

Determinants of Contraceptive Use in Swaziland

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Abstract

In the last number of years Swaziland has made a lot of progress towards fertility reduction through a strong government and donor supported family planning programme. Despite this progress, Swaziland's unmet need for family planning of about 24% for married women is high given that Southern Africa's (of which Swaziland forms part) unmet need fell steeply from 2008 to in 2012. In addition, the Millenium Development Goal 5 calls for universal access to contraceptives services. In the light of the above, the overall aim of this study is to ascertain the level of contraceptive use in Swaziland as well as factors affecting why it is or is not used.

The study uses secondary data obtained from the Swaziland Demographic Health Survey (SDHS 2007). SPSS computer software is used to present frequencies, cross-tabulations, and regression analysis of the key determinants of contraceptive use. The study uses both descriptive and multivariate logistic methods. All analysis is done for men and women between the ages of 15 and 49.

Knowledge of family planning is universal among men and women in Swaziland. Among the most well-known methods is the male condom. Overall, women are more likely than men to know of five or more methods of family planning. The survey shows that current use of contraception among men and women is 37%. Education is the most powerful predictor of current use among women and men. Both women and men who are less than 35 years are more likely to use a method of family planning compared to those who are 35 or more, albeit slightly. Marital status does not seem to have a significant independent effect on the use of family planning. The odds of using a method of family planning are higher among women with two to four children compared to women with less than two children. Residence has no significant effect on unmet family planning needs for both married and cohabiting men and women. The total unmet need among married women is 24.9%. The estimated total demand for family planning is 75.9% (24.9% of unmet need and 51.1% of current contraceptive use).

There is a need to raise awareness and improve access to family planning in rural areas among the poor, among younger respondents, and among uneducated men and women.

Programmes should focus on men as well as women, and create an environment in which both sexes can seek services. Men also need to discuss family planning with their wives. Government should continue to give top priority to education; the recently rolled-out free primary education should be extended from Grade 5 to Grade 7.

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Acronyms

ANC:	Antenatal care
AIDS:	Acquired Immune Deficiency Syndrome
CPR:	Contraceptive Prevalence Rate
CSO:	Central Statistics Office
FHI:	Family Health International
GDP:	Gross Domestic Product
HBM:	Health Belief Model
LAM:	Lactational Amenorrhoea Method
MDGs:	Millennium Development Goals
MDHS:	Malawi Demographic Health Survey
SDHS:	Swaziland Demographic Health Survey
TFR:	Total Fertility Rate
UDHS:	Uganda Demographic Health Survey
UNFA:	United Nations Fund for Population Activities
UKZN	University of KwaZulu- Natal
WRA	Women of Reproductive Age

Table of Contents

Chapter 1	1
Introduction	1
1.1 Background	1
1.2 Brief description of Swaziland	2
1.3 Problem statement	5
1.4. The rationale of the study	6
1.5. Objectives of the study	8
1.6 Conceptual Framework	8
Chapter 2	11
Literature Review	11
2.1 Introduction	11
2.2 Contraception	11
2.3 Knowledge of Contraceptive Methods	11
2.4 Contraceptive Use	14
2.5 Factors inhibiting contraceptive use	20
2.6 Attitudes towards Family Planning	22
2.7 Summary	24
Chapter 3	25
Methodology	25
3.1 Introduction	25
3.2 Swaziland Demographic and Health Survey (SDHS) 2007	25
3.3 Method of data collection	25

3.4	Data Analysis	27
3.5.	Unmet need for family planning	27
3.6	Summary	28
Chapter 4		30
Results		30
4.1	Introduction	30
4.2	Knowledge of family planning	30
4.3	Male attitudes towards use of contraception	33
4.4	Exposure to family planning messages	34
4.5	Ever and current use of family planning	36
4.5.1	Ever use	36
4.5.2	Current use	38
4.5.3	The level of unmet need	46
4.6	Summary	51
Chapter 5		53
Conclusion		53
5.1	Discussion	53
5.2	Recommendations	57
5.3	Conclusion	59

Chapter 1

Introduction

1.1 Background

Many developing countries have experienced rapid decline in fertility in recent decades. Sub Saharan Africa recorded the highest average fertility (5.1 births) in the world in 2009. This is twice as many as in South Asia (2.8) or Latin America and the Caribbean (2.2) (Glory and Msacky, 2012). The association between fertility decline and contraceptive knowledge and use, is well documented. The decline in fertility is closely related to the increase in contraceptive use, whereas in the 1960s, a period of high fertility, only an insignificant number of couples practiced contraception, and knowledge of contraception was limited; in contrast contraceptive knowledge is now widespread and more than half of married women in developing countries are currently users of contraceptives (Bongaarts and Johansson, 2002).

According to the 2007 DHS, Swaziland at present has one of the lowest estimated total fertility rates in south east African countries that participated in the DHS programme. Swaziland's TFR (3.8) is lower than Kenya (4.9 – Kenya DHS 2003), is the same as that of Zimbabwe (3.8 - (Zimbabwe DHS 2005/06) and slightly higher than in Namibia (3.6 – Namibia DHS 2006/7) and Lesotho (3.5- Lesotho DHS 2004). In most of these countries in east and southern Africa who are leading the sub-Saharan demographic transition, the fertility transition is now well established and progressing at a rapid pace (Dudley and Pillett, 1998).

Swaziland's overall decline in fertility may be attributed in part to the relatively high level use of modern contraception methods. The high level of contraception use is anchored in government sponsored family planning programmes. Traditional family planning research, policy, and programmes have paid little attention to men's role in reproductive decision-making (Bankole and Singh, 1998; Becker, 1996). Yet studies have found that the male partner is one of most socially significant actors who may discourage or reject contraception use by women (Casterline and Sinding, 2000; Maharaj, 2001). Men's opposition to family planning is attributed in many studies to the fear that they will lose their roles as heads of the family, and that their partners will become

promiscuous or adulterous (Blanc, 2001). In most developing countries surveys indicate high levels of approval of contraception among men, but women's approval of contraceptive use tends to be small (Ezeh et al., cited in Biddlecom and Fapohunda, 1998).

Yet despite progress made in Swaziland in fertility reduction, there remains a great unmet need for more and better family planning services. While Swaziland's total fertility rate (TFR) of 3.95 live births per woman is relatively high when compared with the developing world average of 2.9 births per woman in 2000 – 2005 (United Nations 2007, cited in Bongaarts, 2008). This statistic is grounds for strengthening family planning in Swaziland.

Contraceptive knowledge and use differ substantially across the world. A number of explanations are advanced for the differentials in contraceptive knowledge and use. Some of the key determinants of these differentials are: education, marital status, age, residence, desire for more children, and parity. Owing to the critical contribution that contraceptive knowledge and use make to fertility reduction, it is important to understand the factors that influence contraceptive knowledge and use so that appropriate strategies and programmes can be strengthened and put in place.

1.2 Brief description of Swaziland

Swaziland is a landlocked country, located in Southern Africa and covers a surface area of 17,364 square kilometres. According to the 2007 population and Housing Census the population density is 58.70. Swaziland shares borders with Maputo (Mozambique) in the east, KwaZulu-Natal (Republic of South Africa) in the South and Mpumalanga (Republic of South Africa) in the North and West. Swaziland, like many African countries, is predominantly rural, with over 78 percent of its population living in rural areas (Population and Housing Census 2007).

Swaziland is made up of four administrative regions, namely Hhohho, Manzini, Shiselweni and Lubombo. Each region has as an administrator a political appointee who reports to the deputy Prime Minister. The country is further sub-divided into 55 administrative centres (Tinkhundla)

under which there are about 200 chieftaincies. The chiefs have control and authority over the apportionment of the Swazi nation land, which accounts for about 56% of the country's total land area. The country is divided into the following four topographic regions: the Highveld, the Middleveld, the Lowveld, and the Lubombo plateau.

At present, the population of Swaziland is approximately 1.02 million, up from 0.93 million in 1997. The population growth rate declined from 2.9 percent to 0.9 over the last 10 years, due to an increase in HIV/AIDS related mortality and a decline in fertility (Population and Housing Census 2007, the Government of Swaziland (GoS) and United Nations Population Fund (UNFPA) 5th Country Programme Action Plan, 2011-2015). Life expectancy at birth declined from 60 years in 1997 to 43 years in 2007, mainly due to the effects of HIV/AIDS. Infant mortality increased from 78 to 107 deaths per 1000 live births over the same period. The maternal mortality ratio increased from 229 to 589 deaths per 100 000 live births between 1995 and 2007. Swaziland has the highest HIV-prevalence rate in the world (26 percent among adults; 61 percent among adults women; 10% among teenage girls; 1.9% among teenage boys) (the Government of Swaziland (GoS) and United Nations Population Fund (UNFPA) 5th Country Programme Action Plan, 2011-2015).

Although the country has a gross domestic product (GDP) of \$ 2,415, wealth distribution is skewed, with approximately 20 percent of the population controlling over 54 percent of the wealth (the Government of Swaziland (GoS) and United Nations Population Fund (UNFPA) 5th Country Programme Action Plan, (2011-2015)).

In terms of education, the country has made significant progress. The teacher-to-pupil ratio at primary school is 1:34, and 1:18 at secondary school. The proportion of qualified teachers is about 93% at primary school and 99% at secondary and high school. The literacy rate stands at 89.1%, with males having a slightly higher literacy rate than females (90.2% and 88.3% respectively). The literacy rate for the young population (15-24 years) is 95%. About half of all Swazis aged 65 years and over are literate (Population and Housing Census 2007).

The country's TFR declined sharply from 6.4 in 1986 to 4.5 in 1997 and 3.95 in 2007. The contraceptive prevalence rate (CPR) has shown a steady rise from 17% in 1986 to 24% in 1991,

34% in 1997, 36% in 2007 and 49% in 2010 (Swaziland, Community Health Survey, 2002; Swaziland Demographic Health Survey (SDHS) 2007; Swaziland Millennium Development Goals Progress Report, 2012).

National HIV prevalence among pregnant women who attend antenatal care (ANC) has been increasing, from 3.9% in 1992 and has stabilised at 42% in 2010(12th National HIV Sero-Surveillance Report 2010) According to the 2007 SDHS 26% of the Swazi adults age 15-49 are infected with HIV. Among women, the HIV rate is 31%, compared with 20% among men (SDHS, 2007)

Although the country is classified as lower-middle income, 63% of the population lives in poverty while about 51% lives in absolute poverty. The distribution of income is highly skewed; with more than 200,000 depending on food aid, more than 30 percent of those under the age of five have stunted growth, more than 50 percent of the total population have no food security, and many child-headed households have emerged (Swaziland Millennium Development Goals; Progress Report, 2012).

Table 1.1 shows that in 1976 the population of Swaziland was about half a million. Two decades later, in 1997, the population had almost doubled. The growth rate of the population was brought about by high fertility as well as declining mortality levels. According to the 2007 Population and Housing Census, life expectancy at birth declined substantially from 60 years in 1997 to 43 years in 2007.

Table 1.1 Selected demographic indicators for Swaziland (1976, 1986, 1997 and 2007)

Indicator	1976	1986	1997	2007
Population	494,534	681,059	929,718	1,018,449
Intercensal growth rate [percent]	2.5	3.3	2.9	0.9
Density [pop./km ²]	29	39	54	59
Urban percentage	15.2	22.8	23.1	22.1
Crude birth rate	51.6	48.3	36.4	U
Crude death rate	18.5	13.0	7.6	18.0
Total fertility rate	5.2	6.4	4.5	4.0
Infant mortality rate	U	99	78	107
Life expectancy at birth [years]	46	56	60	43
U = No information				
Source: Population and Housing Censuses 1976, 1986, 1997 & 2007				

Over a period of 21 years, the population per square kilometre went from 29 persons in 1976 to 54 persons in 1997. Swaziland is primarily rural, with 78% of the population living in rural areas. The proportion of urban residents increased significantly from 15% in 1976 to 22% in 2007 (Population and Housing Census 2007).

1.3 Problem statement

In recent decades fertility in many developing countries declined rapidly. While this is also true for some sub-Saharan countries, Bongaarts's main conclusion is "that the average pace of fertility decline slowed significantly in sub-Saharan Africa from the first(ca. 1992 to ca 1998) to the second(ca 1998 to ca 2004) interval between surveys, more than half are in a stall" (Bongaarts, 2008) It is not surprising that estimated TFR for 2010-2015 is about 5 births per woman for sub-

Saharan Africa compared to between 2 and 3 births per woman for Northern Africa, Asia and Latin America (Shapiro, 2011).

The lagging behind of Africa in terms of fertility transition is primarily attributed to patriarchy or to the existence of male-dominated societies, which usually have negative effect on use of family planning. In the Sudan, for example, most family decisions are as a rule made by husbands and the issue of family planning is no exception (Mbizvo and Adamchak, 1991). Failure to recognise the importance of male attitudes in decision making on fertility issues leads in most cases to ineffective family planning programmes (Duze and Mohamed, 2006). Contraceptive use and fertility vary from one region to the next, as well as from one country to the next.

In Swaziland, as in many other African countries, there is a strong case to be made for the need to improve family planning given the fact that, although the country has made marked progress in terms of decreasing its fertility rate from 6.4 births per women in 1986 to 3.95 in 2007 (Population and Housing Censuses 1986 & 2007) , the figure of 4 children per woman is still high when compared with the 2000 to 2005 statistic of developing countries having an average of 2.9 births per woman (United Nations, 2007, cited in Bongaarts, 2008).

1.4. The rationale of the study

Fertility in sub-Saharan Africa is high and this is certainly also true for Swaziland, which had in 2007 an estimated TFR of 3.95 live births per woman. This means that on average a woman bears 4 children if she survives to the end of her reproductive years (15 to 49 years of age).

To show the seriousness with which the Swazi government approaches its high population growth, a national population policy framework was adopted in February 2002. One of its key policy aims is to reduce the population growth rate from 2.9% per annum (1986-1997) to 2 percent by 2022, in other words, to reduce the TFR from 4.5 live births per woman in 1997 to 3 live births per woman by 2022. To increase the contraceptive prevalence rate (CPR) from 34% in 1998 to 65%

by 2022. To increase the proportion of the population that lives within an 8km radius of the health facility from 85% in 1991 to 100% by 2022 (National Population Council, 2002)

However, it must be acknowledged that Swaziland has made noticeable progress through a strong government and donor supported family planning programme that have resulted in TFR dropping from a high of 6.4 live births per woman in 1986 to 3.95 live births per woman in 2007 while the contraceptive prevalence rate (CPR) increased from 34% in 1998 to 49% in 2010. The progress made by Swaziland is also flagged by Westoff (2012) who noted that of the 13 national surveys in east and southern Africa the highest proportion of women using modern contraception for limiting birth is found in Namibia and Swaziland. Despite this impressive record Swaziland's unmet need for family planning of about 24% for married women is high given that Southern Africa's (of which Swaziland forms part) unmet need fell steeply from 25% in 2008 to 17% in 2012 (Darroch and Singh 2013). In addition, the Millennium Development Goal 5 calls for universal access to contraceptives services (ibid, p 1). Policymakers are increasingly concerned about unmet need because it can lead to unintended pregnancies which pose risks for women, their families, and society. In addition, unwanted births pose risks for children's health and well-being and contribute to a rapid population growth. Reducing unmet need for family planning is therefore important for both achieving demographic goals and enhancing individual rights (Ashford, 2003).

The present study was undertaken in an attempt to answer the following three important questions with the hope that this might aid the government in its mission to reduce the country's population growth:

- (1) Why does the level of contraceptive knowledge differ widely across Swaziland?
- (2) Why does contraceptive use differ widely across different groups of Swazis?
- (3) What are the factors facilitating or inhibiting the use of contraceptives?

1.5.Objectives of the study

The main objectives of this study are to ascertain the level of contraceptive use in Swaziland, as well as the factors affecting use.

The specific objectives are to:

- identify the most important determinant behind contraceptive use in Swaziland
- ascertain the level of knowledge on contraceptive use by looking at important independent variables like female education, area of residence, age, marital status, and number of living children (parity)
- estimate the level of unmet need for contraceptives by each of the sub-populations created by the above variables
- assess male attitudes towards the use of contraception in connection with their background characteristics.

1.6 Conceptual Framework

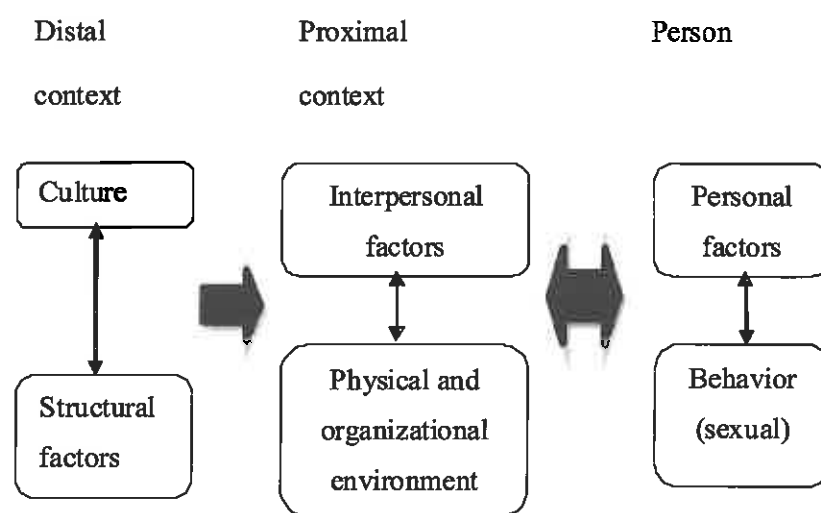
This study will use the model developed by Eaton et al. (2002) because of its comprehensive approach and is able to accommodate the key determinants of contraceptive use, the key factors promoting or inhibiting contraceptive use, and knowledge of contraceptive methods which is the focus of the study. The focus of the study is that contraceptive use is dependent of the respondent's age, education, resident, employment, parity, attitudes towards contraceptive use, and knowledge of contraceptive methods. The model was used to explain the major reasons behind unsafe sexual behaviour in South African youth.

The theories which Eaton et al. (2002) call 'social-cognitive' theory within the health psychology literature, have been used to explain such risk sexual behaviour. They argue that dealing with factors within the triad, namely *behaviour*, *personal factors*, *interpersonal factors*, and *processes* are not adequate in explaining risk sexual behaviour especially in developing countries. They emphasise the point thus: "these social-cognitive theories have been found to be valid and useful,

especially within the contexts in which they were designed (that is, within Western societies). But they cannot be applied blindly in all circumstances and to all problems (Eaton et al., 2002, 2).

Consequently, to understand sexual risk behaviour, they propose a theoretical framework that analyses factors at three levels: within the person, within his or her proximal context, and within the distal context. Factors at the personal level include cognitions and feelings relating to sexual behaviour and HIV/AIDS, as well as thoughts about one's self (such as self-efficacy and self-esteem). Key variables at the proximal context comprise interpersonal relationships and the physical and organisational environment. The distal context includes culture and structural factors.

Figure 1.1: Framework for organising the relationship between sexual behaviour, personal factors and the proximal and distal contexts.



Source: Eaton et al. (2002)

Culture includes aspects such as traditions, the norms of the larger society, the social discourse within a society, shared beliefs and values, and variations in these factors across sub-groups and segments of the population. Structural factors include legal, political, economic, or organisational

elements of society (Eaton et al., 2002). On a practical level there is interaction between personal factors and proximal and distal contexts. For example, the difficulties that people experience in negotiating condom use at the interpersonal level are made worse by personal factors, such as self-esteem and self-efficacy for condom use and cultural taboos against frank sexual discussion between men and women (Meyer-Weitz et al., 1998, cited in Eaton et al., 2002).

Chapter 2

Literature Review

2.1 Introduction

The purpose of this chapter is to review the literature on contraceptive use, specifically the factors facilitating or inhibiting the use of contraceptives. It also identifies the main reasons for the spread (or otherwise) of contraceptive knowledge. Some of the key factors affecting contraceptive use and knowledge include level of education, place of residence, age, number of living children, marital status, and desire for more children. Factors affecting contraceptive use are explored in detail.

2.2 Contraception

Contraception can be defined as “any practice undertaken deliberately to reduce the risk of conception if its aim is to limit family size” (Bongaarts et al., 1984:516).

2.3 Knowledge of Contraceptive Methods

Bongaarts and Bruce (1995:62) rightly argue that there is no single accepted definition of knowledge of a method and, it varies substantially among women. Working from the premise that knowledge of contraceptive methods varies widely amongst women, Bongaarts and Bruce (1995) propose that there should be comprehensive assessment of contraceptive knowledge, or, more specifically, “a combined knowledge index that equals the proportion who spontaneously mentioned at least one method and know its source and offered an opinion on its possible side effects” (Bongaarts and Bruce, 1995). They note that this definition is still not comprehensive enough in that it does not assess a woman’s knowledge of how to use any contraceptive method.

The application of this definition suggests that a lack of knowledge is more widespread than other less comprehensive definitions suggest.

Contraceptive methods are usually divided into two categories: traditional and modern. Modern methods include female and male sterilisation, the pill, IUD, injectables, implants, male and female condoms, diaphragms, foam/jelly, and emergency contraception. Traditional methods cover lactational amenorrhoea methods (LAM), rhythm or natural family planning, and folk methods (Malawi DHS, 2004:69).

Data collected by Bankole and Singh between 1990 and 1996 for 18 countries show a great deal of progress in terms of knowledge of contraceptive methods although much variation still exists, with Africa persistently lagging behind the rest of the world. For example, the proportion of husbands who know at least one modern method ranges from 57% in Burkina Faso to 100% in Brazil. The same study reveals that gender based differences in knowledge of a modern contraceptive method is generally small within a country. For example, it is lower than five percent points in 12 countries, 6 to 8 points in five countries and 16 points in one country (Bankole and Singh, 1998).

Knowledge about fertility control is an important step towards getting access to and using a suitable contraceptive method in a timely and effective manner (Malawi DHS, 2004; Maharaj, 2001:252). Many studies have found that knowledge of at least one contraceptive method is universal in many developing countries. According to data administered to currently married women in 25 developing world countries that participated in the DHS programme, over 85 percent of women in all North African and Asian countries and in Botswana, Brazil, Colombia, Dominican Republic, Trinidad and Tobago and Zimbabwe were able to identify at least one modern family planning method (Edwards, 1992:37). Consistent with the above findings, the Malawi DHS (2004) found that knowledge of at least one contraceptive method was universally high (95% or more) among all groups of currently married women in Malawi. The Malawi DHS (2004) also found that overall, over half (51%) of women report of having ever used a method at some time and 46% report having ever used a modern method. Among currently married women 60% have used a

method in the past and 55% have ever used a method. The most widely used ever used modern methods among currently married women are: injectables (41%), the pill (12%), male condom (9%), and female sterilisation (6%) (Malawi DHS,2004)

In a study focusing on factors affecting ever-married men's contraceptive knowledge and use in Nigeria, Oyediran et al. (2002) found knowledge of at least one contraceptive method was high at 89.7%. The study also found that there is a negative association between age and contraceptive knowledge among men: knowledge of at least one contraceptive method was higher among men less than 30 years of age than among older men. In the same study, a positive association was observed between education and knowledge of at least one contraceptive method. While about 62% of men with no formal education reported knowing at least one modern method, 97.5% of men with post-secondary education reported knowing at least one modern contraceptive method (Oyediran, 2002).

It is often argued that while knowledge of contraception is an important step, it does not necessarily translate into higher use (Bongaarts et al., 1984). For example, use of barrier methods of contraception in South Africa is reported to be very low. The SADHS (1998) found current male condom use to be 1.9% amongst all women interviewed in the age range 15-49 (Smit et al., 2002:72).

There is a positive association between education, residence and contraceptive knowledge. For example, nearly all women with some secondary education were aware of at least one contraceptive method. Urban women had greater levels of knowledge of family planning method than rural women (Edwards, 1992:37). Similarly, Duze and Mohammed (2006:63) found that individuals living in urban areas have greater knowledge of contraceptives than individuals in rural areas.

2.4 Contraceptive Use

Contraceptive use is dependent on a number of factors such as female education, desire for more children, number of living children, residence, marital status, and age.

Level of education

Since 1960 there has been a steady reduction in education differentials between boys and girls. According to Kritz and Gurak (1989), in 1960 only 34% of total primary school enrollees were girls, but by 1983, this proportion had increased to 44%. Interestingly, Swaziland, according to this report, has maintained parity in enrolment between boys and girls since 1960. Despite this steady progress in the overall increase in educational gender equality, gender-based educational inequality still persists. A DHS study by Bankole and Singh (1998) focusing on 18 developing countries, mainly from Africa, reveal that wives tend to spend fewer years in school than their husbands in most of these countries; the proportion of wives with seven or more years of education exceeds 20% in only six countries as opposed to thirteen countries with greater than 20% of husbands with seven or more years of schooling. In line with what many studies have observed, Westoff et al. (2013) argue that education is one of the key drivers of the fertility decline currently under way in many countries of sub-Saharan Africa and the number of children desired is strongly associated with increases in education.

Results from many studies generally conclude that level of education has a positive effect on women's methods of family planning. Similarly in Ethiopia, Beegle and McCabe (2006, cited in Gordon 2011) and Korra (2002, cited in Gordon, 2011) found strong associations between women's education and contraceptive use whereas Hogan, Berhanu, and Haliemariam (1999, cited in Gordon (2011) found an association between literacy levels and modern contraceptive use in Southern Ethiopia. A study conducted by Maharaj and Cleland (2005) examining the relative influence of husband and wife on contraceptive practice, found that wives with secondary or higher

education were three times more likely to be users of contraceptives compared to wives with less than secondary level education

Generally, there is an inverse relationship between total unmet need and level of education. While this relationship is well documented, there are exceptions to the general pattern (Westoff 2012). Bradley et al. (2012) in a study on unmet need covering 59 developing countries, state that an inverse relationship between level of education and unmet need is seen in most of the countries studied. In east and southern Africa of which Swaziland forms part, the same study found that total unmet need decreases with the level of education in some countries while in others an inverted 'v' – shape was seen. Sedghetal (2007) also concluded that in most cases total unmet need is higher among married women with relatively little schooling, compared with more educated women. The same study, however, also found that in the Central African Republic and Chad higher proportion of women with more than seven years of schooling than those with little or no education, had an unmet need.

In Uganda the odds of modern contraceptive use were higher among women with post- primary education when compared to the estimates among women with primary education (Andi, et al., 2014). These findings are supported by a study in Tanzania conducted by Anasel and Mlinga (2014) which found that the odds of using contraception increases significantly as level of education increases as compared to non-educated. Maharaj (2006) found that respondents with nine or more years of schooling had higher odds of using condoms than their less educated counterparts (3.1 and 1.7) respectively. There are various explanations why education has such a positive impact on contraceptive use. It is often argued that better educated women have more knowledge of contraceptive methods or how to acquire them than less educated women because of their literacy, greater familiarity with modern institutions, greater likelihood of rejecting a fatalistic attitude towards life (Oyedokun, 2007; Gordon, 2011; Asiiimwe et al., 2013).

Residence

Residence, like female education, has been found to have a strong correlation with contraceptive use. In Uganda, Asiiimwe et al. (2013) found that women in urban areas are more likely to use

contraception than women in rural areas. Similarly, the Malawi Demographic Health Survey (MDHS, 2004) showed that modern methods were consistently lower for rural married women compared to urban married women. There were 34.7% currently married women using a modern method in urban areas compared to 26.9% in rural areas.

However, there are exceptions to this general rule. For example, Burgard (2004) found that the use of modern contraceptives is substantially lower in rural areas than in urban areas for black African women. For coloured, Indian/Asian, and white women, the use of modern contraceptives was greater in rural areas in 1987/ 89 but only slightly greater in urban areas in 1998 (Burgard, 2004:98). Similarly, in Mongolia, Gereltuya et al. (2007:807) found that women in rural areas have a higher probability of using contraception and are more likely to choose IUDs and traditional methods.

In their study in Nigeria, Oyediran et al. (2002:505) found that 52% of men in urban areas reported that their spouses had used at least one modern method, whereas only 33% of their rural counterparts reported having done so.

Many research findings, while acknowledging exceptions to the general pattern and expected levels of unmet need, conclude that unmet need for family planning is usually higher in rural than in urban areas. Bradley et al (2012) found that most of 59 developing countries studied had substantially higher levels of unmet need in rural than urban areas. This result is confirmed in about half of the 53 developing countries studied by Sedghetal (2007). In Sierra Leone levels of unmet need are virtually the same in urban and rural areas, while in Niger unmet need is much higher in urban than rural areas (Bradley et al., 2012)

In Uganda, being a married woman living in a rural area is associated with a significant increase (43%) in total unmet need for family planning. Similarly, being a woman resident in an urban area is associated with a significant reduction in total unmet need by 27%. In Ethiopia, women residing in rural areas were 3.6 times more likely to experience total unmet need compared with urban women residents. These findings are supported by recent DHS results from eastern and southern Africa which Swaziland is part of. These countries, according to Assefaetal (2011) reveal urban-

rural disparities as follows: Kenya (7%, 27%); Lesotho (20%, 34%); Tanzania (17%, 24%); Uganda (23%, 36%), and Malawi (23%, 29%). There are various explanation for these urban–rural differences, accessibility of contraception is limited in rural areas while the opposite is true for urban areas and education is more accessible (Delbiso, 2014; Hailemariam and Haddis, 2011), There is also less media usage in rural areas (Delbiso, 2014) and greater desire for more children(Hailemariam and Haddis, 2011).

Desire for more children

As expected, there is generally a strong association between contraceptive use and a wife's fertility preferences. A study conducted by Maharaj and Cleland (2005) examining the relative influence of husband and wife on contraceptive practice found that the wife's fertility preferences emerged as the dominant predictor of contraceptive use. The odds of using contraception was 3.07 times higher among women who did not want more children than other women. This finding is consistent with results from the Uganda Demographic and Health Survey (DHS) in 2006 and 2011 which also found that a wife's fertility preference was the most powerful predictor of contraceptive use (Asiimwe et al., 2013). To underscore the significance of wife fertility preferences in family planning, Asiimwe et al. (2013) draws on a study in Pakistan which revealed that women who had more children than their ideal number of children and did not want any more children, were four times more likely to have used contraceptives compared with women who had fewer children than their ideal number and who wanted more children. The findings are in accordance with Mohammed et al. (2014) which found that women who desire another child after two years were nearly 6 times more likely to use modern contraceptive than those women who desire another child within two years. Mohammed et al. (2014) argues that the finding is line with the study conducted in Bangladesh and Pakistan which concluded that women's internal motivations to achieve their child spacing goal could be the possible reason for higher level of contraceptive use.

Number of living children

Consistent with many studies, Schoemaker (2005) found that there is a strong association between the number of living children and women's contraceptive use. Women with three or four children were 2.2 times more likely to be users of modern contraceptives than women with two or fewer children. These findings are supported by a study conducted by Maharaj and Cleland (2005) which found that wives with four or more children were 3.6 times more likely to be users of contraceptives compared to wives with one or less children. Similarly, Gereltuya et al. (2007), when analysing the impact of the interaction between marriage duration and number of living children, concluded that in general the odds of use increase with higher parity.

As one would expect, Ojaka (2008) found that total unmet need increases with the number of living children. This finding is confirmed by Sidghetal (2007) who found that in many of the 53 developing countries studied, women who had more than three living children tended to have higher levels of unmet need than women who had one to three living children. The common explanation is that women with more living children will prefer to control child birth relative to their counterparts with fewer living children. This may be explained by the high child mortality rate in many sub-Saharan Africa and Swaziland had 85 deaths per 1000 live births for the most recent five year period preceding the survey. Most families therefore choose to have more living children to counter the impact of child mortality (Nonvignon and Nonvignon, 2014).

Many studies document a positive association between unmet need for family planning and the number of surviving children. A study in Kenya found that having two to three living children is associated with a two-fold increase in total unmet need for family planning, and having six or more children is associated with a more than six-fold (6.5) increase in total unmet need (Ojaka, 2008). After controlling for respondents' background characteristics, Assafaetal (2011) cites a study in Uganda which found that women who have five or more surviving children were over three times more likely to have unmet need for family planning than women with less than five living children. It appears that as more children survive, women feel the security and then desire to limit

childbearing by adopting contraception. Hence, women with more children are more likely to exhibit greater levels of unmet need (Nyauchi and Omedi, 2014).

Age

When analysing contraceptive use by age, in Nigeria, Oyediran et al. (2002) found an association between age of men and contraceptive use. For example, “while men in the age brackets 18-29 and 30-44 were equal likely to have participated in the use of modern contraceptive methods, these groups of men were more likely than their counterparts above age 44 to have participated in the use of modern methods.” Maharaj (2006) found that among both men and women, younger people had higher odds of using condoms than those aged 20-24 (the odds ratios are 1.5-1.7 for males and 1.4-2.0 for females).

In general, increasing age is associated with a progressive decrease in total unmet need (Khan et al., 2008; Ojaka, 2008). Overall, several surveys have found that unmet need for spacing decreases with age while unmet need for limiting increases (Bradley et al., 2012). In a study focusing on trends and determinants of unmet need, Ojaka (2008) also noted that total unmet need decreases with women's age. For example, among married women age 15 to 19 in 1993, total unmet need is 42%, while among the oldest age group, namely 45- 49, it is 14%. He further found that for women below age 35, unmet need for spacing exceeds unmet need for limiting; while among women over 35 unmet need for limiting is greater than for spacing. A study by Sedgh et al. (2007) are generally consistent with the above pattern as levels of unmet need declined as age increased in most countries except sub-Saharan Africa where unmet need was about equally high for married women in all age groups

Khan et al. (2008) found that age group 25-29 (relative to age group 15-19) is associated with a 47% decrease in total unmet need, while the oldest reproductive age group (45-49) is associated with a much greater decrease of 93%. After controlling for other variables) the study found that

overall, women aged 30 to 40 or 40 or older are significantly less likely to have an unmet need for family planning than women aged 15 to 19.

2.5 Factors inhibiting contraceptive use

There are many factors which negatively affect contraceptive use in developing countries, particularly in sub-Saharan Africa. This paper will only cover three main reasons that negatively affect contraceptive use. These are fertility related, opposition to use, and method related reasons.

Fertility- related reasons

Fertility-related reasons in the majority of study cases include women who did not consider themselves to be at risk of pregnancy because they did not have sex regularly, were menopausal, believed themselves to be infecund, or were experiencing postpartum amenorrhea (Schoemaker 2005). In many studies fertility related reasons are one of the most frequently cited. In a study focusing on contraceptive use among the poor in Indonesia, Schoemaker (2005) found that most women (40%) cited fertility related reasons for contraceptive non-use. In an earlier study in India, Radha et al. (1996) found that about 40% of currently married women with unmet need for limiting do not intend to use family planning in the future because of opposition to family planning, lack of knowledge, religious opposition, supply related difficulties, or health problems. The study further revealed that these reasons are mentioned more frequently by older women and women with larger numbers of surviving children than by younger women or women with smaller numbers of surviving children or sons.

Method –related reasons

Method related reasons usually cover health concerns, fear of side effects, inconvenient to use, interfere with body's normal process, and cost (Swaziland DHS 2007). This paper, like many other

studies, treats health concerns and fear of side -effects not as separate sub-components of method related reasons but as one area of concern.

Fear of side-effects is one of the major causes of unmet need for family planning in developing countries. In a study using DHS data covering 13 developing countries, Bongaarts and Bruce (1995) found that the second most important cause of unmet need after lack of knowledge (25%) was fear of side effects (20%). Women in many developing countries view health side-effects as a significant obstacle to family planning. The reasons relate to fear for their own health and their relationships with men. In Nyaza, Kenya, women's cause for concern is the effect of pills and injectables on desire, potency, and the amount and timing of sexual relations (Rutensberg and Watkins, 1997:299). Similarly, Maharaj and Cleland, (2006, cited in Maharaj, 2012) found that younger women were deterred from using contraception because they were scared that they would experience difficulties falling pregnant in the future. Side-effects such as heavy bleeding, unpleasant vaginal discharge, weight gain, acne, and irregular menstrual cycles were mentioned in the same study by some sexually active women at risk of pregnancy, as reasons which discourage them from using any method of family planning.

In an earlier study, Casterline and Sinding (2000) arrive at a similar conclusion, namely that health concerns are major obstacles to the adoption and continued use of contraception. The impact of health concerns on contraceptive use can be very serious; Bongaarts and Bruce (1995) found that health concerns reduce prevalence on average by 71% for the pill, 86% for the IUD, and 52% for sterilisation.

Casterline and Sinding (2000) recommended careful counselling of women about likely side-effects at the time contraceptive supplies are obtained, periodic follow-up of adopters in which special attention is given to health side-effects, and local availability of a range of methods so that, when necessary, women can switch methods. These recommendations are supported by Bongaarts and Bruce (1995) who note that data drawn from eight situation analyses reveal that, typically, fewer than 50% of new clients receive information about side-effects of the methods they accept, and in only about 35% of cases the management of side effects are discussed.

2.6 Attitudes towards Family Planning

Opposition to use

Opposition to use in the majority of cases has four subcomponents: husband/partner opposition, respondent opposition, others opposition, and religious prohibition (Malawi DHS 2004). The literature review which follows only focuses on partner opposition because it is by far the most frequently cited reason by currently married and cohabiting women for contraceptive non-use in patriarchal societies like Swaziland, and is more amenable to programmatic intervention than, say religion.

Objections to Family Planning from Husbands

Attitudes towards family planning are one of the major causes of unmet needs for family planning in developing countries particularly sub-Saharan Africa. According to Lasee and Becker (1997), attitudes towards family planning are measured by couples' reports of general approval or disapproval of family planning. Many studies acknowledge that couples' positive attitudes towards family planning are a prerequisite for the adoption and use of family planning methods. The Malawi DHS (2004) correctly point out that it is critically important for the man's attitude to be positive since he is usually the main decision-maker

Many studies highlight objections to family planning from married women's husbands as one of the major reasons for unmet need for family planning in developing countries particularly sub-Saharan Africa where patriarchy is still strong. Many married women who want to space, or stop having more children say they face opposition from their spouses. For example, when women were asked about their husband's views on family planning, the level of spousal disapproval ranged from 6 percent in Burundi to 44 percent in Sudan (Bongaarts and Bruce, 1995).

The effect of husband disapproval on contraceptive use was substantial in some African countries. Contraceptive use in Burundi was 14% among married women with approving husbands compared

to 3% with disapproving husbands. On average, husbands' disapproval led to a reduction in use by two thirds (Ibid.). In her study of male attitudes to family planning in the era of HIV/AIDS, Maharaj (2001) found that male attitudes in both rural and urban areas were favourable towards family planning. Contrary to these findings, Duze and Mohammed (2006) in their study of male knowledge, attitudes, and family planning practices in Northern Nigeria, found generally negative attitudes towards limiting family size for economic reasons.

However, Maharaj and Cleland's (2005) findings were the complete opposite to the general rule in sub-Saharan Africa where men exert more influence than women on reproductive decision-making; husbands approved of family planning, and the wives' fertility preferences were found to be significant determinants of contraceptive use. They correctly note that basing an analysis of the husbands' attitudes, as most studies do, solely on the wives' submission, is likely to be problematic. They note that "increasingly, it is becoming evident that the dynamics of reproductive processes can best be understood when researchers collect information from both partners (Bankole 1995, cited in Maharaj and Cleland, 2005). Maharaj (2012) found that in general men expressed positive attitudes to contraceptive use. However, the study revealed that a substantial proportion of women, particularly in rural areas, perceived men as disapproving of family planning,

The question is what are the reasons that fuel husbands' opposition to contraceptive use? Following their qualitative work in four rural communities in Kenya, Watkins et al. (1997) identified three main reasons for male opposition to contraceptive use: (a) the concern that family planning will encourage infidelity among wives, (b) that it will interfere with men's desire to raise large numbers of children as compensation for bride payment, and (c) it will weaken husbands' control over their wives. Thus, in contrast to what the general approval statistics indicate, many men may be uncomfortable with the idea that their wives use contraceptives for fear that that it may jeopardize their control over their wives, whether this be sexual or reproductive (Biddlecom and Fapohunda, 1998).

2.7 Summary

The available literature reveal that knowledge of at least one contraceptive method is universal in many developing countries. In many studies, a positive association was observed between education and knowledge of at least one contraceptive method. Those who were more educated, residing in urban areas and less than 30 years of age were more likely to have knowledge of at least one contraceptive method than those who were less educated, living in rural areas and above 30 years of age. There are a number of factors affecting contraceptive use. These include female education, residence, age, desire for more children and number of living children. Many studies found that wife's secondary education, her fertility preference (want no more children), those residing in urban areas, women with three or more children and those less than 35 years of age are more likely to use contraception than those who have less than secondary education, wanting more children, living in rural areas, more than 35 years old and having less than three living children. Lastly the chapter discussed three factors inhibiting contraceptive use. These are fertility related, opposition to use and method related reasons. Many studies reveal that most women cite fertility related reasons for contraceptive non-use, followed by method related opposition to use.

Chapter 3

Methodology

3.1 Introduction

The purpose of this chapter is to outline the methodology used in the study. It starts by providing a brief description of quantitative research methods, outlining the advantages and disadvantages. It then briefly describes the Swaziland Demographic and Health Survey (SDHS) of 2007. It looks at the sample, and method of data analysis plan including the definition of unmet need for family planning.

3.2 Swaziland Demographic and Health Survey (SDHS) 2007

The main objective of the study was to provide up to date information on fertility, childhood mortality, marriage, fertility preference, awareness and use of family planning methods, infant feeding practices, maternal and child health, maternal mortality, and HIV/AIDS-related knowledge and behavior.

The SDHS 2007 is meant to provide data to assist policy-makers and programme implementers to monitor and evaluate existing programmes and to design new strategies. The survey also provides data to monitor the country's achievements towards the Millennium Development goals.

The SDHS was coordinated and implemented by the central statistical office (CSO) at the request of the Ministry of Health.

3.3 Method of data collection

The SDHS 2007 used five different types of questionnaires: the woman's questionnaire, the man's questionnaire, the household questionnaire, the youth questionnaire and the older adult

questionnaire. For this study, the secondary data generated from the woman and man's questionnaires was used.

The 2007 the Swaziland Demographic Health Survey used systematic sampling as the main sample selection method. Since random sampling and systematic sampling are related and are complementary to each other, an attempt will be made to define both before outlining the process which was followed.

According to Kerlinger (1986), random sampling is a method of drawing a portion (sample) of a population or universe so that all possible samples of fixed size 'n' have the same probability of being selected. The strength of this definition is premised on the fact that it accommodates one of the most important principles in sampling, namely representative-ness (Kerlinger, 1986).

The 2007 SDHS employed a nationally representative sample which was selected from the main sampling frame created by the central statistics office based on the 1997 Swaziland population and housing census data. Sample point clusters were drawn from a list of enumeration areas (EAs). A total of 275 clusters were drawn from the census main frame, 111 in urban areas, and 164 in rural areas. A systematic sample was drawn for a total of 5 500 households. All women and men aged 15-49 in these households were eligible for individual interviews. In addition a sub-sample of half of these households 2 750 households was randomly selected. All boys and girls aged 12-14 and persons aged 50 and over were eligible for individual interviews.

The main source of information was derived from the women and men's questionnaires which largely covered the same topics. The women's questionnaire was used to collect data from all women aged 15-49 and covered the following topics: age, education, religion, birth history, contraceptive use and knowledge, breast feeding, antenatal and delivery care, immunisation, childhood illness and treatment, marriage and sexual activity, fertility preferences, husband's background and women's work status, maternal mortality, and HIV/AIDS related knowledge, attitudes, and behaviour.

The proposal for the study was submitted together with an ethical clearance application form. The study proposal was approved by the relevant UKZN committee.

3.4 Data Analysis

The study uses secondary data obtained from the Swaziland Demographic and Health Survey [2007]. SPSS computer software is used to present frequencies, cross-tabulation, and regression analysis of key determinants of contraceptive use. This study uses both descriptive and multivariate logistic methods. All analyses are done for men and women aged 15 -49.

The dependent variable for the study was contraceptive use - ever and current use. The independent variables include among other factors education level, age, residence, marital status, parity, and desire for more children. The study also looked at factors influencing unmet need for family planning in order to shed more insights on contraceptive use.

3.5. Unmet need for family planning

The definition of unmet need has undergone many revisions and refinements since the 1960s (Bradley et al 2012). Currently, there are two definitions of unmet need for family planning (the original definition of unmet need and the revised definition) and more recently a refinement was made to the original definition. The weaknesses of previous definitions of unmet need gave rise to the revision and adoption of the revised definition of unmet need for family planning. This study uses the revised definition to calculate unmet need for family planning in the results section in Chapter Five. Figure 4.6.1 shows a flow chart of the revised definition of unmet need for family planning.

The strength of the revised definition of unmet need lies in the fact that it can consistently be applied to compare estimates across countries and to reliably measure trends over time; something the original definition failed to achieve (Bradley et al., 2012)

Details on unmet need (including unmet need for spacing and unmet need for limiting) among currently married women are provided in Figure 3.1. Total unmet need is the sum of unmet need for spacing and for limiting.

The 'total demand' is the sum of the total unmet need and the total current use. The percentage of total demand satisfied is calculated by dividing the total current use by the total demand. The unmet need for modern methods is the sum of total unmet need and percentage using traditional methods (Westoff, 2006, cited in Khan et al., 2008). The percentage of total demand satisfied by modern methods is calculated by dividing the current use of modern methods by the total demand.

3.6 Summary

The study uses secondary data obtained from the Swaziland Demographic and Health Survey [2007]. SPSS computer software is used to present frequencies, cross-tabulation, and regression analysis of key determinants of contraceptive use. This study uses both descriptive and multivariate logistic methods. All analyses are done for men and women aged 15 -49. This study uses the revised definition to calculate unmet need for family planning in the results section. Figure 3.1 shows a flow chart of the revised definition of unmet need for family planning.

Figure 3.1: Flow chart of the revised definition of unmet need for family planning

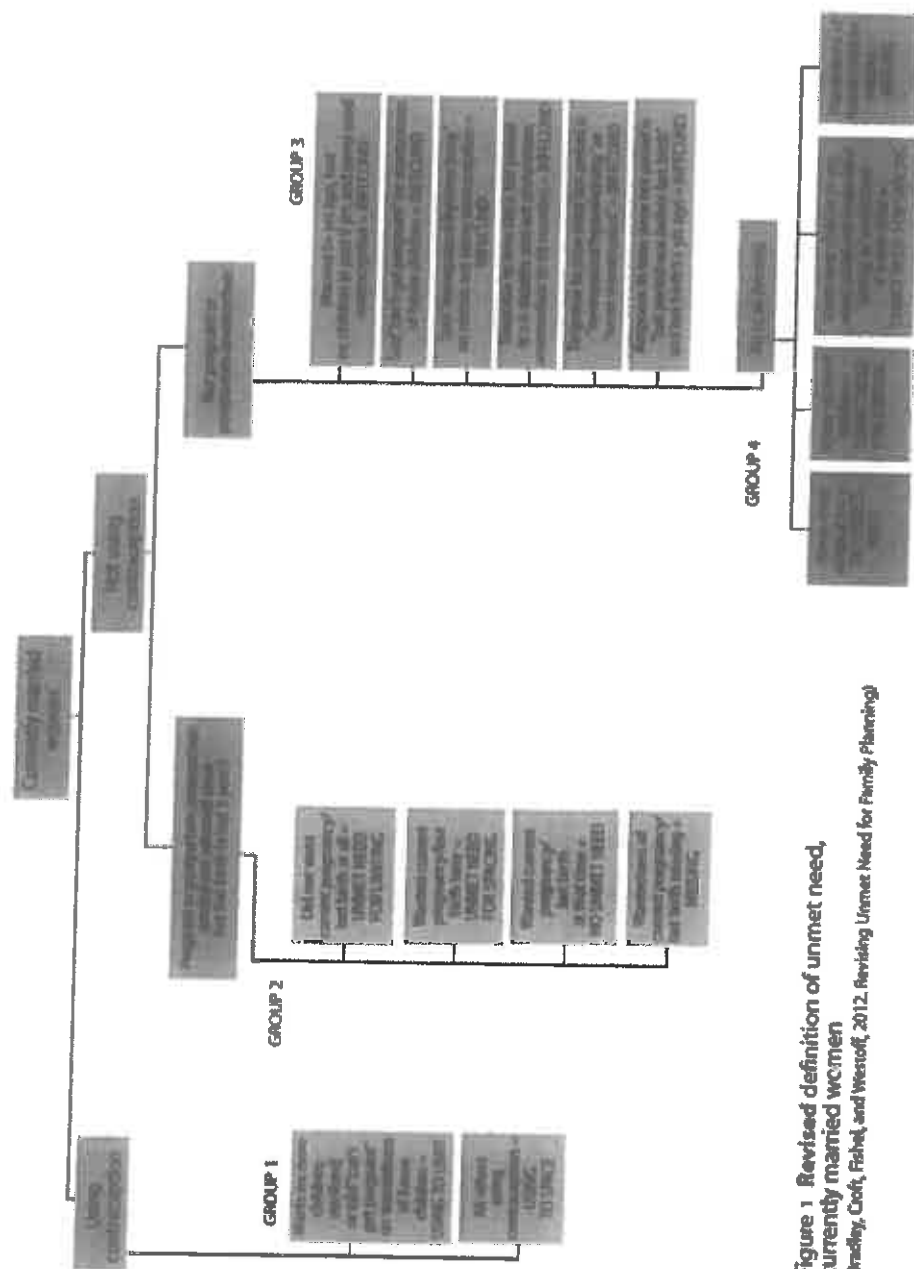


Figure 1 Revised definition of unmet need, currently married women
(Bradley, Croft, Fishel, and Westoff, 2012; Revising Unmet Need for Family Planning)

Chapter 4

Results

4.1 Introduction

In recent years, the importance of male involvement in reproductive health and family planning has increasingly been recognised. There is a need therefore, to consider use of family planning by both men and women. The thrust of this chapter is to analyse the level of family planning use among men and women, and the factors which affect contraceptive use. The chapter starts with an assessment of knowledge of, and male attitudes to family planning; exposure to family planning messages among men and women; and ever use and current use of family planning. It then analyses determinants of contraception use among all the respondents, marital and cohabiting unions, and lastly, it explores the concept of unmet need.

4.2 Knowledge of family planning

In the SDHS 2007, sexually active male and female respondents aged 15 – 49 years who were married or sexually active were asked a series of questions about contraceptives knowledge and use. First, respondents were asked to name all the family planning methods they knew. When a respondent failed to mention a particular method spontaneously, the interviewer described the method and further asked if the respondent had ever heard of the method. If the respondent remembered the method, it was added to the list of methods known by the respondent. Using this approach, the range of methods included two categories, namely modern and traditional methods. Information was collected for nine modern family planning methods. These are female and male sterilisation, the pill, IUD, injectables, male and female condoms, diaphragm, foam/jelly lactational amenorrhea (LAM), and emergency contraception. Information was also collected on three traditional methods, namely withdrawal, rhythm, and abstinence.

Table 4.1 presents the percentage of sexually active respondents with knowledge of specific methods of contraception. The table clearly shows that knowledge of family planning is nearly universal among men and women. Almost all sexually active men and women were able to identify

at least one method of family planning. However, there was greater awareness of modern methods than traditional methods.

Table 4.1: Percentage of all respondents aged 15 – 49 with knowledge of specific methods of contraception

	Men percentage (%)	Women percentage (%)
Modern method	99.6	99.7
Pill	84.6	94.6
IUD	50.3	74.6
Injectables	84.3	95.6
Diaphragm	20.0	19.9
Male Condom	99.3	98.7
Female Sterilization	63.7	69.0
Male Sterilization	35.9	28.3
Implants	4.4	4.1
Lactational Amenorrhea Method (LAM)	33.9	58.4
Female Condom	84.2	91.2
Foam/Jelly	17.1	18.9
Emergency Contraception	21.9	26.0
Traditional method	79.1	77.6
Rhythm	46.6	38.1
Withdrawal	73.9	70.3
Abstinence	4.3	10.4
Number of Respondents	4156	4987

With regard to knowledge of specific methods, the best known methods were male condoms followed by injectables and the pill, while the least known were implants and folk methods. The best known methods for female respondents are male condoms (98.7%), injections (95.6%), the

pill (94. 6%), and female condoms (91.2%). For men, the best known methods are male condoms (99.3%), the pill (84.6%), female condoms (84.2%), and injectables (84.3%).

Table 4.2: Percentage of all respondents who knew five or more methods by selected background characteristics

Background Characteristics		Men		Women	
		Number	Percentage (%)	Number	Percentage (%)
Total		4156	80.9	4987	89.0
Age Group					
	15-34	3294	77.4*	3741	86.4*
	35-49	862	94.3	1246	96.8
Marital Status					
	Married	1032	94.5	1581	96.3
	Cohabiting	249	93.6	488	92.6
	Neither	2875	75.0	2918	84.4
Type of place of residence					
	Urban	1441	89.5*	1544	92.4
	Rural	2715	76.4	3443	87.5
Level of Education					
	Less than secondary	1760	69.4*	2049	83.2*
	Secondary or more	2396	89.4	2938	93.1

Note: *significant at less than 5 percent

Knowledge of at least one method is an important step for use of contraception, but for effective use more knowledge is required and it is expected that the more people know and accept modern contraceptives, the more they will use them (Abiba et al., 2012). Lindstrom and Hernandez (2006, cited in Abiba et al., 2012) found that limited knowledge of contraceptive methods among recent rural-urban migrants in Guatemala was associated with unmet need and limited choice of contraceptives. Similarly, Rutenberg et al (1991) argued that knowledge of five or more methods constitutes a rigorous measure of comprehensive knowledge of contraceptive methods. Table 4.2 presents the percentage of sexually active respondents who knew five or more methods by selected

background characteristics. Overall, women were more likely to know of five or more methods of family planning than men. Interestingly, older respondents were more knowledgeable than younger respondents and the difference was significant for both men and women. Respondents who were neither married nor cohabiting were also less likely than respondents who were either married or cohabiting to know of five or more methods of family planning. With regards to place of residence, male rural respondents were significantly less likely to know of five or more methods of family planning than their urban counterparts. The same is observed for women albeit this is not significant. The better educated were also more likely than the less educated to know five or more methods of family planning and the difference was significant.

4.3 Male attitudes towards use of contraception

Male attitudes towards the use of contraception are very important because men's support affects the choice, adoption, continuation and correct use of family planning methods. They have an important say in decision such as desired family size and the use of family planning methods (Nasir et al., 2010). More, in a patriarchal society like ours where decisions are largely made by men, the need to include them in matters that require joint spousal decisions are crucial in achieving the reproductive health goals (Shahjahan et al., 2013). Yet, in many Sub-Saharan settings, few men are involved in issues related to reproductive health (Kabagenyi et al., 2014). Therefore, an assessment of men's attitudes towards family planning would provide an indication about their role in the choice of family planning methods (Nasir et al., 2010).

The 2007 SDHS assessed men's attitudes toward contraception by asking male respondents whether they agreed or disagreed with the following three statements about family planning use: (1) contraception is women's business and men should not have to worry about it, (2) women who use contraception may become promiscuous, and (3) a woman is the one who gets pregnant so she should be the one to get sterilized. Table 4.3 presents percentage of currently married and sexual active unmarried male respondents who agree with specific statements about the use of contraception.

Table 4.3: Percentage of all male respondents, currently married male respondents, and sexually active unmarried male respondents who agree with specific statements about use of contraception

		Currently Married/Cohabiting				Sexually Active Unmarried			
		Agree		Do n't Know		Agree		Do n't Know	
		No	%	No	%	No	%	No	%
Statement	Contraception is woman's business and a man should not worry	152	11.9	12	0.9	63	10.7	6	1
	Women who use contraception become promiscuous	722	56.4	79	6.2	399	67.7	20	3.4

About 12% of male respondents say that contraception is a woman's issue and 56.4% say that a woman who uses contraception may become promiscuous. Sexually active unmarried male respondents (68%) are more likely than married male respondents (56.4%) to hold the view that contraception may lead to promiscuity. With regard to currently married male respondents, 12% say that contraception is a woman's business and 56% say that contraception may lead to promiscuity.

4.4 Exposure to family planning messages

Exposure to family planning messages through television, radio, and newspapers is important because it was found to be positively associated with the use of family planning methods(Kulkarni,

2003) and radio, television and print media, namely newspapers and magazines are potential for disseminating family planning information (Malawi DHS 2004). Information about public exposure to messages on a particular type of media allows policymakers to use the most effective means of communication for various target groups in the population (Swaziland DHS 2007). To determine how effective electronic and print source is on the dissemination of family planning information, respondents in the 2007 SDHS were asked if they had heard or seen family planning messages in a newspaper or magazine in the six months leading up to the survey. They were also asked if they had seen messages on family planning in billboards, pamphlets, T-shirts, or other sources.

Table 4.4 shows that family planning messages are predominantly accessed through radio, with the print media placed far behind, and television the least accessed media. This is true for both men and women. For instance, 59% of all men and 68.3% of all women had recently heard about family planning on the radio. For sexually active unmarried men and women messages are sourced from radio are 67% and 73% respectively. Only 35% of men and 33% of women got family planning messages from newspapers and or magazines. The table further reveals that more women than men access family planning messages through radio. This is also true for television; more women than men access family planning messages through the television. In general, women have better exposure to family planning messages in the mass media than men.

Table 4.4: Percentage of sexually active respondents who have heard/seen a message in the last few months

	All respondents		Sexually active respondents	
	Men	Women	Men	Women
	%	%	%	%
Heard about family planning in the last few months				
On the radio	58.9	68.3	67.1	72.8
On the television	26.0	28.2	32.4	30.0
In a newspaper or magazine	35.0	33.0	41.7	33.4
N	12446	11948	5600	7945

4.5 Ever and current use of family planning

4.5.1 Ever use

Ever use refers to the use of any method of contraception (traditional or modern) at any time before the interview without any distinction between past use and current use. All respondents interviewed who said they had heard of a method of family planning were asked whether they had ever used that method. While all women were required to respond to all listed specific methods as set in the questionnaire, male respondents were only required to respond to four methods; the male condom, male sterilisation, rhythm, and withdrawal. This limits the gender differentials analysis of ever use of specific methods of family planning. Table 4.5 shows percentage of all respondents having ever used specific methods of family planning.

Table 4.5: Percentage of all respondents having ever used specific method of family planning

	Women percentage (%)	Men percentage (%)
Modern method	70.2	56.7
Pill	31.3	.0
IUD	5.4	.0
Injectables	42.8	.0
Diaphragm	.4	.0
Condom	45.8	56.3
Female Sterilization	3.1	.0
Male Sterilization	.4	.7
Implants	.2	.0
Lactational Amenorrhea Method (LAM)	17.2	.0
Female Condom	3.4	.0
Foam/Jelly	2.0	.0
Emergency Contraception	2.7	.0
Traditional method	17.5	27.9
Rhythm/Billings/Mucus Method	5.5	13.3
Withdrawal	12.9	20.7
Other Methods	2.0	.0
N	4987	4156

As expected, any modern method has a higher ever use among all women than any traditional method (70%) and (18%) respectively. The most commonly used modern method of family planning among women was the male condom (45%), followed by injectables (43%), and the pill (31%). Other methods frequently used by women were LAM (17%), and traditional methods (18%). As expected, levels of ever use of certain modern methods were very low among women. Few women respondent reported using implants (0.1%), male sterilisation (0.4%), and diaphragms (0.4%). The male condom was the most widely tried method among both women and men. Men are more likely than women to report ever use of the male condom. It is interesting to note that

men were more likely to report higher ever use of modern methods requiring their involvement. Men were more likely to report using the male condom and male sterilisation. Men were more likely than women to report ever use of any traditional method. Overall, men had a bias towards reporting methods that require their involvement. Withdrawal was the most popular traditional method among both men and women.

4.5.2 Current use

In order to determine current use of contraceptive methods, women aged 15-49 were asked to indicate whether they were currently using any method of contraception and to identify the method they were currently using. Table 4.6 shows the percentage of sexually active respondents currently using specific methods of family planning.

Table 4.6: Percentage of all respondents currently using specific methods of contraception

	Women percentage %			Men percentage %		
	No.	Not using	Using	No.	Not using	Using
Modern method	3143	63.0	37.0	2265	45.4	37.9
Pill	1265	25.4	6.0	4066	81.5	1.8
IUD	226	4.5	.8	4149	83.2	.1
Injectables	1528	30.6	12.1	4039	81.0	2.3
Diaphragm	18	.4	.0	4155	83.3	.0
Condom	1549	31.1	14.8	2440	48.9	34.4
Female Sterilization	0	.0	3.1	4138	83.0	.4
Male Sterilization	15	.3	.1	4128	82.8	.6
Implants	4	.1	.1	4143	83.1	.3
Lactational Amenorrhea METHOD (LAM)	817	16.4	.8	4153	83.3	.1
Female Condom	156	3.1	.3	4152	83.3	.1
Foam/Jelly	100	2.0	.0	4156	83.3	.0
Emergency Contraception	135	2.7	.0	4156	83.3	.0
Traditional method	4894	98.1%	1.9	3861	77.4	5.9
Rhythm/Billings/Mucus Method	263	5.3	.2	4115	82.5	.8
Withdrawal	575	11.5%	1.4	3961	79.4	3.9%
Other Methods	83	1.7%	.3	4084	81.9	1.4%
N	4987			4156		

Current use was almost equal among both women and men at 37% and 37.9% respectively. Male respondents were more likely to report current use of traditional methods than female respondents. Modern methods of family planning were more widely used than traditional methods. The male condom was most commonly used among both men and women. Among men and women, the most widely used modern family planning method was the male condom, followed by injections,

and the pill. The IUD, female condom, and LAM were the least used modern methods amongst men. Implants and male sterilisation were the least used modern methods of family planning among women. Withdrawal was the popular traditional method amongst men.

Table 4.7 presents the association of various background characteristics of married and cohabiting women and men with current use of contraception. Unexpectedly, married men were overall more likely than married women to be using a method of family planning. With regard to age, women who are less than 35 years are more likely than older women to be users of contraception. The same is observed in men though the difference is not significant. With respect to marital status, married women are more likely than cohabiting women to be using a method but the opposite is observed for men albeit not significantly. As expected, urban women are more likely than rural women to be using a contraceptive method and the same pattern is observed for men. There is a positive association between contraception and education status of women. Women with secondary or more education were significantly more likely to be family planning users than women with less than secondary education. Similar results are observed for men.

Current use of method of family planning was higher among those who did not want more children than those who wanted more children. This was observed in both women and men. Among women the use of a method of family planning was highest among those with two to four children. Among men a different result was observed; those with two to four and more than four children showed slightly higher levels of family planning use compared to those with less than two children.

Table 4.7: Percentage of married and cohabiting respondents currently using any method of family planning by selected background characteristics

Background Characteristics		Women		Men	
		Number	Percentage (%)	Number	Percentage (%)
All		2069	51.1	1281	65.7
Age Group					
	15-34	1260	52.9*	613	68.2
	35-49	809	40.9	668	63.5
Marital Status					
	Married	1581	50.1	1032	65.5
	Cohabiting	488	42.2	249	66.7
Type of place of residence					
	Urban	616	55.8*	622	69.3
	Rural	1453	45.0	659	62.4
Level of Education					
	Less than Secondary	971	37.3*	544	56.6*
	Secondary or more	1098	57.9	737	72.5
Desire for more children					
	Yes	578	40.3*	554	59.0*
	No	1454	51.6	678	71.4
	Unsure	35	40.0	40	60.0
Number of living children					
	0-1	532	36.3*	317	62.1
	2-4	984	57.1	598	66.7
	5 or more	553	43.9	366	67.2

Note: *Significant at less than 5 percent

In the next two tables, logistic regressions are conducted for women and men. In this model, the dependent variable is current use of any method of family planning with sexually active respondents, whether married or cohabiting with a partner. For each observation, the variable takes the value of '1' if the respondent is using a method of family planning and '0' if the respondent is not using any method. The unadjusted logistic regressions are used to determine the association of

each individual variable without controls on current use of any method and adjusted logistic regressions are used to determine the net effects of all variables on current use of any method.

Table 4.8 shows the odds ratios of all respondents who are currently married or sexually active and unmarried. The number of living children comes out as the most powerful predictor of current use among both men and women. Women with two to four children are 3.04 times more likely to be using a method than women with less than two children. A similar result is observed for men. Men with two to four children are 3.09 times more likely to be using a method of family planning than women with less than two children.

Table 4.8: The odds ratios of all respondents using a method of family planning: results from logistic regression

Background Characteristic	Women Odds ratios and 95% confidence intervals		Men Odds ratios and 95% confidence intervals	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Age				
Less than 35	1.00	1.00	1.00	1.00
35 or more	0.99 (0.87-1.13)	0.48 (0.41-0.58)	1.83 (1.57-2.13)	0.63 (0.48-0.83)
Marital Status				
Married	1.00	1.00	1.00	1.00
Cohabiting	0.68 (0.56-0.84)	0.70 (0.56-0.87)	1.05 (0.79-1.41)	1.11 (0.81-1.52)
Others	0.37 (0.32-0.42)	0.42 (0.36-0.49)	0.38 (0.32-0.44)	--
Place of Residence				
Urban	1.00	1.00	1.00	1.00
Rural	0.64 (0.56-0.72)	0.65 (0.56-0.74)	0.46 (0.40-0.53)	0.84 (0.66-1.07)
Level of Education				
Less than Secondary	1.00*	1.00	1.00*	1.00
Secondary or more	1.57 (1.40-1.77)	1.71 (1.5-1.95)	1.98 (1.74-2.24)	1.96 (1.53-2.52)
Desire for more children				
Yes	1.00*	1.00	1.00*	1.00
No	2.26 (2.00-2.55)	1.83 (1.57-2.12)	1.76 (1.39-2.24)	1.72 (1.31-2.26)
Unsure	1.62 (1.08-2.43)	1.41 (0.92-2.15)	1.04 (0.54-2.00)	1.10 (0.56-2.15)
Number of living children				
0-1	1.00*	1.00	1.00*	1.00
2-4	3.04 (2.67-3.46)	2.10 (1.79-2.48)	3.09 (2.62-3.64)	1.22 (0.88-1.69)
5 or more	1.75 (1.48-2.08)	1.73 (1.35-2.22)	3.00 (2.41-3.74)	1.50 (0.99-2.26)

Age does not seem to have a significant independent effect on the use of family planning among women. A different result is observed among men. Men who are 35 years or more are 1.83 times more likely to be using a method of family planning than men who are less than 35 years. Marital status does not seem to have a significant independent effect on the use of family planning among

both women and men. As expected, urban women and men are more likely to be using a method of family planning than rural women and men albeit slightly.

There is an association between education level and current use of contraception. Women with secondary or more education are 1.6 times more likely to be using a method of family planning than women with less than secondary education. A stronger association is observed among men. Men with secondary or more education are 1.98 times more likely to be using a method of contraception than men with less than secondary education. The analysis suggests that the use of contraception is influenced by the future fertility intentions of women. Women who do not want to have another child are 2.26 more likely to use contraception than women who do want to have another child. The odds of using a method of family planning are 1.77 times higher among women who do not want to have another child than women who do want to have another child.

Table 4.9 presents the odds ratios of married and/cohabiting women and men currently using a method of family planning by selected background characteristics. Education status comes out as the most powerful predictor of current use among currently married and cohabiting women and men. Women with secondary or more education are 2.37 times more likely to be using a method of contraception than women with less than secondary education. As noted above the level of education also has a positive effect on current use of a method of family planning for men. Men with secondary or higher education are 2.02 times more likely to be using a method than men with less than secondary education. After adjusting for the other variables, the effects of education on current use of contraception does not change significantly. The finding of the study is consistent with a similar study by Andi et al (2014) which concluded that the odds of using contraception increased with the level of education.

With regard to age, both women and men who are less than 35 years are more likely to be using a method of family planning compared to those who are 35 or more, albeit slightly. Marital status does not seem to have a significant independent effect on the use of family planning. Current use is directly associated with number of living children. Women with two to four children are more likely to be using a method than women with less than two children. The odds of using a method

of family planning are 2.53 times higher among women with two to four children compared to women with less than two children. After controlling for other variables, the results remained largely unchanged for women, suggesting the number of living children does have a significant influence on current use.

Table 4.9: The odds ratios of married and cohabiting respondents using a method of family planning: results from logistic regression

Background Characteristic	Women Odds ratio and 95% confidence intervals		Men Odds ratios and 95% confidence intervals	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Age				
Less than 35	1.00	1.00	1.00	1.00
35 or more	0.66 (0.55-0.78)	0.46 (0.37-0.58)	0.81 (0.64-1.02)	0.63 (0.48-0.83)
Marital Status				
Married	1.00	1.00	1.00	1.00
Cohabiting	0.68 (0.56-0.84)	0.77 (0.62-0.97)	1.05 (0.79-1.41)	1.11 (0.81-1.52)
Others				
Place of Residence				
Rural	1.00	1.00	1.00	1.00
Urban	0.66 (0.54-0.80)	0.70 (0.57-0.87)	0.73 (0.58-0.93)	0.84 (0.66-1.07)
Level of Education				
Less than Secondary	1.00*	1.00	1.00*	1.00
Secondary or more	2.37 (1.99-2.83)	2.27 (1.86-2.76)	2.02 (1.59-2.55)	1.96 (1.53-2.52)
Desire for more children				
Yes	1.00*	1.00	1.00*	1.00
No	1.66 (1.37-2.02)	1.48 (1.16-1.87)	1.73 (1.37-2.2)	1.72 (1.31-2.26)
Unsure	1.15 (0.58-2.29)	0.92 (0.45-1.89)	1.04 (0.54-2)	1.10 (0.56-2.15)
Number of living children				
0-1	1.00*	1.00	1.00	1.00
2-4	2.53 (2.04-3.14)	2.51 (1.96-3.23)	1.22 (0.92-1.62)	1.22 (0.88-1.69)
5 or more	1.52 (1.19-1.93)	2.62 (1.88-3.66)	1.25 (0.91-1.71)	1.50 (0.99-2.26)

With regard to future fertility intentions of women and men, the effect on current use is significant. Women who do not want to have another child are 1.66 times more likely to be users of contraception than women who do want to have another child. A similar result is observed with respect to men. Men who do not want to have another child are 1.73 times more likely to use contraception than men who do want to have another child.

4.5.3 The level of unmet need

To establish the level unmet need for family planning in Swaziland, this study used the revised definition of unmet need for family planning as indicated in chapter four and the results are seen in Figure 4.1

Figure 4.1 shows the distribution of women according to their need for family planning. The figure shows that almost 85% of married women are not susceptible to the risk of unwanted pregnancy due to the following reasons:

- 1) currently using a method: 51.1%
- 2) pregnant, amenorrheic or infecund: 23.1%
- 3) want a child soon: 7.3%
- 4) undecided: 3.5%

The total unmet need among married women is 24.9%, of which 18.1% have an unmet need for limiting and 6.8% have an unmet need for spacing. The level of unmet need for limiting is higher than the unmet need for spacing

The estimated total demand for family planning is therefore 75.9% (24.9% of unmet need and 51.1% of current contraceptive use). This suggests that if every married and cohabiting woman uses a method, the contraceptive prevalence rate will increase from 51.1 to 75.9%. It seems that there is a high demand for contraceptives among married women. Nevertheless, there would be a

further increase in contraceptive use if those with an unmet need for limiting and spacing were using a method.

Figure 4.1: Estimates of unmet need for family planning among currently married women

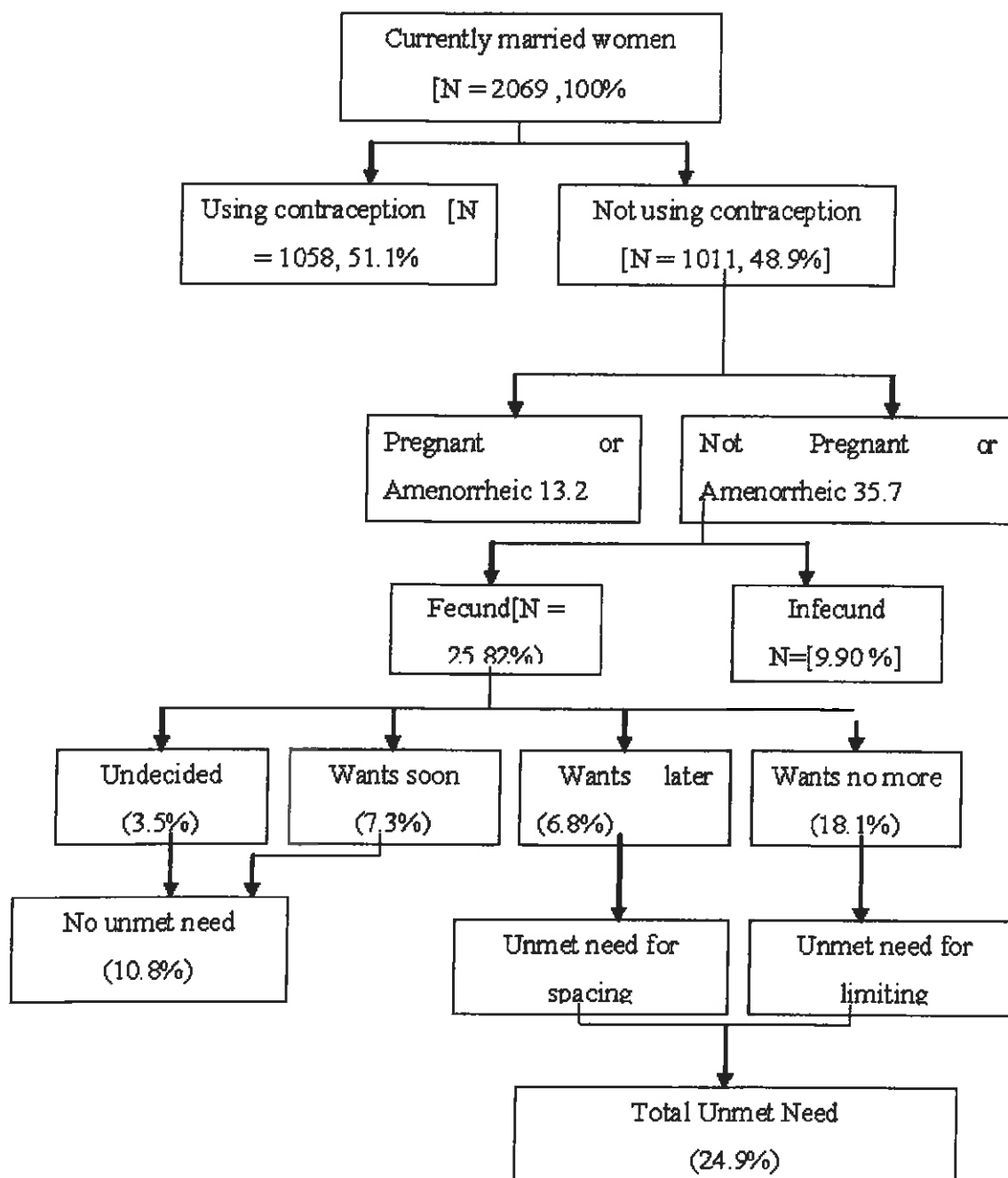


Table 4.10 examines the percentage of all respondents having an unmet need by selected background characteristics. With regard to age, women less than 35 years are slightly less likely than those who are 35 years or more to have unmet need.

Table 4.10: Percentage of all respondents having an unmet need, by selected background characteristics

Background characteristic		N	Women (%)
Total		4987	16.5
Age Group			
	15-34	3741	15.6
	35-49	1246	19.2
Marital Status			
	Married	1581	23.0
	Cohabiting	488	30.9
	Neither	2918	10.5
Type of place of residence			
	Urban	1544	13.7
	Rural	3443	17.7
Level of Education			
	Less than Secondary	2049	21.8*
	Secondary or more	2938	12.8
Desire for more children			
	Yes	2020	8.9*
	No	2858	21.9
	Unsure	105	14.3
Number of living children			
	0-1	2631	11.6*
	2-4	1612	18.2
	5 or more	744	30.1

Note: Significant at 5 percent

Among all women the expectation that unmet need will be higher in rural areas than urban areas, is supported by the findings. Women who are cohabiting are more likely than those who are married to have a higher unmet need. With regard to education status, the level of unmet need is higher among women with less than secondary education than women with secondary or higher

education. With respect to future fertility intentions, women who desire no more children are significantly more likely to have higher level of unmet need than those who still want more children. Women who have five or more living children are significantly more likely to have higher unmet need than women with less than two living children.

Table 4.11 shows the level of unmet need for family planning among married and cohabiting respondents by selected background characteristics.

Table 4.11: Percentage of married and cohabitating women having an unmet need, by selected background characteristics

Background characteristic		N	Women (%)
All		2069	24.8
Age			
	15-34	1260	24.8
	35-49	809	25.0
Marital Status			
	Married	1581	23.0
	Cohabiting	488	30.9
Type of place of residence			
	Urban	616	21.3
	Rural	1453	26.4
Level of Education			
	Less than Secondary	971	30.8*
	Secondary or more	1098	19.6
Desire for more children			
	Yes	578	15.7*
	No	1454	28.6
	Unsure	35	20.0
Number of living children			
	0-1	532	21.8*
	2-4	984	20.8
	5 or more	553	34.9

Note: Significant at 5 percent

With regard to age, the level of unmet need varies slightly. Women who are 35 or more are more likely to have unmet need than those who are less than 35 years. Cohabiting women are more likely to have an unmet need than married women. There is an association between level of education and unmet need for contraception. The level of unmet need is higher among women with less than secondary education than women with secondary or higher education. With regard to future fertility intentions, women who do not want to have another child are significantly more likely to have higher unmet need than women who do want to have another child. No variation of unmet need is observed for women who have two to four living children and women with less than two children.

Table 4.12: The odds of having an unmet need among married and cohabiting women: results from logistic regression

Background Characteristics	Odds ratios (95% Confidence Intervals)	
	Unadjusted	Adjusted
Age		
Less than 35	1.00	1.00
35 or more	1.01 (0.82-1.24)	0.64 (0.49-0.82)
Marital Status		
Married	1.00	1.00
Cohabiting	1.5 (1.2-1.88)	1.46 (1.14-1.87)
Place of Residence		
Rural	1.00	1.00
Urban	1.33 (1.06-1.66)	1.16 (0.9-1.48)
Level of Education		
Less than Secondary	1.00	1.00
Secondary or more	0.55 (0.45-0.67)	0.67 (0.53-0.83)
Desire for more children		
Yes	1.00*	1.00*
No	2.14 (1.67-2.76)	2.23 (1.66-2.99)
Unsure	1.34 (0.57-3.16)	1.48 (0.62-3.55)
Number of living children		
0-1	1.00*	1.00*
2-4	0.94 (0.73-1.22)	0.77 (0.58-1.03)
5 or more	1.92 (1.47-2.52)	1.57 (1.09-2.25)

Table 4.12 presents the odds ratios for currently married and cohabiting women. Desire for more children comes out as the most significant predictor of unmet need for family planning among currently married and cohabiting women. The odds of having unmet need for family planning are 2.14 times higher among women who desire no more children compared to women who want more children.

Cohabiting women are more likely than married women to report higher unmet need but the difference is not significant. Residence had no significant effect on unmet need for married and cohabiting women. Unmet need is inversely related to the level of education. The higher the education the lower the level of unmet need.

Having determined the level and differentials in unmet need, it is essential to have an understanding of the reasons that are the main drivers of unmet need in order to design appropriate interventions that are effective in reaching women with unmet need and to improve the quality of family planning services.

4.6 Summary

Knowledge of family planning is universal among men and women. Overall, women were more likely to know of five or more methods of family planning than men. About 12% of male respondents say that contraception is a woman's issue and 56.4% say that a woman who uses contraception may become promiscuous. The results reveal that more women than men access family planning messages through radio and in general, women have better exposure to family planning messages in the mass media than men. The male condom was the most widely tried method among both women and men. Overall, men have a bias towards reporting methods that require their involvement. Modern methods of family planning were more widely used than traditional methods. The male condom was most used among both men and women. With regard to selected background characteristics and current use of contraception, current use was higher among both men and women who have secondary or more education, want no more children, and are less than 35 years.

Results from logistic regression reveal education as the most powerful predictor of current use among currently married and cohabiting women and men. Women with secondary or more education are 2.37 times more likely to be using a method of contraception than women with less than secondary education. Men with secondary or higher education are 2.02 times more likely to be using a method than men with less than secondary education. The odds of using a method of family planning are 2.53 times higher among women with two to four children compared to women with less than two children. After controlling for other variables, the results remained largely unchanged for women, suggesting the number of living children does have a significant influence on current use. The total unmet need among married women was 24.9%; of which 18% had an unmet need for limiting and (6.8%) an unmet need for spacing. The level of unmet need for limiting was higher than the need for spacing. About 51% of currently married women are users of contraception. The level of unmet need is higher among women with less than secondary education than women with secondary or higher education. With regard to future fertility intentions, women who do not want to have another child are significant more likely to have higher unmet need than women who do want to have another child. Results from the logistic regression reveal desire for more children as the most significant predictor of unmet need for family planning among currently married and cohabiting women. The odds of having unmet need for family planning are 2.14 times higher among women who desire no more children compared to women who want more children.

Results from logistic regression reveal education as the most powerful predictor of current use among currently married and cohabiting women and men. Women with secondary or more education are 2.37 times more likely to be using a method of contraception than women with less than secondary education. Men with secondary or higher education are 2.02 times more likely to be using a method than men with less than secondary education. The odds of using a method of family planning are 2.53 times higher among women with two to four children compared to women with less than two children. After controlling for other variables, the results remained largely unchanged for women, suggesting the number of living children does have a significant influence on current use. The total unmet need among married women was 24.9%; of which 18% had an unmet need for limiting and (6.8%) an unmet need for spacing. The level of unmet need for limiting was higher than the need for spacing. About 51% of currently married women are users of contraception. The level of unmet need is higher among women with less than secondary education than women with secondary or higher education. With regard to future fertility intentions, women who do not want to have another child are significantly more likely to have higher unmet need than women who do want to have another child. Results from the logistic regression reveal desire for more children as the most significant predictor of unmet need for family planning among currently married and cohabiting women. The odds of having unmet need for family planning are 2.14 times higher among women who desire no more children compared to women who want more children.

Chapter 5

Conclusion

5.1 Discussion

This chapter outlines the main findings of the secondary analysis of the study. It looks in detail at factors influencing contraceptive use among men and compares with similar DHS studies from other developing countries particularly in Sub-Saharan Africa. The study reveals that education status is a significant predictor of current use among all respondents and currently married and cohabiting women and men. The odds of using a family planning method were higher among all women respondents with secondary or more education than women with less than secondary education. The odds are higher among currently married and cohabiting at 2.37 times. The odds of using a family planning method were higher among all male respondents with secondary or higher education than men with less than secondary education. The odds were higher at 2.02 times for currently married and cohabiting men. After adjusting for the other variables, the effects of education on current use of contraception did not change significantly. These findings are in the expected direction and are strongly supported by the literature review section of this study. In Uganda the odds of modern contraceptive use were higher among women with post-primary education when compared to the estimates among women with primary education (Andi, et al., 2014). These findings are supported by a study in Tanzania conducted by Anasel and Mlinga (2014) which found that the odds of using contraception increases significantly as level of education increases with highest factor of 6.73 for higher education as compared to non-educated. There are various explanations why education has such a positive impact on contraceptive use. It is often argued that better educated women have more knowledge of contraceptive methods or how to acquire them than less educated women because of their literacy, greater familiarity with modern institutions, greater likelihood of rejecting a fatalistic attitude towards life (Gordon 2011; Asimwe et al., 2013)

The study reveals that unmet need was inversely related to the level of education for both women and men. The higher the education the lower the level of unmet need. This finding is in accordance

with many studies (Hailemariam and Haddis, 2011; Ali and Okud, 2013). In Uganda, Ali and Okud (2013) found that unmet need was lower among women with secondary or higher education and in Kenya the women with less than secondary education were 2 times more likely to experience unmet need for family planning in comparison with those with secondary level. This expected finding is further confirmed by a study by Westoff (2012) and Adebawale and Martin (2014) cited in Delbiso (2014) which concluded that women with unmet need are less educated than women using a modern contraception. The explanation is that education imparts knowledge on the importance of using contraception and presents a woman with opportunity to interact with other women from diverse cultural and geographical bounds, from which they are able to acquire new information and skills including use of family planning (Nyauchi and Omedi, 2014). Similarly, Delbiso (2014) argues that women's education provides them with more opportunity to participate in the process of modernization and enable them to bring about changes in the economic and social situation. This in turn, improves their knowledge and practice of contraception. In addition, it is further argued that women empowered through education have better access to health facilities and information about contraceptive methods than uneducated women (Hailemariam and Haddis, 2011; Ali and Okud, 2013).

The study found that number of living children and desire for more children are significantly associated with contraceptive use while residence, age and marital status did not have significant association. The results show that number of living children comes out as the most powerful predictor of contraceptive use among all respondents and currently married and cohabitating men and women even after controlling for other variables, the results remained largely unchanged for women, suggesting the number of living children did have significant influence on current use. Among all respondents women with two to four children have substantially higher odds of using a method than women with less than two children. Among currently married and cohabitating the odds of using a method of family planning were higher among women with two to four children compared to women with less than two children. These findings are supported by a study in Uganda conducted by Andi et al., (2014) which found that the odds are highest –across the study

period- among women with at least five children, followed by those with 3-4 children and lowest among women with at most two children. In the same breadth, Schoemaker (2005) found that there is a strong association between the number of living children and women's contraceptive use. Women with three or four children were more likely to be users of modern contraceptives than women with two or fewer children. These findings are supported by a study conducted by Maharaj and Cleland (2005) examining the relative influence of husband and wife on contraceptive practice which found that wives with four or more children were 3.6 times more likely to be users of contraceptives compared to wives with one or less children. It is argued that women with more living children will prefer to control child birth relative to their counterparts with fewer living children. This may be explained by the high child mortality rate in the country as Swaziland had 85 deaths per 1000 live births for the most recent five year period preceding the survey. Most families therefore choose to have more living kids to counter the impact of child mortality (Nonvignon and Nonvignon 2014).

The study found that odds of having unmet need for family planning were higher among women who had five or more living children compared to women with one or less surviving children. The results of the study is consistent with many studies conducted using DHS which document a positive association between unmet need for family planning and the number of surviving children (Adebawale and Palamuleni 2014; Hailemariam and Haddis 2011). A similar study conducted in Kenya found that having 2 to 3 living children is associated with a two-fold increase in total unmet need for family planning, and having six or more children is associated with a more than six-fold (6.5)increase in total unmet need (Ojakaa 2008). It appears that as more children survive, women feel the security and then desire to limit childbearing by adopting contraception. Hence, women with more children are more likely to exhibit greater levels of unmet need (Nyauchi and Omedi 2014).

With regard to future fertility intentions of women and men, the results of the bivariate analysis show that the effect on current use is significant among all respondents and currently married and

cohabitating. In the logistic regression analysis, the pattern continued. Among all respondents women who do not want to have another child are more likely to be users of contraception than women who do want to have another child. Among married and cohabitating, women who do not want to have another child are more likely to be users of contraception than women who do want to have another child. A similar pattern was observed among men. The findings are in accordance with Mohammed et al. (2014) which found that women who desire another child after two years were nearly 6 times more likely to use modern contraceptive than those women who desire another child within two years. Mohammed argues that the finding is line with the study conducted in Bangladesh and Pakistan which concluded that women's internal motivations to achieve their child spacing goal could be the possible reason for higher level of contraceptive use.

The findings show a significant association between desire for more children and unmet need for family planning among currently married and cohabiting women. The odds of having unmet need for family planning were higher among women who want no more children compared to women who desire more children. This finding is supported by a study conducted in Uganda by Wablembo et al. (2011) which found that the odds were 1.6 times higher among women who want no more children compared to women who desire more children. Interestingly women who were undecided about the number of children they wanted to have had increased odds for unmet need (OR=2.00) compared to their counterparts who wanted to have more children.

The study found that age does not seem to have a significant independent effect on the use of family planning among all women. A different result is observed among men. Men who are 35 years or more are more likely to be using a method of family planning than men who are less than 35 years. Marital status does not seem to have a significant independent effect on the use of family planning among both women and men. As expected, urban women and men are more likely to be using a method of family planning than rural women and men.

With regard to age, both women and men who are less than 35 years are more likely to be using a method of family planning compared to those who are 35 or more, albeit slightly. Marital status does not seem to have a significant independent effect on the use of family planning.

Cohabiting women were more likely than married women to report higher unmet need but the difference was not significant. Among men no variation was observed. Residence had no significant effect on unmet need for both married and cohabiting men and women.

5.2 Recommendations

While the above findings show that women and men citing limited knowledge is generally low, there is a need to raise awareness and improve access to family planning in rural areas, among the poor, among younger respondents, and among uneducated men and women. Programmes should focus on men as well as women, creating an environment in which both can seek services and encouraging men to discuss family planning with their wives. Government should continue to give top priority to education, especially the recently rolled out free primary education should be extended from Grade 5 to Grade 7. The importance of extending the free primary education to secondary education cannot be overemphasized as evidence from the results of this study have shown that such an investment has massive returns. The results of the study have shown that current use was higher among both men and women who have secondary or more education compared to those with less than secondary education. The study reveals that unmet need was inversely related to the level of education for both women and men. The higher the education the lower the level of unmet need. The odds of using a contraception were more than 2 times for women and men with secondary education compared with those with less than secondary education. Education imparts knowledge on the importance of using contraception and presents a woman with opportunity to interact with other women from diverse cultural and geographical bounds, from which they are able to acquire new information and skills including use of family planning

Family planning programmes in Swaziland should also plan a response for the substantial proportions of women who are not using a contraceptive method and who do not intend using a method in the future due to fertility-related, method-related, and opposition to use reasons - especially fear of side effects or opposition from husband or partner.

While the concept of unmet need for family planning has evolved over many decades, its definition and calculation are now gaining an unprecedented level of attention from donors and Swaziland should note this in order to sustain its position as one of the front-runners in the east and southern regions where the fertility transition is now well established and progressing at a rapid pace.

As the findings reveal, about 25% of currently married fecund women have an unmet need for contraception. A substantial proportion of these women are rural, poor, have five or more children, want no more children, and more importantly have less than secondary education. Therefore, interventions aimed at reducing unmet need for family planning should be targeted towards these sub-groups of women. Access to education, increased job opportunities, and increased family planning practices will lead to a lower level of unmet need. Another recommended course of action is enforcing the law on minimum age for marriage. Government should continue to give top priority to health and education, especially the recently rolled out free primary education which should be extended from Grade 5 to Grade 7. The programme to increase the proportion of the population that lives within an 8km radius of a health facility should continue in order to improve geographic access to health services particularly family planning services. While geographic access is important, it is not sufficient as equity and access require programmes to improve interpersonal relations between clients and providers, and to ensure regular follow-ups with clients to reduce the number of women who stop using contraception. Women need to be counseled on the full range of available contraceptive methods so that they can choose a method that best matches their individual circumstances and intentions and can change methods when they need to. Health education should continue to address social and cultural barriers to family planning, including misconceptions and myths about contraception, and promote communication between husbands and wives about family planning. Opportunities for provision of family planning services, particularly during ante-natal visits, should be exploited to the full.

5.3 Conclusion

Knowledge of family planning is universal among men and women. The results show that almost all respondents are able to identify at least one method of family planning. Respondents are more likely to have greater awareness of modern than traditional methods of family planning. Overall, women were more likely to know of five or more methods of family planning than men. The results reveal that more women than men access family planning messages through radio and in general, women have better exposure to family planning messages in the mass media than men. The male condom was the most widely tried method among both women and men. Overall, men have a bias towards reporting methods that require their involvement. Modern methods of family planning were more widely used than traditional methods. The male condom was most used among both men and women. With regard to selected background characteristics and current use of contraception, current use was higher among both men and women who have secondary or more education, want no more children, and are less than 35 years.

The study found that level of education, number of living children and desire for more children were significantly associated with contraceptive use. The same pattern was observed with regard to unmet need for family planning. Marital status, age and residence were found to be insignificantly associated with contraception. The same pattern persisted with regard to unmet need for family planning.

There is a need to raise awareness and improve access to family planning in rural areas among the poor, among younger respondents, and among uneducated men and women. Programmes should focus on men as well as women, and create an environment in which both sexes can seek services. Men also need to discuss family planning with their wives. Government should continue to give top priority to education; the recently rolled-out free primary education should be extended from Grade 5 to Grade 7. The importance of extending the free primary education to secondary education cannot be overemphasized as evidence from the results of this study which have shown that such an investment has massive returns.

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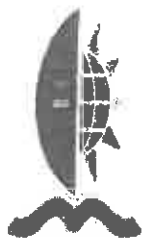
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12 December 2016

Mr Hezekiel Mthezuka Magagula 205516332
School of Built Environment and Development Studies
Howard College Campus

Dear Mr Magagula

Protocol reference number: HSS/2087/016M
Project title: Determinants of contraceptive use in Swaziland

FULL APPROVAL-NO RISK/EXEMPTION

In response to your application received 29 November 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....
Dr Shenuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee
/pm

Cc. Supervisor: Professor Pranitha Maharaj
Cc. Academic Leader: Professor Oliver Mtapuri
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