

Full Length Research Paper

# Prevalence and predictors of willingness to care for relatives living with HIV/AIDS: Evidence from women of reproductive age in Nigeria

A. S. Adebowale<sup>1\*</sup>, O. B. Yusuf<sup>1</sup>, B. O. Ogunbiyi<sup>2</sup> and P. I. Omoniyi<sup>1</sup>

<sup>1</sup>Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria.

<sup>2</sup>Population Action International, Washington DC, United States of America.

Accepted 24 January, 2022

Human immunodeficiency virus/Acquired immune deficiency syndrome (HIV/AIDS) constitutes threat to human life. Escalating number of HIV/AIDS cases in Nigeria demands for more relatives that will provide care for People Living with HIV/AIDS (PLWHA). Receiving care from relatives provides PLWHA the strength to confront life. Information on Willingness to Provide Care (WPC) for PLWHA is insufficient in Nigeria; hence, this study. This cross-sectional design study utilized Nigeria Demographic and Health Survey, 2008 dataset with focus on women of age 15 to 49 (n=27, 195). The dependent variable was WPC for Relatives Living with HIV/AIDS (RLWHA). Data was analysed using Chi-square and logistic regression models ( $\alpha=5.0\%$ ). Mean age of the women was  $28.79\pm 9.4$  years and the prevalence of WPC for RLWHA was 65.4% with urban women (70.8%) more WPC for RLWHA than their counterparts in the rural areas (61.9%) ( $p<0.0001$ ). The percentage of women WPC for RLWHA increases with increasing level of education ( $p<0.0001$ ). The identified predictors of WPC for RLWHA were the age, residence, religion, region, education, knowing someone who had died of HIV/AIDS, knowing someone denied of health services because of AIDS and believing that PLWHA should be ashamed of themselves. Majority of women in Nigeria were WPC for RLWHA. However, programmes that can improve WPC for RLWHA in Nigeria are indispensable.

**Key words:** Willingness to provide care, people living with human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), Nigeria.

## INTRODUCTION

Human immunodeficiency virus (HIV) prevalence has been declining in recent time in Nigeria, falling from 5.8% in 2001 to 5.0% in 2003, 4.6% in 2007 (National Acquired Immune Deficiency Syndrome (AIDS) and Sexually Transmitted Infections (STIs) Control Programme, 2008) and 3.6% in 2012 (PRB, 2012). However, the present HIV prevalence is still high considering the huge Nigerian population (about 160 million) and the rate is higher than the sub-Saharan African estimate of 3.4% (PRB, 2012).

With over 3 million People Living with HIV/AIDS (PLWHA) at the end of 2011, "Nigeria contributes the second highest HIV burden and is next to South Africa globally" (PRB, 2012; Monjok et al., 2011).

The cure for HIV/AIDS is yet to be discovered and over tens of millions of people worldwide are currently living with the disease (PRB, 2012; CDC fact sheet, 2011). People still contract HIV in Nigeria as new cases are reported daily; therefore, the spread of the disease is still a problem. As the number of PLWHA increases every day in Nigeria, care will be needed from relatives to enable the infected individuals to receive medical care, cope with the stress and trauma of the infection during all phases of their ill health (Sorsdahl et al., 2011).

\*Corresponding author. E-mail: [Adesteve2006@yahoo.com](mailto:Adesteve2006@yahoo.com).

Right away from the ancient times, the Willingness to Provide Care (WPC) has always existed in every society. Willingness to care means cheerful compliance and readiness to help and it is an act of showing unconditional acceptance, love, kindness and concern through creating an environment that is supportive, protective and advances well-being of an individual. It consists of therapeutic factors that result in the satisfaction of certain human needs. People living with HIV/AIDS are human beings who must be cared for, respected, nurtured, understood and assisted. Effective caring helps to reconcile and mediate the inaptness of viewing the PLWHA holistically while at the same time attending to their needs. This assists the PLWHA to find the strength or courage to confront life and the disease. However, for the fear of being infected with the disease, PLWHA are often neglected and abandoned by their community and family members (Dinesh et al., 2011). Neglect and stigmatization against PLWHA are still common in Nigeria as the case in different parts of the world (Sayles, 2009).

Previous studies identified serious effect of lack of care resulting from neglect on the health of PLWHA and their ability to cope and manage the stress associated with the disease (Stutterheim, 2011; Ilebani and Fabusoro, 2011; Nicole et al., 2006; Bekker, 2006). "Stigma remains one of the major reasons why the AIDS epidemic continues to devastate societies around the world" (Ban Ki-moon, 2008). In Nigeria, as for some sub-Saharan African countries, primary emphasis and efforts have been focused on prevention; with less attention paid to how the family members are ready to provide care for PLWHA in the community (Tumushabe, 2006). Therefore, information on perception on WPC for PLWHA will be valuable to donors who channel their resources towards development and promotion of programs that make PLWHA live their normal life. However, such information is scarce in Nigeria; few studies were only conducted among health care workers (Amaran, 2011; Akani and Erhabor, 2006; Reis et al., 2005). Our study which examines prevalence and predictors of WPC for Relatives Living with HIV/AIDS (RLWHA) was designed to fill the gap.

Numerous factors have been investigated to be responsible for why people are not willing to care for PLWHA. The common believe particularly in developing countries is that HIV infection is often thought to be the result of personal irresponsibility such as; homosexuality, drug addiction, and promiscuity that are already stigmatised in many societies. The fact that having many people not WPC for PLWHA in developed countries such as America (Goosby, 2009) where treatment has been widely available for several years is an indication that it is a global phenomenon. For instance, an estimated 27.0% of Americans would prefer not to work closely with a woman living with HIV/AIDS (UNAIDS, 2008). In a study conducted in Southeast China among physicians' and physician assistants' only 40.4% were willing to provide healthcare services for PLWHA (Cai et al., 2007). Moreover, PLWHA Stigma Index in UK shows that 17%

of PLWHA had been denied health care and that verbal harassment or assault had been experienced by 21% of respondents (UNAIDS, 2008; IPPF, 2009).

This study has attempted to examine how women of childbearing age in Nigeria would be WPC for relatives living with HIV/AIDS. The objectives of this study are to determine the prevalence of WPC for RLWHA, examine factors that are associated with woman WPC for RLWHA and identify which of the associated factors are predictors of women WPC for RLWHA in Nigeria.

## METHODOLOGY

### Data collection

The data utilized were extracted from measured DHS database available at the organization's website (<http://www.measuredhs.com/>). The original data were collected by ICF Macro Calverton, Maryland, USA in conjunction with National Population Commission (NPC), Nigeria (Nigeria Demographic and Health Survey, 2008). During the survey, a stratified two-stage cluster design was used to select 33,385 women of childbearing age (15 to 49 years). The primary sampling unit (PSU), a cluster for the survey was defined on the basis of Enumeration Areas (EAs) from the 2006 census frame. A minimum requirement of 80 households for the cluster size was used in the design. A well structured questionnaire was designed for the survey and the interviewers were properly trained. Pilot study was conducted to test the reliability and validity of the study instruments.

A question on individual WPC for RLWHA was included in the questionnaire and the options to choose by the respondents are; Yes=1, No=2 and Don't know=3. Those who chose option 3 were excluded from the data analysis, because their intention could not be ascertained and this can bias the study result. This reduces the number of study subjects to 27,195. To account for cluster sampling method used during data collection, the data was weighted before we began data analysis.

### Data analysis

The outcome variable was "WPC for RLWHA". The analysis began with cross tabulation of the outcome variable (willingness to give care to RLWHA) and selected socio-demographic factors using Chi-square ( $\chi^2$ ) test. Thereafter, logistic regression model was used to examine the strength of the associations between these variables and WPC for RLWHA. All analyses were carried out at 5% level of significant. The variable WPC for RLWHA was dichotomized into two by creating a dummy variable 0 (zero) for those who are not WPC for RLWHA and 1 (one) if otherwise. Here a reference category (Ref.) was created which was used as a basis for comparison between subgroup of the study sample.

The logistic regression model then specifies that the probability of WPC for RLWHA depends on a set of variables

$x_1, x_2, x_3, \dots, x_p$  in the following way;

$$\begin{aligned}
 p_x &= p(d = 1/x) \\
 &= 1 / \{1 + \exp [ - (\beta_0 + \beta_1 x_1 + \beta_2 x_2 \dots + \beta_p x_p) ] \} \\
 &= 1 / \{1 + \exp [ - (\beta_0 + \sum_{i=1}^p \beta_i x_i) ] \}
 \end{aligned}$$

The variable  $d$  denotes either WPC for RLWHA ( $d = 1$ ) or

otherwise ( $d = 0$ ), and  $x$  denotes a set of  $p$  variables  $x = (x_1, x_2, x_3, \dots, x_p)$  which are potential predictors of WPC for RLWHA such as age, levels of education, religion, residence, wealth index, etc. The  $\beta_1, \beta_2, \beta_3, \dots, \beta_p$ , are parameters that represent the effects of  $x$  on the probability of WPC for RLWHA.

### Ethical approval

The ethical approval was obtained from the Federal Research Review Committee and informed consent was sought from the respondent by the data originators before the conduct of the survey.

## RESULTS

The mean age of the respondents was  $28.79 \pm 9.4$  and the prevalence of women WPC for RLWHA was 65.0%. The respondents' age, place of residence, levels of education, wealth index, current marital status, region and religion were found to be significantly associated with WPC to RLWHA. The proportion of urban women (70.8%) who were WPC for RLWHA was higher than their rural counterparts (61.9%) ( $p < 0.0001$ ). Willingness to give care for RLWHA increases with increasing levels of education. Similar pattern for education was also observed for levels of wealth index. Regional differences also existed in the percentage of women WPC for RLWHA with women living in South West (54.4%) and North Central (81.6%) constituting least and highest proportion of women WPC for RLWHA, respectively ( $p < 0.0001$ ). According to religion, Christian (72.7%) women are more WPC for RLWHA than their counterparts who either belong to Muslims (55.3%) or Traditional (54.3%) religious group ( $p < 0.0001$ ) (Table 1).

Among all the behavioural variables considered, only cigarette smoking ( $p = 0.0066$ ) does not show a significant association with WPC for RLWHA. The data depict those women who were WPC for RLWHA constitutes higher proportion of those who had sexually transmitted disease (STD) in the previous 12 months before the survey (76.8%) ( $p < 0.0001$ ). Eighty three percent of those who knew someone who has or died of AIDS were WPC to RLWHA as against 62.8% of women who did not ( $p < 0.0001$ ) (Table 2).

The identified predictors of WPC for RLWHA are the age (odd ratio (OR)=1.128: confidence interval (CI)=1.059 to 1.202,  $p < 0.0001$ ), place of residence (OR=0.814: CI=0.725 to 0.915,  $p = 0.001$ ), levels of education (OR=1.366: CI=1.276 to 1.461,  $p < 0.0001$ ) and wealth index (OR=1.182: CI=1.126 to 1.241,  $p < 0.0001$ ). Others include knowing someone who died of HIV/AIDS (OR=1.832: CI=1.587 to 2.115,  $p < 0.0001$ ), people with HIV/AIDS should be allowed to continue teaching (OR=1.319: CI=1.260 to 1.381,  $p < 0.0001$ ), knowing someone denied of health services because of AIDS in the last 12 months (OR=0.617: CI=0.487 to 0.781,

$p < 0.0001$ ), people with HIV/AIDS should be ashamed of themselves (OR=0.924: CI=0.884 to 0.967,  $p = 0.001$ ), region (OR=0.709: CI=0.686 to 0.732,  $p < 0.0001$ ) and religion (OR=0.604: CI=0.545 to 0.668,  $p < 0.0001$ ) (Table 3).

The result from the multiple logistic regression is as shown in Table 4. Women of age 25 to 34 and 35 to 49 years were 1.112 (CI=1.037 to 1.193,  $p = 0.003$ ) and 1.135 (CI=1.047 to 1.231,  $p = 0.002$ ), respectively more likely to be WPC for RLWHA than the younger women (15 to 24 years). Also rural women were less likely (OR=0.893, CI=0.826 to 0.966,  $p = 0.005$ ) to be WPC for RLWHA than their urban counterparts. The strength of WPC increases with increasing level of education, with women having higher education 1.701 (OR=1.701, CI=1.457 to 1.987) more likely to be WPC for RLWHA than those without any formal education. Table 4 shows the patterns of relationship between WPC for RLWHA and other socio-demographic variables. Detailed information on the differential in WPC for RLWHA is shown in Table 4.

## DISCUSSION

This study finds that the prevalence of women WPC for RLWHA is high. Virtually all the socio-demographic and behavioural variables used in the analysis were significantly associated with WPC for RLWHA except cigarette smoking. In Nigeria, smoking is not common among women; therefore, very few women reported that they smoke, this can be the reason for insignificant.

Women who are WPC for RLWHA constituted a substantial proportion of those who had STD in the previous 12 months before the survey. Having experienced similar health problem in recent time could be a motivator to WPC for RLWHA. Also, higher proportions of women who knew someone who has or died of AIDS are WPC for RLWHA when compared with women who did not. Sympathy for having seen someone dying of AIDS and having known the stress that RLWHA victims undergo as a result of illnesses associated with the disease could be a reason for the finding. Also, women who disagreed that RLWHA should be ashamed of themselves are more WPC for RLWHA than those who agreed. This result is expected and in line with finding from previous study in Nigeria (Monjok et al., 2011).

Female youths were less likely to be WPC for RLWHA than older women. This is usual, as older women are more experienced and have passion for caring than the younger ones. This finding is consistent with outcome of earlier study conducted by Adeokun and Colleagues in Nigeria (Adeokun et al., 2008).

The strength of WPC increases with increasing level of education, with women having higher education about twice more likely to be WPC for RLWHA than those without formal education. This finding is not unexpected as it is widely believed that education serves as sources

**Table 1.** Percentage distribution of women by demographic characteristics according to willingness to provide care for relatives living with HIV/AIDS.

Demographic characteristic	Willingness to provide care for relatives living with HIV/AIDS		p-value	Total
	No	Yes		
Total	34.6 (9419)	65.4 (17776)		100.0 (27195)
<b>Age</b>				
15-24	34.4 (3481)	65.6 (6640)	p=0.006	100.0 (10121)
25-34	33.7 (3058)	66.3 (6014)		100.0 (9072)
35-49	36.0 (2880)	64.0 (5122)		100.0 (8002)
<b>Mean Age (years)</b>	28.9±9.6	28.74±9.2	p=0.182	28.79±9.4
<b>Residence</b>				
Urban	29.2 (3123)	70.8 (7567)	p<0.0001	100.0 (10690)
Rural	38.1 (6295)	61.9 (10209)		100.0 (16504)
<b>Education</b>				
None	44.6 (3668)	55.4 (4560)	p<0.0001	100.0 (8228)
Primary	37.2 (2050)	62.8 (3454)		100.0 (5504)
Secondary	29.8 (3178)	70.2 (7490)		100.0 (10668)
Higher	18.7 (522)	81.3 (2272)		100.0 (2794)
<b>Wealth Index</b>				
Poorest	42.5 (1815)	57.5 (2451)	p<0.0001	100.0 (4266)
Poorer	40.4 (1848)	59.6 (2727)		100.0 (4575)
Middle	34.5 (1780)	65.5 (3381)		100.0 (5161)
Richer	34.3 (2081)	65.7 (3994)		100.0 (6075)
Richest	26.6 (1894)	73.4 (5222)		100.0 (7116)
<b>Current marital status</b>				
Never married	28.9 (2092)	71.1 (5144)	p<0.0001	100.0 (7236)
Married	37.1 (6811)	62.9 (11557)		100.0 (18368)
Living together	32.9 (132)	67.1 (269)		100.0 (401)
Widowed	31.9 (200)	68.1 (427)		100.0 (627)
Divorced	36.8 (88)	63.2 (151)		100.0 (239)
Not living together	29.7 (96)	70.3 (227)		100.0 (323)
<b>Region</b>				
North Central	18.4 (641)	81.6 (2836)	p<0.0001	100.0 (3477)
North East	31.7 (1048)	68.3 (2259)		100.0 (3307)
North West	42.2 (2599)	57.8 (3566)		100.0 (6165)
South East	29.2 (1067)	70.8 (2584)		100.0 (3651)
South South	28.5 (1284)	71.5 (3214)		100.0 (4498)
South West	45.6 (2779)	54.4 (3318)		100.0 (6097)
<b>Religion</b>				
Christians	27.3 (4282)	72.7 (11380)	p<0.0001	100.0 (15662)
Islam	44.7 (4950)	55.3 (6129)		100.0 (11079)
Traditional	45.5 (130)	54.5 (156)		100.0 (286)

**Table 2.** Percentage distribution of women by their behavioural characteristics according to willingness to provide Care for relatives living with HIV/AIDS.

Socioeconomic characteristic	Willingness to provide care for relatives living with HIV/AIDS		p-value	TOTAL
	No	Yes		
<b>Cigarette smoking</b>				
No	34.7 (9401)	65.3 (17719)	p=0.066	100.0 (27120)
Yes	22.6 (12)	77.4 (41)		100.0 (53)
<b>Had STD in the last 12 months*</b>				
No	34.9 (9164)	65.1 (17089)	p<0.0001	100.0 (26253)
Yes	23.2 (128)	76.8 (423)		100.0 (551)
<b>Know someone who died of AIDS*</b>				
No	37.2 (8809)	62.8 (14881)	p<0.0001	100.0 (23690)
Yes	17.2 (577)	82.8 (2774)		100.0 (3351)
<b>Can get HIV by supernatural or witchcraft means*</b>				
No	32.7 (5390)	67.3 (11091)	p<0.0001	100.0 (16481)
Yes	35.1 (1720)	64.9 (3175)		100.0 (4895)
Don't know	39.6 (2271)	60.4 (3465)		100.0 (5736)
<b>Persons with HIV/AIDS should not be allowed to teach in schools*</b>				
No	55.8 (6470)	44.2 (5132)	p<0.0001	100.0 (11602)
Yes	17.3 (2402)	82.7 (11487)		100.0 (13889)
Don't know	32.3 (540)	67.7 (1131)		100.0 (1671)
<b>Knows someone denied of health services because of AIDS in the last 12 months*</b>				
No	26.6 (3159)	73.4 (8698)	p<0.0001	100.0 (11857)
Yes	25.6 (220)	74.4 (638)		100.0 (858)
Don't know	41.7 (6037)	58.3 (8435)		100.0 (14472)
<b>Knows someone denied of social events because of AIDS in the last 12 months***</b>				
No	26.7 (3241)	73.3 (8879)	p=0.032	100.0 (12120)
Yes	22.7 (131)	77.3 (446)		100.0 (577)
<b>Knows someone verbally abused because of AIDS in the last 12 months*</b>				
No	27.1 (3185)	72.9 (8564)	p<0.0001	100.0 (11749)
Yes	19.6 (185)	80.4 (758)		100.0 (943)
<b>People with HIV/AIDS should be ashamed of themselves*</b>				
Disagree	22.3 (2634)	77.7 (9191)	p<0.0001	100.0 (11825)
Agree	45.3 (6342)	54.7 (7673)		100.0 (14015)
Don't know	33.1 (435)	66.9 (879)		100.0 (1314)
<b>People with HIV/AIDS should be blamed for bringing the disease to the community*</b>				
Disagree	23.1 (2825)	76.9 (9416)	p<0.0001	100.0 (12241)
Agree	44.8 (6150)	55.2 (7573)		100.0 (13723)
Don't know	36.2 (440)	63.8 (776)		100.0 (1216)

\*significant at 0.1%; \*\*Significant at 1%; \*\*\*Significant at 5.0%.

**Table 3.** Ordinary logistic regression of women who are Willing to provide care for relatives living with HIV/AIDS according to background characteristics.

Background characteristic	$\beta$	Wald	p-value	Exp( $\beta$ )	Lower	Upper
Age	0.121	13.980	0.000	1.128*	1.059	1.202
Residence	-0.205	12.001	0.001	0.814**	0.725	0.915
Levels of education	0.312	81.712	0.000	1.366*	1.276	1.461
Wealth index	0.167	45.785	0.000	1.182*	1.126	1.241
Current marital status	-0.002	0.002	0.963	0.998	0.936	1.065
Had STD in the last 12months	0.041	0.311	0.577	1.041	0.903	1.201
Know someone who died of AIDS	0.605	68.431	0.000	1.832*	1.587	2.115
Region	-0.345	435.279	0.000	0.709*	0.686	0.732
Religion	-0.505	94.979	0.000	0.604*	0.545	0.668
Can get HIV by supernatural or witchcraft means	-0.008	1.029	0.310	0.992	0.976	1.008
People with HIV/AIDS should be allowed to continue teaching	0.277	140.928	0.000	1.319*	1.260	1.381
Knows someone denied of health services because of AIDS in the last 12 months	-0.484	16.143	0.000	0.617*	0.487	0.781
Knows someone denied of social events because of AIDS in the last 12 months	-0.096	0.351	0.554	0.908	0.660	1.250
Knows someone verbally abused because of AIDS in the last 12 months	-0.126	0.883	0.348	0.882	0.678	1.147
People with HIV/AIDS should be ashamed of themselves	-0.079	11.835	0.001	0.924**	0.884	0.967
People with HIV/AIDS should be blamed for bringing the disease to the community	-0.044	3.652	0.056	0.957	0.915	1.001

\*significant at 0.1%; \*\*Significant at 1%

of enlightenment. Adequate and correct knowledge of HIV/AIDS is expected to reduce unfounded fears by the caregiver of contacting the infection. This finding is consistent with a Cambodian study which assessed older person's AIDS knowledge and WPC. The Cambodia study reported that the WPC is more closely associated with knowledge dealing with casual transmission than with other aspects of HIV/AIDS (Knodel and Zimmer, 2006).

The women in richest wealth quintile were more likely to be WPC for RLWHA than their counterparts in poorest wealth quintile. This is not surprising as the 2008 Nepal Demographic and Health Survey (NDHS) had reported that women in the richest wealth quintile were consistently likely to identify correct methods of preventing HIV/AIDS and reject misconception in comparison

to women in the poorest wealth quintile (NDHS, 2008). Since wealthier quintile group would normally consist of more women with higher level of education than those in the poorer quintile (NDHS, 2008; Bekker et al., 2006), the differential observed in the WPC for RLWHA is plausible. These findings underscored the need for a continued improvement in AIDS knowledge especially among least-educated women, who most likely are also poor.

This study further showed that women from rural areas were less likely to be WPC for RLWHA when compared with women from urban areas. In actual fact, urban women usually have better access to HIV/AIDS information, characterized with highly educated women and better opportunity of seeing AIDS patients in hospital than their rural counterparts (NPC, 2006). All these can

influence the perception of individuals on WPC for RLWHA. The result is consistent with the findings of a study carried out in Thailand (ATLIS, 2010), where it was concluded that rural people were more likely to perceive themselves to be at risk in taking care of AIDS patients than urban people.

The odd of WPC for RLWHA was lower among Muslim women than the Christians. Our finding that women residing in all regions in the Southern part of Nigeria were significantly less likely to be WPC for RLWHA than those in the North needs further investigation. This is because Southerners are predominantly Christians, more educated and have access to better health information than the Northerners (NPC, 2006; Knodel, 2006; NDHS, 2008; UNAID, 2008; Adekun et al., 2008) and as such are expected to be more WGC to their relatives living with HIV/AIDS than their

**Table 4.** Multiple logistic regression of women who are willing to provide care for relatives living with HIV/AIDS according to background characteristics

Background characteristic	$\beta$	p-value	Exp( $\beta$ )	Lower	Upper
<b>Age group</b>					
15-24(R.C)	R.C	R.C	1.000	R.C	R.C
25-34	0.107	0.003	1.112**	1.037	1.193
35-49	0.127	0.002	1.135**	1.047	1.231
<b>Residence</b>					
Urban(R.C)	R.C	R.C	1.000	R.C	R.C
Rural	-0.113	0.005	0.893**	0.826	0.966
<b>Levels of education</b>					
None(R.C)	R.C	R.C	1.000	R.C	R.C
Primary	0.192	0.000	1.212*	1.095	1.341
Secondary	0.426	0.000	1.532*	1.372	1.710
Higher	0.531	0.000	1.701*	1.457	1.987
<b>Wealth index</b>					
Poorest(R.C)	R.C	R.C	1.000	R.C	R.C
Poorer	0.008	0.884	1.008	0.909	1.117
Middle	0.032	0.560	1.033	0.927	1.151
Richer	-0.034	0.572	0.966	0.858	1.088
Richest	0.176	0.010	1.193***	1.042	1.366
<b>Knows someone who has or died of HIV/AIDS</b>					
No(R.C)	R.C	R.C	1.000	R.C	R.C
Yes	0.528	0.000	1.695*	1.477	1.945
<b>Person with HIV/AIDS should be allowed to continue teaching</b>					
No	R.C	R.C	1.000	R.C	R.C
Yes	1.521	0.000	4.576*	4.286	4.886
Don't know	0.959	0.000	2.609*	2.302	2.956
<b>Knows someone denied of health services because of AIDS in the last 12 months</b>					
No(R.C)	R.C	R.C	1.000	R.C	R.C
Yes	-0.651	0.000	0.521*	0.419	0.648
Don't know	-0.391	0.000	0.676*	0.633	0.723
<b>People with HIV/AIDS should be ashamed of themselves</b>					
Disagree(R.C)	R.C	R.C	1.000	R.C	R.C
Agree	-0.464	0.000	0.629*	0.588	0.672
Don't know	-0.062	0.413	0.940	0.811	1.090
<b>Region</b>					
North Central(R.C)	R.C	R.C	1.000	R.C	R.C
North East	0.030	0.683	1.030	0.894	1.187
North West	-0.316	0.000	0.729*	0.639	0.833
South East	-0.723	0.000	0.485*	0.424	0.556
South South	-0.798	0.000	0.450*	0.395	0.514
South West	-1.285	0.000	0.277*	0.245	0.313

**Table 4.** Contd.

Religion	R.C	R.C	1.000	R.C	R.C
Christians(R.C)					
Islam	-0.677	0.000	0.508*	0.463	0.558
Traditional	0.461	0.002	0.630**	0.472	0.843

\*Significant at 0.1%; \*\*Significant at 1%; \*\*\*Significant at 5%;

Northern counterparts.

The findings of this study have a great implication for the psychosocial support needs of RLWHA. Nigeria is not only characterized by high prevalence of HIV/AIDS, but also by high level of poverty, weak health systems and poor access to health facility, particularly, those living in the rural areas. Therefore, most PLWHA in Nigeria would depend on informal care and support from their relatives, especially women who are the traditional caregiver in this setting. Apart from the physical care needed by PLWHA, the emotional support required by relatives cannot be overemphasized.

## Conclusion

This research demonstrates that majority of women who participated in the study are WGC for PLWHA, but an increase in the prevalence can tremendously improve the health of PLWHA in Nigeria. Consequently, some variables identified in this study as having influence on WGC for PLWHA should be included in National Strategic Framework and Action Plan for PLWHA in Nigeria. In developing care and support programmes for PLWHA, there is need to intensify efforts to educate women, especially the less educated ones and rural dwellers on the need to be willing to give care to PLWHA.

## LIMITATIONS

Secondary data was used for this study; therefore, problems associated with the use of such data cannot be overruled from our findings. However, the reliability and validity of research instruments were adequately tested by the data originators. During the survey, measures were taken to ensure that women give the right opinion on their WPC for RLWHA. However, people's opinion on willingness to care for RLWHA might change if they actually have relatives who are living with HIV.

## ACKNOWLEDGEMENTS

The authors thank the National Population Commission and ICF Macro Calverton, Maryland, USA for releasing the data for this study.

## REFERENCES

- Adeokun L, Okonkwo P, Ladipo OA (2008). The stigmatization of people living with HIV/AIDS. Association for Reproductive and Family Health, Ibadan, Nigeria AIDS Prevention Initiative in Nigeria, Ibadan, Nigeria.
- Akani CI, Erhabor O (2006). Rate, pattern and barriers of HIV Serostatus disclosure in a resource-limited setting in the Niger delta of Nigeria. Royal Society of Medicine Press 1April 2006 vol. 36 no. 2 87-89
- Amoran OE (2011). HIV related stigmatizing attitude and practice among health care workers in Northern Nigeria. *J. Infect. Dis. Immunity* 3(13) 226-232.
- ATLIS (2010). Stigma, Isolation, and Discrimination and their impact on HIV Serostatus disclosure: A global survey of 2,035 patients.
- Ban Ki-moon op-ed (2008). "The stigma factor" *The Washington Times*, United States of America.
- Bekker L, Myer L, Orrell C, Lawn S, Wood R (2006). Rapid scale-up of a community-based HIV treatment service Programme performance over 3 consecutive years in Guguletu, South Africa April 2006, 96(4).
- Cai G, Moji K, Honda S, Wu X, Zhang K (2007). Inequality and unwillingness to care for people living with HIV/AIDS: a survey of medical professionals in Southeast China. *AIDS Patient Care STDS*. 2007 Aug;21(8):593-601.
- CDC fact sheet (2011). Ten Ways STDs Impact Women Differently from Men. Center for Disease Control April, 2011.
- Dinesh S, Chaudoir SR, Escobar MC, Kalichman S (2011). Stigma, burden, social support, and willingness to care among caregivers of PLWHA in home based care South Africa. *AIDS Care*, 2011 July; 23(7):839–845. doi: 10.1080/09540121.2010.542122
- Goosby E (2009). Gearing up for 2012 International AIDS Conference, Office of National AIDS Policy blog, The White House United States of America.
- IPPF (2009). HIV stigma and discrimination remain a significant challenge in the UK.
- Ilebani OA and Fabusoro E (2011). Effects of Community-Based Care for People Living with HIV/AIDS on Their Well-Being in Benue State, Nigeria. *Res. J. Med. Sci.*, 5(5) 294-304. DOI: 10.3923/rjmsci.2011.294.304
- Knodel J, Zimmer Z (2006). Older Persons AID Knowledge and Willingness to provide care in an Impoverished Nation: Evidence from Cambodia.
- Monjok M, Smesy A, Essien EJ (2011). HIV/AIDS-Related stigma and Discrimination in Nigeria: Review of research studies and future directions for prevention strategies. *Afr. J. Reprod. Health* 13(3).
- National AIDS and STIs Control Programme (2008). National HIV/Syphilis Sero-prevalence Sentinel Survey among Pregnant Women Attending Antenatal Clinics in Nigeria. Federal Ministry of Health Technical Report.
- National Population Commission (NPC), Nigeria and ICF Macro International USA (2003). Nigeria Demographic and Health Survey 2003, Abuja.
- National Population Commission (NPC), Nigeria and ICF Macro International USA (2008). Nigeria Demographic and Health Survey 2008, Abuja.
- National Population Commission (2006). Nigeria Population Census, 2006. Federal Republic of Nigeria.
- Nicole C, Lyles CM, Wolitski RJ, Passin WF, Ram SM, Herbst JH, Purcell DW, Malow RM, Stall R (2006). HIV/AIDS Prevention Re-



- search Synthesis (PRS) Team Do prevention interventions reduce HIV risk behaviors among people living with HIV? A meta-analytic review of controlled trials AIDS: 20(2)143-157
- PRB (2012). World Population Datasheet 2011. Population Reference Bureau. Washington DC, United States of America, 2009.
- Reis C, Heisler M, Amowitz LL, Moreland RS, Mafeni JO, Anyamele C, Iacopino V (2005). Discriminatory Attitudes and Practices by Health Workers toward Patients with HIV/AIDS in Nigeria. PLoS Med 2(8): e246. doi:10.1371/journal.pmed.0020246
- Sayles J (2009). 'The Association of Stigma with Self-Reported Access to Medical Care and Antiretroviral Therapy Adherence in Persons Living with HIV/AIDS' J. Gen. Internal Med. 24(10).
- Sorsdahl KR, Mall S, Stein DJ, Joska JA (2011). The prevalence and predictors of stigma amongst people living with HIV/AIDS in the Western Province. AIDS Care. 2011 Jun; 23(6): 680-5. doi: 10.1080/09540121.2010.525621.
- Stutterheim SE, Bos AER, Van Kesteren NC, Shiripinda I, Pryor J, Debruin M, Schaalma H (2011). Beliefs Contributing to HIV-related Stigma in African and Afro-Caribbean Communities in the Netherlands. J. Commun. Appl. Soc. Psychol. Published online in Wiley Online Library DOI:10.1002/casp.1129
- Tumushabe J (2006). „The Politics of HIV/AIDS in Uganda” United Nations Research Institute for Social Development.
- UNAIDS (2008). Report on the global AIDS epidemic. United Nations Agency for International Development.