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Prevalence of tobacco use among youths in five centres in Nigeria: A global youth tobacco survey (GYTS) approach

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Abstract

Introduction: Tobacco use is one of the major preventable causes of death, the WHO attributes 5 million deaths to tobacco use annually and by 2020, the figure is expected to exceed 10million with approximately 70% of these deaths occurring in developing countries[2]. Over 8.9% of Nigerians above 15 years smoke. This paper presents some of the important findings of the GYTS conducted in five centres in Nigeria.
Methods: Representative sample as provided by the GYTS protocol was employed. Data was collected from five GYTS centres viz four urban cities, Abuja Federal Capital Territory (FCT), Ibadan, Lagos and Kano selected proportionate to their size and in Cross River State in 2008.
Results: Showed that less than one in ten youths aged 13-15, are currently smoking cigarettes. The level of cigarette smoking amongst 13-15 year old girls was higher than adult females and the use of other tobacco products was high in all the centres surveyed. The susceptibility to initiate smoking within a year was high.
Conclusion: There is an increasing prevalence of cigarette smoking among the youths, particularly amongst girls and the use of other tobacco products in all the centres surveyed. There is therefore the need for aggressive interventions targeted at the youths to stem this worrisome phenomenon.

Keys Words: GYTS, Prevalence, cigarette smoking, other tobacco products, susceptibility to initiate smoking, youths.

Introduction

The WHO estimates that there are approximately 1.3million smokers in the world representing about a third of the global population aged 15 and above with nearly 84% of smokers living in countries with a developing or transitional economy[5]. World-wide, one billion adult men smoke, 35% in developed countries and 50% in developing countries. In high-income countries, the number of smokers has been generally on the decline for decades, although it continues to rise in some population groups. In low and middle income countries in contrast, the number of smokers has been on the increase.[6]

In Nigeria, the current smoking rate among adult males is 9.0% and 0.2% in females[7]. While in Cross River State of Nigeria, the GYTS in 2001 revealed smoking rate of 7% among young people (Boys 7.7%, Girls 3.4%).[4,8] Most smokers begin to use tobacco before age 18 years, however, according to the GYTS, nearly one-quarter of young people smoke before the age of 10 years. Globally, the difference in smoking rates between young boys and girls is not as much as the difference in prevalence among adult smokers.

Factors that increase the risk of smoking among adolescent include intense advertisement, promotion and sponsorship programmes by tobacco industries, easy access to tobacco products and/or smoking by peers, parents or siblings, and misperception that smoking enhances social popularity[6]. The WHO MPOWER[7] report thus focuses on the M-Monitoring of tobacco use, P-Protecting people from tobacco use, O-Offering help to quit tobacco use, W-Warning about dangers of tobacco, E-Enforcing bans on tobacco advertising and promotion, R-Raising taxes on tobacco products. This study therefore highlights the prevalence of cigarette smoking and the use of other tobacco amongst youths 13-15years in the 4 major cities (Lagos, Ibadan, Kano, FCT, Abuja) and a state (Cross River State) and the susceptibility to initiate smoking within one year in Nigeria.

Methodology

The Global Youth Tobacco Survey (GYTS) is a global tobacco surveillance system used to collect among others, data on the prevalence of cigarette smoking use of other tobacco and susceptibility to become cigarette smokers, employing a pre-tested anonymous self-administered questionnaire.

The GYTS methodology developed by WHO and UNICEF uses a two-stage cluster sample design that produces representative samples of students in classes comprising junior secondary (JS) 2, Junior Secondary (JS) 3, or Senior Secondary (SS) 1, whose ages are 13-15 years[4]. The questionnaire was administered on students aged 13-15 years using a standardized methodology for constructing the sample frame, selecting schools and classes and processing data.

At the first sampling stage, school selection was proportional to the number of students enrolled in the selected classes. At the second stage, classes within the selected schools were randomly selected. All students attending school in the selected classes on the day the questionnaire was administered were eligible to participate. A weighting factor was applied to each student record to adjust for non-response (by school, class and student) and probability of selection at the school and class levels.[4] A final adjustment sums the weights by grade and sex to the population of school children in the selected grades in each sample site.[4] 100 schools were selected, representing 20 per survey site.

GYTS questionnaire

The GYTS questionnaire is a pre-tested questionnaire adapted from the standard 54 core questions developed by WHO/TFI (Tobacco Free Initiative) and UNICEF. Additional country specific questions were added for Nigeria making a total 58 questions. In some centres the questionnaires were translated into local language for clarity to the students and school survey assistants and field administration.

Pre-survey training workshop

A two day pre-survey training of trainer's workshop was organized for the five

zonal facilitators on the methodology of the GYTS survey. Each facilitator then paid pre-survey visits to the schools and scheduled dates for the fieldwork. Each participating school had GYTS survey assistants who were trained before the questionnaires administration by the GYTS zonal facilitators. Dates for the actual field work were scheduled by each facilitator. In all the sites, the survey was carried out simultaneously over a period of 5 days. The duration of questionnaire administration was about 30-40 minutes in each class. All answer sheets were collected, properly validated and thereafter analysed.

Data analysis

Analysis was made using the Epi info 3.3 version; 95% confidence intervals were calculated for all weighted estimates of frequency. Differences between categories of sex, age and current smoking status that reached a P value of <0.05 was highlighted. A weight was associated with each questionnaire to reflect the likelihood of sampling each student within a two-stage sampling frame and to reduce bias by compensating for differing patterns of non-response.

The weight use for estimation is given by the equation: W=W1*W2*f1*f2*f3*f4 where W1 is the inverse of the probability of selecting the school, W2 is the inverse of the probability of selecting the classroom within the school, f1 is school-level non-response adjustment factor calculated by school size category (small, medium, large), f2 is a class adjustment factor calculated by school, f3 is a student-level non-response adjustment factor calculated by class, and f4 is a post-stratification adjustment factor calculated by gender and grade. The weighted results can be used to make valid inferences concerning tobacco use and other findings of students in junior secondary 2,3 and senior secondary 1 classes.

Results

20 schools participated in each of the five centres. The response rate for participating students was: Abuja 1399 of 1568 (89.2%), Cross River State 1018 of 1060 (96%), Ibadan 637 of 910 (70%), Kano 944 of 1049 (90%) and Lagos 1461 of 1557(93.8%).

Ever smoked cigarettes

Overall, less than one in five students aged 13-15 years in Nigeria, ever experimented with cigarette smoking. The rate was lowest in Ibadan 4.7% (Boys 3.0%, Girls 6.4%) and highest in Kano 16.1% where 29.2% of boys than girls (3.7%) were more likely to do so. (Table 1.0).

Never smokers likely to initiate cigarette smoking within a year

In all the centres, the susceptibility of youths initiating cigarette smoking within a year was generally low. This tendency varied from 3.6% in Ibadan (Boys 4.3%, Girls 2.9%) to 16.2% in Lagos (Boys 13.5, Girls 17.8%). Though not statistically significant, more girls than boys in Lagos who never smoked, were likely to do so. (Table 1)

Current cigarette smoking

This study revealed that in Nigeria, less than one in 10 youths, aged 13-15 are currently smoking cigarettes. The highest rate was recorded in Kano, 6.2% (Boys 11.4, Girls 5.5%) with a statistically significant male preponderance. Lagos had the least rate of current cigarette smokers, 2.6% (Boys 2.8%, Girls 1.8%). In other centres with the exception of Kano, there was no significant gender differences in current smoking rates. (Table 2.)

Current use of other tobacco products

Current smoking of other tobacco products among the youths in all the five centres was high compared to manufactured cigarettes. This ranged from 13.1% (Boys 13.2%, Girls 12.7%) in Lagos to the highest in Cross-River State 23.3% (Boys 23.9%, Girl 12.9%). (Table 2).

Discussion

The Global Youth Tobacco Survey (GYTS) was introduced in 1999 as a tool providing a systematic global surveillance of youth tobacco use. Countries can use data to enhance their capacity to monitor tobacco use among youth; guide development, implementation and evaluation of their national tobacco prevention and control

Table 1: Percent of students who had ever smoked cigarettes and percent of students who had never smoked that were susceptible to start smoking in the next year, Nigeria – GYTS, 2008

State	Ever Smoked Cigarette, ever one or two puffs	Percent never smokers likely to initiate smoking within a year
Abuja	12.0 (7.9 – 17.8)	13.4 (9.1–19.3)
Boy	15.1 (9.8 – 22.6)	17.1 (10.8–25.9)
Girl	8.0 (4.6 – 13.5)	10.5 (5.7-18.4)
Cross River State	13.4 (8.4-20.7)	10.4 (6.1-17.3)
Boy	13.9 (7.8-23.6)	12.9 (6.6-23.7)
Girl	9.9 (5.6-16.9)	8.7 (3.7-18.9)
Ibadan	4.7 (1.9-11.1)	3.6(1.3-9.7)
Boy	3.0 (1.6-5.6)	4.3 (1.3-13.2)
Girl	6.4 (1.8-20.6)	2.9 (0.8-10.7)
Kano	16.1 (7.9-30.3)	9.8 (5.7-16.3)
Boy	29.2 (20.7–39.4)	5.9 (2.4-13.6)
Girl	3.7 (0.9-14.6)	12.4 (8.8-17.3)
Lagos	7.7 (4.9-11.9)	16.2 (12.0-21.4)
Boy	9.1 (5.3-15.4)	13.5 (8.2-21.4)
Girl	5.5 (2.9-10.0)	17.8 (11.9-25.9)

Table 2: Percent of students who were current cigarette smokers, current users of tobacco products other than cigarettes, and percent of current smokers who were dependent on tobacco products, Nigeria – GYTS, 2008

State	Current Cigarette Smoker	Currently use other Tobacco Products
Abuja	3.5 (1.9-6.2)	13.9 (9.3-20.2)
Boy	5.6 (2.9 – 10.7)	16.9 (11.7 – 23.7)
Girl	1.3 (0.3 – 5.8)	10.7 (6.8 – 16.3)
Cross River State	4.1 (1.4 – 11.1)	23.3 (16.6 – 31.6)
Boy	6.8 (2.4 – 17.7)	23.9 (16.2 – 33.9)
Girl	1.2 (0.2 – 6.4)	17.5 (9.9 – 29.0)
Ibadan	3.5 (0.9 – 13.0)	16.1 (10.0 – 25.0)
Boy	1.4 (0.3 – 6.9)	13.7 (5.5 – 30.5)
Girl	5.5 (1.2 – 22.2)	18.0 (12.5 – 25.4)
Kano	6.2 (2.5 – 14.5)	19.7 (16.1 – 23.9)
Boy	11.4 (5.5 – 22.2)	24.0 (17.8 – 31.6)
Girl	0.3 (0.0 – 3.9)	14.3 (9.7 – 17.6)
Lagos	2.6 (1.4 – 5.7)	13.2 (8.9 – 19.2)
Boy	2.8 (1.4 – 5.7)	13.2 (8.9 – 19.2)
Girl	1.8 (1.1 – 3.0)	12.9 (8.3 – 19.5)

programmes and compare tobacco-related data at national, regional and global levels.[8]

The 2008 GYTS in Nigeria indicates a relatively low rate of tobacco use among youths overall. However, youths currently smoking cigarettes in Kano were 6.2% (Boys 11.4%, Girls 1.8%). This is not surprising since the city of Kano, a highly populous commercial centre in Northern Nigeria, is frequently targeted by tobacco trans-nationals with their aggressive marketing and promotional programmes. In contrast, Lagos, though a densely populated commercial metropolis is South-Western Nigeria, recorded the lowest rate of youths who currently smoke cigarette, 2.6% (Boys 2.8%, Girls 1.8%).

The other centres viz: Abuja, Federal Capital Territory (FCT), Cross-River State and Ibadan also had far below one in 10 youths who currently smoked cigarette. The reason for this disparity is not clear and requires further studies. Of interest is the high rate of youths using tobacco products other than cigarettes all over the country. The highest was in Cross-River State where 23.3% (Boys 23.9%, Girls 17.5%) currently use other tobacco products instead of manufactured cigarettes. Some of such products probably include powdered tobacco leaves used as snuff, chewing and drinking of boiled tobacco leaves.

Cigarette smoking has always been a gateway to the use of other substance like marijuana leaves said to be widely available and used in several states in the Niger Delta region of Nigeria. Among students who had never smoked cigarettes, nearly one in five, 16.2% (Boys 13.5%, Girls 17.8%) were likely to initiate smoking within the year in Lagos though much fewer, 3.6% (Boys 4.3%, Girls 2.9%) were susceptible to do so in Ibadan. The other three centres reported nearly or above one in 10 susceptibility to initiate smoking within a year. This finding is also quite worrisome. It is possible that peer pressure and social factors such as massive promotional and indirect tobacco advertising are contributory since there is currently no law banning tobacco advertisement, promotion and sponsorship in Nigeria.[7]

The advertisement ban existing in Nigeria is based on the 2002 resolution of the Advertisement Promotion Council of Nigeria (APCON) that all its members should not advertise tobacco products. Though Nigeria is party to the WHO Framework Convention on Tobacco Control (FCTC) and to discourage our youths from initiating smoking, there is need for the Nigerian Government to expedite action in the process of domestication of the WHO FCTC by ensuring the passage of the comprehensive national tobacco control bill already in the senate of the Federal Republic of Nigeria. The bill addresses the essential elements of the WHO FCTC, including demand and supply issues, fiscal measures including increase tax and price, ban on sale to/or by minors, smoking in public places (including health care facilities, education facilities, university facilities, government facilities, indoor offices, restaurants, pubs and bars and other indoor workplaces).[7]

Conclusion

The Nigeria GYTS shows that though the current rate of cigarette smoking among the youth is low, the use of other tobacco products is high and thus more youths are susceptible to initiate cigarette smoking in the next year if no effort is made to halt this phenomenon. The WHO FCTC provides useful framework guiding the tobacco control efforts of state parties to the convention. Nigeria ratified the FCTC in 2005 but is yet to domesticate it. It is recommended that urgent action be taken for the domestication of the WHO FCTC. An aggressive advocacy and mass sensitization campaign to all relevant sectors and stakeholders is recommended for the expeditious passage of the National Tobacco Control Bill now in the Senate of the Federal Republic of Nigeria.

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