SEXUAL BEHAVIOUR AND KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS INCLUDING HIV/AIDS AMONG IN SCHOOL AND OUT OF SCHOOL ADOLESCENTS KUMBOTSO LOCAL GOVERNMENT AREA, KANO STATE

BY

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DECLARATION

This research work "sexual behaviours and knowledge of sexually transmitted infection including HIV/AIDS among in school and out of school adolescents in Kumbotso local government areas, Kano state" was done by me Dr. Isa Suleiman Abubakar under adequate supervision of Dr. Adamu Shehu Senior Lecturer and Former Head of Department of Community Medicine of Ahmadu Bello University Zaria in the year 2008. It has not been presented in any previous application for higher degree nor has it been submitted else where for publication. I declare that all the original ideas by me are reflected in this work along side other people previous efforts in the related area with adequate recognition and declaration of such references.

_____ _____

Abubakar Isa Suleiman **Date**

CERTIFICATION

This thesis entitled "SEXUAL BEHAVIOUR AND KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS INCLUDING HIV/AIDS AMONG IN SCHOOL AND OUT OF SCHOOL ADOLESCENTS KUMBOTSO LOCAL GOVERNMENT AREA, KANO STATE" by ABUBAKAR Isa Suleiman meets the regulations governing the award of the degree of Master in Public Health of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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ABSTRACT

Background: Interest in the reproductive health of adolescents continues to grow through the world. Few studies had explored the issue on sexual behaviour and knowledge of STD among in- school and out of school adolescents in northern Nigeria. The objective of this descriptive survey were to collect data to plan appropriate interventions

Method: A baseline questionnaire was administered to systematic sample of 226 in-schools (boys and girls) from 2 schools and out of school (boys and girls) from the street within the area of the studies. Self administered questionnaire were used for the in-school adolescents while interviewers administered questionnaire were used for the out of school adolescents. Data collected on demographic profile, sexual behaviour and knowledge of sexually transmitted disease including HIV/AIDS.

Result: Majority of the respondents attributed premarital sex to influence of erotic film from TV, video and cinemas, while majority of their out of school counterparts attributed it to peer group influence. There attitude toward sexuality were positive. The higher the level of knowledge of HIV/AIDS of the teenage respondents the more positive attitude to premarital sex, prostitution and multiple sexual partners and sex education. The out of school respondents were found to be more sexually active, have earlier sexual exposure and there is low and infrequent use of condom among sexually active ones. Their general knowledge of STD/HIV/AIDS is not only hazy and inadequate but also shrouded in misconceptions and strong emotion. The mean age of the respondent was 15.8 yrs there were slightly more males 52.4% than female 47.6%, 6.2% of the entire student have sexual experience 8.9% of in school and 17.4% of out of school respondents have had

sexual experiences. Among the sexually active respondents 31% of them have multiple sexual partners while only 2.2% of the overall sexually active boys and girls uses condom.

Conclusion: The study reveals an adolescents population that is vulnerable and at increase risk of STDs/HIV infection as a result of their sexual behaviours and knowledge.

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CHAPTER ONE

INTRODUCTION

Adolescents have been defined by the world health organization as been the ages of between 10 and 19 years and are at this period they encounter various physiological and psychological issues. A successful journey through adolescence requires passage through many different stages including psychological, cognitive and physiological ones. An integral aspect of these stages is the development of the adolescence as a sexual being.[1]
A major issue concern arises from premarital sexual activities among young people that are the possibility of contracting sexually transmitted diseases, including the deadly pandemic disease of this time – human immuno – deficiency virus (HIV).

Developing strategies to address the reproductive health needs and concerns of the adolescents in Nigeria poses a major public health challenge. One of the factors contributing to this challenge is the sheer size of the adolescent population in the country. Adolescents account for a significant proportion (20%) of Nigeria's population of 140 million.[2] The second challenge is that a significant proportion of the Nigerian adolescents engage in risky practices including unprotected sex with multiple partners For example, in a study conducted at Ile-Ife South Western Nigeria on male adolescents aged 15-19 years and found that 76% of the secondary school youths had been sexually active within the past 12 months, 5% with prostitutes and 56% with more than one partner, but that only 8% had used a condom during that year.[3] Consequently, adolescents and other young adults account for a high proportion of sexually transmitted diseases (STD) including human immunodeficiency virus (HIV) in the country.[4] In another study of patients attending an STD clinic in Ibadan, it was found that the peak prevalence (65%)

of HIV infection was among those aged 21-30 years, most of who were probably infected during adolescence, persons aged less than 24 years accounted for 10% of all HIV infections compared to 5.4% for adults.[5]

Individuals researchers and non-govern-mental youth serving organizations (YSO) have responded to these challenges by implementing several reproductive health promotion programs to increase adolescents' knowledge of reproduction, HIV/AIDS and influence risky sexual behaviors targeting in-school and out-of school adolescents.[6,7] Despite these efforts, the reproductive health needs of the majority of adolescents remain neglected because these programs have been implemented on a small scale, are of limited duration, and are concentrated in urban areas, even though the majority of adolescents live in rural communities.

Although schools are important potential sources of reproductive health education for adolescents, these institutions have not reached their full potential because the Nigerian government has not yet formally introduced reproductive health education into existing curricula. As a result, all school-based reproductive health programs have utilized an extra-curricular approach including peer education in which trained students inform, counsel, and distribute non-prescriptive contraceptives to their colleagues. Other school-based programs have trained teachers who deliver reproductive health education including HIV/AIDS prevention as part of extra-curricula activities in schools.

Glossary

a. Knowledge

Knowledge definition

- Clear awareness or explicit information about something or in-depth awareness.

Knowledge of STD/HIV/AIDS

Complete knowledge of HIV/AIDS implies having knowledge on:

- Mode of transmission of HIV
- Presentation on AIDS

Methods of HIV/AIDS prevention

- Partial knowledge of HIV/AIDS implies having knowledge on either one or two of the above.
- No knowledge of HIV/AIDS implies not having knowledge on any of the above.

b. Attitude

Attitude definition

- Tendency to do something or not to do at all or an opinion or general feeling about something.

Attitude to premarital sex, multiple sexual partners and prostitution

- Positive attitude implies dislike to premarital text, multiple sexual partners and prostitution, while negative attitude is the reverse.

Attitude to sex education and use of condom

- Positive attitude implies approval for sex education to be introduced, while the negative is the reverse.

c. Behaviour

Behaviour definition

- The way in which person, organism or group responds to a specific condition or it is a believe and attitude.

1.1 AIM AND OBJECTIVES

1.1.1 General objective

To determine the sexual behavior and knowledge of sexually transmitted disease including HIV/AIDS among adolescents in Kumbotso L.G.A Kano State.

1.1.2 Specific objectives

1. To determine the extent of knowledge on sexually transmitted disease including HIV/AIDS.
2. To determine the attitude of the adolescents to premarital sex, multiple sexual partners and use of preventive methods against sexually transmitted infections.
3. To determine the attitude of the adolescents to HIV/AIDS victim in relation to their knowledge on STDs/AIDS.
4. To determine the percentage of sexually active adolescents, and number of sexual partners.
5. To offer recommendations based on the finding of the study.

1.2 RATIONALE OF THE STUDY

Interest in the reproductive health of adolescents continues to grow throughout the world. One of the factors responsible for this interest is the sheer number of young persons worldwide. For example, nearly half of the global population is less than 25 years old.[1]

Addressing the reproductive health information and service needs of this population poses significant challenges for policy makers and service providers especially those working in resource poor settings. The fact that adolescents and other young persons are disproportionately affected by the reproductive health morbidity such as abortion, sexually transmitted infections (STI) including HIV/AIDS draws attention to the need of appropriate interventions. Adolescents account for a significant proportion of unsafe abortions globally. According to the World Health Organization (WHO) at least one-third of all women seeking hospital-care for abortion complications are under the age of 20 years.[2]

Adolescents are also one of the groups hard hit by HIV/AIDS. Over half of all new HIV infections in Africa in 2005 were among young persons aged 14–25 years with the worst hit being young women.[3]

These data underscore the need to target adolescents with appropriate interventions that address not only the contextual factors such as gender roles and poverty that place them at risk but also individual factors including lack of access to knowledge, inadequate communication and life skills that adolescents need to negotiate safe sex.

In Nigeria, as elsewhere in Sub-Saharan Africa, studies confirm that a large proportion of adolescents have unmet reproductive health needs.

Evidence of unmet need is reflected in the fact that some adolescents and other young persons lack adequate knowledge and understanding of the reproductive process, that many harbor misconceptions such as the belief that mosquitoes can transmit HIV infection, and false claims that use of contraceptives can cause infertility.[4]

The National HIV/AIDS and Reproductive Health Survey (NARHS) showed that only 7% and 44% of 15–19 year olds knew of STI symptoms in men and women. Research also confirms that many young persons participate in risky sexual activities including early debut of sexual activities, multiple sexual partners, low and inconsistent use of condoms.[5,8,9.]

The data from the NARHS further reveal that among the sexually active 15 to 19 year olds only 34.4% used condoms at their most recent sexual encounter.[7]

The explanations offered for increasing proportion of young persons involved in pre-marital sexual activities include earlier menarche, effects of mass media that glamorize sex, and increasing weakness of traditional control of the family system in Nigeria.

Although these researches have contributed to our understanding of the reproductive health behavior of young persons in Nigeria, the utility of the data is undermined by the fact that these studies were derived mainly from the southern parts of the country. Few studies have been conducted among young Nigerians living in the northern areas of the country. One recent study from Plateau, a predominantly Christian state in north central Nigeria, shows that many students participate in risky sexual activities including sexual networking and low use of condoms .The findings of this study will be used to plan appropriate interventions that enhance the reproductive health knowledge, service, and skills needs of the adolescents living in this part of the country.

CHAPTER TWO

LITERATURE REVIEW

2.1 THE SCOPE OF THE PROBLEM AMONG ADOLESCENTS

The literature on AIDS and other sexually transmitted diseases (hereafter, STDs) is vast, with much attention paid to the biological development of disease, to treatment, to highly sophisticated modeling, to the impact of STDs on the medical infrastructure, and to the social psychological effects of diffusion and acquisition.

What is largely overlooked is that STDs/AIDS are of sociological interest because of the confluence of epidemiological factors and social structure that enable or constrain their rapid diffusion through some populations. This study is to indicate the structure of an extensive adolescent romantic and sexual network and considers the implication of this network for the dynamics of disease diffusion. This will enable us to see, for the first time, how sexual network structures -- which are the product of rules governing partner choice – influence both the overall prevalence of disease and the determinants of individual risk.

As in politics, for sexually transmitted diseases, the past casts along and burdensome shadow over the present. Only persons who carry infection are capable of infecting others, and so it follows that an individual's risk of acquiring a sexually transmitted disease is conditioned by the STD status of their sex partner. One step back, it follows that a partner's probability of infection is conditioned by their prior partners' STD status. Working a second step backwards, it follows that the same rules apply, as they do to at third and fourth step, and on and on, back in to the murky, tangled, and largely invisible

past of partners' past partners' past partners for however long the time-ordered chain of past fluid-exchange relationships may be. Limited reflection suggests that these distal partners of our current partner's prior partner(s) are likely unknown to us. But if the past is invisible, its shadow drops the present and poses risk for the future. In this, I mean to describe and account for the etiology of the structure of an adolescent sexual network.

Each year, in developed and developing countries, millions of individuals discover that they carry a STD. The two leading STDs, herpes and human papillary virus (HSVT2 and HPV, respectively) are chronic and, although subject to limited palliative, not curable. Adolescent STD acquisition rates continue to outpace those of all other groups, and AIDS is now a leading cause of death among persons 18-45 years of age.[8] the future does not look much brighter. The literature focuses on three main reasons for the gloomy outlook; taken together, these provide a partial account for the persistence of STDs among adolescents.

Drawing examples from Tanzania, one-half of all adolescents in the over 15 years old report having had intercourse and a significant proportion of these adolescents are inconsistent in their use of condoms, therefore heightening risk of STD acquisition and transmission. Furthermore, many adolescents who have not had intercourse are sexually active in a substantively meaningful (if technically ambiguous) way, and most do not use condoms during non-coital sex. Second, the majority of adolescents with an STD have no idea that they are infected consequently, they may fail to protect their partners even if they would prefer to do so, all things being equal. And third, relative to adults, adolescents tend to form romantic partnerships of short duration, on average only 15 months, but with a strong skew towards relationships of extremely short (less than 4

months) duration. Most sex in adolescent relationships, if it takes place at all, occurs quickly, within the first two months.[9] This combination of short duration partnerships, inconsistent safe-sex practices, and incorrect assessment of STD status provides partial account of the diffusion of STDs among the sexually active adolescent population. As fundamental is the role that sexual contact structure plays in STD transmission dynamics. Human behavior has influence the incidence, prevalence and pathogenesis of various diseases. The risk factors for sexually transmitted diseases are directly related to patterns of sexual behavior in the community. Persons with large number of sexual partners previous history of sexually transmitted diseases living in urban areas are young and single are at an increased risk of acquiring and transmitting sexually transmitted diseases. Commercial sex workers an important reservoir of infection in developing countries and may serve as a source of infection for up to 80% of male partners compared to 20% in industrialized world.[10]

A review of studies on sexual behavior has revealed a high knowledge about these diseases among adolescents.[7]

The participants agreed that condoms were the best method STDs prevention, followed by monogamy. Girls mentioned abstinence and monogamy frequently, 37% of the respondents know that AIDS is caused by a virus, 65% of the respondents were able to explain the symptoms correctly and 72% knew that HIV could be transmitted from one person to another. 31% perceived AIDS is transmitted through blood transfusion, 20.9% mentioned piercing skin with sharp blades or needles contaminated with the blood of infected person, while few mentioned witchcraft as the cause of AIDS.[7]

In another study conducted in Ibadan, it was found that 94% .of the study populations were aware of AIDS, 64% of the respondents knew that AIDS could be transmitted through sex, 81% knew that the disease is incurable, while only 8.7% knew that AIDS is caused by a virus. 13% of the respondents wrongly ascribed AIDS transmission to causal kissing and sharing of utensils, 40% knew the use of condom could prevent AIDS.[11]

In a Focus Group Discussion to study influences on adolescent sexuality in Nigeria in Gabari, a semi rural suburb of Zaria, it was found that young women were aware of AIDS and knew that the diseases is transmitted through sexual contact. Participants agreed that the best way of prevention was mutual monogamy. The young men knew that AIDS is fatal and it was acquired from prostitutes, nearly all agreed that young people could acquire AIDS and the majority admitted worrying about AIDS. Although in most of the studies, respondents considered condoms the best way to avoid STDs, the reported prevalence of condom use showed a gap between knowledge and practice.[12]

Although reliable data on sexually transmitted diseases do not exist in Nigeria, publications from hospitals based studies give the following average figures as the current prevalence rate of various sexually transmitted disease viz:-

Total prevalence rate of STDs amount to	-	9.3%
Non-Gonococcal Urethritis (NGU)	-	26.3%
Post pubertal gonorrhea	-	18.03%
Trichomoniasis	-	9.78%
Candidiasis	-	9.62%
Primary syphilis	-	2.28%
Genital warts	-	1.87%

Lymphogranuloma Venereum (L.G.V)	-	1.47%
Genital herpes	-	2.2%

HIV/AIDS is the fourth leading cause of death worldwide but the leading cause of death in Africa in the region of the world most severely affected by HIV and AIDS Uganda, Kenya and Tanzania were among the countries where HIV epidemic was first recognized during the early 1980s.Other countries with the high prevalence includes Botswana, South Africa and Zimbabwe.

Nigeria is the most populous country in Africa with population of over 140million and rank 3rd in the world in HIV prevalence after India and South Africa. The first AIDs case in Nigeria was reported in1986 and since then the epidemics has progressed steadily. Prevalence rate among adult increase from1.8 in 1991 to 4.5 in 1996 and 5.8 in2001, to 5.0% in 2003. The most recently concluded 2005 survey reflect further decline to 4.4. Projection has shown that 3-4mill Nigerians aged 15 to 49years of age are living with the virus and the Nation was classified as being at the threshold of an exponential growth of the epidemic. However the current prevalence of 4.4% indicated a significant decline.

In Nigeria the epidemics has expanded beyond commonly classified high risk group(sex workers, long distant truck driver and migrant workers) and is now common place in the general population, with the risk population cutting across both elites and non-literate populations. Presently all the geopolitical zones and group are affected, and the prevalence gap between urban and rural areas of the country has significantly narrowed. The states are however not affected equally.

Cross Rivers had the highest prevalence of 12% in 2003 and is now presently estimated to have 6.1% prevalence.

Benue State once more tops the list in the current survey with 10% prevalence. Having progressively declined from 16.8% in1999 to13. % in 2001 and 9.3% in 2003.

The highest burden of infection continues to be borne by young people aged 25-29 years with an increase number of females being infected.[12]

Given the high prevalence rate of HIV and the country limited capacity to respond an estimated 10-15 mill Nigerians are likely to become infected by 2010, 9 million orphans and bed occupancy from AIDS related illnesses could rise to 50-60% in health facilities within the more had hit communities. Increase mother to child transmission. In Nigeria the transmission is mainly through hetero sexual relationships, mother-to-child transmission and contaminated blood and blood product.[13]

2.2 BEHAVIOUR OF CONTRACEPTIVES USE AMONG ADOLESCENTS

Sexual debut is increasingly occurring early for most adolescents in many countries these young people equally run the risk of unwanted pregnancies and sexually transmitted infections including HIV. As a result there is high morbidity from unsafe abortions and other gynecological complication as well as high mortality especially from HIV/AIDS among this group[12].

Condoms offers some protection against unwanted pregnancies and STIs, yet the promotion of condom use among adolescents has been strongly resisted by groups of moralists and religious bodies who see it as a tacit attempt to promote moral decadence

among young people[15]. In a study conducted in rural Tanzania - a process evaluation of school based adolescent sexual health intervention it was found that the majority of male and female adolescents interviewed knew what a condom was and had correct knowledge of condom use. Condom use was however still low due to inaccessibility, experiences of condom rapture during intercourse, and the social stigma and embarrassments associated with the procurement and use of condoms. Condom use was also found to decrease as relationships matured. Female adolescents dislike condom use because of diminishing sexual pleasure and fear that condom may break thereby causing health problems. Some associated condom use as mistrust between partners.

In another study on sexual activity and contraceptive knowledge and use among in school adolescents in Nigeria it was found that 77% of the girls who were found to be sexually active only 29.9% practiced use of condom during sexual intercourse, and the use of condom increases with age in this study, whereas no sexually active 14 years old used condom, 9% of the 15 years olds did and the proportion climbed to 27% among the 19 years olds.[14]

While adolescent usually start romantic relationship, which might include sex because of physical attraction with their fellow students, the desire for material and financial reward or gain is the primary motivating factor for sexual relationship with older partners. This explains the mean age difference between adolescent females and their partners. In Guinea, mean age difference of 3.1 years was found for adolescent aged 15-19 years compared with 6.1 years for age group 20 -24 years. The cultural reluctance of parents to discuss sexual matters with their children, let alone give them sex education, ill prepares

adolescent to face the challenges of social life when they leave home for studies or to seek job opportunities in urban areas.[15]

2.3 PREVENTING SEXUALLY TRANSMITTED DISEASES THROUGH EDUCATION

When we take a look at developed country like United State, It is estimated that more than half of all new HIV infections occur before the age of 25 and most are acquired through unprotected sexual intercourse. According to the experts on AIDS, many of these new infections occur because young people don't have the knowledge or skills to protect themselves. To address this important health issue, the American Psychological Association (APA) is recommending that comprehensive and empirically supported sex education and HIV prevention programs become widely available to teach youth how to abstain from risky sexual behaviors and learn how they can protect themselves against HIV and other sexually transmitted diseases.

Based on over 15 years of research, the evidence shows that comprehensive sexuality education programs for youth that encourage abstinence, promote appropriate condom use, and teach sexual communication skills reduce HIV-risk behavior and also delay the onset of sexual intercourse.

Research shows that one in five adolescents will have sex before the age of 15 and most who continue to be sexually active do not use condoms consistently.[13]

Although some youth acknowledge their fears about HIV/AIDS, many do not perceive themselves to be at risk and lack accurate information about what circumstances put them

at risk for HIV infection. According to the CDC, the use of condoms can substantially reduce the risk of HIV.

Both comprehensive sex education and abstinence only programs delay the onset of sexual activity. However, only comprehensive sex education is effective in protecting adolescents from pregnancy and sexually transmitted illnesses at first intercourse and during later sexual activity. In contrast, scientifically sound studies of abstinence only programs show an unintended consequence of unprotected sex at first intercourse and during later sexual activity. In this way, abstinence only programs increase the risk of these adolescents for pregnancy and sexually transmitted illnesses, including HIV/AIDS.[14]

"We have found that comprehensive sexuality education programs, those that provide information, encourage abstinence, promote condom use for those who are sexually active, encourage fewer sexual partners, educate about the importance of early identification and treatment of sexually transmitted diseases and teach sexual communication skills are the most effective in keeping sexually active adolescents disease free.[14]

The research on adolescents' sexual behavior shows that comprehensive sexuality education programs that discuss the appropriate use of condoms do not accelerate sexual experiences. On the contrary, evidence suggests that such programs actually increase the number of adolescents who abstain from sex and also delay the onset of first sexual intercourse. Furthermore, these programs decrease the likelihood of unprotected sex and increase condom use among those having sex for the first time.[15]

According to the findings in the report, APA has developed the following recommendations:

Programs to prevent HIV and sexually transmitted diseases among youth should provide clear definitions of the behaviors targeted for change, address a range of sexual behaviors, be available to all adolescents and focus on maximizing a range of positive and lasting health outcomes.

> *"Only those programs whose efficacy and effectiveness have been well-established through sound scientific methods should be supported for widespread implementation".*

New programs to prevent HIV and sexually transmitted diseases among youth should be tested against those programs with proven effectiveness.

Sexuality education and adolescent sexuality were among the most controversial and debated issue during the 1994, international conference on population and development in Cairo. The general question was that is sexuality education a solution or license to practice sex? – Dr Aisha Mahmud a woman youth advocate described sexuality education as the teaching of youth about their bodies, how to respect each other, how to abstain from sex and how to protect them self if they decided to have sex". Despite the growing threat sexuality problems pose to the health of more than half of the world population, most countries fails to provide young people with the information and services they need to prevent pregnancy and sexually transmitted disease. Numerous studies by Nigerian experts have concluded the majority of the young people, including those that are sexually active, lack basic information about reproductive health. More regrettably much of what they think they know is incorrect.[6]

Young people cannot be expected to develop positive attitudes toward sex and sexual relationships and behave responsibly without correct reproductive health information.

> *"One of our first duties must, therefore, be to provide young people with relevant and accurate information and improve their knowledge and understanding of the basic facts about reproductive health".*

Sexuality education is more than reproductive anatomy and physiology. It must include specific information on contraception, the identification and prevention of HIV and other sexually transmitted disease. It must also include information on available reproductive health services, where to find them and how to use them. Sexuality education must help young to build self confidence and the social skills to handle sexuality and avoid risky behavior.

To be effective, sexuality education must begin in early adolescence, when values, attitudes and behavior are still and preferably, before the initiation of sexual activity.

In human affairs, every solutions serves only to sharpen the problems, to show us more clearly what we are up against. But certainly, to profit from good advice require more wisdom than give it.

- Erric Holfer, "*Reflection on the Human Condition*"

A vigorous sex education and public enlightenment programme will make people aware of habits that expose them to sexually transmitted diseases including HIV/AIDS. However, is sex education really the final solution to the AIDS epidemic among young people? This is because of the fear that sex education will inadvertently promote early

onset of sexual activity. This notwithstanding, the 1991 global programme on AIDS progress report acknowledged:

> *"If sex education has any impact on adolescent sexual behavior, it is delay onset of first intercourse among those not yet sexually active and to increase contraceptives use among the sexually active. Therefore, AIDS related sex education is valuable only if it ultimately leads to adoption and/or maintenance of safer sex practices".*

With the decline in the influence of religion more especially in the western world or society, the primary agents for bringing about change in the sexual behavior of young people are parents, the peer group, the media and the schools.

Parents have already had a major influence on the child's emerging sexuality before adolescence is reached. Being open to discussing issues and answering questions as they arise in childhood does much to establish a role for parents before it becomes complicated by issues of separateness and privacy. Parents also have the opportunity to model desirable behavior in sexual relationships and to encourage sound patterns of decision making which, in them will stand adolescents in good stead at time when the issue cannot be directly discussed with parents.

2.4 PEER EDUCATION

Peer education in relation to sexuality education for young people can mean many things. Broadly speaking it is a programme of education that is at least in part, devised and delivered by young people for young people. These young people must also identify with

and be part of the particular sub-group with which they are working. Peer education has been the linchpin of global STDs/AIDS prevention education.[16]

Making positive use of the mass media and involvement of youth were among the recommendations of the workshop-television programmes, radio stations and magazines which targets adolescents at the Beijing conference, 1995. These are potentially important methods of getting information across to young people. And in order to make the necessary changes, young people's ideas and participations are critical they must be involved in both the design and delivery of these services.

From better or worse in western society at least, a large number of young people get some sort of sex education, however minimal, in schools. A Gallup Poll in the USA in 1987 indicated that 94 percent of people believe schools should have a STDs/AIDS prevention programme, and 80 percent of parents wish their children to learn about safe sex as a STDs/AIDS prevention strategy. The situation of sex education is different in most developing societies because socio-cultural atmosphere prohibits open sexuality education, while educational authorities remain secretive.

Substantial resources have to be allocated to educating young people to adopt safe sexual practices, this will involve national media campaigns, and school based education programmes and other community initiatives. The progress of sexuality education efforts should not be measured solely by their impact on behaviour, central to the goal of promoting safe sexual practices is the need to ensure that attitudes and beliefs that underpin these practices are also modified. Since young people are not part of one homogenous group, there is need to consider the broader societal factors that impact on

youths' ability to accept and respond to safe-sex messages – factors such as poverty, culture, religion, normative relationships between sexes and social alienation.

CHAPTER THREE

METHODOLOGY

3.1 BACKGROUND INFORMATION AREA OF STUDY

The study was carried out in Kumbotso Local Government Area (LGA), it is one of the forty four LGA of Kano State in Northern Nigeria.

The study LGA (Kumbotso) was created in 1989 from the old Dawakin- Kudu Local Government Area. It is Located in the south western part of the state approximately 16 kilometers from the state capital, and has a land area of 161square kilometers, with an estimated population of 295,979 people 2006 census, out of which 149447 people were male while 146532 were female with population density of 1838 person per square kilometer. Adolescents constitute about 20% of the total number put to 59,195.8.

The Local Government lies between latitudes 11^0 50' and 12^0 North of the Equator and Longitudes 8^0 20' and 8^0 40' east of the Prime Meridian.

It is bounded to the north by Ungoggo, Gwale, Municipal, Tarauni, and Nassarawa Local Government Areas, to the east by Warawa and Dawakin Kudu Local Government Areas. It is bounded in the south by Dawakin - kudu and Madobi Local Government Areas while Tofa and Rimin Gado Local Government Areas, form its western boundary.

Majority of the people are Hausas and Fulanis with few other tribes such as Yoruba, Igbos, Kanuri, Igala and Igbira. Most of the inhabitants are subsistent farmers. Other occupations in the area include petty trading, cattle rearing and civil service.

There are 22 primary health care facilities in the LGA, 6 private clinics and several patent medicine stores.

There are 54 primary schools with total number of pupil's 40,427. Then 211 islamiyya primary schools with 33132 pupils.

Junior Secondary schools in the area are 19 in number with total number of male pupils 5921, female pupils of 2328.

Senior secondary schools are 6 in number, all were public Schools out of which five of them are boy's schools while the remaining one is a girl's school. The names of the schools are as fallows:

- Government secondary school Panshekara with total number of student of 1614
- Government secondary school kumbotso with students 1025.
- Government secondary school Naibawa with students 3119
- Government secondary school Mariri with students 1237
- Government secondary school Sheka with students 2817
- Government girl's secondary school Chiranchi with student 800

The overall numbers of students are 10,194.

3.2 STUDY POPULATION

The study population comprised of secondary school boys and girls who are in class (SS1 to SS3) and out of school boys and girl from who where carefully matched to the in-school children with respect to residence (wards and villages) age and sex. The purpose of the study is to collect data on sexual behavior and knowledge of sexually transmitted

disease for in and out of school adolescents for comparison, analyses and plan appropriate intervention.

3.3 SAMPLE SIZE

The result of similar study knowledge attitude and practice on sexually transmitted disease including HIV/AIDS in kura LGA conducted within the same state were used to calculate the sample size.[16] In the study it was found that 92.9% of the in- schools respondents were aware of STD/HIV/AIDS.

The sample size was calculated using the fallowing formula.[17]

$$n = Z^2 pq/d^2$$

n = Sample size

p = proportion of those with positive outcome those with knowledge of STI/HIV/AIDS = 92.9%.[21]

q = proportion of those with negative outcome (those with no knowledge of STI/HIV/AIDS = 0.08%.

d = degree of accuracy desired = 5% 0.05

Z = 1.96 at 95 % confidence interval

n = 1.96x1.96x0.92x0.08/0.05x0.05 = 113.04

Our sample size 113 x 2 = 226

So the minimal size = 226

3.4 SAMPLING METHOD

3.4.1 IN- SCHOOL ADOLESCENTS

There are eleven senior secondary school in Kumbotso Local Government. Five of which are public boy's schools, one public girl's schools, the remaining five schools are private schools.

Three schools were considered for the study:

The Government Girls Secondary school Chiranchi was automatically selected as the only available girl's secondary school in the Local Government.

Using simple random sampling technique government secondary school Naibawa was selected out of the remaining five boy's public schools.

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3.4.2 OUT OF SCHOOL ADOLESCENTS

The out of school adolescents were recruited by matching them with the in-school in respect to size (57 girls and 56 boys), residence (wards and villages), age and sex. These figures were obtained using a formula of sample size determination to be shown later.

3.5 MODE OF DATA COLLECTION

Questionnaires were used to collect data. The pre-tested questionnaires had closed and open ended items design to elicit data in demography, sexual behavior and knowledge of STI including HIV/AIDS among in-school and out of school going adolescents.

Five assistants (four of them men one female) were recruited and trained for administration of questionnaires.

3.5.1 IN- SCHOOL ADOLESCENTS

Before the study began, permission was taken from the director of zonal education department of the local government area who gave us letter to summit to the principals of the three (3) schools.

To gain the confidence and the cooperation of the respondents the rationale of carrying out the studies was carefully explain to them. The data was collected through the use of the self administered questionnaires.

In order to avoid collaboration or any form of discussion among the students and to clarify any question the student did not understand, the students were sat in a classroom and each was given questionnaires and ask to fill within the time limit of two hours.

3.5.2 OUT OF SCHOOL ADOLESCENTS

Before data were taken permission were taken from village/ward heads. The questionnaires were interviewer administered and the youth were carefully recruited from the corresponding wards and villages from were the recruited in-school adolescents came from.

3.6 DATA ANALYSIS

The responses from the questionnaires form basis of coding. The responses from the questionnaires were group under variables being investigated. Descriptive statistic of frequency and percentage were used to describe the study, and epi info version 11.5 software package was used for analysis. The results were presented in the form of tables.

3.7 LIMITATION OF THE STUDY

The issue of sexuality in this environment is very sensitive, and is considered private so there is possibility of concealment of vital information. To overcome this rationale of the study was carefully explained to each participant and confidentiality issues ware emphasized.

It is quite difficult to get the out of school adolescents since most of them are hawkers and hardly stay in one place and often very uncooperative to be interviewed. To overcome these five assistants were recruited for data collection, one of them female their age close to the participant's age, and this helped in gaining easy cooperation.

CHAPTER FOUR

RESULT

4.1 SOCIO-DEMOGRAFIC PROFILE OF THE RESPONDENTS

For logical interpretation of results, a demographic description of the study population is very necessary. In view of this, question on age, sex , tribe, religion, educational level of the respondents were asked via self administered and interviewer administered questionnaires and the response obtained are outlined in tables.

Table 1: Age and sex distribution of in and out of school children, Kumbotso LGA., Kano state

Age	In school n =107				Out of school n =111			
	Boys	Girls	Total	%	Boys	Girls	Total	%
<15	13	11	34	31.8	26	27	53	47.7
16	6	11	17	15.9	7	6	13	11.7
17	7	13	20	18.7	8	8	16	14.4
18	15	12	25	23.4	12	2	14	12.6
19	15	4	9	8.4	7	4	11	9.9
Total	56	51	107	100	60	51	111	100

The above tables show that the majority of the respondents fall within the age bracket 15-19 years. 15years and less among the in school children records 31.8% and 47.7% for the out of school children. 18yrs old are the highest among the in-school children with 23.4% fallowed by 17yrs old with18.7% while among the out of school children 16yrs are the highest with 14.4% fallowed by 18yrs old with 12.6%.

Table 2: Sex and educational status distribution of in and out of school children Kumbotso LGA., Kano state

Educational Status	In school n=123				Out of school n=107			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Qur'anic	16	17	33	16.90	54	36	90	79.8
Primary	12	0	12	11.2	5	12	17	20.1
Junior secondary school	0	0	0	0	1	0	0	0
Senior Secondary	28	50	78	72.8	0	0	0	0
Total	56	67	123	100	60	48	107	100

The educational status of the respondents 79.8% of the out of school were attending qur'anic schools while 20.1% of them had primary education before they drop out. Thirty three percent (33%) of the in school are also attending qur'anic school.

Table 3: Ethnicity and sex distribution of in and out of school children Kumbotso LGA., Kano State

Ethnic group	In school n=107				Out of school n=114			
	Boys	Girls	Total	%	Boys	girls	Total	%
Hausa	53	51	104	97.1	53	47	100	87.7
Yoruba	1	0	1	2.9	1	1	2	1,8
Others	2	0	2	3.8	6	6	12	10.5
Total	56	51	105	100	60	52.5	54	100

Majority of the respondents were Hausas with in school children recorded 97.1% and 3.8% of them were Yoruba others were 2.9%. While 87.7% of the out of school children were Hausa 1.8% were Yoruba, others recorded 16.5%.

Table 4: Religion and sex distribution of in and out of school children Kumbotso LGA., Kano state

Religion	School Going n =107				Out of School n=114			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Islam	56	51	107	100	60	52	112	98.2
Christianity	0	0	0	0	0	0	2	1.8
Total	56	52	107	100	60	52.6	114	100

Majority of the respondents were Muslims 100% and 98% of the in and out of school children were Muslims respectively while only 2% of the out of school children were Christians.

4.2 KNOWLEDGE OF THE RESPONDENTS

In order to asses the knowledge of the respondents in line with the broad aim of the study, the question posed via self administered and interviewer administered questionnaire include question on awareness of various std including HIV/AIDS and their source of information, knowledge of HIV/AIDS transmission, presentation of symptoms and methods of prevention, the results were outlined in tables 5, 6,7,8,9.

Table 5: Awareness of STDS and sex distribution o f in and out of school children Kumbotso LGA., Kano State, July, 2008

Awareness of STDS	In school n=107				Out of school n=114			
	Boys		Girls		Boys		Girls	
	Freq	%	Freq	%	Freq	%	Freq	%
Yes	47	83.9	51	100	44	73.3	42	77.8
No	9	16.1	0	0	16	26.7	12	22.2
Total	56	100	51	100	60	100	54	100

The above table shows that there is generally high awareness of STDs in both in-school and out of school boys and girls.83.9% and 100% of school going boys and girls respectively, 73.3% and 77.8% of non school going boys and girls are aware of STDS.

Table 6: Source of information on STDS including HIV/AIDS of in and out of school children Kumbotso LGA Kano state., July, 2008

Source of information	In school n =107				Out of school n = 114			
	Boys		Girls		Boys		Girls	
	Yes	%	Yes	%	Yes	%	Yes	%
Television	7	6.5	4	3.7	1	0.8	5	4.4
Radio	30	28	40	37.4	28	24.6	23	20.2
Newspaper	2	1.9	4	3.7	4	3.5	0	0
Peer group	7	6.5	1	0.9	9	7.9	4	3.5
School teachers	0	0	6	5.6	0	0	7	6.1
Family members	0	0	2	1.9	1	0.9	4	3.5
Health worker	9	8.4	4	3.7	4	3.5	3	2.6

The above table shows that radio serves as the major source of information among all the respondents i.e. 53% and 21.5% among in-school boys and girls respectively and 49% and 42% among out of school boys and girls respectively. This is fallowed by health worker among school going boys, school teacher among school going girls. Peer group occupies second position among out school boys as against school teacher among the out of school going girls.

Table 7: Awareness of various types of STDS of in and out of school children Kumbotso LGA., Kano State, July, 2008

Knowledge	In school n=107				Out of school n=114			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Gonorrhea	5	5	10	9.4	1	0	1	0.9
Syphilis	2	1	3	2.8	1	0	1	0.9
HIV/AIDS	48	50	98	91.5	54	51	105	92.1
Genital herpes	2	3	4	3.7	0	0	0	0
Cancroids'	1	0	1	0.9	0	0	0	0
Others	1	0	1	0.9	1	0	1	0.9

The above table shows that there is general high awareness of HIV/AIDS among the two major groups. In the in-school boys, 9%are aware of gonorrhea, 3% syphilis, 87% HIV/AIDS, 3% genital herpes, 1.8% cancroids, and 1.8% others. Among in-school girls 100% are aware of gonorrhea, 1.9% syphilis, 98% HIV/AIDS, 3% genital herpes, while cancroids recorded none. Of the out of school boys1.7% are aware of gonorrhea and syphilis, 94% of HIV/AIDS, 1% of others while non for genital herpes and cancroids. Among the out of school girls 94% are aware of HIV/AIDS and are not aware of all the remaining i.e. gonorrhea, syphilis, genital herpes and cancroids. This data clearly show that in both in-school and out school respondents HIV /AIDS is the most popular STD that they are aware of. Gonorrhea recorded 100% awareness among in-school girls.

Table 8: Knowledge of mode of transmission of STDS for in and out of school children Kumbotso LGA., Kano State, July, 2008

Knowledge	In school n=107				Out of school n=114			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Gonorrhea	5	51	56	52.3	1	0	1	0.8
Syphilis	2	1	3	2.8	1	0	1	0.8
HIV/AIDS	46	50	96	89.7	54	51	105	92.1
Genital herpes	1	2	3	2.8	0	0	0	0
Cancroids'	0	0	0	0	0		0	0
Others	1	0	0	0.9	0	0	0	0

The table above indicated that there is generally poor knowledge on mode of transmission of various STDs with exception of that of HIV/AIDS of which majority of the respondents are very much aware of, as read from the table: 88.7% of the in school and 92.1% of the out of school boys and girls respectively. Knowledge of mode of transmission of gonorrhea came second among the in school adolescents with 52.3 against 0.8% of the out of school. Syphilis and genital herpes recorded 2.8% each among in school boys and girls.

Table 9: Level of knowledge of STDS for in and out of school adolescents Kumbotso LGA., Kano State, July, 2008

Knowledge	In school n=108				Out of school n =113			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Good	29	33	62	57	37	29	66	58.4
Fair	27	18	45	41	21	19	40	35.4
Poor	1	0	1	0.9	1	6	7	6.2
Total	57	51	108	100	59	54	113	100

The above table shows that among the in school boys and girls 57% has good knowledge, 41% has fair knowledge while 58.4% of out of school boys and girls have good knowledge, 35.4% with fair knowledge and 6.2% has poor knowledge.

4.3 SEXUAL BEHAVIOUR

The sexual behavior can only be assessed among those who were found to be sexually active. The question posed via self administered questionnaire to the sexually active teenagers includes sexual activity, number of sexual partners use or non use of condom. The result is shown in table 10, 11, 12, 13, 14, 15,

Table 10: Sexual activity among in and out of school children Kumbotso LGA., Kano State, July, 2008

Sexual activity	In school n = 107				Out of school n = 114			
	Boys	**Girls**	**Total**	**%**	**Boys**	**Girls**	**Total**	**%**
active	5	0	5	4.6	6	4	10	8.8
Non active	51	48	99	92.5	54	49	103	90.3
No response	0	0	0	2.8	0	1	1	0.9
Total	56	51	107	100%	60	100%	114	100%

The above table shows that higher percentage of sexually active respondents in the out of school group as compared with the in-school counterparts. 4.6% of in school children are sexually active against 8.8% of out of school children.

Table 11: Sexual activity in the last 12 month among in and out of school children Kumbotso LGA., Kano State, July, 2008

Last 12 month sexual activity	In of school n = 5				Out of school n = 10			
	Boys	Girls	Total	%	Boys	Girls	Total	%
active	4	0	4	80	1	1	2	20
Non active	1	0	1	20	5	3	8	80
No response	0	0	0	0	0	1	1	0
Total	5	0	100	100	6	4	10	100

Among the sexually active children 80% of the in school children were sexually active within the last 12 Month as against 20% of out of school counterparts.

Table 12: Distribution of sexually active adolescents and number of sexual partners Kumbotso LGA., Kano State, July, 2008

No. of sexual partners	In school n = 5				Out of school n = 10			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Only one	2	0	2	40	4	3	7	70
More than one	2	0	2	40	0	1	1	10
No response	1	0	1	20	2	0	2	20
Total	5	0	5	100	6	4	10	100

Among the sexually active children- above table shows that 40% of the in- school children has single sexual partner as well as 40% of them used more than one sexual partners. While 70% of out of school children used single sexual partners and 10% of them with multiple partners.

Table 13: Methods of STDS prevention used among in and out of school children Kumbotso LGA., Kano State, July, 2008

Methods of prevention	In school n = 107				Out of school n = 114			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Abstinence	32	4	36	33.6	31	50	81	71.1
Condom/diaphragm	3	0	3	2.8	2	0	2	1.7
Avoid sex with prost.	3	0	3	2.8	12	2	14	12.3
Avoid sex with strangers	1	0	1	0.9	3	0	3	2.6
No response	17	47	64	59.8	12	2	14	12.3

The above table shows that majority of the teenagers believed abstinence to be the best known method of STD prevention. As from the table 33.6% of the in school and 71.1% of the out of school children. Avoiding sex with prostitute is the second of known method of STDS prevention, as from the table 2.8% and 12.3% of out of school children. Then followed by condom use with 2.8% among in school and 1.7% among the out of school children.

Table 14: Relationship between knowledge of STDS and their attitude among in and out of school children Kumbotso LGA., Kano State, July, 2008

	Attitude															
	In school n = 107								Out of school n = 110							
Knowledge	**Boys**	**Girls**	**Total**	**%**	**Boys**	**Girls**	**Total**	**%**	**Boys**	**Girls**	**Total**	**%**	**Boys**	**Girls**	**Total**	**%**
Good	23	32	55	51	3	1	4	3.7	19	17	36	32.3	1	2	3	27
Fair	27	18	45	42	2	0	2	1.8	35	28	63	57.3	0	1	1	0.9
Poor	1	0	1	0.9	1	0	1	0.9	1	5	6	5.5	0	1	1	0.9
Total	51	50	101	94.4	6	1	6	5.6	55	50	105	95.5	1	4	5	454

The above table shows that the higher the level of knowledge of sexually transmitted disease among both the in and out of school children the more positive they are to the victims. As read from the table 51% of in school children good knowledge have positive attitude. 37.3% of the out of school children with good knowledge have positive attitude.

Table 15: Attitudes to premarital sex prostitution multiple sexual partners and sex education among in and out of school children Kumbotso LGA., Kano State, July, 2008

Sexual activity	Attitude															
	In school n = 104								Out of school n = 98							
	Boys	Girls	Total	%	Boys	Girls	Total	%	Boys	Girls	Total	%	Boys	Girls	Total	%
Positive or Negative	p	p	p			n	n	n	p	p	p		n	n	n	
Yes	3	0	3	2.9	2	0	2	1.9	3	2	5	5.1	3	2	5	5.1
No	24	47	89	85.6	9	1	10	9.6	35	32	67	68.3	19	2	12	21.4
total	45	47	92	88.6	11	1	12	11.5	38	34	72	73	22	4	26	26.5

The above table shows that generally the in school children are less sexually exposed and tend to have more positive attitude to premarital sex, prostitution, multiple sexual partner than their out of school counter parts. As can be seen from the table 88.5% of the school children have positive attitude and are sexually unexposed as against their out of school group with 73.4%.

4.4 KNOWLEDGE ON HIV/AIDS

Table 16: Level of knowledge of HIV/AIDS base on awareness of mode of transmission, clinical presentation and methods of prevention of in and out of school children Kumbotso LGA., Kano State, July, 2008

Knowledge of HIV/AIDS	In school n=107				Out of school n=100			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Good	45	50	95	88.7	38	35	73	73
Fair	11	1	12	11.2	22	1	23	23
Poor	0	0	0	0	0	4	4	4
Total	56	51	107	100	60	100	100	100

The above result shows that the is generally high knowledge of HIV/AIDS among the two groups as indicated thus: 88.7% of the in-school children girls have good knowledge, 11.2% with fair knowledge while 73% and 23% of out of school children have good and fair knowledge respectively.

4.5 BEHAVIOUR ON HIV/AIDS

Table 17: Attitude to HIV/AIDS victims among in and out of school children Kumbotso LGA., Kano State, July, 2008

Attitude to HIV/AIDS victims	In school n =107				Out of school n =114			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Positive	40	46	86	80.3	44	35	79	69.3
Negative	16	5	21	19.6	16	19	35	30.7
Total	56	51	107	100	60	54	114	100

The above result shows that majority of the respondents have positive attitude to HIV/AIDS victims thus: 80.3% in school children have positive attitude while 21% with negative attitude. Among the out of school children 69.3% has positive attitude while 30.7% has negative attitude.

Table 18: Level of knowledge of HIV/AIDS and attitude to HIV/AIDS victims of in and out of school children Kumbotso LGA., Kano State, July, 2008

Knowledge	Attitude															
	In school n = 112								Out of school n = 110							
	Boys	Girls	Total	%	Boys	Girls	Total	%	Boys	Girls	Total	%	Boys	Girls	Total	%
Good	33	45	78	70.9	12	5	17	15.4	29	22	51	46.4	8	13	21	19.1
Fair	7	1	8	7.2	7	0	7	6.4	11	10	21	19.1	8	5	13	11.8
Poor	0	0	0	0	0	0	0	0	0	3	3	2.7	0	1	1	0.9
Total	40	46	78	78.1	19	5	24	21.8	40	35	75	68.2	16	19	35	31.8

The above table shows that the higher the level of knowledge of HIV/AIDS among both in-school and out of school going respondents the more positive attitude to AIDS victim. As shown in the table 70.9% of the in school children with good knowledge has positive attitude to HIV/AIDS victims

Table 19: Attitude to sex education among in and out of school children Kumbotso LGA., Kano State, July, 2008

Attitude to sex education	In school n =114				Out of school n=114			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Yes	42	50	92	80.7	52	49	101	88.5
no	11	1	12	10.5	7	4	11	9.6
No opinion	7	3	10	8.8	1	1	2	1.8
total	60	54	114	100	60	54	114	100

The above result shows that majority of both school going and non school going respondents has positive attitude to sex education. The table also shows that the level of knowledge of HIV is not generally related to the attitude to sex education. As indicated from the table 80.7% of in school and 88.5 of out of school children respectively.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 DISCUSSION

Majority of the in school respondents (78.2%) were in the age group 15 – 19 years, while only 48.6% of the out of school children fell within the same age bracket. For convenience purposes the studies were conducted among higher class (SS1-SS3) for in school children, the out of school respondents were carefully matched with their in-school counter parts with respect of age, sex and ward/village they came from.

The study groups ware mostly homogeneous in both ethnicity and religion Hausa /Fulani and Muslims were predominant see table. The distribution was not surprising considering the area of study where Hausa is the most predominant. Yoruba make only 1.8% of the study population, while Igbo and other groups made up 8.2% percents (see table 2).

Premarital sex was mainly attributed to radio, peer group influence and cinema. 28% of boys and 21.5% of girls of the in-school group attributed it to radio while the out of school going group records 24.6% and 2% boys and girls respectively. This may not be unconnected to the fact that radio is the most available source of information in this society see table (6).

Among all the respondents 89.7% are knowledgeable of HIV/AIDS, 52.3% of gonorrhea and 2.8% of syphilis and genital herpes. The in-school respondents are more knowledgeable of these sexually transmitted diseases than their out of school counterparts with 89.7% aware of HIV/AIDS, 2.8% of gonorrhea and syphilis (see table

8). Among out of school 92.1% are aware of HIV/AIDS and only 0.8% of gonorrhea and syphilis.

The major source of information on HIV/AIDS and other STDs were the electronic media i.e. radio this is followed by peer group, then health worker television school teacher, family members is the least (see table 6). Similar result was obtained in a study done in Eastern Nigeria on sexual activity and contraceptive knowledge and use among in-school adolescents in Nigeria. [4]

The result of my study showed that radio is the major source of information in this area, may be because it is easily accessible and relatively affordable.

On the knowledge of how HIV is transmitted from one person to another among the respondents, many mentioned sexual route and transfusion of infected blood as the major methods of transmission of HIV. 73% were knowledgeable about sexual route, 50.1% knew of method of infected blood transfusion, while only 16.9% and 19.2% of in and out of school children knew about blood inoculation through sharing of needled and vertical transmission methods respectively 4.6% of all the respondents incorrectly attributed HIV transmission to the use of toilet with HIV infected person, while 1.5% of the school going respondents incorrectly answered that HIV can be transmitted through mosquito bite (see table 8). The low level of awareness of how HIV is transmitted from one person to another in my study compared to other studies in the country and Kenya may be attributed to the fact that the area of study is rural and there is strong cultural resistance to open talks on sexuality issues even among adults. It may also be due to lack of vigorous and dynamic HIV/AIDS awareness campaign in this area. Over 90% of the respondents

are aware of AIDS presentation this is because AIDS is popularly known in Hausa as "kanjamau" meaning sliming disease. But there is fear that people may wrongly take other chronic debilitating illnesses like tuberculosis to mean AIDS.

In response to awareness of methods of HIV/AIDS/STDs prevention, it was found that abstinence is more popular of known STDS HIV/AIDS prevention among both in and out of school respondents. Condom/diaphragm came 3rd and a bit more popular with the in school children this mostly due to higher exposure and westernization. Avoiding sex with prostitute came second and is more popular among the out of school respondents (tables 13).

The knowledge an individual has on STDs and HIV/AIDS goes along way towards behavior modification and acceptance of preventive measures against the diseases.[29] Thus the attempt made to determine the level of knowledge on HIV/AIDS based on mode of transmission of HIV, clinical presentation of AIDS and preventive measures against HIV/AIDS shows that the in-school respondents are far more enlightened than their out of school going counterparts. In fact 89.2% of the in-school respondents have complete knowledge of HIV/AIDS as against 75.4% the non school going respondents (see table 17) .

Attitude towards sexuality were very positive (see tables 18, 19 and 20). Majority of all the respondents disapproved of premarital sex, prostitution and multiple sexual partners. As well as significant percentage of all of them believes that sexuality education is good would like it to be introduce in schools. Comparing attitude to premarital sex, prostitution, multiple sexual partners and sex education to the level of knowledge of

HIV/AIDS of the respondents it was discovered that the higher the level of knowledge of the respondents the more positive attitude they have. This study confirms that positive attitude to HIV/AIDS victim increase with the level of knowledge among all the respondents (See table 19).

About 6.6% (average figure from table 10) of the respondents were sexually exposed. The out of school respondents were more sexually active with 8.7% of them already sexually exposed as against 4.5% of their in-school counterparts.

The proportion of sexually exposed respondents in this study was low compared with the result of other studies done in some part of the country, for example in this study sexual behavior of adolescents in Nigeria: cross sectional survey of secondary school students.[9] Reported 40% sexual exposure in Anambra and Enugu states. Sexual behavior and negotiation of male condoms by female students of the University of Ibadan reported 77% sexual exposure among adolescents in Ibadan.[10]

Between 20 – 40% of unmarried adolescents aged 10 -19 years in Ghana, Kenya, Guinea, Gambia, Liberia and Togo reported being sexually active.[31]

The reason for the low percentage of sexual exposure in this study compared with the results of other studies done in Nigeria and other West African countries may be due to the restrictive social norms obtainable here in the north as against permissive societal norms found in the southern part of Nigeria and other countries. Table 12 shows that 40% of the in-school respondents who are sexually active have single sexual partner, while 70% of the out-of-school respondents that are sexually active have single sexual partner and 25% of them have more than one sexual partner.

5.5% of the in-school respondents used condom as against 3.3 % of their out of school counterparts.

5.2 CONCLUSION

The study of sexual behavior and knowledge of sexually transmitted disease among in-school and out of school adolescents in Kumbotso local government area of Kano state was not easy. This is because the subject of sex is regarded as a private and confidential issue in this part of the country.

The study reveals an adolescent population that is vulnerable and at increased risk of STDs/HIV infection as a result of their sexual behavior. Their knowledge of STDs/HIV/AIDS is not only hazy and inadequate, but is also shrouded in misconceptions and strong emotions. Despite their acceptance of the AIDS epidemic as a reality, a good percentage of them does not use condom and have multiple sexual partners.

5.3 RECOMMENDATIONS

The problems of teenage sexuality as observed in this study can be addressed by implementing the following recommendations:

1. There is urgent need for the introduction of sexuality education in schools so as to improve awareness of various sexually transmitted diseases especially HIV/AIDS among adolescents.
2. Hawking especially among girls should be discouraged and if possible banned by government and parents who refused to abide by the order should be penalized.
3. Enforcement of compulsory primary and secondary school education by government.

4. Erotic films shows on television should be banned and indiscriminate film shows in cinema and other private satellite film show centers should be banned by government.
5. Intensify public enlightenment campaign on AIDS through print and electronic media. This could be by posters and pamphlets showing horrific pictures and through jingles and dramas in radio and television.
6. Local government councils and non-governmental organizations should encourage communities to form anti AIDS clubs.
7. Marriage counseling should be introduced and couples should be encouraged to undergo HIV test before they get married.
8. Traditional and religious leaders have a great role t play in inculcating in their followers good moral codes.
9. Efforts should be made by government to provide qualitative accessible and affordable reproductive health services to the people more especially to those in the rural areas. The services should be more adolescent friendly and more responsive to their needs.
10. Peer education programs should be organize and supported at schools and community level.

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APPENDICES

APPENDIX I

DEPARTMENT OF COMMUNITY MEDICINE

FACULTY OF MEDICINE

AHMADU BELLO UNIVERSITY ZARIA, NIGERIA

QUESTIONNAIRE ON:

SEXUAL BEHAVIOR AND KNOWLEDGE SEXUALLY TRANSMITTED INFECTIONS INCLUDING HIV/AIDS AMONG IN-SCHOOL AND OUT OF SCHOOL ADOLESCENTS

1.00 PERSONAL DATA

1.01 Name of village/Ward ……

1.02 Name of school ……..

Class ……. Number of years in school ……..

1.03 Age ……

1.04 Sex. Male [ ], Female [ ]

1.05 Occupation: Student [ ], Non student [ ]

1.06 Marital status: Single [ ], Married [ ]

1.07 Ethnic group: Hausa [ ], Yoruba [ ], Igbo [ ]

Other (specify) ……...

1.08 Religion: Islam [ ], Christianity [ ], Others (specify) …….....

2.00 PARENTAL DATA:

2.01 Parental level of education

Father: Illiterate [ ], Qur'anic [ ] , Primary [ ]

Secondary [ ], Tertiary [ ]

Mother: Illiterate [ ], Qur'anic [ ], Primary [ ]

Secondary [ ], Tertiary [ ]

2.02 Parents marital pattern

Married [ ], Divorced [ ], Separated [ ]

If married, type of family: Polygamy [ ], Monogamy [ ]

2.03 If parents are separated or divorced, who do you stay with?

Father [ ], Mother [ ], Step mother [ ], Uncle [ ], Aunt [ ]

Grand parents [ ], Guardian [ ], Alone [ ], Others (specify) ……

2.04 Parent's occupation:

Father ……, Mother ……

2.05 Material rich

Do your parents have any of following? Bicycle [ ], Motorcycle [ ], Car [ ], Sewing Machine [ ], Others (specify) ……

Do you have any of the following at home:-

Radio [ ], Tape recorder [ ], T.V [ ], Video [ ].

3.00 PHYSIOLOGICAL DEVELOPMENT

GIRLS:

3.01 Have you started menstruation? (monthly bleeding) Yes [ ], No [ ]

If yes, how old were you when you first started menstruation ……..

3.02 How old were you when pubic, and armpit hair started growing? ……

3.03 How old were you when breast started developing? ……

BOYS:

3.04 How old were you when public and armpit hair started growing? ……

3.04.1 How old were you when you started to have night pollution (emission of liquid substance from your penis)? ……

4.00 KNOWLEDGE ON SEX, SEXUAL RELATIONSHIP AND STDS

4.01 What do you understand by the word pregnancy?

…….

4.02 How does a woman become pregnant?

…….

4.03 What is the normal duration of pregnant?

……

4.04 Can pregnancy be avoided/prevented? Yes [ ], No [ ]

4.05 If yes, list the methods of pregnancy prevention that you know and your source of information.

	Method	Source of information
a.	……..	…….
b.	……..	…….
c.	……	…….
d.	……	…….

4.06 Do you know where these methods can be obtained?

Specify ……...

4.07 Have you heard about diseases that can be transmitted through sex?

Yes [ ], No [ ]

4.08 If yes, what is your source of information?

T.V [ ], Radio [ ], Newspaper/magazine [ ], Peer group [ ],

School teachers [ ], Family members [ ], Health worker [ ],

Others (specify) ……..

4.09 Which of the following sexually transmitted disease do you know?

Gonorrhea [ ], Syphilis [ ], AIDS/HIV [ ], Genital herpes [ ],

Chancroid [ ], Others (specify) ……

4.10 Do you know the signs and symptoms of sexuality transmitted diseases?

Yes [ ], No [ ]

4.11 If yes, list three (3) you know

a) ……., b)……, c) ……

4.12 Have you ever suffered from any of the following?

Pain during urination [ ], Lower abdominal pain [ ],

Urethra/vaginal discharge [ ], Ulcer (wound) in your private part [ ]

5.00 ATTITUDE

5.01 Do you think marriage is a good thing? Yes [ ], No [ ]

5.02 Would you like to get married? Yes [ ], No [ ]

If yes, why? ……. If no, why? …….

5.03 What do you think about sex before marriage? Is good [ ],

Is bad [ ], Is against religion [ ], Is not cultural [ ],

Others (specify) ……

5.04 Which of these factors do you think encourage sex before marriage?

Peer group (age mate) influence [ ],

Erotic films from T.V/ Video cinema [ ], Newspaper/Magazines [ ],

Family [ ], Others (specify) …….

5.05 Do you think there is anything wrong having more than one sexual partners?

Yes [ ], No [ ]

5.05.1 Would you encourage somebody to pay money or give another reward for sex?

Yes [ ], No [ ]

5.06 Would you encourage somebody to receive money or another reward for sex?

Yes [ ], No [ ]

5.07 What do you think about prostitution? Is good [ ], Is bad [ ],

Is not religious [ ], It is business [ ], Is not cultural [ ] ,

Others (specify) ……

5.08 What do you think about teenage sex education? Is good [ ],

Is bad [ ], Others (specify) …….

5.09 Would you want it to introduce in your school or family? Yes [ ], No [ ]

6.00 SEXUAL BEHAVIOR

6.01 Have you had or do any association with opposite sex? Yes [ ], No [ ]

6.02 If yes, what type? Boyfriend/girlfriend [ ], Reading partner [ ], Prayer partner [ ], Others (specify) ……

6.03 If yes, how many? Only one [ ], More than one [ ]

6.04 Have you had sex before? Yes [ ], No [ ]

6.05 If yes, how many partners have you had sex with?

Only one [ ], More than one [ ]

6.06 How old were you when you had your first experience? ……...

6.07 Have you ever paid or received reward for sex? Yes [ ], No [ ]

6.08 If yes, why? ……

6.09 Have you ever stimulated yourself sexually? Yes [ ], No [ ]

6.10 If yes, how may times per week? ……

6.11 Have you ever used any method of pregnancy prevention? Yes [ ], No [ ]

6.12 If yes, which of these methods have you used? Condoms/diaphragm, [ ],

Safe period [ ], Withdrawal [ ], Pills [ ], Others (specify) ……

6.13 Have you ever had of sexually transmitted diseases? Yes [ ], No [ ]

6.14 If yes, which one did you have? ……

6.15 Did you seek treatment? Yes [ ], No [ ]

6.16 If yes, where did you seek treatment? ……

6.17 When you had this disease, did you inform your parent(s)?

Yes [ ], No [ ]

6.18 Did you do anything not to infect you partner(s)? Yes [ ], No [ ]

6.19 If yes, what did you do? …….

6.20 Have ever used any method of sexually transmitted disease prevention?

Yes [ ], No [ ]

6.21 If yes, which of these methods have you used? Condoms/diaphragm[ ],

Abstinence [ ], Avoid sex with prostitutes [ ], Avoid sex with strangers [ ],

Others (specify) ……..

1.00 <u>KNOWLEDGE ON AIDS/HIV</u>

1.01 Have you heard of a new disease which killed many called AIDS?

Yes [ ], No [ ]

1.02 What was your original source of information?

Radio [ ], T.V [ ], Newspapers [ ], Friends [ ], Health workers [ ],

Others (specify) …

1.03 Do you think the disease exist in Nigeria? Yes [ ], No [ ]

1.04 If yes, why? Known someone suffering from AIDS [ ],

Heard about existence of the disease in the mass media [ ],

Others (specify) ……..

1.05 If No, why? It is a white man disease [ ],

Have not seen anybody with the disease [ ].

It is a false propaganda by the west to discourage sex [ ],

Other (specify) ……...

1.06 Through which way or ways do you think AIDS/HIV can be transmitted from one person to another? Homosexual contact [ ]

Heterosexual contact [ ], Receptive oral sex [ ], Unscreened blood transfusion [ ], Intravenous drug abuse [ ], From mother to child [ ],

Through equipment of tradition birth attendants and barbers [ ], Using toilet/birth room with AIDS patient [ ], Through mosquito bite [ ]

1.07 Which of the following group(s) of people is/are likely to have AIDS?

Prostitutes [ ], Homosexuals [ ], Those having multiple sexual partners [ ], Intravenous drug abusers [ ], Travelers to high prevalent areas of AIDS [ ]

1.08 How does someone with AIDS looks like? Looks like any other person [ ],

Losses weight [ ], Always having fever [ ], passes watery stool frequently [ ]

2.00 <u>ATTITUDES ON AIDS</u>

2.01 What is your reaction to AIDS epidemic? Horror [ ], I don't care [ ], Fear [ ], I don't believe it [ ]

2.02 What will be your reaction if any of these people is diagnosed as having AIDS?

Your brother/sister:- Remain caring [ ], Abandon her/him [ ]

Your mother/father:- Remain caring [ ], Abandon her/him [ ]

You boyfriend/girlfriend:- Remain caring [ ], Abandon her/him [ ]

End relationship: Remain caring [ ], Abandon her/him [ ]

Other (specify) …….....

2.03 Do you know anybody who has HIV/AIDS? Yes [ ], No [ ]

2.04 If yes, what is your reaction to him/her? Pity him/her [ ],

Deserve on pity [ ], afraid of him/her [ ], should be isolated [ ], others (specify)

……...

2.05 Do you discriminate against somebody with AIDS? Yes [ ], No [ ]

3.00 **BEHAVIOUR ON AIDS**

3.01 Which preventive measures against AIDS do you practice?

Abstinence [ ], Using condom [ ], Avoid sex with prostitutes [ ], Avoid sex before marriage [ ], Avoid watching erotic late night movies [ ], Avoid intravenous drug abuse [ ], Blood has to be screened before transfusion [ ]

3.02 Which of the above measures do you consider most effective and why?

……...

3.03 Where would you advice AIDS patient to seek treatment?

From traditional healers [ ], From spiritual healers [ ],

should not seek treatment [ ], Through prayers to God [ ], From hospital [ ],

Other (Specify) ……...

3.04 Do you approve of sex education as an important part of sexually transmitted diseases and AIDS control measures? Approved [ ], Disapproved [ ],

No opinion [ ]

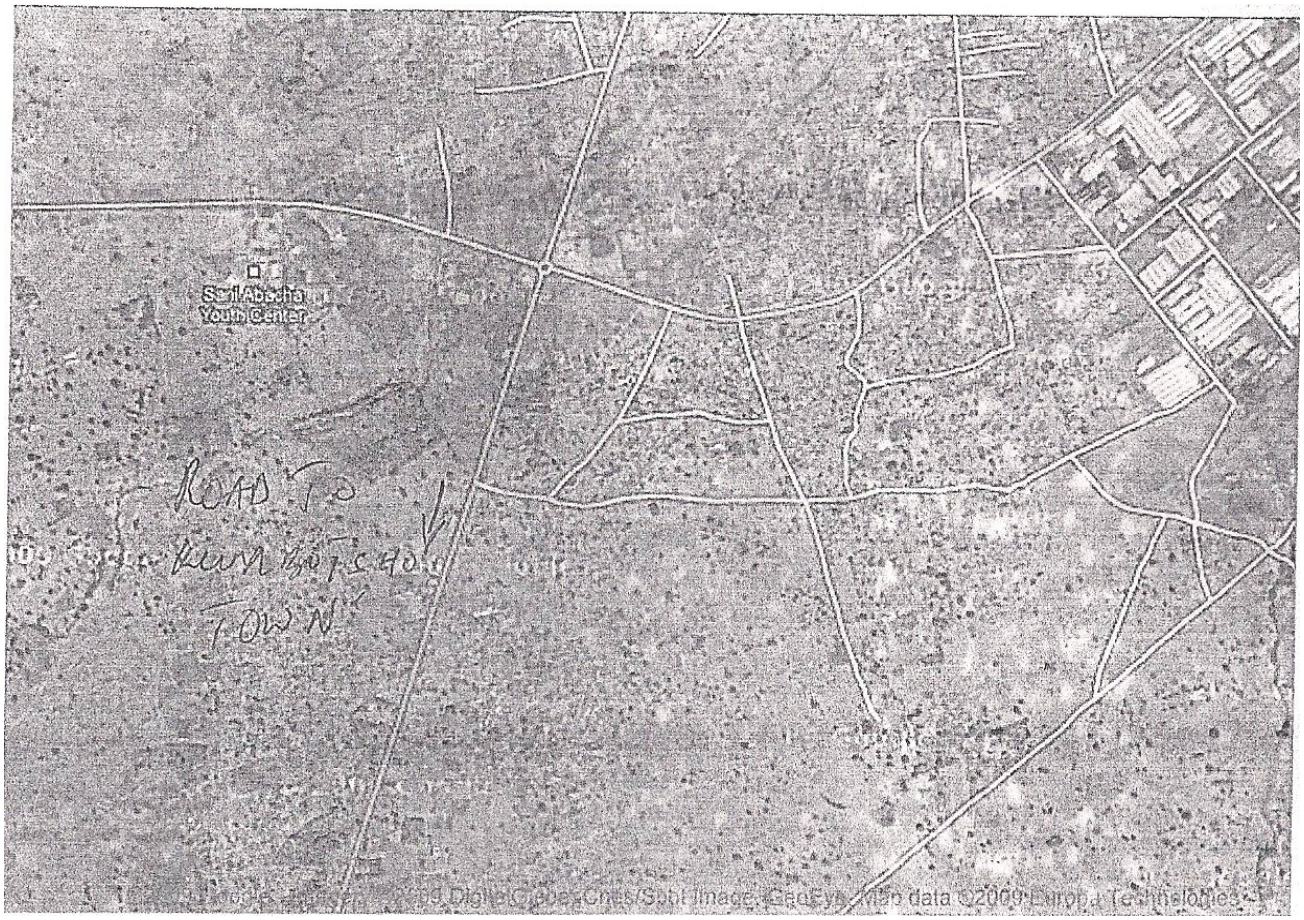
3.05 If you disapprove, what are your reasons? On religious ground [ ], Traditional and culturally bad [ ], will promote sexual promiscuity [ ], Moral laxity among youth [ ]

THANK YOU VERY MUCH FOR YOUR COOPERATION

DR. ABUBAKAR I. S.

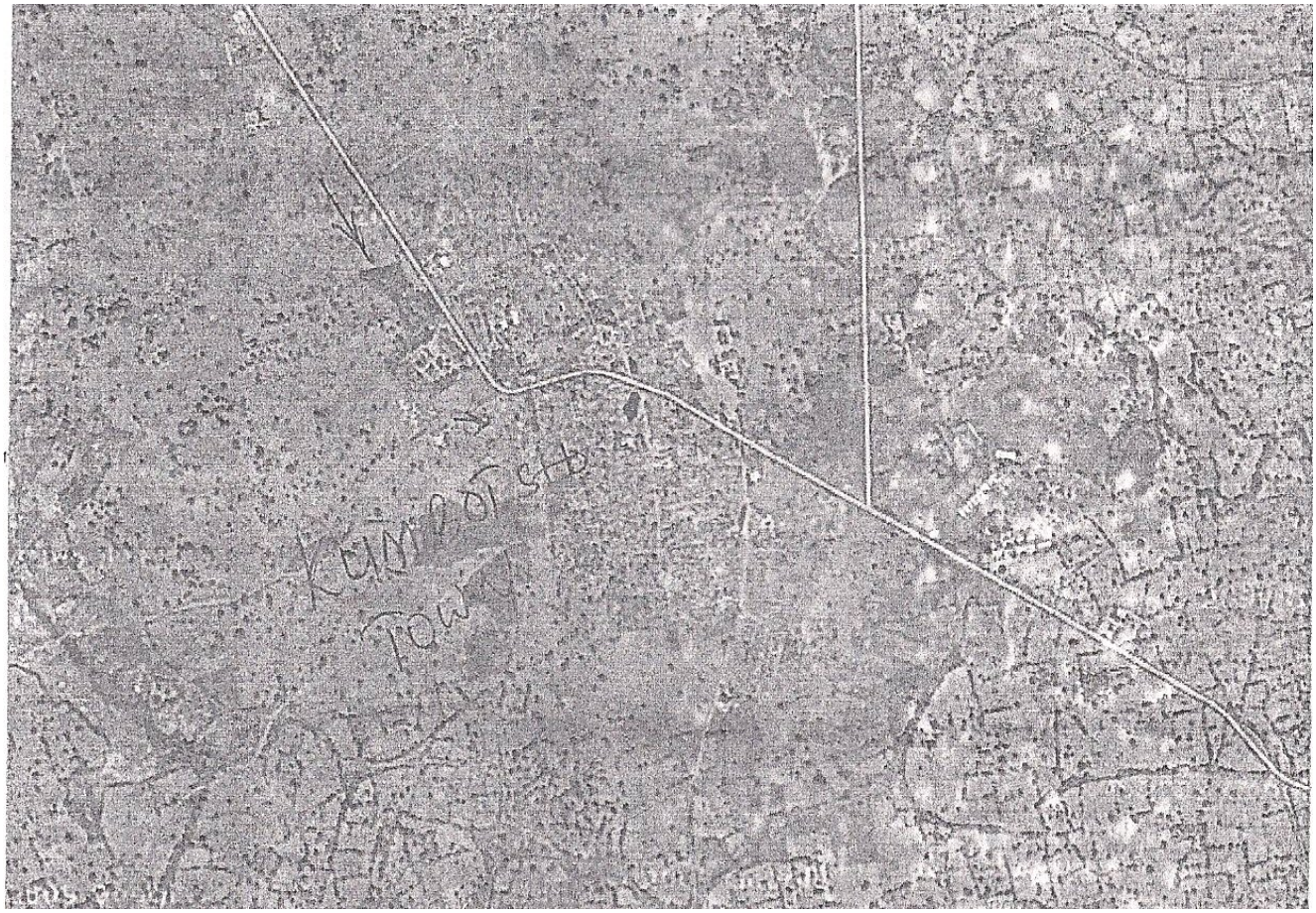
APPENDIX II

MAP OF KANO SHOWING STUDY AREA



APPENDIX III

MAPS OF KUMBOTSO LGA KANO STATE




Bela
Adani
Burmawa
Unguwar Adamu
Labinji
Tachiawa
Shumfida
Tsamia
Gangara
Bakarkura
Ingawa
Tunas
Ruruma
Kezaure
Gazoji
Filla
Yaya
Muduringao
Musko
Kudda
Yakassa
Ungua Chimi
Unguwar Sarkin Baka
Warda
Albasu
Dogal
Raba
Wuntsila
Tassawa
Gwauran Maje
Takwasa
Mafuta
Baushe
Dorawa
12° 30
Kembo
Keko
Kunchi
Gwarabjawa
Sansani
Gasakole
Samsami
Jangari
Hugungumai
Kuka
Kanya Baba
Marake
Dambatta
Ruwantsa
Jarumawa
Kita
Sheme
Makoda
Marke
Kogin Maikaho
Dakache
Harbau
Kuku
Tukue
Takar
Tadwea
Kore
Unguwar Ari
Gwarmai
Dumou
Dan Zabuwa
Waire
Babanruga
Mahuta
Mallamawa
Jiima
Tinki
Yadi
Tsabare
Gandu
Zedawa
Kogin Babushe
Yan Mamman
Remi
Gurjiya
Mikiya
Kerihi
Kunkurawa
Bichi
Kunya
Marke
Danjida
Karya
Badume
Jali
Gorrike
Shallawa
Kalar
Dan Makeri
Jigilawa
Wasai
Gogori
Tiko
Bagwai
Gezawa
Dingare
Fanisau
Karo
Zugachi
Shanono
Tofa
Tudun Wada
Zangon Gulya
Dushi
Kafin Maiko
Ungwan Dawa
Joda
Chula
Kazar Dawa
Zango
Kano
Ajingi
Gomau
Ungwan Rimi
Husure
Gupan Tumo
Yan Kuni
Sakaratsa
Mariri
Gogel
Jigawa
Godiya
Juji
Yankatsare
Yar Gaya
Gwarzo
Dadarau
Durum
Kuyan
Tamburawa
Rafawa
Kutumburi
Massanawa
Kanwa
Dawaki
Gaya
Lahadin Kara
Baskore
Ningawa
Dan Zogari
Kadare
Unguwan Kwari
Dagabau
Wudil
Kademi
Karaye
Madobi
Kura
Dan Hassan
Ungwan Jaje
Unguwan Wusama
Rikadawa
Bunkure
Dususu
Lamire
Bataiya
Turawa
Kiru
Garun Malam
Yadakwari
Kumurya
Yola
Kilishi
Bebeji
Barkum
Garko
Daurawa
Yako
Hamdullahi
Chiromawa
Ma
Kogo
Ungwan Kaka
Sarina
Maska
Durba
Kyarana
Dan Bubo
Wak
Kogin Sidda
Dan Soshiya
Dan Gora
Ranka
Gargai
Rano
Kibiya
Sumaila
11° 30
Barbaji
Ungwan Gabari
Kayarda
Rantan
Tarai
Falali
Ungwan Lema
Yalwa
Katsalle
Sarkin Shanu
Yawar
Shike
Falange
Guna
Rinji
Sabon Garu
Bagagare
Bango
Ungwan Allah
Gaba
Gajale
Kargo
Rurum
Tamaru
Saya Saya
Giwaye
Malmo
Tsatstsaki
Babuha
Burumburum
Bunturu
Jejin Kudu
Gidan Barau
Yaryasa ta Yamma
Gishirya
Unguwar Nata'ala
Kampa Ma'aji
Labunawa
Ungwan Jaki
Rugurugu
Gidan Tudu
Gidan Karowi
Ungwan Hassan
Ruwan Tabo
Unguwan Bununga
Yalwa
Rufan Mai Garu
Silti
8° 30'
8°
9°
0 mi
10
20
30
Kano
Nigeria