ADOLESCENTS' ACCESS TO AND USE OF REPRODUCTIVE HEALTH SERVICES IN NDOLA URBAN

by

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A dissertation submitted to the University of Zambia in Partial fulfilment of the requirements of the degree of Master in Public Health

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SCHOOL OF MEDICINE
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September 2001
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I Christine M Mutati do hereby declare that this dissertation represents my own work, and that it has not previously been submitted for any degree at this or another University.

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DEDICATION

This piece of work is heartily dedicated to my late sister in-law Margaret M Mutati who supported and encouraged me during the period of the study and to my brother Urbano M Mutati whose always been there for me.
ACKNOWLEDGEMENT

Many people have contributed valuable ideas, resources and support to make possible the successful completion of this dissertation.

Special thanks go to Professor K.S.Baboo for his tireless efforts, dedication, guidance and constructive criticisms.

To Dr.C.Michelo for guidance and advice on various aspects of the study. Dr.L.Chiwete for his professional guidance and proof-reading the final draft and Late Mr.A Mwale for his expert advice on various statistics used in this study.

To USAID for the scholarship to pursue the program and the study. Ndola Central Hospital and Ministry of Health for granting me study leave and to Ndola District Health Management Team for their corporation.

To Chibeka for her numerous help in every way, to Mwangala and the entire MPH class for their help at every stage of the study. The study would not have been possible without adolescents, health care providers and all who gave permission to let the study be carried out, to all these people I say thank you.

Lastly but not the least, to all who assisted in one way or the other to make the production of this dissertation.
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LIST OF ABBREVIATIONS

AIDS - Acquired Immune-Deficiency Syndrome
HIV - Human Immuno-deficiency Virus
RHS - Reproductive Health Service
YFS - Youth Friendly Service

OPERATIONAL DEFINITIONS

Adolescent 
a girl or boy aged between 10 -19

Health care provider
any trained person offering adolescent reproductive health services e.g. nurse, peer educator

Health Facility
place providing reproductive health services

Reproductive Health Services
services designed to provide reproductive health information
ABSTRACT

Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system. Until now, many health aspects of reproduction were dealt with through public health approaches.

The reproductive health needs of young people and adolescents have been brought to the fore front as requiring urgent and special attention. Providing information and reproductive health services to adolescents will better their lives and postpone sexual activity. This study aimed at determining utilisation patterns of and access to RHS by adolescents and factors that could influence utilisation in Ndola, Zambia.

A cross sectional survey was conducted on a sample of 202 adolescents aged between 10 - 19 randomly selected from 10 residential areas of Ndola using cluster sampling methods. Data was collected using a structured questionnaire, interview schedule and checklist for the health facility.

This study revealed that majority of the respondents were in their late adolescence (79.8%). The proportion of utilising RHS between male and female was 43.1% and 56.9% respectively. In addition it was found that age and education had a significant effect on utilisation. Age (p = 0.004) Education (p = 0.031). The majority of the study subjects were found to reside in high density areas. However, this had no association with utilisation of services. The ratio of utilisation of RHS between the two residential areas ,that is, high and low density was 2:1. This difference is attributed to the fact that most of the health facilities are located in high density residential areas.

The level of knowledge on reproductive health was very low (82.2%). However knowledge of reproductive health had no association with utilisation (p = 0.092). Despite low knowledge level, most of the respondents were able to mention reproductive health problems. This suggests that there exists a gap between knowledge of reproductive health and practice among adolescents. The major source of information on reproductive health was peer educator for those who have
used RHS (51.4%) and media for those who have not used (39.8%). The striking finding was the perception by adolescents that one requires a consent to obtain RHS. This could be seen as a deterrent factor in providing RHS to adolescents.

The level of sexual activity was quite high with over half of the respondents (62.4%) having had an experience of sex. Sadly by age 9 (3%) some have already engaged into sex and majority (53.7%) of those who are sexually active have multiple sexual partners, thereby making themselves more vulnerable to STD and HIV/AIDS. The reasons for engaging into sex were: Peer pressure (54%); Curiosity (21.4%); Marriage (15.1%); and Rape (9.5%). Majority of them had also utilised RHS and services used most were for STD (34.9%) and family planning (29.4%). These findings show presence of bad sexual behaviour beginning at age 9 when most of these children are still trainable.

It was therefore recommended that primary preventive strategies should be commenced in lower primary school before a child reaches age 9. These preventive measures should be implemented on the basis of available legislation aimed at reducing the prevalence of HIV/AIDS among adolescents hence reducing the disease burden Nationally.
Chapter one

1. OVERVIEW OF REPRODUCTIVE HEALTH

Reproductive health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system (ICPD 1994). Until now many of the health aspects of reproduction have been dealt with through the public health approaches of maternal and child health and family planning (MCH/FP). Over the past few years, important socio demographic changes have taken place that have rendered this approach too narrow to meet the current concerns in reproductive health. For instance there is more urgency in addressing health needs of women beyond childbearing; sexually transmitted bacterial and viral infections have assumed huge proportions; and the reproductive health needs of young people and adolescents have been brought to the fore front as requiring urgent and special attention.

Following the endorsement of the International Conference on Population and Development (ICDP), Zambia is moving toward a broader concept of reproductive health that offers a more comprehensive and integrated approach to meeting health needs of all and this is consonant with the health system reform process. Reproductive health, therefore, implies that people have the ability to reproduce and that reproduction should reach a successful outcome. It also implies that people are able to regulate their fertility without risk to their health and that they are safe in having sex. The elements of a National Reproductive Health Plan include:

- Meeting the needs of individuals and couples for safe, effective and affordable methods of fertility regulation of their choice;
- Reduction of pregnancy-related mortality and morbidity, as well as reduction of new-born deaths and disabilities;
- Prevention and management of reproductive tract infections, including those that are sexually transmitted.

These elements are interrelated and addressing them effectively will have effects on one another and also on reproductive health concerns. Expanding access to services will be the most cost-effective way to improve overall reproductive health.
hence the introduction of Youth Friendly Services (YFS) for young people and adolescents in health centres.

1.1 BACKGROUND INFORMATION

The period of adolescence is increasingly recognised as a universal life in which young people are especially vulnerable to health risks, particularly related to sex and reproduction. It is a time that can lead to devastating consequences if young people are not supported adequately and empowered with appropriate information. It is a very turbulent stage of human life, different from younger children and adults in terms of physiology, anatomy, psychology and indeed sociology, needing particular attention from all those interested in adolescence including health care workers (Gallagher, 1960).

The health of young people has become a subject of increasing importance throughout the world. This is partly due to a better understanding of this age group and the changing conditions which are combined with changing patterns of behaviour. Adolescent health is a primary element in the long-term development of a country. The high proportion of young people aged under 20 indicates a youthful population. The nature of reproductive health of the adolescent population is related to the sexual activity of this age group. In recent decades, population growth, urbanisation, early menarche and expanding telecommunication as well as decline in family authority have all given rise to new patterns of sexual behaviour.

Young people are becoming sexually active at younger ages. The sexual activity is increasingly occurring in the midst of the HIV pandemic that disproportionately affects those who are below the age of 24. Teenage sexual activity has increased in many countries around the world. It is estimated that by year 2000, there will be almost 1.1 billion young people in the world (900 million in less developed regions), of whom more that half are likely to be sexually active or married.

Currently, approximately 1 in 20 teenagers worldwide acquires Sexually Transmitted Disease (STD) each year (Population Issues 1999). Thus, reproductive health is an issue of critical importance for all countries to realise and study, and remains a
universal issue for all humans in the world. Effective strategies are needed at this time, otherwise, the problem will continue to increase and will be out of control, affecting the world for many generations to come.

Adolescent reproductive activities have far reaching social, economical, health and demographic effects. Studies in Sub Saharan Africa indicate that young people frequently engage in early sexual activities and have multiple sexual partners though there are variations in their sexual and reproductive behaviours from country to country (Alwar et al. 1998). Surveys of premarital sexual activity throughout Africa have found a variation ranging from 4% in Burundi to 75% in Botswana and Liberia (Okonofua & Snow 1997) while proportion of women with first child by age 18 ranges from less than 10% in Rwanda to more than 50% in Zimbabwe (AGI 1998). This increase is affected by change in traditional and cultural values concerning sexual activity, greater tolerance for premarital sex, and influence of education and urbanisation. Therefore effective strategies are needed; otherwise the population will continue to run out of control, negatively damaging the coming generations.

In Zambia, a survey carried out in 1999 on urban sexual behaviour and condom use found that by the age of 19, 78% of the youth have had sex. Another study in Kasama found that 80-85% of the young people between the ages 13 and 15 had already engaged in sexual activities. A similar finding was from the CARE Participatory Learning Assessment (PLA 1996) study that reported girls as young as 8 engaging in sexual activities. Equally, 80% of patients with induced abortion-related complications admitted to hospital are under 19 years of age (Feldman et al. 1997). One would tend to think that behaviour change comes about from effective health education programmes.

From the public health perspective, young people's sexual activity has several negative consequences. These include high rate adolescent out-of-wedlock pregnancies, abortions and Sexually Transmitted Infections (STI) which increase the risk of Human immuno-deficiency virus (HIV) infections. Others are increased fertility and maternal and infant health risks. The other effects are discontinuation of education whose end result is unemployment and consequently poverty. A significant factor for these problems has been limited knowledge on sexual and
Therefore the need for young people to receive reproductive health care is becoming more widely recognised (Nelson et al 2000). It is commonly accepted by Governments worldwide and International Organisations that solutions are needed to help adolescents manage their reproductive lives. In recent years, the special needs of young people have required greater priority and attention. A number of adolescent health and development programmes have been established to provide physical and mental health services, vocational skills training, health and sex education and outreach programmes to nurture adolescents into healthy and self assured individuals.

As a response to the increasing need for adolescent reproductive health services, CARE International (Z) implemented adolescent health programmes in three urban cities of Zambia namely, Lusaka, Ndola and Livingstone. This has been done in partnership with Ministry of health (MOH) through District Health Management Teams (DHMT). At clinic level the health workers are supported to provide Youth Friendly Services (YFS), and Youth friendly Corners and conduct outreach activities.

Available literature reveals that sex education programmes for adolescents promotes safer sexual practice and does not increase sexual activity and that they help delay first sexual intercourse (UNAIDS 1998). The quality of these programmes is very important in developing healthy behaviour in order to reduce transmission of HIV and other STI. Failing to provide appropriate and timely information to the young people for fear of encouraging sexual activity is now not a viable option.

1.2 STATEMENT OF THE PROBLEM

Adolescent sexuality has become of increasing concern in Zambia. The Demographic Health Survey (DHS 1996) reported that by the age of 18 years 70% of women have had sexual intercourse and by age of 20, 85% are engaged in sexual activity whereas in men its, 25% by the age of 19 and 90% by age of 22. Another study (Malibata 1994 ) found that out of 51 boys and 49 girls in secondary schools in Lusaka, half of both sexes (62.7% for boys 40.8% for girls) were involved in penetrating sexual intercourse. Early pregnancy, abortion and STI including
HIV/AIDS all seem to be increasing (DHS 1996). Currently, pregnancy-related complications are the major causes of health problems among 15-19 year olds (Graisie et al 1993). Despite large numbers of adolescents initiating sexual activities at an early age, they remain excluded from guidance on sexuality and relationships.

Half of Zambian population is under the age of 15 (Graisie et al) which includes more than 60% of the total adolescent population (Feldman et al 1997). According to the 1980 population census, 24% of Zambia’s population was between 10-19, with an increase in adolescent fertility rate of 13.7% of the total fertility rate which was 7.2%. Since adolescents make up a significant proportion of the population, health care for them including sexual and reproductive health care is a crucial issue. Therefore, young people need to be helped to establish relationships based on mutual respect and trust, avoid premature sexual relationship and prepare for responsible parenthood.

The importance of adolescent health seeking behaviour in relation to reproductive health has received unprecedented attention, primarily as a result of the HIV/AIDS pandemic. Persistent health problems relate to high incidence and prevalence of other STD, high level of unwanted pregnancies, abortion and low levels of knowledge regarding sexual health in general. According to an estimate by a group of boys, only 30% of the boys infected with STI would seek treatment at a clinic in Lusaka while the percentage of girls was even lower (Shah et al 1996).

In 1994, UNICEF and the government noticed a high rate of adolescent pregnancy among the antenatal clients. This finding together with the high prevalence rate of HIV being reported especially among the youth sensitised the government to embark on interventions to curb STI morbidity and unplanned pregnancy among adolescents. One such intervention was the introduction of reproductive health services in health centres. Furthermore, CARE worked with MOH to strengthen the delivery of adolescent sexuality and reproductive health services through creating Youth Friendly Services. They further trained health workers and peer educators to help implement the programme. It was hoped that the introduction of Youth Friendly Services (YFS) in health centres would help alleviating adolescent reproductive health problems.
This study sought to find out utilisation of reproductive health services by adolescents and possible influencing factors. Since no study has been done to this effect since the programmes were implemented in 1996, there was need to look for information that would lead to improvement of the current RHS in Ndola.
Chapter Two

2. LITERATURE REVIEW

Adolescence is a period of profound physical and psychological change during which people learn to assume control of their own lives and make decisions in light of the consequences for themselves and others. For many, this is a time of emotional change as they are in transition from dependency of childhood to relative independence of adulthood.

During this growth and development stage, they are susceptible to risk behaviour like premature sexual activity making their lives vulnerable. As a special group they require special attention and efforts being put in place to improve reproductive health must try to focus on them. The health service delivery system should devise interventions that will help change not only attitudes, but even people’s behaviour towards this special group and address the needs of both in and out school adolescents.

2.1 Importance of adolescent reproductive health

The health of young people has become a subject of increasing importance throughout the world. This is because of a better understanding of this age group to public health and because of changing conditions which are combined with changing patterns of behaviour. This is especially true with regard to sexual and reproductive health. The nature of reproductive health of the adolescent population is related to the sexual activity of this age group, the early age of first birth and the high incidence of STIs especially HIV. These factors combine to have an important impact on the country’s human resources for years to come. It is therefore, important to ascertain whether mechanisms are in place to provide for sound adolescent reproductive health.

The burden of reproductive health problems falls largely on female adolescents. Not only do they face problems stemming from pregnancy, with its serious health and economic ramifications, but there is evidence that older men are seeking younger girls as sexual partners (Fylkesnes et al 1995). This increases their risk of
contracting STIs and HIV which can lead to infertility and death.

Generally, the behaviour related health problems faced by adolescents are similar world wide, i.e. the high incidence of STIs and poor access to contraception. However, in the Zambian scenario, low status of women, tradition of early pregnancy and high incidence of HIV/AIDS make adolescent reproductive health complex and sensitive. In recent decades, population growth in developing countries, urbanisation, early menarche combined with delayed marriage and the decline in family authority have all given rise new patterns of sexual behaviour. Unprotected premarital sexual relations are taking place at earlier ages, and this gives rise not only to problems of early pregnancy and child bearing but also to induced abortion, STI and HIV which in turn leads to AIDS (WHO/ADH 1993).

Young people account for about 30% of the world population. According to WHO, the population of young people ages 10-24 world wide is projected to 450 million by the year 2025. The number of women in the ages of 15-19 who experience pregnancy is expected to increase by nearly 25% from 1995 to 2020 (Reproductive Health News Dec.1997). Their reproductive and sexual health needs are urgent. The annual population growth rate of 3.2% in Africa will double by the year 2025. The majority of this population is below 15 years of age (Bambra 1999).

In Zambia, 57.4% of the population are under 20 years. Adolescents account for 24% of the total population with 28% of Copperbelt’s population being made up of adolescents (CSO 1996). NASTILY reports that more new cases of STI including HIV are found in young women than in any other group, therefore adolescents urgently need to learn how to keep from becoming infected with an STI.

2.2 Adolescent Reproductive health Services
Adolescents’ knowledge of reproductive health must be accompanied with availability of and accessibility to appropriate services. To make healthy decisions about illness, it is important to see a trained reproductive service provider. Programs have identified the need to develop specialised approaches that provide youth with services that are of high quality, medically sound and safe. The foundation of initial knowledge starts at grass root level. In this situation it is the family from where
adolescents originate.

Health care providers, managers and researchers have realised that to increase young people’s utilisation of RCS, these services need to be youth friendly. Youth friendly health services are sexual and reproductive health services offered by youths to youths. These services can be provided in a health facility such as a clinic, hospital or through community outreach by peer educators. The services should include STI screening and treatment, antenatal and child care, counselling and contraceptive services for the sexually active. Regardless of the venue services must be attractive, user friendly and be able to retain young people in order to be effective.

2.3 Adolescents access to reproductive health services

Adolescence and youth are times of discovery, emerging feelings and the exploration of new behaviour and relationships. Sexual behaviour as an important part of this, can involve risks. At the same time young people get mixed messages. They are confronted with media images of sex, smoking and drinking as glamorous and risk free. They are told to be abstinent, but they exposed to the barrage of advertisements using sex to sell goods. They are often faced with double standards calling for virginity in girls and early and active sexual behaviour in boys (SAfAIDS Dec1998). One wonders who the boys will have sex with in this case.

Young people not only need but have a right to reproductive information and services. Those that are sexually active require interventions and access to a broad scope of RHS, including a range of contraceptives, screening and treatment for STI and other clinical services (Hughes&Macauley 1998, Unicef 1997).

In Burkina Faso, after 18 months of operation of reproductive health services, 12000 young people had visited the centres and many students residing in the surrounding neighbourhood came to learn and discuss reproductive health topics with centre staff and for reproductive health care. Services utilised were diagnosis and treatment of STI and contraceptive service. In contrast, young people in Senegal were reluctant to seek individual information or counselling publicly, though a few secretly requested for condoms by knocking on peer educator’s window at night. The educators believed that young people preferred services outside the neighbourhood
where privacy and confidentiality were more likely (AGI 1998).

Experts on adolescent health, many health programs practitioners and youth themselves agree that all young people need access to reproductive health information, counselling and related skills that will help them lead healthy lives.

2.4 Adolescents’ knowledge of reproductive health services
Although half the young women and men in most developing countries report that they have heard of at least one modern contraceptive method, many do not know where to get these methods or how to use them (AGI 1998). A similar finding was obtained from the CARE PLA study. They found low utilisation of sexual and reproductive health services especially among adolescents. Reasons for low utilisation were lack of knowledge about the services available (Passages Oct.1997)

A study in Tanzania on adolescent sexuality and reproductive health reveals that young people lack knowledge about sexuality despite being sexually active. The study also reveals that young people have many unmet needs (Mphangile 1997)

2.5 Legal implications of providing reproductive health services to adolescents
From the International Conference on Population and Development (ICPD) in Cairo in 1994, guidelines for providing adolescent reproductive health services were formulated. It was agreed that sex of a client shall in no way preclude adolescents from access to RHS. it was also agreed that RHS, be provided without preconceived provider biases as long as the client is of sufficient maturity to understand the implications of receiving the service. This means that an adolescent needs no consent from either parent, guardian or spouse to obtain RHS. Furthermore, it was echoed that RHS will be provided to clients irrespective of their marital status and that confidentiality shall be maintained at all times.

However, in October 1997, the Commonwealth Youth Forum endorsed the following sexual and reproductive rights for all young people world wide (SAfAIDS Dec1998).

- The right to be yourself and make your own decisions
• The right to be informed about contraception, infection control and other aspects of sexual and reproductive health

• The right to protect yourself and to be protected

• The right to health care

• The right to be responsible for your own actions

• The right to be involved in planning

In view of these rights, explicit measures to support, stimulate and strengthen natural laws, policies and programming for adolescents’ health have been adopted by WHO, UNFPA and UNICEF.

2.6 Benefits of reproductive health services

Literature available indicate that sexual health education for children and young people promotes safer sex practices and does not increase their sexual activity. This is echoed by a WHO review of programmes around the world which found that sex education does not lead to earlier or increased sexual activity, contrary to what many parents feared. The review concluded that life skills needed for responsible and safe behaviour can be learned and that good quality educational programs help delay first sex intercourse and protect sexually active young people from HIV, STIs and pregnancy (UNAIDS1998)

A study on an AIDS prevention programme among high school students in the Philippines found that though there had been little impact on condom use during sex, the programme had led to a delay in the age of first sex and increased students’ understanding of HIV/AIDS. The same trend toward postponement of first sexual intercourse is now being observed in Uganda and the USA.

The UNAIDS review found that effective programmes share certain features:-

• They have as specific aims both delayed first intercourse and protected intercourse

• They encourage the learning of life skills that help build self confidence and avoid unwanted pregnancy and sexual abuse

• They discuss clearly the results of unprotected sex and the ways to avoid it

• They reinforce group values against unsafe behaviour, both at school and in the
community (UNAIDS1998)

2.7 Barriers to use of reproductive health services

Young people find it difficult to reach youth friendly services where they can discuss questions related to sexual health or sexuality or obtain condoms and other protective devices. Counselling is rarely available, and family planning clinics are often restricted to married women and couples.

Despite young people’s need for information and services, and the availability of services in the local maternity hospital in Albania, young women said the intimidating nature of the facility and negative staff attitudes created formidable barriers to access (Gorrishti & Haffey1997). In Burkina Faso, the staff believed that the inconvenient location of the centres, failure to open on weekends and shyness of young women were barriers to use of clinical services. The lack of laboratory services for STD diagnosis further inhibited appropriate service delivery. The report further stated that young people feared ridicule, scolding or violation of confidentiality by service providers. This is echoed by AGI(1998) who found that although legal barriers sometimes limit young people’s access to services, more often than not, practices such as provider’s judgmental attitudes, inconvenient clinic hours and lack of confidentiality deter young people from seeking services. Another barrier noted was costs and geographic distances.

A survey carried out in urban areas of Zambia revealed that there were problems with adolescents service provision despite 25% of OPD clients being adolescents. The problems identified were lack of privacy, poor attitudes of staff, lack of drugs and not having opportunities to ask questions (CARE PLA1996).

On the whole social norms and environmental factors contribute to these barriers. The same conditions that limit countries’ abilities to offer health services to the entire population obviously affect their ability to serve young people

2.8 Adolescent sexuality

Sexual activity among adolescents is increasingly becoming more apparent than in earlier decades. In some instances, sexual activity has been reported as early as 10 year of age, and seems to be more in females from age 12-15 and above than males
of the same age (Ankral 1989). These activities are occurring in the midst of the HIV/AIDS pandemic and adolescents have not been spared. Studies have shown that there is a definite correlation between HIV/AIDS and other STI in direct proportional manner (Likwa 1989, Hira et al 1991). Similarly, MOH (1996) reported that 1584 HIV cases out of 36984 were aged between 15-19 (Douglas et al 1996). It is clear that youth sexuality has emerged into serious consequences of reproductive health problems requiring interventions (Likwa 1994). Educating adolescents on sexuality helps them to attain a level of maturity required to make responsible decisions about their sexual life. This knowledge will help them understand their sexuality and reproduction.

From the literature reviewed, it is evident that adolescent engage in sexual activity at a very early age. It is also evident that they have little knowledge despite being sexually active. The literature also revealed that giving information on sexuality and reproduction will delay age of first sexual intercourse. This will be of benefit especially in this era of HIV/AIDS. It is therefore important to find out to what extent adolescents use reproductive health services.
Chapter Three

3. OBJECTIVES

3.1 General Objective

To determine factors associated with utilisation of reproductive health services among adolescents in Ndola urban.

3.2 Specific Objectives

1. To determine knowledge of reproductive health among adolescents

2. To establish type of reproductive health services being provided

3. To identify source of information on reproductive health services

4. To determine the prevalence of adolescent sexuality

5. To identify factors that could influence adolescents’ utilisation of reproductive health services

6. To recommend measures to improve the utilisation of reproductive health services by adolescents.
Chapter Four

4. METHODOLOGY

4.1 Identification of variables

4.1.1 Dependent Variable

Access to and use of reproductive health services

4.1.2 Independent Variable

- Religion
- Education level
- Knowledge of reproductive health
- Policies
- Provider attitude
- Adolescent sexuality

4.2 Study design

This was a cross sectional study. It was both qualitative and quantitative in nature.

4.3 Study setting

The study was done in Ndola which is the headquarters for the Copperbelt. It is a commercial town with many industries and many big companies. It has a population of 435,237 out of which 128,775 are adolescents (census 1990). The proportion of adolescents in Zambia is 24% (DHS 1996)

There are two hospitals namely Ndola Central Hospital for adults and Arthur Davison Hospital for children. The city has 20 clinics run by the District Health Management Team (DHMT), 2 clinics run by ZCCM and 40 privately owned clinics and surgeries. In 1996, CARE International through the PALS project sensitised the communities and introduced reproductive health services for adolescents in some of the clinics run by DHMT thereafter the services were extended to all clinics.
Ndola urban has 3 types of residential areas, namely high cost, low cost and unplanned settlement. The high cost has 6 residential areas with 4500 households, low cost has 9 residential area with 40,000 households while the unplanned settlement consists of 12 residential areas with 17,030 households. Majority of the population reside in unplanned settlement (DHMT 2000).

For administrative purposes the health care delivery system is divided in 3 zones. The 3 zones are northern, central and southern. The northern zone has 7 health centres, central zone has 5 and the southern zone has 8. Adolescent reproductive health services are offered in 6 of the health centres with each zone being covered. The 3 zones serve all the residential areas. For this study residential areas were grouped into low and high density as it was difficult to demarcate between high density and unplanned settlement.

The study samples were drawn the following residential areas:

Low density: Itawa, Kansenshi, Northrise and Town centre

High density: Masala, Kabushi, Chifubu, Chipulukusu, Mushili, and Twapia.

Health centres: New Masala, Bwafwano, Lubuto and Kopa.

Southern zone Nursing Officer.

4.4 Study Population

The population was made up of adolescents in the age range 10 -19 residing in any of the selected residential areas of Ndola.

4.5 Sampling Procedures

Cluster sampling was used to select the study units. The residential areas formed the clusters from which samples were drawn. The sample size was calculated using Bennett S. et al ‘s cluster sampling formula. The residential areas were selected using simple random method which is the rotary method.
The following formula was used:-

\[
\frac{n = P(100 - P)D}{s^2} \quad \text{where } D = 1 + (b-1)\rho \quad 1 + (10-1) \times 0.2 = 2.8
\]

\[
= \frac{24(100 - 24)2.8}{5^2} = 204
\]

\[n = \text{sample size}\]
\[P = \text{proportion of adolescents}\]
\[s = \text{standard error (5% accuracy)}\]
\[D = \text{design effect}\]
\[b = \text{number of sampling units in each cluster}\]
\[\rho = \text{measure of variability between clusters.}\]

Formula for cluster size

\[c = p(1 - p)D/s \cdot b\]

The sample size estimated was 204. It should be noted that one can use the maximum possible figure of 0.9 where \(\rho\) is unknown. This would give a maximum possible sample of 663 giving a sample range of 107-663. For this study the final sample size was 202 giving a non-response rate of 1%.

4.6 Data collection and Analysis

A self administered questionnaire was used. It consisted of both open and closed ended questions. An in depth interview for the person in charge of the health facility was used. Four health facilities were selected and one nursing officer from the three zones. A check list for the health facility was used to obtain and reinforce data from the questionnaire.

Data was collected systematically between November 2000 and January 2001 using two trained research assistants. The questions were pre-coded for easy computer entry and analysis.

Data analysis was done on Spss version 6.1 by calculating frequencies, values of dispersion, central tendency as well as testing significance using Chi-square values.
4.7 Ethical Consideration

Permission to conduct the study was sought from the Research and Ethics Committee of the University of Zambia School of Medicine and Ndola District Health Management Team. Lastly, but not the least, participation in the study was voluntary after explaining the purpose of the study.

4.8 Limitations of the study

Sensitivity of some of the questions affected the interview process leading to respondents not expressing themselves explicitly even though confidentiality was assured. The other limitation was financial so much so that study units could have been increased to give a better picture of reproductive health services.
Chapter five

5. PRESENTATION OF FINDINGS

This chapter is a presentation of findings as obtained from the field and is divided in the following sections: Demographic data, analysis of specific variables and analysis of health facility in charge responses and checklist.

Demographic data

Age: was significantly associated with utilisation of RHS (p = 0.004) as shown in Table 1. Younger adolescents tended to use RHS less compared to older adolescents.

Sex: Most of the study subjects were female 121 (59.9%) with 81 (40.1%) male. There was no association between sex and use of RHS (p = 0.343).

Education: Most of the respondents 123 (60.9%) had secondary level of education and also included the majority of the users of RHS (63.3%).

Religion: A large proportion of those who had used RHS were Protestants (51.4%), followed by Catholics (29.4%), and other religions (19.3%).

Residential location: The proportion of utilisation of RHS between the two residential areas was: high density (67.9%) and low density (32.1%).
Table 1: Socio-demographic characteristics of users and non-users of RHS

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>USED</th>
<th>NOT USED</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total = 109 n (%)</td>
<td>Total =93 n (%)</td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 - 16</td>
<td>22 (20.2)</td>
<td>36 (38.7)</td>
<td>0.004</td>
</tr>
<tr>
<td>17 - 19</td>
<td>87 (79.8)</td>
<td>57 (61.3)</td>
<td></td>
</tr>
<tr>
<td>SEX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47 (43.1)</td>
<td>34 (36.6)</td>
<td>0.343</td>
</tr>
<tr>
<td>Female</td>
<td>62 (56.9)</td>
<td>59 (63.4)</td>
<td></td>
</tr>
<tr>
<td>EDUCATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>25 (22.9)</td>
<td>34 (36.6)</td>
<td>0.031</td>
</tr>
<tr>
<td>Secondary</td>
<td>69 (63.3)</td>
<td>54 (58.1)</td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>15 (13.8)</td>
<td>5 (5.4)</td>
<td></td>
</tr>
<tr>
<td>DENOMINATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholics</td>
<td>32 (29.4)</td>
<td>18 (19.4)</td>
<td>0.258</td>
</tr>
<tr>
<td>Protestants</td>
<td>56 (51.4)</td>
<td>55 (59.1)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>21 (19.3)</td>
<td>20 (21.5)</td>
<td></td>
</tr>
<tr>
<td>RESIDENCE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High density</td>
<td>74 (67.9)</td>
<td>52 (55.9)</td>
<td>0.079</td>
</tr>
<tr>
<td>Low density</td>
<td>35 (32.1)</td>
<td>41 (44.1)</td>
<td></td>
</tr>
</tbody>
</table>
Analysis of specific variables

Reproductive health /reproductive health problems: Most of the respondents 166 (82.2%) could not define reproductive health and only 15 (7.4%) gave the correct definition. However, utilisation of RHS was not associated with knowledge ($\chi^2 = 2.84$ df = 1 $P = 0.092$) as shown in Table 2.

Table 2: Knowledge of reproductive health by utilisation

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Used   n (%)</th>
<th>Not used n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No knowledge</td>
<td>85 (78.0)</td>
<td>81 (87.1)</td>
<td>166 (82.2)</td>
</tr>
<tr>
<td>Knowledgeable</td>
<td>24 (22.0)</td>
<td>12 (12.9)</td>
<td>15 (7.4)</td>
</tr>
<tr>
<td>Total</td>
<td>109 (100)</td>
<td>93 (100)</td>
<td>202 (100)</td>
</tr>
</tbody>
</table>

Table 3: Knowledge of reproductive health problems by utilisation

<table>
<thead>
<tr>
<th>Knowledge of RH problems</th>
<th>Used n (%)</th>
<th>Not used n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No knowledge</td>
<td>30 (27.5)</td>
<td>35 (37.6)</td>
<td>65 (32.2)</td>
</tr>
<tr>
<td>Knowledgeable</td>
<td>79 (72.5)</td>
<td>58 (62.4)</td>
<td>137 (67.8)</td>
</tr>
<tr>
<td>Total</td>
<td>109 (100)</td>
<td>93 (100)</td>
<td>202 (100)</td>
</tr>
</tbody>
</table>

Table 3 shows that about two thirds of the study subjects (67.8%) were able to mention the common reproductive health problems among adolescents. Few (32.2%) cited non reproductive health problems of whom the majority (37.6%) had not used RHS. Knowledge of reproductive health problems was not associated with utilisation ($\chi^2 = 2.35$ df = 1 $p = 0.125$)
Reproductive Health services:

Table 4: Services available by utilisation

<table>
<thead>
<tr>
<th>Services available</th>
<th>Used n (%)</th>
<th>Not used n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP/STI</td>
<td>35 (32.1)</td>
<td>40 (43)</td>
<td>75 (37.1)</td>
</tr>
<tr>
<td>FP/STI/YFS</td>
<td>29 (26.6)</td>
<td>31 (33.3)</td>
<td>60 (29.7)</td>
</tr>
<tr>
<td>FP/STI/YFS/VCT</td>
<td>45 (41.3)</td>
<td>22 (23.7)</td>
<td>67 (33.2)</td>
</tr>
<tr>
<td>Total</td>
<td>109 (100)</td>
<td>93 (100)</td>
<td>202 (100)</td>
</tr>
</tbody>
</table>

All the respondents had services for family planning and sexually transmitted infections within their locality with the majority of those who had used RHS having accessed youth friendly services and voluntary counselling and testing (41.3%). On the contrary, most of those who have not used RHS (43%) had accessed family planning and sexually transmitted infections only. (Table 4)

Table 5: Source of information by utilisation

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Used n (%)</th>
<th>Not used n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>21 (19.3)</td>
<td>37 (39.8)</td>
<td>58 (28.7)</td>
</tr>
<tr>
<td>School</td>
<td>28 (25.7)</td>
<td>31 (33.3)</td>
<td>59 (29.2)</td>
</tr>
<tr>
<td>Peer educator</td>
<td>56 (51.4)</td>
<td>21 (22.6)</td>
<td>77 (38.1)</td>
</tr>
<tr>
<td>Health worker</td>
<td>4 (3.7)</td>
<td>4 (4.3)</td>
<td>8 (4)</td>
</tr>
<tr>
<td>Total</td>
<td>109 (100)</td>
<td>93 (100)</td>
<td>202 (100)</td>
</tr>
</tbody>
</table>

Major source of information among users (51.4%) was peer educator whereas for non-users (39.8%) it was the media (p<0.001) as shown in Table 5.

Most adolescents who had used reproductive health services were attended to by nurses (49.6%). The reasons given for non utilisation of RHS by respondents were: not being sexually active and having no infections. This implies that adolescents
seek services when they have a problem. However, a large proportion of those who had used the services (94.5%) said the provider’s attitude was friendly. The services utilised most was family planning (43.1%).

Table 6: Requisite for RHS as perceived by adolescents by utilisation

<table>
<thead>
<tr>
<th>Requisite for RHS</th>
<th>Used</th>
<th>Not used</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consent</td>
<td>56 (51.4%)</td>
<td>54 (58.1%)</td>
<td>110 (54.5%)</td>
</tr>
<tr>
<td>Too young</td>
<td>10 (9.2%)</td>
<td>17 (18.3%)</td>
<td>27 (13.4%)</td>
</tr>
<tr>
<td>By appointment</td>
<td>30 (27.5%)</td>
<td>12 (12.9%)</td>
<td>42 (20.8%)</td>
</tr>
<tr>
<td>None</td>
<td>13 (11.9%)</td>
<td>10 (10.8%)</td>
<td>23 (11.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>109 (100%)</td>
<td>93 (100%)</td>
<td>202 (100%)</td>
</tr>
</tbody>
</table>

The majority (88.7%) of the study subjects felt that RHS were restrictive in terms of age and marital status. Table 6 shows that 51.4% and 58.1% of both who used and not used thought one requires a consent with 9.2% and 18.3% respectively saying they would be told that they were too young for the service (p = 0.033)
**Adolescent sexuality:**

The following analysis is for the selected characteristic of only those who have had an experience of sexual intercourse in relation to utilisation of reproductive health services.

**Table 7: Demographic factors and utilisation**

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>USED</th>
<th>NOT USED</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total = 82</td>
<td>Total = 42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-16 early adolescence</td>
<td>14 (17.1)</td>
<td>15 (34.1)</td>
<td>0.031</td>
</tr>
<tr>
<td>17-19 late adolescence</td>
<td>68 (82.9)</td>
<td>29 (65.9)</td>
<td></td>
</tr>
<tr>
<td><strong>SEX</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>37 (45.1)</td>
<td>14 (31.8)</td>
<td>0.147</td>
</tr>
<tr>
<td>Female</td>
<td>45 (54.9)</td>
<td>30 (68.2)</td>
<td></td>
</tr>
<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>23 (28.0)</td>
<td>23 (52.3)</td>
<td>0.016</td>
</tr>
<tr>
<td>Secondary</td>
<td>51 (62.2)</td>
<td>20 (45.5)</td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>8 (9.8)</td>
<td>1 (2.2)</td>
<td></td>
</tr>
<tr>
<td><strong>DENOMINATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholics</td>
<td>26 (31.7)</td>
<td>11 (25.0)</td>
<td>0.712</td>
</tr>
<tr>
<td>Protestants</td>
<td>42 (51.2)</td>
<td>24 (54.5)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>14 (17.1)</td>
<td>9 (20.5)</td>
<td></td>
</tr>
<tr>
<td><strong>RESIDENCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low density</td>
<td>22 (26.8)</td>
<td>14 (31.8)</td>
<td>0.555</td>
</tr>
<tr>
<td>High density</td>
<td>60 (73.2)</td>
<td>30 (68.2)</td>
<td></td>
</tr>
</tbody>
</table>

Most of the respondents 97 (77%) who were sexually active were aged between 17 and 19. Utilisation and sexuality was associated with age (p = 0.031). Older
adolescents used RHS more than the younger ones as shown in Table 7.

Majority of the sexually active adolescents who had used the services had secondary level of education 51(62.2%) whereas among non users over half 23 (52.3%) had primary level education. Education was associated with utilisation (P = 0.016). However, residential area did not affect utilisation of RHS, even though most 90 (71.4%) of the sexually active adolescents reside in high density areas (Table 7).

<table>
<thead>
<tr>
<th>Knowledge level</th>
<th>Used n (%)</th>
<th>Not used n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Knowledge</td>
<td>18 (22.0)</td>
<td>16 (36.4)</td>
<td>34 (27.0)</td>
</tr>
<tr>
<td>Knowledgeable</td>
<td>64 (78.0)</td>
<td>28 (63.4)</td>
<td>92 (73.0)</td>
</tr>
<tr>
<td>Total</td>
<td>64 (100)</td>
<td>44 (100)</td>
<td>126 (100)</td>
</tr>
</tbody>
</table>

The Table (8) is about an association between knowledge of RHS and utilisation of RHS. Respondents with no knowledge were less likely to have used RHS.

<table>
<thead>
<tr>
<th>Reasons for sex</th>
<th>Used n (%)</th>
<th>Not used n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curiosity</td>
<td>18 (22.0)</td>
<td>9 (20.5)</td>
<td>27 (21.4)</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>50 (61.0)</td>
<td>18 (40.9)</td>
<td>68 (54.0)</td>
</tr>
<tr>
<td>Raped</td>
<td>2 (2.4)</td>
<td>10 (22.7)</td>
<td>12 (9.5)</td>
</tr>
<tr>
<td>Marriage</td>
<td>12 (14.6)</td>
<td>7 (15.9)</td>
<td>19 (15.1)</td>
</tr>
<tr>
<td>Total</td>
<td>82 (100)</td>
<td>44 (100)</td>
<td>126 (100)</td>
</tr>
</tbody>
</table>

Majority 68(54%) of the respondents gave peer pressure as the reason for engaging
into sex and out of these 50 (61%) had used RHS with few 12 (9.5%) citing rape. Out of those who were raped, most of them 10 (22.7%) had not used RHS (p= 0.002) as shown in table 9.

Table 10: Number of sex partner by utilisation

<table>
<thead>
<tr>
<th>Sex partners</th>
<th>Used n (%)</th>
<th>Not used n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>38 (46.3)</td>
<td>22 (50.0)</td>
<td>60 (47.6)</td>
</tr>
<tr>
<td>Multiple</td>
<td>44 (53.7)</td>
<td>22 (50.0)</td>
<td>66 (52.4)</td>
</tr>
<tr>
<td>Total</td>
<td>82 (100)</td>
<td>44 (100)</td>
<td>126 (100)</td>
</tr>
</tbody>
</table>

About half 66 (52.4%) of the adolescents had multiple sex partners with 44 (53.7%) of them utilising RHS (Table 10). However, number of sex partners was not associated with utilisation of RHS ( p = 0.695).
Multi variant analysis

All factors that were significant on bivariate analysis at 5% were considered in the logistic regression model to control for confounding. Variables considered were age, education and circumstances into sex. There was some evidence (p=0.057) to suggest that circumstances into sex was associated with utilisation.

Table 11: Circumstances into sex and Utilisation

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>95% CI</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circumstances into sex</td>
<td></td>
<td></td>
<td>0.057</td>
</tr>
<tr>
<td>Curiosity</td>
<td>1.71</td>
<td>0.44, 6.63</td>
<td></td>
</tr>
<tr>
<td>Peer pressure</td>
<td>2.05</td>
<td>0.60, 6.95</td>
<td></td>
</tr>
<tr>
<td>Rape</td>
<td>0.17</td>
<td>0.03, 1.11</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Those who cited curiosity were 1.7 times more likely to engage into sex while those who gave peer pressure were 2 times more likely to engage into sex where as those who were raped 0.1 less likely to engage into onto sex as compared to those who were married.

Table 12: Suggestions on other reproductive health services to be provided.

<table>
<thead>
<tr>
<th>Suggestions</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCT</td>
<td>26</td>
<td>12.9</td>
</tr>
<tr>
<td>Pregnancy testing</td>
<td>12</td>
<td>5.9</td>
</tr>
<tr>
<td>Outreach activities</td>
<td>51</td>
<td>25.2</td>
</tr>
<tr>
<td>Counselling</td>
<td>23</td>
<td>11.4</td>
</tr>
<tr>
<td>Other</td>
<td>90</td>
<td>44.6</td>
</tr>
</tbody>
</table>

The majority 90 (44.6%) of respondents gave various suggestions on RHS such as improve staff attitudes, consider problem of drugs among youths and dealing with masturbation. About a quarter 51 (25.2%) called for intensified out reach activities, 26 (12.9%) suggested Voluntary counselling & Testing in most centres and 23 (11.4%) advocated for counselling in general.
Health care providers

From the interviews with in charges at 4 Youth Friendly services it was clear that not all health facilities had youth friendly services. Only 2 health centres had active YFS and at these centres youths utilised both preventive and curative services. Equally, VCT services were available at 2 centres only so were MTCT services. It was clear that a lot of peer educators had been trained in the district, with the southern zone having 20. This finding agrees with those from adolescents whose major source of information on RHS was a peer educator. However, those interviewed suggested that there was need to train more staff and peer educators in reproductive health since the main focus were STI and HIV/AIDS only.

An assessment of the health facilities reviewed that adolescents utilised the following services more:- family planning and STI. The check list also revealed that most of them sought services when they had a problem unlike to obtain information on how to prevent the infections. Both the interview and the checklist reviewed that there were no guidelines on provision of adolescent reproductive health services. This led to some adolescents being sent away.
Chapter six

DISCUSSION

The discussion will be presented under the following subheadings:- demographic data, knowledge of reproductive health as regards definition and reproductive health problems, reproductive health services (available services, source of information and policies) , and adolescent sexuality.

Demography

Age: Results from the study show a mean age of 17.4 (sd.1.59) in a population of adolescents aged 10-19. Most of the study units were in their late adolescence aged between 17 and 19 and of these 59.9% were female. This age group was preferred because they are the most vulnerable to reproductive health problems. This finding was important because adolescent sexuality levels are high and increase with age at first sexual contact between 14 and 15 years of age in females (Ankral 1989). There was a high response rate, suggesting that adolescents are always ready to listen and willing to participate.

Education: Majority of the study subjects had attained secondary school education. In relation to utilisation of reproductive health services those with higher education were found to use the services more that those with lower education. This is helpful for understanding reproductive health policies and their implications.

Denomination: Respondents were overwhelmingly Christian with other religions (Muslims, Eckanker and others) making up a very small proportion of the study units. It is a known fact that most religions, Catholics in particular do not encourage use of reproductive health services. This is viewed as encouraging premarital sex. However, the findings revealed that this trend may be changing since over half of the adolescents from Christian fraternity have used RHS. This may indicate that despite their religious background adolescents are beginning to appreciate the importance of reproductive health services.

Residential area: Over half of the respondents reside in high density areas and most (67.9%) of those who had used RHS were from these areas too. For non users the
ratio between the two residential areas was almost 1:1. This could be attributed to the fact the facilities with youth friendly services are located in high density areas and therefore more accessible to adolescents residing there or nearby.

This study reveals that utilisation of RHS increases with increasing age and education. This is a reflection the education syllabus were topics of reproduction are taught in higher grades as opposed to lower grades. It follows that health education campaigns on reproductive health should be targeted at the younger adolescents if problems of reproductive health are to be reduced.

On the other hand residence seemed to affect knowledge of reproductive health services, source of information and sexuality. If one resided in high density area, they are more likely to engage in sex and know services available and utilise peer educators more. This suggests that involvement of communities in intervention methods could reduce some of the problems affecting the youth especially if high density residential areas are targeted. This finding is similar to that in other studies (Likwa 1996).

Reproductive health

The study revealed that majority of the respondents could not define reproductive health (82.2%). The level of knowledge was generally poor for both users (78%) and non users (87.1%) of RHS. These findings support other studies which found that young people lack knowledge on sexuality despite being sexually active (Mphangile 1997). However, knowledge of reproductive health problems was quite high (67.8%). This knowledge does not correlate with that of reproductive health. With this trend of inadequate knowledge, adolescents are less likely to recognise risk behaviours within themselves that predispose to sexually transmitted infections, HIV and early pregnancies.

According to in charges interviewed there is more emphasis on reproductive health problems than what reproductive health, implying that health workers do not know what reproductive health is. This finding could be exploited further to find out the level of knowledge the health care workers have on reproductive health. It can be a focus for re training of care givers in issues of reproductive health.
The findings in this study have shown that the overall knowledge of reproductive health services available at the nearest health facility was high. The main source of information on services available were peer educators, followed by school and the least was the health worker. Health care providers too mentioned that peer educators are consulted more than other health workers. This shows a positive impact that peers have on their fellow peers.

To increase young people's utilisation of RHS, services need to be youth friendly. The study further revealed that over half of the study subjects (62.9%) had access to youth friendly services within their locality. The widely known available services are for family planning and sexually transmitted infections. This finding contradicts other studies where it was reported that adolescents lack knowledge on reproductive health services available (AGI 1998, Passages 1997).

The study revealed that most of the adolescents who had used RHS, came for family planning and sexually transmitted infections services. For those who have not used RHS, reasons cited include not having an STI and not being sexually active. From the checklist on selected health facilities it is clear that there is more of curative than preventive health care being given. This suggests that there is need to re focus on preventive measures.

Majority (88.6%) of the adolescents felt that to obtain RHS one needs a consent from either parent or spouse, make an appointment or be of a certain age. This finding suggests that adolescents are not aware of their reproductive health rights. (That is, right to information and care regardless of sex, age or marital status). This can be a deterrent to obtaining services. From the interviews with health care providers, it was clear that they have no policies on providing reproductive health. In view of this it is necessary to make available the reproductive health policy document to all stakeholders.

**Sexuality**

Traditionally teenage sexuality and early child bearing were encouraged and embedded in socially approved relationships such as marriage. However this is not the case now. WHO defines an adolescent as one aged between 10 and 19 and reproductive age group as 15 - 45. This definition shifts the target leaving the below
10 year olds as if they were not sexually active. One would therefore agree with the definition in a study done in Lusaka where an adolescent was defined any one who has commenced having penetrative sexual intercourse (Chikotola et al 1996).

This study has shown that by age 9 some have already engaged in sexual activity (3%), this frequency increases with age and education. Over half (62.4%) of the respondents were sexually active with the mean age being 15.3. This figure has not changed from that found by sexual behaviour survey (1998). Those with secondary education are more sexually active. This confirms the finding by Feldman et al (1997) that, most Zambian adolescents in secondary school are already sexually active.

Over half of them have multiple sexual partners therefore more vulnerable to STI and HIV/AIDS and most of them (73.5%) gave peer pressure as the reason for indulging in sex. Peer pressure has been cited for alcohol abuse and engaging in sexual activity (Feldman et al 1997). However, there were few who gave rape as a reason for having had sex. Those who were raped were also less likely to use RHS (OR 0.17 95% CI 0.03-1.11) whereas being married increased the likelihood of utilising RHS (OR 4.29 CI 0.38-47.63). This shows that adolescents especially those below the age of 9 are vulnerable to sexual abuse.

This social and economic pressure for adolescents to become sexually active at an early age places them in one of the highest at risk groups for HIV infection. The findings are similar to projections made in other studies (CBoH 1999) explaining that teens are getting infected with HIV more often than before. In addition, prevalence of unplanned pregnancies in teens and STIs is on the increase (Likwa 1996) and 80% of Zambian patients with induced abortion related complications admitted to hospital are under age 19 (Feldman et al 1997). Therefore there exists a risky sexual behaviour among adolescents which involves young ones such as 9 year olds.

Educating adolescents on sexuality helps them to attain a level of maturity required to make responsible discussions about their sexual life. This knowledge will help them understand their sexuality and reproduction.
Chapter seven

7.1 CONCLUSION

In general there exists a knowledge gap of reproductive health and reproductive health services among adolescents. This gap has affected the use of reproductive health services. From the study it is clear that adolescents associate RHS with being sexually active. Since adolescents are the most vulnerable, the response should come in form of comprehensive sexual reproductive health programmes for both the in and out of school adolescents.

It is also apparent that changing the sexual behaviour of adolescents is one way of reversing the adverse trends, such as STI transmission, unwanted pregnancy and poor general reproductive health. The study has also shown that peer influence can yield better results in solving some of these problems. Therefore, there is need to use more peer educators in matters of reproductive health if the services are to be utilised to the fullest. The study has shown that factors such as age, education and policies may predict adolescent utilisation of reproductive health services.

These factors should be considered each time RHS is being implemented for adolescents. Despite few health facilities offering youth friendly services, adolescents would use the services if they had adequate knowledge, services accessible and are motivated by the health care providers. Lastly but not the least, the low levels of knowledge on reproductive seem to occur in direct proportion with availability of youth friendly services in health centres. This suggests that the initial steps may be to revive school health services so as provide health education among school going adolescents and out reach activities for the out of school adolescents.

Intervention efforts must begin now aiming at primary school pupils before they enter the risky age group of 10 upwards. Such efforts would only be successful if peers and teachers are involved since they provide the bulk of reproductive health related information as revealed in the study. These should include health education with alot of input from teachers and parents, as well as the use of art and drama as suggested by Feldman (Feldman 1997).
7.2 RECOMMENDATIONS

Retraining of service providers in issues of adolescent reproductive health is required to successfully serve needs of the youth. The training should target health providers from both government and private sector.

Adolescents still need more information on reproductive health services available if they are to use them effectively. Motivational campaigns, I.E.C activities, school and community programmes can be used to increase adolescents involvement in reproductive health. Adolescent - involvement initiatives should be reinforced by peer education, media and school which appear to be the commonest source of information.

There is need to extend the current youth friendly services to all health facility so that adolescents from all residential areas can access them with ease. This will entail training of more peer educators so that each facility is served. In view of this the issue of attrition of peer educators should be addressed as well.

Counselling and health education services should be made available in all schools. These should target young people before the age of 10. This means the teachers and parents must be equipped with the necessary knowledge. There is need to formulate and support youth friendly policies that will encourage promotion of reproductive health education programs.

Program managers, service providers, teachers and adolescents need strong advocacy training to enable them to advocate for and propagate adolescent reproductive health in their respective communities.

Reproductive health guidelines to be made available to all stake holders.
REFERENCES


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Appendix 1

INFORMED CONSENT

Dear Participant,

I am here to conduct a research on Adolescent Reproductive Health Services. Reproductive Health Services are designed to provide information, counselling, screening and treatment for common reproductive health problems such as STI, HIV/AIDS, Pregnancy and Contraceptives, etc.

Data is required from you concerning knowledge, availability and accessibility of these services to adolescents. The objective of the study is to determine how adolescents access and use Reproductive health services in Ndola urban. Please be reminded that:-

1. Participation in this study is voluntary and you are free to withdraw at any stage of the interview if you so wish.
2. All information given will be confidential.
3. The information you give will be used by Policy makers and Planners of adolescent reproductive health programmes to improve health services. Benefits to the participants are long term.

I ______________________ hereby called participant understand the guidelines of this study and that I'm willing to be interviewed. I hereby consent to participation.

Dated this __________ day of __________________ year ______________

Signed ___________________________ Signed ___________________________
Participant Interviewer
1. Age at last birthday ______________________

2. Sex
   1. Male
   2. Female

3. Place of Residence _______________________

4. Who do you reside with?
   1. Parents
   2. Husband/Wife
   3. Boyfriend/Girlfriend
   4. Relatives(specify) ___________________

5. Educational Status
   1. Never been to school
   2. Primary Education
   3. Secondary Education
   4. College/University

6. Denomination
   1. Roman Catholic
   2. Seventh Day Adventist
   3. UCZ
   4. Pentecostal
   5. Other specify_____________________

7. What is meant by reproductive health
   _______________________________________

8. Do adolescents your age have reproductive health problems?
   1. Yes
   2. No >>>>Q10

9. If Yes, what are their reproductive health problems(Tick all that apply)
   1. Abortion/Pregnancy
   2. Sexually Transmitted Diseases (STI/STD)
   3. HIV
   4. Dropping out of school
   5. Other specify_____________________

10. What reproductive health services are offered at your nearest Clinic (Tick all that apply)
    1. STI Screening
    2. STI Treatment
    3. Pregnancy testing
    4. Contraceptive Counselling and distribution
    5. Other specify_____________________

40
11. How did you know about these services?
   1. Media
   2. School
   3. Peer Educator
   4. Other specify ________________________________

12. Have you ever utilised Reproductive health services at any Clinic?
   1. Yes
   2. No (explain) ________________________________

13. If yes what services have you utilised? (Tick all that apply)
   1. Contraceptive Counselling
   2. Contraceptive Purchasing
   3. STI Screening
   4. STI Treatment
   5. Other specify ________________________________

14. Which Provider attended to you
   1. Doctor
   2. Nurse
   3. Peer Educator
   4. Other specify ________________________________

15. How was reception by the health care provider
   1. Friendly
   2. Not Friendly
   3. Other specify ________________________________

16. Did the provider ask if you had any questions
   1. Yes
   2. No

17. Did the provider respond to your questions
   1. Yes
   2. No

18. How much information were you given on the following
    0 = None  1 = Minimum  2 = Moderate  3 = Extensive
    1. Family Planning Methods ______
    2. HIV/AIDS ______
    3. STI ______
    4. Pregnancy ______
    5. Other Specify ______

19. How was the provider's explanations?
   1. Easy to understand
   2. Difficult to understand
   3. Don't know
20. Did the provider say or do anything that made you feel uncomfortable
   1. Yes
   2. No

21. Where did you meet with the provider?
   1. In the Office
   2. Waiting room
   3. Other Specify __________________________

22. Was there anyone else present in the room apart from the provider
   1. Yes
   2. No

23. Did the presence of another person affect you in any way
   1. Yes (Explain)________________________________________
   2. No

24. Do you trust the information shared is going to kept confidential
   1. Yes
   2. No

25. What do you think of the time spent with the provider
   1. Too short
   2. Too long
   3. About the right time
   4. Don't know

26. If you went to the Clinic for reproductive health services, what would the
    provider say to you
   1. Get parent consent for any service
   2. Get spousal consent
   3. Too young to receive any service
   4. Make another appointment before receiving a service
   5. Other Specify _______________________________________

27. Are there any educational materials on Reproductive Health available in the
    waiting room
   1. Yes
   2. No >>>>Q29

28. What topics do the materials cover?
   1. Pregnancy
   2. STI
   3. HIV/AIDS
   4. Family Planning methods
   5. Other specify _______________________________________

29. Have you ever had an experience of sexual intercourse
   1. Yes
   2. No
30. Indicate age at first sexual intercourse __________________

31. What circumstances led you into sexual intercourse
   1. Curiosity
   2. Peer Pressure
   3. Finance
   4. Raped
   5. Other specify __________________________

32. How many partners have you had sexual intercourse with
   1. 1
   2. 2
   3. 3
   4. More than 3

33. What other reproductive health services would like to be offered at the Clinic

_______________________________________
_______________________________________

34. What comments would you make on the current Reproductive Health Services

_______________________________________
_______________________________________

THANK YOU FOR PARTICIPATING IN THIS STUDY
Appendix 3
IN DEPTH INTERVIEW GUIDE FOR MANAGERS OF HEALTH FACILITIES
STUDY TITLE: ADOLESCENTS ACCESS AND USE OF REPRODUCTIVE HEALTH SERVICES

Name of facility _______________________
Person interviewed ____________________

1. What is meant by reproductive health ________________________________

2. What type of reproductive health services are offered at this facility
   1. ________________________________
   2. ________________________________
   3. ________________________________
   4. ________________________________
   5. ________________________________

3. How many days per week are reproductive health services offered ________________________________

4. Is the facility close to any primary or secondary school ________________________________

5. Does the have separate rooms to provide reproductive health services to adolescents ________________________________

6. How do you ensure privacy for your clients ________________________________

7. What materials on reproductive health are displayed in the waiting room
   1. Nutrition
   2. STD diagnosis and treatment
   3. Family planning
   4. Vitamin A
   5. Immunisations
   6. Other specify

8. Do you have guidelines for providing reproductive health services
   1. Yes
   2. No

9. Are adolescents mentioned in any of the reproductive health guidelines
   1. Yes
   2. No
10. Who provides reproductive health services to adolescents
   1. Nurses
   2. Clinical officers
   3. Peer educator
   4. Other specify ________________________

11. Who do adolescents consult most on reproductive health
   1. Nurses
   2. Clinical officers
   3. Peer educators
   4. Other specify ________________________

12. How much time do providers spend with adolescent clients
   1. Less than 5 minutes
   2. 5-10 minutes
   3. 11-15 minutes
   4. More than 15 minutes

13. Have any of the providers been trained in reproductive health
   1. Yes
   2. No

14. What reproductive health services require informed consent
   1. ________________________
   2. ________________________
   3. ________________________
   4. ________________________

15. How many peer educators/counsellors are available at this facility
    ________________________

16. Are there out reach activities done to promote reproductive health to adolescents in the community?
   1. Yes
   2. No

17. For what services are out reach activities carried out
   1. ________________________
   2. ________________________
   3. ________________________
   4. ________________________

18. Comments/suggestions on reproductive health services for adolescents
Appendix 4

HEALTH FACILITY CHECKLIST

1. How many types of reproductive health services did youths receive in the last 12 months

1. _______________________________________
2. _______________________________________
3. _______________________________________
4. _______________________________________
5. _______________________________________
6. _______________________________________

2. Which of the services are received more than others

1. _______________________________________
2. _______________________________________
3. _______________________________________
4. _______________________________________
5. _______________________________________

3. How many services are referred for

1. _______________________________________
2. _______________________________________
3. _______________________________________

4. What reproductive health services are not offered at this facility

1. _______________________________________
2. _______________________________________
3. _______________________________________

5. What is the proportion of adolescents receiving reproductive health services

1. Boys _____________________________________
2. Girls _____________________________________

6. What education materials are in the waiting room/room for reproductive health services

1. _______________________________________
2. _______________________________________
3. _______________________________________
4. _______________________________________