

Research Article

# Condoms Use Among Resident Students at the University Abdou Moumouni Campus in Niamey/Niger

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## Abstract

We studied condoms use to promote sexual and reproductive health and prevention of STIs/ HIV/AIDS among resident students at university campus in Niamey. Through a cross-type prospective study made by using a questionnaire responded to voluntarily by 450, well informed students, living on university campus was done over a period of six months. The findings are 72% of respondents were under 25 years and 97.11% were single. 51.1% of the sample was sexually active and the average age of first sexual intercourse was 19.04 years. The prevalence of condom use was 58% and out of these, 37.5% were consistent users. The reasons for condom use were to protect themselves from unwanted pregnancies and STIs/HIV/AIDS in 62.85%, the protection from sexual diseases only in 20.95% and for contraception only in 16.19%. The main barriers to condom use were religion for 46.46%, the place of purchase for 23.77%, the social norms and values for 22.22% and the refusal of partner to 7.55%. The rate of HIV test was 58% and the rate of vaccination against hepatitis was 9.7%. The rate of good knowledge on contraception/STIs/ Condom/HIV/AIDS ranged from 60 to 90%. The study showed the importance of sex education for young people in schools and at home. There is need for a national drive to promote the sexual and reproductive health especially in youths, by providing an easy access to and proper use of reproductive and sexual health services. Also, the undisputed place of awareness and innovation in the prevention of STI/HIV/AIDS is by integrating the religious, socio-economic and cultural life dimensions as they are a key to a quick and efficient route to overcome the STIs/AIDS in the world.

**Keywords:** Resident Students; Condoms Use; Prevention; STIs/HIV/AIDS

## Introduction

Since the appearance of the first case in the 1980s, the HIV/AIDS continue to gain momentum worldwide, especially in developing countries, mainly in sub-Saharan Africa [1]. Despite the commendable efforts of the international community through the WHO and UNAIDS and the enormous therapeutic advances through the large-scale promotion of ARV associated with the diagnosis and treatment of opportunistic infections, much remains to be done to reduce the rate of mortality due to HIV/AIDS in the world [2,3]. At present, the wide spreading of AIDS in the world appears stationary because of change in status of the disease, which at the beginning was a deadly disease has now become a chronic disease due to improved longevity of people living with HIV. In this regard, in NIGER, the first case of AIDS was discovered in 1987 with an estimated 0.7% prevalence in the general population as of 2010, however, with disparities between the sexes, social classes, regions etc [4]. Thus, strategies through various structures such ULSS (Sector Control Unit Against AIDS), CISLS (Intersectoral Coordination of the Fight against AIDS), CNLS (National Coordination of the Fight against AIDS), NGOs (Non Governmental Organizations) and Civil Society structures, Technical Partners, the Ministry in charge of Public Health [5] have been developed within the framework of the Objectives of Millennium Health and the National Strategic Document to Fight against STIs/ HIV/AIDS [6].

In the absence of vaccine and a final cure to AIDS, prevention is presented as the best alternative to fight against AIDS. Thus prevention would be more effective and useful in poor countries where technical platforms to support patients living with HIV and AIDS (PHAs) are rare or absent in both clinically and through laboratory tests for routine diagnosis, evaluation, monitoring and follow up. Indeed, the onset of AIDS has been accompanied by a resurgence of diseases that were disappearing including some STIs (such as syphilis, gonorrhoea) [7], tuberculosis and also the outbreak of diseases such as viral hepatitis and cancers that are hitherto unknown to the general public. The importance of condom use through a campaign of mass awareness and social marketing especially to youths remain the primary level of prevention in poor countries like ours. Condom use promotion can be done through a consistent supply and distribution of both male and female condoms the allocation of adequate financial and human resources to ensure the availability and access to good quality condoms the promotion of correct and consistent condom use according to standards and culturally acceptable methods [8]. Thus, our study is to assess the conditions of condom use among students in the prevention of unwanted pregnancies and STIs/HIV/AIDS to promote voluntary testing and making sure proper care and good patient's life time.

## General purpose

Contribute to the promotion of condom use to improve sexual

and reproductive health and prevention of STI/HIV/AIDS among students.

**Specific objectives**

- Measure the rate of condom use by students;
- Assess the knowledge and attitudes of students towards STI / HIV / AIDS in particular and sexual reproductive Health in general;
- Studying the determinants of condom use (distribution, barriers, benefits, proper use)
- Evaluate the voluntary HIV testing and condom social marketing;
- Assess the risks involved in unprotected sex and consequences;
- Assess the implementation of the National Strategic Framework for the use of condoms;
- Recommend wide and extensive promotion of sexual and reproductive health.

**Methodology**

**Type of study**

It is a descriptive cross-sectional study under single pass, carried forward under the CAP (Connaissances-Attitudes-Pratiques/ knowledge-attitudes-practices) model using a self-administered questionnaire about 450 observations complemented by sessions question/answer on the subject of the questionnaire study.

**Duration of Study**

The study was carried out over a period of six months (February to July) 2011.

**Inclusion criteria**

Being a student and reside on campus, agree to participate in the survey and fill in the questionnaire.

**Non-inclusion criteria**

Students and non-students who did not live on campus, refusal to participate in the investigation; partially completed the questionnaire.

**Conduct of the study**

This study involved the resident students on campus all ages

**Table 1:** Distribution of Students by Gender and Age group.

Age (years) Gender	18-24	25-30	31 -35	Total
Female	129	18	3	150
Male	195	101	4	300
<b>Total</b>	<b>324</b>	<b>119</b>	<b>7</b>	<b>450</b>

**Table 2:** Distribution of students according to marital status.

Marital status	numbers	Percentages (%)
Singles	437	97,11
Divorced	2	0,44
Married	8	1,77
Widowed	3	0,66
<b>Total</b>	<b>450</b>	<b>100</b>

**Table 3:** Distribution of students according to the regularity in the use of condoms.

Regularity	numbers	Percentages (%)
yes	169	37,5
No	281	62,5
<b>Total</b>	<b>450</b>	<b>100</b>

and gender willing to participate in the study voluntarily motivated without being paid. We used interviews to inform and clarify the study goals and objectives to the participants. The questionnaire (confidential and anonymous) was then used as a technical tool for data collection and maintenance. Feedback question and answer sessions were held to answer supplementary questions arising on the subject matter. We conducted a door-to-door campaign in buildings A, B, J, K, H, E and also student groupings in the courtyard of the campus. Initially participants were asked to respond at their own time within 48 hours, but we realized that the approach was ineffective because the questionnaire was either lost or incorrectly filled. In response we changed the procedure to direct administering thus allow respondents to respond while you wait. This approach solved the problems of understanding some questions in questionnaire and document loss. It also created an opportunity for a richer question / answer sessions and information sharing for a long duration compared to previous indirect method. However this prolonged the time of information gathering.

**Data Analysis**

The data were processed with Word 2007, Excel 2007 and Epi Info version 3.5.1 software 2008.

**Challenges and Constraints**

Generally it was in the collection of field data that the major difficulties were encountered. Indeed, despite our effort to raise awareness by a good presentation (15-20 min) on our research topic many students refused to respond to the questionnaire citing lack of time due to examination preparation. Others felt that we were spying on their private life. Females particularly were reluctant to give true information about sexual life and some consistently rejected the idea of participation without any explanation. Some students partially responded to the questionnaire which forced us to invalidate them. All these factors delayed data collection and prolonged the survey. It took a lot of tact and patience to complete this step of study. Lack of financial resources also weighed heavily on the completion of fieldwork.

**Results**

It was found that the age group 18-24 years is the largest size thus 324 out of 450 with a high proportion in females group (129 out of 150), this would reflect the youthful nature of the study population, and the sex ratio is 2 (Table 1).

Most of our sample consist of singles for 97.11% this would increase the probability of casual sexual intercourse occurrence (Table 2).

(Figure 1) It was found that 58% of students use condoms.

Note that 62.5% use condoms irregularly (Table 3).

Thus, the majority of students, 70.88% cited the loyalty of the

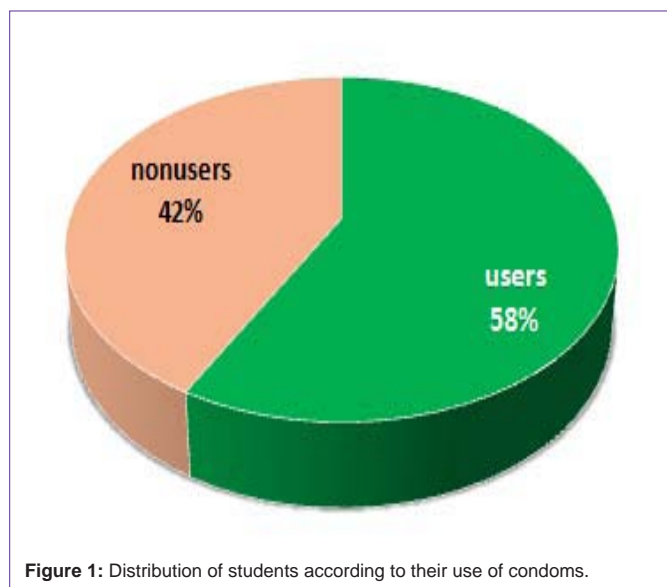


Figure 1: Distribution of students according to their use of condoms.

Table 4: Distribution of students according to the perceived safest way to fight against AIDS if they are sexually active.

The Safest way	numbers	Percentages (%)
loyalty	319	70,88
Abstinence	96	21,13
condom	35	7,77
<b>Total</b>	<b>450</b>	<b>100</b>

Table 5: Distribution of students according to perceived contraception method that also protects against AIDS.

Contraceptives	numbers	Percentages (%)
Condoms	347	77,11
Abstinence	68	15,23
Withdrawal, pills	35	7,8
<b>Total</b>	<b>450</b>	<b>100</b>

Table 6: Distribution of students according to the most accessible contraception in our context.

Contraception	numbers	Percentages (%)
Condoms	218	48,53
Pills	122	27
Withdrawal	98	21,77
Abstinence	12	2,6
<b>Total</b>	<b>450</b>	<b>100</b>

couple to fight against AIDS (Table 4).

Note that 7.8% of our sample continues to believe that the pill and coitus interrupts protect AIDS! (Table 5).

It was found that 62, 85% of condom users, use it both to prevent pregnancy and fight against STI/HIV/AIDS (Table 6) (Figure 2).

The majority, 71.8% cited infertility as the first consequence of STIs (Table 7).

(Figure 3).It was found that 67.81% prefer condoms as prevention

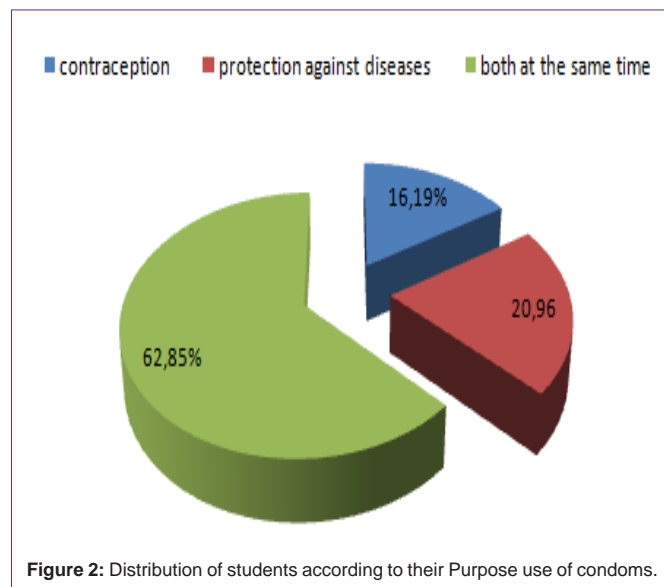


Figure 2: Distribution of students according to their Purpose use of condoms.

Table 7: Distribution of students according to the consequences of STI none or poorly treated.

STI none or poorly treated	Numbers	Percentages (%)
infertility	320	71,8
Worsening of disease and contamination of others, death	130	28,91
<b>Total</b>	<b>450</b>	<b>100</b>

Table 8: Distribution of students according to the different types of condoms they know.

Type of condom	Effectives	Percentages (%)
Male et Female	380	84,44
Male	70	15,55
<b>Total</b>	<b>450</b>	<b>100</b>

against STI, 3.19% citing hygiene.

Note that 15.55% in our series don't know the female condom (Table 8).

(Figure 4). It was found that only 22.44% of the sample could correctly use a condom.

(Figure 5). Religion seemed to be the primary obstacle to the use of condoms for 46.46%, followed by the place of purchase for 23.77%.

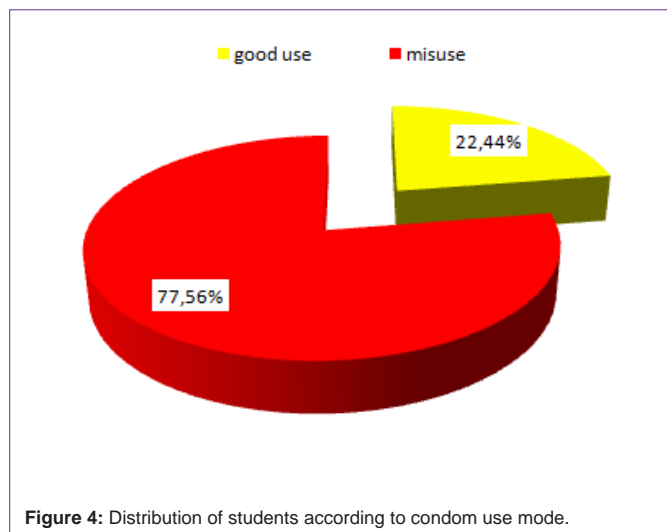
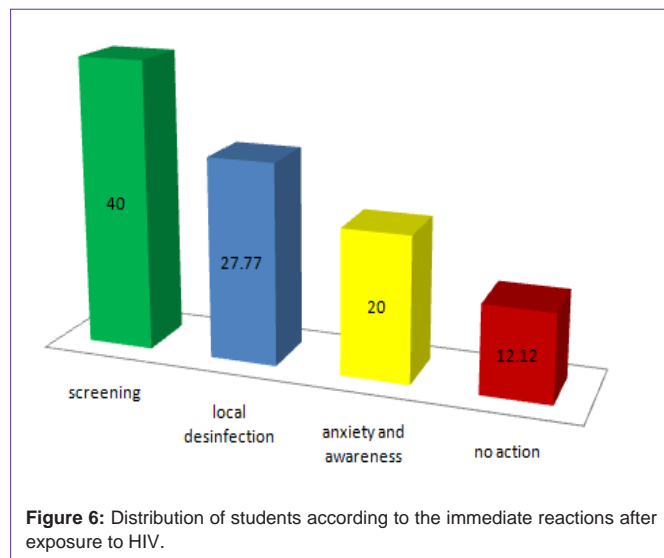
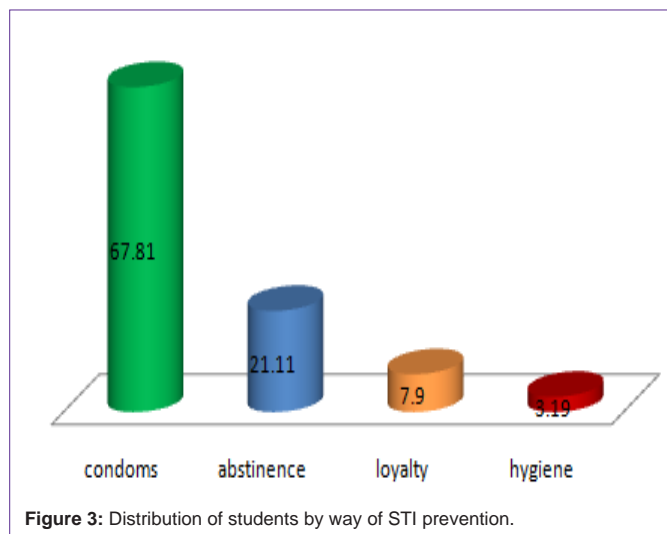
(Figure 6) Different responses to exposure risk 40% would go for screening immediately, while 12.22% would not take any action

The main opinion on national policy was that it promotes sex for 45% (Table 9).

## Discussion

### Age and sex

There were 66.66% males and 33.33% females with a sex ratio of 2. This result is in perfect harmony with that of PSI/Guinea/Young [9] which was 36.4% female and 63.6% male, and also that of Tano-ve/RCI [10] which was 65.5% of boys and 34.5% girls and a sex ratio of 1.9. In our series the age group of 18-24 years accounted for 72%, with



**Table 9:** Distribution of students according to their views on the limitations of the national policy to fight against AIDS.

Limits	Effectives	Percentages (%)
Encourages sex	203	45
Lack of supports for the sick	153	34
Lack of awareness	94	21
<b>Total</b>	<b>450</b>	<b>100</b>

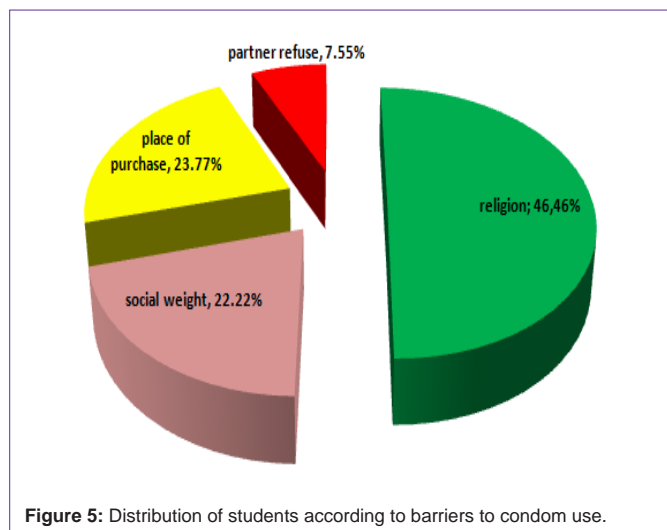
86% in female. This result is lower than those of PSI/Guinea/Young and Ingrid/France [11] which was 100% (15-24) and 80% respectively. Of the 80% of the Ingrid 18–24years old group, 83% were female. This explains the socio-economic and cultural differences between the two population groups. Comparatively, our rate is higher than that of Arzika Laouali [8] which was 59.54% in the age group of 18 to 30 years and the study sampling explains this difference.

**Marital status**

97.11% are single and 1.77% are married. This rate is comparable to those of Binet C/Madagascar [12] and TANO-VE/RCI [10] which were 98% and 98.7% of single respectively. 1.3% of TANO-VE/RCI was living in free union. This similarity is explained by the fact that our study populations have a common schooling pattern. In addition, PSI/Guinea/ Young [9] found 86% singles and 11% married. Thus, the experience of studying would delay marriages and increase the celibacy [13].

**Condoms use**

58% use condoms. This rate is lower than those of Bonnet/France [14], Binet C. /Madagascar [12] and PSI/Guinea/Young [9] who were 72.3%, 70% and 64% respectively, but approximate those of Arzika/Niger [8], Christine Solomon/France [15], T. Sidibe/Mali [16], Mamadou Balla/Niger [17], Ralph/USA [18] and Ingrid/France [11] which were 51.04%, 48%, 44%, 50%, 40% and 46% respectively. In the other side, our rate is two times higher than those of Zabeirou Oudou [19], PSI/Rwanda [20], IA Kabbash/Egypte [21] which were 25%, 20%, 23.9% respectively. At last, our rate is 10 times higher than that of UNGASS 2010 [22] Report concerning the general population of Niger. Overall rate of condom use among boys is significantly



higher than girls; in fact, the larger multi-sex partnership among boys is implicated. Younger age (18-24 years) and level of education (university) contribute in condoms use [15]. The polemic on condoms use still leads the debates, for some [23-26] the place of religion in the fight against AIDS must be reviewed; others condoms detractors cited their ineffectiveness both as contraception and protection against STIs/HIV/AIDS [27]. "The condom should be considered as the first line defense against AIDS and no barrier to its use can be tolerated! Unless its use makes more victims than the disease" [24,28].

### How to use a condom

Only 22.44% know how to use condoms correctly. This rate is lower than that of PSI/Mining [9] in Guinea which had 39% of correct condom use rate. This is explained by the fact that PSI/Mining focused specifically on condom users while for us it is the total of the sample. These findings call for a revised approach to the content of the message, quality of the information, ways of dissemination and need for targeting correct population and provide practical lessons on the subject. This will help to improve the correct and effective way of condom use.

### Goals of condoms use

16.19% cited contraception, 20.95% protection against STIs/HIV and 62.85% both at once. This result differs from that of Arzika [8] which was 77.62% for the fight against STIs/AIDS, 14.68% for contraception and 7.69% for both. The differences are attributed to the study setting, the impact of education, social marketing of condoms and appropriate promotions in HIV/AIDS prevention. Hence, those authors [2,19,29] made this finding "it will be more effective to promote condom as contraception than protection against HIV in sexually active young". However, the purpose of condom use remains closely linked to the intentions of the user [30].

### Barriers to condoms use

Students cited religion as main contributor 46.46%. Place of purchase is also a significant hindrance in condom use among students. Societal norms and values also have a bearing on condom use among students. This result differs from that of TANO-VE [10] where one third cited the loss of pleasure and two thirds did not indicate why they do not use condoms. In Georges Guiella [31] study respondents cited the social norms and values, secondary benefits, loss of pleasure as the main obstacles. The differences in the socio-cultural beliefs between regions and countries explain that. Also, the context of poverty, the inability of women to negotiate condom use, sexual drive, and religion are derogatory factors in condom use [32].

### Safest way to fight against HIV/AIDS in sexually active students

70.88% cited loyalty, 21.13% abstinence and 7.77% condoms. This result differs from that of PSI/Guinea/Young [9] which found condom use to be 75.8% and 33.2% for fidelity and abstinence in parallel for 50.4%. Our findings also differ from those of Ralph/USA [18] which was 83% for abstinence and Ingrid/France [11] which were 80% for the condoms use and 13% for abstinence. This is mainly explained by the difference in policy against STIs/AIDS in each state [23].

### The Fight against HIV/AIDS in Niger

35% of respondents think that the national policy is not effective. Of the 35% participants, 45% of think the policy actually promotes sexual behavior. 34% of those who think the policy is not effective pointed out that the policy does not support the patients living with HIV/AIDS and 21% of them cited lack of awareness. This result is comparable to that of OUTLOOK [33] survey where 41.9% of respondents said the policies in their respective countries were not effective. The reasons included lack of prevention education in 51.4%, lack of adequate financing in 50.4%, and stigmatization and discrimination in 48.2%. Thus social and economic factors play an important role in the success of the fight against HIV/AIDS in every country. Also ONUSIDA scenario no.1, that suggesting choices without concession is the best way in our context. Despite the general rules of fighting against HIV/AIDS which are internationally accepted, considerations in adaption of policy for each target populations must be highlighted.

### Conclusion

Our study of condom use among 450 students leads to the following conclusions: More than half of students at ABDOU MOUMOUNI University campus use condoms and most of them are young singles. Majority of students have good knowledge about STIs, HIV/AIDS and contraception although they have unsatisfactory attitude evidenced by the inconsistent and irregular use of condoms. In sexually active population condoms use is most accepted in single where as loyalty is favored in couples. Religion was the most significant barrier in condoms use followed by the place of purchase. Proportion of partner refusal to use of condoms is alarming in this population. The main goals of using condoms in this population are birth control and protection against STIs/HIV/AIDS. In this population condom is the most accessible contraceptive method followed by contraceptive pill. The National Policy for fighting against HIV/AIDS was considered as ineffective by one third of the respondents. Overall, knowledge about condoms, contraception, clinical signs of STIs, the modes of transmission, treatments of STIs and HIV/AIDS are well understood. From this study it is understood that people have the knowledge but there is lack of application. Application of such knowledge will save a lot of lives and money for the government to boost development of other key sectors.

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