

# **Gender and Residential Area Differences in Listening to Radio Education Program on HIV/AIDS Prevention in Jigawa State, Nigeria**

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## **Abstract**

This study was to determine the types of radio program listen by gender and the frequency of listening by gender and residential area in Jigawa state of Nigeria. Random selection of an adult aged 18- 45years and above was made from the selected household in twelve local governments in the State .A total of 480 people were selected to served as the sample population of this study. The data were collected using structured questionnaires through administering the questionnaire to each selected adult with the help of research assistants.. The chi-square test of homogeneity was used to assess whether the number or percentage of types of radio listen is equal for male and female and residential areas of the respondents and also chi-square test of independence was used to assess whether the type of radio program listen by the respondents is related to their residential area. The finding of crosstabs analysis revealed that the number or percentage of types of radio program listen was equal or homogeneous for female and male respondents and the finding of crosstabs analysis for the types of radio program listen and residential area was found to be no relation. It can be concluded that female respondents listen to health program more compared to male respondents. Meanwhile male respondents listen to many programs as against female.

**Key words:** Gender, Residential area, Radio education program, HIV prevention

## **1. Introduction**

A number of bodies of knowledge in the field of public health, community health, health communication, health promotion, health education etc have documented the relationship between exposures to mass-media messages and positive behavioral change. Many of these messages are based on entertainment –education strategies. For instance, study have shown a strong association between exposure to family planning, smoking and alcohol drinking messages and behavior change ( Westoff & Rodriguez, 1995) .But recently some researchers pay more attention to Human immunodeficiency Virus (HIV) education and sexual behavior.

According to Collins and Rafael (2000) an effective communication strategy is a vital component in the global efforts in HIV/AIDS education and prevention. Their findings revealed that employing effective communication through media organization is the only essential options to contain the spread of HIV/AIDS because of lack of vaccine or medical cure. Indeed, media messages that focus on prevention through behavior change has been recognized to prevent risk behavior related to sexuality, drugs use etc.

In Nigeria the behavior change communication (BCC) program was designed to include a number of different but interrelated roles, which includes; increasing knowledge, promote essential attitude change, reduce stigma and discrimination, stimulate community dialogue, promote services for prevention, care and support, and improve skills and sense of self-efficacy. In order to achieve the objective of this program, tailored messages were developed using a variety of communication channels purposely to promote and sustain individual, community and societal behavior change (NACA, 2004).

Thus, the government of Nigeria identified Mass-Media as an appropriate channel to ensure correct information reaches the general population more especially the risky population. In order to achieve this objective a national mass-media campaign was launched in 2003 by the Federal government through national media houses (Nigerian Television Authority, Federal Radio Corporation, & Newspapers). This study was to determine the relation of types of radio program listen by sex and the frequency of listening by sex and residential area in Jigawa state of Nigeria

## **2. Literature Review**

### *2.1 HIV and AIDS Policy Response and Prevention in Nigeria*

The first AIDS case in Nigeria was reported in 1986, since then, the epidemic has steadily grown. By 1991, the prevalence rate had raised to1, 8%, it progressed rapidly to 5.5% in 2001 but dropped to 4.4% of the entire population by 2005 and stabilized. However some parts of the country are worse affected than others, but no state is unaffected. All the states of Nigeria have general population prevalence over 1% (Health Sentinel Survey, 2003, 2005, 2007, 2009; Fact

sheet, 2008).The epidemic in the country has extended beyond the commonly classified high-risk groups and it is now common in the general population.

As soon as the first case of HIV/AIDS was diagnosed in the country, the government mounted a National response with the establishment of the Presidential Council on AIDS and the National Action Committee on AIDS (NACA) in 2000.This provided the basis for coordinated effort to provide comprehensive prevention, treatment, care and support services through policy formulation and development of plans, including the HIV/AIDS Emergency Action Plan (HEAP), National HIV/AIDS policy, the HIV/AIDS health sector plans and National Strategic Framework (NACA, 2003).

The government gives special consideration to the area of prevention and engages a number of private sector, civil society organizations, bi-lateral and multi-lateral organization, and United Nation agencies by committing a lot of financial resources and outsourcing more fund from donors such as Global Fund and World Bank these resources have been carried down to State and Local governments in the country. The majority of the government policies on HIV/AIDS mainly focused on prevention as the only available and viable remedy to HIV/AIDS pandemic. It is also the only measure to ensure the greater proportion of the Nigerian Population is free of HIV infection (National HIV/Syphilis Sero-Prevalence Sentinel Survey, 2005).

However, after about four years the government realized that, the program is not making impacts as projected, because the prevalence rate of HIV infection is increasing at different states, although there is a generalized stability at the federal or national level (NACA, 2007). Therefore, this situation forced some states government in collaboration with development partners to reevaluate the process and re-launched their campaign in their own ways using state radio stations both AM and FM in the most commonly spoken language in the state. For example in Jigawa State and other North-West states they used Hausa language while in South West they used Yoruba vernacular and in the South East the used Ibo language and the South-South used pigin English (NACA, 2007).

## *2.2 The Use of Radio Program for HIV Prevention campaign*

Selection of appropriate media for HIV/AIDS Prevention campaign is very crucial to it success. According to Benefo (2005) there is some debate about which types of mass media are most effective in developing campaign instrument for public health .He therefore suggested that radio might be the most accepted media weapon because of certain qualities of radio such as; low production cost for radio transmission, affordability and portability of radio and above all is its use of oral communication which reduces barrier arising from illiteracy.

In Nigeria radio has been established to have a broad range of users across the country The citizen of Nigeria irrespective of their socio economic status are believed to be listening to radio either everyday or most days (Society for Family Health, 2003). SFH reported that 65% of adult population in Nigeria listens to radio at least once every day. SFH further suggested that the use of radio for HIV/AIDS education and Family Planning can reach both literate and illiterate

audience with message in their own language .Radio is relatively inexpensive to many people, radio can use batteries, so it is useful in areas without electricity and broadcast can be repeated many times during the day.

Furthermore Radio is one of the mass-media organizations that have a lot of programs which can easily disseminate information and messages to a large number of audience/listeners at a time. individuals who were exposed to the HIV/AIDS radio campaign were more likely to be: (i) aware of sexually transmitted infection, HIV/AIDS, and condom use (ii) to know about the sexual routes of HIV transmission, (iii) to have fewer misconception about HIV and (iv) to be able to talk to others about STIs, HIV, AIDS and condom use than those who were not exposed to campaign messages

Accordingly (Scheepers 2001: Underword, 2001: UNAIDS, 2004: Benefor, 2005) found that an AIDS radio drama program, jingles and entertainment education improved on the listeners' knowledge of AIDS, increased listener's willingness to discuss issues related to HIV virus, reduced risky behavior and proved to have an enormous impact on the society at risk also there is a strong radio program impact on contraceptives use and family size preferences in Nigeria, Peru, Indonesia and Kenya.

### *2.3 Gender and Preventive Health Behavior*

Gender differential in sexual behaviors and other related attitudes toward sexual practices are very essential in preventive health behaviors especially in HIV/AIDS campaign (Sohn, & Chun, 2007). They argued that sexual behavior become the subject of interest in many societies due to an increasing rise in unplanned pregnancies, induced abortion, sexual transmitted diseases(STIs) and HIV infection. The AIDS epidemic in Sub-Saharan Africa now affects women more severely than men. Among the population aged 15-49, 59% of HIV-positive individuals are women, while 41% are men.

Lee (2010),argued that gender differences in health related behavior must be fully understand from the perspective of socio-cultural forces, which encourage men and women to engage in gender stereotypic behavior in order to differentiate themselves as much as possible from the other sex. Lee further observed that men are mostly socialized to disregard knowledge about healthy lifestyle and choose harmful behaviors, whereas women are socialized to be cautious with their own health and protective of the health of others.

Accordingly Lee further explained that it is difficult for women to protect themselves against HIV infection since studies of sexual behavior in different African countries shows that both men and women are very reluctant to use condoms because to suggest using condoms is construed either as proof of infidelity or as a declaration of mistrust. It is estimated that the majority of HIV-positive African women living in a couple were infected by their regular partner. Women are increasingly aware of this danger.

men are approved to be independent, self-reliant, strong, robust and tough, while women take responsibility for their health and health behavior of men in their lives (Lee, 2010). Similarly Lee observed that HIV prevention and testing is more accessible to women than to men, thanks to antenatal healthcare. Moreover the study shown that a substantial number of research that evaluates gender differences in health behavior choices throughout the world (Turkey, Sweden, Thailand, Africa, and Germany) reported gender differences that reflect male engaging in more negative health behaviors such as alcohol consumption, while female selects more positive and preventive lifestyle such as preventive screening for illness It has been noted that Women are more attentive to messages in order to accurately interpret those messages (Lee, 2010).

### **3. Method and Material**

#### *3.1 Sampling Design*

The sampling design that has been proposed for this study is simple random sample ensuring the sample will be representative of the population (Keppel, 1991) specifically a cluster sampling was selected and used in this case the sampling stages look as follows: **Stage 1:** Random selection of four local governments each from three Senatorial districts in the state (total  $4 \times 3 = 12$  local governments) **Stage 2:** Random selection of one urban area and one rural area form the selected local governments (total  $12 \times 2 = 24$  communities) **Stage 3:** Random selection of twenty households from the selected communities (total  $20 \times 24 = 480$ ) **Stage 4:** Random selection of an adult aged 18-50years, from the selected household using a table of random numbers as a total of  $4 \times 3 \times 2 \times 20 = 480$  people and this served as the sample population of this study.

#### *3.2 Sample Size Determination*

The adequacy of sample size was determined by using G\*Power analysis program (Faul, Erdfelder, Lang, & Buchner, 2007) In order to run chi-square test(  $X^2$ ) with medium effect size, 0.05 alpha levels and 0.95 powers, it was suggested that only 220 samples were needed. Therefore from this outcome the sample size projected by this study met G\*power analysis criterion.. Hence, the researcher was confident that sample size of 480 respondents as used in this study was adequate to generate a reliable finding for this survey research since the samples were more than the size proposed by G\*Power Analysis

#### *3.3 Data Collection and Analysis*

The data were collected using survey method, and using structured questionnaires through administering the questionnaire to each selected adult with the help of research assistants. The data was coded and edited before being transferred to the computer for data analysis. The data was processed using SPSS Version 19. The data analysis was carried out using inferential statistics to compute differences of mean and analyze relationship between variables.. In this study, the inferential statistics used are (a) test of homogeneity and (b) test of independence using chi-square. The chi-square test of homogeneity was used to assess whether the number

or percentage of types of radio listen is equal for male and female and residential areas of the respondents and chi-square test of Independence was used to assess whether the type of radio program listen by the respondents is related to residential area

#### 4. Results

##### Objective of the study

The objective of this study was to determine the relation of types of radio program listen by sex and the frequency of listening by sex and residential area. Thus, three hypotheses were postulated and tested using chi-square test of homogeneity and test of independence.

##### 4.1 Research Hypothesis 1

H<sub>1</sub>: There is no difference in percentage of types of radio program listen (news only, sports news, Drama, health program, and many programs) for female and male respondents.

A chi-square test of homogeneity was conducted and The finding of crosstabs analysis revealed that the number or percentage of types of radio program listen (news only, sports news, drama, health program, and many program) was equal or homogeneous for female and male respondents [Likelihood Ratio  $\chi^2 (4, N = 471) = 6.820, p= 0.161$ ]

**Table 1: Chi-square test of homogeneity for types of radio program listens by Sex.**

Sex	News Only	Sports news	Drama	Health Program	Many Program	Total
Male	29	6	34	128	131	328
	8.8	1.8	10.4	39.0	39.9	100.0
Female	7	1	20	67	48	143
	4.9	0.7	14.0	46.9	33.6	100.0
Total	36	7	54	195	179	471
	7.6	1.5	11.5	41.4	38.0	100.0

Chi-square = 6.561<sup>a</sup> and Likelihood ratio = 6.820DF= 4 P-value = 0.161CV = .118 % cell with expected count less than 5 = 20.0%

##### 4.2 Research Hypothesis 2

H<sub>2</sub>: The types of radio program listen ((news only, sports news, Drama, health program, and many programs) is independence of residential area of the respondents

A chi-square test of independence was conducted and the finding of crosstabs analysis for the types of radio program listen and residential area was found to be no relation. [Likelihood Ratio  $\chi^2 (4, N = 471) = 4.220, p= 0.382$ ].

**Table2: Chi-square test of independence for types of radio program listens by Residence.**

Residence	News Only	Sports news	Drama	Health Program	Many Program	Total
Urban	19 7.9	3 1.3	34 14.2	93 38.8	91 37.9	240 100.0
Rural	17 7.4	4 1.7	20 8.7	102 44.2	88 38.1	231 100.0
Total	36 7.6	7 1.5	54 11.5	195 41.4	179 38.0	471 100.0

Chi-square = 4.179<sup>a</sup> and Likelihood ratio = 4.220 df= 4 P-value = 0.382 larger CV = .094% cell with expected count less than 5 = 20.0%

**4.3 Research Hypothesis 3**

H<sub>3</sub>: There is no different in percentage of frequency of listening to radio (once in a month, once in a week, several times, and daily) for urban and rural respondents.

A chi-square test of homogeneity was conducted to assess whether the number or percentage of the frequency of listening to radio is equal or homogeneous for residential areas of the respondent. The finding of crosstabs analysis revealed that the number or percentage of listening once in a month, once in a week, several times, and daily was not equal or homogeneous or significantly different for respondent in urban and rural areas [Likelihood Ratio  $\chi^2$  (3, N = 471) = 4.057, p= 0.263

**Table4.5: Chi-square test of homogeneity for Frequency of listening to radio by Residence**

Residence	Once week	a Once month	a Several times	Daily	Total
Urban	4 1.7	6 2.5	77 32.1	153 63.8	240 100.0
Rural	2 0.9	13 5.6	79 34.2	137 59.3	231 100.0
Total	6 1.3	19 4.0	156 33.1	290 61.6	471 100.0

Chi-square = 3.983<sup>a</sup> and Likelihood ratio = 4.057 df= 3 P-value = 0.263CV = .092% cell with expected count less than 5 = 20.0%

## 5. Discussion

A close inspection of Table 1 for pattern of differences in percentage reveals a significantly high percentage of the female listen to health programs (46.9%), 33.6% listen to many programs and 0.7% listens to sports news. In comparison, significantly high percentage of male listen to many programs (39.9%), a small percentage (10.4%) listen to drama and a significant percentage (39.0%) listen to health program as such there is no difference in listening to radio health program and many programs between male and female in the study area.

This suggests that, in general, the majority of female and male respondent listen to health programs with a fewer male respondents listen to drama program. The percentage of cells with expected count of less than 5 was at 20.0% suggesting that the analysis conducted was valid and appropriate.

Similarly from the result of table 2 the analysis for the degree of relationship signifies that the rural respondents had a high significant listening to health programs of 44.2% as against the urban respondents with 38.8%. But listen too many programs indicated no difference between the rural respondents and urban respondents because there is a significantly lower difference between residents in listening to many radio programs percentage (0.9%)

On the other hand, the urban residents had a significantly percentage of 14.2% for listening to drama program as compared to the rural residents with 8.7%. In general, the rural residents had significantly higher listening of health programs and equal proportion between listening to many programs while the urban residents had significantly proportion in listening to drama programs. However and the lowest program listen by both urban and rural residents is sports news with 1.3% and 1.7% respectively. The Cramer's  $v$  value obtained ( $v = 0.094$ ) indicates that the strength or the magnitude of the relationship between types of radio programs listened and residential area of the respondent shows no correlation. The percentage of cells with expected count of less than 5 was at 20.0% suggesting that the analysis conducted was valid and appropriate.

Furthermore close inspection of Table 3 for pattern of differences in percentage reveals a substantial significant and slightly high percentage of the urban residents were rated as those who listen to radio on daily basis (63.8%), as against 59.3% for rural residents. In comparison, there is significantly lower pattern of differences between residency in daily listening to radio percentage (4.5%) and there is also lower difference in frequency of listening radio several times between the respondents' residential areas (urban 32.1% and rural 34.2%). However, rural residents had 5.6% as those who listen radio once in a month as against urban settlers with 2.5%. In addition urban respondents had 1.7% as listening to radio once in a week as compared to rural respondent with 0.9%

The implication of this findings suggests that, in general, the majority of the respondents( urban and rural) were considered to listen to radio on daily basis and only a small percentage or



number were listening radio once in a week. Moreover, there is not much significant difference between the groups of respondent in percentage rating for daily listening to radio. The percentage of cells with expected count of less than 5 was at 20.0% suggesting that the analysis conducted was valid or appropriate.

Furthermore the results supported study conducted by Society for Family Health in 2003 in Nigeria on Family Planning and Reproductive Health which revealed that almost 65% of Nigerians listen to radio at least once every day. Also further supported other studies conducted by Witte, Girma and Girgre (2001); Lee (2004) in Ethiopia on the use of radio for health promotion and campaign on family planning and HIV prevention revealed that almost 64% of the respondents reported daily listening to radio in that country. Similarly Ubah and Sani (2009) in Benue State, Nigeria discovered that 66% of the respondents reported to have listened to radio, at least once every day.

## **6. Conclusion**

In conclusion it seem more than half of the respondents have the habit of listening to radio on daily basis that is about 290 while about 156 of the respondents listen to radio several time in a week whereas 19 listen to radio once in a week and only Six (6) of the respondent listen to radio in a month. Also about 195 of the respondents often listen to health program including HIV/AIDS and almost 179 respondents they listen to many programs, meanwhile 54 of the respondent turned to their radio just to listen to drama program and about 36 of the respondent listen to news report and only seven (7) of the respondent listen to sport news and other sport programs. In general female respondent listen to health program most as compared to male respondent. Male respondent listen to many programs as against female.

Policies should be put in place to encourage the community to increase their frequency for listening to radio education program on HIV and general health related issues This may improve on healthy life style of the populace in the study area and general health outlook and also may be a sound foundation to empowerment for behavioral change, and subsequently reduces the prevalence of HIV infection. In addition community education program for HIV prevention should be put in place to encourage community participation, this should include group radio listening and discussion among peers and gender in the state. In fact community radio listening centers should be established under the care and supervisor of the people in the community. It is imminent that this may improve perception, participation and empowerment.

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