CHAPTER 1

GENERAL INTRODUCTION

This chapter begins with an overview of the problem of unintended pregnancy among the youth and why it is such a big problem in any society. Background information is given on South Africa, which is the study area. The chapter also contains the problem statement, justification for the study, the objectives of the study as well as a literature review of related studies.

1.1. INTRODUCTION

Unintended pregnancy among the youth is a serious public health problem for it exposes the young women and the foetuses to higher risk of morbidity and mortality. This is because such pregnancies have a high probability of resulting into unsafe abortion, which has been implicated as a cause of chronic pelvic inflammatory disease, ectopic pregnancy and secondary infertility. (Okonofua, Odimegwu, Aina et al, 1996). Other identified negative consequences of unintended pregnancy are late utilisation of prenatal care, negative birth outcomes such as low birth weight, as well as child abuse and neglect. (Eggleston, 1999; Crosby, DiClemente, Wingood et al, 2003; Piccinino, nd).

Unintended pregnancy among the youth is socially disruptive (creates tension in families and often breaks family relationships). It is a threat to economic development (for example, aborted schooling and career plans which often generate poverty cycle, hospital costs and other associated costs) and has demographic implications for the population as a whole. (O'Mahony, 1987; Crosby et al, 2003). The level of unintended pregnancy is also an indicator of the state of women's reproductive health

and of the degree of autonomy women have over their right to reproduce if, when and how often they wish to. (Eggleston, 1999; Ibisomi, 2002).

While two national studies have provided information on the magnitude of unintended pregnancy among South African youth, there has been no systematic study to examine the distribution of and identify factors associated with the problem at the national level. This study is an attempt to fill this identified gap.

1.2. BACKGROUND INFORMATION ON STUDY POPULATION

The Republic of South Africa occupies the southernmost part of the African continent, stretching latitudinally from 22-35 degrees South and longitudinally from 17-33 degrees East. Its surface area is 1 219 090 km^2. It shares common boundaries with republics of Namibia, Botswana, Zimbabwe, Mozambique and the kingdom of Swaziland while the kingdom of Lesotho is embedded within it (South Africa yearbook, 2003/04). Most part of the country lies in the sub-tropical region. Rainfall generally occurs in summer but is unreliable. Hence, long periods of drought are often experienced and encroaching desert is an issue in the western part of the country. One-tenth of the land is arable and irrigation schemes have been set up to support agriculture and industry. The country has two main seaports in Durban and Cape Town, airports are found in all the provinces and there is an extensive highway system. (SADHS, 1998).

South Africans come from many cultural traditions. Hence, they comprise over fifteen cultural groupings. The South African constitution provides for eleven official languages, namely Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho,

Setswana, siSwati, Tshivenda and Xitsonga. Four population groups were identified by the Population Registration Act. These are White, Indian, Black and Colored. This racial classification under Apartheid had and still has profound economic and social impacts. (SADHS, 1998). Almost 80% of South Africa's population are Christians. Other major religious groups are the Hindus, Muslims and Jews while a minority of the population regard themselves as traditionalists or of no specific religious affiliation. (South Africa yearbook, 2003/04).

Demographic data were fragmented and incomplete in South Africa before the nineties. While statistics for the Whites, Coloreds and Asians were of reasonable quality, the data for Africans were inadequate. This is because the African Population were severely under-represented on the manual South African population Register and by 1972 when it was computerized, only details of whites, coloreds and Asians were kept on the new system (Bah, 2004). The 1996 census collected information for the whole population and introduced questions for estimating birth and deaths. Attention is also being given to improving registration of births and deaths. (SADHS, 1998). The 1996 and 2001 censuses put the total population at 40,6 and 44,8 million respectively. (Stats SA census key result, 2001). Total fertility rate was 2.9 while life expectancy for males and females were 58 and 67 years respectively. (NPU, 2000).

South Africa's first democratic election was held in April 1994. The constitution divided the country into nine provinces. The provinces are Western Cape, Eastern Cape, KwaZulu Natal, Northern Cape, Free State, North West, Gauteng, Mpumalanga and Limpopo (Northern Province). Each province has its own legislative and

executive arms of government. The administrative capital of the country is Pretoria, the legislative capital is Cape Town while the judicial capital is in Bloemfontein.

South Africa is a middle-income country with modern infrastructure and relatively well-developed financial, legal, communication, energy and transport systems. It has the largest economy in Africa. The main stay of the people and economy vary from province to province. The major contributors to the economy include: agriculture, forestry, fishing, mining, quarrying, manufacturing, tourism, real estate, finance, business services and technology among others. South Africa has the most skewed income distribution in the world. (SADHS, 1998). There has been declining employment opportunities due in part to economic restructuring. The worst hit by this are the Black Africans (24,1% for men and 34,6% for women). (NPU, 2000). Economic growth has been at a level of about 2% per annum since 1994, but has been unable to address the problem of poverty and unemployment.

Primary health care has been free to all patients since 1996 in South Africa. There are however widespread inequalities in health service provision and quality. There has been intensive programme of legislative and policy development to reform the health service. Among the priorities are HIV/AIDS, tuberculosis, maternal health, child health and nutrition as well as provision of services in previously neglected areas such as mental health and maintenance of public health infrastructure. On reproductive health, the current health policy focuses on providing adequate information and facilities to empower people to make informed choices about sexual relations, pregnancy and childbearing. The Choice on Termination of Pregnancy Act and the Sterilization Act were introduced in 1996 and 1998 respectively. (SADHS, 1998). The 1996 (Act No.92 of 1996) Choice on Termination of Pregnancy Act promotes reproductive rights and extends freedom of choice by affording every woman the right

to choose whether to have an early, safe and legal termination of pregnancy according to her individual beliefs (No 92 of 1996: Choice on Termination of Pregnancy Act, 1996). The provisions of the Abortion and Sterilization Act, 1975, which deal with sterilization are however still in force. The Sterilization Act of 1998 was mainly a review of the 1995 Act to incorporate the circumstances under which sterilization, and in particular sterilization of persons incapable or incompetent to consent due to mental disability, may be performed (Select Committee on Social Services, 1998). These Acts thus enable people to make informed choices, implement their choices and have their rights protected within a legal framework.

In addition to free health care at primary level, health services are legally obliged to provide contraceptives on request to young people from the age of fourteen. Inaccessibility of health services to adolescents is however one of the current concerns of the South African Department of Health (NPU, 2000).

Like so much else in South Africa, the educational system is characterised by diversity: schools and universities vary greatly in terms of quality, financial resources and size. While 65% of whites and 40% of Indians over 20 years have a high school or higher qualification, this figure is only 14% among blacks and 17% among the colored population. The backlogs from so many years of apartheid education are immense. Illiteracy rates are high at around 30% of adults over 15 years old (between six and eight million adults are not functionally literate) and teachers in township schools are poorly trained. Current areas of priority include early childhood development, HIV-Aids awareness programmes in schools, and adult basic education and training. (International Marketing Council of South Africa, nd). The education

indicators show more males than females in schools at the primary level except in Eastern Cape where they are virtually the same. This advantage by the males is lost at secondary level where the sex ratio in schools for all the provinces is between 79.4 and 97.3. (NPU, 2000).

The position of women in South Africa is intertwined with class and race. The most disadvantaged are the non-urban African women. Since 1994, a strong government policy of gender equality has emerged. A wide range of initiatives includes mechanisms to promote women's rights and monitor the impact of government spending on women's lives. (SADHS, 1998).

1.3. PROBLEM STATEMENT

High prevalence of unintended pregnancy among South African youth is well documented. (SADHS, 1998). However, a number of questions remain unanswered. Which group among the South African youth is most affected? What are the factors that predispose South African youth to such high prevalence/incidence of unintended pregnancy and how can these factors be integrated into the national public health programmes to arrest the problem?

1.4. JUSTIFICATION

The relatively few studies on youth reproductive health in South Africa have been concentrated on factors associated with teenage/unplanned pregnancy in some geographical units of South Africa, the HIV/AIDS outcome of sexual behaviour and other aspects of adolescent/adulthood pathways. For example, Craig & Richter-Strydom (1983) examined factors associated with unplanned pregnancy among urban

Zulu schoolgirls. Van de Ryst, Joubert, Steyn et al (2001) examined HIV/AIDS-related knowledge, attitudes and practices among South African military recruits while Kaufman, de Wet & Stadler (2001) explored the following aspects of teenage childbearing as it relates to key transitions into adulthood: conditions under which lobola (bride wealth) or damages are denied or paid or refused, the impact of early childbearing on school, work and marriage and the consequences of premarital childbearing for future relationship.

None of these is an explicit study of the distribution of and the factors associated with unintended pregnancy among South African youth as a whole. This study therefore intends to examine the distribution of unintended pregnancy and to identify the important sexual and contraceptive behaviours as well as socio-economic and demographic factors associated with unintended pregnancy among South African youth. Identifying these factors will go a long way in assisting program managers and policy makers in the design and implementation of appropriate national programs and measures that could help in stemming the epidemic among these untouched resource potentials of South Africa.

1.5. OBJECTIVES

1.5.1 GENERAL

To examine the distribution of and factors associated with unintended pregnancy among South African youth.

1.5.2 SPECIFIC

- To examine the distribution of unintended pregnancy among South African youth.
- To examine the relationship between the demographic and socio-economic factors on one hand and the sexual and contraceptive behaviours on the other hand.
- To identify the explanatory variables that are associated with unintended pregnancy.
- To measure the strength of association between the identified sexual/contraceptive behaviours, socio-economic and demographic factors and unintended pregnancy among South African youth.

1.6. LITERATURE REVIEW.

Unintended pregnancy among South African youth has been a problem for quite some time. Studies have shown varying levels of the prevalence and incidence of the problem. Ross (1979) put the percentage of unplanned pregnancies among teenagers in the Durban area of Natal at 89% while all the two hundred and twelve (212) Zulu schoolgirls in a study carried out by Craig & Richter-Strydom (1983) did not want the pregnancy. In a case control study of African adolescents under 19 years carried out by Jewkes, Vundule, Maforah et al (2001) at African townships and informal settlements in Cape Town, 97.4% of the pregnancies of these women were unplanned. Ninety-seven percent of all unmarried women who had born children in a study by Makiwane (1998) said they wish they had not had them while 71.1% of the adolescent girls in KwaZulu Natal surveyed in the 1999 survey on transition to adulthood in the context of AIDS did not want the pregnancy (Manzini, 2001).

The 1998 South African Demographic and Health Survey (SADHS) put the incidence of unintended pregnancy among the South African youth for the five-year period preceding the survey at 67% while another national survey conducted by the Reproductive Health Research Unit (RHRU) of the University of the Witwatersrand (2004) reported that 66% of youth surveyed have had unplanned pregnancies.

These give an idea of the magnitude of the problem in South Africa. The trend however cannot be commented upon for there are some methodological and definitional differences in the derivation of the estimates. For example, the RHRU survey collected information on ever had (prevalence of) unplanned pregnancy while the SADHS collected information on incidence five years before the survey.

Craig & Richter-Strydom (1983) in a study of 212 pregnant girls and 1 311 schoolchildren of both sexes in three high schools found that peer pressure, sex socialisation, wide spread ignorance about contraception, its effect on enjoyment of sex, its possible side effect as well as negative attitudes towards most forms of contraception were associated with unintended pregnancy. Other factors are poor socio-economic status, breakdown in religious and moral attitudes and lack of recreational facilities.

In an exploratory study to investigate factors associated with teenage pregnancy amongst sexually active African adolescents recruited from township areas of Cape Town, Jewkes et al (2001) found that having frequent sex (once a week or more) without injectable contraceptive behaviour, forced sexual initiation, lack of TV ownership, having a larger household size, not living in a brick house, not living with

biological father are some of the factors that were strongly associated with pregnancy in their study population.

In a study of schoolgirl pregnancies, O'Mahony (1987) found that only one out of the thirty schoolgirls planned the pregnancy. Twenty-four (80%) of the schoolgirls had disrupted schooling as a direct result of the pregnancy, majority of parents expressed anger and/or disappointment, 80% of the boyfriends did not want their girlfriends pregnant, about two-thirds of the schoolgirls had prior knowledge about relation of menarche to fertility and the relationship of intercourse to conception. None of the schoolgirls used a modern method of contraception and only one used coitus interruptus. Twenty-four of the schoolgirls claimed some knowledge about contraception while thirteen were misinformed or had unwarranted fears. Ten girls cited imitation of or influence by friends as reasons for sex with their boyfriends. Erosion of local traditions was also posited for the high prevalence of unmarried adolescent pregnancy (Makiwane, 1998).

None of these studies is a systematic investigation of the factors associated with unintended pregnancy among South African youth as a whole. The extent to which findings of these studies have addressed the problem of unintended pregnancy among South Africa youth is not very clear. This could be because the studies were district based. They do not give a picture of the distribution and factors associated with the problem of unintended pregnancy nationally/exclusively and hence, could not be used as a basis for designing appropriate national programs and measures to arrest the problem.

This study therefore, intends to examine the distribution of unintended pregnancy and its associated factors among South African youth in general with the aim of providing a basis for the design and implementation of appropriate national programmes and measures to stem the tide of unintended pregnancy among the South African youth.

Elsewhere, studies have examined factors responsible for unintended pregnancy. Crosby et al (2003) in a United States study found that 51% of the adolescents indicated that their pregnancy was both unplanned and unwanted. Adolescents that indicated lower levels of parental involvement, those that already had a child and those that were younger than 18 years were more likely to report that their pregnancy was unplanned and unwanted.

In Nigeria, Okonofua et al (1996) conducted a study on women's experience of unwanted pregnancy and induced abortion using a population based household survey questionnaire. They reported that the respondents' reasons for unwanted pregnancies include: bad timing, desire to remain in school, high cost of having more children, social unacceptability, abandoned by partner and extramarital pregnancy. The result of the analyses carried out also show that age, education, employment and current use of family planning are significant independent predictors of unwanted pregnancy in Nigerian women. In Ecuador, Eggleston (1999) found that area and region of residence were strongly associated with pregnancy intention.

Additional factors identified by Piccinino, (nd); Mellanby, Pearson & Tripp, (1997); Eaton, Flisher & Aaro, (2003) and Resource Center for Adolescent Pregnancy Prevention (ReCAPP), (2004) in their reports include: marital status, race, income,

external pressure, sexual/physical abuse, substance/alcohol abuse, early initiation of sexual activity as well as psychological and social immaturity.

CHAPTER 2

METHODOLOGY

This chapter discusses the methodology of the study. The study population and data source are discussed. Variables of interest as well as key words are defined. The study hypotheses are stated. Scope and limitation of the study, plans for utilisation and dissemination of the result as well as procedures for data management and analysis are also highlighted.

2.1. STUDY DESIGN

The study is a secondary data analysis of the 1998 South African Demographic and Health Survey (SADHS) dataset of women.

2.1.1. ABOUT THE 1998 SADHS

The aim of the SADHS was to collect data as part of the National Health Information System of South Africa in order to assist policy makers and programme managers in evaluating and designing programmes and strategies for improving health services in the country. The following is a summary of the methodology of the survey as contained in the 1998 SADHS full report.

2.1.2. DESIGN OF THE SADHS

The 1998 South African Demographic and Health Survey (SADHS) was a nationally representative cross-sectional survey with a probability sample of twelve thousand (12 000) women between the ages of 15 and 49.

The country was divided into nine strata (using the provinces as strata). Each stratum was further divided into urban and non-urban strata. A two-stage sample was then selected from within each of these strata. The sampling frame created by the Central Statistics – now Statistics South Africa (Stats SA) - for the October 1996 census was used. The sampling frame consisted of about 86 000 Enumeration Areas each ranging from 100-250 households.

The Primary Sampling Units (PSU) was the Enumeration Areas (EA). These were systematically selected with probability proportional to size (PPS) – the size being the number of households residing in the EA. Nine hundred and seventy-two EAs were selected (690 in urban and 282 from non-urban). Ten visiting points were then selected from urban and 20 from non-urban EAs. All eligible women were interviewed if the visiting point contained one or two households and where more than two, one household is randomly selected. A total of 12 860 households were selected. Response rate was 92.3%. Other details of the design can be found in the 1998 SADHS full report.

2.1.3. SAMPLE SIZE

Sample size was allocated to the provinces based on results of other Demographic and Health Survey (DHS) which had shown that a minimum sample of 1 000 women is required to obtain estimates of fertility and childhood mortality rates at an acceptable level of sampling error. Twelve thousand (12 000) samples were chosen in total. One thousand (1 000) each from the nine provinces, another 1 000 women was added to the urban areas of KwaZulu-Natal and Gauteng to try and capture as many Asian

women as possible as they are mostly found in these areas. This was because it was believed that the allocation of 1 000 women per province will not provide enough cases for the Asian population group. Additional sample of 2 000 women was also added to Eastern Cape at the request of the Eastern Cape province who funded the additional sample.

2.1.4. QUESTIONNAIRE DESIGN

Content of the women's questionnaire was adapted from the DHS model questionnaire. It was translated into all nine official languages in South Africa. The questionnaire was pre-tested in November/December 1996 and was finalised on the basis of results of the pilot study.

2.1.5. FIELD WORK

The fieldwork was carried out between January and September 1998 by 33 interviewing teams. The 107 interviewers were selected for their education, maturity, field experience and ability to conduct interviews in the relevant languages in a given province. They were trained by teams from Medical Research Council (MRC), Human Sciences Research Council (HSRC), Free State University (Centre for Health System Research and Development) and Macro International. The training consisted of two phases. The first a plenary session on general issues and the second was specific discussion by section for each of the provinces at separate venues.

2.1.6. QUALITY CONTROL

Quality control was instituted at three levels. The first was that field leaders and editors who were themselves trained to identify EAs in the sample guided the

interviewers in the selection of dwellings for interviews. Secondly, approximately 10% of the samples were re-visited in the months of the interview to ensure appropriate dwellings were selected and interviewed. Lastly, teams consisting of HSRC staff carried out independent quality control visits to check questionnaires for errors, quality of identification and interviews at the EAs and dwelling levels.

2.1.7. DATA PROCESSING

The questionnaires were processed at the MRC offices in Cape Town. Office editors checked the clusters for completeness and open-ended questions were coded. The completeness and consistency of the information were checked before the data were entered onto the computer using Integrated System for Survey Analysis (ISSA). A small proportion of the questionnaires were returned to the field for completion of missing information.

2.2. STUDY POPULATION

The study population consists of South African female youth who were

- aged between 15 and 24 years in 1998
- pregnant and/or have had birth(s) in the three years preceding the 1998 SADHS
- interviewed during the SADHS 1998.

“The UN General Assembly defines ‘youth’ as those persons falling between the ages of 15 and 24 years inclusive”. [Japanese Organization for International Cooperation in Family Planning (JOICFP), nd]. Hence the choice of women within this age group that meets the other inclusion criteria. All these women were included in this analysis.

This is because the number is manageable, costs no extra resources and the result will be more generalisable than if a sample of the women had been taken.

2.3. KEY WORDS AND VARIABLES OF INTEREST

2.3.1. KEY WORDS

- **Epidemiology** – 'study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to control of health problems' (Last, 1995).
- **Youth** - "The United Nations (UN) General Assembly defines 'youth' as those persons falling between the ages of 15 and 24 years inclusive" (JOICFP, nd).
- **Unintended Pregnancy** – Mistimed (pregnancies respondents would have wanted at a later date) and unwanted pregnancies.
- **Incidence** – 'Number of new cases arising in a given period in a specified population' (Beaglehole, Bonita & Kjellstrom, 1993). In this case, number of unintended pregnancy that occurred to the study population in the 3-year period preceding the 1998 SADHS.
- **Prevalence** – 'Number of cases in a defined population at a specified point in time' (Beaglehole et al, 1993). This is the number of unintended pregnancy that has ever occurred to the study population as at the time they are being studied.

2.3.2. EXPLANATORY VARIABLES

These consist of demographic and socio-economic profile of the respondents as well as some of their sexual and contraceptive behaviours. The sexual behaviours

moderated by the contraceptive behaviours directly impact on pregnancy, while, the demographic and socio-economic characteristics of the women are the background variables that predict sexual and contraceptive behaviours. These variables therefore, are expected to be associated with planning status at conception. They are defined thus:

Table 2.1. Variables used in the study and their definitions.

VARIABLES	DEFINITION
Demographic & Socio-economic	
Age	Current age of respondent
Age at 1st intercourse	Age the first time the respondent had sexual intercourse
Ethnicity	Black/African (1), Colored (2), White (3), Asian/Indian (4). The variable will ordinarily imply race in South Africa. Ethnicity is however used in line with the use of the variable name in the 1998 SADHS full report
Region	Western Cape (1), Eastern Cape (2), Northern Cape (3), Free State (4), KwaZulu Natal (5), North West (6), Gauteng (7), Mpumalanga (8), Northern Province (9)
Type of place of residence	Urban (1), Rural (2)
Current marital status	Never married (0), Married (1), Living together (2), Widowed (3), Divorced (4), Not living together (5)
Highest educational level	None (0), Primary (1), Secondary (2), Higher (3)
Occupation	Not working (0), Professional/technical/managerial (1), Clerical (2), Sales (3), Services (4), Skilled manual (5), Unskilled manual (6)
Contraceptive & Sexual behaviour	
Contraception by method	Current contraceptive use: No method (0), folkloric method (1), traditional method (2), modern method (3)
Relation to last partner	Categorised as: marital partner (1), other regular partner (2), casual acquaintance (3), someone just met (4), commercial sex worker (5), other (96)
Number of partners	Number of men that the respondent had sex with in the last 12 months before the survey
Partner's age	Respondent's partner's age
Partner's educational level	Respondent's partner's highest level of education. Categorised as: No education (0), Primary (1), Secondary (2), Higher (3), Don't know (98)
Abuse	Physical and/or sexual. Imputed from the two variables of 'ever been mistreated by husband/boyfriend' and 'forced to have sexual intercourse'. When answer to both questions is No, the imputed variable is coded 'No' and if answer is Yes to both questions or either of the questions, the imputed variable is coded 'Yes'

2.3.3. OUTCOME VARIABLE

The outcome variable is the respondent's planning status at conception. This is a retrospective measure of reproductive intentions determined by the respondent's response to the question - 'At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have anymore children at all?' (SADHS, 1998). All the women who were pregnant as at the time of the survey were asked the question. The question was also asked in relation to all births five years preceding the survey. Data on planning status at conception for current pregnancy and births three years preceding the survey were extracted and used in this analysis**.** This variable consists of wanted (planned) and unintended (mistimed and unwanted) pregnancies.

2.4. HYPOTHESES

The hypotheses to be tested are:

- Adolescents (15-19 years old) are more likely to have unintended pregnancy compared to the older youth.
- Unmarried respondents are more likely to have unintended pregnancy compared to the married ones.
- Respondents with no education and those with primary educational level are more likely to have unintended pregnancy compared to respondents with secondary and higher education.
- Respondents that were physically and/or sexually abused by their partners are more likely to have unintended pregnancy compared to respondents that did not undergo the experience.

2.5. SCOPE AND LIMITATIONS

- The outcome variable is a retrospective measure of respondent's reproductive intentions. It is likely to be biased since women may not recall correctly how they felt at the time of conception or may not wish to report a conception as unwanted or mistimed once the child born has become a loving family member or the conception is subjected to rationalisation due to other factors including cultural. (Eggleston, 1999; Adetunji, 2001).
- The analysis is restricted to literature-identified factors available in the data set and other factors believed to be relevant to the study. These factors/variables have been defined in Table 2.1.
- Under reporting of sexual activity is particularly problematic among the youth. (USAID, 2003). Data used in this analysis is not expected to be different. This is likely to bias the association between sexual behaviour factors and the outcome variable downward. The effect is however expected to be minimal since unintended pregnancies are also likely to be under-reported.
- Results generated give an ecological view of the issues raised, and cannot be individualised. That is, the measures are aggregate measures, whereby the exposure of individuals cannot be linked to their outcome. For example the RHRU (2004) reported that 66% of the youth have had unplanned pregnancy, this does not mean that seven out of a particular group of ten youth have had unplanned pregnancy.
- Analysis of cases excluded in the study due to missing data was not done. This may not allow the comparison of these cases to the ones analysed. It is not however expected to affect the result of the analysis under the assumption that

the two groups of women (that had and did not have unintended pregnancy) were likely to be equally affected.

2.6. PLANS FOR UTILISATION AND DISSEMINATION OF RESULTS

Policy makers, non-governmental organisations (NGO) and other bodies focused on youth reproductive health in South Africa will be advised on the findings of the study. There is also plan to publish the study in a refereed journal and to present it at conferences addressing issues of youth reproductive health. Macro International Inc will also be advised about the findings of the study (this is a requirement for supplying the data).

2.7. ETHICAL CONSIDERATIONS

The study made use of secondary data, which was already anonymised at the collation stage, hence, no risk of breaking any interviewee confidentiality or associated considerations. The protocol also passed through the University of the Witwatersrand ethics committee to ensure that no ethical boundary was transgressed.

2.8. DATA MANAGEMENT

The procedure for this data management began with downloading of the 1998 SADHS dataset from the Macro International Inc. account into the Statistical Package for Social Scientists (SPSS). SPSS for Windows (Version 10) was used because the data set could only be downloaded using SPSS, ISSA or Statistical Analysis Systems (SAS). The dataset was then converted from flat to rectangular file format.

A set of twenty-two variables was selected from the dataset. These included the variables described in sections 2.3.2 and 2.3.3 and other variables necessary in deriving them. A sub set of the respondents aged 15-24 years, (which constituted the age group of interest for the study - “youth”) was then selected and a further subset of women who were pregnant as at the time of the survey or who had had birth(s) in the three years preceding the survey was selected. This amounted to 1 655 observations.

Two hundred and forty (240) observations were excluded for dating error (month of birth of children given as periods after the survey had been completed). Another 20 observations were excluded because the data on planning status at conception (which is the outcome variable) were missing. At the end, 1 395 observations were left. These observations represent the experience of the women within the study time period. It therefore includes multiple observations for some women who had more than one event (pregnancy or birth) during the time period. The analysis was based on these 1 395 observations and was taken in the analysis as number of respondents. Four hundred of the respondents wanted the pregnancies then while 995 were unintended pregnancies. The observations were however incomplete for some of the variables. This is mainly due to respondents stating that they don’t know or missing data. The following are the affected variables with their percentage completeness in parentheses: Ethnicity (99.4%), age at first sex (96.6%), partner’s education (33%), occupation (99.6%), partner’s age (28.5%), number of partners in the last 12 months before the survey (93.3%) and relationship to the last sexual partner (92.8%).

2.9. DATA ANALYSIS

The data set was transferred from SPSS into Stata Release 7.0 (Stata Corporation, 2001) for analysis because the researcher is more familiar and comfortable using it than any other package.

Some variables were regrouped before analysis to facilitate analysis and to make interpretation meaningful. These included: age which was grouped into two age groups of 15-19 and 20-24, relationship with last sexual partner which was regrouped into marital partner, regular partner (cohabiting partner but not married) and casual partner (this is derived from casual acquaintance, someone just met, commercial sex worker and others). There were six categories of marital status in the data set. These were recoded into the two groups of living together (comprising of married and living together) and not together (comprising of never married, widowed, divorced and not living together). Respondents that were married and those living together with their partners were put in one group because of the not too well defined marriage pattern in South Africa. Comparability between the group of respondents in regular relationship (living together) and those that were not (not together) will also be much easier using this grouping.

There were three levels of analysis. The first was the univariate analyses of planning status at conception and the demographic and socio-economic characteristics of the respondents to give a summary of the distribution of the respondents. The second was the bivariate analyses to examine the relationship between demographic and socio-economic factors by the contraceptive and sexual behaviour factors of respondents that had unintended pregnancies. The relationship between contraceptive method and

the sexual behaviour factors was also explored. Cross tabulation and univariate logistic regression were also used to look at the relationship between each of the explanatory variables and unintended pregnancy. At the third level, automatic selection of the variables found to be associated with unintended pregnancy was carried out using stepwise selection methods. Logistic regression model was then fitted using the selected variables.

The logistic regression model was used because the outcome variable is dichotomous (pregnancy wanted then and pregnancy unintended). The model enables entering several variables and controlling for many confounders at the same time. It also gives the magnitude as well as the direction of association between the explanatory and the outcome variables.

The underlying distribution of the logistic model is binomial. The fitted values lie between 0 and 1 and the relationship between the outcome and the independent variables is non-linear (s-shaped). The logistic regression model gives the probability that the outcome, occurs as an exponential function of the independent variables. It involves fitting to the data an equation of the form:

$\text{logit}(p) = \alpha + b_1X_1 + b_2X_2 + \ldots + b_iX_i$

Where logit (p) is the log of the odds that the dependent variable is 1; α is the intercept; $b_1, b_2, \ldots, b_i$ are the regression coefficients. (Knoke, Bohrnstedt & Mee, 2002).

CHAPTER 3

RESULTS

3.1. UNIVARIATE ANALYSES

The first objective of this study is to examine the distribution of unintended pregnancy among the South African youth. Of the 1 395 respondents used in this analysis, 400 (28.67%) wanted the pregnancies then while 995 (71.33%) had unintended pregnancies. The percentage of respondents that had unintended pregnancy in this study population is higher than those reported by the 1998 SADHS, which put the incidence of unintended pregnancy among South African youth for the five-year period preceding the survey at 67% (explainable by the different time periods covered) while RHRU (2004) reported 66% of unplanned pregnancies.

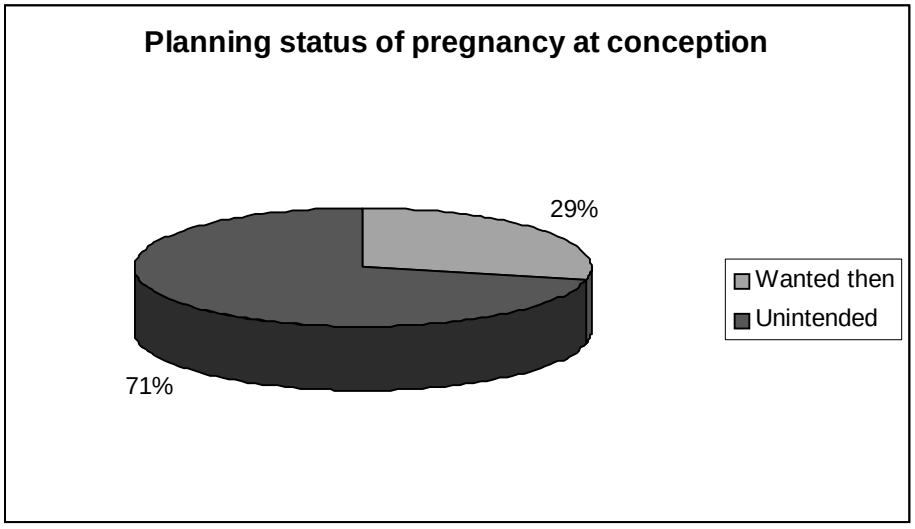

Figure 3.1. Planning status of pregnancy of the 1 395 respondents at conception

Table 3.1. below shows the distribution of the 995 respondents who had unintended pregnancies by their demographic and socio-economic characteristics. As can be seen from the table, distribution of unintended pregnancies varies by demographic and

socio-economic characteristics of the respondents. Twenty-nine percent of the respondents were 15-19 years old while 71% were aged 20-24 years. The highest percentage of respondents was from Eastern Cape (26%), followed by KwaZulu Natal and Northern Province while the lowest percentage was from Western Cape. Table 3.1 also shows that 39% of the respondents were from urban areas while 61% were from rural areas. About 20% of the respondents lived together with their partners while 80% were not living together with their partners. A very large percentage of the respondents were not working (83.5%) while about 11% were working as unskilled manual workers.

Table 3.1. Percentage distribution of respondents who had unintended pregnancies by their demographic and socio-economic characteristics.

CHARACTERISTICS	FREQUENCY	PERCENTAGE
Age group		
15-19	291	29.25
20-24	704	70.75
Total	**995**	**100.00**
Region		
Western Cape	51	5.13
Eastern Cape	261	26.23
Northern Cape	79	7.94
Free State	55	5.53
KwaZulu Natal	166	16.68
North West	58	5.83
Gauteng	57	5.73
Mpumalanga	125	12.56
Northern Provinnce	143	14.37
Total	**995**	**100.00**
Residence type		
Urban	392	39.40
Rural	603	60.60
Total	**995**	**100.00**
Marital Status		
Living together	195	19.60
Not living together	800	80.40
Total	**995**	**100.00**
Occupation		
Not working	828	83.55
Prof, tech, managerial	5	0.50
Clerical	11	1.11
Sales	3	0.30
Services	16	1.61
Skilled manual	17	1.72
Unskilled manual	111	11.20
Total	**991**	**100.00**

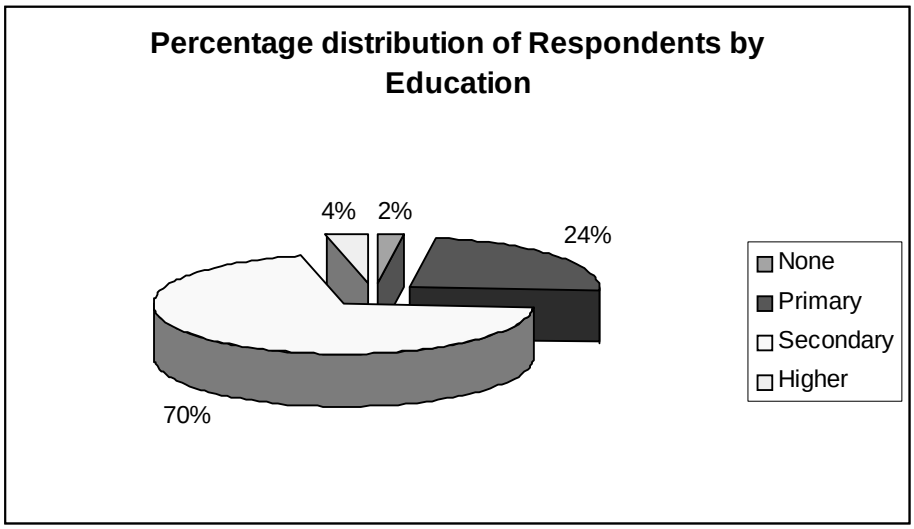

Figure 3.2. Distribution of respondents who had unintended pregnancies by highest education level.

As shown in Figure 3.2, 2% of the respondents who had unintended pregnancies had no education, 24% had primary, 70% secondary and 4% attained higher level of education.

Figure 3.3 shows the distribution of the respondents by their ethnic grouping. About 87% were Blacks, 12% Coloreds while it was 0.6% for Whites and 1% for Asians.

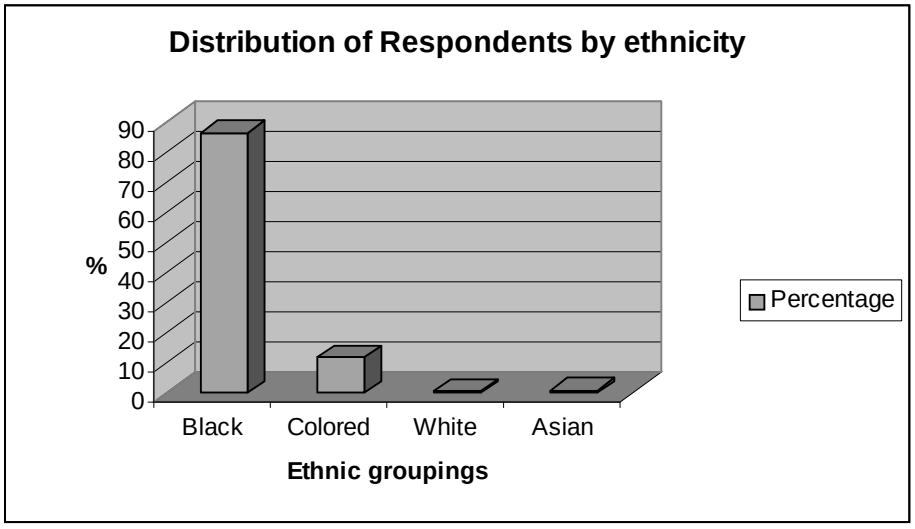

Figure 3.3. Percentage distribution of respondents who had unintended pregnancies by ethnicity.

3.2. BIVARIATE ANALYSES

The second objective was to examine how the demographic and socio-economic factors are related to the sexual and contraceptive behaviours of respondents who had unintended pregnancies. Cross tabulations of age group, region, residence type, education, ethnicity, marital status and occupation by type of contraceptive method, relationship to last sexual partner and number of sexual partners in the last 12 months were done. Tables are presented in appendices 1-3.

The chi-squared statistic of the cross tabulation of region by type of contraceptive methods shows that there is an association between the two variables. Over 60% of respondents from Gauteng (70%), Western Cape (67%), Northern Cape (66%), KwaZulu Natal (64%), Mpumalanga (62%) and Free State (62%) are using modern method of contraception. The least use of the modern methods was from Northern Province (48%). Non-use of contraceptives was highest in Eastern Cape (48%), Northern Province (48%) and North West (47%). Fifty-one percent and 61% of the 15-19 years and 20-24 years use modern method respectively while non-use is higher for the 15-19 years old (49%) compared to the 20-24 years old (38%). Use of modern methods of contraception is highest among respondents with secondary education (61%). Non-use is also lowest (38%) in this category of education. For higher education, the percentage using modern contraceptive method is 57% and not using any method was 43%. For respondents living together with their partners, the percentage was 52.8% for modern methods, 44.6% for no method and 2.6% for traditional methods while the percentage of use of modern method is 60% and 40% for non-use for those not living together with their partners.

Overall, about 69% of respondents had last sexual relation with their regular partners, 21% with marital partners and 10% with casual partners. Among the regions, the highest percentage of respondents who had last sexual relation with their marital partners were from Mpumalanga (47%), followed by Northern province at 38% and Free State at 21%. The lowest percentages were from North West (5%), Western Cape (9%) and Northern Cape (10%). For respondents that had last sexual relation with their regular partners, the highest percentage was from North West (90%), followed by Northern Cape (85%) and was lowest at Mpumalanga at (32%). Percentage of respondents who had last sexual relation with casual partners were 21%, 18% and 16% for Mpumalanga, Western Cape and Gauteng respectively while the percentages were 4% for Northern Province and KwaZulu Natal at the other extreme.

Higher percentage of respondents from the urban area had their last sexual relation with regular (70%) and casual (14%) partners while the percentages were 68% and 8% for regular and casual partners respectively among the respondents from the rural area. Last sexual relations with marital partners were 70%, 60%, 22% and 9% among Asians, Whites, Blacks and Coloreds, respectively, while the percentages were 10%, 20%, 10% and 6% for casual partners in the same order. The percentage of respondents that had last sexual relation with their marital partner was 64% for those living together with their partners and 10% for those not living together while the percentages who had last sexual relation with regular partners were 35% and 77% for those living together and those that were not, respectively.

Multi-sexual partnerships vary by region, age group and marital status. The percentage of respondents that had two or more sexual partners was about 12% in

Free State, 9% in Mpumalanga and 2% in Eastern Cape and Western Cape. This was 5% among the 15-19 years old and 3.5% among the 20-24 years old. The percentage of respondents with multiple partners was 4.5% for those not living together with their partners and 1.6% for those living together with their partners.

The third objective was to identify the explanatory variables that are associated with unintended pregnancy. To identify these variables, cross tabulations of all the categorical explanatory variables by the planning status at conception was done. It was essential to use planning status at conception, which comprised of both pregnancies "wanted then" and those unintended to be able to tease out these relationships. Univariate logistic regression was also done for the relationships between the outcome variable and the continuous explanatory variables. A summary of the result is presented in Table 3.2.

Table 3.2 shows that age group, region, ethnicity, education, type of contraceptive use, marital status, occupation, relationship to last sexual partner and age at first sexual intercourse were all associated with planning status at conception. The factors found not to be associated to planning status at conception are: type of place of residence, number of partners in the last 12 months, partner's age, partner's education and abuse. A detail of this is contained in appendix 4. The Pr (p-value) value of the chi squared (χ^2) statistics was used to categorize variables into those associated and those not associated with unintended pregnancy. P-value of <0.05 shows that there is statistically significant difference between the different categories of the variable regarding unintended pregnancy. This implies that there is association between the variable and unintended pregnancy. This is the case for all the variables in Table 3.2

except occupation, which is a bother line case (p=0.053) but considered to try and capture as much as possible the variables that could predict unintended pregnancy in the study population.

Table 3.2. Summary of the explanatory variables found to be associated with planning status at conception.

CHARACTERISTICS	Wanted then %	Unintended %	Total Number
Age group			
15-19	13.39	86.61	336
20-24	33.52	66.48	1059
Total	**28.67**	**71.33**	**1395**
$\chi^2_{(1)} = 50.53$ Pr = 0.000			
Region			
Western Cape	31.08	68.92	74
Eastern Cape	25.00	75.00	348
Northern Cape	33.61	66.39	119
Free State	28.57	71.43	77
KwaZulu Natal	18.63	81.37	204
North West	43.69	56.31	103
Gauteng	31.33	68.67	83
Mpumalanga	31.69	68.31	183
Northern Province	29.90	70.10	204
Total	**28.67**	**71.33**	**1395**
$\chi^2_{(8)} = 26.60$ Pr = 0.001			
Ethnicity			
Black	27.43	72.57	1181
Colored	31.18	68.82	170
White	66.67	33.33	18
Asian	44.44	55.56	18
Total	**28.62**	**71.38**	**1387**
$\chi^2_{(3)} = 16.32$ Pr = 0.001			
Education			
None	47.50	52.50	40
Primary	31.99	68.01	347
Secondary	27.13	72.87	962
Higher	19.57	80.43	46
Total	**28.67**	**71.33**	**1395**
$\chi^2_{(3)} = 11.78$ Pr = 0.008			
Contraception			
None	31.71	68.29	596
Folkloric	66.67	33.33	3
Traditional	11.11	88.89	9
Modern	26.43	73.57	787
Total	**28.67**	**71.33**	**1395**
$\chi^2_{(3)} = 8.10$ Pr = 0.044			
Marital Status			
Living together	53.57	46.43	420
Not living together	17.95	82.05	975
Total	**28.67**	**71.33**	**1395**
$\chi^2_{(1)} = 182.14$ Pr = 0.000			
Occupation			
Not working	27.24	72.76	1138
Prof, tech, managerial	28.57	71.43	7
Clerical	45.00	55.00	20
Sales	62.50	37.50	8
Services	38.46	61.54	26
Skilled manual	22.73	77.27	22
Unskilled manual	34.32	65.68	169
Total	**28.71**	**71.29**	**1390**
$\chi^2_{(6)} = 12.45$ Pr = 0.053			
Relation to partner			
Marital	48.96	51.04	386
Regular	20.88	79.12	795
Casual	20.18	79.82	114
Total	**29.19**	**70.81**	**1295**
$\chi^2_{(2)} = 104.06$ Pr = 0.000			

	Odds Ratio	**P>lzl**	**95% CI**	
Age at 1st sex	0.93	0.032	0.87	0.99

Number of obs = 1348 LR chi2(1) = 4.63 Prob>chi2 = 0.0314

The respondents who were aged 15-19 years were more likely to have unintended pregnancy (87%) when compared to the 20-24 years old (66%). The percentage of unintended pregnancies was highest among respondents from KwaZulu Natal (81%) and lowest for respondents from North West (56%). More blacks reported experience of unintended pregnancy (73%) than any of the other ethnic groups. Unintended pregnancy also varies by level of education as 80% of respondents with higher education reported experiencing it. It is also interesting to find that 74% of the respondents using modern method of contraception had unintended pregnancy. This high percentage of unintended pregnancy among contraceptive users certainly calls for program intervention. For marital status, 46% of respondents living together with their partners had unintended pregnancy while the percentage of unintended pregnancy in respondents not living together with their partners was 82%.

Unintended pregnancy was highest among respondents that were skilled manual workers (77%). This group was followed by respondents in the professional, technical and managerial group (71%).

While there was no significant difference between the percentages of unintended pregnancy between those that had the last sexual relation with their regular (79%) and casual partners (80%), it was 57% for those that had last sexual relation with their marital partners. Table 3.2 also shows that the probability of unintended pregnancy decreases with increase in age at first intercourse.

There was no significant difference in the level of unintended pregnancy between the urban (72%) and rural (71%) areas. The percentages of unintended pregnancy among respondents by their partner's educational levels were between 41% and 67%. The relationship between unintended pregnancy and partner's education followed the same trend as the respondent's educational level with the exception that the

percentage was about two higher for those with no education when compared with those with primary level of education. No statistically significant difference was found between number of sexual partners in the last 12 months before the survey and the incidence of unintended pregnancy. The percentage was however highest among respondents with two or more partners (78%) and lowest for those with one partner (70%). Abuse was also found not to be associated with unintended pregnancy. The percentages were 73 and 71 for those that were abused and those that were not respectively. The likelihood of unintended pregnancy was found to decrease with an increase in partner's age. This was however statistically insignificant.

Finally, in order to identify the critical predictors of unintended pregnancy, all the variables that were found to be associated with it were entered for stepwise automatic selection. The five variables selected were age group, marital status, education, region and relationship to last sexual partner. These were thus used in the multivariate logistic regression to predict unintended pregnancy in this study population.

3.3. MULTIVARIATE ANALYSIS.

The last objective was to measure the strength of association between the identified variables and unintended pregnancy among South African youth. Table 3.3 below presents the adjusted odds ratio, 95% confidence interval and associated p-values of the critical predictors of unintended pregnancy in this study population.

Table 3.3. Adjusted Odds Ratios, 95% Confidence Intervals and associated p-values of the critical predictors of unintended pregnancy among South African youth.

Variables	Adjusted Odds Ratio	Plzl	95% CI
Age group			
15-19	1.00		
20-24**	0.42	0.000	0.29 - 0.62
Education			
None	1.00		
Primary	1.78	0.134	0.84 - 3.78
Secondary	1.85	0.099	0.89 - 3.83
Higher**	4.27	0.009	1.44 - 12.65
Marital status			
Living together	1.00		
Not together**	3.88	0.000	2.76 - 5.47
Region			
Western Cape	1.00		
Eastern Cape	1.80	0.063	0.97 - 3.35
Northern Cape	1.13	0.729	0.56 - 2.29
Free State	1.49	0.327	0.67 - 3.34
KwaZulu Natal**	2.38	0.012	1.21 - 4.70
North West	0.59	0.149	0.29 - 1.20
Gauteng	1.47	0.327	0.67 - 3.16
Mpumalanga	1.21	0.578	0.62 - 2.37
Northen Province	1.74	0.097	0.91 - 3.34
Relation			
Marital Partner	1.00		
Regular Partner**	1.72	0.003	1.20 - 2.46
Casual Partner	1.51	0.159	0.85 - 2.69
Number of observations	1295		
LR chi2(15)	241.16		
Prob > chi2	0.0000		
Log likelihood	-661.39005		
Pseudo R2	0.1542		
Goodness of fit test	Pearson chi2(171) = 199.15		
	Prob>chi2 = 0.07		

** Statistically significant

The adjusted odds ratio reported in Table 3.3 implies that the result given of the effect of particular variable on unintended pregnancy have taken into consideration the other variables that are together with it in the model that could also have effect on the outcome.

From Table 3.3 above, the risk of unintended pregnancy is less likely (AOR = 0.42, CI = 0.29-0.62) among the 20-24 years old relative to the adolescents (15-19 years

old). The higher the level of education, the more likely the experience of unintended pregnancy. Respondents with higher level of education were more likely to experience unintended pregnancy (AOR = 4.27, CI = 1.44-12.64) compared to those with no education.

Respondents not living together with their partner had higher risk of unintended pregnancy (AOR = 3.88, CI = 2.76-5.47) compared to those living together with their partner. Respondents whose last sexual partners were their regular or casual partners were more likely to experience unintended pregnancies relative to respondents whose last sexual partners were their marital partners.

For region, unintended pregnancy was more likely in all the provinces except in North West (AOR = 0.59, C.I = 0.29-1.20) when compared to Western Cape. Adjusted Odds Ratio with the 95% confidence interval for the other provinces are: Eastern Cape (1.8, 0.97-3.35), Northern Cape (1.13, 0.56-2.29), Free State (1.49, 0.67-3.34), KwaZulu Natal (2.38, 1.21-4.70), Gauteng (1.47, 0.67-3.16), Mpumalanga (1.21, 0.62-2.37) and Northern Province (1.74, 0.91-3.34). The odds were however not statistically significant in all the provinces except in KwaZulu Natal where the confidence interval shows that the lowest of the odds in the true population will still be higher for the province when compared to Western Cape.

CHAPTER 4

DISCUSSION

The study objective was to examine the distribution of and factors associated with unintended pregnancy among South African youth. The results show a high incidence of unintended pregnancy as 71% of the 1 395 respondents used in the analysis had unintended pregnancies. Even though the percentage is not too different from that reported by RHRU (2004), they measure different things. This study looked at the incidence of unintended pregnancy in the three years before the survey including current pregnancies then while the RHRU survey measured ever had (prevalence of) unplanned pregnancy. The observed percentage of unintended pregnancy could actually be higher as it is well documented that women may not wish to report a conception as unwanted or mistimed once the child has become a loving member of the family or the conception is subjected to rationalisation due to other factors including cultural. (Eggleston, 1999; Adetunji, 2001).

Overall, the percentage of current contraception use was 59% among the study population. This is comparable to the 57% current use reported by RHRU (2004) national study. The prevalence is high when compared to other countries in Sub Saharan Africa. It is thus not clear why unintended pregnancy is still high with the reported high level of contraceptive use. A look into the context within which contraception is used among the youth is necessary to be able to have an insight into the reasons for the observed prevalence of contraceptive use and observed unintended pregnancy.

It was also found that the highest percentage of respondents that use any type of contraception was among those that had only one sexual partner in the last 12 months. Respondents with no partner and those with multiple partners were equally unlikely (50%) to use any method of contraception. One would expect the use of contraception to be higher among respondents with multiple partners. This finding is of particular concern for it implies a sexual risk taking behaviour among the youth. It also needs to be addressed urgently for it portends danger in the face of the ongoing HIV/AIDS epidemic in South Africa.

The study shows that 87% of the respondents aged 15-19 had unintended pregnancy compared to 66% among the 20-24 years old. The logistic result further confirm that the 15-19 years old were more likely to have unintended pregnancy when compared to the 20-24 years. One of the reasons for this could be the percentage in each of the age groups living with their partners. The percentage in the 20-24 years group (36%) is three times that in the 15-19 years group (12%). It clearly shows that the problem of unintended pregnancy is more prevalent among the adolescents. This finding confirms the hypothesis that adolescents (15-19 years old) are more likely to have unintended pregnancy compared to the older (20-24) youth.

Respondents from KwaZulu Natal had the highest percentage (81%) of unintended pregnancy followed by Eastern Cape (75%). Northern Cape had 66% and North West had the lowest at 56%. The other five provinces had percentages of between 68% and 71%. The logistic regression model also shows that after controlling for other associated factors, the probability of unintended pregnancy among respondents from KwaZulu Natal was still 2.38 times higher than that of Western Cape, which was the

reference category. This finding is in line with those of many other studies, which have documented high rates of unintended/unwanted pregnancy among adolescent girls in KwaZulu Natal. For instance, Manzini (2001) put the prevalence of unwanted pregnancy in KwaZulu Natal at 71% while none of the pregnant study participants (100%) in the Craig and Richter-Strydom study (1983) had wished for the pregnancy. This finding of regional difference is similar to that found in the Ecuador. (Eggleston, 1999). There is need to look into the reason(s) for this differential among provinces.

Surprisingly, there was no significant difference in the incidence of unintended pregnancy among the rural and urban residents. Seventy-two percent of the respondents from urban had unintended pregnancies while the figure was 71% for respondents from rural. The non-difference in this study could be as a result of diffusion of ideas across areas and perhaps availability of family planning services. For example some youth reproductive health programmes have national spread and have really assisted in passing on information and reproductive health services to youth all over South Africa. Two of these reproductive health programmes are lovelife and Khomaneni.

Regarding ethnicity, the blacks have the highest percentage of unintended pregnancy at 73% followed by the Coloreds (68%). For the Asians, it was 56% and the least was found among the Whites (33%). This is not surprising as the pattern of socio-economic opportunities among the ethnic groups follow the opposite direction, with the whites having the highest and the blacks having the lowest opportunities. For example the blacks are the worst hit in the declining employment opportunities (NPU, 2000). The education system is characterised by diversity. While 65% of whites and

40% of Indians over 20 years have a high school or higher qualification, this figure is only 14% among blacks and 17% among the colored population. (International Marketing Council of South Africa, nd). There is therefore the need to intensify efforts aimed at bridging the gap in opportunities between ethnic groupings, which in the long run will assist in arresting the high level of unintended pregnancy and other socio-economic problems among the disadvantaged groups.

Contrary to expectation, this study shows that the likelihood of unintended pregnancy increases as the educational level of respondents increases. This is quite marked in respondents with higher level of education, who were 4.27 times more likely to have unintended pregnancy relative to those with no education. Similar result was found in the Nigerian study by Okonofua et al (1996), which showed that women with higher education were significantly more likely to experience unwanted pregnancy than women with lower levels of education. This could be because respondents with higher level of education may wish to delay conception or space their children. This is also the group of women that are more likely to be in formal employment, which is known to be incompatible with childbearing and rearing. The high incidence of unintended pregnancies among respondents with higher-level education shows that there is a need to direct intervention to this group of women. The hypothesis of respondents with no education and those with primary educational level being more likely to have unintended pregnancy compared to respondents with secondary and higher education is not supported by this finding.

Level of unintended pregnancy was highest among skilled manual workers at 77% while 73% of respondents that were not working did not intend their pregnancies.

This is not very surprising, especially for the latter group as childbearing and rearing requires relative financial stability. These groups were followed by those in the professional, technical and managerial occupation category at 71%. As stated earlier in the discussion about educational level, this could be as a result of incompatibility of childbearing with formal employment in terms of time and the corporate outlook. The incompatibility explanation could also be true for respondents in the skilled manual occupational category.

Another intriguing aspect of the result is the high percentage of unintended pregnancy (74%) among respondents using modern method of contraception. This could be as a result of incorrect usage of methods or time lag between the incidence of the pregnancy and the survey time, within which contraceptive behaviour might have changed. Questions on contraceptive use as at the time of conception of the pregnancies were not asked during the survey. There is need to explore this finding using both quantitative and qualitative tools to be able to explain this pattern of relationship.

This study also shows that respondents who were not living together with their partners were more likely to have unintended pregnancy relative to those that were living together with their partners (AOR = 3.88, CI = 2.76-5.47). This could be as a result of the relative support that the respondents living together with their partners receive. Living together may also show the commitment of the partners to each other and to the responsibilities of living together/marriage including childbearing. It also confirms the hypothesis that unmarried respondents are more likely to have unintended pregnancy compared to the married ones.

There was no significant difference in the incidence of unintended pregnancy between the respondents who were abused by their partners (73%) and those who were not (71%). This finding does not support the hypothesis that respondents that were physically and/or sexually abused by their partners are more likely to have unintended pregnancy compared to respondents that did not have this experience. This perhaps could be explained by the accepted norm of sexual domination by the males in South Africa. This is further entrenched by the belief that violent, sexually coercive behaviour is a sign of love and passion. This conception of love serves to justify and perpetuate unacceptable levels of abuse within young people's relationships. (Jewkes et al, 2001; Eaton et al, 2003).

The likelihood of unintended pregnancy was found to be lower for respondents whose last sexual relation was with their marital partner relative to respondents whose last sexual relation was with their regular and casual partners. This difference justifies the association found to exist between unintended pregnancy and relationship to last sexual partner. It was not also surprising as the state of being married implies a sort of commitment on the part of the partners and pregnancies are less likely to be or described as unintended therein compared to pregnancies in non-marital relationships.

Two of the respondent's partners characteristics examined were partner's education and age. The two partners characteristics were found not to be associated with unintended pregnancy. It is worthy to mention however that the mean age of the partner's age was 28 years while the mean age of the respondents was 21 years. This is an average of seven years age difference between the respondents and their partners. A higher age of the males to their female partners is quite common. It was

reported that an older boyfriend offers both status and the kinds of gifts and financial assistance that parents cannot afford (Eaton et al, 2003) especially for women in the lower socio-economic cadre.

This study found age group, region, education, marital status and relationship to last sexual partner to be the key predictors of unintended pregnancy among South African youth. These are different from the factors found to be associated with unwanted/unplanned pregnancies by the other related South African studies. One of the reasons for this is that the explanatory variables used in the studies were quite different in scope, meaning and measurement from the ones used in this study. For example, physical and or sexual abuse by respondent's partner was found not to be associated with unintended pregnancy in this study whereas, Jewkes et al (2001) found experience of coercive sex to be a risk factor for pregnancy. The two variables are clearly different and measure different things. The time period covered by the studies also differ. Another reason is that most of the other studies used primary data collected for the purpose and were able to ask specific questions of interest as against secondary and aggregate data used in this study. The other studies also covered small geographical units within South Africa while this present study has a national scope.

One of the limitations of this study as discussed in section 2.5 is the reliance on self-reported measures particularly sexual behaviours and retrospective reports on planning status at conception of pregnancies. The study also suffers from lack of qualitative data, which could have provided a contextual insight into the findings of the study.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1. CONCLUSION

This study attempted to examine the distribution of and factors associated with unintended pregnancy among South African youth. Univariate, bivariate and multivariate analyses were done to achieve this. The multivariate logistic regression was used to identify the critical predictors of unintended pregnancy among South African youth. These include age group, region, education, marital status and relationship to last sexual partner. The study supported the proposition that adolescents (15-19 years old) are more likely to have unintended pregnancy compared to the older youth. It also supported the hypothesis that unmarried respondents are more likely to have unintended pregnancy compared to the married ones.

Contrary to expectation, unintended pregnancy was found to increase as respondents educational level increases. The more educated women were expected to have more access to contraception. Another intriguing aspect of the result was the high percentage of unintended pregnancy among respondents using contraception. These findings clearly provide evidence and a basis for designing appropriate national programs in areas identified that are amenable to programme intervention for reducing the incidence of unintended pregnancy among South African youth. The findings also call into question the effectiveness and efficiency of various reproductive health programmes in the country. For example, it is not clear why despite the friendly political environment for reproductive health in South Africa, the incidence of unintended pregnancy remains high.

5.2. RECOMMENDATIONS

The findings of this study have implications for policy, programme and research. For policy, there is the need to review the choice of Termination of Pregnancy Act of 1996 and other reproductive health policies to address emerging issues. The policies should not only be enacted, but must be relevant, practical and effective. There is also the need to address the issue of unemployment among the youth especially in this era of economic restructuring. Being gainfully employed will keep these youth otherwise engaged and will reduce the pressure of accessing resources substantially. A very high percentage (84%) of the youth that had unintended pregnancies were not working. While some of them may be in school and some may resume their education, it is important that these youth are gainfully engaged. Improvement in other social conditions is also important to bridge the gap that exists in opportunities among ethnic groupings. Provision of recreational infrastructure in communities could also be beneficial at keeping the youth otherwise engaged, thereby reducing the incidence of unintended pregnancy. Reproductive health services should also be integrated into these infrastructures.

For programme, there is the need to expand programmes on information, education and communication (IEC) especially on abstinence and safe sexual practices including use and correct usage of contraception. Reproductive health services should also be made available, accessible and acceptable to all the youth that are desirous of it. This could address the low prevalence of contraceptive use among youth especially among those with multiple partners as well as reduce the incidence of unintended pregnancy among contraceptive users. The youth should also be encouraged to delay sexual debut for the results of the study show that the 15-19 years old were more likely to

have unintended pregnancy and incidence of unintended pregnancy was also found to decrease with increase in age at first sexual intercourse. The study also shows the special need of women with higher level of education. Programmes should be put in place to address the high rate of unintended pregnancies in this group of women. Programmes should also discourage the issue of intergenerational relationships. There is no gain saying that this is of paramount importance as its effect is already being manifested by the onset of HIV/AIDS epidemic at a much earlier age for the females than the males. The fluid nature of the relationships can also be deduced by the inability of a substantial percentage of the respondents to provide information about their sexual partners. Periodic evaluation of reproductive health programmes is also recommended. This will assist programmers to assess the effectiveness of their programmes and thereby improve in areas found to be lacking. The role of quality of care in reducing the incidence of unintended pregnancies should also be given attention.

In terms of research, a number of issues emerged that require investigation. These include looking at the historical, cultural and socio-economic context of unintended pregnancy among the South African youth. The finding of such study can be used to complement the findings from the use of quantitative data, which can be used to get to the root of the problem. Further research should be carried out to investigate why highly educated women reported more experience of unintended pregnancy than the others. Variables of interest in such study should include partner's characteristics (age, education, occupation and lifestyle).

The regional differentials in unintended pregnancy should also be looked into using both qualitative and quantitative means. Is the observed difference in this study real

and could the predictors of unintended pregnancy (for the various regions) be different from the ones identified at the national level in view of these differentials? This study can also shed some more light on the different social and cultural groups in South Africa and how socio-cultural milieu impact on reproductive behaviour.

Research is also recommended into the proportion of unintended pregnancy that were due to non-use of contraception and the proportion from contraceptive failure. This will be of great benefit to policy makers and programme planners.

REFERENCES

1. Adetunji J. 2001. Mistimed and Unwanted Childbearing in the Course of Fertility Transition. UN/POP/PFD/2001/5. 4 June 2001. www.un.org/esa/population/publications/prospectsdecline/adetunji/pdf (Accessed 04/23/04).
2. Bah Sulaiman, 2004. The South African Population Register as a Source of Rapid Mortality Statistics and the Basis for Developing a Mortality Surveillance System. Lecture delivered at Wits School of Public Health on 31, August 2004.
3. Beaglehole R, Bonita R & Kjellstrom T. (1993). Basic Epidemiology. World Health Organization, Geneva 1993.
4. Craig AP & Richter-Strydom LM. 1983. Unplanned pregnancies among urban Zulu schoolgirls: Community Research as preparation for Intervention. *South African Medical Journal*. Volume 63, 19 March 1983: 452-455.
5. Crosby RA, DiClemente RJ, Wingood GM, Rose E & Lang D. 2003. Correlates of Unplanned and Unwanted Pregnancy Among African-American Female Teens. *America Journal of Preventive Medicine*, Vol 25, Issue 3, Oct 2003; 255-258. www.sciencedirect.com/science?(_ob=Article&_udi=B6VHT-49JFRFF-F&coverDate=10%) (Accessed 08/11/2004)
6. Dawson B & Trapp R. 2001. *Basic and Clinical Biostatistics*. Lange Medical Books. 3rd edition.
7. Department of Health, Republic of South Africa and Measure DHS+. South African Demographic and Health Survey (SADHS) 1998 Full report.
8. Di Censo A, Guyatt G, Willan A & Griffith L. 2002. Interventions to Reduce Unintended Pregnancies among Adolescents: Systematic Review of Randomised Controlled Trials. *British Medical Journal* 2002, June 15; 324 (7351): 1426. http://bmj.bmjjournals.com/cgi/reprint/324/7351/1426.pdf (Accessed 6/24/04).
9. Eaton L, Flisher A.J & Aaro LE. 2003.Unsafe Sexual Behaviour in South African Youth. *Social Science and Medicine*; 56 (2003) 149-165.
10. Eggleston E. 1999. Determinants of Unintended Pregnancy among women in Ecuador. *International Family Planning Perspectives*, Vol. 25, No. 1 (March 1999), pages 27-33.

11. Force for Change. 1998. World AIDS Campaign with Young People. World AIDS Day 1998. United Methodist HIV/AIDS Ministries Network, New York 1998. http://gbgm.umc.org/programs/wad98/ (Accessed 04/23/04).
12. Hague Forum. Statement by Representative of the World Bank at the Hague Forum. February 1999. www.un.org/popin/icpd/icpd5/hague/world.pdf (Accessed 04/23/04)
13. Henshaw SK. 1998. Unintended Pregnancy in the United States. *Family Planning Perspective* 1998, 30(1): 24-29.
14. Ibisomi LDG. 2002. An Exploratory Study of Changes in Fertility Across Developing Countries. Master of Science Research Project submitted to the University of Nairobi, Kenya, 2002.
15. International Marketing Council of South Africa. Education in South Africa. ww.**southafrica**.info/ess_info/sa_glance/**education**/**education**.htm (accessed 23/08/2004).
16. Japanese Organization for International Cooperation in Family Planning (JOICFP). http://joicfp.or.jp/ (Accessed 23/04/2004).
17. Jewkes R, Vundule C, Maforah F & Jordaan E. 2001. Relationship Dynamics and Teenage pregnancy in South Africa. *Social Science & Medicine*. 2001 March; 52(5): 733-44. http://minedump.redi.co.za:2253/science?_ob=ArticleURL (Accessed 07/10/04).
18. Kaufman CE, de Wet T & Stadler J. 2001. Adolescent and Parenthood in South Africa. *Studies in Family Planning*. Volume 32, Number 2; June 2001: 147-160. www.jstor.org/view/00393665/di021405/02p0017f/0?config=jstor&frame/ (Accessed 06/22/04).
19. Kirkwood BR & Sterne JAC. 1998. *Essentials of Medical Statistics*. Blackwell Science 1988.
20. Knoke D, Bohrnstedt GW & Mee AP. 2002. *Statistics for Social Data Analysis*. 4th Edition. F.E. Peacock Publishers, Itasca, Illinois 60143.
21. Last JM. 1995. *A Dictionary of Epidemiology*. 3rd Edition. Oxford University Press, New York.

22. Makiwane MB. 1998. Adolescent Pregnancy and Reproductive Health in Transkei (Rural South Africa). *African Journal of Reproductive Health*, Volume 2, Number 1 April 1998.
23. Manzini N.2001. Sexual Initiation and Childbearing among Adolescent girls in KwaZulu Natal, South Africa. *Reproductive Health Matters.* 2001 May; 9(17): 44-52. http://minedump.redi.co.za:2253/science?_ob:JournalURL (Accessed 07/10/04).
24. Mellanby AR, Pearson VAH & Tripp JH. 1997. Preventing Teenage Pregnancy. *Archives of Disease in Childhood* 1997; 77: 459-462 (November). http://adc.bmjjournals.com/cgi/content/full/archdischild;77/5/459 (Accessed 04/30/04).
25. National Population Unit (NPU) of the Department of Social Development. 2000. The State of South African Population Report.
26. National Progressive Primary Health Care Network (1998). Termination of Pregnancy Bill, 1996. www.healthlink.org.za/pphc/Phila/abort.htm (Accessed 08/04/05).
27. O'Mahony D. 1987. Schoolgirl Pregnancies in Libode, Transkei. *South African Medical Journal* 1987; 71: 771-773.
28. Okonofua FE, Odimegwu C, Aina B, Daru PH & Johnson A.. 1996. Women's Experience of Unwanted Pregnancy and Induced Abortion in Nigeria. The Population Council. The Robert H. Ebert Program on Critical Issues in Reproductive Health. Nov. 1996. www.popcouncil.org/ebert/abortrev.pdf (Accessed 04/30/04).
29. Piccinino MPS. Unintended Pregnancy and Childbearing. Center for Disease Control and Prevention's Reproductive Health of Women www.cdc.gov/reproductivehealth/datoact/pdf/rhow5.pdf (Accessed 06/27/04)
30. President's Office. Choice of Termination of Pregnancy Act 1996. www.polity.org.za/html/govdocs/legislation/1996/act96-092.html?rebookmark=1 (Accessed 08/04/2005).
31. Promoting Pregnancy Intendedness and Family Planning in Maryland. Maryland Health Improvement Plan 2000-2010. Family Planning. www.cha.state.md.us/olh/pdf/hip/FamilyPlanning.pdf (Accessed 07/10/04).

32. Reproductive Health Research Unit (University of the Witwatersrand). 2003. HIV and Sexual Behaviour Among Young South Africans: A National Survey of 15-24 Year Olds.
33. Resource Center for Adolescent Pregnancy Prevention. What are the most important risk and protective factors for behaviours affecting pregnancy, childbearing and STD? www.etr.org/recapp/index.htm (Accessed 04/30/04).
34. Ross SM. 1979. The Unplanned Teenage Pregnancy. *Curationis*. 1979 June; 2(1): 22-23.
35. Select Committee on Social Services, 1998. Republic of South Africa. Sterilisation Bill. www.info.gov.za/gazette/bills/1998/b78b-98.pdf (Accessed 05/05/05).
36. South African Government. 2003 South Africa Yearbook. 2003/04. 10th Edition. Government Communications (GCIS).
37. StataCorp. 2001. Statistical Software: Release 7.0. College Station, TX: Stata Corporation.
38. Statistics South Africa. Census 2001 Key Results.
39. Taffa N, Inge-Klepp K, Austveg B et al. 1999. Adolescent Sexual and Reproductive Health: Review of Current Facts, Programmes and Progress since ICPD. Norwegian Ministry of Foreign Affairs and Norwegian Board of Health; Jan. 1999. www.nutrition.uio.no/ARHNe/new/Reports/repTaffa.pdf (Accessed 04/23/04).
40. The Contraception Report. Sexual Behaviour and contraception among Adolescents. 2001. Emron (a division of Emeruis, LLC) Vol 12, Dec 2001, Issue 6. www.contraceptiononline.org/contrareport/article01.cfm?art=197 (Accessed 06/24/04)
41. United States (US) Agency for International Development (USAID) 2003. Sexual Behaviour, HIV and Fertility Trends: A Comparative Analysis of Six Countries. Phase 1 of the ABC Study; Pages 11-31.
42. Van de Ryst E, Joubert G, Steyn F, Heunis C, le Roux J & Williamson C. 2001. HIV/AIDS-related Knowledge, Attitude and Practices Among South African Military Recruits. *South African Medical Journal*. July 2001, Vol. 91, No 7.

APPENDIX 1.

Summary of cross tabulations of the demographic and socio-economic characteristics of respondents who had unintended pregnancies by the type of contraceptive method.

CHARACTERISTICS	None %	Folkloric %	Traditional %	Modern %	Total Number
Age group					
15-19	48.80	0.00	0.34	50.86	291
20-24	37.60	0.14	0.99	61.22	704
Total	**40.90**	**0.10**	**0.80**	**58.19**	**995**
$\chi^2_{(3)} = 11.56$ Pr = 0.009					
Region					
Western Cape	33.33	0.00	0.00	66.67	51
Eastern Cape	48.28	0.00	0.00	51.72	261
Northern Cape	34.18	0.00	0.00	65.82	79
Free State	36.36	0.00	1.82	61.82	55
KwaZulu Natal	36.14	0.00	0.00	63.86	166
North West	46.55	0.00	0.00	53.45	58
Gauteng	28.07	0.00	1.75	70.18	57
Mpumalanga	36.80	0.00	0.80	62.40	125
Northern Province	47.55	0.70	3.50	48.25	143
Total	**40.90**	**0.10**	**0.80**	**58.19**	**995**
$\chi^2_{(24)} = 44.98$ Pr = 0.06					
Residence type					
Urban	30.87	0.00	0.51	68.62	392
Rural	47.43	0.17	1.00	51.41	603
Total	**40.90**	**0.10**	**0.80**	**58.19**	**995**
$\chi^2_{(3)} = 29.37$ Pr = 0.000					
Education					
None	57.14	0.00	0.00	42.86	21
Primary	47.88	0.00	2.12	50.00	236
Secondary	37.95	0.14	0.43	61.48	701
Higher	43.24	0.00	0.00	56.76	37
Total	**40.90**	**0.10**	**0.80**	**58.19**	**995**
$\chi^2_{(9)} = 17.79$ Pr = 0.038					
Ethnicity					
Black	42.01	0.12	0.70	57.18	857
Colored	35.90	0.00	0.00	64.10	117
White	50.00	0.00	0.00	50.00	6
Asian	20.00	0.00	0.00	80.00	10
Total	**41.11**	**0.10**	**0.61**	**58.18**	**990**
$\chi^2_{(9)} = 4.97$ Pr = 0.837					
Marital Status					
Living together	44.62	0.00	2.56	52.82	195
Not living together	40.00	0.13	0.38	59.50	800
Total	**40.90**	**0.10**	**0.80**	**58.19**	**995**
$\chi^2_{(3)} = 11.61$ Pr = 0.009					
Occupation					
Not working	43.36	0.12	0.72	55.80	828
Prof, tech, managerial	20.00	0.00	0.00	80.00	5
Clerical	18.18	0.00	0.00	81.82	11
Sales	66.67	0.00	0.00	33.33	3
Services	18.75	0.00	0.00	81.25	16
Skilled manual	23.53	0.00	0.00	76.47	17
Unskilled manual	32.43	0.00	1.80	65.77	111
Total	**41.07**	**0.10**	**0.81**	**58.02**	**991**
$\chi^2_{(18)} = 16.90$ Pr = 0.530					

APPENDIX 2.

Summary of cross tabulations of the demographic and socio-economic characteristics of respondents who had unintended pregnancies by relationship to the last sexual partner.

CHARACTERISTICS	Marital P %	Regular P %	Casual P %	Total Number
Age group				
15-19	12.78	74.81	12.41	266
20-24	25.04	66.05	8.91	651
Total	**21.48**	**68.59**	**9.92**	**917**
$\chi^2_{(2)}$ = 17.64 Pr = 0.000				
Region				
Western Cape	9.09	72.73	18.18	44
Eastern Cape	13.20	74.40	12.40	250
Northern Cape	9.72	84.72	5.56	72
Free State	20.93	74.42	4.65	43
KwaZulu Natal	17.11	78.95	3.95	152
North West	5.26	89.47	5.26	57
Gauteng	16.33	67.35	16.33	49
Mpumalanga	47.41	31.90	20.69	116
Northern Province	38.81	57.46	3.73	134
Total	**21.48**	**68.59**	**9.92**	**917**
$\chi^2_{(16)}$ = 149.85 Pr = 0.000				
Residence type				
Urban	16.47	69.94	13.58	346
Rural	24.52	67.78	7.71	571
Total	**21.48**	**68.59**	**9.92**	**917**
$\chi^2_{(2)}$ = 14.14 Pr = 0.001				
Education				
None	15.00	75.00	10.00	20
Primary	25.23	65.32	9.46	222
Secondary	19.97	69.42	10.61	641
Higher	29.41	70.59	0.00	34
Total	**21.48**	**68.59**	**9.92**	**917**
$\chi^2_{(6)}$ = 7.79 Pr = 0.254				
Ethnicity				
Black	21.87	67.64	10.49	791
Colored	9.43	84.91	5.66	106
White	60.00	20.00	20.00	5
Asian	70.00	20.00	10.00	10
Total	**21.16**	**68.86**	**9.98**	**912**
$\chi^2_{(6)}$ = 33.94 Pr = 0.000				
Marital Status				
Living together	63.68	34.74	1.58	190
Not living together	10.45	77.44	12.10	727
Total	**21.48**	**68.59**	**9.92**	**917**
$\chi^2_{(2)}$ = 255.54 Pr = 0.000				
Occupation				
Not working	21.26	68.90	9.84	762
Prof, tech, managerial	20.00	60.00	20.00	5
Clerical	55.56	44.44	0.00	9
Sales	33.33	66.67	0.00	3
Services	42.86	50.00	7.14	14
Skilled manual	23.53	58.82	17.65	17
Unskilled manual	16.35	73.08	10.58	104
Total	21.44	68.60	9.96	914
$\chi^2_{(12)}$ = 14.34 Pr = 0.280				

APPENDIX 3.

Summary of cross tabulations of the demographic and socio-economic characteristics of respondents who had unintended pregnancies by the number of sexual partners in the last 12 months before the survey.

CHARACTERISTICS	0 %	1 %	2+ %	Total Number
Age group				
15-19	7.43	87.73	4.83	269
20-24	3.68	92.80	3.52	653
Total	**4.77**	**91.32**	**3.90**	**922**
$\chi^2_{(2)} = 7.02$ Pr = 0.030				
Region				
Western Cape	6.67	91.11	2.22	45
Eastern Cape	7.17	90.84	1.99	251
Northern Cape	11.11	84.72	4.17	72
Free State	2.33	86.05	11.63	43
KwaZulu Natal	2.61	94.77	2.61	153
North West	7.02	92.98	0.00	57
Gauteng	2.08	93.75	4.17	48
Mpumalanga	0.00	90.68	9.32	118
Northern Province	3.70	92.59	3.70	135
Total	**4.77**	**91.32**	**3.90**	**922**
$\chi^2_{(16)} = 40.53$ Pr = 0.001				
Residence type				
Urban	6.03	89.37	4.60	348
Rural	4.01	92.51	3.48	574
Total	**4.77**	**91.32**	**3.90**	**922**
$\chi^2_{(2)} = 2.79$ Pr = 0.248				
Education				
None	0.00	100.00	0.00	20
Primary	4.46	91.07	4.46	224
Secondary	4.97	91.15	3.88	644
Higher	5.88	91.18	2.94	34
Total	**4.77**	**91.32**	**3.90**	**922**
$\chi^2_{(6)} = 2.35$ Pr = 0.885				
Ethnicity				
Black	4.40	91.46	4.15	796
Colored	7.55	89.62	2.83	106
White	20.00	80.00	0.00	5
Asian	0.00	100.00	0.00	10
Total	**4.80**	**91.28**	**3.93**	**917**
$\chi^2_{(6)} = 6.02$ Pr = 0.421				
Marital Status				
Living together	0.52	97.93	1.55	193
Not living together	5.90	89.57	4.53	729
Total	**4.77**	**91.32**	**3.90**	**922**
$\chi^2_{(2)} = 13.88$ Pr = 0.001				
Occupation				
Not working	4.69	91.53	3.78	767
Prof, tech, managerial	20.00	80.00	0.00	5
Clerical	0.00	100.00	0.00	9
Sales	0.00	100.00	0.00	3
Services	7.14	78.57	14.29	14
Skilled manual	11.76	88.24	0.00	17
Unskilled manual	3.85	91.35	4.81	104
Total	**4.79**	**91.29**	**3.92**	**919**
$\chi^2_{(12)} = 10.95$ Pr = 0.533				

APPENDIX 4

Summary of the explanatory variables found not to be associated with planning status at conception.

CHARACTERISTICS	Wanted then %	Unintended %	Total Number
Residence type			
Urban	27.68	72.32	542
Rural	29.31	70.69	853
Total	**28.67**	**71.33**	**1395**
$\chi^2_{(1)} = 0.43$ Pr = 0.511			
Partner's Educ			
None	57.14	42.86	49
Primary	58.59	41.41	128
Secondary	48.61	51.39	251
Higher	33.33	66.67	27
Don't know	40.00	60.00	5
Total	**51.30**	**48.70**	**460**
$\chi^2_{(4)} = 7.87$ Pr = 0.097			
Number of partners			
0	24.14	75.86	58
1	29.72	70.28	1198
2+	21.74	78.26	46
Total	**29.19**	**70.81**	**1302**
$\chi^2_{(2)} = 2.11$ Pr = 0.348			
Abuse			
No	28.79	71.21	1285
Yes	27.27	72.73	110
Total	**28.67**	**71.33**	**1395**
$\chi^2_{(1)} = 0.11$ Pr = 0.735			

	Odds Ratio	P>lzl	95% CI	
Partner's age	0.98	0.241	0.94	1.02

Number of obs = 397 LR chi2(1) = 1.40 Prob>chi2 = 0.2372