...because a woman cannot support the children alone, they need encouragement of a man. In short, we can say that the child lacks clothes, education, love from a father...

R6: It depends on the parents of the girl who you have had a child with. Because sometimes you go to her home to support that child, instead you find yourself in hot soup!

R1: Her parents say that you asked for it!

R6: Yes, you have come on your own! So they want you marry her. When you know that it was just a mistake. [Young men, married/with child, matrilineal rural area 1]

These findings show that although children are valued in Malawi, childbearing is expected to occur within a stable union. Premarital childbearing can have considerable social consequences for both mother and child.

4.6.2 Family size

The focus group discussions indicated that although large families were the norm for the parents of young people, this was no longer the case for their generation since they take into account socioeconomic considerations such as shortage of land, cost of education for children, and the use of family planning. Asked on their opinion on children the discussion focussed on the number of children;

R4: I feel sorry for them, because here... people have children like rats

R5: They don't think much about family planning

R4: If I look around, we have a shortage of gardens, but they continue to have children, although they are suffering with poverty. Their family plots are very small. [Young men, married/with child, matrilineal rural area 1]

When they have a baby the mother should breastfeed the child until he's 2, and she should eat well so that by the third year she can regain her body strength, and in the fourth year she can become pregnant again when she has enough blood in her body. [Young men, married/with child, patrilineal rural area 1]

Even among ourselves, we see families with 14 children where the parents fail to educate the children so we talk about it that it's bad. We just want to have 3 or 4 children, that's enough. [Young men, single, patrilineal rural area 1]

However, although they talked about family planning, participants in one focus group expressed concern about their lack of knowledge on family planning;

R3: Yes, I agree, we people want to limit the number of children that we can have, but only that we don't know the method. Maybe you can teach us how to do this family planning to control the number of children. [Young men, married/with child, patrilineal rural area 2]

4.6.3 Childlessness

Children are so highly valued in the Malawî social context that those without children can be a source of ridicule. Voluntary childlessness is not acceptable in Malawîian culture. The percentage of women who were childless in the 1992 MDHS gradually decreased from 19.4 per cent for women aged 20-24 to 2.6 per cent for those aged 30-34 and less than 1 per cent for women aged 40 and greater.

In the polygamous communities, childlessness was a valid reason for the man to take up another wife. In a matrilineal community a man would be divorced from his wife if he was unable to produce offspring for his wife's lineage. Asked about their opinion on people

without children, the findings show clear rural-urban differences. Participants in the urban area would give responses such as '*their time will come to have children*' while the reflex response in the rural areas would be to look for medicine as a recourse for childbearing.

It is also apparent that the childless were considered to be unkind to children, and might not be trusted with other people's children. However, they could avail themselves of the economic value of children since they can send other people's children on errands. Phrases such as '*they should take good care of them*' , '*the children can't refuse to be sent*' and '*that way God does not bless them with their own kids*' were used.

In the matrilineal society the husband in a childless family is mocked and is called derogatory names such as *Chumba*, *Gocho*, or *Chimbwira* (barren). It is believed that a man cannot use contraception before he has proved his virility;

R2: They say that you're just consuming food, you are not doing any work!

R3: Sometimes the parents in-law want to have grandchildren... so they chase you away or else another man comes in the house to do some work...

R2: Yes, if you say that you're practising family planning, they ask you how you can space when you haven't even planted a seed of maize? [Young men, single, matrilineal rural area 2]

In both patrilineal and matrilineal communities, traditional healers were often consulted to help a childless couple have children. Common responses to a question on people without children were;

We think of going to a traditional healer so that we can have our own child. [Young women, single, matrilineal rural area 2]

"They look for medicine for the man to help him have a child." [Young women, married/with child, patrilineal rural area 1]

A childless family is considered incomplete and 'lacks respect'. Focus groups with males were of the view that '*infertility affects more men than women*'. A couple with no children is often suspicious of each other- "*is it the man who doesn't have the 'energy' or it's the woman who can't give birth?*" In an in-depth interview with an elder, he described the measures that would normally be taken when a couple is unable to have a child;

For it to be respected we have to put 'Chimika' [potency medicine] in.... May be her womb inside is not ok. May be the man's "blood", when it meets with the woman's, it doesn't function. Now,...

administer some medicine so that may be this drug can wash the "blood"... so that in this family there can be children and if a person has children he is contented, he knows that "if I die, I'll have left behind 'offsprings or fruits'". [Opinion Leader, male, patrilineal rural].

The discussions show that premarital childbearing, though accepted, is not condoned and the mother and child are socio-economically disadvantaged in the absence of an acknowledging father. There is an apparent internalisation of the small family norm by young people although they have poor access to family planning. Childlessness is seen as socially undesirable such that those without children may seek traditional medicine remedies so that they can have a child of their own.

4.7 Discussion

The findings from the focus group discussions of young men and women, and in-depth interviews with opinion leaders suggest that the socio-cultural context in which young people in Malawi live is conducive to early sexual activity and childbearing. The results provide an in-depth view of the context of socio-cultural influences on young people's reproductive behaviour in Malawi and raise a number of important policy implications.

In the past, within the traditional society of Malawi, young people would not go through a dating period before they got married. Parents had an important role in the socialising process and choice of marriage partner for their children. However, there seems to be a new development whereby adolescents are able to mix with members of the opposite sex and have relationships. Adolescents indicated that most of their peers were in a relationship. Although the adolescents were aware of parental control regarding their movements and who they mixed with, it was apparent that it was not as effective since there were often opportunities for mixed sex socialising, some of which took place at night.

Caldwell et al. (1998) described a move toward a unique culture in Africa and Asia in which adolescents develop boyfriend-girlfriend relations. In addition, with a lengthening period of adolescence due to decreasing age at puberty and increasing age at marriage, young people are exposed to the risk of premarital sexual behaviour for longer than in the past (Bledsoe and Cohen, 1993; Singh, 1998). The concept of adolescence is closely linked

to education, whereby adolescents have opportunities to meet outside the home, and that it delays the age at which girls get married (Caldwell et al., 1998). In the case of the study areas in Malawi, though the adolescents have adopted a dating culture, it does not seem to be matched with a culture of delayed marriage. In one area, it was observed that young females get married soon after reaching puberty, thus '*not enjoying their adolescence*'. Hickey (1997) attributed early sexual behaviour in Malawi to the way the family and community regard a young woman as mature and a sexual being as soon as she reaches puberty.

There seems to be a gap in information about the transition from childhood to adulthood. Young people are not generally told about puberty until they experience it. It was observed boys go through initiation when '*they are clever enough to understand*'. In the Catholic church there is what is called 'age of reason' which falls at approximately seven years. This is a stage at which an individual is regarded to be morally responsible and can take part in some church rituals such as Mass, fasting and confession (Delaney, 1999). For messages desired to influence reproductive behaviour of adolescents appropriate timing is important so that it is neither 'too early' nor 'too late' (Woodcock et al., 1992). In addition, it has generally been observed that if young people have FLE before they first had sex, they were likely to use contraception once they have started sex, but there was no effect if already sexually active (McCauley and Salter, 1995; Pick de Weiss, et al., 1990). 'The age of reason' and 'being clever enough to understand' are good guiding notions that community members could adopt to determine the timing of discussion on sexuality with young people.

For girls, there seems to be a mystery surrounding menarche, whereby the experienced do not share their information about menarche with the inexperienced. In addition, there are taboos and restrictions surrounding menarche. Khattab (1996) noted a number of taboos and restrictions in a rural area in Egypt, passed from one generation to the next which suggested 'uncleanliness' during menstruation. The air of mystery surrounding sexuality issues, right from the onset of menarche, seems to arouse curiosity among adolescents to start sexual relations at a young age.

Culturally reinforced attributes of male control in reproductive behaviour have been identified in this thesis. Pleck et al. (1993) describes the social construction of masculinity,

which are a set of beliefs about the expectation of what men are like and should do and the importance of conforming to culturally defined standards of male behaviour (p15). The young men in this study have been seen to display attributes of masculinity from the onset of puberty, whereby once they experienced a change in the sexual drive, they regarded it as '*natural*' to have sexual relations. Furthermore, the respondents view of masculinity was associated with initiation of sexual activity in a sexual partnership as a way of fulfilling that which is given by '*nature*', and satisfaction of one's erotic pleasure in which condom use was seen as a barrier. There was also a general belief that to make a girl pregnant and get away with it by being articulate in a court case, validates masculinity.

Masculinity regarding 'male sexual drive' was seen to be associated with factors such as religion and autoeroticism. Religion instills morals of sexual behaviour in people which may reduce premarital and extramarital sexual activity. However, the association between religion and age at marriage may not be that clear; it can actually promote early marriages rather than that young people should 'burn with passion'. Many people in Malawi are nominal members of Christian and Muslim faiths. Nevertheless, as Twa-Twa (1997) found in Uganda, it is devoutness, not religious affiliation that has an association with sexual behaviour among young people. Autoeroticism can be viewed as a way of preventing unwanted pregnancies and reducing the risk of sexually transmitted infections. However, autoeroticism maybe a masculinity trait in itself since it was only raised in young men's discussion groups.

There is no doubt that the HIV/AIDS epidemic has influenced young people's reproductive behaviour in Malawi. Young people are intuitively aware of their risk of contracting HIV, yet they disregard those fears in sexual relationships. Other research has reported non-compliance to one sexual partner and low condom use among young people (Bandawe and Forster, 1996; UNAIDS, 1997). It seems that the effect of HIV/AIDS on sexual partnerships is for young people 'to get to know' their sexual partner by obtaining their sexual history (Ingham et al., 1991). However, how this sexual history is acquired and used seems to be arbitrary, especially if the result of that investigation is contrary to the satisfaction of the 'male sexual drive'.

The group discussions suggest that the HIV/AIDS epidemic is likely to have a profound effect on the institution of marriage, although there is little evidence it is doing so. In the light of the risk of HIV, participants reported that they would consider having 'a test' before they are involved in sexual activity. However, they could not or chose not to follow that rationality. The suggestion to have an HIV test to a partner seemed to intimate the '*lack of respect*' for that partner. Studies among South African youth have shown that the suggestion of preventive methods such as condom use raised doubts about the love and fidelity between partners (Preston-Whyte, 1994; Varga, 1997).

In addition, although Phiri et al. (1997) noted that over 75 per cent of adolescents in a survey in Malawi were willing to have an HIV test, an account by Verykul (1995) about the lack of willingness by patients to take an HIV test and know the results in southern Africa, corresponds more closely to the attitude of the young people in this study. There are certainly far reaching benefits of conducting HIV and serological tests, if accompanied by STI treatment, as shown in an intervention programme in rural Tanzania. With no clear behavioural change HIV incidence rates were reduced over a two year period due to the treatment of STIs (Grosskurth et al., 1995). Thus, young people are unable to make decisions to avail themselves of such tests.

The findings also suggest that another likely effect of the HIV/AIDS epidemic is the trend towards early marriages characterised by young age at marriage and short courtship period. The discussion on the risk of sexually transmitted infections suggests that young people would not want to postpone marriage for too long so that they do not prolong their period of risk to having multiple sexual partners and consequently risk of STIs. However, such 'rational' intentions are setback by the continual involvement of young people in extra-marital relationships, and the experience of other marriage problems due to the short dating period before they are emotionally prepared for marriage. In Uganda, focus groups with youth and elders indicated that the frequency of marriage has declined due to the fear of HIV/AIDS and a one-partner culture was becoming the norm (Mukiza-Gapere and Ntozi, 1995).

Young females in various cultures usually associate sexual intercourse with strong emotional commitment (Ingham, 1991; Hickey, 1997; Varga, 1997). In the focus-group

discussions with young females the discussion showed that the pre-condition for sexual relations is to 'have and hold' a man in a committed relationship. Their rationality is not to engage in premarital sexual relations for fear of unwanted pregnancies which may result in abortion, complications during labour and delivery, and possible death. However, contravening forces such as pressure from peers and potential sex partners, lack of educational opportunities, socioeconomic reasons arising out of need or want, make that goal unattainable. The inability of young women to decide and enforce their sexual desires in a sexual relationship because the power balance lies with the male (Bongaarts and Bruce, 1995; Gage, 1998; Mensch and Lloyd, 1998; Moore and Rogow, 1994; Varga, 1997). It is also observed from the discourse that the young females were mostly not aware of their double risk of premarital pregnancy and sexually transmitted infections, their primary concern was premarital pregnancy.

The media is a powerful tool in the socialization of young people. It can have a positive or negative influence. It is interesting to note that some reproductive health messages disseminated in the media are being inculcated in the social script of young people in Malawi. The Family Planning Programme in Malawi recommends that young females postpone having their first child until they are at least 18 years old, when their '*bones are mature*'; it also recommends a birth spacing of at least three years to allow the mother have '*enough blood in her body*'. The slogan '*only once is enough*' was also cited by some young people with respect to possibility of pregnancy even if one has only had sexual intercourse once. In the area of HIV/AIDS control, there were also hints of messages disseminated to encourage individuals to look after themselves such as '*no one keeps your parcel of life for you*'. On the negative side, the influence of foreign videos was manifested among some young men whose carnal knowledge was obtained from pornographic videos commonly known as '*blue movies*' ('*ma blue*').

The delaying effect of education on early childbearing is widely chronicled (Bledsoe and Cohen, 1993; Singh and Samara, 1996; Westoff, et al., 1994). The school education system in Malawi takes 12 years, with the last four years spent in secondary school education. The social norm concerning marriage for young people in the study areas is to 'finish school' (at Form 4), get employed and provide a means of support for their family. However, there

are bottlenecks at Standard 8, whereby only a small fraction proceeds to Form 1. In addition, it is also possible to repeat a year at any level in primary school, extending the number of years one can spend in education. Thus, the age at which one may 'finish school' (or drop out) may vary from 18 to the 20s (or younger). At that age, young people are also likely to be faced with marriage and childbearing decisions, in a population with early childbearing and where marriage is near universal. In a study of the factors affecting girls' education in Malawi, marriage, repetition of a class and lack of money for school fees were the most commonly cited reasons for leaving school by parents of daughters who had dropped out (Davison, 1993). Therefore, poor supply factors of education coupled with factors in favour of early childbearing curtail the effects of education on early childbearing.

For young men, the perception that if they postpone marriage to '*an old age of 25 years*', potential marriage partners would find them too old, or that their risk of HIV infection would increase, seems to be a stimulus for early marriage. It is surprising that young men and not young women would feel 'left on the shelf'. Probably in an environment where girls get married at a young age and have sexual relationships with older men, the young men may have a sense of panic. Statistics on spousal age difference show a tendency towards shorter age gaps for couples aged under 25 years old. This finding demands further investigation. Further forces emanating from the parental home, such as parental pressure, poverty and the need to attain independence, push young men towards early marriage and childbearing.

It has been found by other authors that there is such a high value attached to childbearing in many African societies such that single status poses no impediment to having or wanting to have children. The birth of a child, rather than how the child is conceived, seems to be the primary societal and human concern (Demographic Unit, 1987; Meekers, 1994; Preston-Whyte, 1994). On the contrary, in Lesotho children born out of wedlock are typically excluded from important traditional funeral rites throughout their life. They have no inheritance rights (Makatjane, 1998; Tuoane, 1999). This tends to deter women from having children outside wedlock. In the study population in this thesis, although there were no such strong sentiments as in Lesotho, it is clear that premarital childbearing is not

condoned though the child is welcomed into the family. The major societal concern is socio-economic , especially when the male parenthood is not established.

In conclusion, the social context of reproductive behaviour for the young people in Malawi typically promotes early childbearing. There is an air of mystery surrounding sexuality in Malawi, even well before puberty. Although young people are aware of their risk of HIV, and would like to delay marriage and childbearing, their sexual behaviour is contrary to their rationality. Table A4.3 in the appendix is a summary of the goals young people have regarding early sexual relationships and childbearing and the obstacles that they face in trying to achieve their goals. As long as there are a lack of reproductive health and education facilities early childbearing is likely to be commonplace.

This chapter examined community attitudes, norms and values concerning sexuality and how these affect the reproductive behaviour of young people in selected areas of Malawi. The next chapter examines the association between early childbearing and the subsequent fertility of women in Malawi.

CHAPTER FIVE

EARLY CHILDBEARING AND SUBSEQUENT FERTILITY IN MALAWI

This chapter investigates the association between early childbearing and the subsequent fertility of women in Malawi. The focus is on the timing of the first birth and its effect on the pace of childbearing (birth intervals) and achieved fertility (mean number of children). The chapter will examine the differentials in the timing of the first, second and third births according to various socio-demographic factors such as: marital status of the woman, age of the woman, calendar period of first birth, education, urbanisation and labour force participation. In addition, the levels of achieved fertility according to age at first birth for women in their reproductive years for various age cohorts in the 1992 MDHS will be examined.

The chapter is organised into four main sections. The first section is a brief literature review on early childbearing and subsequent fertility. The data and methods used in the analyses are described in the second section. The third section presents the results. This section is divided into four subsections, the first three analysing timing of the first, second and third birth, respectively. For each birth order the results of bivariate and Cox proportional hazards multivariate analyses are presented. The fourth subsection is an examination of achieved fertility and age at first birth. The final section is a summary of the main results and conclusions.

5.1 Brief Literature review on early childbearing and subsequent fertility

The reproductive process of a woman is marked by a series of chronological events, each occurring at a different stage of development or age. These can be summarised as consisting of: age at the onset of menarche (the ability to conceive), marriage, age of the mother at the birth of first child, the subsequent births, up to the last child. Records of each event can be obtained and an interval (spell or episode) can be calculated (Hinde, 1998; Ní Bhrolcháin, 1993; Rodríguez et al., 1984). The first birth, the subsequent pace of childbearing and the quantity of fertility are inter-related in a complex way, such that they

all need to be addressed in order to control fertility (Rindfuss et al., 1989; Sathar, 1988). Studies concentrating on differentials in the pace of childbearing and completed fertility are rare in the sub-Saharan African context.

This study is focussed primarily on the demographic factors of the family formation process, i.e the timing of the first birth, the pace at which the subsequent births take place and the level of achieved fertility. Early starters of childbearing have been observed to go through the process at a faster pace, have more children ever born alive, higher infant and child mortality and are economically worse off than late starters (Pebley, 1981; Trussell and Menken, 1978). This process is dependent on other socio-demographic factors such as marital status of the woman, age of the woman, calendar period of first birth, education, type of residence and labour force participation.

The biological and socio-economic consequences of early childbearing have been well documented in the social science literature. Adolescent childbearing, which is often premarital is associated with low socio-economic status, due for example, to missed education opportunities (see for example Geronimus, 1993; Hoffman et al 1993a, 1993b; Kane et al, 1993; Meekers, 1994; Morgan and Rindfuss, 1999). In the US, some researchers argue that the apparent negative effects of teenage childbearing mainly reflect the unmeasured family background rather than the actual consequences of a teen birth (Geronimus et al., 1993). However, Hoffman et al (1993a; 1993b) found that accounting for unobserved family background reduces, but does not eliminate, the estimated consequences of early childbearing. Early initiation of sex has unfavourable consequences particularly for schoolgirls because of the risk of pregnancy which in most cases leads to the disruption and often termination of their education. Low levels of education are associated with low socio-economic status for women in sub-Saharan African countries (Bledsoe and Cohen, 1993).

The first birth is important in determining the timing of a woman's subsequent family building process. In non-contracepting societies or those with low contraceptive use, timing of first birth is a measure of fecundity and is the main determinant of the total number of children a woman will bear (Singh et al., 1992). The younger the woman at the birth of her first child the higher the chances of her having a second birth, and the sooner

she is likely to have it (Morgan and Rindfuss, 1999; Werner, 1988). The literature suggests that late starters will end up with lower final parities than those who began childbearing at younger ages (Rodríguez et al, 1984; Morgan and Rindfuss, 1999).

Birth intervals can be analysed in terms of intermediate and socio-economic variables, revealing changes in the timing of births and differentials between groups (Rindfuss et al, 1982; Sathar, 1988). Different factors have been found to be important at various stages of family formation; determinants of the time from marriage to first birth may not be the same as those of second to third birth. For example among south-east Asian countries, it was found that education was an important predictor of first birth interval, with rural-urban residence not very significant; but for subsequent birth intervals, residence was the more important determinant (Rindfuss, et al, 1984; 1989).

Nath and Land (1994) studied third birth intervals in relation to sex preference in India, a population with strong son preference. They found that women with shorter lengths of preceding two birth intervals, who married at pre-adolescent age and those who had no son or just one surviving son, had much higher relative risks of a third birth. However, the effect of education was found to be weak, slightly in favour of those with less than four years of schooling (Nath and Land, 1994).

The third birth is demographically important in that it represents the dividing line between above and below the replacement-level of fertility. Although the third birth interval is not that important in high fertility societies, in this study the interest is in early childbearing. Thus, the first three births were considered adequate to cover as many births as possible in the early years of childbearing.

Studies in the UK and the US have used longitudinal and cross sectional data to examine the association between age at first birth and subsequent fertility, and completed fertility (see Morgan and Rindfuss, 1999; Ní Bhrolcháin, 1993; Trussell and Menken, 1978). In 1978 Trussell and Menken found that in the US younger ages at first birth were strongly associated with not only faster pace of childbearing but also higher levels of completed fertility. Although in 1999 Morgan and Rindfuss found this association to be weaker, overall those who had children early had higher completed fertility. In sub-Saharan Africa

not much has been documented on early childbearing and subsequent fertility. Studies of birth intervals have paid attention to the start of childbearing and the spacing of births (see for example Sathar, 1988; Singh et al, 1992).

The literature reviewed in this section has highlighted the importance of studying age at first birth in understanding the family formation process. This study specifically examines the relationship between age at first birth and achieved fertility.

5.2 Data and Methods

The current analyses are confined to the Malawi Demographic and Health Survey 1992 data, based on 4849 females of the reproductive age group, aged 15-49 years (see Chapter three). The analyses are not just confined to young women aged 15-24 as in the next two chapters because the aim is to capture how the fertility process differs according to the age at first birth. The age of the woman at the time of the survey, maternal birth histories (such as age of the woman at the birth of each child, survival status and the sex of each child), and background characteristics of the woman (education, type of place of residence, household amenities, occupation and employment) are used in these analyses.

The analyses of early childbearing and the subsequent fertility are carried out on two main outcome variables: first, the timing of the first birth and the subsequent two births; second, the mean number of children that a woman has at different ages up to when she completes her fertility. The aim of the analysis is to compare the association between age at first birth, and the pace of subsequent fertility, and completed fertility. Although the MDHS took place in 1992, when the family planning programme just started in Malawi, it does demonstrate the association between early childbearing and subsequent fertility in the country.

5.2.1 Timing of the first and subsequent births

The first birth interval is normally defined as the period between marriage and first birth (Hinde, 1998). In the population for the current study about 20 per cent of the women had their first birth before marriage (some got married later while others were still in a single status). In a population such as Malawi sometimes the pregnancy may prompt the decision to marry to legitimize the birth or the first birth may precede marriage. For older women

the interval between marriage to first birth interval is even more unreliable since there is a tendency to put forward the date of the first birth as if it took place within marriage. The general hypothesis of event displacement suggests that the most distant events within a life history are brought forward (Kallan and Udry, 1986).

Thus, the conventional definition of the first birth interval is problematic in the case of Malawi. Either one of two solutions can be used: start at age at menarche or start the opening of the interval at the youngest age at which women start to bear children (Hinde, 1998). In this study the youngest age at first birth was 12 years, which coincides with the assumed average age at menarche. The exposure period to the risk of first birth is taken as age 12 to 24. The upper age limit is set at 24 to ensure that as many first births as possible are captured since childbearing starts early in Malawi.

Age at first birth is used in the life table analysis for the second and third birth. The association between age at first birth and the relative risk of having a second and third birth net of all covariates is analysed through its interaction with the other variables in a Cox proportional multivariate hazard model.

A) Bivariate life table analysis

Life table analysis is used to consider both complete and incomplete birth interval data. The interval from one birth to the next is the unit of analysis (duration variable), with birth of the next child as the 'status variable'. In the current study population, for those who had not yet had the next birth, the interval was censored by the survey date. Some women will not have completed their childbearing at the survey date due to the cross sectional nature of the data (Rodríguez and Hobcraft, 1980). Many of the open intervals will eventually be closed by the next birth, although the timing is not known, but they are usually biased towards long intervals (Rindfuss et al, 1982). Life table analysis overcomes the problem of censoring, since the contribution of each open interval is included up to the survey date.

The first part of the analysis involves identifying factors that determine the relative risk of first birth by age 25. Subsequently the second and third births are analysed separately. A typical analysis of birth intervals involves the calculation of life table medians taking into

account different covariates (see for example Trussell and Hammerslough, 1983). Life tables are constructed for each category of the independent variables to examine the rate at which a cohort of females would be depleted, by way of giving birth, given the particular characteristic of the mother. In this analysis life table methods were used to calculate the trimean and the proportion of births within 60 months (B_{60}) for each category of the covariates. These are now defined:

i) The trimean

Considering only the intervals completed within 60 months as calculated from the life table, the trimean can be calculated as:

$$0.25Q1 + 0.5Q2 + 0.25Q3$$

where $Q1$, $Q2$ and $Q3$ are the quartiles of the life table intervals. $Q2$ is the median, the duration at which 50 percent of the women have had an interval closed by a birth within 60 months. The trimean is a measure of the centre of the distribution, but takes into account the 25th and 75th percentiles, so that the asymmetries can be reflected in the measure. When the distribution is negatively skewed, as is the case with births in a birth interval, the trimean will be slightly higher than the median. Hence, a trimean is a better central measure of birth intervals than the median. This summary measure is a simple but useful way for describing birth interval distributions (Rodríguez, et al, 1984).

ii) The B_{60}

The B_{60} , or Quintum, is a life table measure of the proportion of women achieving a next birth within 60 months. In essence, B_{60} can be regarded as a parity progression ratio. For the first birth the interval is from age 12 to 24 years. The progression from one birth to the next (or menarche to first birth) provides a more refined picture of the family formation process than other measures of fertility such as mean fertility or the total fertility rate (Ní Bhrolcháin, 1993; Rodríguez and Hobcraft, 1980; Trussell et al. 1985) .

B. Cox proportional hazards multivariate modelling

To examine the net effect of each of the variables in the analysis, multivariate analyses were performed using the Cox proportional hazards model. The results are summarised using the relative risk of different categories of the covariates for a birth of the first, second and third order. The models are estimated using SPSS. The proportional hazards framework was derived by Cox (1972), and the relationship between the hazard function and the independent variables at each point in time is written as

$$h(t) = h_0(t) \exp(\beta X) \quad (5.1)$$

where $h_0(t)$ is an unspecified time-varying non-negative baseline function, associated with a baseline group of women called the baseline hazard function; X is a vector of a set of regression-like coefficients indicating the effects of the independent variables in deviating upward or downward; and β is a matrix of coefficients to be estimated (Allison, 1984).

As in ordinary regression analysis, the baseline function is defined when all independent variables in the model take the value zero. In other words, $h_0(t)$ is like a constant in an ordinary least squares regression but one that takes a different value at each point t (Teachman, 1982). The hazard function facilitates the estimation of relative risks of some categories in relation to the specific baseline groups by taking the exponent of the regression coefficient βX . Each exponentiated coefficient, $\exp(\beta X)$ shows the effect of a covariate on the hazard function for a certain category. Values greater than one imply that the relative risk of having a next birth is greater for this category, compared with the reference category, a value less than one indicates otherwise.

In a proportional hazard model the multiplicative factor $\exp(\beta X)$ is assumed to be the same at every duration. This is sometimes called proportionality assumption (Trussell & Hammerslough, 1983). To test the appropriateness of this proportionality assumption the log minus log survivor function among groups with different categories of the covariates is plotted. The plot should be a fairly horizontal line if the effects of the categorical variables are proportional. Plots of the log-log survivor function showed that the proportionality assumption was fulfilled by the models fitted.

Description of explanatory variables

The covariates of the risk of first birth are not often easy to identify as there is a danger of predicting the relative risk of experiencing an event which happened in the past based on predictors at a future date (conditioning on the future). In this study, the selection of explanatory variables was undertaken carefully to ensure that the covariates used were likely to be applicable to the woman at the time of her first birth. The covariates available from the 1992 MDHS are: education, marital status at first birth (or time of interview); region of residence; rural/urban residence during childhood and at the time of the survey; and time period of first birth. These are described below:

Woman's level of education- categorised into 'No education'; 'Primary' and 'Secondary and above'. Education is associated with a longer waiting time to first birth because of the opportunity cost of raising children weighed against spending time getting an education qualification. It is also associated with a breakdown in traditions that may encourage early childbearing (Ocholla-Ayayo et al., 1993). The assumption is that as soon as she has a child the mother discontinues her education. At the time of the survey, in Malawi young mothers were expelled from school.

Husband's education- categorised as 'No husband'; 'None/don't know'; 'Primary'; and 'Secondary and higher education'. The presence of an educated husband in a household is assumed to have the same effects as the education of the female respondent herself.

Marital Status of mother at first birth- classified as 'Single'; 'Married'. In Chapter six it is demonstrated that sex starts before marriage in Malawi. It is also illustrated in Chapter seven that there is low contraceptive use for single young women. Hence, this variable is a measure of the extent of premarital childbearing.

Period of first birth- categorised as '1982-92'; '1972-82'; and 'Before 1972'. This variable provides a measure of trends in the timing of first birth.

Region of first birth- classified as 'North'; 'Centre'; and 'South'. Malawi is divided into three regions. Much as the divisions are political, differences in demographic parameters such as fertility and mortality have been observed. The centre has the highest fertility, followed by the north (NSO, 1994).

Childhood residence- categorised as 'Urban' and 'Rural'. This refers to childhood residence up to the age of 12. This variable indicates the type of environment in which the respondent spent her formative years, and may therefore be expected to influence her reproductive behaviour.

Current residence- categorised also as 'Urban' and 'Rural'. This again may reflect attitudes about reproductive behaviour and access to reproductive health services. Urban women are expected to have better access to services and have a more positive attitude towards family limitation, through delay of age at first birth, child spacing and smaller family size (e.g Singh and Samara, 1996; Biddlecom and Kaona, 1998).

Presence of household amenities- classified as 'Yes' and 'No'. This variable was based on the possession of any of the following household amenities: piped water or a protected well; a toilet; a car or motorcycle; tiled floor; and a house with iron sheets or tiles. It is assumed the possession of these has not changed over time.

Occupation categorised as 'No work'; 'Agricultural/Manual'; and 'White collar'. This variable was used to indicate socio-economic status. Women in white collar jobs are expected to have a later start of childbearing and to have longer birth intervals.

Work Status classified as 'No work' and 'Employed'. The first category is the same as above, the only difference is that this variable measures the labour force participation outside the home which may compete with the demands of childbearing.

In addition to the covariates above, the following demographic factors were applied to the subsequent births:

Sex of first birth- Although there has been no evidence of strong son preference as seen in some Asian populations (e.g. Nath and Land, 1994), the intention is to examine if the sex of an index child will determine the timing of the subsequent births.

Sex of previous two births- classified as 'Both males'; 'Mixed'; and 'Both females'. The categories are indicative of a desire for sex-balance which may be subtly in favour of one sex thereby influencing the succeeding birth interval.

Survival of previous birth- categorised as ‘Alive’; ‘Died in infancy’ and ‘Died after 1st birthday’. The assumption is that an infant death will shorten the interval to the next birth working through either direct replacement or the early cessation of lactational amenorrhoea (Choe et al., 1998).

Proximate determinants- In the study of birth intervals information on proximate determinants such as duration of contraceptive use, suckling patterns while breastfeeding, and the fecundity of the woman is important. The differences in the length of the interval from one birth to another can be explained by the following proximate determinants: post partum amenorrhoea, determined by the length of breastfeeding (average 1.5 months with no breastfeeding); post partum ovulation “waiting time to conception”, influenced by coital frequency and natural fecundability (average 7.5 months with no contraceptive use); spontaneous intra-uterine mortality (average two months) and a nine month gestation period to live birth (Bongaarts and Potter, 1983).

In the MDHS 1992, information on breastfeeding and post-partum amenorrhoea is only available for births in the five years before the survey. In addition, information on birth interval specific contraceptive use, terminated pregnancies, and coital frequency is not available. It is noted that 90 per cent of the mothers breastfed their babies for at least six months, only 13 per cent of married women had ever used contraception, and at least 75 per cent of the women did not resume menstruation and sexual intercourse for at least six months. Hence, with nearly a uniform duration of breastfeeding, low contraceptive use and long amenorrhoea, we can carry out an analysis of birth intervals, albeit without controlling explicitly for all the proximate determinants. This does not, however, downplay the importance of breastfeeding in determining birth intervals.

5.2.2 Achieved fertility

Cohort analysis of fertility was used in the measurement of the level of fertility to a cohort of women in order to describe time-trends in fertility by the mother’s age at first birth. First, the cumulative mean number of live births for each age cohort of women is followed retrospectively to obtain the number of children that they had by specified ages in the past. Cross-cohort comparisons are then made according to the achieved fertility by a specified

age. For example, one can compare the cumulative mean number of children for women aged 40-44 and 30-34 by the time they were aged 30 (Ní Bhrolcháin, 1993). Second, in order to establish the differences in the achieved fertility by the timing of first birth comparisons are made between age at first birth categories among those birth cohorts who have reached a specified age.

5.3 Results of timing of first birth and subsequent fertility

The results are presented in two sections, the first part involves the use of event history analysis to study birth intervals. The second is based on a fertility cohort analysis of the mean children ever born and the age at first birth.

5.3.1 Analysis of risk of first birth and subsequent births

The results of the analysis of early childbearing and subsequent fertility are presented in three main sections starting with the risk of first birth. The following two sections analyse the subsequent two birth intervals. For each of the three birth orders, life table estimates (trimean and quintum) are derived according to categories of the covariates. The life table analysis is bivariate since it involves the construction of life tables for categories of the covariates, separately for each variable. In each life table a Wilcoxon (Gehan) test is performed to check if the life table estimates for the categories of the covariates are significantly different from each other. Second, the covariates are entered into three separate Cox proportional multivariate hazards models to obtain the net effect of each covariate on the pace of having a first, second and third birth, respectively while simultaneously controlling for all the other variables.

5.3.1.1 Analysis of the risk of first Birth

a) Bivariate life table analysis of first birth

Table 5.1 shows that, as one would expect, the risk of first birth is higher if a woman is married than if she is single at the time of first birth, as indicated by the lower trimean, and higher proportion of women giving birth by age 25 (87 per cent) for the married than for the single (75 per cent).

Table 5.1: Life Table Trimean of exposure time to risk of first birth and Proportion of women giving birth between ages 12 and 24 years

Covariate	Category	'Trimean' (Months)	Proportion with birth by age 25	Number
Marital Status at first birth/ survey***	Single	97.4	0.758	1267
	Married	85.0	0.872	3582
Education***	None	82.7	0.837	1834
	Prim	84.0	0.914	2633
	Sec+	144+	0.694	382
Household amenities*	No	85.4	0.857	2039
	Yes	86.9	0.863	2810
Occupation***	No work	86.1	0.855	3449
	Office	96.4	0.822	438
	Agriculture	82.4	0.892	962
Work status	No work	86.1	0.855	3449
	Employed	86.7	0.870	1395
Childhood residence**	Urban	89.9	0.846	978
	Rural	85.5	0.864	3866
Current residence	Urban	88.4	0.867	1316
	Rural	85.6	0.858	3533
Region**	North	86.0	0.884	1442
	Centre	87.4	0.868	1606
	South	82.5	0.837	1801
All women		86.3	0.860	4849

Wilcoxon test *** P<0.01 **P<0.05 *P<0.1

Education is associated with a delay in first birth as shown by a higher trimean (falls outside the upper age limit of 24 years) for those with secondary education and higher. It is intriguing that a higher proportion of women with primary education have a first birth by age 25 than those with no education. Ninety-one percent of those with primary education have given a birth by age 25, compared to 84 per cent for those with no education and about 70 per cent for women with secondary and higher education.

Women with household amenities have longer trimeans for age at first birth, but the proportion of women having a first birth by age 25 is not different from those who do not have household amenities. In addition, women who work in an office had longer intervals to first birth and lower proportions having a birth by age 25 than their contemporaries.

Childhood residence in urban areas is associated with delayed first birth and a slightly lower proportion of women having a birth by age 25. Current residence did not show any significant differences. The relationship between region and the indicators of timing of first birth is not straightforward. For example, the Centre has the highest trimean (87 months) yet it also has the highest proportion having a birth by age 25.

The results of the bivariate life table analysis for the risk of first birth by age 25 show that women who were unmarried at first birth, had higher levels of education, who spent their childhood in urban areas, and were dependants; are related to the postponement of first birth.

B) Cox proportional hazards model of the risk of first birth

Table 5.2 presents the Cox proportional hazards coefficient estimates for first birth from age 12 to age 24. The interpretation of the effect of the covariates on the risk of first birth is made with respect to a reference category for the significant covariates. Education, marital status at first birth current residence and region are significant when they are included in the proportional hazards model to determine the joint effect of the covariates on the hazard of first birth from menarche (age 12). Childhood residence is not significantly related to the risk of first birth.

Table 5.2 Estimated Cox proportional hazards coefficients for experiencing a first birth exposed from age 12, MDHS 1992

Covariates	Age 12-to-first birth		
	Coefficient	Standard error	Relative risk
Education			
None	0.497	0.089	1.644**
Primary	0.575	0.085	1.777**
Secondary & higher (R)	0.0		1.0
Marital Status at first birth (interview)			
Single	-0.698	0.218	0.498**
Married (R)	0.0		1.0
Residence			
Urban	0.096	0.044	1.100**
Rural (R)	0.0		1.0
Region of residence			
North	0.139	0.046	1.149**
Centre	0.053	0.041	1.055
South (R)	0.0		1.0
Interactions with Marital Status at first birth (interview)			
Education			
Single, none	1.101	0.187	3.007
single,primary	0.616	0.173	1.851**
married,secondary + (R)	0.0		1.0
Region of residence			
Single, North	-0.515	0.133	0.597**
Single, Centre	-0.281	0.110	0.755**
Married, South (R)	0.0		1.0
Current residence			
Single, urban	0.256	0.111	1.291**
married, rural (R)	0.0		1.0

*** significance at 1% **significance at 5% *significance at 10% (R)- Reference category

Table 5.2 shows that the effect of marital status at first birth (interview) on the risk of first birth has a significant interaction with the covariates education, region and rural-urban residence. The interaction effects are best interpreted as graphs and are shown in Figures 5.1 to 5.3. Figure 5.1 presents the interaction between marital status at first birth (interview) and education. In comparison to the reference category of 'married,secondary+' it is observed that the relative risk of a first birth is highest for women with no education and who are not married. This relative risk decreases with a higher level of education, with a relative risk of 50 per cent registered for those with 'secondary,single', the lowest risk of

all interactions. For those who are married, the relative risk of a first birth is higher for women with primary or no education than those in the reference category; in fact, the relative risk of first birth for those with primary education is slightly higher than for those with no education. The results suggest that education is important in reducing the risk of early childbearing among single women. However, childbearing may also stop education.

Figure 5.1: Relative risk of first birth by education and marital status at first birth, women 1992 MDHS.

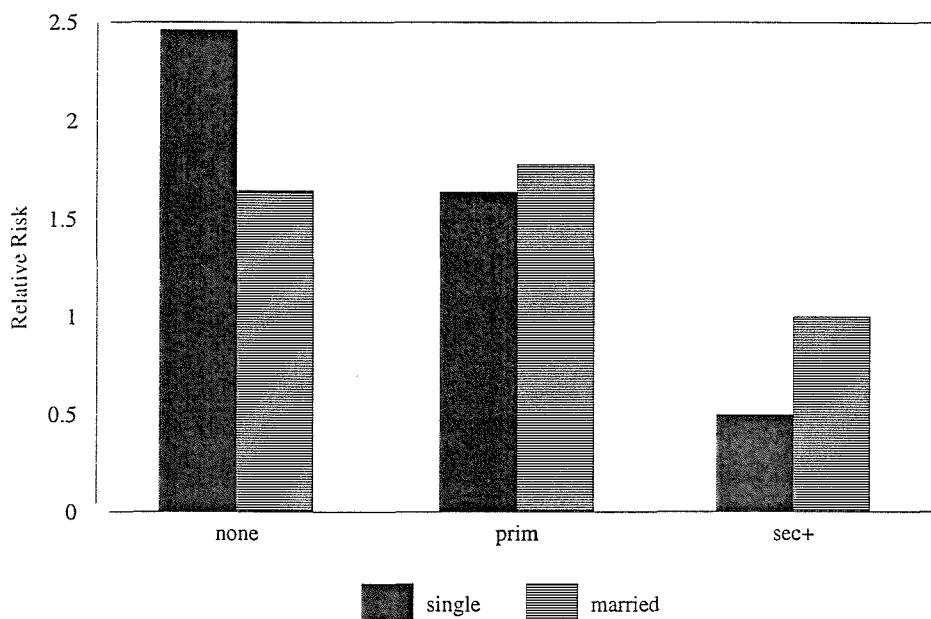


Figure 5.2 illustrates the interaction between marital status at first birth and region of residence. The relative risks of first birth for single women are lower than that for married women for all regions. The results show that if a woman is married and resident in the North she has higher risk of a first birth than if she is a married woman and resident in the South. While if she is single her chances of having a first birth are highest in the South, although they are lower than for the married categories.

Figure 5.3 shows that among married women, those in the urban areas are more likely to have a first birth than those in the rural areas. For single young women the relative risk is higher in the rural areas than in the urban areas. This implies that rural residents are more likely to have a premarital birth than urban residents.

Figure 5.2: Relative risk of first birth by region of residence and marital status at first birth, women 1992 MDHS

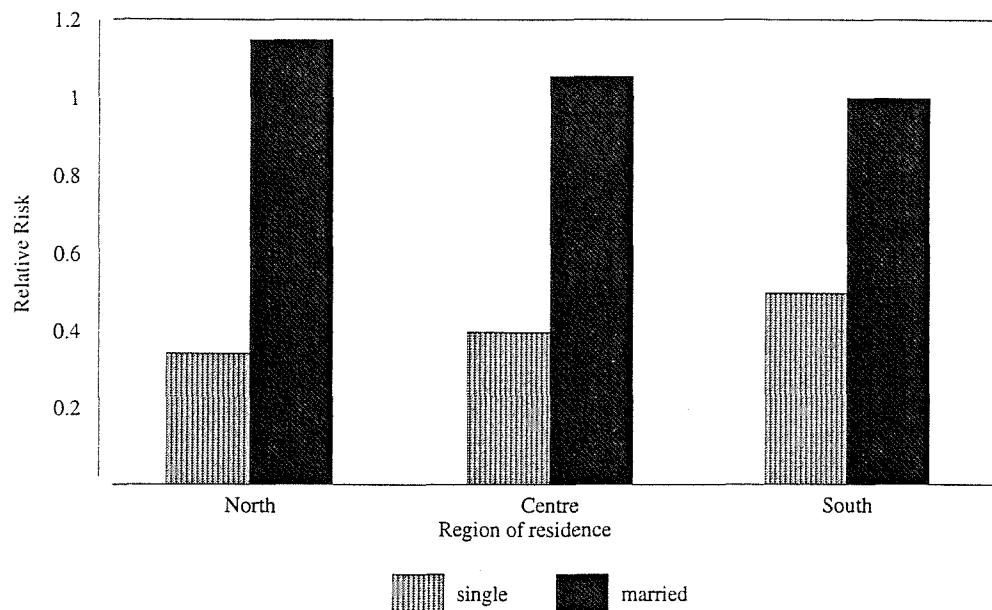
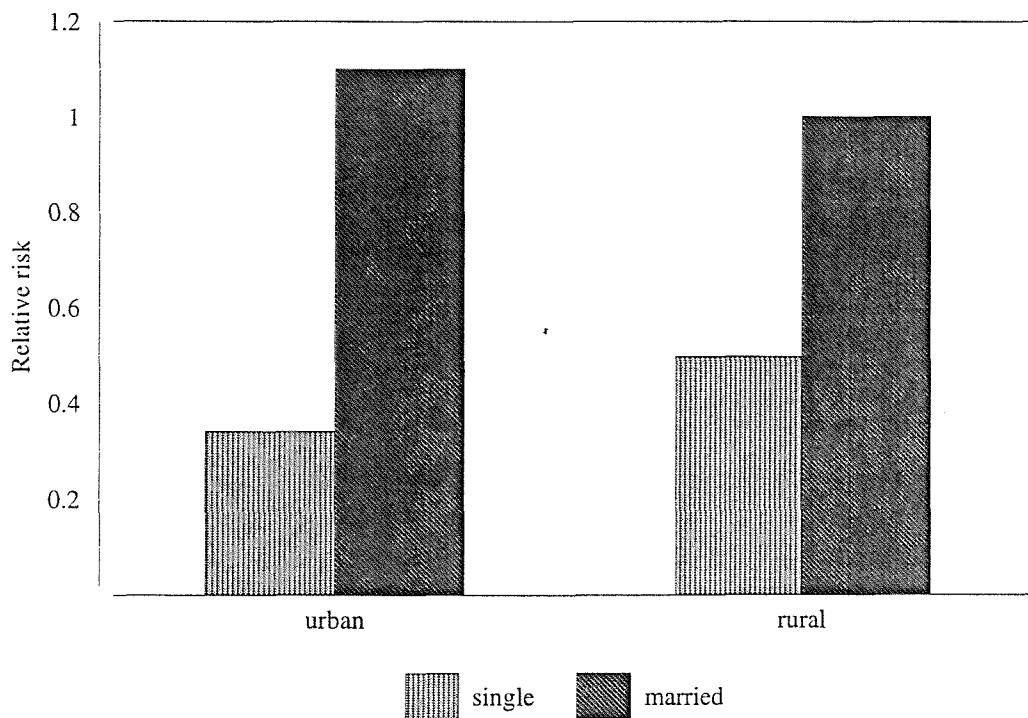


Figure 5.3: Relative risk of first birth by rural-urban residence and marital status at first birth, women 1992 MDHS.



This sub-section has examined the factors associated with the risk of first birth using proportional hazards multivariate modelling. The results show increased education is

associated with lower risk of first birth. The risk of first birth is higher for married women in the North. Lack of education and residence in the South and in the rural areas are associated with higher risk of premarital birth.

5.3.1.2 Analysis of the risk of second Birth

a) Bivariate life table Analysis of second birth

The subsequent fertility of a sub-set of women who had a first birth was followed to study the risk of having a second birth. Table 5.3 shows that in the bivariate life table analysis age at first birth does not make a difference to the pace of having a second birth. Younger women and those who had their first birth 10 years before the survey have lower B_{60} s and longer birth intervals than the older cohorts of women. This could be a sign of a genuine trend towards lowering fertility indicators due to modernisation in the recent past.

Child-related covariates such as the sex of previous birth and the survival status of previous birth were also examined. There is no significant difference in the trimean birth interval and duration and in the B_{60} by sex of previous child. However, if a previous child is alive the birth interval is longer and a smaller proportion of the women proceed to have a next birth within 60 months, than when the previous child died. If the child died within a year, the trimean is even shorter than when the death took place at an age older than a year. An analysis of the B_{60} s by survival status of previous birth show a low proportion if the previous child survived. However, women whose previous birth died after a year have a higher proportion (99.5 per cent) than if a death occurred within the first year of life (94 per cent). This suggests child replacement.

Table 5.3: Life Table Trimean birth intervals between first and second birth and proportion of women having a second birth within 60 months (B_{60}), 1992 MDHS

Covariate	Category	Trimean	B_{60}	Number
Age at first birth	<17	30.3	0.892	900
	17-19	30.1	0.921	1379
	20+	29.4	0.903	1086
Age at time of survey***	<24	32.6	0.858	765
	25-34	30.1	0.897	1354
	>35	28.8	0.936	1246
Period of first birth***	1982-92	31.6	0.870	1313
	1972-82	29.4	0.913	1275
	<1972	28.8	0.941	777
Marital Status at first birth***	Single	31.9	.872	887
	Married	29.5	.920	2487
Survival status of previous birth***	Alive	31.9	0.893	2370
	Died < 1yr	24.5	0.940	589
	Died >=1yr	28.0	0.995	406
Sex of previous birth	Male	30.3	0.908	1509
	Female	30.0	0.903	1508
Education*	None	29.5	0.916	1477
	Prim	30.8	0.910	1681
	Sec+	31.9	0.814	207
Husband's education	No/d'know	31.0	0.912	623
	Primary	31.9	0.961	2106
	Secondary+	30.8	0.807	557
Household amenities	Yes	30.4	0.903	1441
	No	29.6	0.910	1924
Occupation	No work	30.1	0.910	2287
	Office	30.6	0.883	336
	Agriculture	29.5	0.910	742
Employment	No work	30.6	0.910	2287
	working	29.9	0.901	1073
Childhood residence	Urban	30.2	0.877	600
	Rural	30.0	0.913	2761
Current residence	Urban	30.8	0.873	889
	Rural	29.7	0.913	2476
Region*	North	30.2	0.915	970
	Centre	29.3	0.926	1133
	South	30.5	0.884	1262
Overall		30.1	0.906	3365

Wilcoxon test *** P<0.01 **P<0.05 *P<0.1

The marital status of the woman at first birth has an effect on the progression to the second birth. Longer birth intervals and lower B_{60} s are associated with women who had a premarital birth. The trimean increases with education, a pattern which is consistent with

the B_{60} values which show lower proportions of women at higher levels of education having a second birth within the next five years. Husband's education, however, does not seem to play a part in determining the rate of progression to the second birth.

Labour force participation (occupation or work status), childhood and current residence do not have an association with the risk of second birth. However, there are some regional differences. The most striking is that the Centre has a faster pace to second birth as indicated by lower trimean and high B_{60} s. As for the proportion of women giving a second birth within five years, the centre has the highest percentage (93), followed by the north (92) and the south (88). This suggests women in the Centre start childbearing later, but progress more quickly once they have started.

This bivariate analysis has shown that there is a trend towards longer birth intervals in recent times and for younger mothers. Death of an index infant has been observed to lead to a shorter succeeding birth interval. Women who are married at the time of first birth are more likely to have a second birth than those who had a premarital birth. Being resident in the centre is related to higher chance of having a second birth than other regions.

B) Cox proportional hazards model of the risk of second birth

The Cox proportional hazards coefficients for the risk of second birth are presented in Table 5.4. Women aged 24 and less were more likely to have a second birth than women aged 35 and above, the reference category. The model also shows that women who had a first birth in the 10 years before the 1992 MDHS have a 25 per cent higher risk of having a second birth than the women in the reference period, the cohort up to 1972. This is contrary to the results of the bivariate life table analysis which showed more recent cohorts of women were less likely to have a second birth.

The risk of a subsequent birth can be dependent on the characteristics of the index child, such as survival status and sex of the previous birth. The hazards of having a second birth are 34 per cent higher if a first index child died as an infant than if the child died after the first year. If the index child was still alive, the relative risk of a second child is 26 per cent less than in the reference category.

Only two socioeconomic variables, the ownership of household amenities and region of residence were found to have a significant effect on the risk of a second birth. Women from poor households had about eight per cent lower risk of a second birth than the rest. Women resident in the Centre have 11 per cent, and in the North eight per cent higher risk of a second birth than those in the South.

Table 5.4: Estimated Cox proportional hazards coefficients for experiencing a second birth, Malawi, MDHS 92

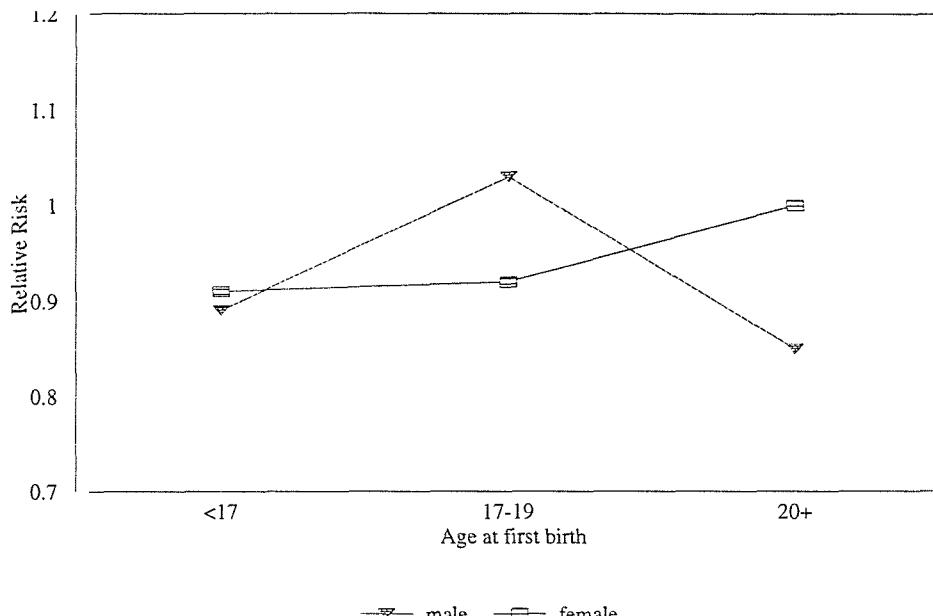
Covariates	First-to-second birth		
	Coefficient	Standard error	Relative risk
Age at first birth			
Less than 17	-0.094	0.095	0.910
17-19	-0.077	0.082	0.926
20 and above (R)	0.0		1.0
Age at time of survey			
Less than 24	0.294	0.165	1.342*
25-34	-0.113	0.086	0.894
35 and above (R)	0.0		1.0
Marital Status at first birth (interview)			
Single	-0.2783	0.056	0.757***
Married (R)	0.0		1.0
Period of first birth			
1982-92	0.224	0.089	1.250**
1972-82	0.082	0.065	1.086
up to 1972 (R)	0.0		1.0
Survival of last birth			
Alive	-0.300	0.056	0.740***
Died aged less than 1 year	0.291	0.067	1.338
Died aged older than 1 year (R)	0.0		1.0
Sex of first birth			
Male	-0.162	0.068	0.851**
Female (R)	0.0		1.0
Household amenities			
None	-0.085	0.038	0.919**
Some (R)	0.0		1.0
Region of residence			
North	0.072	0.046	1.074
Centre	0.104	0.044	1.110**
South (R)	0.0		1.0
Age at first birth & sex of first child			
less than 17, male	0.136	0.096	1.145***
17-19, male	0.267	0.089	1.306**
20+, female (R)	0.0		1.0

*** significance at 1% **significance at 5% *significance at 10% (R)- Reference category

Figure 5.4 shows the effect of age at first birth on the risk of second birth interacts with the sex of the first child. The figure indicates that female first births are more likely to be

followed by a second birth the older the age of the woman at first birth. The pattern of the relative risk for male births by age at first birth follows an inverted V-shaped pattern, which may suggest that the intermediate group of mothers has the highest risk of a second birth. However, the pattern is not very marked.

Figure 5.4: Relative risk of a second birth by age at first birth and sex of first birth



The Cox proportional hazards model for having a second birth has shown that net of all factors, those women who had a premarital first birth, with their first child still alive, whose first born was a son, and belonged to a poor household, had lower risks of having a second birth than women in the reference categories of the particular covariates. Women who were resident in the Central region had higher risks of having a second birth than their counterparts. The effect of age at first birth on the risk of having a second child was observed to interact with the current age of the woman and the sex of the first birth. The risk of a second birth was observed to be highest for young women who started childbearing late. In addition, if the first birth was female, the relative risk of a second birth was seen to be higher the older the first birth cohort.

5.3.1.3 Analysis of the risk of third Birth

The factors that affect the propensity to have a third birth could be different to the ones that are important for the lower birth orders. Certain factors that may influence the ultimate fertility outcome (for example residence), may not be important for the first birth or even the second birth, but may affect the family formation process after the second order birth.

a) Bivariate life table analysis of third birth

Table 5.5 presents life table trimeans and B_{60s} to the third birth for the 1992 MDHS cohort of women. As in the first birth interval, the age at first birth does not seem to have an impact on the propensity to have a third birth.

The time covariates, age of woman at time of survey and period of first birth interestingly show opposite traits. Women aged less than 24 proceed faster from the second to the third birth than the older women. Women who had their first birth in the 10 years before the survey had longer intervals and a smaller proportion of women proceeding to have a third birth than those over 10 years (before 1972).

Women with only primary education have a higher proportion progressing but a longer duration to the third birth than women in the other education categories. Those women in households with less amenities have longer interval to the third birth than those in the lower category. However, a higher proportion of them progress to have a third birth than the women in the higher category. Occupation, work status and type of residence do not have a significant relationship with the pace of having a third birth.

The North had the longest duration to the third birth but the highest proportion of women progressing to have a third birth. The South had the lowest proportion advancing to the third birth, with a trimean duration of about 30 months. This suggests that in the north more women proceed to have a third birth but do so at a slower pace than in the other regions.

Table 5.5: Life table trimean birth intervals between second and third birth and the proportion of women having a birth within 60 months (B_{60}), 1992 MDHS

Covariate	Category	Trimean birth interval	B_{60}	Number
Age at first birth	<17	30.1	0.918	776
	17-19	29.8	0.914	1026
	20+	29.6	0.901	720
Age at time of survey***	<24	23.0	0.970	498
	25-34	29.1	0.931	1246
	>35	28.6	0.922	1203
Period of first birth***	1982-92	31.9	0.883	1313
	1972-82	28.9	0.920	1275
	<1972	29.3	0.920	777
Marital Status at first birth**	premarital	29.8	0.904	777
	marital	29.8	0.914	2170
Survival status of previous birth***	Alive	29.8	0.942	1776
	Died < 1yr	23.3	0.949	414
	Died >=1yr	27.8	0.947	322
Sex of previous births	both male	28.3	0.944	639
	male &female	29.2	0.940	1219
	both female	27.5	0.951	654
Education*	None	29.2	0.911	1344
	Primary	30.3	0.922	1448
	Secondary +	29.2	0.812	165
Husband's education	no/d'know	29.2	0.909	544
	primary	29.9	0.915	1880
	secondary+	29.8	0.908	473
Household amenities**	No	30.5	0.916	1775
	Yes	29.3	0.908	1672
Occupation	No work	30.1	0.911	1998
	Office	30.5	0.872	293
	Agric	28.8	0.929	656
Employment	No work	30.1	0.911	1998
	working	29.4	0.912	946
Childhood residence	urban	30.2	0.880	978
	rural	29.8	0.917	3866
Current residence	Urban	30.8	0.873	759
	Rural	29.7	0.913	2188
Region**	North	30.9	0.933	724
	Centre	29.1	0.922	996
	South	30.2	0.886	1098
Overall		29.8	0.918	2818

Wilcoxon test *** P<0.01 **P<0.05 *P<0.1

In summary, for the risk of third birth, the trimean shows that women who had their first birth older than 24 years, or 10 years before the survey, those whose previous births were female, were more educated and were resident in the North had slightly longer durations than their counterparts in other categories of the same covariates.

B) Cox proportional hazards model of the risk of third birth

The main effects part of the Cox proportional hazards model presented in Table 5.6 shows that women who had their first birth after 1972 are more likely to have a third birth than those who had a first birth before 1972. Women in the intermediate period, 1972-82, also have higher risk of a third birth, but lower than the latest calendar period cohort (21 per cent higher). In the absence of STI data, one is unable to explain these results.

As was the case for the risk of second birth, living in a poor household is associated with a lower risk of having a third birth (10 per cent lower risk than those with more household amenities). For the effect of the sex of the first two births, it is apparent that it is not the sex of the children that matters, but the sex balance. The risk of third birth is lowest if the first two births are a boy and a girl. Again, as with the risk of second birth, if a second birth died in infancy, the chance of a third birth is higher than when the child died at an older age. Furthermore, if the second child was alive, then the relative risk of a third birth is lower than if the child died after infancy.

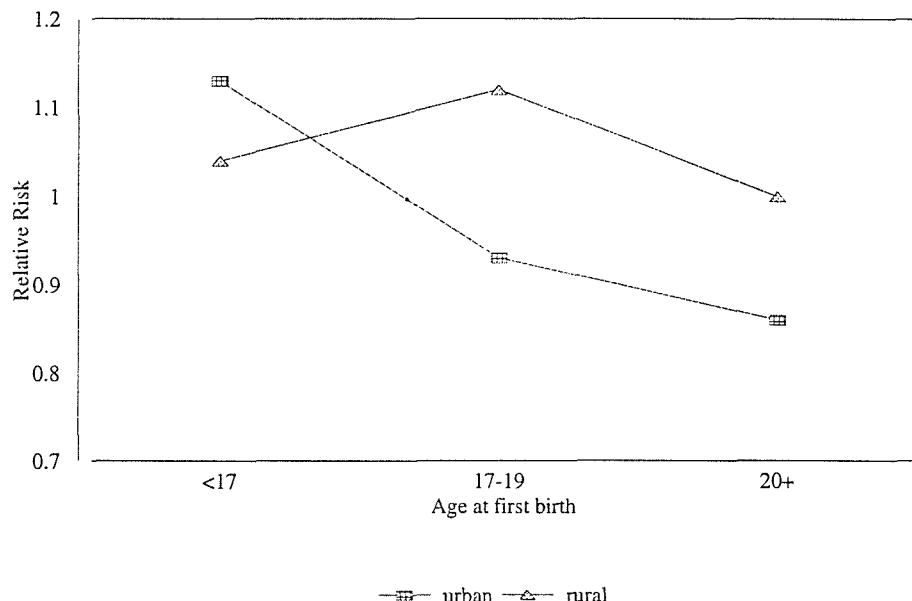
Table 5.6: Estimated Cox proportional hazards coefficients for experiencing a third birth in Malawi, MDHS 1992

Covariates	Second-to-third birth		
	Coefficient	Standard error	Relative risk
Age at first birth			
Less than 17	0.040	0.085	1.041
17-19	0.113	0.072	0.120
20 and above (R)	0.0		1.0
Period of first birth			
1982-92	0.363	0.093	1.438***
1972-82	0.192	0.065	1.211***
up to 1972 (R)	0.0		1.0
Childhood residence			
Urban	0.156	0.109	1.169
Rural (R)	0.0		1.0
Household amenities			
None	-0.095	0.042	0.909**
Some (R)	0.0		1.0
Sex of first two births			
Both male	-0.047	0.056	0.955
Male and female	-0.111	0.050	0.895**
Both female (R)	0.0		1.0
Survival of last birth			
Alive	-0.149	0.061	0.862**
Died aged less than 1 year	0.267	0.075	1.306***
Died aged older than 1 year (R)	0.0		1.0
Interaction			
Age at 1 st birth & Childhood residence			
less than 17, urban	0.076	0.145	0.927
17-19, urban	-0.341	0.137	0.711***
20+, rural (R)	0.0		1.0

*** significance at 1% **significance at 5% *significance at 10%

The interaction in Figure 5.5 is very interesting in that it is childhood residence that has an effect on the risk of third birth and not current residence or region. For the first two births the reproductive behaviour does not differ much by residence. It seems that if a woman spent her formative years in the urban areas, the relative risk of a third birth constantly reduces with increasing age at first birth. For rural areas, the relative risk of a third birth is highest for the middle category for age at first birth; an 11 per cent higher risk than in the reference category 'age at first birth 20+, rural'.

Figure 5.5: Relative risk of a third birth by age at first birth and type of residence in childhood



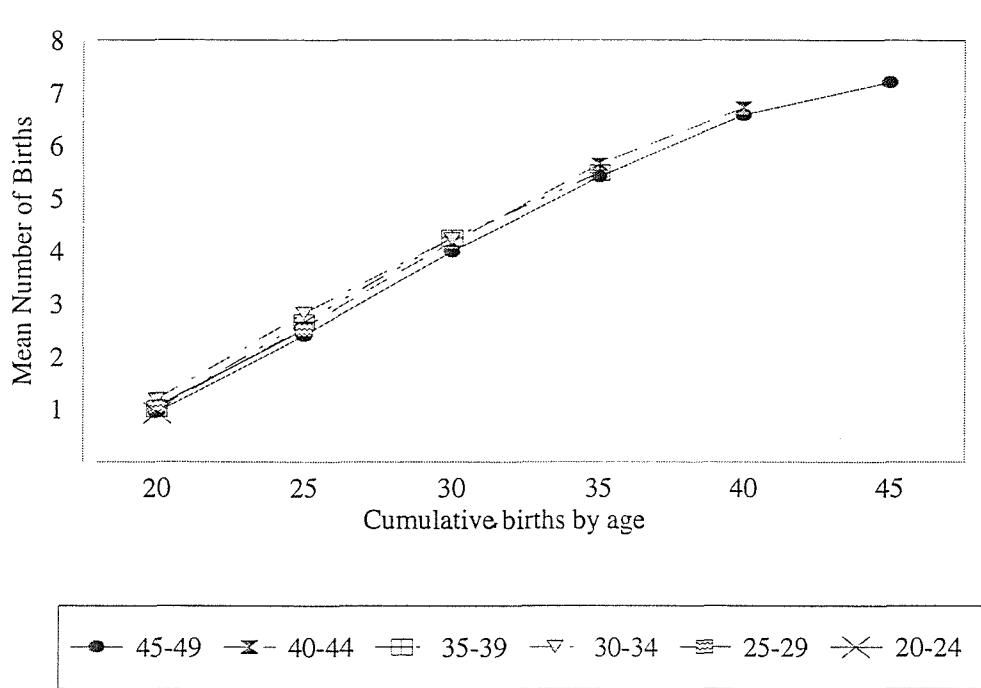
The Cox proportional hazards model for the risk of a third birth has shown that women who had a first birth in the last 20 years before the survey date, and whose last child died in infancy had a higher risk of a third birth than the women in the other categories. Poor household status, and having a balanced-sex distribution for the first two births had an attenuating effect on the risk of having a third birth. Spending the childhood years in an urban area and delaying the start of childbearing consistently reduces the hazard of a third birth.

5.3.2 Analysis of achieved fertility and age at first birth

The mean number of children born to women, based on the 1992 MDHS, is used to measure the level of fertility in Malawi according to their current age and their age at first birth cohort. Figure 5.6 presents a graph of the results of cohort analysis of fertility trend by age of the woman at time of survey by specified ages in the past. Each line represents an age cohort of women portraying the mean number of children that they had by each age. Women aged 45-49, represented by the spotted line, had a mean of 7.2 births. If this cohort is followed retrospectively, it is noted they had approximately four births on average by age 30. The adjacent age cohort can be followed in a similar manner: they had 6.4 children by

age 40, and an estimate of four by age 30. The cohort analysis of fertility by age of women shows that there has been little change in the mean number of births by specified ages for various cohorts of women. Although younger women have not reached the end of their childbearing, the cohort analysis of mean number of births enabled us to compare the fertility levels of women at the same age. For instance, the mean number of births that women currently aged 45-49 had by age 30 can be compared with that for women aged 40-44, 35-39 and 30-34 at the time of the survey. Overall, these results indicate that there has hardly been any change in fertility levels by various cohorts of women.

Figure 5.6: Cumulative number of births by specified ages of women aged 20-49, Malawi, MDHS 1992.



The cohort differences in the mean number of births are now controlled for age at first birth (Table 5.7). It is noted that although there was no apparent difference in mean number of births for various cohorts, within each age cohort of women the means vary by age at first birth. Women who delay their age at birth have smaller mean family sizes than those who start childbearing early. This pattern is consistent for all the age cohorts. The difference in the cumulative number of births for the earliest starters and the latest ones is about two

children. The difference in the cumulative number of children by age 25 is actually about three children for age groups 40-44 and 45-49. This is a clear indication that in Malawi the age at which a cohort of women start childbearing does make a difference to the level of fertility.

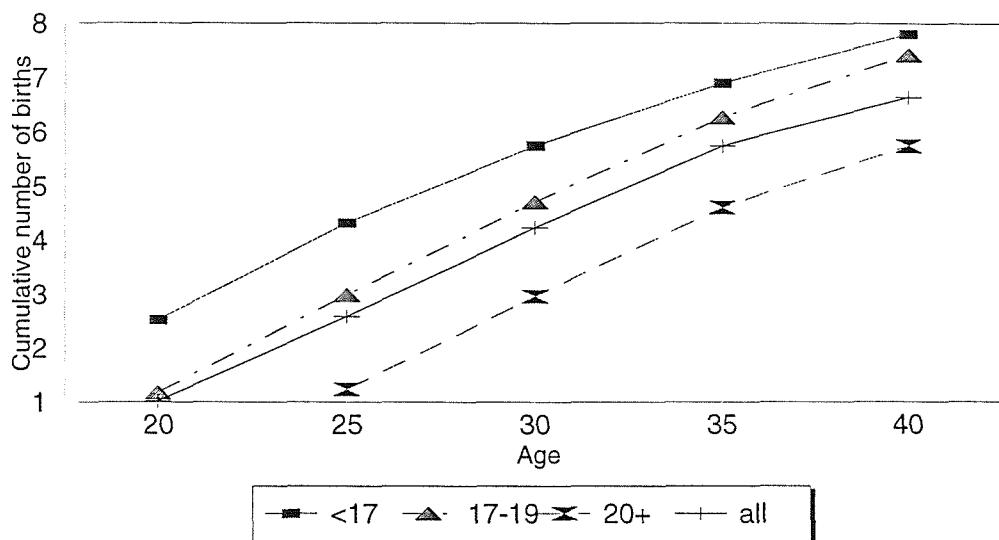
Table 5.7. Children ever born by current age of woman and age at first birth Malawi, MDHS 1992

		Cumulative Number of Births by Age					
age	age at first birth	20	25	30	35	40	45
45-49	<17	2.44	4.16	5.63	6.68	7.52	7.92
	17-19	1.33	3.27	4.90	6.22	7.31	7.73
	20+	0.00	1.07	2.74	4.43	5.82	6.72
40-44	<17	2.53	4.32	5.75	6.90	7.80	
	17-19	1.18	2.99	4.71	6.27	7.42	
	20+	0.00	1.23	2.96	4.61	5.74	
35-39	<17	2.39	4.18	5.65	6.70		
	17-19	1.18	3.12	4.77	6.03		
	20+	0.00	1.32	3.07	4.46		
30-34	<17	2.33	4.06	5.54			
	17-19	1.26	3.01	4.40			
	20+	0.00	1.49	3.05			
25-29	<17	2.23	3.57				
	17-19	1.23	2.84				
	20+	0.00	1.71				
20-24	<17	2.06		.			
	17-19	1.19					
	20+	0.00					

The age group 40-44 is singled out from Table 5.7 to highlight clearly the differences in cumulative mean number of births by age at first birth at various stages. This is an age cohort of women who have almost come to the end of their reproductive process (Figure 5.7). Age group 40-44 is preferred to 45-49 because of data reliability. Figure 5.7 clearly shows that the difference in the cumulative number of births by specified ages is wider for the younger ages at first birth than it is for the older ones. From a gap of almost four children, by age 25 years, between women with age at first birth less than 17 and those 20 years and older, it narrows to about two children by age 40. This suggests that the impact

of delaying age at marriage on fertility reduction is stronger in the early years of childbearing.

Figure 5.7: Cumulative number of births by specified ages by age at first birth for age cohort 40-44 Malawi, MDHS1992



In summary, an analysis of fertility levels by age cohort of women has shown that independent of age at first birth, there is hardly any difference in the total fertility achieved among the various cohorts. However, within each cohort there is a distinction by age at first birth whereby women with a younger age at first birth have higher achieved fertility levels.

5.4 Summary and Conclusions

This chapter set out to investigate early childbearing and subsequent fertility in Malawi using the 1992 Malawi and Demographic Health Survey data. The main focus was to examine the effect of age at first birth on the pace of childbearing and total number of children a woman achieved. Only the first three birth orders were considered so as to examine thoroughly the determinants of each birth, since they have been known to be different in previous studies (Nath and Land, 1994; Pebley, 1981). Bivariate life table analysis and Cox proportional hazards multivariate modelling were used to study the pace of childbearing. Cohort analysis of fertility was employed to study the effect of age at first birth on the mean number of children born to a woman. The results have also shown that a young age at first birth has a bearing on the childbearing process, through higher fertility

levels and faster pace, and that this relationship is dependent on other factors such as marital status at the time of first birth, education, time period of first birth and economic status.

The results have shown that first births are more likely to be premarital than within marriage for those with no education, resident in the South and rural areas. In Malawi, childbearing seems to be either a precursor or immediate follow up to marriage. In addition, after the first birth those who were married were more likely to proceed to the second birth. Studies in the US have found that nonmarital births were associated with a slower pace of fertility (Trussell and Menken, 1978; Morgan and Rindfuss, 1999). Zulu (1996) found although there was an early entry into marriage in Chiradzulu (district in South of Malawi), its effect on fertility was attenuated by marriage instability. The MDHS 1992 did not have data on the marriage history of women. However, it is clear that unmarried women are still exposed to sexual intercourse, and consequently to the risk of conception and birth. Thus, there is need to provide them with contraception.

High levels of education were found to be associated with higher age at first birth and longer birth intervals. However, those with only primary school education were found to be the exception to this pattern. For example in these analyses the relative risk of second birth was higher for primary category than the others. This may be due to the transitional status between the traditional and the modern, whereby women may abandon practices which have a negative effect on fertility, without adopting modern ones with a similar inhibiting effect. This argument is supported by Anker and Knowles (1982). They stated that those with no formal education adhered to traditional fertility regulation values that are known to encourage favourable birth intervals and sexual patterns, such as post-partum abstinence.

The indicator of the economic status of the respondent (a variable constructed from the possession of household amenities) showed that after the first birth, those without household amenities were less likely to have a subsequent birth. This could probably be due to economic variables acting on biological factors: poorer women may breastfeed for longer. On the whole, the impact of economic hardship is also likely to influence fertility decisions in favour of smaller families, as has been shown by several studies across Africa, and Malawi in particular (see for example Abernethy, 1997; Kishindo, 1994; Muhwava, 1998).

Results of the field interviews with young people showed that economic considerations do play an important role in marriage and childbearing decisions (see Chapter four).

Being resident in the South or in rural Malawi was found to be associated with a higher risk of having a premarital first birth. A woman in the North is more likely to have a marital first birth than one in the Centre or South. Rural areas are associated with a lack of opportunities for education and other services that may delay age at first birth. Chapter six shows that the South is associated with an early start of sexual activity. With low contraceptive use, early childbearing is likely.

Childhood residence plays an important role in the determination of family size, particularly beyond the second birth. This suggests that, after the second birth, it may be the internalised small family norms, acquired during the child formative years, that play an important part. The policy implication is that there is a need to target young people before they start to have children to instil in them small family norms. Childlessness is frowned upon in Malawi and one-child families are not the norm as discussed in Chapter four. Thus, urbanisation, associated with its ideation and accessibility to reproductive health services, may be important to not only delay age at first birth but also have a reduction effect on desired and achieved fertility.

The pace of childbearing was controlled for the survival of preceding birth. The literature on child mortality shows that women are more likely to progress to have a subsequent birth if the index child died through replacement effect or through the return of fecundability for the woman making the post-partum amenorrhoea period shorter (e.g Choe et al., 1998). The results showed that if the previous child died, especially in infancy, a subsequent birth is more likely. This suggests that the association is working through the process of early cessation of breastfeeding and lactational amenorrhoea and return of conception, rather than child replacement.

The cohort analysis of fertility trends showed that there was a difference of at least two children in the mean number of children between the earliest and the latest starters. For women in the same age group with completed fertility this gap is wider in younger ages than it is in the older ages. In their longitudinal study in the US, Morgan and Rindfuss (1999) noted that although the effect of the timing of the first birth on the number of children was

weakening, they did not expect it to disappear. Those more likely to have high fertility are selected into early first birth, which may limit opportunities that compete with childbearing. This further emphasises the need to target women in their early ages to ensure that the advantage that the late starters have in lowering fertility is consolidated with contraceptive use. There is also need to understand characteristics of late and early starters to develop relevant messages to promote delay in first births.

In conclusion, net of several effects, an early start of childbearing in Malawi is associated with a faster pace of childbearing and higher fertility levels than a delayed start. These results underscore the need to provide young women in Malawi with alternatives to early childbearing such as education and family planning services. Since the 1992 MDHS was conducted, the Government of Malawi the Family Planning Programme had all restrictions pertaining to parity and marital status uplifted in 1996. Consequently, contraceptive prevalence rate was 22 per cent according to the 1996 MKAPH, up from 13 per cent in the 1992 MDHS. In addition, the government started a free primary education programme in 1994 to advance universal basic education in Malawi. Thus, the association of early childbearing, short birth intervals and high achieved fertility observed in 1992 is likely to have changed for the birth cohorts in the last decade. The next chapter examines the factors associated with the start of sexual activity among young people in Malawi based on the 1996 MKAPH.

CHAPTER SIX

FACTORS ASSOCIATED WITH INITIATION OF SEXUAL ACTIVITY IN MALAWI

This chapter examines the factors associated with the risk of first sex during development to adulthood among young people in Malawi. The chapter focusses on the timing of first sexual intercourse and marital union among young people aged 15 to 24 years. Information on age at first sex is important to determine when the risk of pregnancy starts (Blanc and Rutenberg, 1991; Blanc and Way, 1998). In addition, the data on when young people start to have sexual intercourse are vital in determining the window of exposure to HIV in populations with high HIV rates such as Malawi.

The chapter is organised in four sections. The first section (6.2) presents the data and methods used to study the factors associated with the initiation of sexual activity. Bivariate analyses of age at first sex are presented in the second section (6.3), with analyses of age at first sex and premarital sexual behaviour. The third section presents the results of discrete-time hazards multivariate analysis of the risk of first sex. Section four discusses the main results and presents a summary of the chapter.

6.1 Data and Methods

Data from the 1996 Malawi Knowledge, Attitudes and Practices in Health Survey (MKAPH) conducted under the DHS programme are used to examine factors associated with sexual debut. For the first time in Malawi information on sexual initiation was collected in a nationally representative survey, MKAPH 1996. However, no results on timing of first sex were given in the MKAPH report. Hence, this study is unique in that the factors associated with the sexual initiation are analysed for the first time. A description of the MKAPH survey was given in Chapter Three.

Discrete-time hazards models are used to identify the determinants associated with having first sex at ages between 10 and 24 years among young people who were aged 15-24 years

at the time of the MKAPH survey in 1996. Some studies on sexual behaviour have concentrated mainly on adolescents aged up to 19 years (Ajayi et al., 1991; Ocholla-Ayayo et al., 1993; Wulf and Singh, 1991). In this study, the age group 20-24 is included to draw on the experience of those who have recently completed adolescence.

The discrete time hazards model is essentially a logistic model and takes the form:

$$\log(h_{ti}/1-h_{ti}) = \alpha_t + x_{ti}\beta$$

Where h_{ti} is the discrete time hazard rate, α_t is a time-dependent covariate, x_{ti} are a set of covariates and β is a vector of model parameters (Allison, 1982). As a logistic model the dependent variable is the log odds of individual i having first sex at age t .

Hazards modelling allows censored observations to be included in the model. To fit the discrete-time model, the data must first be restructured into a set of Bernoulli responses (h_{ti}), one for each discrete time in point, where $t=10,11,12\dots24$ years for each individual i . In this analysis the few individuals who had sex at younger ages (under 10 years) were counted as having first sex at age 10 years. In total there were 15 exposure-years, and in each year it was observed whether a respondent had sex.

In this procedure, a separate case is created for each year that an individual is known to be at risk. For each person-year, the model has a dependent variable which equals one when an individual has had first sex and zero if the individual is censored by either the survey date or survived up to the last age in the interval (24 years) without having had first sex. Thus, the dataset has a variable which shows whether first sex has occurred at each given age of exposure. Once first sex takes place, the individual is not included in subsequent time periods. For example, an adolescent female aged 17 at the time of the survey who had first sex at age 14 contributes to five observations: four indicating that she did not have sex at 10,11,12 or 13, and one showing that the event took place at the age of 14. If a female had not had first sex by 17, then she would contribute eight observations, implying the first sex did not occur at age 10, 11, through 17. The observation is then censored. This procedure resulted in a large data set: the 1119 males and 1174 females who at some time were exposed to the risk of first sexual intercourse contributed a total of 7761 observations (person-years of exposure) for males and 8611 cases for females.

In the discrete time hazards model analysed here, there are a number of socio-demographic factors that are likely to influence the hazard rate: timing of first sex (age in years), marital status at first sex, ethnicity, gone through initiation, area of residence and education. These mainly refer to the individual's formative characteristics. In a cross sectional survey such as MKAPH most other covariates are measured at the time of the survey and hence cannot be used in an analysis such as this because of potential circular causality, i.e. whether the event happened before or after the current status occurred. However, there may be other information which will allow the current status variables to be ordered in time. This applies particularly to the current status variable 'gone through initiation'.

Marital status at first sex- computed from the age at first sex variable. A dichotomous variable was created: the first category representing those who had first sex at marriage, and those who had it before. This is a measure of the extent of premarital sexual behaviour.

Ethnicity: Malaŵi has several ethnic groups which can be categorised into matrilineal and patrilineal. Matrilineal ethnic groups include: the Chewa who are mainly found in the central region; the Lomwe and the Yao are predominant in the southern region. Patrilineal ethnic groups include the Tumbuka, Tonga, and Nkhonde the majority of whom are found in the North, the Ngonis who originally settled in the central and northern region and the Sena found in the southern tip of the country.

Sometimes, it may be the lineage of the area of residence that determines the culture of an individual rather than their ethnicity. For example the Ngonis found in the Central and Southern regions of Malaŵi have been absorbed into the matrilineal culture of the Chewas. It is also possible to have marriages between individuals of different ethnic backgrounds and which culture becomes dominant varies for couples. The limitation with the 'matrilineal /patrilineal' classification of ethnicity is that it fails to take into account people of mixed traditions due to either intermarriage or migration between different ethnic enclaves. There may also be other aspects to ethnicity other than the 'matrilineal/patrilineal' categorisation which may influence ethnicity.

Gone through initiation- This is a rite of passage into adulthood. In Malaŵi, some girls would normally go through initiation ceremonies around puberty. For boys, initiation ceremonies are less widely practised, but would occur normally before puberty. During

initiation ceremonies adolescents are given messages on general conduct, such as respect for elders and helping the needy. Relevant to this study are sex education messages which have an effect on young people's sexual behaviour. A dichotomous variable was created representing whether or not the respondent had gone through initiation.

Among the Yaos, who constitute the largest proportion of Muslims in Malawi, initiation ceremonies may involve circumcision of males. Twenty six per cent of the male sample in MKAPH 1996 were reported to have been circumcised. There is no reported female circumcision associated with initiation ceremonies in Malawi as practised elsewhere in Africa (e.g Khattab, 1996; NCPD, CBS and Macro International Inc., 1998). Less than one per cent of all women of reproductive age were reported to have been circumcised in MKAPH 1996.

Initiation status could be an intermediate variable in which the direction of its relationship with sexual activity can be reversed. Consequently, the relationship cannot be causal but simply an association. In addition, the other explanatory variables may affect both initiation status and the response variable. Thus, initiation status is interacted with other variables in the logistic regression analyses.

The qualitative evidence is that initiation precedes sexual activity, however it is possible that the 'age at puberty' is a common cause at 'initiation' and 'first sexual activity'. In addition, as noted in chapter four (4.3.1), in exceptional circumstances, where a parent felt a daughter is an early maturer, an initiation ceremony would be arranged for fear of her starting sexual relationships and get pregnant premaritally. Early maturers are associated with younger age at sexual debut (Udry and Cliquet, 1982). Since there are no data on age at puberty and age at initiation, it is not possible to tease out the effect of two variables on first sexual experience.

Area of residence- An assumption is made that young people were resident in the same area at the time of enumeration as at the time before they had first sex. Ideally, childhood place of residence would have been used, but the information is not available from MKAPH 1996. A dichotomous variable was used in these analyses to represent urban and rural residence.

Education- It is assumed that education has an effect on the risk of first sex. However, there is need to be careful of negative causality; due to engagement in sexual relationships young people may experience some consequences of their behaviour and drop out of school. The education variable used has categories for; no education, primary and secondary and higher.

6.2 Bivariate analysis of the factors associated with timing of first sex

Information on the age at first intercourse and whether an individual has ever had sex by a specified age can be used to compute the proportion sexually active during adolescence (see for example Wulf and Singh, 1991). Cross-tabulations are produced to identify the important socio-demographic factors associated with timing of first sexual intercourse among young people aged 15-24 in Malawi. Pearson's Chi-squared tests are performed to demonstrate the significance of the risk factors of first sex for young people. In Malawi, the differential HIV rates among young people may suggest that there are important differences in their sexual behaviour (see National AIDS Control Programme, Malawi, 1996). The results of the bivariate analysis are stratified by gender and presented in Tables 6.1 to 6.5.

Table 6.1 and Table 6.2 present the percentage of adolescent and young adult⁷ males and females who had first sexual intercourse by age and socio-demographic characteristics. The different age thresholds 15, 18 and 20 years represent sexual debut in the early adolescence, the middle and end of the teenage years; and indicate the rate at which a cohort of young people experience the event of first sexual intercourse.

The percentage having experienced first sex increases with age and it also differs by socio-demographic characteristics. Males are more likely than females to have first sex in early adolescence. There are lower percentages of young adults than adolescents who started having sex by age 15. The lower proportion for young adults could be a result of misreporting since the event was being reported at least five years after it happened.

⁷Adolescents refer to those aged 15-19 years and young adults to those aged 20-24 years.

For adolescents, living in the Southern region is associated with early sexual initiation (less than 15 years). Young women in the north have higher percentages having early sex. There is an apparent inverse relationship between education and the percentage having sex by age 15. Urbanisation seems to be associated with higher percentage having sex by age 15. Those who had gone through initiation are more likely to have sex by age 15 than those who had not. Matrilineal ethnicity is associated with having first sex by age 15 for females whilst for males it is patrilineal ethnicity.

Males starting sex at age less than 15 are likely to be unmarried, whilst a higher percentage of females starting sex by age 15 are married (33 per cent). For females the percentage who are married at the time of first sex increases with the age at first sex, particularly among the age group 20 to 24.

Table 6.1: Percentage of female adolescents (15-19) and young adult women (20-24) who had first sex by specific ages by socio-demographic variables Malawi (MKAPH) 1996

Socio-demographic variable	15-19		20-24			No. of young women	
	% had sex by age	No. of adolescents	Percentage had sex by age				
			15	18	20		
Region							
North	9.3***	126	18.5	63.1***	93.8*	140	
Centre	10.0	256	12.6	51.5	81.8	195	
South	21.7	244	14.1	67.6	85.1	213	
Residence							
Urban	10.8	328	12.7	52.8***	83.1	282	
Rural	16.4	298	14.1	61.9	85.5	266	
Education							
None	22.9***	97	14.5	66.5**	85.5***	127	
Primary	14.2	426	15.3	60.3	87.5	326	
Secondary	2.9	103	2.6	36.8	64.1	95	
Initiation							
Yes	18.2***	383	15.1*	63.2***	84.9	418	
No	11.6	242	9.9	52.9	86.1	130	
Ethnicity							
Matrilineal	17.8***	392	13.2	63.9***	85.4	316	
Patrilineal	8.6	234	15.8	53.2	85.6	231	
Marital status at 1 st sex							
Single	27.2	306	14.2	66.0***	90.1***	452	
Married	33.3***	34	16.0	50.0	79.8	73	
Overall	15.7	626	14.1	60.7	84.9	548	

*** =P<0.01 **=p< 0.05 * p<0.10 (Chi-squared test) % - weighted n - unweighted

Table 6.2: Percentage of male adolescents (15-19) and young adult men (20-24) who had first sex by specific ages by socio-demographic variables Malawi (MKAPH) 1996

Socio-demographic variable	15-19		20-24			No. of young men
	% had sex by age	No. of adolescents	15	18	20	
Region						
North	7.4***	150	4.9 ***	43.6***	72.9***	99
Centre	18.7	225	15.0	45.7	69.4	214
South	46.6	225	31.1	71.1	91.7	206
Residence						
Urban	35.6***	341	26.7***	63.4***	81.9***	310
Rural	28.7	259	20.7	56.5	80.3	209
Education						
None	39.0***	30	35.0	63.8**	79.7***	52
Primary	29.1	478	19.8	55.9	81.9	299
Secondary	30.1	92	19.0	59.9	77.0	168
Initiation						
Yes	41.1***	201	25.1***	65.1***	83.0***	232
No	19.7	399	17.8	52.7	77.7	519
Ethnicity						
Matrilineal	31.7***	361	23.6***	58.1***	80.1*	331
Patrilineal	52.1	239	16.3	56.9	82.2	188
Household amenities						
Low	25.8	215	22.6	56.2***	80.8	184
High	34.1	385	21.1	59.4	80.4	335
Marital status at 1 st sex						
Single	53.2	341	24.4***	64.1***	88.8***	461
Married	0.0	2	0.0	50.0	37.1	13
Overall	29.9	600	21.8	57.9	80.7	519

*** = P<0.01 **= p< 0.05 * p<0.10 (Pearson's Chi-squared test) %- weighted n - unweighted

6.3 Bivariate Analysis of Non-marital sexual activity

The entry into a marital union marks the beginning of the exposure to the risk of childbearing in most societies (Bongaarts and Cohen, 1998; Caraël et al., 1994; Westoff, et al., 1994). However, sometimes there is sexual activity among the non-married, and this is the concern of society since they are likely to be in an unstable sexual relationship (Bledsoe and Cohen, 1993). A young woman may have an unwanted pregnancy without a supporting partner. The prevalence of premarital sex is measured by the use of data on

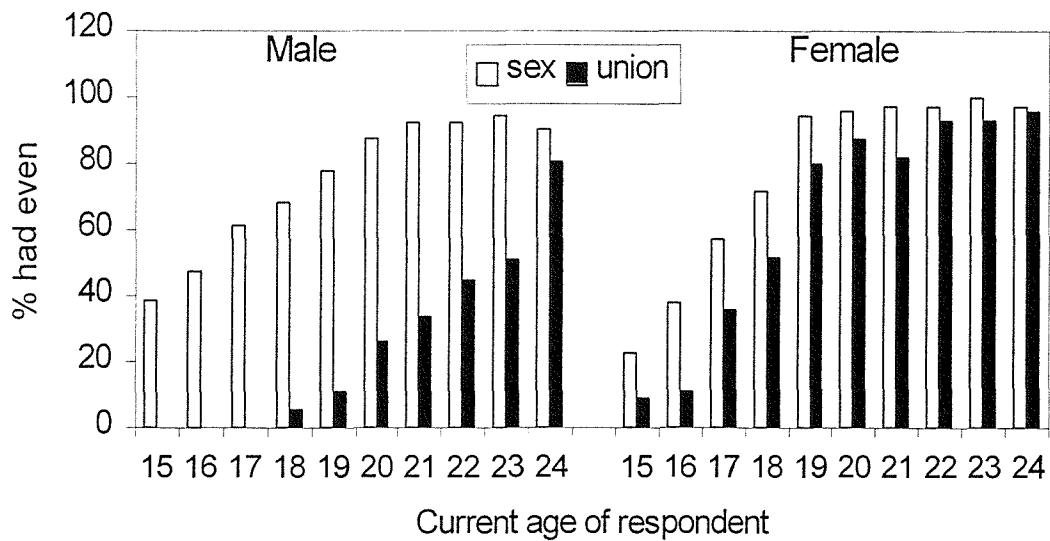
age at first sexual intercourse and age at first union. These two pieces of data are used to derive three indicators of premarital sex which are presented in Tables 6.3 to 6.5. The indicators are: the proportion of young people ever married; the percentage of never married young people who ever had premarital sex; and the percentage of ever married young people who had premarital sex. Before describing the three indicators the distribution of first sex and union is described.

6.3.1 Patterns of first sex and union

Information on the age pattern of sexual experience and marriage is important in order to determine the extent of premarital sex among young people. Figure 6.1 shows that in general, lower proportions of young people (15 to 24) get married than those who start to have sex at each age which suggests a high prevalence of premarital sex. The overall pattern of premarital sex varies by gender: males are more likely to have premarital sex than females as indicated by the wider gap between the percentage that had sex and are in union at each age from age 15 to 24 years. Marriage is almost universal (95 per cent) by age 22 years for young women; whereas only about three quarters of young men aged 24 years are married.

The figure also shows that sexual activity among the very young (15-19) is more common among males. By age 18, just over 60 per cent of both males and females have had sex; and by age 20 over 90 per cent of males and females have had sex.

Figure 6.1: Percentage of young people aged 15 to 24 years who had sex or in a union by single age of respondent MKAPH 1996.



6.3.2 Factors associated with early marriage

In sub-Saharan Africa much of the early sexual activity and childbearing is to married women (McCauley and Salter, 1995; Westoff et al., 1994). Table 6.3 shows that there is early marriage for females in Malawi with 37 per cent of females adolescents married, whilst only 3 per cent of male adolescents were married. The highest proportion of male adolescents that were married were those in the central region, with no education and of matrilineal lineage. For female adolescents those resident in the Centre and urban areas, who had not gone through initiation and were of patrilineal lineage had the lowest percentages married.

Young adult men in the rural areas, and who went through initiation were more likely to be married than their counterparts. Whilst for young women, those in the rural areas, and with less than secondary education had higher proportions married than those in the rest of the subgroups. Thus, in general less exposure to modernising influences is related to early marriage.

able 6.3: Percentage of adolescents (15-19 years) and young adults (20-24 years) who have ever married by gender and socio-demographic variables, Malawi MKAPH 1996

Socio-demographic variable	Male				Female			
	adolescents	n	young adults	n	adolescents	n	young adults	n
Region								
North	1.9***	150	44.8	99	44.4***	54	93.8	127
Centre	4.0	225	47.9	214	26.8	250	89.9	167
South	2.4	225	47.9	206	44.5	290	89.6	182
Residence								
Urban	3.1	341	29.2***	310	25.3**	83	81.7***	231
Rural	3.0	259	51.8	209	38.9	511	91.7	245
Education								
None	6.5***	30	67.1***	52	59.7	144	93.6***	127
Primary	2.9	478	51.3	299	31.1	415	91.3	326
Secondary	0.8	92	20.6	168	14.3	35	63.2	95
Initiation								
Yes	3.1	201	58.2***	232	48.5**	369	91.1	418
No	2.9	399	34.6	287	8.2	225	87.7	130
Ethnicity								
Matrilineal	3.7***	361	50.3	331	37.4***	455	91.2	316
Patrilineal	1.1	239	39.2	188	36.2	138	88.6	231
Household amenities								
No	2.8	215	52.5**	184	37.2	325	92.6**	230
Yes	3.2	385	43.0	335	36.9	268	86.9	318
Overall	3.0	600	47.6	519	37.1	594	90.3	548

*** =P<0.01 **=p< 0.05 * p<0.10 (Pearson's Chi-squared test) %- weighted n - unweighted

6.3.3 Factors associated with premarital sex among single people

There has been evidence of the lowering of the age at first intercourse for adolescents (Ingham, 1992; UN, 1989). In contrast, age at first marriage has also been increasing mainly due to improvements in female education (Bledsoe and Cohen, 1993; Singh and Samara, 1995; Westoff et al., 1994). The changes in ages at first sex and first marriage imply that young people are exposed to a longer period of risk of premarital sex. The proportion of never married young people who ever had sex provides a current measure of premarital sex.

Table 6.4 shows that males are more likely to have premarital sex than females. Adolescents resident in the South, in urban areas, with secondary and higher education, having gone through initiation, and are of matrilineal lineage were associated with higher percentages of premarital sex.

Table 6.4 Percentage of never married adolescents and young adults who had ever had premarital sex by socio-demographic variables, Malawi MKAPH 1996.

Socio-demographic variable	Male				Female			
	15-19	n	20-24	n	15-19	n	20-24	n
Region								
North	40.6***	145	69.3***	59	26.7***	80	100	12
Centre	40.0	219	80.9	130	21.3	187	70.0	28
South	73.7	218	93.6	129	41.6	155	72.0	31
Residence								
Urban	62.5***	330	88.8**	216	35.5	243	71.4	50
Rural	54.1	252	84.9	102	29.5	179	72.2	21
Education								
None	62.8***	28	59.9***	20	34.5***	41	27.3***	8
Primary	53.7	464	90.5	160	26.6	293	88.8	31
Secondary	71.2	90	84.1	138	58.6	88	78.6	32
Initiation								
Yes	68.1***	194	90.3***	113	35.3**	221	65.7	48
No	44.3	388	82.3	205	25.5	200	86.7	23
Ethnicity								
Matrilineal	56.9***	348	85.2*	196	28.1**	260	75.0	41
Patrilineal	52.0	234	87.7	122	38.2	162	75.0	29
Overall	55.6	582	85.9	318	30.5	422	73.5	71

*** =P<0.01 **=p<0.05 * =p<0.10 (Pearson's Chi-squared test) %- weighted n - unweighted

For young single adults premarital sex is highly prevalent, nearly 86 per cent of young men and 74 per cent of young women have had premarital sex. Young men in the south, urban, with primary education, those who had gone through initiation and from a patrilineal society were more likely to have had premarital sex. For females, only education has a significant relationship with premarital sex, with higher rates among those with primary education. However, it should be noted that the overall number of observations for females is only 71, hence it may be difficult to draw reliable conclusions.

6.3.4 Factors associated with premarital sex among ever married

The prevalence of premarital sex can also be measured among the ever married young people. Blanc and Way (1998) propose that young adults who have premarital sex may also marry early. Table 6.5 shows that among adolescent females premarital sex is more prevalent among those resident in the South followed by the Centre, and then urban areas. Secondary and higher education and attendance of initiation ceremonies are associated with higher levels of premarital sex among ever married females.

Table 6.5: Percentage of ever married female adolescents (15-19⁸) and young adults (20-24) who ever had premarital sex by socio-demographic variables, Malawi MKAP 1996.

Socio-demographic variable	Male		Female			
	20-24	n	15-19	n	20-24	n
Region						
North	87.5	39	83.3	46	86.7	127
Centre	89.6	84	77.6	69	67.8	167
South	98.1***	77	83.7***	89	85.2***	182
Residence						
Urban	94.9	93	85.7	85	91.4	210
Rural	93.4	107	81.4***	119	76.6**	191
Education						
None	83.4	32	58.3	56	64.5	119
Primary	97.3	139	86.0	133	85.9	294
Secondary	87.4***	29	100.0**	15	95.8***	63
Initiation						
Yes	95.7	119	82.7	162	82.8	369
No	89.1***	81	78.0***	42	65.1***	107
Ethnicity						
Matrilineal	94.5	135	81.1	132	75.8	275
Patrilineal	89.8***	65	84.0	72	85.5*	201
Overall	93.6	200	81.8	204	78.5	477

*** =P<0.01 **=p< 0.05 * =p<0.10 (Pearson's Chi-squared test) %- weighted n - unweighted

Among ever married young adults a higher percentage of males (94) than females (79) had premarital sex. A lower percentage of married young adult women than adolescent women who ever had premarital sex suggests that young women are more likely to have marital sex

⁸ Only 18 male adolescents were ever married

if they delay first sex. On the contrary, the delay in age at first marriage for males is associated with higher prevalence of premarital sex.

Ever married young males resident in the South, followed by the Centre, had high percentage of premarital sex. Primary, followed by secondary education is also associated with higher percentages of premarital sex. Ever married young men who had gone through initiation and from matrilineal culture also displayed a high percentage of premarital sex. For ever married young female adults, those resident in the urban areas and North, and the South had significantly higher proportions having premarital sex than the other areas. There is also a relationship between higher levels of education and premarital sexual activity.

Overall, the bivariate analyses of the onset of sexual debut and first union show that for young adult men rural residence and attendance at initiation ceremonies are associated with early marriage. There is early marriage for females, however, secondary and higher education is associated with low levels of early marriage. There is also evidence of high premarital sex. There are more males than females engaging in sex before age 18. Among single adolescents premarital sex is associated with secondary and higher education and urban residence. Among married young people, if first sex is delayed, it is likely to be in marriage for females, and premarital for males.

6.4 Discrete Time Hazards Multivariate Logistic Regression Analysis of First Sex

The bivariate analyses of first sex did not control for all confounding variables which are important if one is to estimate the actual contribution of the variables of interest to the risk of first sex. Multivariate analysis helps obtain the net effect of the covariates on the risk of first sex. The discrete time hazards logistic regression model has been used to study the association of the variables of interest with the risk of first sex while controlling for confounding factors. The results of the final models obtained in the analyses are presented in Table 6.6 to 6.7 and 6.8 to 6.9 for males and females separately.

6.4.1 Model of first sex for males

The main interest in this analysis is to examine the relationship between the risk of first sex and covariates such as marital status at first intercourse, education, the timing of first sex, the area of residence, the region of residence, ethnicity, and whether the respondent went through initiation. The model for males presented in Table 6.6 shows that the timing (age) of first sex, region of residence and attending initiation ceremonies, have a significant relationship with the risk of first sex, net of the influence of all factors. Although we have a special interest in premarital sex, it was found not to have a significant relationship with the probability of first sex in the model for males. The marital status covariate was not significantly associated with the timing of first sexual relationship either acting on its own in the main effects part of the model or as an interaction with other covariates.

There are also significant interactions between the timing of first sex and area of residence, initiation, and the region of residence; and between attending initiation and the region of residence. Each pair of interactions is interpreted separately in a graphical format in Figures 6.2 to 6.5. In the interaction part of the models in Tables 6.6 and 6.7, the estimates for the reference categories are held constant at zero, thus they are not shown in the table.

The association between area of residence and risk of first sex by timing of first sex for young males follows almost a uniform pattern for both the urban and rural residents (Figure 6.2). The probabilities of experiencing first sex are slightly higher for males in urban area at all ages between 10 and 19. Therefore living in an urban area is associated with increased probability of experiencing sex at a young age.

Table 6.6 Parameter Estimates for first sex using the Discrete Time Hazards Logistic Regression Model for young males aged 15-24 (based on 7736 person years for age at first sex 10 to 24), MKAPH 1996

Parameter	Estimate	Standard error
Constant	-3.077	0.195
Timing of first sex (years)***		
10-13(ref)	0.000	—
14-15	1.415	0.246
16-17	1.887	0.274
18-19	2.263	0.324
20-24	1.669	0.480
Type of residence		
Urban	0.185	0.176
Rural (ref)	0.000	---
Region***		
North	-1.838	0.381
Centre	-0.349	0.192
South (ref)	0.000	---
Gone through initiation*		
Yes	0.353	0.189
No (ref)	0.000	---
Urban/ Rural Residence and timing of first sex**		
Urban, 14-15 years	0.295	0.225
Urban,16-17 years	-0.253	0.244
Urban,18-19 years	-0.193	0.271
Urban,20-24 years	-0.528	0.376
Initiation and timing of first sex**		
Initiated,14-15 years	0.202	0.227
Initiated,16-17 years	0.185	0.251
Initiated,18-19 years	-0.175	0.286
Initiated,20-24 years	1.021	0.395
Region and timing of first sex***		
North,14-15 years	1.081	0.419
North,16-17 years	1.308	0.439
North,18-19 years	1.909	0.471
North,20-24 years	1.768	0.616
Centre,14-15 years	-0.364	0.232
Centre,16-17 years	-0.212	0.259
Centre,18-19 years	0.213	0.307
Centre,20-24 years	0.740	0.456

*** =P<0.01 **=p< 0.05 * p<0.10

Figure 6.2 Cumulative probability of having first sex by urban-rural residence and timing of first sex (years) for males aged 15-24, MKAPH 1996.

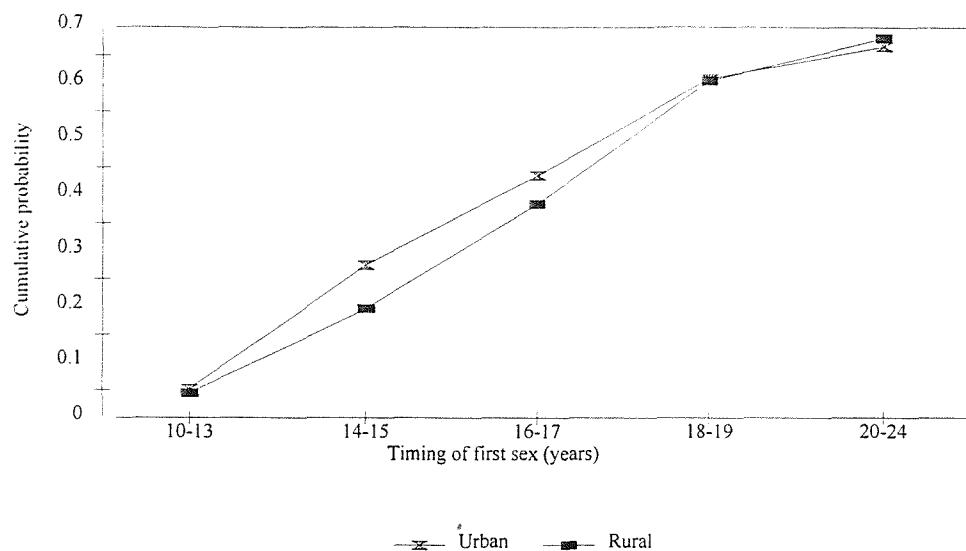
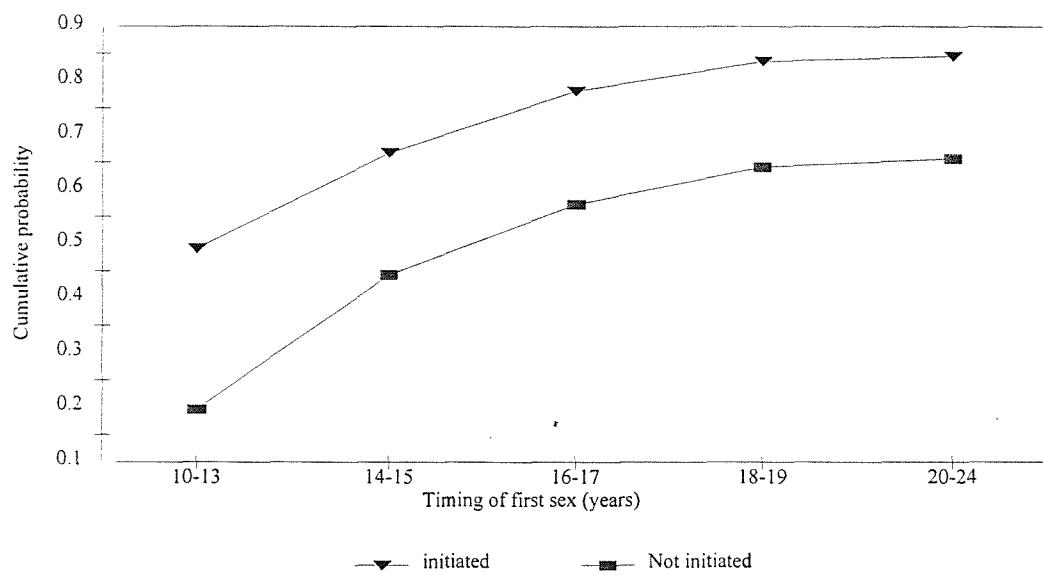


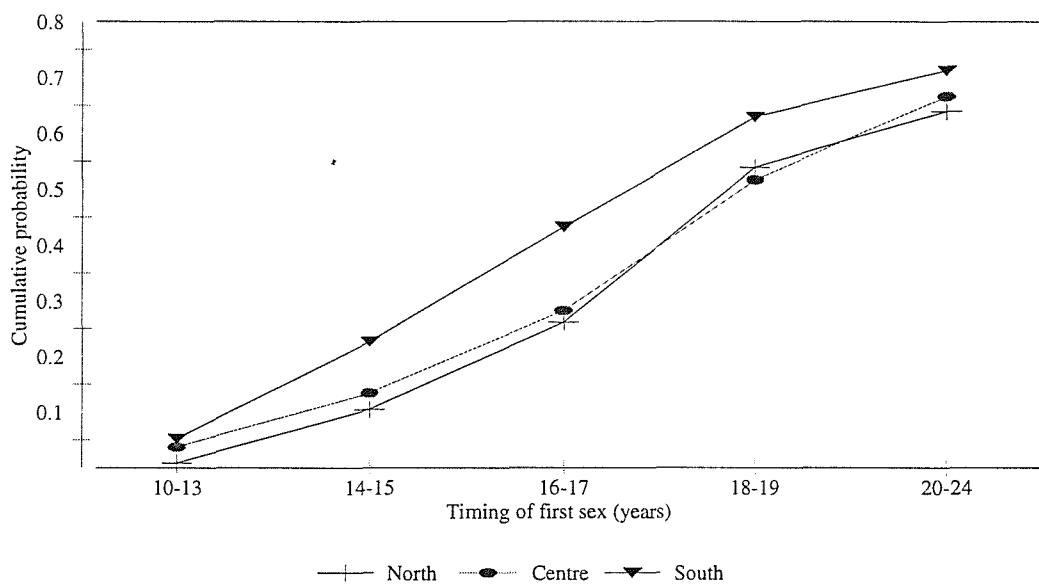
Figure 6.3 Cumulative probability of having first sex by whether one went through initiation or not and timing of first sex (years) for males aged 15-24, MKAPH 1996.



Attendance at initiation ceremonies is associated with early start of sex for young men. Figure 6.3 shows that those young men who had gone through initiation have a higher probability of having first sex at all ages than those who did not. The gap in the cumulative probability of first sex for initiates and non-initiates is wide throughout adolescence and young adulthood. After controlling for all covariates in the model, the results suggest that initiation ceremonies are associated with early sexual activity for males.

The region of residence is also significantly associated with the risk of first sex by age. Figure 6.4 shows that residence in the South is consistently associated with a higher probability of starting sexual activity, followed by the Centre and North for ages below 17 years. After age 17, the probability of first sex for males in the Centre interacts closely with that of the North. Thus, suggesting that high sexual activity is concentrated in the South, with little variation in the other two regions.

Figure 6.4 Cumulative probability of having first sex by region of residence and timing of first sex (years) or males aged 15-24 MKAPH 1996.



The model for young males shows that after controlling for a range of socio-demographic factors, such as marital status at first sex, age, education, area of residence, attendance at initiation ceremonies and ethnicity, it was found that urbanisation, going through initiation and residence in the south are significantly associated with increased risk of first sex.

6.4.2 Model of first sex for females

The factors that have a significant relationship with the risk of first sex for females are examined. The parameter estimates for first sex for females aged 15-24 are presented in Table 6.7. The table shows that the age of the woman, the region of residence, her education status, her initiation status and marital status at first sex are the main variables which determine whether she has started to have sex or not at different ages during adolescence and young adulthood. There are also significant interactions between marital

status at first sex, education with the timing of first sex, and initiation status with education. Rural-urban residence and ethnicity were not found to be significant predictors of first sex for young females.

Table 6.7: Parameter Estimates for first sex using the Discrete Time Hazards Logistic Regression Model for young females aged 15-24 (based on 8611 person years for age at first sex 10 to 24), MKAPH 1996

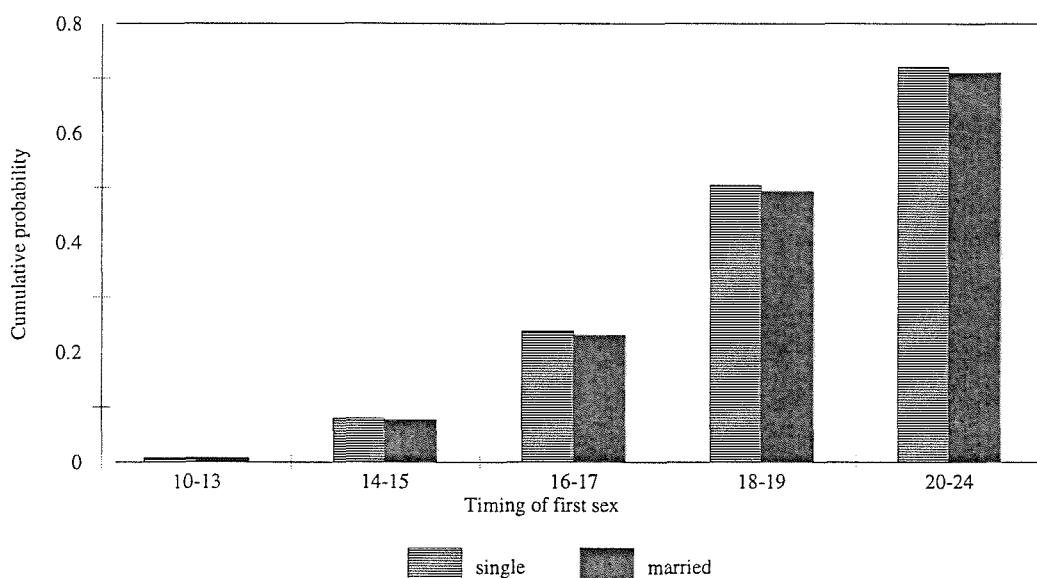
Parameter	Estimate	Standard error
Constant	-4.853	0.591
Timing of first sex (years)		
10-13(ref)	0.000	---
14-15	2.015	0.664
16-17	3.489	0.634
18-19	4.312	0.660
20-24	6.305	0.842
Region***		
North	-0.111	0.105
Centre	-0.372	0.099
South (ref)	0.000	---
Education		
None	1.768	0.525
Primary	0.605	0.495
Secondary and higher	0.000	---
Gone through initiation*		
Yes	-0.174	0.366
No	0.000	---
Marital Status at First		
Single (ref)	0.037	0.366
Married	0.000	---
Marital Status and timing of first sex**		
Single, 14-15 years	0.2506	0.4436
Single, 16-17 years	-0.2443	0.4221
Single, 18-19 years	-0.1188	0.4622
Single, 20-24 years	-1.7400	0.6891
Education and timing of first sex***		
None, 14-15 years	-0.510	0.557
None, 16-17 years	-0.758	0.542
None, 18-19 years	-1.432	0.577
None, 20-24 years	-3.166	0.752
Primary, 14-15 years	0.024	0.528
Primary, 16-17 years	-0.264	0.509
Primary, 18-19 years	-0.256	0.520
Primary, 20-24 years	-0.275	0.615
Initiation and education**		
Initiated, None	-0.039	0.280
Initiated, Primary	0.476	0.232

***=significance at 1% **=significance at 5% * p= significance at 10%

Table 6.7 suggests that a young female is most likely to have first sex if she is resident in the Southern region. The odds ratios (not shown) indicate that in the North she is 11 per cent less likely, and in the Central region 31 per cent less likely to have first sex than in the Southern region. The interpretation of the interaction effects of first sex in the model are presented in Figures 6.5 to 6.7.

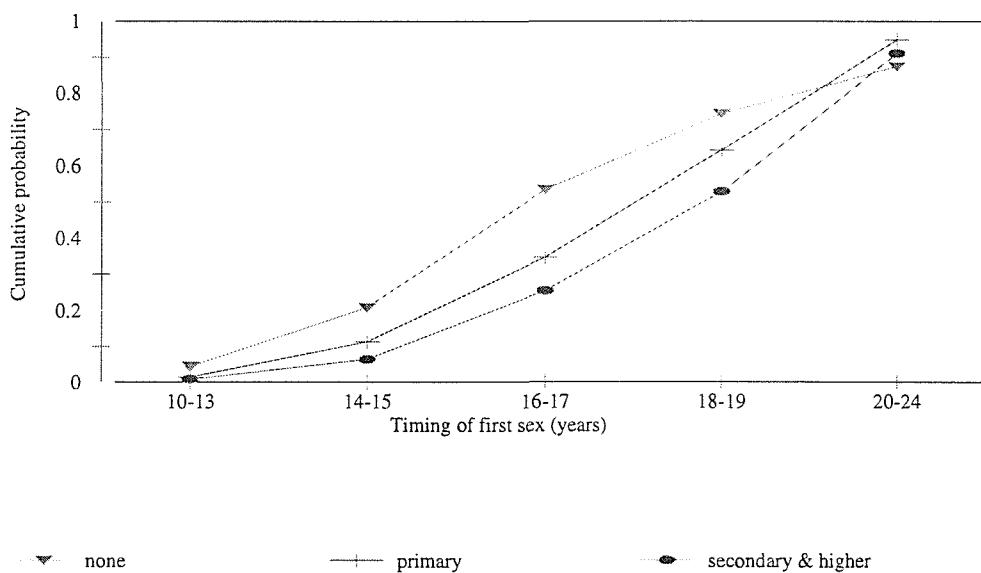
The probability of first sex for females increases with age through their adolescence and young adulthood for both marital and premarital sex. Figure 6.5 shows that there are just as many women having first sexual intercourse within marriage as there are outside marriage. However, the probability of a young female's first sex being within marriage is slightly lower than that of having it premaritally. This suggests that being single does not deter young females in Malawi from engaging in sexual activity.

Figure 6.5 Probability of having first sex by marital status and timing of first sex (years) for females aged 15-24, MKAPH 1996.



There is a relationship between educational status and the risk of experiencing first sex. In Figure 6.6 at all ages the probability of first sex decreases with education. Those with no education have the highest risk of first sex in all age groups.

Figure 6.6 Cumulative probability of having first sex by level of education and timing of first sex (years) for females aged 15-24, MKAPH 1996.



Cumulative probabilities of first sex by initiation status and level of education are calculated to depict the chances of sexual debut at various ages between 10 and 24 years by the two explanatory variables (Table 6.8). Overall, the probability of first sex declines with more education, regardless of initiation status. However, there are different patterns at each level of education according to initiation status. For those with no education the probability of first sex is higher for non-initiates than initiates except for a minor difference for the last age 20-24. For young women with primary education the likelihood of first sex is constantly higher for those who went through initiation than those who did not, at all ages. For the highest level of education, the pattern is opposite to that of young women with primary education.

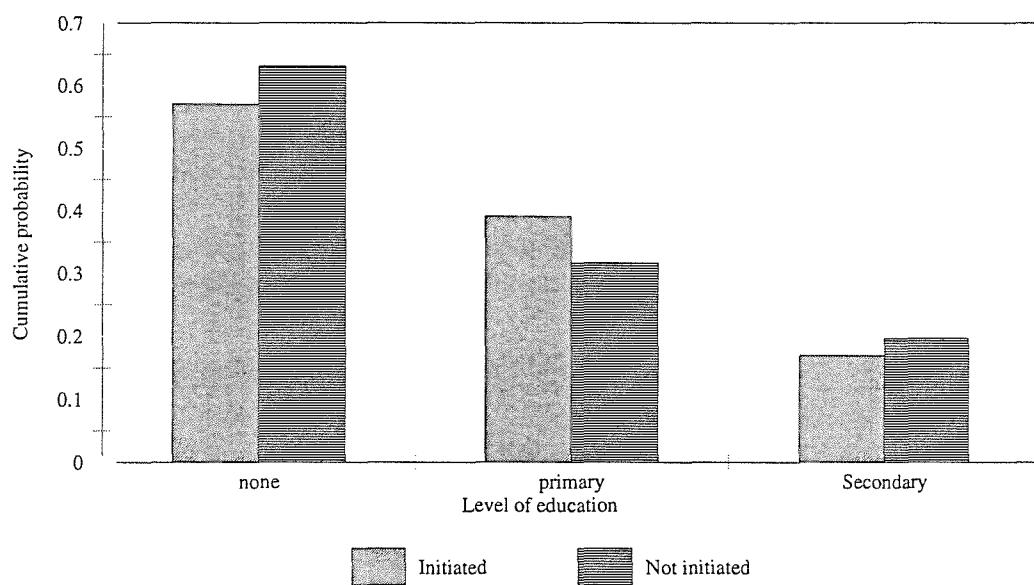
To portray the relationship between education level and initiation the cumulative probabilities up to age 17 are plotted in Figure 6.7. The figure suggests that with no education, initiation is associated with low proportions of first sex. For primary level, those females who have been initiated have higher levels of sexual activity than those who did not. For those with secondary and higher education the probability of first sex is a little higher for non-initiates.

Table 6.8 Cumulative probabilities of first sex at ages 10-24 using results from a Discrete Time Hazards Logistic Regression Analysis for females aged 15-24 (based on 8611 person years) MKAPH 1996.

Parameter		Cumulative probability of first sex between ages 10 & 24				
		10-13	14-15	16-17	18-19	20-24
Education**						
None	Initiation	0.026	0.191	0.4698	0.6687	0.9367
	No initiation	0.032	0.226	0.5229	0.7140	0.9482
Primary	Initiation	0.014	0.109	0.3166	0.5134	0.8855
	No initiation	0.010	0.082	0.317	0.616	0.943
Secondary & higher	Initiation	0.005	0.039	0.170	0.389	0.831
	No initiation	0.006	0.047	0.197	0.437	0.863

** 5% level of significance

Figure 6.7 Cumulative probability of having first sex for females aged 16-17 according to level of education and initiation using results from a Discrete Time Logistic Regression Model (based on 7761 person years for females aged 15-24 and age at first sex 10 to 24)



To summarise, in the discrete time hazards multivariate analysis for females, education clearly stands out as an important factor in delaying first sex. The association between first sex and initiation is weakened by education attendance. The results also show that being single is not a deterrent to having sexual relations for young people in Malawi.

6.5 Discussion

This chapter examined the timing of first sex among young people aged 15 to 24 years in Malawi according to selected socio-demographic characteristics. A summary of significant covariates for discrete time hazards logistic models for males and females is presented in Table A6.1. For males, residence in the urban area, living in the South and going through initiation ceremonies were associated with an early start of sexual relationships. Young females in the South had the highest risk of sexual activity followed by those in the North and then the Centre.

The results of both the bivariate and multivariate analyses have shown that there is higher risk of sexual activity among males than females in early adolescence. Since heterosexual intercourse is the main means of HIV transmission in sub-Saharan Africa, it is intriguing that young women, who are less likely to have first sex than young men, have higher risk of HIV infection compared with males of the same age (Burtleys et al., 1994; NACP, 1996; Zabin and Kiragu, 1998). Female adolescents may be more pre-disposed to the risk of HIV infection than their male counterparts or older women for biological and social reasons. The HIV-1 virus seems to be passed more easily from male-to-female than female-to-male (Burtleys et al., 1994). In addition, the biological immaturity of the adolescent cervix may leave her susceptible to sexually transmitted infections (Moscicki et al., 1990). Alternatively, females may have higher risk of HIV because of having older male sexual partners who may have (had) multiple sexual partners. Consequently, one man may spread infections to several young women (Orubuluye et al., 1991; Meekers and Calvès, 1997). Therefore, it may not be just the amount of sexual activity that matters in the risk to HIV but also physiological factors and the characteristics of sexual partners.

It is possible that conformity responses were given on sexual activity by males and females, whereby boys would report they had sexual intercourse while girls would not admit it. However, despite young men exaggerating the levels of their sexual activity, the pattern of higher levels of sexual activity for young males has been consistent in a number of surveys (Owuamanam, 1995; Kiragu and Zabin, 1995). Hence, it can be concluded that the levels of sexual activity for males through middle adolescence is higher than that of females. The field survey on the social context of sexual behaviour among young people

in Malawi support this view, as illustrated in the following quotations from a matrilineal rural area;

R1: No! ...There's no expert for this, only that if one does not have sex before he gets married, he may blunder when he gets married... It's the same way parents teach children like the ones who are 14 or 15 years household skills like tiling the field, constructing a granary, it's our tradition... when he gets married, the wife's side should not talk ill of him. [Young men, single, matrilineal rural area 1].

R8: They [elders] also talk about sleeping together, that it's not good to sleep with boys because you can catch diseases or get pregnant and he denies you in the end. [Young women, single, matrilineal rural area 1].

Education has been observed to be associated with a delay in sexual initiation only for females and not for males. The probable reason is that those girls who start to have sex at a young age drop out of school due to an early pregnancy or marriage once they have started to have sexual relationships. For adolescent males initiation of sex is not dependent on level of education since they do not face the direct consequences of early pregnancy. Girls who do not initiate early sex are more likely to progress in education. Bozon (1993) found that in general, postponing one's first sexual experience was linked to factors that delay the process of social maturation, such as staying at school longer.

Attainment of higher levels of education was related to lower risks of sexual activity for females. Initiation was also associated with younger sexual initiation, however the association interacted with the level of education with those with primary school having higher probabilities of first sex if they went through initiation. Gage-Brandon and Meekers (1993) observed in six sub-Saharan African countries the prevalence of premarital childbearing to be higher among those with primary school education than those with no or secondary education. Thus, young women with primary level education and gone through initiation seem to be in a transitional stage where delaying effect of sexual experience from education is attenuated.

The Malawi DHS 1992 data show that women have a first birth within a year of their getting into a union. In addition, the MKAPH 1996 showed that once women start to have sexual relationships, they get into a union within a year. Hence, the argument that education conditions values and ideas that favour marriage and childbearing postponement, can be extended to first sex since it seems to mark a definite beginning of

the childbearing process. Of course, other researchers have argued that delaying marriage prolongs adolescence, and increases the chances of premarital sexual relations (Caldwell et al., 1998; Cohen and Bledsoe, 1993; Singh and Samara, 1996). However, the bivariate analysis showed females were more likely than males to have first sex within marriage if they delayed it until late adolescence. The results of multivariate analysis indicated that at first sex there were just as many females married as there were not yet married throughout adolescence.

Going through an initiation ceremony is linked with early sexual activity. The findings of qualitative research from a matrilineal area where initiation practices are common indicated that attendance at initiation ceremonies, especially among boys, seems to promote early sexual activity;

R3: So when you've become of age, they tell you that you've grown up, sleeping with a girl... they explain to you how it should be. Just like for girls are told at the initiation ceremony how to make a boy like her. They are told what to do when having sex...(laugh) ... that's what they tell them.
R1: They also tell us not to sleep with a girl who's menstruating because you catch dangerous disease...

R3: ... that make one grow thin- 'kaliwondewonde'. [Young men, single, matrilineal rural area 1].

Contrast this with the views of young women in the urban areas on initiation ceremonies as a source of information on reproductive issues;

R4: I feel it's not a good method because most of the time at initiation ceremonies...the children know 'big' things.

R5: They may tell a child who has just become of age that she can have sex with anyone.

R3: Others tell her to go and find a boyfriend. [Young women, single, urban area 2].

Although the exact content of messages given at initiation ceremonies is not clear, there is no doubt that they teach how to have sex, hence making initiates curious to experiment with sexual intercourse.

It should be noted that there are different types of initiation ceremonies in the three regions of Malawi. The main point of departure is the message that is imparted to the initiates during the ceremony. In the south, which is predominantly matrilineal, an initiation ceremony would be elaborate and the message would include sex education, sometimes graphical in nature (Zulu, 1996). Disapproving of the content of the initiation ceremonies,

some churches in Malawi have been conducting their own ceremonies with modified sexual content (Kornfield and Namate, 1997; World Bank c.1997). Thus, the beliefs and values of parents and initiation counsellors regarding young people's sexual behaviour need to be understood.

In the central region, where the majority of the residents are matrilineal Chewas, the initiation would be into the *Gule Wankulu (Big Dance)* cult. The cult is more concerned with traditional African spirituality than with sex education. In the north, which is mainly patrilineal, pubescents would normally be given some advice by an elder member of the extended family and the emphasis of the information imparted would be to deter sex. Being a patrilineal society where the wife goes to join her husband in his village upon marriage after payment of *lobola* (bridal price), a large fine can be imposed by a girl's family if a young man is responsible for a premarital pregnancy. The cost is not just to the individual young man but to the wealth of the family since cattle are usually used as a bridal price. Consequently, young men in the north would be strongly discouraged from early sex for fear of the penalty from the girl's family.

The results of this chapter need to be treated with caution due a potential degree of unreliability of reported age at first sex. Some respondents may report 'normative' ages at first sex which may not be easily verified. The covariates in the analysis were based on information collected from the respondents at the time of the survey, which may not have been the same during the formative years of the respondent. This may be a source of potential negative causality. For a robust causal analysis of adolescent sexual behaviour longitudinal data need to be collected on the whether participants have had first sex or not, and take note of their socio-demographic characteristics at various points in time.

Overall, the results of the analysis in this chapter show that high levels education are associated with lower risk of early initiation of sexual activity between ages 15 and 19 years for females. For males, regional differentials exist with those from the predominantly matrilineal south more likely to initiate sex early. Attending initiation ceremonies appears to be associated with early sex among males and females, but its effect is dependent on the level of education for females. Hence, the area of residence is important in its association with first sex for males whilst education seems to be the more important factor for females.

These results raise the need to understand the social context of sexual behaviour among young people in Malawi, especially initiation and other cultural practices in different parts of Malawi, the value of education and other factors which may encourage early start of sexual activity. The next chapter looks at factors associated with contraceptive use among young females in Malawi.

CHAPTER SEVEN

CONTRACEPTIVE BEHAVIOUR OF YOUNG FEMALES IN MALAWI

Evidence from the developing world shows that in many regions sexually active young people are less likely to use contraception than adults (McCauley and Salter, 1995). In sub-Saharan Africa, evidence from Kenya and Malawi shows that although there has been an increase in contraceptive prevalence rates, the proportion of users among young women remain consistently lower than in the older age groups (Lema and Thole, 1994, Lema et al., 1998; Toroitich-Ruto, 1998). This low contraceptive use obviously implies that sexually active young women are likely to be exposed to the risk of unplanned and unwanted pregnancies and sexually transmitted infections (STIs).

Low contraceptive use among young women can be attributed to both programmatic and individual factors. In Malawi, family planning services were traditionally restricted to married women and the more permanent and reliable methods of family planning were restricted to older women. Women who sought surgical methods had to have the consent of the husband. However, in 1992 the Malawi Government lifted all restrictions based on parity, age and marital status (MoHP and NFWCM, 1996). Consequently, contraceptives became available to adolescents and young adult women. Despite the changes in policy other important factors such as inadequate supply and negative attitudes of staff may act as a barrier to contraceptive adoption by young women. Programmatic factors regarding contraceptive use are discussed in Chapter eight.

At the individual level, the low prevalence rate of contraceptive use may be due to the desire to have a child or the cost and perceived side effects of the methods. Furthermore, adolescents are more likely than adults to have spontaneous and irregular intercourse, as well as inadequate knowledge of the ovulatory cycle, and knowledge of effective use of the methods (Blanc and Way, 1998; McCauley and Salter, 1995).

This chapter examines issues of contraceptive behaviour among young women aged 15-24 years in Malawi. The chapter is divided into five main sections. The first section (7.2)

describes the data and methods used in the analysis. The second and third sections (7.3 and 7.4) explore contraceptive use and method choice. The fourth section (7.5) investigates the demand for contraception with an emphasis on unmet need. The last section (7.6) summarises and discusses the main results.

7.1 Data and Methods

The 1996 Malawi Knowledge, Attitudes and Practices in Health Survey (MKAPH) is the first survey conducted after the government's reorientation from child spacing, aimed at prolonging birth intervals, to a family planning programme with an objective to encourage the limiting of fertility for women. One of the main objectives of the 1996 MKAPH survey was to provide estimates of family planning usage in Malawi.

In the analyses in this thesis, contraceptive use is viewed as a two-step process. First, a young woman decides whether or not to use contraception. If she chooses to use contraception, the second step is to choose a type of method. Therefore, the second step of the analysis: that of choosing a contraceptive method includes a subset of only those women who choose to use a contraceptive method. Further analysis is carried out to determine the need for contraception, as indicated by three possible options: young women currently using contraceptives, those with an unmet need and those not in need of contraception. The reasons that prevent young women who are at risk of conception not to use contraception are also identified.

7.1.1 Logistic Regression Model for contraceptive use

The first step, whether or not a woman chooses to use a contraceptive method is modelled using a binomial logistic model. The binomial logistic regression has been widely used in demography to model phenomena such as mortality (dead or alive) and contraceptive use (use or non-use). The probability of using contraception is denoted by P . The observed value of the response variable is 1 if the young woman is currently using contraception and 0 otherwise. Logistic regression, more commonly known as *logit regression*, is a statistical model used to describe the relationship between a binary dependent variable and several predictor variables. The independent variables can be continuous, categorical or a blend

of the two (Retherford and Choe, 1993). The odds ratios for sub-groups of a categorical variable can be estimated. In general, an odds ratio greater than one means a higher chance of using contraception for that category and an odds ratio of less than one suggests a lower chance of using contraception than that of a designated reference category. The statistical software used in this thesis to fit the logistic regression model of contraceptive use is the Statistical Package for the Social Sciences, SPSS (SPSS Inc., 1999).

7.1.2 Multinomial Logistic Regression

The second stage involves estimating the probability that a young woman chooses a particular method of contraception. The response variable then is contraceptive method choice. Unlike the probability of using contraception which is binary (use or non-use), contraceptive method choice has more than two categories. The categories are mutually exclusive and exhaustive- a member of the sample population can only belong to one of the categories (Retherford and Choe, 1993). Statistical software which have been used in the modelling of multinomial regression include SAS, STATA and recently SPSS. SPSS is used in this thesis in the analyses of method choice and contraceptive need status (SPSS, inc. 1999).

In multinomial logit regression, the most convenient way to present the effects of predictor variables is through estimated probabilities. These can be calculated as follows:

$$P_1 = \frac{e^{a_1 + b_1 A + c_1 B + d_1 C}}{1 + \sum_{j=1}^2 e^{a_j + b_j A + c_j B + d_j C}} \quad (6.1a)$$

$$P_2 = \frac{e^{a_2 + b_2 A + c_2 B + d_2 C}}{1 + \sum_{j=1}^2 e^{a_j + b_j A + c_j B + d_j C}} \quad (6.1b)$$

$$P_3 = \frac{1}{1 + \sum_{j=1}^2 e^{a_j + b_j A + c_j B + d_j C}} \quad (6.1c)$$

Or simply, $P_3 = 1 - (P_1 + P_2)$.

Assume that the response variable is method choice, categorised as:

P1: estimated probability of using condom;

P2: estimated probability of using other modern methods;

P3: estimated probability of using traditional methods (reference category); and

there are three independent variables A, B, C.

The probabilities are constructed by placing the appropriate combinations of values for variables of interest in equations 6.3. It is an arbitrary decision as to the values to be put into 6.3 for the other variables. Diamond et al. (1999) argue that the mean is an appropriate value.

7.2 Current contraceptive use amongst young women

This section presents the results of the analysis of the factors which are associated with contraceptive use among young women in Malawi. The variables which have been used in the analyses are: the number of living children, the age of respondent, whether a young woman had ever given birth, the level of education, ethnicity, whether she was in a union or not, region, type of residence, media exposure and the acceptability of the message. First, the pattern of contraceptive use according to each explanatory variable is examined. Second, multivariate logistic regression analysis is conducted to study the relationship between the factors and contraceptive use controlling for all the other variables.

7.2.1 Preliminary analyses of current contraceptive use

Table 7.1 summarises use of contraception by young women in Malawi by various socio-demographic variables. Chi-squared tests are performed to show the association of the explanatory variables with contraceptive use. In general, the table shows that almost 21 per cent of sexually active young women aged 15-24, who were not pregnant at the time of the survey, were using contraception. Age, number of living children and education are positively associated with contraceptive use. Being in a marital union and 'ever given birth' are related to higher levels of contraceptive use. Exposure to the media has a positive influence on contraceptive use; young women who were exposed to child spacing messages in the last month and found child spacing messages on the radio acceptable also

had higher percentages of contraceptive use. Of the two cultural factors, use of contraceptive use was higher among patrilineal females, whilst there was no difference in current use between those who have attended initiation and those who had not.

Table 7.1 Percentage distribution of non-pregnant young women aged 15-24 who ever had sex currently using contraception by socio-demographic variables, Malawi, MKAPH, 1996.

Socio-demographic variable	Percentage of users	Number of young women
Number of living children***		
None	12.0	254
One	21.5	266
Two or more	33.0	186
Age of respondent***		
15-17	15.3	114
18-19	12.8	165
20-24	26.2***	430
Ever given birth***		
Yes	24.3	495
No	13.2***	214
Education***		
None	13.0	156
Primary	23.8	424
Secondary & higher	37.7***	129
Ethnicity***		
Matrilineal	17.7	409
Patrilineal	29.5***	300
Been through initiation		
Yes	20.8	526
No	21.8	183
Household amenities		
Low	22.0	301
High	20.1	408
Respondent in union***		
Not in Union	14.5	241
In union	24.1***	468
Region of Residence**		
North	32.1	168
Centre	23.8	247
South	17.0**	294
Type of Residence**		
Urban	28.9	357
Rural	19.9**	352
Heard Child Spacing Message in the last month***		
Yes	26.9	397
No	15.9***	312
Child Spacing message on radio acceptable?***		
Yes	23.3	636
No/Don't know	5.8***	73
Overall	21.2	709

Note: n-unweighted data % - weighted data *** = $p < 0.01$ ** $p < 0.05$ * $p < 0.10$

7.2.2 Logistic regression model for current use of contraceptives

The results of the logistic regression analysis for current use of contraceptives among young women in Malawi are presented in Table 7.2. The table shows the parameter estimates for each of the socio-demographic variables. The parameter estimates are presented together with their standard errors, odds ratios and the confidence intervals of the odds ratios. The table shows that number of living children, age, education, ethnicity and type of residence have a significant influence on contraceptive use.

Contraceptive use rises with increasing level of education. The association between education and fertility has been widely documented (for example Bledsoe and Cohen, 1993; Diamond et al., 1999a; Gupta and Leite, 1999). Since a reduction in fertility is related to increased use of contraception, the positive relationship observed between education and contraceptive use may correspond to fertility change. A young woman with no education is 70 per cent less likely to use contraception than one with secondary and higher education. The odds ratios are reduced to 33 per cent less likely for those with primary education.

There was a significant interaction between the number of living children and union status in their association with contraceptive use. The easiest way to interpret the interaction is to plot a graph of estimated probabilities for each pair of interaction factors whilst the value of all the other variables is held at their mean.

Table 7.2 Parameter estimates for the Logistic Regression for current use of contraception for young women aged 15-24, Malawi, MKAPH 1996

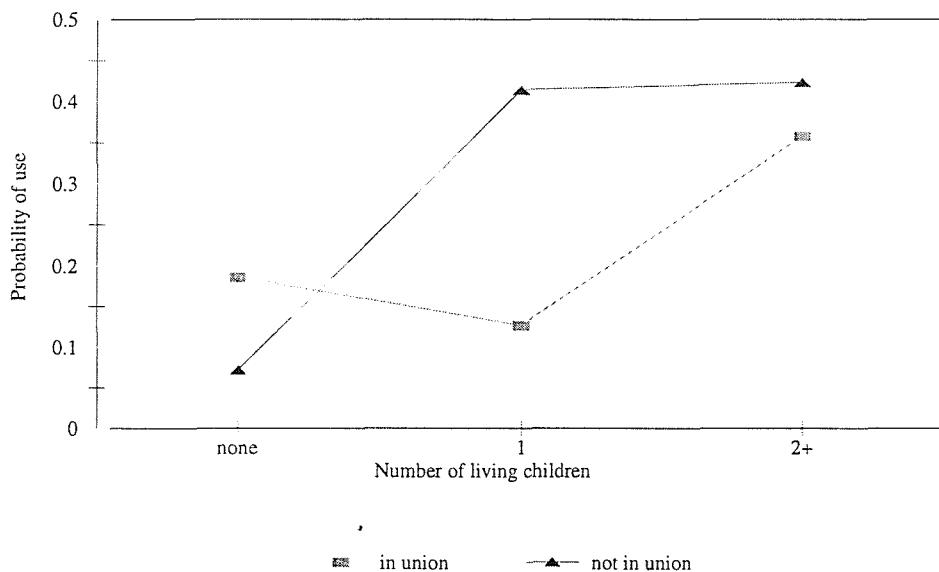
Socio-demographic variable	Estimate (std error)	Odds ratio	95% Confidence Interval
Constant	1.126 (0.525)	-	
Number of living children ***			
None	-2.252 (0.445)	0.105	0.04 - 0.25
One	-0.378 (0.243)	0.963	0.60 - 1.55
Two or more (R)	0.000	1.000	1.00
Education ***			
None	-1.185 (0.357)	0.306	0.15 - 0.62
Primary	-0.404 (0.262)	0.668	0.40 - 1.12
Secondary & higher (R)	0.000	1.000	1.00
Ethnicity **			
Matrilineal	-0.638 (0.227)	0.528	0.34 - 0.82
Patrilineal (R)	0.000	1.000	1.00
Type of Residence **			
Urban	0.489 (0.236)	1.630	1.03 - 2.59
Rural (R)	0.000	1.000	1.00
Union & no. of living children***			
single, none	1.356 (0.740)		
single, one	1.312 (0.687)		
(Reference categories)~	0.000		

*** =significant at 1% **=significant at 5% * =significant at 10% (R)=Reference Category

~ includes the reference categories in the main effects part of the model set at zero.

The relationship between number of living children and union status with contraceptive use is shown in Figure 7.1. For those young women in a union and with no children, the estimated probability of contraceptive use is twice that for their single counterparts. After the first child it declines to 0.12, and finally increases to 0.35 for after two or more children. Thus, young women not in a union have higher rates of contraceptive use after first child than those in a union.

Figure 7.1: Estimated probabilities of current use of contraception among young women aged 15-24 by number of living children and union status, Malawi MKAPH 1996.



In summary, higher levels of education are associated with an increased probability of contraceptive use. The probability of contraceptive use is lower for the single and childless, but once they have a child, the likelihood of use becomes higher for married young women.

7.3 Contraceptive Method Choice

This section investigates the socio-demographic factors associated with contraceptive method choice among young women in Malawi. The analysis is based on the sub-set of contraceptive users; 21 per cent of young women were using contraception in the 1996 MKAPH. This yields about 190 cases, and as such some categories of the explanatory variables used in the analyses for contraceptive use were combined to have a minimum of five per cent in each cell for reasonable analysis. The section is divided into two sections, the first presents the preliminary results of an analysis of contraceptive method choice. The second part describes a multivariate analysis of the factors that have an influence on contraceptive method choice among young women in Malawi.

In general, when sexually active women start to use contraception, they shift from coitus related methods (e.g condom) to more permanent, or long acting and effective methods of contraception (e.g the pill). This shift is a function of time which is positively related to

the number of children and age (WHO, 1994). On a global scale, with very few exceptions, the most commonly used method among adolescents is the condom, although in some countries the pill is also reported (Morris et al, 1995 cited by Blanc and Way, 1998). Factors expected to have an association with method choice in this thesis are the number and sex of children, the age of the woman, education, ethnicity, marital status, the duration of a union, whether the intention is to limit or space births, the duration of use of contraceptive methods, residence, and exposure to media messages.

7.3.1 Preliminary analysis of contraceptive method choice

It is observed in Table 7.3 that a higher proportion of young women use modern than traditional methods of contraception. The pill was the most popular method of contraception (27 per cent), followed by the condom (22 per cent) and the injection was used by 13 per cent of young women. Less than two per cent used sterilisation and the IUCD. Of those using traditional methods the string⁹ was the most widely used (14 per cent) followed by the natural method (12 per cent) and withdrawal (10 per cent).

Table 7.3 Percentage distribution of contraceptive users by type of method used, among young women aged 15-24, Malawi, MKAPH, 1996.

Method used	Percentage
Pill	27.2
Condom	21.8
Injection	12.8
Female Sterilisation	1.9
IUCD	0.3
<i>Modern Methods</i>	<i>64.0</i>
String	14.1
Natural Method	12.4
Withdrawal	9.6
<i>Traditional Methods</i>	<i>36.1</i>
All users	100.0 (189)

⁹

Herbally treated strings or beads ('mkuzi/chingwe' or 'mphinjiri') tied around the waist of a woman and believed to ward off fertilisation and thereby pregnancy. The number of beads or knots on the string is supposed to represent the number of years the woman wants to be under contraception. The husband ties the string around her waist (Demographic Unit, 1987).

Table 7.4 shows the results of a bivariate analysis of the relationship between contraceptive method choice and the various socio-demographic factors. Methods are categorised into three groups: 'other modern¹⁰', 'condom' and 'traditional'. The table shows that those who were aged 20-24, were in a marital union, had a long duration of marriage and had two or more children are likely to use modern contraceptives. At first use of contraception young women with no children are likely to use the condom.

¹⁰ 'Other modern' category includes contraceptive methods such as the pill, injection, female sterilisation and the IUCD.

Table 7.4 Percentage distribution of contraceptive users by socio-demographic characteristics according to type of method used, Malawi MKAPH 1996.

Socio-demographic variable	Type of Method used				No. of young women
	Other Modem	Condom	Traditional	Total	
Number of living children					
None to One	25.9	30.9	43.2	100.0	114
Two or more	63.9***	9.8	26.2	100.0	74
Age of respondent					
15-19	21.1	36.8	42.1	100.0	46
20-24	49.5***	16.2	34.3	100.0	143
Sex of surviving children					
More girls	54.3	8.6	37.1	100.0	59
More boys	42.6	12.8	44.7	100.0	61
None/equal	35.0**	35.0	30.0	100.0	68
Education					
Secondary & higher	55.0	30.0	15.0	100.0	44
None & Primary	40.7	20.3	39.0	100.0	145
Ethnicity					
Matrilineal	37.6	22.4	40.0	100.0	86
Patrilineal	48.3	20.7	31.0	100.0	103
Been through initiation					
Yes	45.7	17.1	37.1	100.0	143
No	32.4*	35.1	32.4	100.0	46
Respondent in union					
Not in Union	13.8	58.6	27.6	100.0	44
In union	49.6***	12.4	38.1	100.0	145
Duration of union					
0- 2 years	13.6	47.7	38.6	100.0	61
2-4 years	51.6	16.1	32.3	100.0	49
More than 4 years	56.1***	7.6	36.4	100.0	79
Number of children at first use					
None	8.8	58.8	32.4	100.0	41
1 child	40.0	12.9	47.1	100.0	105
More than 1 child	75.0***	5.0	20.0	100.0	43
Intention at 1st use					
To space	45.1	19.7	35.2	100.0	164
To limit	35.7	35.7	28.6	100.0	22

Table 7.4 (continued)

Table 7.4 (continued)

Socio-demographic variable	Type of Method used				No. of young women
	Other Modern	Condom	Traditional	Total	
No of months using					
6 months and less	48.1	22.2	29.6	100.0	100
7-12 months	53.5	20.9	25.6	100.0	54
Over a year	34.2	21.9	43.8	100.0	35
Region of Residence					
North	32.0	32.0	36.0	100.0	63
Centre	46.6	19.0	34.5	100.0	70
South	43.3	20.0	36.7	100.0	56
Type of Residence					
Urban	46.2	26.9	26.9	100.0	114
Rural	41.0	20.5	38.5	100.0	75
Heard CS Message in the last month					
Yes	47.1	20.7	32.2	100.0	128
No	34.5	23.6	41.8	100.0	61
CS message on radio acceptable?					
Yes	43.1	21.9	35.0	100.0	179
No/Don't know	16.7	16.7	66.7	100.0	10
Overall	43.4	26.5	30.2	100.0	189

Note: The numbers are based on unweighted data and percentages on weighted data

***significant at 1% ** significant at 5% *p significant at 10%

There is some evidence that method choice is associated more with the parental satisfaction of the sex distribution of their children than with the preference of sex (Arnold, 1997). The association between sex of surviving children and contraceptive method choice is not straightforward. Young women with more daughters surviving seem to be more likely to use modern contraceptives, whilst those with more sons surviving use traditional methods. Young women who had no children or who had an equal gender balance of children are more likely to be using condoms.

Those who had been through initiation had a higher percentage of use of 'other modern' as well as traditional methods but were less likely to use condoms. The rest of the covariates in the bivariate analysis were not significantly related to method choice.

7.3.2 Multinomial Logistic regression results of contraceptive method choice

The results of the multinomial regression are presented in Table 7.5. The table shows that education, initiation, union status, duration of union and the number of children at first use of contraception have a significant influence on method choice among young women in Malawi.

Table 7.5 Estimated probabilities of contraceptive method choice by socio-demographic characteristics, MKAPH 1996

Socio-demographic variable	Type of Method used			
	Other Modern	Condom	Traditional	Total
Education				
None/Primary	0.382	0.220	0.398	1.00
Secondary & higher	0.691	0.133	0.176	1.00
Been through initiation				
Yes	0.400	0.209	0.392	1.00
No	0.625	0.171	0.204	1.00
Respondent in union				
Not in Union	0.377	0.434	0.189	1.00
In union	0.458	0.153	0.388	1.00
Duration of union				
0-2 years	0.259	0.321	0.420	1.00
2-4 years	0.553	0.201	0.246	1.00
More than 4 years	0.556	0.128	0.317	1.00
Number of children at first use				
None	0.184	0.357	0.460	1.00
1 child	0.413	0.261	0.326	1.00
More than 1 child	0.800	0.037	0.166	1.00

The choice of a particular method differs by level of education. Young women with secondary or higher education are more likely to choose 'other modern' contraceptives than women without secondary education. Those with no or primary education have almost equal probabilities of using traditional methods and modern contraceptives. Both education sub-groups are less likely to use the condom, although the probability of use is slightly higher for those with no or primary education than for those with secondary and higher education. Perhaps the less educated women are more likely to use condoms because

they get them free from government health facilities. Since it is a male method of contraception, the association may be related to the characteristics of their partners.

Initiation status has a similar pattern to that of education, whereby women who had gone through initiation rites have are less likely to use modern methods of contraception. Education and non-attendance at initiation ceremonies are associated with modernisation. The analysis indicates that when young women go through the process of modernisation they tend to use modern methods, whereas those undertaking traditional practices are divided between use of modern and traditional methods.

Being in a union is associated with an increased chance of using 'other' modern contraceptives. Married young women also have a higher probability of using traditional methods than single women. Traditional methods such as rhythm, withdrawal and string, by their nature demand the cooperation of a partner in a stable relationship. Thus, the results suggest that single women have a higher likelihood of using the condom perhaps because sexual relationships may be spontaneous and sporadic.

Long duration of union is associated with increased probability of using modern contraceptives. The probability of using modern contraceptives at two years of being in a union more than doubles within two years. However, the likelihood of using condoms and traditional methods decreases with duration of marriage. The use of condoms reduces monotonically with longer marriage durations whilst, the probability of traditional methods increases, after four years of marriage.

Opposite patterns are portrayed by the variable indicating the number of children at first use. As the number of children increases there is an increased probability that modern contraceptives will be the method used, whilst that of traditional methods and condoms decrease. However, there are higher probabilities of using traditional methods than condoms at all parity levels. It is possible that, as women have more children, they have more access to modern contraceptives from maternal and child health clinics. They may then switch from less effective methods of contraception to more effective ones.

To summarise, young women with higher levels of education or those who have not gone through initiation are likely to use modern methods of contraception other than the

condom. Those in a marital union have a higher probability of using modern methods as well as traditional methods than their single counterparts. Single women are most likely to use the condom followed by traditional methods. The longer the marital duration, the higher the use of other modern methods, but the lower the use of condoms.

7.4 Need and use of contraceptives

It is important in family planning programmes to identify those young women at risk of conception but not currently using contraception. Strategies can then be devised to motivate them to use contraceptives. The examination of the contraceptive behaviour of young people is not necessarily limited to contraceptive users only but also those not in need of contraceptives and those having unmet need for contraception. This classification helps to determine the current and potential demand for contraception, and also identify the reasons for not using any contraception. This section is divided into three sub-sections describing: unmet need (7.5.1); reasons for not using contraceptives (7.5.2); and the factors of the need and use of contraceptives among young women in Malawi (7.5.3).

7.4.1 Unmet need

Unmet need refers to those women who want to stop or delay childbearing but do not use contraception (Bongaarts and Bruce, 1995). Most definitions of unmet need include only married women. However, this definition is of limited use for many family planning programmes where the programme planning is carried out on the basis of all women of reproductive age (Westoff and Bankole, 1995). Various analyses in this thesis have shown that single women are also sexually active, hence potentially in need of contraception. In Malawi, the Family Planning Programme has lifted all restrictions on method provision pertaining to age and marital status (MoHP and NFWCM, 1996). Therefore, it makes sense to include all young women who are sexually active in the calculation of unmet need.

In this thesis unmet need is estimated for fecund women who have had sex within the last month, or pregnant or amenorrheic women whose pregnancy was unintended (mistimed or unwanted). Usually, unmet need is categorised into that for limiting and that for spacing. However, the MKAPH 1996 did not separate limiting and spacing, so the unmet need calculated may not reflect the actual category of need at various stages of childbearing. Since childbearing starts early in Malawi, it is possible that some women may wish to stop having children before they get to age 25.

7.4.1.1 The estimation of unmet need

The process of estimating unmet need used in this study is illustrated by the algorithm in Figure 7.2. The figure begins with a sample of all young women who had ever had sex and progressively eliminates categories of young women who have met their need for contraception. First, women currently using a method of contraception are eliminated from the process of classification. Then those not currently using any method of contraception were considered and two alternative paths were followed: those who were currently pregnant or amenorrheic and otherwise. Those women whose pregnancy was intentional were classified as not having unmet need and left the process of classification. Unintended pregnancies were categorised as having an unmet need, this is the first component of unmet need in this analysis. It should be noted that five per cent (n=45) of the young women did not state the intentions regarding their pregnancies and they were eliminated from the calculation.

The second route follows nonusers of contraceptives who were neither pregnant nor amenorrheic and were classified either as fecund or infecund¹¹. The infecund were removed from the classification since they were not at risk of getting pregnant. Those who were fecund but did not have sex in the last month were also removed. One month was used as a proxy measure for the risk of conception in the current menstrual cycle. Next, young women who had sex in the last month and wanted to have children were removed.

¹¹

A woman neither pregnant nor amenorrheic if she has been married for at least five years; not used contraception, and have not had birth in the last five years; or who have never menstruated at all or in the last twelve months; or who reported they could not give birth; or reached menopause or had hysterectomy (Macro International, 1994).

The second component of unmet need is the group of women who had sex in the last month but did not state that they wanted to have children.

Using this algorithm, the proportion of young women with an unmet need was estimated at 22.5 per cent, comprising 4.3 per cent for unintended pregnancies, and 18.2 per cent for current non use of contraception. In comparison, the unmet need for all women of childbearing ages (15-49 years) was 21.6 per cent- composed of 5.9 per cent with an unintended pregnancy and 15.7 per cent in need of contraceptives. Hence, there is very little difference in the unmet need between young women (15-25) and those aged over 25.

7.4.2 Reasons for non-use of contraceptives among young women

In family planning programmes, it is also important to know the reasons given for not using a method of contraception in order to develop strategies to motivate adoption and maintenance of contraceptive use. In the 1996 MKAPH all women who were not using contraception were asked for the main reasons for not using contraception.

A limitation of the 1996 MKAPH data is that no question on future intentions of use was asked. In addition, for those who stated that they were not using any contraception because they wanted to have children, there was no indication on the desired timing of their next pregnancy.

Figure 7.3 shows that the most prevalent reasons for not using contraception among those aged 15-24 were pregnancy, amenorrhoea or the desire to have a child, reported by approximately 60 per cent of the young women. This is not surprising as the young women are in the early stages of their childbearing period. Tuoane (1999) also noted that in Lesotho, as in other African countries, the most common reason for contraceptive non-use given by women of reproductive age was the desire to have children.

The second most important reason given for not using contraceptives was 'not married or infrequent sex' (21 per cent). It would not be expected for someone who is not sexually active to be using contraceptives. However, the analysis on sexual behaviour of respondents in this category showed that about 40 per cent had sexual intercourse in the last month. This is a cause for concern since the young women may perceive themselves not to be in need of contraceptives when they are actually at risk of getting pregnant. What

would be of interest is to know if they intend to use contraception in future in order to determine future demand. However, there was no question on future intentions to use contraception in the MKAPH survey.

Figure 7.2: Components of unmet need for contraception among young women aged 15-24 who ever had sexual intercourse: Malawi, MKAPH 1996.

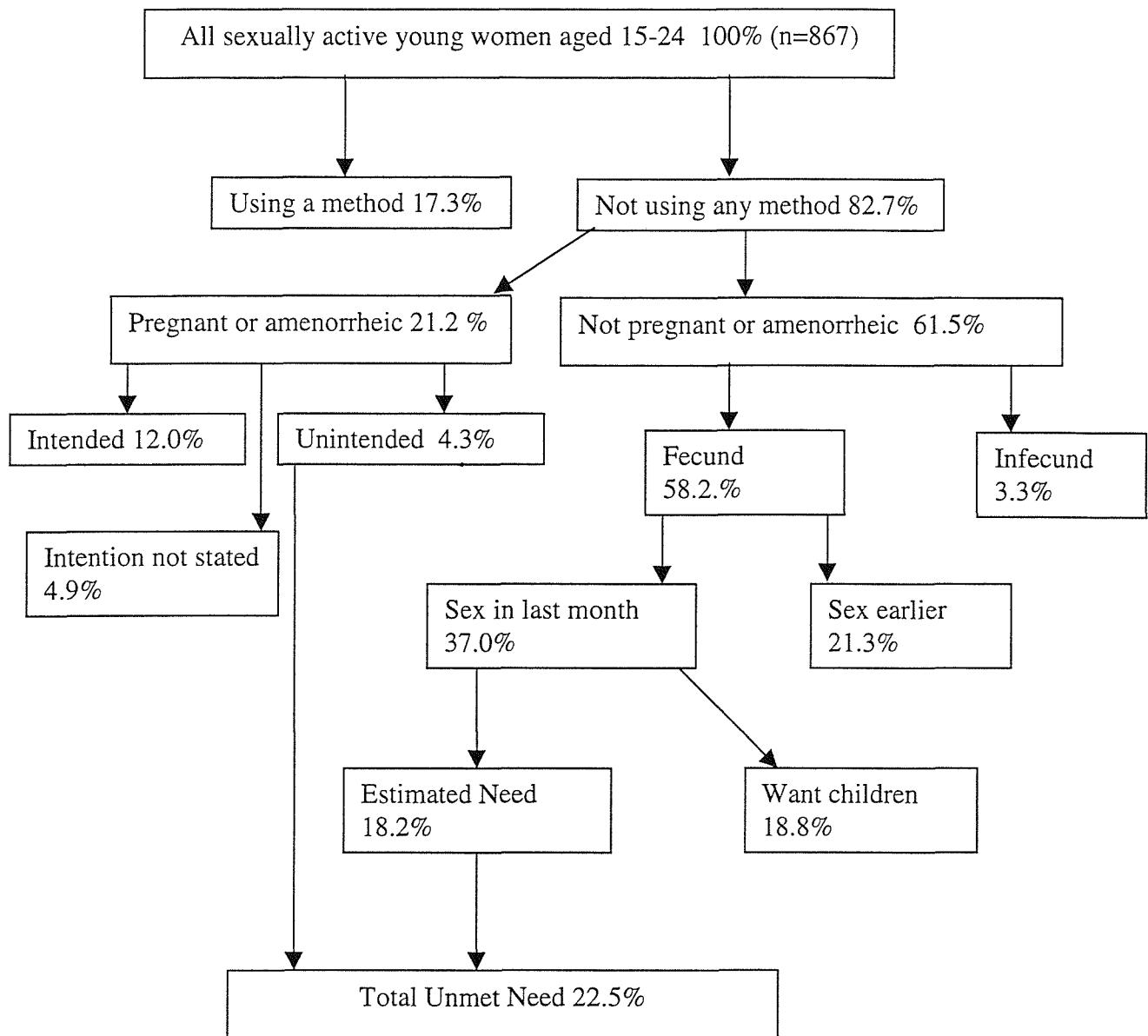
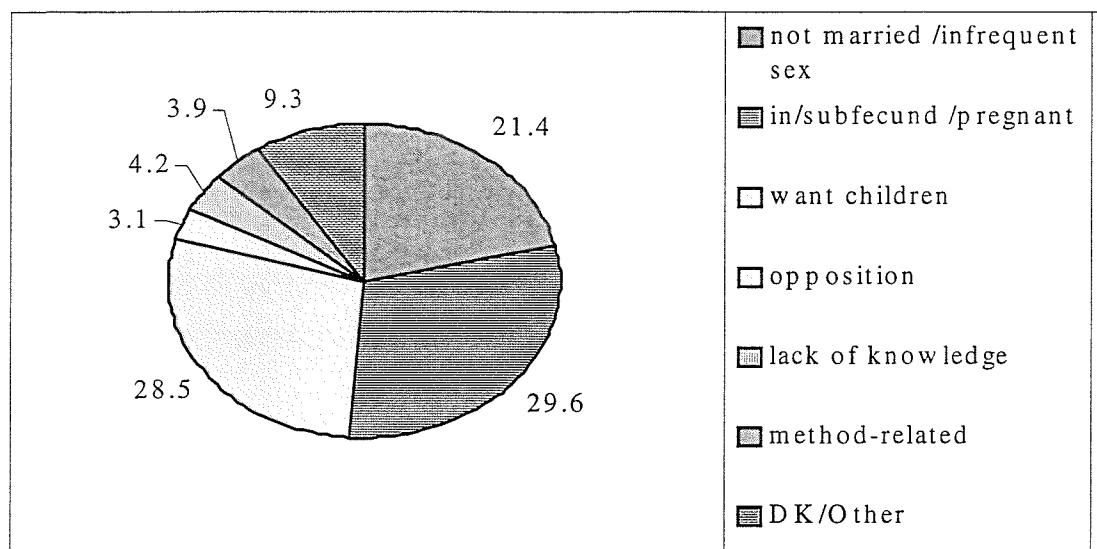


Figure 7.3: Percentage distribution of contraceptive non-users by main reasons given by young women for not using contraceptive method, Malawi, MKAPH 1996.



Number of respondents =520

Reasons such as lack of knowledge, opposition, and method-related reasons were not important barriers for not using contraception among young women in Malawi. Each of these reasons was given by about 4 per cent of the women. Way and Blanc (1998) found that most adolescents in the developing countries have a positive attitude towards family planning. In fact they observed that never-married women were more likely to approve of family planning than currently married women. Thus, young women in Malawi do not seem to face method-related barriers to contraceptive use.

In conclusion, fertility related reasons such as desire for more children and lack of exposure to the risk of pregnancy seem to be the main reasons for not using contraception among young women in Malawi.

7.4.3 Factors of the need and use of contraceptives among young women

This section presents an analysis of the factors associated with the likelihood of a young women falling in one of these possible categories: having unmet need; not being in need of contraceptives and using contraceptives. These three categories are used because of the close relationship between being a user and being in need of contraception for women.

Unmet need for contraception is related to several variables. The common ones found in the literature are age, number of children, place of residence and woman's education

(Westoff and Bankole, 1995). First, the pattern of total unmet need by age is not constant. Young women have higher need for spacing, whilst old women are more likely to have unmet need for limiting. The two types of unmet need may counteract each other in the overall measure. Second, unmet need by rural-urban residence was observed by Westoff and Bankole (1995) not to have any consistent pattern in Sub-Saharan Africa. Third, as level of education increases the use of contraception increases; in contrast, unmet need decreases sharply.

7.4.3.1 Preliminary analyses of the need and use of contraceptives

Table 7.6 shows that of all sexually active young women 18 per cent were currently using contraceptives, 58 per cent were not in need of contraception and 24 per cent had an unsatisfied demand. Since the majority of women gave fertility related reasons for not currently using contraception, it can be inferred that some of the 58 per cent of the young women deemed not to be in need of contraception may be in need at a later stage, perhaps once they have realised their fertility targets. In addition, young women may be expected to have low demand for contraceptives since they are in the early part of their childbearing years.

In the bivariate analysis categories such as young women aged 18-19, with more sons and in a marital union, were less likely to need contraception and have unmet need for contraception than those in other subgroups. Childless women, those resident in the South, and those who did not find family planning messages on the radio appropriate were also less likely to need contraception than their counterparts in other categories. However, for the same covariates, it was young women with one child, those resident in the North, and those who found family planning messages acceptable, who were less likely to have unmet need for contraception.

Table 7.6 Percentage distribution of young women by socio-demographic characteristics according to whether they had unmet need, had no need for, or used contraceptives, Malawi, MKAPH 1996.

Socio-demographic variable	Demand for contraception			No. of young women	
	Unmet Need	Not in need	Users		
Number of living children					
None	26.4	63.4	10.2	100.0	289
One	18.5	63.1	18.5	100.0	312
Two or more***	26.1	45.0	28.9	100.0	218
Age of respondent					
15-17	42.6	42.6	14.8	100.0	119
18-19	17.6	71.4	11.0	100.0	189
20-24**	21.0	57.1	21.9	100.0	514
Sex of surviving children					
More girls	24.3	58.4	17.3	100.0	210
More boys	15.8	60.9	23.3	100.0	225
None/equal**	27.2	56.9	15.9	100.0	384
Education					
None	26.3	62.4	11.3	100.0	182
Primary	23.4	56.5	20.1	100.0	505
Secondary & higher	10.9	52.7	36.4	100.0	135
Ethnicity					
Matrilineal	23.9	61.3	14.8	100.0	488
Patrilineal	23.0	49.8	27.3	100.0	334
Been through initiation					
Yes	21.8	60.2	18.0	100.0	608
No	28.9	52.7	18.4	100.0	214
Respondent in union					
Not in Union	30.5	55.4	14.1	100.0	248
In union***	21.0	59.2	19.8	100.0	574
Duration of union					
0-2 years	28.0	58.2	13.8	100.0	366
2-4 years	19.1	63.8	17.0	100.0	189
More than 4 years	21.4	54.2	24.4	100.0	267
Ever given birth?					
Yes	20.4	59.3	20.4	100.0	592
No	32.2	55.6	12.1	100.0	230
Region of Residence					
North	17.6	54.9	27.5	100.0	197
Centre	23.4	56.9	19.7	100.0	292
South*	25.0	59.9	15.1	100.0	333

Table 7.6 (continued)

Table 7.6 (continued)

Socio-demographic variable	Unmet Need	Not in need	Users	Total	No. of young women
Type of Residence					
Urban	20.2	54.8	25.0	100.0	411
Rural	24.1	58.8	17.1	100.0	411
Heard CS Message in the last month					
Yes	22.1	54.7	23.2	100.0	458
No	24.9	61.5	13.7	100.0	364
CS message on radio acceptable?					
Yes	21.7	58.1	20.2	100.0	732
No/Don't know***	36.2	59.0	4.8	100.0	90
Overall	23.6	58.2	18.2	100.0	822

Note: n- unweighted data and % weighted data *** = $p<0.01$ ** $p<0.05$ * $p<0.10$ (Pearson's Chi-squared test)

number of observations may not be=822 due to missing cases

7.4.3.2 Multivariate analysis of need and use of contraceptives

Multinomial logistic regression is used to estimate the probability of a woman falling in one of three possible categories: using contraception, not being in need of contraceptives, and having an unmet need for contraception. In order to facilitate interpretation, the probabilities were calculated for each variable (based on parameter estimates) with the others held at their mean (Table 7.7). Table 7.7 shows that as the level of education increases the probability of contraceptive use increases. Conversely, the likelihood of having unmet need for contraception decreases with level of education. The pattern observed is likely to mean that higher education enables women to make decisions about their reproductive choices than those without education as proposed by Diamond et al. (1999b).

Table 7.7 also shows that the effect of the significant variables on the probability of falling in one of the three categories interacted with that of other variables. For example, the association between the number of living children with contraceptive need and use interacted with sexual exposure variables- marital union status and the duration of a union, and cultural factors- ethnicity and initiation status. For a clear interpretation of the

interactions in the parsimonious model in Table 7.7 the results are presented in Tables 7.8 to 7.13 and in graphical form in Figures 7.4 to 7.8.

Table 7.7 Estimated probabilities of unmet need, no need for, and current use of contraceptives for young women who ever had sexual intercourse by socio-demographic characteristics, Malawi, MKAPH, 1996.

Socio-demographic variable	Estimated probabilities			
	Unmet Need	Not in need	Users	Total
Number of living children***				
None	0.125	0.744	0.131	1.00
One	0.372	0.484	0.144	1.00
Two or more	0.604	0.238	0.158	1.00
Age of respondent**				
15-17	0.740	0.188	0.072	1.00
18-19	0.346	0.606	0.048	1.00
20-24	0.221	0.528	0.251	1.00
Education***				
None	0.350	0.563	0.087	1.00
Primary	0.344	0.496	0.160	1.00
Secondary & higher	0.196	0.494	0.310	1.00
Ethnicity**				
Matrilineal	0.324	0.549	0.126	1.00
Patrilineal	0.231	0.525	0.244	1.00
Been through initiation				
Yes	0.333	0.497	0.170	1.00
No	0.238	0.623	0.139	1.00
Respondent in union***				
Not in Union	0.116	0.715	0.169	1.00
In union	0.289	0.530	0.181	1.00
Duration of union				
0-2 years	0.212	0.680	0.108	1.00
2-4 years	0.422	0.437	0.141	1.00
More than 4 years	0.401	0.348	0.250	1.00

*** =significance at 1% ** =significance at 5%

Figure 7.4 and Table 7.8 demonstrate that young women who had gone through initiation were more likely to use contraceptives than those who did not. The differences in likelihood of contraceptive use by initiation experience is wider for teenagers than for young adults aged 20-24. The probability of having unmet need is higher for non-initiates aged below 20 years, with very high unmet need for very young non-initiates. At age 20-24 years old, the likelihood of

unmet need and contraceptive use are both higher for young women who had gone through initiation. This suggests a higher potential demand for contraceptives among initiates aged over 20 years old. The middle age group 18-19 has the highest probability of no need for contraceptives for both categories of adolescents. It is possible that adolescents at this age are just beginning their childbearing; the age at first marriage and first birth falls within the age group 18-19.

Figure 7.4 Estimated probability of need for contraception among young women aged 15-24 who ever had sexual intercourse, according to age and initiation status, Malawi, MKAPH 1996

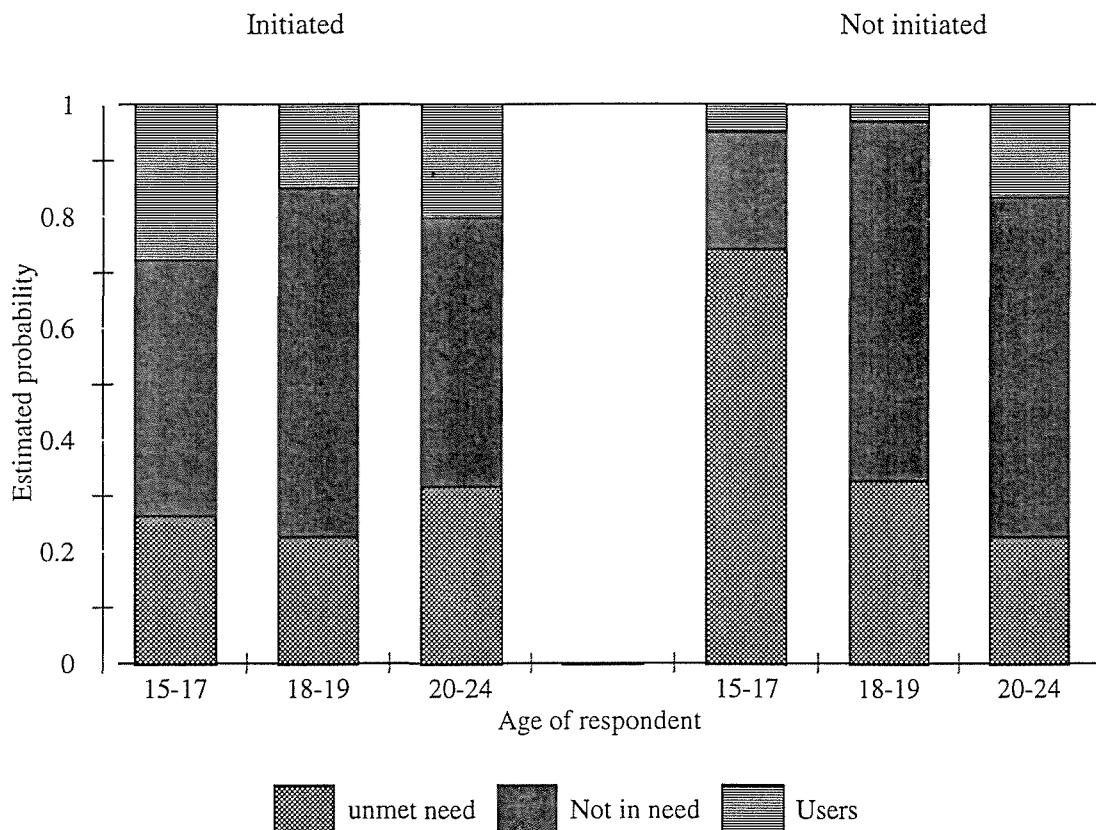


Table 7.8 Estimated probability of need for contraception among young women aged 15-24 who ever had sexual intercourse, according to age and initiation status, Malawi, MKAPH 1996

Initiation and age**	Unmet Need	Not in need	Users	Total
Yes, 15-17	0.265	0.460	0.275	1.00
Yes, 18-19	0.228	0.627	0.145	1.00
Yes, 20-24	0.317	0.484	0.199	1.00
No, 15-17	0.743	0.211	0.046	1.00
No, 18-19	0.329	0.642	0.029	1.00
No, 20-24	0.228	0.608	0.164	1.00

** =significance at 5%

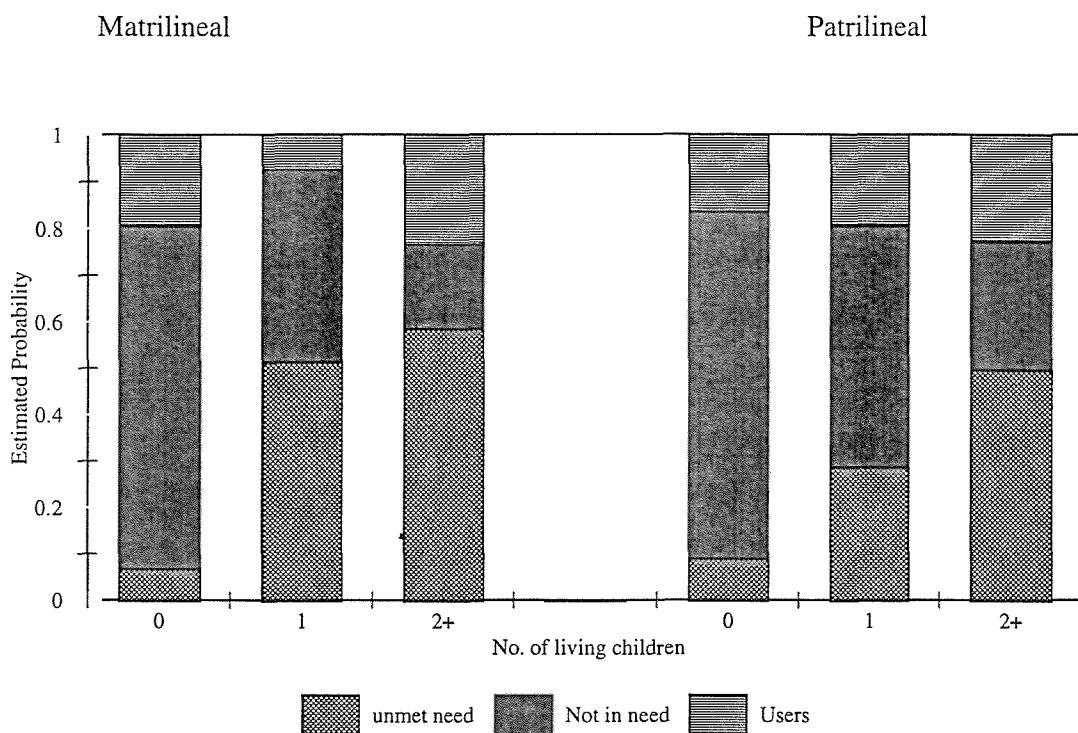
The association between demand for contraception, number of living children and ethnicity is presented in Table 7.9 and Figure 7.5. Ethnicity is expected to be associated with the demand for contraception through its relationship to the desired family size differences. Childless women are the least likely to need contraception. The probability of use and unmet need for contraception increases with higher number of living children. However, for women in the matrilineal society the probability of contraceptive use is reduced for those with one child. Young women with two or more children and from matrilineal groups have the highest combined probability of unmet need and contraceptive use. This presents a challenge for the family planning programme in Malawi to meet this actual and potential demand for contraceptives. This suggests a higher tendency to desire many children in the patrilineal group.

Table 7.9: Estimated probability of need for contraception according to number of living children and ethnicity among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996

No. of living children and ethnicity	Unmet Need	Not in need	Users	Total
None, matrilineal	0.071	0.736	0.193	1.00
None, patrilineal	0.091	0.746	0.163	1.00
One, matrilineal	0.516	0.412	0.072	1.00
One, patrilineal	0.288	0.520	0.192	1.00
2 or more , matrilineal	0.586	0.183	0.231	1.00
2 or more, patrilineal	0.501	0.273	0.226	1.00

** =significance at 5%

Figure 7.5 Estimated probability of need for contraception according to number of living children and ethnicity among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996



The relationship between the number of living children and the need for contraception also varied by initiation status. Figure 7.6 and Table 7.10 show that young women who had gone through initiation are more likely to use contraception after the first child than non-initiates. Unmet need generally increases with number of living children, and is generally higher for the initiated. Thus, for initiates the total demand for contraceptives is higher than for non-initiates. The results suggest that although non-initiates start contraceptive use before first birth, initiates are more likely to use contraception with increasing number of children.

Figure 7.6 Estimated probability of need for contraception according to number of living children and initiation status among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996

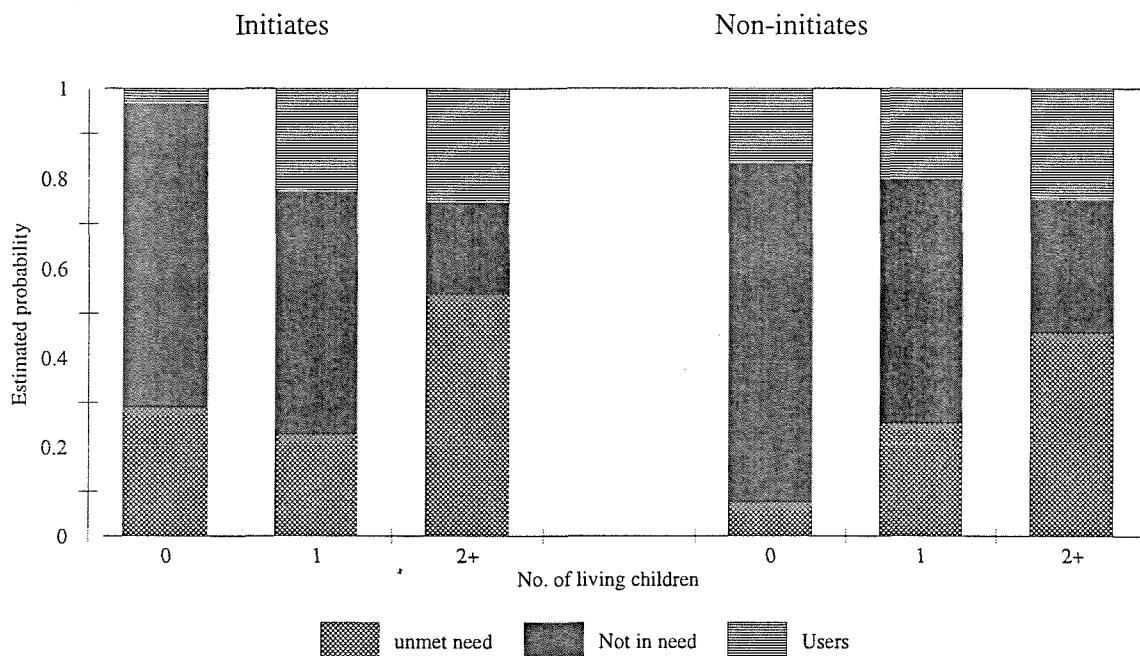


Table 7.10 Estimated probability of need for contraception according to number of living children and initiation status among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996

No of living children and initiation status**	Unmet Need	Not in need	Users	Total
None, yes	0.291	0.676	0.033	1.00
None,no	0.077	0.756	0.167	1.00
One, yes	0.229	0.541	0.230	1.00
One, no	0.254	0.544	0.202	1.00
2 or more , yes	0.543	0.201	0.256	1.00
2 or more, no	0.457	0.296	0.247	1.00

** =significance at 5%

It is observed from Figure 7.7 and Table 7.11 that unmarried young women with no children have the highest probability of contraceptive use; whilst those married have the lowest likelihood of an unmet need of all young women. The probability of not needing contraception is highest for married childless women. Unmarried young women with one child have lower chance of contraceptive use and higher probability of no need for contraception. Those with two or more children and unmarried are less likely to need contraception than the married. It is not clear whether they feel they do not need contraception because they feel they are not exposed to the risk of pregnancy or that they

desire more children; the former seems likely. The probability of an unmet need is highest for married young women with two or more children, who also have a lower chance of not having a need for contraception.

Figure 7.7 Estimated probability of need for contraception according to number of living children and union status among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996



Table 7.11: Estimated probability of need for contraception according to number of living children and union status among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996

No of living children and union status***	Unmet Need	Not in need	Users	Total
None, single	0.104	0.533	0.363	1.00
None, married	0.075	0.803	0.122	1.00
One, single	0.277	0.677	0.046	1.00
One, married	0.252	0.595	0.152	1.00
2 or more, single	0.230	0.550	0.220	1.00
2 or more, married	0.471	0.336	0.194	1.00

*** =significance at 1%

The relationship between the number of living children and probabilities of the need for contraception is also confounded by how long a woman has been in a sexual union (Table 7.12 and Figure 7.8). For childless women, the number of cases (not shown) was less than 50 for marital durations of at least two years. Hence, not much can be said from the relationship between the need for contraception becomes and the duration of marriage for childless women since it may be an artefact.

Table 7.12: Estimated probability of need for contraception according to number of living children and duration of union among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996

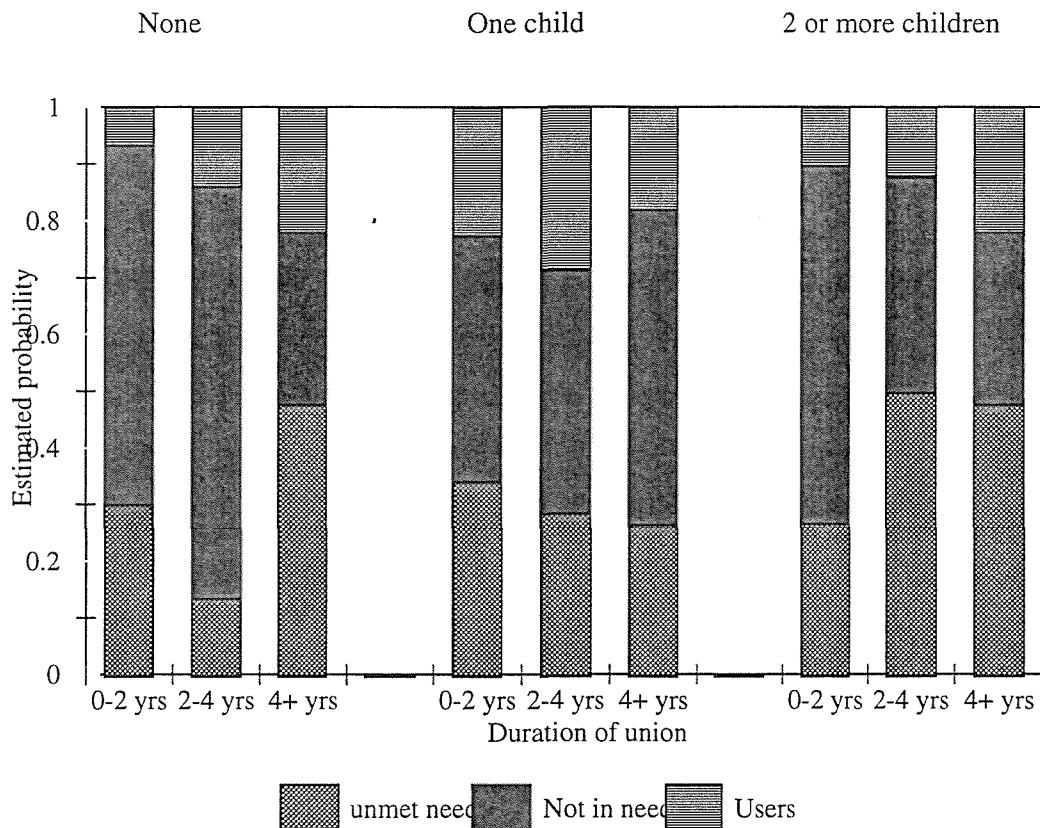
No. of living children and marital status**	Unmet Need	Not in need	Users	Total
None, 2 years or less	0.302	0.632	0.066	1.00
None, 2-4 years	0.134	0.729	0.137	1.00
None, more than 4 years	0.478	0.303	0.219	1.00
One, 2 years or less	0.341	0.436	0.223	1.00
One, 2-4 years	0.285	0.430	0.285	1.00
One, more than 4 years	0.266	0.556	0.178	1.00
2+, 2 years or less	0.269	0.630	0.101	1.00
2+, 2-4 years	0.500	0.378	0.122	1.00
2+, more than 4 years	0.478	0.303	0.219	1.00

** =significance at 5%

Among young women with one child the probability of unmet need slightly decreases with increasing duration of union. The chance of contraceptive use is highest for the group married for two to four years. This subgroup of women may wish to space their next birth, probably having begun marriage and childbearing around the same time.

For young women with two or more children, there is a considerably higher probability of having an unsatisfied need for contraception for those who had been in a marriage for at least two years than for others with less number of living children. The probability of contraceptive use also increases with marital duration. This suggests the demand for contraceptives increases with longer duration of marital union.

Figure 7.8 Estimated probability of need for contraception according to number of living children and duration of union among young women aged 15-24 who ever had sexual intercourse, Malawi, MKAPH 1996



Note: Yrs- years.

In conclusion, the level of education has a significant relationship with demand for contraception. The number of living children is a very strong factor affecting both the demand and use of contraception. Unmet need increases with the number of children but the influence varies by cultural factors and exposure status. It is interesting to note the high probability of use for the childless and single. It has also been shown that cultural factors such as initiation ceremonies and ethnicity are important in determining the demand for contraception and the influence tends to vary by age and number of living children.

7.5 Discussion and summary

This chapter has studied three aspects of contraceptive behaviour among young women aged 15-24 in Malawi: contraceptive use or non-use, method choice, and the use and need for contraception, with a particular focus on unmet need for contraception. The results have shown that cultural factors such as initiation and ethnicity are associated with the demand for contraception which is related to age and number of living children. Those who had gone through initiation were more likely to use and to have a higher unmet need for contraception than non initiates; the association works through age and number of living children. It should be noted that there are a number of rites of passage into various phases of one's life in Malawi. For example, initiation into adulthood, at puberty; into marriage; and into motherhood, at the birth of the first child (Gwengwe, 1998). In this analysis, the data used refer to the attendance at any initiation ceremony. Some of the messages imparted at the ceremonies are related to customs that encourage spacing of births. Perhaps that explains why those young women who had gone through initiation ceremonies were more likely to recognise the need for contraception than those who had not.

Traditional child spacing has always been practised in Malawi, particularly after a woman has given birth once. In the early days of the Malawi child spacing programme it was found that women were already spacing their births by an average of two to three years (Demographic Unit, 1987; Madise, 1993; Zulu, 1996). In the 1996 MKAPH, the percentage distribution of women by contraceptive method choice showed that the 36 per cent of young women used traditional methods. This may partly explain the strong association between cultural factors and contraceptive behaviour. However, it is interesting that previous research in Malawi has shown that women who use traditional methods are more likely to be motivated to switch to more effective modern methods than those who had never used them (Madise, 1993; Zulu, 1996). Zulu (1996) also found that people in Malawi preferred modern to traditional methods although they had fears of side effects. Thus, some users of traditional methods can be described as having an unmet need for more effective contraceptives.

The string was the most commonly used traditional method. The effectiveness and mechanism of how the string works is something that has not been clinically proven. In the field interviews with young people, there were indications that they doubted the efficacy of the string as a method of contraception. The quote below from a focus group with young women in a rural area illustrates this;

R1: Here in the village they say that you should use a string, but when it breaks in the bush you can have no more children....

R2: But with the string, sometimes the medicine expires but you don't know it! And when you 'sit' [have sexual intercourse] with a man you get pregnant, and you wonder what happened to your medicine, it's powerless! [Young women, married, patrilineal rural area 1].

The natural method (rhythm) was the second most popular traditional method of contraception cited. Though classified as 'traditional' it does require a good understanding of one's reproductive biology. Young women are likely to have inadequate knowledge of the ovulatory cycle and knowledge of effective use of the methods. Adolescents are also likely to have spontaneous and irregular intercourse (Blanc and Way, 1998; McCauley and Salter, 1995). Furthermore, the menstrual cycles of young women do not settle into a regular pattern until some years after menarche (Bongaarts and Bruce, 1995). This means that the natural method may not be effectively used by young women.

It was found that single young women with higher levels of education were more likely to use contraceptives than any other category of women. Chapter six showed that more educated young women stayed virgins for longer than less educated ones. Education is associated with delaying marriage, thus prolonging adolescence (see for example Caldwell, 1998; Bledsoe and Cohen, 1993). Thus it is interesting to note that not only do educated young females delay first sex in Malawi, but when they experience sexual intercourse they are likely to use contraceptives.

Young women with primary education had the lowest probability of contraceptive use and need. Gage-Brandon and Meekers (1993) also observed in six sub-Saharan African countries the prevalence of premarital childbearing to be higher among those with primary school education than those with no or secondary education. Although the exposure to

premarital childbearing was thought to increase with higher education levels, the exposure was found to be partially offset by increased use of modern contraceptives.

The age group 18-19 was associated with relatively low use of contraception and the use of less reliable methods. In addition, they had the highest proportion of women not in need of contraception. This age probably coincides with the start of childbearing experience in Malawi. Westoff and Bankole (1995) found that the need for contraception in developing countries begins mainly after the first birth, although there is some evidence of an unmet need for postponing first birth. In addition, empirical evidence on the number of children at first use shows that the majority of sexually active adolescents who have ever used contraceptives, do so to postpone the first birth (Blanc and Way, 1998; Remez, 1990).

Before the birth of the first child, the likelihood of contraceptive use is higher for unmarried young women, but after the first birth married young women are more likely to use contraception. It is plausible to suggest that their propensity to avert unwanted births is stronger since a young woman may lack a supportive partner. In addition, the social stigma attached to out-of-wedlock childbearing in Malawi may also encourage contraceptive use (see chapter four). Tuoane (1999) also found higher contraceptive use among unmarried women than married ones in Lesotho after controlling for the number of children and age. This pattern is attributed to the possible fear of embarrassment, reduction of bridal price if she has a premarital child and potential excommunication from church.

Fertility related reasons such as pregnancy, and the desire for children constituted the most common reason given for not using contraceptives. The literature also shows that, indeed, some adolescent women really want to have children. For example, in the Kenya DHS the percentage of current pregnancies among adolescents aged 15-19 reported as unintended was 7 per cent among married and 74 per cent among unmarried young women (McCauley and Salter, 1995).

In this study, with an overall unmet need of about 20 per cent, if a small family norm is instilled in young women, the demand for contraceptives is likely to be driven even higher. The economic situation has been deteriorating in Malawi. There is now widespread empirical evidence from sub-Saharan Africa that economic hardship is likely to be an important influence on the desire for the number of children (for example Abernethy, 1997;

Bledsoe and Cohen, 1993; Muhwava, 1998). Therefore, the unmet need is likely to be much higher as the desired family size becomes smaller with the deteriorating economic conditions in Malawi.

The conventional definition of unmet need for contraceptives focusses on unintended pregnancy. However, unmet need is also reflected in the high rates of STDs, and in maternal morbidity and mortality from unsafe induced abortion among young people (McCauley and Salter, 1995). Dallabetta et al. (1993), using clinical data, found 42 per cent STI infection rates among antenatal women at the central hospital in Blantyre. The associated risk factors included history of STDs, and multiple sexual partners. Young women account for most new HIV cases in sub-Saharan Africa (UNAIDS, 1996; Cates and McPheeers, 1998). Thus, with the high HIV rates among young women in Malawi, the unmet need for contraception does not reflect the real extent of unprotected sex. Furthermore, Zaba et al. (1998) have argued that HIV statistics based on antenatal women are an underestimation since they exclude women whose fertility has been disabled by STI infection, therefore do not go for antenatal services.

Induced abortion data are rare since it is illegal in some countries and performed in secret (Remez, 1995). In this study, there was a high percentage of young women who were classified as not being in need of contraception. Although the main reason suggested was the desire for more children, unsafe abortions and STIs leading to infertility may be partly the reason. In Malawi, it was observed that abortions formed 68 per cent of all gynaecological admissions, and adolescents accounted for 21 per cent of the total (Lema and Thole, 1994). In the focus groups with single young people discussion on what they would do if a friend was pregnant clearly indicated termination was as an option as illustrated by the following excerpts;

I: Now that friend comes to you and says that she thinks that she's pregnant. What can you advise her?

R6: ...there some girls who when they are telling you that they are pregnant they think that you'll help them with some medicine to abort.

R5: Yes!! Mm!

R6: You should persuade her not to abort, and not to consider doing anything bad, and in the end she should ask her boyfriend about his opinion, and they should discuss about that. But for her to abort she may die! [Young females, single, urban area 1]

R1: The real consolation would be to tell her that those who abort die, so she should just leave it and stay alive... (all laugh) ...we have encouraged such friends and they now have children!

R4: It's really happening! [Young females, single, rural matrilineal area 1]

The discussion on premarital pregnancy has demonstrated that it is mainly the fear of medical complications and possible death that young women are deterred from terminating a pregnancy. This is a profound public health issue raising the need to provide comprehensive reproductive health services to single young women in Malawi.

The quotation below shows that stigmatisation is also an underlying reason for seeking to terminating a premarital pregnancy;

R3: In this area, when girls get pregnant, they have a very bad practice. They like to 'remove the pregnancy', but they know that when they abort, they just destroy their reproductive organs.

R1: ... Aah, they're embarrassed when people say "that daughter of so and so is pregnant in the nthanganeni!" That's why they remove it! [Young males, single, patrilineal area 2].

The concept of unmet need in this thesis took into account only fecund women who were currently at risk of pregnancy. This measurement purposely excluded young women who were infecund, pregnant, or not sexually active at the time of the survey. However, it can be argued that the 'non-exposed' young women could be exposed very soon once they have a sexual partner. The definition of unmet need in this study did not include information on future fertility and contraceptive use intentions. Hence this measure may not be a true estimate of unmet need among young women in Malawi.

The analyses of contraceptive behaviour of young women in Malawi did not include information on previous use of contraception and contraceptive switching. An inspection of the 1996 MKAPH data revealed that previous users were the same cases as current users. Information on previous use of contraceptive method is vital for family planning programmes to estimate proportions discontinuing use for various reasons. Prior use of contraception has been found to be related to the likelihood of the need for contraception. Women with prior use of contraceptives were more likely to be in need of contraception than those who had not previously used (Westoff and Bankole, 1995). Thus further

research needs to include contraceptive calendar to study contraceptive switching in Malawi.

In conclusion, the majority of young women not using contraceptives did not perceive themselves to be in need of contraceptives because they wanted more children. Since raising the age at first birth may not be a practical policy option in Malawi, instilling small family norms in young people coupled with increased contraceptive use is likely to have an effect on fertility levels.

This chapter has studied aspects of contraceptive behaviour among young women in Malawi. The next chapter discusses the policy and programme interventions for the improvement of the reproductive health of young people in Malawi.

CHAPTER EIGHT

INTERVENTIONS FOR THE IMPROVEMENT IN THE REPRODUCTIVE HEALTH OF YOUNG PEOPLE IN MALAWI

This chapter investigates the policy and programme interventions directed at improving young people's reproductive health in Malawi. The chapter examines the existing official policy and programme reports, the views of programme managers, service providers and young people regarding the reproductive behaviour of young people in Malawi. The implications for the potential improvement in reproductive health services for the young people in Malawi are discussed.

Reproductive behaviour of young people in Malawi is characterised by early start of sexual activity, low contraceptive use, a culture that is conducive to an early start of childbearing, and a general fatalistic attitude to the risk of HIV/AIDS (NACP, 1996; N SO, 1994; 1997).

Given the range of influences on young people's reproductive health there needs to be a multi-sectoral approach in programme intervention. Paxman and Ferguson (1997) identified four types of social programmes that are likely to exert an influence on young people's reproductive health. First, are programmes that enhance the social status of young people, such as basic education. Second, are general family planning (FP) and HIV prevention programmes to the general population, with important changes for the youth. Third, programmes aimed at addressing other problems facing the youth, such as unemployment. Fourth, are programmes that provide services to meet the reproductive health needs of young people.

8.1 Background

Malawi has a young population half of whom are aged below 17 years. The population count is about 10 million with an annual growth rate of about 2 per cent in the last century (National Statistical Office, 1998). The high population growth rate and the youthful age structure implies a high demand for reproductive health services among young people and enormous pressure on various sectors of the economy and on the natural resources.

The major concerns of the Government of Malawi are early age at first birth, low contraceptive use and high HIV/AIDS prevalence rates, which are particularly high for young adult females. Young people in Malawi face greater problems of access to reproductive health services than adults as they face age discrimination which restrict their access to the already inadequate services.

Malawi is one of the poorest nations in the world with a per caput income of about \$200, and heavily dependent on one agricultural product, tobacco. About 60 per cent of the population live below the poverty line, estimated at \$40 (UNFPA, 1996; Ministry of Economic Planning and Development, 1995). Poverty alleviation is central to government policy through provision of free education and credit facilities (Ministry of Economic Planning and Development, 1995).

8.2 Policy and Programme Framework

Interviews with young people, programme managers and a review of youth policy documents revealed that the main concerns of young people in Malawi are as follows: poverty, high population growth, high HIV prevalence rates, high mortality, high fertility linked to early childbearing, low education levels, low quality of health facilities, high unemployment, gender imbalance against women, and a lack of entertainment and sports facilities (Ministry of Youth Sports and Culture, c.1996).

In order to tackle the problems facing young people in Malawi the government has instituted various interventions with crosscutting issues such as family planning, HIV/AIDS, STI (Sexually Transmitted Infections) and sex education in schools, gender issues, and vocational training for out-of-school youth. Various social programmes in Malawi have interrelated objectives, for example a youth development programme with an ultimate goal of reducing teenage pregnancy would provide the youth with skills to allow them to find employment. Table 4.1 presents a framework of the policy and programme interventions being carried by the Malawi Government with implications for young people's reproductive health, showing the coordinating or responsible agency, major issues addressed and the type of intervention.

Table 8.1: A framework of policy and programme interventions in young people's reproductive health in Malawi

Sector	Coordinating Agency (Donor)	Key issues	Intervention
Reproductive Health	Reproductive and Health Unit, MoHP	Increase contraceptive uptake, especially among youth; improve STI control	RH strategic plan 1998-02, focus on integration and FP MIS
NACP	AIDSEC (UNDP, EC, USAID)	Control of HIV spread among youth; care for AIDS patients	National Strategy Plan 2000-04, multi-sector, wide consultation, grassroots, <i>Edzi Toto</i>
Education-formal	MOE (DFID, UNICEF)	Improve enrolment; access to schools; gender imbalance; and address topical issues;	Free education; community schools; Life skills approach; <i>Edzi Toto</i> ; GABLE
Education-informal and vocational	DoY, (UNFPA, UNICEF)	Improve life skills, provide information on RH, employment, recreational facilities	Community-based youth clubs; <i>Edzi Toto</i> ; RH and participation programme

MIS (Management Information Systems) ; RH- Reproductive Health

Policy guidelines in population and development, health, education and youth have developed strategies to address the issues young people face in Malawi. The interventions include the following:

- improvement of access to quality health services;
- improve quality of education and development of relevant curricula to problems facing the youth;
- change of behaviour to lower HIV prevalence rate;
- provide opportunities for small and medium scale enterprise;
- develop life skills for adolescents;
- raise age at marriage and lower childbearing through availability of other life options and legislation on age at marriage; and

- provision of sports and recreational facilities (Government of the Republic of Malawi, c.1994; Ministry of Economic Planning and Development, 1995; Ministry of Health and Population (MoHP) and National Family Welfare Council of Malawi (NFWCM), 1996; Ministry of Youth Sports and Culture, c.1996).

It should be noted that the investigation of the policy and programme interventions in this chapter is not meant to offer a scientific evaluation, first because of the wide issues being addressed with the vast number of organisations involved. Second, changes in output indicators (e.g TFR, age at first birth) cannot be attributed to any one programme intervention. Third, most of the programmes have not been operating long enough to be evaluated.

In this chapter an examination of the various sectoral interventions for young people is presented. The first sector covers policies and programme interventions in reproductive health to the general population, with a particular focus on young people. The second group of interventions are those providing basic education. The last sector includes programmes that address other problems facing young people along with their reproductive health needs.

8.3 Reproductive health services

Although the reproductive health and AIDS control policy documents recognise the need to direct their efforts towards young people, there are no separate sectors of the health care system that cater solely for them. Thus, this section describes the general reproductive health services in Malawi with an outline of some of the efforts made for young people. The discussion on the reproductive health services is centred on the policy guidelines, institutional framework and service provision. However, it is important to understand the health care system in Malawi in order to understand the framework within which reproductive health programmes operate.

8.3.1 General health services provision in Malawi

Theoretically, the hierarchy of the healthcare system in Malawi has three basic levels: health centres providing basic health care at community level; district hospitals for referrals (26 districts) and focus of health services; and central hospitals (3) which offer specialist care. In practice, however, people have entered the health system hierarchy at any level due to factors such as: lack of drugs, access problems, and non-restrictive referral system. The current government policy is to emphasise district-based primary health care to improve district-based preventive-care services (UNFPA, 1996).

Due to the low level of economic development in Malawi health expenditure is low. The recommended minimum health expenditure by the WHO for sub-Saharan African countries is \$8-12 per person, but that of Malawi was estimated to spend only \$2.50 per head in 1995 (UNFPA, 1996). The government provides free healthcare, except for few paying patients in the central hospitals. The major private provider of health facilities is the Christian Health Association of Malawi (CHAM) which provides about 20 per cent of the overall health services and charges user fees. CHAM has a guarantor system to help patients pay their hospital bill in instalments so that the needy are not discriminated against. Some people also buy drugs from pharmacies, grocery shops and street vendors.

Overcrowding in government health facilities is very common. The AIDS epidemic also exerts pressure on the health care budget. An estimated 16 per cent of the population aged 15-49 are HIV positive (UNAIDS, 1998). AIDS is an underlying cause in many deaths caused by pulmonary tuberculosis, meningitis and pneumonia. It is estimated that more than 35 per cent of inpatients have AIDS-related conditions (UNFPA, 1996). The estimated cost of treating a person with AIDS is between \$200 and \$900 for a remaining lifetime of one to 4.5 years (UNAIDS, 1998).

8.3.2 Reproductive Health Policy

Reproductive health is a major component of the population policy of Malawi. In recognition of early sexual activity as a key contributing factor to high fertility, HIV and STI infection rates, and high mortality rates, the policy has particular emphasis on reducing adolescent marriage and teenage pregnancies (Government of the Republic of Malawi,

c.1994). These objectives are to be realised through improved reproductive health programmes targeting the youth. Family planning is a major component of reproductive health in Malawi.

The family planning programme in Malawi officially started in 1982 as a ‘Child Spacing Programme’ (CSP) advocating the health benefits of child spacing to the mother and child and to the family at large. As time went by the need to limit family size for economic reasons became apparent to the Government of Malawi. CSP was then reoriented towards a more broad-based Family Planning Programme in 1992 (Demographic Unit, 1987; MoHP and NFWCM, 1996). This section describes the key policy and guidelines in family planning provision in Malawi which have implications for young people.

a. Method Restrictions

In the early years of the family planning programme in Malawi there were restrictions on methods which discriminated against single young women and those of low parity. For example, the policy was that a girl should get consent from a parent or guardian to use FP services. Family planning and contraceptive guidelines were published in 1996, by which all providers, government and private have to abide (MoHP and NFWCM, 1996). The barriers that existed before for permanent methods were lifted. For example, the Depo Provera injection was made eligible for all women regardless of age, parity and marital status. Voluntary surgical contraception, i.e. vasectomy and Tubal Ligation was to be performed even for individuals without children, as long as they had been counselled on the availability of other temporary contraceptive methods and made aware of the permanency of the method. These changes have had a bearing on the method mix of contraceptive users in Malawi; the Depo Provera injection was the most commonly used modern contraceptive method in 1996, in place of the contraceptive pill in 1992 (NSO, 1994; 1997). The injection can be particularly convenient for single young women and can enable them to make independent decisions regarding their fertility choices without facing opposition from guardians who may not wish to acknowledge that some single young people are sexually active.

Although the restrictions based on age, marital status, and parity were uplifted, the choice of methods is limited for young women due to provider bias. For example, some service

providers still would not administer the Depo Provera injection to single young women as the following quote by a service provider illustrates;

...But it happens that some need contraceptives while they're still in school, and so we give them. When they come, we tell them the instructions, we were told not to administer the injection to school-age girls. [Service provider, matrilineal rural area]

b. Privacy and Confidentiality

Privacy and confidentiality of family planning clients are elements that have also been highlighted in the current guidelines. An evaluation of the FPP in Malawi showed that most service delivery points do not offer an atmosphere of privacy, as a result some young people may not dare go for services, especially young men. The National Family Planning Council, with funds from the UNFPA, rehabilitated some of the health facilities to ensure that confidentiality could be ensured (Programme Manager interviews, 1998).

c. Integration of reproductive health services

Family planning services are now to be provided as an integral part of other health services on a daily basis so that clients can access services at anytime and get reproductive health service they require in one visit. Integration has the advantage of removing the stigma associated with the use of certain services, and increases the opportunities for providing RH services to a wider population, particularly young people (Lush, 1997). In the previous system MCH services such as antenatal care, nutrition clinic, family planning, under-five clinic and immunization were provided on different days of the week, and sometimes on alternate weeks. Clients had to make more than one visit to access different services.

However, the concept of integrated reproductive health is still not fully practised in government health facilities. The field survey revealed that some service providers are still unable to adhere to such a requirement because of shortage of essential drugs, shortage of staff and lack of training in all integrated services, especially family planning. The medical staff who have not undergone any training in family planning provision can only play the role of motivators. As an example Banja La Mtsogolo (BLM), the Marie Stopes International local partner, does offer integrated RH services on a drop in basis.

However, some health centres service providers interviewed seemed to be operating the system of offering various services on separate days of the week. This was due to a lack of facilities to operate a full service integration. For example with no reliable cold storage facilities (mainly lack of paraffin for the refrigerators), immunization can only be done in a single day. The lack of integration can have an influence on potential users of FP services, particularly if they were not aware of the days in which such services are offered.

d. *Timing of contraceptive use*

The current Malawi family planning and contraceptive guidelines also stipulate that a woman can be recommended a family planning method at any time during the menstrual cycle, provided she is not pregnant. In the past, a woman had to wait for her next menstruation before she was recommended a method to ensure that she was not pregnant. Often, some women would unintentionally become pregnant during this waiting period as highlighted in the extract below from a midwife at a rural health centre;

...if the woman comes for postnatal clinic, and we tell her to go back and wait until she's 'bathed' [menstruated], she'll go and then become pregnant, which she never wanted to... so they felt that if a person calls, and when we have palpated her properly, just examining her on the surface, and ask her when she had her last periods...to see if...she may be pregnant,... then we can serve her!
(Service Provider, Patrilineal rural area)

This change in guidelines is particularly important for single young women since they would be able to obtain contraceptives on demand and reduce the risk of unwanted pregnancy.

8.3.3 Institutional Framework for reproductive health

The health system in Malawi has for sometime been vertically implementing various elements of reproductive health such as maternal and child health, safe motherhood initiatives, and STI/HIV prevention and treatment. However, the provision of these services has been unintegrated (UNFPA, 1996). Following the Cairo International Conference on Population and Development (ICPD) in 1994, and the Beijing Platform of Action in 1995, reproductive health has received much attention in Malawi. The Population and Human Resource Development Unit (PHRDU) was established in the Department of Economic Planning and Development to oversee the formulation and implementation of the national population policy to integrate population variables into development programmes. The

reproductive health programme, whose main focus is family planning, operates within the population policy framework.

The Reproductive Health Unit (RHU) was formed in 1997 in order to reinforce reproductive health services in Malawi. Previously known as the Family Health Unit, it is within the Clinical and Population Department which falls directly under the Principal Secretary of Ministry of Health and Population. RHU is the coordinating body for all reproductive health services in the government and private sector, and it is the executing agency for donor funding in RH. The major donors are DFID, USAID through its STAFH (Support to AIDS and Family Health) Project, UNICEF, GTZ (German Agency for Technical Cooperation) and UNFPA (Ministry of Health and Population, 1997).

The RHU is also responsible for management of Contraceptive Distribution Logistics Management Information Systems (CDLMIS) to ensure the reliable supply of contraceptives. Started in 1996, the CDLMIS keeps records of contraceptive supplies and demand and enables the MoHP to make accurate stock forecasts, facilitating the efficient use of limited resources. For procurement of contraceptive commodities, the Central Medical Stores (CMS) is responsible for the storage, distribution and customs clearance of contraceptive and other pharmaceutical medical supplies. The CMS has had problems of high handling charges, a weak MIS, lack of staff and vehicles. Therefore, there are proposals to make the CMS a commercial parastatal to better handle drugs and contraceptives from donors (UNFPA, 1996).

A new organisation, Family Planning Association of Malawi (FPAM), an NGO affiliated to the International Family Planned Parenthood Federation (IPPF), was formed in October 1999 to supplement the government role of implementation of RH services. The FPAM has taken over the implementing role of the defunct National Family Planning Council of Malawi NFPCM (FPAM, 1999). The association depends on volunteers in planning and executing its activities in the community.

8.3.4 Reproductive Health Service Provision

This section looks at the issues of availability and accessibility of reproductive health services in Malawi. Family planning is the pivot of reproductive health in Malawi.

a. Static Health Services

FP services were only provided in 57 per cent of all health facilities, and only 10 per cent offered a full range of contraceptive choices as of 1999. Out of about 1170 outreach clinics only 11 per cent provided FP services (MoHP, 1997). Table 8.2 presents an indication of the percentage of health facilities providing FP services in Malawi. With an estimated reproductive age population of at least two million (NSO, 1997), family planning services are not easily accessible for many people from the static health facilities in Malawi. For example in one of the rural sites for the field survey the nearest health facility was 20 km away.

Table 8.2: Number of health facilities providing FP services in Malawi by controlling agency, 1993 and 1999 estimate

Controlling Agency	Number of facilities		Per cent providing FP 1993
	1993	1999	
MoHP & other govt.	326	339	67
CHAM	163	164	27
Local government	62	65	45
Private and NGO	282	235	17
Total	733	850	43

Sources: NFWCM for 1993 and MOH for 1999 CHAM- Christian Health Association of Malawi

The government also provides contraceptives to CHAM and NGOs that give them free to clients. Catholic CHAM hospitals do not provide modern contraceptives, they just motivate and counsel clients and refer them to the nearest facility. Banja La Mtsogolo (BLM), whose share of overall health service provision has increased to 2 per cent (18 clinics, to reach 31 by 2001), also charges user fees, although 'the needy are exempted'.

BLM were cited by participants of focus groups in the urban areas as a place they could go for '*check up*' (pregnancy), '*get drugs for abortion*', '*go for a test*' (STI), '*they give you free drugs... for buboes [a STI]*' and "*give out 'birthing controls'*".

b. Community-based Distribution of Contraceptives

Given that health facilities are not easily accessible for some people, especially in the rural areas, community-based distribution of contraceptives (CBD) has been useful in making contraceptives available to more people. According to one official in reproductive health, '*CBD has been responsible for the increase of contraceptive prevalence rate in Malawi*'. CBD agents motivate potential clients, provide oral contraceptives and condoms, and refer clients to clinics for injections and surgical methods. Organisations such as John Snow Inc.- Support to AIDS and Family Health(JSI-STAFH), BLM, and CHAM have been running CBD programmes and are expanding. For example the number of CBD projects supported by the former Family Planning Council of Malawi increased from three in 1991 to more than 26 by 1998; BLM has 2 CBD agents attached to each clinic. It is intriguing, however, that in the community-based discussions conducted with young people about use of reproductive health services, CBD was cited neither as a source of contraceptive knowledge nor services.

c. Social Marketing of Contraceptives (SOMARC)

The role of the private sector in the provision of reproductive health services has become significant in Malawi. The field study showed the increasing potential of the private sector as a provider of reproductive health service. For example, BLM has embarked on an aggressive social marketing campaign of family planning services which are offered as part of an integrated reproductive health services. SOMARC makes use of marketing techniques to increase the prevalence of contraceptive use and prevent HIV/AIDS (NACP, 1996). It uses the electronic and print media to reach the public with messages advocating the use of reproductive health facilities.

Social marketing of contraceptives has made condoms available to more people than before through commercial outlets. Between 1992 and 1996 the proportion of current users citing a commercial outlet as a source for their condom rose from 20 per cent to 53 per cent for

men (NSO, 1997). 'Chishango', the brand name for the condom marketed by the Population Services International (PSI), the main distributor and promoter of condoms in the country, has become synonymous with the word condom. Banja La Mtsogolo is a household name for family planning although they are mainly urban-based.

It is clear that static health services are inadequate in creating and meeting demand for family planning in Malawi. Therefore, an increase in the number of CBD agencies would act to increase contraceptive prevalence.

b. STI management

The general shortage of drugs and lack of trained staff in STI procedures, over crowding in hospitals, and difficult access to health centres limit the capability of the health service to provide effective reproductive healthcare, and people lose of confidence in the system (Programme manager interview in reproductive health). The focus groups with young people showed they contacted non government health facilities, such as BLM, and traditional healers for treatment of STIs to avoid being embarrassed by service providers in the government health facilities as shown in the following excerpts;

R2: Some people do not go to Queens [central hospital] instead they'd use traditional medicine because they know that they'll be mocked once they go there. Sometimes the nurses come to watch you. ..

R5: ... But these days if you go to Banja la Mtsogolo, they give you free drugs, those for buboes. [Young men with child, urban area 2]

In one rural study area focus group discussions with both males and females indicated that the participants felt that traditional healers were the last resort in the treatment of STIs;

R9: Because if you're sick and you go to a doctor, if they've failed to cure your disease, they tell you to go and use African medicine. These days if you're ill just go to the doctor, they'll tell you what to do.

R7: ...to go to the African doctor if they've failed to cure the disease. [Young men with children, matrilineal area 2]

I: Do they have medicine for buboes the traditional healers?

R: Yes! ...

R11: Sometimes the hospital fails, so it's better to go to traditional healers. [Young women with children, matrilineal area 2]

8.4 Reproductive Health Services for Youth

Although young people are a healthy age group, it is evident they are exposed to risks of unsafe sex, and may also abuse alcohol and other drugs, which are main causes of health problems among young people (McCauley and Salter, 1995; Senanayake, 1992). Adolescent health is the major focus of the national reproductive health strategic plan in Malawi (Ministry of Health and Population, 1997). However, as noted earlier there are no special reproductive health facilities for young people yet in Malawi. Adolescents continue to be denied access to RH information and services; they are perceived too old to fit into the paediatric clinics and too young to use the crowded outpatients clinics (UNFPA, 1996). It is also difficult to identify the health problems of young people since health statistics are not disaggregated by age for ages older than five years (Malawi Government and UNICEF, 1997).

Programme managers in reproductive health who were interviewed generally acknowledged how unfriendly to the youth the service delivery points in the family planning programme are. One key informant in reproductive health commented on the inconsistency of the system which denies a single young woman access to FP services, yet as soon as she gets pregnant she gets a whole package of antenatal, delivery and child health services. Service provider interviews also revealed that, although they were aware of the policy changes in providing services to unmarried clients, they would hesitate to serve school girls with contraceptives. Earlier research has shown that health providers felt uncomfortable in providing contraceptives to adolescents and unmarried people, which makes it difficult for the young people to use reproductive health facilities (Ngwira and Chimbwete, 1994; Tavrow et al., 1995).

To make RH services more available to young people, BLM has youth CBD agents who distribute contraceptives, encourage and provide health education to their peers who have STIs, and refer them for treatment. BLM also supports youth clubs close to its clinics with reading material and leisure facilities. The club members also act as peer motivators to other youth who find the hospital environment intimidating when they want to use RH services.

Thus, although the contraceptive guidelines stipulate that there should be no discrimination on the basis of age, marital status or any attribute, young people still have difficulties to access reproductive health services in Malawi. Such difficulties can be overcome if programmes such as the BLM model of CBD are promoted in Malawi.

8.5 National AIDS Control Programme (NACP)

A major concern of the Government of Malawi is the high rate of HIV infection and AIDS-related mortality which is higher for young people (20 to 24 years) than any other age group. Since AIDS has far-reaching effects on the socio-economic state of Malawi, the NACP strategy for the period 2000-2005 emphasises a participatory approach involving all stakeholders, from policy makers to people infected with HIV. HIV prevalence statistics show that young women are particularly at added risk since they tend to have sex with older partners who are likely to have (had) multiple partners and be HIV positive. Hence, the current NACP strategy for 2000-2005 focusses on the youth, to protect them from infection and deal with those already infected.

8.5.1 NACP Institutional Framework

The National AIDS Control Programme Secretariat (AIDSEC) is located within the MoHP and has the mandate to: prevent and control HIV/AIDS; deal with its impact on the population; and coordinate all the activities within the national AIDS control programme. The structure of the AIDSEC is as follows: the secretariat; three regional AIDS coordinators; district AIDS coordinators (26 districts); four technical subcommittees responsible for coordinating activities for the youth, home based care, orphans, and behavioural change at district-level, duplicated at the village level, with the Health Surveillance Assistant as the coordinator (Government of Malawi and UNICEF, 1997). The AIDS coordinators as well as other committee members often work on part-time or voluntary basis; the coordinators are usually health workers at the district hospital with other time-demanding duties.

The NACP maintains a database of AIDS cases at its secretariat. The statistics are then published and passed on to WHO and UNAIDS for international surveillance. Since 1992, the programme has been carrying out annual surveillance for HIV and Syphilis among

expectant mothers at selected antenatal clinics to estimate the national prevalence rate (NACP, 1996).

8.5.2 Strategies for HIV prevention

The NACP has been responsible for the development of blood screening services and STI control in Malawi. Since heterosexual intercourse is the main mode of HIV transmission the NACP advocates abstinence, fidelity to one sexual partner, and use of condoms as the means of behavioural change to control AIDS. Condom use has been promoted for the dual purposes of AIDS/STIs prevention and family planning in Malawi. Condoms are given free in government hospitals and sold at many retail outlets throughout the country under SOMARC.

Some religious bodies have been operating charity organisations in the area of HIV/AIDS prevention by promoting morality in sexual relations and offering support to AIDS sufferers and their families' material and spiritual support. They do not advocate condom use. Examples of the programmes run by religious organisations are Livingstonia Synod AIDS Control Programme for the Presbyterian Church, the Salvation Army AIDS Education Project and the Scripture Union Life Skills Behaviour Change Programme (NACP, 1996).

8.5.3 Voluntary Counselling and Testing Services

Voluntary Counselling and Testing (VCT) for HIV is one way that has not been widely promoted to influence safer sexual behaviour. Only blood donors are systematically screened for HIV. Key informants in NACP argued that if people are aware of their HIV status they acquire important information that can enable them take charge of their future health decisions (see also World Bank, c.1997). If they are HIV negative, they may be encouraged to enhance responsible sexual behaviour. If they are HIV positive, they may be impelled to 'live positively' so that they do not spread the virus or reinfect themselves. In addition, it is intended they can get support from the family and community network without being stigmatised.

During focus group discussions with young men in Blantyre on use of reproductive health services an NGO named "Malawi AIDS Counselling Resources Organisation (MACRO)" which provides anonymous counselling and blood testing was mentioned. Interviews were

held with management at the centre in Blantyre (BACE). The centre is linked to the central hospitals from where some of the clients are referred and where laboratory facilities for blood testing are used. The client statistics showed that demand for counselling and blood testing services has been increasing- for example the number of clients exceeded 150 a month in 1998, rising from 35 the previous year. It was noted that although the centre is located in the city, there are large number of clients from the rural areas. The increasing demand for VCT for HIV has attracted donors such as DFID, EU and USAID to support the services.

It was interesting to note from the user records that the majority of the clients for VCT were male youth who, as shown in Chapter four, are more influential than female partners in sexual relationships. Counselling young men will have an effect on the more vulnerable young females. One focus group discussion revealed that young women are aware of their vulnerability to HIV in a sexual relationship and would consider encouraging their partner to go for an HIV test before marriage as illustrated in the following quote:

R3: ...if she finds a husband, and if she believes that she's okey...should try to discuss with him to ... go for testing at Queens, since men are now Charlies' [sly], you can't deal with them! [Young women with children, urban area 2].

Hence, reinforcement of VCT coupled with behavioural change, especially among young men would have a multiplier effect to the young females as well before they get infected.

8.6 Enhancement of young people's social status: basic education in Malawi

Education, particularly of women, widens their career opportunities and empowers them to make informed decisions regarding reproductive health choices (see for example, Diamond et al., 1999a). As noted in Chapter four on the social context of young people's reproductive behaviour in Malawi, young people have ambitions to 'finish school' and get a job before they get married, but these intentions are hampered by both supply and demand factors in education.

The formal education system in Malawi is generally of poor quality with crowded classes, scarce teaching materials, and is also characterised by high repetition and drop out rates, which are higher for girls (GOM and UNICEF, 1997). Education officials identify reasons for school drop out as a combination of access to schools, authoritarian attitude of teachers, conflict in demand for pupils' time with household and agricultural tasks, low value of education by parents, and poverty as the major underlying factor.

The Malawi Government's strategic objectives for national development are centred on the improvement of access to education for the populace, especially promoting enrolment and retention of girls in the school system for them to attain some basic numeracy and literacy (Government of the Republic of Malawi, c.1994). This section examines the interventions in education provision in Malawi, focussing first on low enrolment, and second on course content relevant to addressing young people's reproductive health issues. Extra-curriculum activities in reproductive behaviour are also outlined.

8.6.1 School enrolment

The education system in Malawi is characterised by low enrolment rates and low efficiency. The enrolment in primary school absorbs only about 60 per cent of the eligible school-age population. The progression rate from primary to secondary school is only about 12 per cent, representing about 3 per cent of secondary school-aged children¹² (Government of Malawi and UNICEF, 1997). Strategies to address these issues include: free primary education, improvement of girls' education, community schools, double shift system, and equitable distribution of teaching and learning resources.

a. Free Primary Education

The Government of Malawi implemented a free primary education policy in 1994 in order to encourage attainment of basic education for those pupils who may have dropped out of school because of lack of fees. With the introduction of free primary education in 1994/95 enrolment increased up to 3.2 million from about 2 million the previous year (UNFPA, 1996). However, approximately 200,000 pupils dropped out in the same year. The

¹² See below Table A4.2 for a description of the structure of the education system in Malawi.

adolescent pupils who enrolled for the first time and dropped out blamed inflexible hours interrupting with their other commitments, and also learning with children much younger than themselves (Government of Malawi and UNICEF, 1997).

In addition, it is apparent that since secondary and tertiary education is not free some young people are unable to proceed beyond primary education as illuminated by this quote from a focus group discussion;

Right now there's free primary education, up to Standard 8, so what're you going to do after that? ...in form one you won't have the money for fees. So that the education has been in vain. ... But now it's free primary and all the fees have just been loaded on the secondary side. The future is blocked now. You can't get a good job with Standard 8 certificate. [Young men, married/ with child, matrilineal rural area 1]

b. Improvement of Girls' Education

Girls have higher drop out rates than boys. About 30 per cent of girls drop out after standard one, compared to about 23 per cent for boys. In addition, about 50 per cent of girls and 80 per cent of boys are likely to have repeated a class by the eighth year of school; the promotion rate is only 70 per cent. By the end of primary school, only a quarter of the pupils are girls (Government of Malawi and UNICEF, 1997).

The most common times for a girl to drop out of school are standard four and standard six (key informant interview). The actual age of children at entry in school ranges from 6 to 15, with a mode of 10 years (Government of Malawi and UNICEF, 1997). Coupled with the high repetition rates, girls would be reaching puberty while in standard four. Once they reach puberty the society views them to be old enough to marry or have children, and the forces for childbearing take charge (Davison, 1993; Hickey, 1997). Marriage is a major reason for school drop out in standard 6.

In Malawi young mothers are now admitted back to school. However, although they may wish to return to school they experience problems such as being ridiculed by other pupils, and lack of subsistence money for the young mother and her child. The following quote shows that being the odd one out is a concern because; *...she doesn't learn very well, things are different from the way they were before... The whole class knows that she has a child, so she is not free.* [Young women, unmarried with child, urban area 2]

The Government of Malawi with the support of USAID operates a programme called Girls Attainment in Basic Literacy and Education - acronym GABLE - which is aimed at addressing constraints to girls' educational attainment. Under GABLE-Social Mobilisation Campaign (SMC) a national campaign has been developed to change attitudes about the importance of girls' primary education. A weekly radio programme '*Tsogolo la atsikana*' (For the girls' future) is aired on the national radio featuring poems, songs, plays, and real-life testimonials with the aim of raising awareness of issues facing education of girls (Mawindo and Robb, 1997). Communities are encouraged to form participatory drama troupes and music groups to raise awareness of issues surrounding obstacles to girls' education.

Dialogue is encouraged between the community and service providers to identify and address socio-cultural issues impeding girls attendance of school. For example, in some areas organisers of traditional dances were contacted to minimise disruption of school activities; in other rural communities parents re-examined the tradition of having girls live in separate quarters (*gowelo*), instead of one family house with their parents since they were noted to offer an opportunity for early sexual relationships.

Communities where initiation rites are widely practised were found to have unusually low enrolment of girls in formal education. The GABLE-SMC worked with *aNankungwi* (initiation counsellors) for both girls and boys, and local communities to enhance the educational ambitions of girls. This included developing pro-education messages in the teachings and structuring the teachings relative to the girls' age groups. They urged the initiates to attend school for a better future. The messages for boys were structured to encourage them to help with household chores to lighten the burden of girls so that they too can attend school (Mawindo and Robb, 1997).

c. Community Schools

Poor access to schools is one of the major reasons for low enrolment. Young children in junior classes of primary school are unable to cope with long distances to school and coupled with physical access problems such as flooded rivers, parents defer the entry of children into school until they are old enough to walk safely the long distances to school. Several interventions have been adopted. In order to address the access problem, the

Malawî Government Ministry of Education (MOE) has, with funds from DFID, introduced community schools- which are junior schools from standard one to four- after which the grown up children go to feeder schools for the rest of the primary cycle. The community schools have reduced the distances needed to travel to school for very young children.

The community uses any existing structure in the village, such as a church building. A key informant in the Ministry of Education pointed out that in the past school buildings had to meet strict standards, but this is no longer the case, as a result the number of community schools had gone up by over 700 as of 1998. The community is actively involved in the running of the school through Parents and Teachers Associations (PTA) and school committees. Some of the teachers are volunteers from the same community, and have not undergone any teacher training, hence the community programme provides accelerated distance learning for the unqualified teachers.

Interviews with Ministry of Education officials revealed that in the past there has been a lack of sense of ownership of schools by communities. Teachers are usually from outside the community, thus are viewed as strangers and antagonistic relationships develop with parents, especially when children fail their examinations. Under the Community Schools Project PTA and school committees are enhanced to empower the local community to be involved in monitoring attendance and examination results, and be involved in the promotion of life skills education through extra-curricular activities. The participatory village-level monitoring enables decisions on corrective measures to be made locally, with important recommendations made known to the MOE.

d. Double shift learning system

Inadequate classrooms and opportunity cost of time spent in school are some of the factors identified for low school enrolment. A double shift system is being reinforced in many schools to reduce the competition on the time of pupils with household and agricultural commitments and hence, increase the enrolment of students. Some urban secondary schools have been operating a double shift system since the early 1990s. Boarding secondary schools were pretty common until recently. The MOE is phasing out boarding schools which have high operating costs to establish day schools which can operate double shifts to increase secondary school places.

e. Resource and Personnel allocation

To address the problem of the unbalanced resource allocation the Ministry of Education has created a unit to coordinate the buying and distribution of materials to schools. The private sector is contracted for the distribution.

In the past schools in urban areas were overstaffed, since most teachers are female and tend to work where their husbands have a job in the urban areas. Those in the rural areas were inadequately staffed. There has been a change in policy that teachers would only be allocated to schools where there is a vacancy to ensure an equitable distribution of teachers.

To improve the quality of teaching, districts have been sub-divided into zones, each with an advisor to supervise the newly qualified and paraprofessional teachers. Each zone is planned to have a teacher-resource centre whereby teachers can undergo in-service training to keep abreast of changes in teaching. The creation of zones is meant to promote a spirit of healthy competition in areas such as enrolment levels, academic results, and retention rates.

In summary, it is noted that about 40 per cent of children eligible for school are not in school. The school education system has low efficiency rates due to repetitions and pupils dropping out. Measures to improve enrolment include: free primary education, community schools for young children, the promotion of a double shift to maximise classroom space; and resource management to monitor enrolment effectively. It is hoped that with these measures will prevent them from dropping, thus expose them to more knowledge on the risks of sexual activity at a young age (Chapter six shows that it is higher for those with low education attainment).

8.6.2 Changes in Curricula

Given the dynamic nature of the status of reproductive health in Malawi, the school curriculum has had to be adjusted to keep pace with social change. With high population growth, early start of childbearing and the high rate of HIV infection affecting young people; population, AIDS education and more recently life skills, have been introduced in the school curriculum. Information dissemination is also undertaken through informal after-school activities.

a. AIDS and Population Education

To make the school curriculum relevant to the current issues concerning Malawi, courses such as population education and AIDS education have been incorporated in the primary, secondary and teachers' training college curricula. Population education was incorporated into the formal school curriculum in 1989. It is included in four 'carrier subjects' in the primary curriculum: social studies, home economics, agriculture, and science and health education. The curriculum aims to improve the understanding of inter-relationships among population, gender, environment and development, and to enable young people to make informed decisions regarding family formation process.

AIDS education curriculum aims at raising awareness and promoting preventive measures against the HIV/AIDS epidemic in Malawi. First developed in 1991, it was introduced into the school and teacher training curriculum in 1995/96. It covers topics on basic information on HIV/AIDS, how it is spread, its signs and symptoms and how it can be prevented. Sexual behaviour is not mentioned until year five of primary education. AIDS education is incorporated into biology in the secondary school curriculum; in the science and health education in the upper primary; and general studies in the lower primary curriculum. AIDS Education is an examinable subject in the national examinations.

A report on the evaluation of the population education programme showed that some teachers had problems teaching 'growing up in boys and girls' because of 'its sensitivity due to cultural practices and customs'. A third of the teachers were also found to be embarrassed to teach sexual issues related to AIDS, some said 'the students giggle' (Jere and Nyirenda, 1996: pviii). The interviews with teachers affirmed the findings of the classroom evaluation that some teachers are uncomfortable in teaching sex education because of cultural inhibitions. The quote below illustrates this;

...in primary schools, we say we talk to the young ones. But you know partially, bearing in mind that we do have a culture to look after... this has come about because of the deadly disease, for the young ones to know how to avoid it and so forth. It really takes nerves for that one to be done...
[Teacher, Urban Area 2]

b. Life skills education

‘Life skills’ are defined by WHO as ‘abilities for adaptive and positive behaviour, that enable individuals to deal effectively with the demands and challenges of everyday life’. Life skills are a combination of skills in decision-making and problem solving; creative and critical thinking; communication and inter-personal relations; self-awareness, and coping with emotions and causes of stress (WHO/UNFPA/UNICEF, 1999). Improvement of life skills of young people is a focus of the Adolescent Development Theory (WHO, 1993) which views adolescent development as a complex process of physical, cognitive, social, emotional and moral maturation (Kirby, 1997). In addressing sexual behaviour of young people the emphasis is primarily on life skills that apply to behaviour in general.

The major criticism of the current school curriculum in Malawi is that it only focusses on facts and examination performance (World Bank, c.1997). The current education system does not adequately equip young people for life after school and is partly responsible for the poor employment situation in Malawi (Ministry of Economic Planning and Development, 1995). More important, it falls short of fostering the adoption of preventive measures against HIV, particularly providing information on sexual behaviour. As noted in the earlier section, some teachers feel constrained in teaching sex-related subjects. Hence, in 1997 the Ministry of Education in collaboration with the Ministry of Youth and UNICEF embarked on a programme to introduce Life Skills Education in the formal school curriculum and also reach out-of-school youth.

Life skills education emphasises a participatory approach to empower pupils to develop confidence in themselves in order to adopt positive behaviour. The strategy is to introduce a participatory life skills approach to learning reproductive health education in order to provide 6 to 14 year olds with information, knowledge and skills which would persuade them to delay sexual activity for at least two additional years. The approach is to create a friendly learning environment which is child-centred and to institute guidelines to encourage an interactive learning approach to teach problem-solving skills, instead of a one way teacher-pupil method. The teacher only acts as a facilitator. The teaching of life skills also demands collaboration from sectors such as health, youth, community development and

other NGOs working with youth as well as soliciting parents' support. The programme has not been implemented yet.

8.6.3 Extra-curricular activities

Extra curricular activities allow adolescents to acquire reproductive health messages through entertainment such as drama, songs and games. *Edzi Toto* (Anti-AIDS) clubs and some Christian clubs aimed at promoting development and growth of adolescents have helped to promote sexuality values among members.

a. Edzi Toto Clubs

Edzi Toto clubs have been formed with the support of the NACP and UNICEF at almost all primary and secondary schools as an after-school activity. The aim is to offer peer education and improve the inter-personal communication skills of young people. The activities include drama, quizzes, debates and group discussions. Secondary school members have been trained as peer educators and youth animators using participatory communication techniques (NACP, 1996; Malaŵi Government and UNICEF, 1997). An evaluation of anti-AIDS clubs revealed that the number of clubs has been decreasing due to lack of financial and community support, hence UNICEF established a monitoring system for clubs obliging them to register and provide activity reports (Government of Malaŵi and UNICEF, 1997).

b. 'Why Wait' Programme

The 'Why Wait Enrichment' curriculum is a Christian-value based programme whose purpose is 'to give youth rational decisions to wait so that they can make informed decisions regarding their future' (Chimombo and Day, 1996:4). It is modelled on a book on teenage sexuality crisis in the United States titled 'Why Wait' co-authored by Dick Day, an American professor at the University of Malaŵi. It advocates the making of 'healthy moral choices' rather than just warning the youth against risky behaviour. The programme has been modified to make the content and activities relevant to Malaŵian culture. It was formally launched by the President of Malaŵi in 1995.

The ‘Why Wait’ curriculum has been developed for primary and secondary schools. Sexual behaviour is taught in the first three years and parenting skills in the fourth year of secondary school. It is a non-examination course which is interactive, involving drama and music, aimed at making students think and come to their own informed decisions, being aware of the consequences of each kind of choice. It is stipulated that teachers of ‘Why Wait’ are of a character and behaviour that is exemplary among pupils. More importantly, they need to believe in the philosophy of the programme. Such requirements are difficult to meet for a number of teachers. The programme only started in 1996/97 as a pilot.

c. Scripture Union (SU) Life Skills Behaviour Change Programme

The programme aims to reach in and out-of-school youth to equip them with sexuality and family life skills, that is, family planning and STI/HIV prevention. It is funded by JSI/STAFH project of USAID, operating in three pilot districts aimed to reach 30,000 pupils by June 1998 (NACP, 1996). The focus is to increase age at marriage and reduce teenage pregnancies and STI infections. The programme is based on the premise that young people are sexually active therefore, they have to be taught life skills which involve peer pressure management, particularly being able to resist pressure to have sex, have a positive self-image, and promote healthy non-sexual relationships between boys and girls. The strategy of the programme includes: training pupils in Standard Six to Eight as peer educators, holding outdoor and fun-oriented retreats; and support of *Edzi Toto* clubs. The fundamental difference between the SU Life Skills and ‘Why Wait’ programme is that the former acts on the premise that adolescents are sexually active, whilst the latter advocates an unequivocal ‘NO’ to sexual relations outside marriage and does not accept condom use.

In summary, population and AIDS education curricula have been developed in Malawi to address early childbearing and to raise awareness of AIDS issues. However, the teaching programmes have been found to be factual and unable to equip learners with skills to make healthy decisions about their reproductive behaviour. Life skills education is being developed to fill this gap by addressing broader issues of personality development.

8.7 Other out-of-school programmes for young people

With about 40 per cent of children of school-going age not in school, the interventions in schools omit a high proportion of young people. Adolescents aged between 10 and 19 years have been particularly missed in interventions for out-of-school youth (World Bank, 1997).

Edzi Toto and life skills projects are also being developed to reach young people who are not in school, to enable them develop self- confidence in order to make informed decisions in life. The Department of Youth (DoY) in the Ministry of Gender, Children and Youth is implementing a family life education (FLE) project funded by UNFPA aimed at sensitizing out-of-school youth on population issues. This project is closely linked to a broader- focussed programme called Community Based Non-Formal Population Education Project (“CPEP”) executed by the Ministry of Gender, Children and Youth. The major aim of CPEP is to train youth officers, and other cadres of extension workers in non-formal family life education, with special emphasis on sex education, so that they can counsel youth (aged 14 to 25 years) at community level to prevent STI infections and early pregnancies. The project intends to support the CBD of contraceptives to youth.

The DoY has published two textbooks for teaching young people FLE. A book on adolescence written in Chichewa (*Moyo ndi Kakulidwe ka Achinyamata*). It contains information on: puberty, premarital pregnancy, abortion, STIs and AIDS, family planning, and alcohol and drug abuse (MoY, Sports and Culture, c.1994). It describes human reproductive anatomy in a factual graphic manner. It has a section on ‘pressure lines and rejoinders’ to teach young people how to resist peer pressure. In addition, an FLE training manual based on a model developed by Planned Parenthood of New York’s Margaret Sanger Centre uses a ‘life skills’ teaching approach to provide young people and their parents with factual information on: sex and sexuality, reproductive anatomy and physiology, personal and sexual health, forms of sexual abuse, family planning and population, parents and youth, and self-esteem and decision making (Ministry of Youth Sports and Culture, 1996). The field survey indicated that the two books are distributed to youth workers only and not readily available to young people.

The review of programme documents and interviews with programme managers and service providers demonstrated that young people in Malawi lack places where they can go for

recreation and meet to exchange ideas. It is proposed that Youth Technical Sub-Committees (YTSC) at district and Traditional Authority (TA) level will, with support from DoY and UNICEF, establish multi-purpose youth centres with services such as library, recreational, counselling, and provide a forum where young people can discuss issues to improve their well being. The project seeks to solicit the support of traditional authorities and communities to provide land and support the construction of youth centres (Government of Malawi and UNICEF, 1997).

There are over 200 youth NGOs registered in Malawi, organised into regional and national coordinating bodies. For example, the Youth Arm Organisation (YAO) based in Blantyre and supported by UNICEF and JSI-STAFH runs a weekly radio programme 'Straight Talk' or '*Kunena Mwatchutchu*', which discusses issues such as reproductive health, human rights, gender roles, and career advancement. YAO operates reinforcement projects which support the *Edzi Toto* clubs for both in school and out-of-school youth through drama, quiz, sports, and feedback letters on their radio programme. In addition, YAO runs a drop in centre which has a library and provides recreational facilities for young people. Other youth NGOs are involved in essentially similar activities as well as community charity projects.

In summary, some of the extra curricular activities operating in schools have been extended to the community to reach young people not in school. DoY and Ministry of Gender, Children and Youth operate community based programmes to reach the young and the old in FLE.

8.8 An appraisal of policy and programme interventions for young people's RH

This section appraises the various policies and programmes in the major sectors of young people's reproductive health in Malawi based on the recommendations of the WHO/UNFPA/UNICEF Study Group on Adolescent Health and Development (Hughes and McCauley, 1998; WHO/UNFPA/UNICEF, 1999). Further discussion is made with particular reference to the context of Malawi.

The WHO/UNFPA/UNICEF study group suggest six programming principles for programme managers to use as tools in formulating reproductive health programmes for

young people. The programming principles were developed based on research findings that: young people want services, but have limited access; they need to learn skills to adopt healthy behaviour; and given limited resources cost-effective interventions are needed. In addition, the Study Group identifies three categories of young people: those not yet sexually active; those sexually active without unhealthy consequences; and those who are sexually active with unhealthy consequences. The interventions in young people's reproductive health and youth development in Malawi are appraised against the Study Group's six recommended principles of programme design and implementation.

1. Take note of the sexual experience of young people and other key characteristics. Timing of messages on reproductive behaviour is crucial. In Mexico, it was found FLE did not have an effect on contraceptive use on those who were already sexually active (Pick de Weiss et al., 1990). McCauley and Salter (1995) found that in most FLE programmes, if young people were exposed to messages before their sexual debut, they had higher contraceptive use once they started having sexual relations. In the Malawi AIDS Education curriculum sexual behaviour is not mentioned until standard five, but there is a high drop out rate in standard four as soon as girls reach menarche and start sexual relationships (Kaponda, 1996); and in standard six- to get married. Other programmes also seem to delay the timing of their interventions until after the critical age. For example, the Scripture Union Life Skills Behaviour Change Programme targets pupils in standards six to eight, by which time they have already started sexual activity.

The programmes in young people's reproductive health being developed in Malawi often treat young people as a homogenous group, regardless of their sexual experience and other socio-economic attributes. For example, the Youth and Education Programme proposes disaggregating adolescents in three age periods: 10-14, 15-17 and 18-20 years, which 'roughly correspond to phases of physical, social, and psychological' development during adolescence (Government of Malawi and UNICEF, 1997). Still, this division does not consider the sexual experience of the adolescents. In addition, the gender and rural/urban divide of young people needs to be recognised.

2. Begin with what they want and what they are already doing to get reproductive health information and services. There is a need to understand their health seeking behaviour and

their sources of information, and build from that base. Young people spend most of their leisure time socialising with friends. Peer programmes such as *Edzi Toto* and youth clubs for out-of-school youth provide a forum for peer interaction in the dissemination of information and provide reproductive health services. Peer programmes have grown in the past few years in Malawi and it is hoped that they will be effective in influencing change in sexual behaviour.

Young people seek non-stigmatising quality health care (WHO/UNFPA/UNICEF, 1999). In Malawi it has been found that young people are comfortable with traditional medicine practitioners and the private sector for STI treatment and other reproductive health services due to lack of confidence in the government health services. Although BLM was meant for the 'poorest of the poor' its location is mainly in the urban areas, where only 20 per cent of the population reside. An interview with a key informant revealed that BLM rural clinics have high operational costs and they are the ones likely to be closed when the current DFID funding cycle is finished in 2001. This implies that young people in the rural areas are likely to continue having poorer access to sexual and RH services.

3. Training in skills building- in planning, decision making, and forming positive relationships. Although not fully developed, there is a move towards life skills development in young people's education programmes in Malawi, both formal and non-formal. Life skills enable them to acquire not just factual information on sexuality but also acquire and internalise negotiating skills leading to the adoption of healthy sexual behaviour.

The FLE and CPEP programmes are fairly well established. They raise awareness on broad issues of reproductive health. The FLE has a manual which takes a life skills approach emphasising the participation of group members, however, there is still a large section of the thick manual that is biological, with very little content on negotiating skills (World Bank, 1997). The manual is apparently modelled on an American culture, although it is alleged to have been modified to suit the Malawi cultural context. However, some of the issues such as injection drug use, the 'sexual slang' and homosexuality are not culturally appropriate in Malawi. It is also not clear what values of sexual behaviour the training wants to promote. The neutrality of the US Government's policy has been blamed for the highest rates of teenage pregnancy and abortion rates (Kippax, 1997; Kulin, 1988; Trussell, 1988).

Thus, Furstenberg (1998) warns developing countries not to follow the same path of ambivalence in addressing young people's sexual behaviour as is the case in the US.

4. Engage adults such as parents, teachers, community leaders and policy makers, to create a safer environment for young people. Young people's social environment is defined by family, community, and school at the micro level; whilst at macro level government laws and policies, mass media and religion define it. The community schools programme in Malawi intends to involve community members in the introduction of topics in the school curricula which are deemed 'culturally sensitive'. For the establishment of youth clubs, there are also intentions to involve traditional leaders to support the activities since Malawi is predominantly rural and the traditional sources cannot be ignored. The CPEP programme is already involved in advocacy to promote open discussion of human sexuality in Malawi. It aims to provide parents with information to deal sensitively with topics of reproduction and sexuality to influence young people's sexual behaviour.

Many people in Malawi belong either to the Christian or Muslim faiths. Religious bodies can be influential in determining the content of FLE and approval of some methods of contraception. However, recently the government and the civil society, and the Christian and Muslim clergy in Malawi have been involved in a debate regarding the promotion of condom use as one way of controlling the HIV epidemic. Religious organisations argue that promotion of condoms is tantamount to condoning promiscuity, thus compromising their religious and moral ideals. However, the Social Marketing of Contraceptives (SOMARC) have argued that with the extent of the AIDS epidemic, it is not the time to argue about the few means of AIDS prevention at their disposal. Besides, SOMARC also advocate abstinence and mutual fidelity between partners in their messages to market condoms (Chipungu, 2000).

Although the 'Why Wait' and the Scripture Union Life Skills Behaviour Change Programme are both Christian programmes in Malawi, the 'Why Wait' promotes 'abstinence only' values, while the Scripture Union's message is 'abstinence only plus positive effects of contraceptive'. It is clear that the state and the church need to work together in designing appropriate messages that may eventually lead to a reduction in early childbearing and HIV infection of young people.

As shown in Chapter five, there is a pattern of early marriage in Malawi and childbearing often starts in the first year of marriage. The constitution of the republic of Malawi, the prime law in the land, is non-committal on a minimum legal age at marriage. Section 22 (6) states that 'No person over the age of eighteen years shall be prevented from entering into marriage'. For those aged between 15 and 18 it is stipulated that a marriage shall be entered with the consent of a parents or guardians. Marriages between persons aged under 15 years are 'discouraged' by the state (Government of the Republic of Malawi, 1994). Thus, the legislation is not effective since birth registration, that could used to validate age, is not mandatory in Malawi.

In the past decade, the Malawi Government has seen an upsurge in the formulation of policy documents. Policy formulation is a demonstration of the government commitment and an important step to achieving the policy goals. However, well-designed policies have not been implemented. For example adolescent health is the main focus of the national health strategic plan, but so far that commitment remains at policy formulation level and organisation of bodies. In addition, in the NACP the Medium Term II Work Plan of 1997 allocated the largest proportion of money to the youth component, yet its strategic plan did not reflect its monetary commitment (Government of Malawi and UNICEF, 1997). It is clear that policy documents on their own do not cause things to happen automatically, they need commitment of human and financial resources.

The Ministry of Education in Malawi now has a readmission policy for young mothers. However, the field survey found that poor economic and other psycho-sociological factors may also hinder young mothers from returning to or being retained in school. Thus, the policy should ensure that girls have a safe learning environment.

5. Use a greater variety of settings and providers- both private and public, health workers and non-health workers- to provide reproductive health information and services. Those not yet sexually active are in need of information, counselling and skills building, which are non-clinic based. Those sexually active without unhealthy consequences, need reproductive health services in addition to counselling and skills building; and those who are sexually active with unhealthy consequences, need a full range of STI treatment services and pregnancy care over and above the basic service requirements. The grouping of young

people according to their sexual experience has implications for programme design and implementation; young people in the first two groups can be met in less costly non-clinical settings, while the third group is served in more expensive clinical settings.

In Malawi some programmes have tried to use a number of settings and providers. The community schools programme, CPEP and FLE intend to make use of existing structure and involve the community. The expansion CBD programme has depended on traditional birth attendants since they are in a position of trust in their communities. NGOs have linked up with BLM in the youth CBD programme. Traditional healers need to be involved since they seem to be the first line of consultation for STI treatment. Hughes and McCauley (1998) warn programme designers against the temptation to create special youth clinics or multipurpose centres when there is need to expand reproductive health services. They suggest the creation of modest youth centres, since young people often need 'safe spaces' where they can meet and socialise with community support. These can be linked to other settings and providers of reproductive health services.

6. Make the most of what exists through: coordination and co-operation of public and private sectors; and combined programme approaches combining clinical and non-clinical services. There is no doubt that effective operation of reproductive health and youth development programmes requires the support of more than one sector. Coordination has the advantage of efficient use of limited resources, reduces duplication of activities, and permits policy-directed implementation of programmes. Concerns were expressed by key informants that the location of coordinating agencies within Ministries, e.g RHU and NACP in the MoHP has a bearing on the commitment of other government ministries and institutions to the mandate of the coordinating agency. It is just viewed as a section of that ministry, thus other ministries and agencies do not feel obliged to assign officers or commit resources to the fulfilment of the mandate of that agency (Government of Malawi and UNICEF, 1997). For example, the NACP location in the MoHP may suggest that AIDS epidemic is only a health problem and may not take into account the socio-economic impact it has on other government sectors and the private sector in terms of lost working days due to sickness or death.

The coordinating role of agencies themselves is constrained by lack of staff and high staff turnover due to job changes or transfers. For example, the Reproductive Health Unit as a Family Planning Unit coordinating FP activities had difficulties coordinating the assistance of all donor agencies due to a shortage of staff with the required training (UNFPA, 1996). Now with its broader mandate to coordinate all RH activities, the need is even greater to improve the staffing situation.

Vertical programmes in Malawi have had little coordination across them. Sometimes, just when a rapport has been established among staff in coordinating agencies, they get transferred. Often coordination depends on the personalities of individuals. Inter-sectoral committees in reproductive health have not been effective since member organisations have their own priority programmes. As a member of some inter-sectoral and interdisciplinary committees on population and young people's reproductive health in Malawi, experience has shown that well-intentioned committees have risen and fallen because of staff mobility and non commitment of member organisations.

In view of the substantial component of donor sponsorship in the programmes in reproductive health in Malawi coordination of donors is important in order to rationalise the use of resources and to avoid duplication of efforts. Donor collaboration in Malawi is done in various ways. There is a health and population sub-group composed of UN agencies and other main donors such as DFID, World Bank and USAID. Collaboration is also done through 'theme group' meetings held monthly or on *ad hoc* basis to identify principal themes to which each agency can subscribe. The groups are Gender, Youth and HIV/AIDS. For example in education programmes, the donors are as follows: UNFPA for out-of-school youth, UNICEF for in-school, DFID for school AIDS curriculum, EU for tertiary education USAID and JSI/STAFH for mass media, school-based and out-of-school.

7. Supplementary principles specific to Malawi

In addition to the six principles, other issues pertinent to young people's RH programme design in Malawi are issues concerning donor funded programmes and use of volunteers in programmes.

Donor-funded programmes

Social programmes in Malawi are highly dependent on donor funding. The drawback with donor funds is that sometimes the programmes are driven by the interest of the donors that may not fit in the overall national strategy of RH service provision. In addition, donor funded projects have a limited time frame and geographical coverage, which results in limited width and depth of interventions (World Bank, c.1997). Monitoring and evaluation is almost impossible with no specific output indicators and projects operating for a short cycle (Kirby, 1997).

Allowances as incentives to work

Workshops and seminars organised by the Malawian Government are often donor funded and the ‘tradition’ is to pay participants daily subsistence allowances. This has had an enormous negative impact on programme operations in Malawi in that the allowances have become the main motivation, rather than the benefit from attending the workshops for government employees. It is particularly interesting to note that the Life Skills and ‘Why Wait’ programmes have taken clear steps to check the *status quo* by working with teams of committed people who believe in the philosophy of the programme, rather than just being attracted by the allowances.

Volunteers in programme implementation

Volunteers are used in the AIDS control programme, CBD, and FPAM proposes to be dependent on them as well. However, key informant interviews show that volunteers have high turnover rates, quickly lose their commitment in the absence of incentives, and have limited tasks they can carry out without further training. Hence, volunteers need to be given some sort of incentive for their time and offered some training to enhance their roles in the implementation of RH services.

8.9 Conclusions

The ultimate goal of various policies and programmes in young people’s reproductive health in Malawi is to raise age at first intercourse and childbearing, increase contraceptive use and reduce number of sexual partners. However, there is no apparent change in reproductive

behaviour in Malawi, except perhaps, for some increase in contraceptive use. Indeed, there is no doubt that national programmes are key to young people's reproductive behavioural modification in Malawi.

There is need to focus on young people in policy design and programme implementation: they form a large proportion of the population, there are longer term benefits, and they hold current and future reproductive roles (McCauley and Salter, 1995; Senanayake, 1992). The investigation of interventions in young people's reproductive behaviour has revealed that the Government of Malawi is making efforts in tackling early childbearing and high HIV among young people through various policy and programme changes. However, the vast majority of the programmes are either very recent or are just on paper with serious operational problems. What is more, important, however, is to implement what is in the policy document backed with resources. It is also clear that there is need for more collaboration and communication among all stakeholders in the field of young people's reproductive health, namely policy makers, programme managers, service providers, community leaders, the clergy, parents and most important, the young people themselves.

This chapter has demonstrated that there are a number of policy and programme interventions in young people's RH in Malawi. The next chapter summarises the major findings and draws conclusions and provides policy and research implications arising from the research.

CHAPTER NINE

SUMMARY AND CONCLUSIONS

This chapter presents a summary of the main results of the study and suggests some implications for policy and research. This study has been aimed at identifying the socio-demographic aspects of the reproductive behaviour of young people in Malawi. First, investigated the community attitudes, norms and values concerning sexuality to establish how these affect the reproductive behaviour of young people in selected areas of Malawi. Second, the effect of age at first birth on the pace of childbearing and the achieved fertility was analysed. Third, factors associated with the timing of first sex among young people aged 15 to 24 years in Malawi were examined. Fourth, issues of contraceptive behaviour namely contraceptive use, method choice, and the need for contraception among young women aged 15-24 were studied. Finally, the thesis described and assessed the programmes being implemented in Malawi which aim to improve young people's reproductive health.

The study was based on both quantitative and qualitative data and methodologies. There were two main sources of quantitative data: the Malawi Knowledge, Attitudes and Practices in Health Survey (MKAPH) of 1996; and the Malawi Demographic and Health Survey (MDHS) of 1992. The 1992 MDHS was employed in the fertility analysis using the birth history data which were not available from the 1996 MKAPH. In 1998, qualitative data were collected from programme managers and policy makers to have an insight into the programmes being implemented in Malawi to address issues of young people's reproductive health. Focus groups and in-depth interviews were also held at the community level with young people and key informants, to provide some understanding of the social context of young people's reproductive health in Malawi. The various data sources cover a period of six years during which various programmes concerning reproductive health have been initiated in Malawi. Thus, data have to be appreciated in that context.

9.1 Summary of results

Social context of young people's reproductive behaviour in Malaŵi

The findings from the focus group discussions with young men and women, and in-depth interviews with opinion leaders suggest that the socio-cultural context in which young people in Malaŵi live is conducive to early sexual activity and childbearing. There was a gap in information about the transition from childhood to adulthood. Young people were not generally told about puberty until they had experienced it. For girls, there was particularly a mystery surrounding menarche, whereby the experienced did not share information with the inexperienced.

There were indications of more opportunities than in the previous generation for mixed sex socialising among adolescents and the development of sexual relationships. Although adolescents were aware of parental control regarding their movements and who they mixed with, it was apparent that it was not effective as they were still able to socialise with members of the opposite sex, sometimes at night at community festivities.

Culturally reinforced attributes of male control in reproductive behaviour were identified in this thesis. From puberty, young men were likely to show attributes of masculinity whereby they regarded it as '*natural*' to have sexual relations to satisfy their sexual drive. Furthermore, masculinity was associated with initiation of sexual activity in a sexual partnership as a way of fulfilling that which is given by '*nature*', and satisfaction of one's sexual pleasure in which condom use was seen as a barrier. There was also a general belief that to make a girl pregnant and be able to get acquitted in a court case validates masculinity. Masculinity regarding 'male sexual drive' in heterosexual relationships was seen to be attenuated by factors such as religion and autoeroticism. Religion instils morals of sexual behaviour in people which may reduce premarital and extramarital sexual activity. Autoeroticism was viewed as a way of preventing unwanted pregnancies and reducing the risk of sexually transmitted infections.

There is no doubt that the HIV/AIDS epidemic is likely to change young people's reproductive behaviour in Malaŵi, particularly decisions regarding marriage. The HIV/AIDS epidemic seems to motivate young people towards early marriage and a shorter

courtship period. The discussion on the risk of sexually transmitted infections suggested that young people do not want to postpone marriage for too long so that they do not prolong their period of risk to having multiple sexual partners and consequently their risk of HIV. However, such 'rational' intentions were counterbalanced by the continual involvement of young people in extra-marital relationships.

Although young people were intuitively aware of their risk of HIV, or wanted to delay marriage and childbearing, their sexual behaviour was contrary to their rationality. Young men seemed to be sensible in their choice of sexual partners, especially the women that they wanted to settle down with, by considering a 'test' before they are involved in sexual activity. However, often they could not, or chose not, to follow that rationality. The suggestion to have a HIV test to a partner seemed to intimate a '*lack of respect*' for that partner.

The focus group discussions also suggested that young people would like to prepare (economic and parenting) for marriage and childbearing but often were unable to do so. It was found that female adolescents wished to 'have and hold' a man in a committed relationship, only then would they have sexual relations. Their rationality prescribed that they should not engage in premarital sexual relations for fear of unwanted pregnancies which may result in abortion, complications during labour and delivery, and possible death. However, contravening forces such as pressure from peers and potential sex partners, socio-economic reasons arising out of need or desire for a luxurious life, made that goal unattainable.

The social norm concerning marriage for young people in the study areas was to 'finish school' (at Form 4), get employed and provide a means of support for their family. However, poor supply in education coupled with factors in favour of early childbearing offset the effects of education on early childbearing. Due to repetition of a class year, some young people do not leave school until their early 20s when they are likely to be faced with marriage and childbearing decisions. Therefore, they are unable to attain desired education levels to prepare them for marriage.

It was interesting to note that some reproductive health messages disseminated in the media were instilled in the social script of young people in Malawi. Messages cited by

participants of focus groups included those on the postponement of their first child until they are at least 18 years old, spacing births for at least three years, warning girls about the possibility of pregnancy even if one has only had sexual intercourse once and some HIV/AIDS prevention messages. However, there were indications foreign pornographic videos could pose a threat to the positive influence of the media.

Early Childbearing and subsequent fertility

The results of the analysis of the relationship between the timing of the first birth and subsequent fertility demonstrated that young age at first birth was associated with high fertility levels and short birth intervals. The cohort analysis of fertility trends by age at first birth showed that there was a difference of almost two children between the earliest and the latest starters in the mean number of children for the age cohort 40-44.

This relationship between timing of subsequent birth and age at first birth was dependent on other factors such as marital status, education, and economic status. First births were more likely to be premarital than marital. High levels of education were found to be associated with older ages at first birth and longer birth intervals, with the exception of those with only primary school education. For example, the relative risk of second birth was higher for primary category than the others.

The pace of childbearing was associated with the survival of preceding birth. The results showed that if the previous child died, especially in infancy, a subsequent birth followed sooner suggesting termination of lactational amenorrhoea.

The indicator of economic status of the respondent, i.e. the possession of modern household amenities, showed that after the first birth, those without household amenities were less likely to have a subsequent birth. This could probably be due to economic variables acting on biological factors: poorer women may breastfeed for longer or in general be undernourished, therefore delaying the return of fecundity. Alternatively, those with modern household amenities may have small family norm.

Being resident in the South and in the rural areas of Malawi was found to be associated with a higher risk of having a first birth at an early age. Rural areas are usually associated with lack of opportunities for education and access to FP services that may delay age at first

birth. The South comprises mainly matrilineal cultures where there is generally a liberal attitude towards early childbearing. For childhood residence, it was found that being resident in the urban areas was associated with lower risk of third birth than spending childhood in the rural area.

Factors associated with early sexual initiation

The analyses showed that adolescent males were more sexually active than female adolescents, nevertheless, the literature shows female adolescents are more at risk of STIs than male adolescents due to physiological and social reasons. Residence in the Southern Region, urban area and attendance at initiation ceremonies were related to increased risk of early sexual activity for females. However, it was found that the association between first sex and traditional initiation was weakened by formal education attendance for females; higher levels of education were associated with delayed sexual debut. However, those young women who had primary education and had gone through initiation ceremonies had the highest risk of first sex. Hence, the area of residence is important in its association with first sex for males whilst education seems to be the more important factor for females.

The results also showed that being unmarried is not a deterrent to having sexual relations. Generally young women in Malawi get married soon after they have started to have sexual relationships. Thus, early sexual activity is a likely contributing factor to girls' dropping out of school.

Contraceptive behaviour of young females in Malawi

The results of the analyses of contraceptive behaviour noted that only 21 per cent of all sexually active young women were using contraception. Amongst young women who used modern methods the pill was the most common method. Higher levels of education were associated with an increased probability of contraceptive use. Unmarried young women with higher levels of education were more likely to use contraceptives than any other subgroup of women for these two variables.

Before the birth of the first child, the likelihood of contraceptive use is higher for the unmarried women, but after the first birth married young women are more likely to use

contraception. Thus, unmarried women may be using contraception to avoid birth, and married women using to space.

For method choice, it was found that education, not participating in initiation rites and being in a union were related to higher use of modern methods of contraception. Unmarried young women were more likely to use the condom than other methods. The probability of using modern methods increased with duration of marriage.

The demand and use of contraception were found to be strongly related to the number of living children. Approximately 24 per cent of young females had an unmet need for contraception and a high 58 per cent reported not to have a need for contraception. Unmet need increased with the number of children with varying influence by cultural factors and exposure status. Cultural factors such as initiation and ethnicity also influenced the demand for contraception. Those who had gone through initiation were more likely to use contraception and to have a higher unmet need for contraception than non initiates. The association worked through age and number of living children. The most common reason given for not using contraceptives was fertility related, either a pregnancy or the desire for children.

Interventions in young people's reproductive health

A review of the programmes in youth reproductive health in Malawi indicated that there are efforts been made by the government and other NGOs to address early childbearing and high HIV infection rates among young people through policy formulation and programme implementation. However, it seems that the implementation was beleaguered by a general resource constraint in all sectors pertaining to reproductive health and education. For example, young people expressed lack of confidence in government health facilities for STI treatment and other reproductive health services. Although SOMARC is becoming an important source for reproductive health services, access remains a problem to a majority of young people.

There is a challenge to the attainment of policy and programme goals in young people's reproductive health such as increased age at first intercourse and childbearing, increased contraceptive use and reduced number of sexual partners. Although there has been

increased knowledge of contraception and HIV prevention, it has not enhanced behavioural change.

The Malawi Government has demonstrated its commitment to addressing reproductive health problems through the formulation of policies in major areas concerned with reproductive health of the youth. However, these policies have yet to be turned into action, as at present remain at the level of policy awaiting implementation.

Co-ordination helps efficient use of scarce resources, minimises duplication of efforts and ensures direction of policy in programme implementation. Major donors in Malawi such as UN agencies, DFID, World Bank and USAID collaborate through 'theme' groups on areas such as AIDS, gender, youth, population and health. Some agencies located within ministries are also mandated to co-ordinate activities in these major sectors. However, effective co-ordination seems to be affected by issues such as commitment of member agencies, staff shortage, high staff turnover and limited power of co-ordinating agencies on member organisations. Thus, there is lack of effective implementation of policies and programmes.

There have been recent efforts to increase parental and community involvement in programmes dealing with young people. For example, the community schools programme aims at involving parents and teachers in the management of schools and the development of subjects regarded as 'culturally sensitive'. The Community Based Non Formal Population Education (CPEP) was also to involve traditional leaders and parents in its activities so as to deal discreetly with topics of reproduction.

Peers play an important role in the diffusion of information regarding sexuality, family planning, and abortion. Peer programmes, such as *Edzi Toto clubs*, are increasing in number in Malawi and it is hoped that they will be effective in influencing change in sexual behaviour.

Lately, there has been an emphasis on life skills development in young people's reproductive health and education programmes in Malawi. Life skills enable young people to acquire not just factual information on sexuality but also gain and internalise negotiating skills leading to the adoption of healthy sexual behaviour.

9.2 Policy and programme implications

The results of this study have shown that higher levels of education were associated with the delay of first sexual intercourse for females, increased likelihood of contraceptive use, a higher age at first birth and longer birth intervals. The focus group discussions with young people also showed their desire to have an education in order to prepare them for their childbearing career was often unattainable. These results underscore the importance of education in effecting positive change in teenage childbearing in Malawi. Perhaps once girls became sexually active they were likely to drop out of school due to an early pregnancy or marriage. The efforts made by the Girls Attainment of Basic Literacy and Education (GABLE) programme of the Malawi Government are commended. The results showed that the benefit of education on delaying the first and subsequent births seemed to be lost at primary level. There is a need therefore, to reinforce the improvement of girls' education in Malawi beyond the primary level, since the benefits of education on reproduction are not evident until one reaches secondary school and higher levels of education. Coupled with improvements in education should be efforts to enhance behavioural change backed with services to the vulnerable groups of young women.

Attendance at initiation ceremonies was associated with both negative and positive factors of reproductive behaviour. Female initiates with primary education and male initiates were more likely to experience sex at a young age than non-initiates. On the other hand, those who had attended initiation rites had a higher potential demand for contraceptives as reflected by contraceptive prevalence rates and unmet need. In Malawi initiation ceremonies are held to mark transitions such as into adulthood, puberty; marriage; and motherhood, the birth of the first child (Gwengwe, 1998). Some of the messages imparted to young people at initiation into adulthood have been criticised for promoting early sexual behaviour. The GABLE programme has specifically addressed the barriers to the educational ambitions of girls in areas where initiation ceremonies are practised. There is a need to broaden such efforts in Malawi to enforce the positive messages and discontinue the negative aspects of initiation ceremonies.

It was observed that sexual relationships were not constrained to marriage. The fertility analyses also showed first births were often more likely to be premarital than marital. HIV

statistics in Malawi show that female teenagers, who are likely to be single, are at highest risk of being infected with the virus. Thus, since single adolescents are sexually active and they are more vulnerable to STIs than the older married population, they ought to be particularly targeted with reproductive health services. Policy makers and programme implementers should recognise that some adolescents are sexually active despite the fact that they are not married. Although the FPP in Malawi relaxed all restrictions to do with marital status in the provision of family planning services, it has been noted that service delivery points are not friendly to unmarried youth. This is a challenge to the reproductive health provision in Malawi to provide youth friendly services, particularly for sexually active unmarried adolescents.

The qualitative data found that prepubescents are not normally given information about puberty and sexuality. It was also noted that the sex education in school is not taught until standard 5 (aged at least 10 years). In areas where rites of passage are practised, the timing is either at menarche for girls or ‘when they are clever enough to understand’ for boys. It is vital to get the timing of teaching about sex education right, ideally before young people become sexually active.

Age and sex specific messages should be developed for sub-groups of young people rather than treating them as a homogenous group regardless of their sexual experience and other socio-economic attributes. The grouping of young people according to their sexual experience has implications for programme design and implementation. Young people not yet sexually active are in need of information, counselling and skills building, which are non-clinic based services and less costly. The existing *Edzi Toto* youth clubs, traditional initiation counsellors and other people who work with the youth can be used to reach non-sexually active young people with appropriate messages on promoting the delay of age at first sex and safer sex. Those sexually active without unhealthy consequences, need reproductive health services in addition to those for the first group. Lastly, those who are sexually active with unhealthy consequences need a full range of STI treatment services and pregnancy care in addition to basic counselling and information services.

Adolescent males were found to initiate sexual activity at a younger age than adolescent females, yet females are the ones who face the consequences of premarital pregnancies and

higher rates of HIV infection. In addition, the focus groups suggested that single females were more wary of getting pregnant than of STIs. Thus, the categorisation of young people in service provision should be gender specific taking into account the dual risk of pregnancy and STIs from unprotected sex.

Sexuality has been a taboo subject in Malawi. However, it is evident that there is increasing openness regarding reproductive behaviour in Malawi. As such, the teaching material on sexuality needs wider consultation involving traditional leaders, the clergy, teachers, parents, and the young people themselves so as to minimise opposition to sex education. The CPEP and the Ministry of Education are to some extent involved in consultations to promote open discussion of human sexuality in Malawi. Of particular importance is that the state and the church work together to reduce early childbearing and HIV infection among young people.

It is also not very clear what values of sexual behaviour the on-going programmes in youth reproductive health would like to promote, i.e. whether it is sex, pregnancy or childbearing that is the main aspect of the problem. It is vital that programmes take a stance on what values regarding sexuality they want to enhance rather than being neutral as such an attitude only makes young people unsure as to what they should be doing. If the young people are categorised according to their sexual experience, different notions can be advocated: for example the 'abstinence only' or 'abstinence only plus positive effects of contraceptive'. Promotion of whatever morals a programme stands for needs to be done without being judgemental and stigmatising any sub-group of young people. Young people need to be empowered to make informed decisions about the consequences of their actions.

Young men revealed that if they had STIs, they were more likely to consult traditional healers, friends and the private sector than government health centres because of a lack of confidence in the government services. For example, some retailers in Malawi have been freely 'dispensing' antibiotics for the treatment of STIs. The government needs to strengthen the management of STIs through high quality reproductive health services. Security at the Central Medical Stores and at government pharmacies should also be tightened to curb the theft of prescription drugs. It is also important to recognise the role traditional healers play in the treatment of reproductive health problems in order to

regulate them more effectively. Also, traditional healers need to be trained to give correct advice on reproductive health.

Although there is emphasis on life skills, the training manual for one of the leading programmes in family life education in Malawi had very little content on negotiating skills. In addition, some of the contents were not appropriate to the Malawi culture. Life skills training has always been part of the learning process for children from their parents and other elderly members of the community in Malawi. Traditionally, life skills have been transferred from the older generation through communal participation in work and through leisure. Hence, the life skills programme in Malawi has to use equip traditional counsellors with the right information in order to provide young people with positive information to improve reproductive health.

At the national level, due to the multi-sectoral nature of programmes in reproductive health and education of youth, there is a need for effective co-ordination, backed by personnel and resources from all sectors involved. Although there were agencies located within ministries mandated to co-ordinate activities in major sectors such as reproductive health, HIV/AIDS control, and population, their co-ordinating role was not as effective due to a general lack of commitment from the member organisations. Agencies mandated to coordinate various reproductive health services ought to be supported by all member organisations for improved implementation of reproductive health programmes.

The Malawi Government demonstrated its commitment to addressing reproductive health problems through the formulation of policies in major areas concerned with reproductive health of the youth. However, well-designed policies have either not been implemented or the programmes have major operational problems. For example it has taken over five years to prepare a multi-sectoral Action Plan for the implementation of the population policy. It is clear that policy documents on their own do not cause things to happen automatically, therefore the Malawi Government needs to commit resources to put the policy into practice.

9.3 Future Work

Although the results of this study have addressed some of the research questions regarding young people's reproductive behaviour in Malawi, other issues have emerged that need to be studied further. Due to the cross sectional nature of the data used, an examination of the causal factors of early start of sexual activity and behaviour in Malawi could not be undertaken. Such an analysis requires longitudinal data or a series of cross sectional data to follow a cohort of young people before they become sexually active and link their socio-demographic characteristics with the timing of reproductive events such as first intercourse, use of contraception, first marriage, pregnancy and first birth and subsequent ones.

The data on contraceptive behaviour in this study did not have information on previous use of contraception thus, it was not possible to investigate whether previous use had an effect on current use. These data are important in the study of contraceptive use dynamics such as method discontinuation, switching and failure, information necessary in family planning programmes. Therefore, there is need for contraceptive calendar data in Malawi.

This study also highlighted the incapability of young people to take precautionary measures against HIV in a sexual relationship even though they know what to do. The results suggested that perceived risk of infection expedites the onset of marriage for young people. Therefore, a study on how young people make decisions about sexual partnerships in the era of HIV/AIDS is necessary. Another important aspect to be studied is the feasibility of Voluntary Counselling and Testing (VCT) for HIV, looking at the availability of VCT services and the willingness of young people to use them. Such a study would have to be multi-disciplinary to include medical and social scientists.

In the 1996 MKAPH the data on STI were based on self-reporting and not clinical records. As a result the numbers reported were very small. Research carried out in a hospital in Malawi has indicated higher rates of infection for clinical tests than self-reported data (Dallabetta et al., 1993). For a better understanding of STI and sexual behaviour of young people a study collecting both clinical and behavioural data would be necessary for a robust analyses of the issues. In addition, a study gathering sexual networking data is

suggested in order to help understand paths of HIV/STI transmission among sexual partners.

The study showed that the South of Malawi has higher levels of sexual activity at young ages than the other two regions. Initiation ceremonies, which are mainly practised in the South, were also associated with early start of sex for adolescents. Although in the fieldwork for this study some key informants were interviewed regarding initiation practices, the information obtained was not in-depth since the research team only stayed in the community for a few days. Ethnographic studies in the areas where the ceremonies are practised need to be carried out to look into the information that is imparted to pubescents.

Finally, the DHS data used in this study pertained to men and women of reproductive age. Young people were not the focus of the surveys. Hence, there is need to collect demographic and health data of young people to enable a comprehensive study of young people's reproductive health in Malawi that may consequently lead to the postponement of childbearing and improvement of the reproductive health of young people in Malawi.

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APPENDICES

APPENDIX 3.1 SIFT QUESTIONNAIRE FOR FOCUS GROUP DISCUSSIONS

Area (Cluster)

Hello, I am conducting some interviews as part of a research project on reproductive health and behaviour of young people. This survey is being carried out by researchers at the University of Malawi. Would you spare me a few minutes to answer a few questions?

1. Sex (fill in)

2. Would you tell me how old you are?

a. Under 15 → *Thank you very much*

b. 15-19

c. 20-24

d. Female Over 25 (Male over 30) → *Thank you very much*

3. How best would you describe your marital status at the moment?

a. Married and living with partner

b. Living with a partner

c. In a steady relationship but not living with partner

d. Not in a steady relationship

e. Divorced/separated

4. Do you have any children?

A. Yes.....How many?.....

B. No.....

5. What is your usual occupation?

a. In school (on holiday)

b. Employed (include self-employed, farmers)

c. Unemployed.

That is all I have to ask you for now. The researchers are holding a discussion group at (*venue*) at (*time*). This will be a confidential informal discussion among 8 to 10 young men (women) like yourself and will focus on sorts of issues concerning reproductive health and behaviour of young people in your local area. Participants will be given some refreshments. Would you like to take part in this discussion group? I stress that it will be anonymous and that no knowledge is needed. Please do not feel as though you have nothing to contribute as we are interested in your experiences and opinions.

If respondent agrees

Would you tell me your name? Name.....

Contact details

Respondent recruitment summary for focus group:

Group 1: Age (15-19) Female No children and not living together

Group 2: Age (20-24) Male No children and not living together

Group 3: Age (15-24) Female Living together or has a child

Group 4: Age (20-29) Male Living together or has a child

APPENDIX 3.2.A QUESTION ROUTE FOR FOCUS GROUP DISCUSSIONS (UNMARRIED YOUTH)

Introduction

I would like to thank you all for coming today. My name is Dzina Langa and I am conducting some interviews as part of a research project on reproductive health and behaviour of young people. This survey is being carried out by researchers at the University of Malaŵi. We feel by talking to people like you we can best find out about activities, opinions and feelings about these issues. There are no wrong or right answers, we are interested in your views, so please feel comfortable to say what you honestly feel. I have a list of topics I would like us to talk about but please feel free to bring up any other issues you feel are relevant.

During the discussion Uyu Mnyane will be taking notes to keep track of what has been covered, and to remind me if I forget to ask certain things. However, so that s/he does not have to worry about getting every word down on paper, we will also be recording the whole talk. Please, do not let that worry you, as soon as the tape has been transcribed, it will be erased, so no one will know who said what.

Regarding the language we want you to feel comfortable throughout the talk, so please just use the language that you use when you chat with friends. Finally, please try to let everyone have a turn at saying something, all your views are important, and please try to keep the talk within the group. The discussion is confidential. Are there any questions? ... So shall we begin...

Ice breaker

Ask each participant individually:

- 1.1 Their FIRST NAME ONLY.
- 1.2 Usual occupation (in school, employed, unemployed...).

Social environment of the young people

- 2.1 How do people such as yourselves spend their leisure time in this area? (Probe: with whom, males and females together?)
- 2.2 What type of entertainment is popular in this area? (Probe: films, dances, and what type, time of the day, with whom and why entertainment is popular)
- 2.3 Do a lot of your peers have boy/girlfriends?
- 2.4 What do you think it means to have a boy/girlfriend? (Probe: someone you feel comfortable with, have sex with, exchange gifts with)
- 2.5 What do you think of boys (girls) who have girl(boy)friends? (probe: they are cool, they are naughty.....)
- 2.6 What do you think it takes for one to get recognition in life? (Probe: good job, get married, have children)
- 2.7 What is your opinion on getting married?
- 2.8 What is your opinion on having children, then?

Knowledge

- 3.1 How do people like yourselves know about issues concerning sex, contraception, STDs, HIV/AIDS (probe: friends, parents, teachers, radio, print media and what exactly) ?
- 3.2 Do you talk about sexual issues with anyone? (Probe: friends, parents, other relatives, teachers, medical personnel; and what about)
- 3.3 Do you find it easy or difficult to talk about these issues with the people you have mentioned?
- 3.4 Do you think this information is useful? When would it be useful?
- 3.5 Do young people in this community go through initiation ceremonies? Which kinds are popular? At what stage of their life do they go through each initiation ceremony?

Services

- 4.1 What would you advise a friend to do if ... (Probe: who they would consult and why in each case, availability of services, satisfaction with service):
 - a. They wanted to know more about 'facts of life';
 - b. They were having pressure to have sex (prompt: peers, partner);
 - c. They wanted to have sex for the first time;
 - d. They thought they/ their partner was pregnant;
 - e. They thought they had caught something from having sex (prompt: STDs or HIV);
 - f. They wanted to discuss how to avoid getting pregnant.
- 4.2 How best can reproductive health messages be passed on to people such as yourselves? (Prompt: advertising on the radio, newspapers, posters, interpersonal communication e.g peer networking, one-to-one counselling, group discussion, initiation etc)

Conclusion:

We are reaching the end of the discussion. Does anyone have anything to add before we turn off the tape? I think it went really well. Do any of you have any comments on how you feel it went? Before you came, did you expect anything like this?

Just before you go, could you fill this short questionnaire (we have few questions to ask each one on their own). This gives us some basic information on who takes part in these discussions. We do not need to know your name as it is anonymous, confidential.

APPENDIX 3.2.B QUESTIONNAIRE FOR PARTICIPANTS OF FOCUS GROUPS (ADOLESCENTS)

Introduction: The purpose of asking the following questions is to know some basic information on who takes part in these discussions. Please remember that we do not need to know your name as it is anonymous and confidential.

Age.....

Date of birth.....

Sex MALE

 FEMALE

I am . AT SCHOOL/COLLEGE

WORKING (Please state occupation).....

A BUSINESS PERSON.....

OTHER (Please specify).....

My denomination is.....

Section One- Your sexual experience

1. Have you ever had sex YES/NO

(If NO, please go Question 5)

2. How old were you when you first had sex?.....years

3. How many people have you ever had sex with in your life?

How many people have you ever had sex in the last 12 months?

How many people have you ever had sex in the last 4 weeks?

Section Two: Services you may have used

4. Have you ever used any family planning method? YES/NO

If YES, what type of family planning methods have you ever used?

.....

Where were they obtained from? (Eg. hospital, Banja la Mtsogolo, shop, friends, etc)

.....

5. Have you ever used any form of advisory or counselling service? (Initiation, family planning worker, social welfare officer etc)

If YES, which one?.....

Why did you use this service?.....

THANK YOU FOR ANSWERING THESE QUESTIONS AND FOR TAKING PART IN THE FOCUS GROUP

APPENDIX 3.3.A QUESTION ROUTE FOR FOCUS GROUP DISCUSSIONS MARRIED YOUTH (OR THOSE WITH A CHILD)

Introduction

I would like to thank you all for coming today. My name is Dzina Langa and I am conducting some interviews as part of a research project on reproductive health and people's sexual behaviour. This survey is being carried out by researchers at the University of Malaŵi. We feel by talking to people like you we can best find out about activities, opinions and feelings about these issues. There are no wrong or right answers, we are interested in your views, so please feel comfortable to say what you honestly feel. I have a list of topics I would like us to talk about but please feel free to bring up any other issues you feel are relevant.

During the discussion Uyu Mnyane will be taking notes to keep track of what has been covered, and to remind me if I forget to ask certain things. However, so that s/he does not have to worry about getting every word down on paper, we will also be recording the whole talk. Please, do not let that worry you, as soon as the tape has been transcribed, it will be erased, so no one will know who said what.

Regarding the language we want you to feel comfortable throughout the talk, so please just use the language that you use when you chat with friends. Finally, please try to let everyone have a turn at saying something, all your views are important, and please try to keep the talk within the group. Are there any questions? ... So shall we begin...

Ice breaker

Ask each participant individually:

- 1.1 Their FIRST NAME ONLY (or clan name e.g Naphiri, Abiti Sikelo).
- 1.2 Usual occupation (employed, unemployed...).

Social environment

- 2.1 How do people such as yourselves spent their leisure time in this area? (Probe: with whom, males and females together, families?)
- 2.2 What type of entertainment is popular in this area? (Probe: films, dances, and what type, time of the day, with whom and why entertainment is popular)
- 2.3 What do you think it takes for one to get recognition in life? (Probe: good job, get married, have children)
- 2.4 Are a lot of your peers married? Do a lot of them have children?
- 2.5 What do you think is the best thing about getting married?
- 2.6 What do you think is the best thing about having a child, then?
- 2.7 What do you think of married men (women) who have affairs? (probe: they are strong, they are irresponsible.....)

Knowledge sources

3.1 How have people like yourselves come to know about issues concerning sex, contraception, STDs, HIV/AIDS (probe: medical personnel, friends, parents, teachers, radio, print media and what exactly; changes of sources over time) ?

3.2 Do you ever talk about sexual issues with anyone? (Probe: friends, partner, parents, other relatives, teachers; and what about) (Explore what issues are talked about with different people)

3.3 Have you always found it easy or difficult to talk these issues with the people you have mentioned?

3.4 Do you think the information you got has been useful? When has it been useful? (Prompt: the type of information they would have liked to have but did not get)

3.5 Do people in this community go through initiation ceremonies? Which kinds are popular? (Prompt: passage rites, at a wedding, after birth of child)

Services

4.1 What would you advise a friend to do if(Probe: who they would consult and why in each case, availability of services, satisfaction with service):

- a. They wanted to know more about sexual health;
- b. They wanted to have a child;
- c. They wanted to know ways of avoiding contracting HIV;
- d. They wanted to know ways to avoid catching something from having sex (prompt: STDs or HIV)
- e. They thought they had caught something from having sex (prompt: STDs or HIV);
- f. They wanted to delay or avoid getting pregnant.

4.2 How best can reproductive health messages be passed on to people such as yourselves? (Prompt: advertising on the radio, newspapers, posters, interpersonal communication e.g peer networking, one-to-one counselling, group discussion, initiation etc)

Conclusion:

We are reaching the end of the discussion. Does anyone have anything to add before we turn off the tape? I think it went really well. Do any of you have any comments on how you feel it went? Before you came, did you expect anything like this?

Just before you go, could you fill this short questionnaire (we have few questions to ask each one on their own). This gives us some basic information on who takes part in these discussions. We do not need to know your name as it is anonymous, confidential.

APPENDIX 3.3.B QUESTIONNAIRE FOR PARTICIPANTS OF FOCUS GROUPS (MARRIED)

Introduction: The purpose of asking the following questions is to know some basic information on who takes part in these discussions. Please remember that we do not need to know your name as it is anonymous and confidential.

Age.....

Date of birth.....

Sex MALE
 FEMALE

I am MARRIED AND LIVING WITH PARTNER
 LIVING WITH A PARTNER
 IN A STEADY RELATIONSHIP BUT NOT LIVING WITH PARTNER
 NOT IN A STEADY RELATIONSHIP BUT HAVE A CHILD
 DIVORCED/SEPARATED

I am AT SCHOOL/COLLEGE
 WORKING (Please state occupation).....
 OTHER (Please specify).....

My denomination is.....

How many children of your own (biological) do you have? BOYS.....GIRLS.....

Section One: Services you may have used

1. Have you ever used any family planning method? YES/NO
(if NO go to Question 2)

If YES, what type of family planning methods have you ever used?

.....
Where were they obtained from? (E.g hospital, Banja la Mtsogolo, shop, friends, etc)

2. Have you ever used any form of advisory or counselling service? (Initiation, family planning worker, social welfare officer etc)

If YES, which one?.....

What did you use this service for?.....

Section Two- Your sexual experience

1. At what age did you start living with a partner (get married)?.....years

2. How old were you when you first had sex?.....years

3. How many people have you ever had sex with in your life?

How many people have you ever had sex in the last 12 months?

How many people have you ever had sex in the last 4 weeks?

4. (If respondent has children) How old were you when you had your first child?

.....

**THANK YOU FOR ANSWERING THESE QUESTIONS AND FOR TAKING PART IN
THE FOCUS GROUP**

APPENDIX 3.4 GUIDELINES FOR IN-DEPTH INTERVIEWS WITH OPINION LEADERS

(To be tape recorded with consent of the respondent)

Background of respondent(s):

Name, sex, age, marital status, number of children, religion, any position in community, level of education, length of time resident in area

1. Do you think Malawi has a population problem? If yes, what specifically is the problem?
2. What solutions would you suggest to solve the problem?
3. Do you think behaviour of the young people, especially regarding sexual issues, has changed over time?
4. What do you think it takes for one to get recognition in life? (Probe: good job, get married, have children)
5. What do you think of young people getting married?
6. What do you think is about young people having children, then?
7. What do you think of married people who have affairs?
8. How comfortable are you in discussing sexual behaviour with young people?
9. Do you think young people should be informed about sexual relationships and reproductive health? Why or why not? If yes, what would be the right age to do so?
10. How best can reproductive health messages be passed on to the public? (Prompt: advertising on the radio, newspapers, posters, interpersonal communication e.g peer networking, one-to-one counselling, group discussion, initiation etc).
11. Do you have any comments to make about the issues we have talked about?.

THANK YOU VERY MUCH FOR YOUR TIME

APPENDIX 3.5 GUIDELINES FOR INTERVIEWS WITH SERVICE PROVIDERS AT LOCAL LEVEL

(e.g Family Planning Providers, including Community Based Distributors; School Teachers; Community Development Assistants; Youth Officers etc.)

Background information

Organisation: name of organisation, type of facility, location, number of staff at establishment

Respondent: name, sex, age, marital status, number of children, religion, designation, qualification, length of service in organisation, duration at current position)

1. What are your normal duties at this station? (Or how would you describe your job description?)
2. What specific services do you offer?
3. What is the geographical coverage of your programme?
4. Have you been able to carry out your work plan so far?
5. What are the main obstacles you have encountered?
6. In what ways have you coped with these shortcomings?
7. Have any of your duties or services provided changed over time? Which ones, how and why?
8. How does your programme cater for specific sectors of the Community (e.g men, young people, unmarried women) ?
9. Have you had any training in Family Life/ Population Education? If yes, what topics did the training cover and when was it? If no, would you like to be trained in this area?
10. Do you find it easy or difficult to discuss sexual behaviour with young people?
11. Do you think Malawi has a population problem? What specifically is the problem?
12. Do you think the behaviour of the young people, especially regarding sexual behaviour, has changed over time ? If yes, in what way? What can be done about it?
13. Do you have any comments to make about the issues we have talked about?.

APPENDIX 3.6 GENERAL GUIDELINES FOR PROGRAMME MANAGERS' INTERVIEW

(Background information of respondent: name, sex, age, designation, qualification, length of service in organisation, duration at current position)

1. What are the main aims and objectives of your programme?
2. What are the specific services offered by your programme (i.e counselling, condom provision, pregnancy testing etc)
3. How long has your programme been in existence for?
4. What is the geographical coverage of your programme?
5. Have you been able to meet your aims and objectives so far?
6. What are the main obstacles you have encountered ?
7. In what ways have you coped with these obstacles?
8. What are your major sources of funding?
9. How do you evaluate the effectiveness of your programme? Who does the evaluation? How often is the evaluation done?
10. Is there any way in which you co-ordinate with other organisations in your area?
11. Have there been any objectives which have changed over time? Which ones, how and why?
12. How can your programme be improved in the future?
13. Do you think Malawi has a population problem? If so, what specifically is the problem?
14. What solutions would you suggest to solve these problems?
15. Do you think the behaviour of young people, especially regarding sexual issues, has changed over time ?
16. Does your programme cater for any specific sectors of the population (e.g men, the young people, unmarried women) ? Which ones and how?
- (16. What are the characteristics of the service users?)
17. Do you have any comments to make about the issues we have talked about or any other relevant points.

Table A3.1: Percent distribution of women by completeness of reporting of age at birth by birth order and age of woman, MDHS1992

Age at ith birth	Month & Year	Year & age- month imputed	Other imputations	Number of women
First birth				
15-19	99.3	0.0	0.7	295
20-29	96.9	2.0	1.9	1486
30-39	94.2	3.0	2.7	1164
40-49	90.7	5.1	4.0	842
Second birth				
15-19	97.0	3.0	0.0	67
20-29	97.5	1.5	1.0	1145
30-39	94.5	3.2	2.3	1119
40-49	90.1	5.1	4.7	821
Third birth				
15-19	100	0.0	0.0	11
20-29	98	1.6	0.0	761
30-39	96.2	2.4	0.0	1041
40-49	90.7	4.6	4.8	784
Fourth birth				
20-29	98.8	0.5	0.7	430
30-39	95.3	2.7	1.9	919
40-49	91.1	4.7	4.1	741

Appendix 3.7 Codebook for qualitative data

Q.S.R. NUD.IST Power version, revision 4.0.

Licensee: wp40e.

(*Notes in italics were added to describe the NUD*IST output*)

(1) /Basedata- *describes the data files*

Description of the sub-groups

(1 1) /Basedata/Documents
(1 2) /Basedata/Doctype
(1 2 1) /Basedata/Doctype/Single
(1 2 2) /Basedata/Doctype/Married
(1 2 3) /Basedata/Doctype/Opinionlead
(1 2 4) /Basedata/Doctype/Servicep

Further description of the sub-groups by gender

(1 3) /Basedata/Gender
(1 3 1) /Basedata/Gender/Male
(1 3 2) /Basedata/Gender/Female
(1 3 3) /Basedata/Gender/M/F

Description of the location of the study sites

(1 4) /Basedata/Site
(1 4 1) /Basedata/Site/Zomba
(1 4 2) /Basedata/Site/Chitawira
(1 4 3) /Basedata/Site/Kanjedza
(1 4 4) /Basedata/Site/Maonde
(1 4 5) /Basedata/Site/Machese
(1 4 6) /Basedata/Site/B.Nyirenda
(1 4 7) /Basedata/Site/N.Banda

Description of the location of the study area by residence

(1 5) /Basedata/Residence
(1 5 1) /Basedata/Residence/Urban
(1 5 2) /Basedata/Residence/RuralM (*Rural Matrilineal*)
(1 5 3) /Basedata/Residence/RuralP (*Rural Patrilineal*)
(1 5 4) /Basedata/Residence/rural

Sources of knowledge for reproductive health issues

(2) /knowledge-source
(2 1) /knowledge-source/sti-knowl-source
(2 2) /knowledge-source/sex-knowl-source
(2 3) /knowledge-source/fp-knowl-source

Availability of services and information on puberty

(3) /services
(3 1) /services/puberty
(3 1 1) /services/puberty/sp-menarche
(3 1 2) /services/puberty/notell (*not told*)
(3 1 3) /services/puberty/parents

- (3 1 4) /services/puberty/info-pub
- (3 1 4 1) /services/puberty/info-pub/peers
- (3 1 4 2) /services/puberty/info-pub/parents
- (3 1 4 3) /services/puberty/info-pub/church
- 3 1 4 4) /services/puberty/info-pub/riteofpsg (*rite of passage*)
- (3 1 4 6) /services/puberty/info-pub/hosp (*hospital sources*)
- (3 1 4 7) /services/puberty/info-pub/sexdrive (*determined by nature and sex drive*)
- (3 1 5) /services/puberty/preg-able (*warned against pregnancy*)
- (3 1 7) /services/puberty/sexdrive
- (3 2) /services/sexpressr (*pressure to have sex*)
- (3 3) /services/sexstart (*would like to start having sex*)
- (3 4) /services/pregsusp (*suspects is pregnant*)
- (3 5) /services/stdsusp (*suspects has an STI*)
- (3 6) /services/pregprevn (*would like to prevent pregnancy*)
- (3 7) /services/p-refusex (*partner refuses sex*)
- (3 8) /services/rhserv (*reproductive health services*)
- (3 9) /services/wantchild (*wants to have a child*)
- (3 10) /services/stdprev (*prevention of STI*)

- (F) //Free Nodes
- (F 1) //Free Nodes/activities (of young people)
- (F 2) //Free Nodes/recognition (*type of people recognised in community*)
- (F 3) //Free Nodes/gbfriends (*do many of friends of participants have relationships?*)
- (F 4) //Free Nodes/gbfriends-opinion (*opinion on those who have boy/girl friends*)
- (F 5) //Free Nodes/gbfriend-reasons (*reasons for having girl/boy friends*)
- (F 6) //Free Nodes/marriage-OL (*views on marriage by opinion leaders*)
- (F 7) //Free Nodes/marriage-opinion (*opinion on marriage*)
- (F 8) //Free Nodes/marriage-age (*ideal age at marriage*)
- (F 9) //Free Nodes/childn-opinion (*opinion on children*)
- (F 10) //Free Nodes/fp-knowledge (*knowledge of family planning methods*)
- (F 11) //Free Nodes/std-prevent-knowl (*knowledge of STI prevention*)
- (F 12) //Free Nodes/initiation (*practice of initiation in area*)
- (F 13) //Free Nodes/talksex (*talk about sex with anyone?*)
- (F 14) //Free Nodes/infouseful (*do they find the information they get useful?*)
- (F 15) //Free Nodes/extrMaffair (*opinion on people who have affairs*)
- (F 16) //Free Nodes/married-maj (*are many of their peers married?*)
- (F 17) //Free Nodes/child-maj (*do many of their peers have children?*)
- (F 18) //Free Nodes/childless-opinion (*opinion on people who are childless*)
- (F 19) //Free Nodes/childoutwed (*opinion on children born out-of-wedlock*)
- (F 20) //Free Nodes/child-age (*ideal age to have a child*)
- (F 21) //Free Nodes/talkfree (*free to talk about reproductive health issues?*)
- (F 22) //Free Nodes/talktopic (*what sort of topics do they talk about*)
- (F 23) //Free Nodes/bric-a-brac (*miscellaneous points*)
- (F 24) //Free Nodes/drink (*discussion on drinking alcohol*)
- (F 25) //Free Nodes/abort (*discussion on abortion*)
- (F 26) //Free Nodes/talkage (*appropriate age to start talk about sexuality*)
- (F 27) //Free Nodes/prefsource (*preferred source of information on sexuality*)
- (F 28) //Free Nodes/tellkids? (*Is it OK to tell children about sex?*)
- (F 29) //Free Nodes/peers (*discussion on peers*)
- (F 30) //Free Nodes/activities-female (*activities of females*)

- (I) //Index Searches- *various search results which became part of the data*
- (I 1) //Index Searches/activities-male (*activities of females*)
(I 2) //Index Searches/activities-maleU (*activities of males in urban*)
(I 4) //Index Searches/activities-maleRs (*activities of males in urban*)
(I 5) //Index Searches/activities-femaleU (*activities of males in urban*)
(I 6) //Index Searches/recognition-maleU (*recognition according to males in urban*)
(I 7) //Index Searches/activities-maleRm (*activities of males in urban*)
(I 8) //Index Searches/activities-femaleRs (*activities of males in urban*)
(I 9) //Index Searches/activities-femaleRm (*activities of males in urban*)
(I 10) //Index Searches/recognition-femaleU (*recognition according to urban females*)
(I 12) //Index Searches/recognition-femaleR (*recognition according to rural females*)
(I 13) //Index Searches/recognition-maleR (*recognition according to rural males*)

Table A4.1: Characteristics of key informants

Study Site	Position of Informant	Characteristics of informants
Urban, Area 2	Chairperson, women's credit group; runs daycare centre	female, aged 42, married, 7 children, Catholic, Form 2
	Head, primary school	male, aged 50, married, 6 children, Presbyterian, GCE
Matrilineal Area 1	Acting Chief	female, aged 50, widowed, Catholic
Matrilineal Area 2	aNankungwi (initiation counsellors)	female, Aged 50+, widow, traditional Nyau cult
		female, Aged 50+, widow, traditional Nyau cult
	Chief and his four counsellors (Induna)	-male, married, 3 children, Muslim
		-male, married, 6 children, Presbyterian
		-male, married, 6 children, Adventist
		-male, 2 wives, 5 children, Muslim
		-male, 3 wives, 10 children, Muslim
Patrilineal Area 1	Two chiefs and three counsellors	-male, aged 54, married, farmer
		-male, aged 53, married, driver
		-male, aged 36, married
		-male, aged 36, married
Patrilineal Area 2	Chief and his son, a counsellor	-male, aged 65, married
		-male, aged 45, married
	None	-female, married, 8 children, standard 5
		-female married, 7 children, standard 2

Appendix A4.2: Percentage distribution of young population aged 15-24 by level of education and marital status, 1996 MKAPH, Malawi

	Not married		Married	
Female	15-19	20-24	15-19	20-24
None	15.5	22.0	39.1	36.9
Primary	76.5	50.0	58.6	57.8
Secondary +	18.0	28.0	2.3	5.3
Total	100	71	204	477
Male				
None	6.8	9.1	15.1	20.5
Primary	86.0	61.2	82.9	71.0
Secondary +	7.2	29.7	2.0	8.5
Total	522	318	18	201

Description of the structure of the education system in Malawi

There are three levels (cycles):

1. Primary school which runs for eight years (Standard 1 to 8). The official age at entry is 6 years, however, it is not mandatory for pupils to stay in school up to a specified age. A pupil can also repeat a year at any level in primary school, extending the number of years one can spend in education. Official statistics in Malawi show that about 50 per cent of girls and 80 per cent of boys are likely to have repeated a class by the eighth year of school; the promotion rate is only 70 per cent (Government of Malawi and UNICEF, 1997).
2. Secondary school, with a duration of four years (Form 1 to Form 4). Since only 12 per cent of pupils are selected to go to government secondary schools, there has been an increase in the number of private secondary schools. In addition, some pupils enrol in colleges of distant education to pursue their secondary education. However, last two categories usually have inadequate resources due to poor funding.
3. Tertiary education- university, technical college or teacher training college. The two universities in Malawi take on only about five per cent of eligible students. The colleges enrol a few thousands a year. Hence, tertiary education in Malawi is for the privileged few.

Table A7.1 Summary of significant covariates for risk of first sex using discrete time hazards logistic regression models for male, female and combined data

Covariate	Male model	Female model
Region	✓	✓
Area of residence	✓	✗
Education	✗	✓
Gone through initiation	✓	✓
Marital status at first sex	✗	✓
Gender	-	-
Timing of first sex (years)	✓	✓
Marital status*timing	✗	✓
Education*timing	✗	✓
Initiation*education	✗	✓
Residence*timing	✓	✗
Region*timing	✓	✗
Initiation*region	✓	✗

✓ = significant ✓ = significant only with interaction ✗ = not significant

Table A 8.3: A synopsis of the barriers young people face in achieving reproductive goals in Malawi.

Goal	Means	Reality
<i>A. information on puberty</i>	information acquired from peers, grandparents and other older relatives	For boys: -informed obtained on demand; can be before (initiation) or after spermarche For girls: -information usually withheld until menarche (rite of passage)
<i>B. Risk-free sexual relationship:</i> i) Prevent HIV	-abstain - obtain sexual history of partner -or condom use as prophylactic - or have HIV Test	- 'can't control nature' - thinks peers are 'jealous' when history is negative - interference with sexual pleasure - supply of condoms intermittent - not motivated to have test and lack of service
ii) Prevent premarital pregnancy ('have-hold')	young women wish to: - get married and have a child - wait until 'bones mature'	-economics/poverty pushes them into sexual relationship -pressurised by partner (coercion) -mother and child abandoned since young father denies responsibility or no means to support family
<i>C. Prepare for marriage and childbearing</i>	Young man: - be 'mentally mature'; economically ready; -get education and a job -have HIV test before marriage Young woman: -'mature bones' at least 18 years old -learn domestic skills	-early marriage for females -no education opportunities -HIV test suggests 'no respect' -young men fear of not finding partner and be called 'old man' -fear of prolonged risk of HIV in single status Hence, → <i>Early marriage</i>