

---

# Condom use: prevalence among rural and urban sexually active adolescents in Osun state, Nigeria

Adedayo Olukemi Sabageh<sup>1</sup>, Adesegun Olayiwola Fatusi<sup>2</sup>, Donatus Sabageh<sup>3</sup>,  
Olaniyan Akintunde Babatunde<sup>4</sup>

<sup>1</sup>Department of Community Medicine, Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria

<sup>2</sup>Department of Community Health, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria

<sup>3</sup>Department of Morbid Anatomy and Histopathology, Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria

<sup>4</sup>Department of Community Medicine, Ladoke Akintola University of Technology Teaching Hospital, Ogbomoso, Oyo State, Nigeria

## Email address:

ksabageh@yahoo.com (A. O. Sabageh), adesegunfatusi@yahoo.co.uk (A. O. Fatusi), dsabageh@yahoo.com (D. Sabageh),  
tundebabson23@gmail.com (O. A. Babatunde)

## To cite this article:

Adedayo Olukemi Sabageh, Adesegun Olayiwola Fatusi, Donatus Sabageh, Olaniyan Akintunde Babatunde. Condom Use: Prevalence among Rural and Urban Sexually Active Adolescents in Osun state, Nigeria. *Science Journal of Public Health*. Vol. 2, No. 4, 2014, pp. 270-274. doi: 10.11648/j.sjph.20140204.14

---

**Abstract:** *Introduction:* Today, millions of adolescents are faced with the possibility of being involved in risky sexual behaviours such as unprotected sex, low and inconsistent use of condom and sexually transmitted infections including HIV/AIDS. This study determined the prevalence of condom use among rural and urban sexually active adolescents in Osun state. *Method:* The study was descriptive cross sectional in nature. A total of 800 students were recruited for the study from twelve secondary schools in the state using multistage sampling technique. Data were collected using pre-tested Assisted Self Completion Questionnaires. Ethical approvals were obtained from appropriate authorities. Chi square and logistic regression analyses were done. P value was 0.05. *Results:* The overall mean age of the respondents was 14.62 years  $\pm$  2.39. The mean age at first sex was 14.05 years  $\pm$  2.3 years ((13.89  $\pm$  2.3 years for rural and 14.37  $\pm$  2.3 years for urban). One fifth (20.1%) had been involved in sex. Close to half (49.7%) of the sexually experienced respondents had ever used condom; 60.5% were rural while 39.5% were urban respondents. Only 34% of them used condom the first time, half were rural respondents and the other half urban respondents ( $p = 0.003$ ), the prevalence was higher during the last sex (45.1%). *Discussion:* Although the prevalence of condom use is low among these adolescents, it was found to be higher among rural respondents. One can also deduce from this study that older adolescents, those in public schools and those residing in rural areas are more likely to use condoms when compared with their counterparts. There is a need to raise awareness of condom use for adolescents who are sexually active especially in the urban areas.

**Keywords:** Prevalence, Adolescents, Condom, Rural, Urban

---

## 1. Introduction

Adolescence is a period of transition from childhood to adulthood. During this period, the adolescent undergo numerous physical, biological, psychological and emotional changes. At this time, many of these adolescents experience crucial life-defining events such as first ejaculation, first menses, first kiss, first sex, pregnancy, abortions and even parenthood. Many at this time engage in various try-outs and experiments out of curiosity. Their inquisitiveness to discern the physical and biological changes coupled with feelings of sexual attraction to the opposite sex enhance their willingness to experiment. Today,

millions of adolescents are faced with the possibility of being involved in risky sexual behaviours such as unprotected sex, unwanted pregnancy, illegal abortion, low and inconsistent use of condom and sexually transmitted infections including HIV/AIDS.<sup>1,2</sup>

Globally, adolescent sexuality and sexual behaviour are quite important because of these risky sexual behaviours. The World Health Organization estimated that one in every five person in the world is an adolescent and that one in twenty adolescent contract sexually transmitted infections yearly<sup>3</sup>. It is apparent that the situation among Nigerian adolescents already presents a picture that public health experts should be concerned about. According to the Nigeria

Demographic and Health Survey 2003, a quarter of adolescent males and half of the females had been sexually active<sup>4</sup>. National HIV/AIDS and Reproductive Health Survey (NARHS) 2007<sup>5</sup> reported that about 1 in 5 of the sexually active females and 1 in 12 of the sexually active males had already engaged in sexual intercourse by the age of 15 years, this finding is similar with other studies<sup>6,7</sup>. First sex is often experimental and unplanned for most adolescents. The age at first sexual encounter varies between 15 and 19 years<sup>8,9,10</sup>. Reports also have it that adolescents are engaged in unprotected sex. Non use or inconsistent use of condoms is one of the primary risks for HIV infection.

An Indian study suggest that many adolescent males, especially in urban areas, engage in unprotected sexual intercourse, which makes them vulnerable to STIs; STIs were also common among these respondents<sup>11</sup>. A review of articles done among school students in sub Saharan Africa reported a high prevalence rate of sexual intercourse and infrequent use of condoms among adolescents<sup>12</sup>. The 2007 National Reproductive Health Survey reported that only 38% of rural and 57% of urban young people, aged 15-24 years used condom during their last sex<sup>13</sup>. Engaging in sexual intercourse with someone other than a faithful spouse or partner is considered high-risk sex in terms of contracting STIs. There are evidences that the risk of contracting STIs could be reduced by using condom<sup>14</sup>.

The constant use of condom remains an important public health prevention strategy against the spread of STIs and HIV. Although the knowledge of condom as a method of protecting STIs is high in Nigeria, the utilization is still low<sup>15</sup>. Therefore as part of the interventions to achieve the Millennium Development Goal 6; reducing the prevalence of HIV/AIDS, studies on condom use especially among the adolescents; due to their risky sexual behaviours; will be of interest to researchers, policy makers and to the adolescents themselves in order for them to live healthier and more productive lives. Although various studies consider condom use among adolescents in Nigeria, only a few compared condom use among rural and urban adolescents. This study thus determined the prevalence of condom use among sexually active rural and urban adolescents in Osun state, Nigeria.

## 2. Methodology

The study was a cross sectional study design carried out in six local government areas (LGA) in Osun state, southwestern part of Nigeria; three rural LGAs and three urban LGAs. The study population was secondary school students from selected schools; aged 10-19 years old. Sample size formula for comparison of two independent proportions was used to calculate the minimum sample size. Based on previous study documentation that 57% of urban and 38% of rural young people had used condom during their last sex<sup>13</sup>, a minimum sample size of 380 was calculated (190 per group). However, 800 respondents were recruited for a more robust analysis. The respondents were

selected using multistage sampling technique. A list of all the registered secondary schools in the LGAs was obtained from the Local Inspectorate of Education offices (LIE). The secondary schools were stratified into public and private secondary schools. Two secondary schools each (one private and one public) were selected from the selected LGAs by ballot. A total of twelve secondary schools were selected; two per LGA. From each school, a proportionate sample was determined from the estimated sample size per group and estimated student population in each school. The respondents were selected by systematic sampling, (with the sampling fraction determined based on the number of students in the class and the number of respondents to be selected) using the teacher's class register. Male to female ratio in each class was also considered during the selection such that there was fair distribution and both sexes were uniformly represented. Selected respondents were given consent forms (to be completed by their parents or guardian) indicating willingness to participate in the study. Selected respondents whose parents or guardian declined consent were replaced with other respondents using the sample technique.

Data were collected using pre-tested Assisted Self Completion Questionnaires (ASCQ). The research team constituted ten research assistants who were undergraduates of the Faculty of Social Sciences of the one of the Universities within the state; Obafemi Awolowo University, Ile-Ife. The researchers were made up of five males and five females in their late teenage years. This selection was purposive to ensure maximum cooperation from the respondents during data collection. The team had a one day training workshop before data collection was carried out. Male research team members attended to male respondents only and vice versa for females. The research team was effectively supervised during data collection.

Ethical approvals were obtained from the State Ministry of Education, the Local Inspectorate of Education in each area and school authorities of each school. Data were analyzed using SPSS version 17. Chi square and logistic regression analyses were done. Statistical significance was tested at the 5% level.

## 3. Results

Eight hundred students were approached to participate in the study and 760 students (95%) consented to be part of the study and were interviewed; 380 were rural respondents while 380 were urban respondents. The mean age of the respondents was 14.62 years  $\pm$  2.39 (14.90 years  $\pm$  2.44 for rural and 14.34 years  $\pm$  2.31 for urban).

### 3.1. Sociodemographic Characteristics of the Respondents

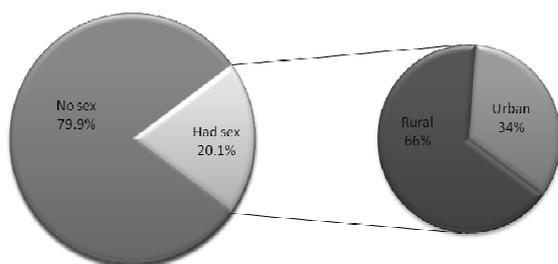
The sociodemographic characteristics on Table 1 reveal that a total of 389 (51.2%) of the respondents were males while 371 (48.8%) were females with a sex ratio of 1:1. Most of the respondents (42.1%) are in middle adolescence (14-16years) though the proportion was higher among the

urban respondents (45.0%) than the rural respondents (39.2%). A little over half (51.1%) of the rural respondents were in the junior classes when compared with 44.2% urban respondents in the junior classes. Whereas 67.9% of the urban respondents were from public schools, higher proportions (80.0%) of the rural respondents were from public schools and this finding was statistically significant ( $p < 0.001$ ). Although, close to half (48.8%) of the respondents belonged to the middle socioeconomic class (52.6% for rural respondents and 45.0% for urban respondents), a higher percentage (45.8%) of the urban respondents however belonged to the upper socioeconomic class when compared with the rural respondents where 30.3% belonged to the upper socioeconomic class.

### 3.2. Sexual Behaviour of Respondents

Among these sexually experienced respondents, 97 (63.4%) were males; 63 (41.2%) were rural respondents while 34 (24.8%) were urban respondents ( $p = 0.001$ ). While among the 56 sexually experienced females (36.6%), 38 (22.2%) were rural respondents while 18 (11.8 %) were urban respondents ( $p = 0.004$ ). These findings were statistically significant.

The mean age at first sex was 14.05 years  $\pm$  2.3 years (13.89  $\pm$  2.3 years for rural and 14.37  $\pm$  2.3 years for urban). For boys, the mean age at first sex was 13.69  $\pm$  2.3 and 14.68  $\pm$  2.1 years for girls. Of the 760 students recruited, 153 (20.1%) had been involved in sexual intercourse; 101 (66.0%) were rural respondents while 52 (34.0%) were urban respondents. This difference was statistically significant ( $p < 0.001$ ), see Figure 1.



$\chi^2 = 19.648$ , \* $p < 0.001$   
\*Statistically significant

**Figure 1.** Percentage distribution of sexually experienced respondents by location

### 3.3. Condom Use among the Respondents

Table 2 shows condom use among the sexually experienced respondents. A total of 76 (49.7%) had ever used condom ; 60.5% were rural while 39.5% were urban respondents ( $p = 0.155$ ). Over all, only a third (34.0%) used condom during their first sex. ( $p = 0.003$ )

Half of the urban respondents had used condom during their first sex compared with only a quarter of rural

respondents having used condom during their first sexual experience. This difference was statistically significant as  $p = 0.003$ . During their last sexual experience, more respondents used condom with a prevalence of 45.1% for the overall group, 58% for rural respondents and 42% for urban respondents. This finding was however not statistically significant ( $p = 0.057$ ). More male respondents had ever used condom when compared with females. In this study, 56.5% of the rural male respondents had used condom while 63.3% of the urban male respondents had used condom. Among the females, 43.5% of the rural girls had used condom when compared with 36.7% of the urban girls. This difference was not statistically significant in this study ( $p = 0.717$ ).

Table 3 illustrates the odds of condom use among the sexually experienced respondents. Using binary logistic analysis, type of school, location and age group had statistically significant correlates association with ever used condom among the respondents who were sexually experienced. The odds of using condom during sex was higher among public school students, those in rural areas, those in upper socioeconomic class and older adolescents (14 years and above).

## 4. Discussion

Two-thirds of the sexually experienced respondents were from the rural areas; more males than the females. This might suggest that a large proportion of the adolescents engaged in risky sexual behaviour by not using condom to protect themselves. Respondents in the rural areas often lack teachings related to sexuality education as it is seen as a taboo and they feel such can promote promiscuity. This implies that adolescents in rural areas are exposed to early sex along.

Only half of the sexually experienced respondents had ever used condom. The prevalence of condom ever used was 49.7%. Condom use though higher overall among the rural respondents, its use was higher among the urban males than the rural males. Among the females, the rural respondents had a higher prevalence than the urban ones. It is quite unfortunate the urban females had the lowest prevalence among these groups. This implies that the sexually experienced female adolescents in the study were engaging in risky sexual behaviour vis-a-vis, not using condoms. A similar pattern had been reported by Sylvia<sup>12</sup> where more males used condoms compared with the females. The 2007 National Reproductive Health Survey also reported that 38% of rural and 57% of urban young people reportedly used condom during their last sex<sup>13</sup>.

In this study, the relatively low level of condom-use at first and last sexual debut were 34% and 45.1% respectively and these were also comparable with earlier analysis in Nigeria<sup>16</sup> and other sub-Saharan African countries<sup>17,18</sup>.

Also in this study, for both rural and urban areas, there was higher proportion of condom use by the males than females. This agrees with Shisana<sup>19</sup> and Pettifor<sup>20</sup> where

similar patterns had been documented. It could be due to increase sexual activities among males.

## 5. Conclusion

Although the prevalence of condom use is low among these adolescents, it was found to be higher among rural respondents. One can also deduce from this study that older adolescents, those in public schools and those residing in rural areas are more likely to use condoms. .

## Recommendation

There is a need to raise awareness of condom use for adolescents who are sexually active especially in the urban areas. The governments can also strengthen the health systems in with regards to family planning services for adolescents. Through this, readily accessible condom and other services would bring about better awareness, positive behavioural change towards consistent use of condom. In addition, development partners working in the areas of HIV/AIDS and other STIs should be encouraged to spread their tentacles to the sexually active adolescents especially in the urban areas.

*Table 1. Demographic characteristics of the study group*

Variable	Rural N= 380 n (%)	Urban N= 380 n (%)	Total N=760 n (%)	Chi square $\chi^2$	p value
<b>Sex</b>					
Male	194 (51.1)	195 (51.3)	389 (51.2)	0.005	0.942
Female	186 (48.9)	185 (48.7)	371 (48.8)		
<b>Age groups</b>					
10-13years	119 (31.3)	137 (36.1)	256 (33.7)	11.474	* 0.003
14-16years	149 (39.2)	171 (45.0)	320 (42.1)		
17-19years	112 (29.5)	72 (18.9)	184 (24.2)		
<b>Class group</b>					
Junior secondary	194 (51.1)	168 (44.2)	362 (47.6)	3.566	0.059
Senior secondary	186 (48.9)	212 (55.8)	398 (52.4)		
<b>Type of school</b>					
Public school	304 (80.0)	258 (67.9)	562 (73.9)	14.452	*< 0.001
Private school	76 (20.0)	122 (32.1)	198 (26.1)		
<b>Social class</b>					
Upper class	115 (30.3)	174 (45.8)	289 (38.0)	23.312	* < 0.001
Middle class	200 (52.6)	171 (45.0)	371 (48.8)		
Lower class	65 (17.1)	35 (9.2)	100 (13.2)		

*Table 2. Condom use among sexually experienced adolescents*

Variable	Rural N= 101 n (%)	Urban N= 52 n (%)	Total N=153 n (%)	Chi square $\chi^2$	p value
<b>Ever used condom</b>					
Yes	46 (60.5)	30 (39.5)	76 (49.7)	2.026	0.155
No	55 (71.4)	22 (28.6)	77 (50.3)		
<b>Used condom the first time</b>					
Yes	26 (50.0)	26 (50.0)	52 (34.0)	9.003	* 0.003
No	75 (74.3)	26 (26.7)	101 (66.0)		
<b>Used condom the last time</b>					
Yes	40 (58.0)	29 (42.0)	69 (45.1)	3.623	0.057
No	61 (72.6)	23 (27.4)	84 (54.9)		

\*Statistically significant as p value < 0.05

*Table 3. Logistic regression for condom use*

Independent variables	Odds Ratio	Lower CI	Upper CI	p value
Gender(Male vs Female)	0.832	0.365	1.897	0.662
School(Public vs Private)	4.874	1.221	9.450	*0.025
Socioeconomic class	0.922	0.298	2.853	0.887
Residence (Rural vs Urban)	1.664	0.626	4.428	0.307
Age group	1.808	0.755	4.328	0.184
	7.865	7.294	19.576	*<0.001
	6.739	2.625	17.299	*<0.001

\*Statistically significant as p value < 0.05

---

## Reference

- [1] Arowojolu AO, Ilesanmi AO, Roberts OA, Okunola MA. Sexuality, contraceptive choice and AIDS awareness among Nigerian undergraduates. *Afr J Reproduct Health*. 2002;6:60–70.
- [2] Brabin L, Kemp J, Obunge OK, Ikimalo J, Dolimore N, Odu NN. *et al.* Reproductive tract infections and abortion among adolescent girls in rural Nigeria. *Lancet*. 1995;345:270–1
- [3] UNAIDS (2010) Available at [http://www.unaids.org/documents/20101123\\_Global\\_Report\\_em.pdf](http://www.unaids.org/documents/20101123_Global_Report_em.pdf). Accessed 14 February 2013.
- [4] National Population Commission (NPC) [Nigeria] and ORC Macro. 2004. Nigeria Demographic and Health Survey 2003. Calverton, Maryland: National Population Commission and ORC Macro.
- [5] Federal Ministry of Health [Nigeria]. National HIV/AIDS and Reproductive Health Survey 2007 (NARHS Plus). Federal Ministry of Health Abuja, Nigeria 2008.
- [6] Ajuwon AJ, Olaleye A, Faromoku B, Ladipo O. Sexual behaviour and experience of sexual coercion among secondary school students in three states in North Eastern Nigeria. *BioMedCentral Public Health*. 2006; 6: 310.
- [7] Olugbenga-Bello AI, Adebimpe WO, Abodunrin OL. Sexual risk behaviour among in-school adolescents in public secondary schools in a Southwestern city in Nigeria. *International Journal of Health Research*. 2009; 2(3):243-251.
- [8] Falaye AO, Oyesoji AA. Gender differences in the sexual behaviour of selected adolescents in Southern Nigeria. *Nigerian Journal of Guidance and Counselling*. 2004; 9(1); 240-254.
- [9] Onyekonwu CG, Aneziokoro EA. Sexual behaviour and reproductive health among female senior secondary school students in Abakaliki LGA, Ebonyi State. *Orient Journal of Medicine*. 2007; 19 (1):31-37.
- [10] Salako AA, Iyaniwura C.A, Jeminusi OA, Sofowora R. Sexual behaviour, contraception and fertility among in-school adolescents in Ikenne local government, South-western Nigeria. *Nigerian Journal of Clinical Practice*. 2006; 9(1):26-36.
- [11] Bhubon MD, Subha R. Adolescent male reproductive health: Awareness and behavior among peri-urban and rural boys in West Bengal, India. *International Journal of Men's Health*. 2007; 6 (2): 79-99.
- [12] Sylvia FK, Jessie KM, Herman S, Leif EA, Knut-Inge K. Review Article: A review of studies of sexual behaviour of school students in sub-Saharan Africa. *Scandinavian Journal of Public Health*. 2002; 30 (2): 148-160.
- [13] Federal Ministry of Health [Nigeria]. National HIV/AIDS and Reproductive Health Survey 2007 (NARHS Plus). Federal Ministry of Health Abuja, Nigeria 2008.
- [14] Prata, N., F. Vahidnia, and A. Fraser. 2005. Gender and relationship differences in condom use among 15-24-year-olds in Angola. *International Family Planning Perspectives* 31(4): 192-199.
- [15] The World Bank's Global HIV/AIDS Program of action (2005)
- [16] Mberu BU. Protection before the harm: the case of condom use at the onset of premarital sexual relationship among youths in Nigeria. *Afr Popul Stud*. 2008; 23:57-83.
- [17] William KA, Alexander CS. Determinants of condom use to prevent HIV infection among youth in Ghana. *J Adolesc Health*. 1999; 24:63-72.
- [18] Ndola PE, Vahidnia E, Fraser A. Gender and relationship differences in condom use among 15-24 years olds in Angola. *Int Fam Plann Perspect* 2005;31:192-199.
- [19] Shisana O, Rehle T, Simbayi L C, Parker W, Zuma K, Bhana A, Connolly C, Jooste S, Pillay V *et al.* South African National HIV Prevalence, HIV Incidence, Behaviour and Communication Survey, 2005. Cape Town: HSRC Press.
- [20] Pettifor, A E, Rees H V, Steffenson A, Hlongwane-Madikizela L, McPhail C, Vermaak K & Kleinschmidt I. HIV and sexual behaviour among young South Africans: a national survey of 15-24 year olds. Johannesburg: 2004. Reproductive Health Research Unit, University of Witwatersrand.