Individual and Contextual predictors of Comprehensive HIV Knowledge in Ghana

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Abstract

Background

Sub-Saharan Africa is one of the regions severely affected by HIV and AIDS pandemic. Having an accurate and high level of comprehensive HIV/AIDS knowledge is one of the major strategies to aid in the fight against HIV and AIDs. The study sought to examine the individual and contextual predictors of Comprehensive HIV and AIDS Knowledge among men and women in Ghana.

Methods

This study used the male and female's files from the 2014 Ghana Demographic and Health Survey dataset. A total of 5,251, and 2,625 women and men respectively were used for the analysis. Both bivariate and multivariate results on predictors of comprehensive HIV and AIDS are presented.

Results

The level of Comprehensive HIV and AIDS Knowledge was 20.8% and 33% among women and men respectively. It was found that the predictors of Comprehensive HIV and AIDS Knowledge are sex, age, marital status, wealth status, region of residence and exposure to mass media.

Conclusion

Comprehensive HIV and AIDS Knowledge was low. It is important for both women and men to be targeted with education on HIV and AIDS prevention, a lot more should be done to ensure more women benefit as they are disproportionally affected by HIV and AIDS nonetheless they have lower comprehensive HIV and AIDS knowledge compared to men.

Keywords: Ghana; Comprehensive Knowledge; HIV and AIDS, Predictors

Background

In 2017, about 36.9 million people lived with HIV. Of this, 1.8 million were new infections with HIV (WHO, 2018). Taking into account a "booming youth" in Africa, the most affected region; UNICEF estimates that without corrective action, new adolescent infections will steadily increase over the next decade, reaching a total of 3.5 million new adolescent infections by 2030 (UNICEF, 2017).

New adolescent HIV infections will increase 13 percent annually by 2030 (UNICEF, 2017). Males and females aged 15-24 are at high risk of HIV infection and account for 1 in 5 new HIV infections in adults worldwide. Available data show that the gender imbalance in new infections is more pronounced in sub-Saharan Africa, with girls and young women accounting for 25% of new HIV infections in adults. This observation is based on the existence of harmful norms and inequalities between the sexes, inadequate access to education and sexual and reproductive health services, among others.

The 2016 HIV / AIDS survey showed that the prevalence is 2.4% among women undergoing prenatal care for Ghana, with HIV been described as a generalized epidemic (NACP/MOH, 2017). Over 80% of all infections are transmitted through sexual contact. Estimates showed prevalence among young people aged 15-19 years at 0.6% and those aged 15-24 (population used as a substitute for new contamination) to 1.1% in 2016. Two percent 15-49 year olds live with HIV and AIDS. With regard to gender, 2.8% and 1.1% of women and men, respectively, live with HIV and AIDS (GSS, ICF Macro et al, 2015). In Ghana, this epidemic is fueled by sexual risk behaviors. As in many parts of the sub-Saharan young people are disproportionately affected by STIs, including HIV & AIDS due to mainly biological, social, developmental and behavioral factors,

Over the last two decades or so, different strategies have been used for the purpose of promoting and enhancing behaviour change among different population groups especially among adolescents (see Darteh & Amo-Adjei, 2012; Darteh, 2011). These have significantly increased knowledge on HIV and AIDS, routes of transmission and protective behaviours to prevent the risk of infection. Knowledge of HIV among young people in Ghana was near universal in 2014 (see GSS/GHS/Macro, 2014). Notwithstanding the high level of knowledge of HIV and AIDS, protective behaviours such as condom use, multiple sexual partner relationships among others have not reduced significantly. Also, there is evidence of low risk perception of HIV despite the high levels of knowledge (see Darteh et al., 2014). To understand why the high knowledge has not been translated into corresponding increases in protective behaviour, it is imperative to appreciate how comprehensive this knowledge is. One would conjecture that for knowledge to translate into behaviour; that knowledge must be devoid of some misconceptions. Data on comprehensive knowledge (which is a function of knowledge of the source of transmission and misconceptions) is 20 per cent and 27 per cent for females and males respectively (GSS/GHS/Macro, 2015). One would surmise that the low levels comprehensive HIV knowledge relative to comprehensive knowledge could provide a clue as to how to ensure that increases in knowledge leads to improvement in protective and preventive behaviours. This paper, therefore attempts to examine the correlates and predictors of comprehensive HIV among men and women in Ghana.

The concept of Diffusion of innovations (DOI) as developed by E.M. Rogers in 1962 focuses on the role different communication channels in facilitating individuals' 'exposure' (both 'direct' and 'indirect') to new ideas and their movement through a 'innovation-decision process' (knowledge, persuasion, decision, implementation, confirmation) (Rogers, 1962; Rogers, 2010).

The term 'diffusion' in this paper includes not only the spreading of new ideas and comprehensive knowledge on HIV and AIDS, but the entire process from direct or indirect exposure to adoption to the information to the adoption of positive behvaiours against HIV and AIDS. 'Adoption' is defined as the uptake of the innovation, ideas or programme by the targeted audience (Rogers, 2010). The theory has been applied in a variety of ways across public health- in particular in HIV prevention **(**Noar et al., 2009) and family planning (Vaughan & Rogers,2000). There is empirical support for aspects of the theory in the broader public health literature (Rogers, 2010; Dolcini et al., 2010) and partner violence prevention interventions (Starmann et al., 2018). There are five adopter categories in the theory and the understanding of the characteristics of these is pertinent in the diffusion of any innovation. Any innovation reaches saturation when it reaches the fourth category and the expectation is a change in behavior commensurate to that diffusion. However, with a nearly universal diffusion of HIV & AIDS knowledge, adoption of HIV protective behaviors does not correspond to knowledge. Thus, the need to examine the factors which predict comprehensive HIV & AIDS knowledge as a way of contributing to the discourse of promoting HIV & AIDS protective behaviors.

Materials and Methods

Data

The study made use of data from the 2014 Ghana Demographic and Health Survey (GDHS). Ghana Demographic and Health Survey is a nationwide survey which covered all the then ten regions in Ghana and is designed and conducted every five years. During these rounds, the survey gathers information on sexual activity, fertility, maternal health thus, antenatal care, delivery care and post-natal care, contraceptive use, child health, family planning and many more. The GDHS focuses on child and maternal health and is designed to provide adequate data to monitor the population and health situation in Ghana. GDHS was carried out by the Ghana Statistical Service with ICF Macro an international company, providing technical support for the survey through MEASURE DHS. The 2014 version interviewed 4,388 men and 9,396 women between the ages 15 and 59 from 11,835 households covering 427 clusters throughout Ghana. It had a response rate of 97 percent and 95 percent for women and men respectively (GSS, GHS, and ICF International, 2015). For the purpose of this study a sample of 5,251 women and 2,625 was used. Permission to use the data set was given by the MEASURE DHS following the assessment of a concept note. The dataset is available to the public (www.measuredhs.com).

Measurement of variables

Dependent variable

The dependent variable used was comprehensive HIV knowledge. Comprehensive HIV knowledge was defined as knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting AIDS virus, knowing that a health – looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention (thus, mosquito bites can give HIV and HIV can be gotten from witchcraft and supernatural means) (GSS, GHS, and ICF international, 2015).

Independent variables

Nine independent variables were used for the study, these were; residence, maternal age, marital status, educational level, wealth status, region, frequency of watching television, frequency of reading newspapers or magazine and frequency of listening to radio. Residence coded as urban =1 rural=2, age was categorized into, 15 – 19 = 1, 20 – 24 = 2, 25 – 29 =3, 20 –

34 =4, 35 – 39 =5, 40 – 44 =6, 45 – 49 =7, 50 -54 =8, 55 – 59=9. Marital status was capture as never in union =1, married =2, living with partner =3, widowed =4, divorced =5, and separated = 6. Education Level was classified into four categories: No education = 1, primary = 2, secondary = 3 and higher = 4. Wealth status was categorized in poorest = 1, poorer = 2, middle = 3, richer = 4 and richest = 5. Region was to capture as while the western = 1, central = 2, greater Accra = 3, Volta = 4, Brong–Ahafo = 5, Ashanti = 6, Eastern = 7, Northern = 8, Upper East = 9 and upper west = 10. Frequency of watching television was captured as "not at all" = 1, "less than once a week" = 2, "at least once a week" = 3. Frequency of reading newspaper or magazine was coded as "not at all" = 1, "less than once a week" = 2, "at least once a week" = 3. Frequency of listening to radio was categorized as "not at all" = 1, "less than once a week" = 2, "at least once a week" =3. Comprehensive HIV knowledge was coded as yes = 1 no = 0.

Statistical analysis

Statistical analysis was carried out using STATA version 14. Descriptive statistics and inferential statistics, thus, logistic regression was conducted. Since the outcome variable was a dichotomous variable, a discrete choice model was employed to show how the explanatory variables correlated with the outcome variable. Specifically, the binary logistic regression was employed given that this technique is more appropriate for dichotomous variables. A key assumption underlying the binary logistic regression model is that the dependent variable should be dichotomous in nature and the data should not have any outlier. The complex design used to collect the data were also built into the analysis to account for the two-stage design.

Results

Background characteristics

As shown in Table 1, the distribution by urban–rural residence showed that about 55% of women and 54% of men were urban residents. With age, 20.4% of the women were aged 25-29 while 16.3% of the men were aged 30-34. The analysis revealed that most respondents had secondary level of education, with a greater proportion being men (63.7%) compared with women (58.3%). Slightly more than a quarter of the respondents were in the richest wealth quintile (25.2% females and 27.4% males). More than five in 10 (52.9% females and 56.4% males) of the respondents were married. A greater proportion of respondents were from the Greater Accra Region (19.9% and 23.1% for women and men respectively). This was followed by Ashanti with 17.3% women and 17.5% men. The Upper West Region had the lowest proportion of respondents (1.4% women and 1.3% men). A greater proportion of the men watched TV at least once a week and listened to radio, (82.3%) and television (68.6%) respectively. Overall, comprehensive HIV and AIDS knowledge was low. However, it was a bit higher among men (33%) compared to the women (20.8%). About 7.2% of women compared with 16.2% of men had used condom during their last sexual intercourse preceding the survey.

Table 1: Background characteristics of respondents.

Variable	Females N=5,251	Proportion (100)	Males N=2,625	Proportion (100)

Residence				
Urban	2,880	54.9	1,405	53.5
Rural	2,371	45.1	1,220	46.5
Age				
15 – 19	430	8.2	141	5.4
20 – 24	939	17.9	311	11.8
25 – 29	1,075	20.4	412	15.7
30 – 34	909	17.3	426	16.3
35 – 39	811	15.5	368	14.0
40 – 44	622	11.8	349	13.3
45 – 49	465	8.9	280	10.6
50 – 54	-	-	197	7.5
55 – 59	-	-	141	5.4
Education				
No education	901	17.2	251	9.6
Primary	892	17.0	322	12.3
Secondary	3,061	58.3	1,673	63.7
Higher	396	7.5	379	14.4
Wealth status				
Poorest	673	12.8	345	13.1
Poorer	918	17.5	432	16.5
Middle	1,100	20.9	521	19.9
Richer	1,235	23.5	607	23.1
Richest	1,324	25.2	720	27.4
Marital status				
Never in union	1,164	22.2	684	26.0
Married	2,779	52.9	1,480	56.4
Living with partner	955	18.2	322	12.3
Widowed	57	1.1	9	0.4
Divorced	111	2.1	61	2.3
Separated	185	3.5	69	2.6
Region				
Western	655	12.5	313	11.9
Central	598	11.4	277	10.5
Greater Accra	1,043	19.9	607	23.1
Volta	443	8.5	200	7.6
Eastern	528	10.1	264	10.1
Ashanti	907	17.3	459	17.5
Brong Ahafo	495	9.2	217	8.3
Northern	354	6.8	172	6.6
Upper east	154	2.9	81	3.1
Upper west	74	1.4	35	1.3
Frequency of watching television				
Not at all	1,080	20.6	352	13.4
Less than once a week	1,415	27.0	472	18.0
At least once a week	2,755	52.4	1,801	68.6

Frequency of reading newspaper or magazine				
Not at all	4,273	81.4	1,624	61.9
Less than once a week	523	10.0	497	18.9
At least once a week	455	8.6	504	19.2
Frequency of listening to radio				
Not at all	669	12.7	99	3.8
Less than once a week	1,720	32.8	364	13.9
At least once a week	2,862	54.5	2,162	82.3
Comprehensive HIV knowledge				
No	4,159	79.2	1,758	67.0
Yes	1,092	20.8	887	33.0
Condom use at last sex				
No	4,874	92.8	2,201	83.8
Yes	377	7.2	424	16.2

Source: GDHS 2014

Binary logistic regression on the Predictors of comprehensive HIV Knowledge in Ghana

Tables 2 shows the results of the predictors of comprehensive HIV and AIDs Knowledge in Ghana. A logistic regression model was fitted to examine the association between the selected independent variables and the outcome variable. Females had higher odds of comprehensive HIV and AIDS knowledge compared to males. Age was found to have a significant association with comprehensive HIV and AIDS knowledge. It was found that males aged 25-29 had higher odds of having comprehensive HIV and AIDs Knowledge (OR=3.93, $p<0.01$) compared to males aged 55-59 while females aged 15-19 had higher odds of having comprehensive HIV and AIDs Knowledge (OR=3.23, $p<0.01$) compared to those aged 45-49. With region of residence, females in the Upper West (OR=2.04, $p<0.001$) and males in the Upper East (OR=4.98, $p<0.001$) were at higher odds at having comprehensive HIV and AIDs Knowledge compared to those in the Western Region.

Females who had primary (OR=0.36, $p<0.001$) and males who had no education (OR=0.43, $p<0.05$) had lower odds of having comprehensive HIV and AIDS knowledge compared to those who had higher level of education. Wealth status was not significant for females nonetheless, males who were in the poorest wealth quintile had lower odds at having comprehensive HIV and AIDS knowledge compared to those in the richest wealth quintile. Females who were living with partner (OR=0.17, $p<0.001$) and males who were married (OR=0.10, $p<0.001$) were at lower odds at having comprehensive HIV and AIDS knowledge compared to those who were never in union.

The study showed that there is an association between frequency of watching television and having comprehensive HIV and AIDS knowledge. It was shown that females who do not watch TV all were at lower odds to have comprehensive HIV and AIDS knowledge (OR=0.65, $p<0.05$) compared to those who watch at least once a week. In relation to frequency of listening to radio, males who listened to radio less than once a week had about 0.7 times lower odds to have comprehensive HIV and AIDS knowledge compared to those who listened to at least once a week (OR=0.70, $p<0.05$). There was a significant relationship between exposure to newspaper and comprehensive HIV and AIDs. It was found that females who do not read newspaper or

magazine at all had 0.68 times lower odds of having comprehensive HIV and AIDS knowledge compared to those women who read newspaper or magazine at least once a week (OR=0.68, $p<0.05$) (See Table 2).

Table 2: Predictors of comprehensive HIV Knowledge in Ghana.

Independent variable	**Females**		**Males**	
	OR	95% CI	OR	95% CI
Comprehensive HIV knowledge				
No	Ref		Ref	
Yes	1.45**	1.13-1.86	1.15	0.88-1.51
Age				
15 – 19	3.23**	1.60 - 6.66	3.48**	1.11 - 10.82
20 – 24	2.19**	1.10 - 4.37	3.90**	1.31 - 11.60
25 – 29	1.86*	0.95 - 0.65	3.93**	1.35 - 11.44
30 – 34	1.59	0.80 - 3.19	3.23**	1.11 - 9.40
35 – 39	1.29	0.62 - 2.68	2.26	0.77 - 6.68
40 – 44	0.93	0.41 - 2.13	2.32	0.77 - 6.96
45 – 49	Ref		1.62	0.52 - 5.08
50 – 54	-		1.39	0.41 - 4.73
55 – 59	-		Ref	
Residence				
Urban	Ref		Ref	
Rural	0.92	0.68 - 1.23	0.86	0.62 - 1.20
Region				
Western	Ref		Ref	
Central	0.79	0.50 - 1.23	1.85**	1.10-3.10
Greater Accra	0.86)	0.55 - 1.34	1.21	0.74 - 1.98
Volta	1.21	0.77 - 1.91	1.19	0.67 - 2.10
Eastern	1.26	0.82 - 1.93	1.37	0.83 - 2.89
Ashanti	0.43**	0.25 - 0.73	0.80	0.47 - 1.37
Brong Ahafo	0.73	0.46 - 1.16	1.04	0.61 - 1.76
Northern	0.89	0.51 - 1.56	2.16**	1.20 -3.92
Upper east	1.87**	1.13 - 3.08	4.98***	2.72 -9.12
Upper west	2.04**	1.20 - 3.47	4.20***	2.21 -7.95
Education				
No education	0.47**	0.27 - 0.82	0.43**	0.22 - 0.86
Primary	0.36***	0.22 - 0.60	0.57**	0.32 - 0.97
Secondary	0.60**	0.41 - 0.86	0.80	0.55 - 1.15
Higher	Ref		Ref	

Wealth				
Poorest	0.85	0.27 - 0.82	0.57*	0.30 - 0.80
Poorer	0.80	0.49 - 1.30	0.84	0.50 - 1.43
Middle	0.89	0.60 - 1.30	0.78	0.50 - 1.21
Richer	0.90	0.64 - 1.27	0.87	0.60 - 1.26
Richest	Ref		Ref	
Marital status				
Never in union	Ref		Ref	
Married	0.18***	0.13 - 0.25	0.10***	0.07 - 0.15
Living with partner	0.17***	0.11 - 0.26	0.16***	0.10 - 0.26
Widowed	0.60	0.20 - 1.76	0.98	0.23 - 4.11
Divorced	0.41**	0.17 - 0.99	0.65	0.32 - 1.32
Separated	0.73	0.43 - 1.24	0.63	0.33 - 1.23
Frequency of watching television				
Not at all	0.65*	0.45 - 0.94	0.80	0.50 - 1.29
Less than once a week	0.93	0.70 - 1.24	1.23	0.88 - 1.73
At least once a week	Ref		Ref	
Frequency of listening to radio				
Not at all	1.27	0.91 - 1.79	1.09	0.57 - 2.08
Less than once a week	1.08	0.82 - 1.40	0.70*	0.48 - 1.02
At least once a week	Ref		Ref	
Frequency of reading newspaper or magazine				
Not at all	0.68*	0.91 - 1.79	078	0.55 - 2.08
Less than once a week	0.96	0.65 - 1.43	1.10	0.75 - 1.62
At least once a week	Ref		Ref	

* $p<0.05$, ** $p<0.01$, *** $p<0.001$, Ref=Reference, AOR=adjusted odds ratio, CI=confidence interval

Source: 2014 GDHS

Discussion

Having accurate and high level of comprehensive HIV/AIDS knowledge is one of the major strategies to aid in the fight against HIV and AIDs pandemic (Minet, et al 2016; UNGASS, 2014). Using data from the 2014 GDHS, this paper examined the individual and contextual predictors of Comprehensive HIV and AIDS Knowledge among men and women in Ghana. There was generally low comprehensive HIV and AIDs knowledge among women (20.8%) and men (33.0%) in Ghana. From the Ghana National HIV and AIDS strategic plan, Comprehensive HIV and AIDs knowledge was supposed to be 80% by 2015, however, the prevalence of 20.8% and 33% of knowledge is far below this target (Ghana National HIV/AIDS Strategic Plan, 2016). The study findings on the low level of comprehensive HIV and AIDs knowledge is similar to what was found in other countries by Oljira, Berhane and Worku (2013); Teshome, Youjie, Habte, and Mohamedkassm (2016).

The study observed that males have higher odds of comprehensive HIV and AIDS knowledge compared to their female counterparts. This result is similar to the findings of Oljira et al., (2013) in Ethiopia. This gender differences may result from societal and cultural norms which tend to restrict females from discussing sexually related issues and encourages such discussions amongst males. The gender differential in comprehensive knowledge of HIV may have implications for HIV prevention interventions in Ghana. It is imperative to target both women and men with education on HIV prevention, additional concerted efforts should also be directed at women since they are more susceptible to the HIV and AIDS virus.

The study also showed that there is an association between age and comprehensive HIV and AIDs knowledge. Specifically, males aged 25-29 had higher odds of having comprehensive HIV and AIDs knowledge. The results corroborate other studies by Ochako, et al (2011); Ulwodi, Njagi Kimetu and Onyango, (2011); Yadav et al, (2011); Shweta, Mundkur & Chaitanya (2011). Specifically, the results on age and comprehensive HIV and AIDS knowledge is in line with what was found by Minet, et al (2016) who indicated that men aged 20-24 years, have more comprehensive HIV and AIDS knowledge. Similar results were also obtained by Majelantle, Keetile, Bainame and Nkawana (2014) in Botswana. However, females aged 15-19 had higher likelihood of having comprehensive HIV and AIDS knowledge in this current study. The possible explanation for the higher odds for females aged 15-19 years could be that they were more exposed to sex education (both in and out of the school environment) on the risk involved in premarital sex and for that matter parents might have educated their children on the risks involved in engaging in risky behaviours including HIV and AIDS. In addition, as explained by Zainiddinov and Habibov (2018) there is the possibility of women's loss of interest in HIV and AIDS due to their decreasing levels of sexual activity. It is also possible that various cohorts are exposed to various levels of HIV and AIDs education messages. The older women may be the less likely she is to have received the same information or public health messaging about HIV when compared to the younger women.

This study did not show statistical significance between rural and urban dichotomy, however, there were statistically significant variations in terms of regions. It was also observed that, men and women in the Upper West and Upper East region respectively had higher odds of having comprehensive HIV and AIDS knowledge compared to those in the western region. The possible explanation for this could be the cluster of NGOs in sexual and reproductive service delivery in the norther part of Ghana. These NGOs educate people on sexual and reproductive health including HIV and AIDS.

It has been confirmed that one's educational level has a great role in determining the person's social status, access to information and income (Rahman & Rhaman, 2007). In this current study, it was found that males with no education and females with primary level of education were less likely to have comprehensive HIV and AIDS knowledge. This is consistent with studies carried out in other countries (Mishra et al., 2009). For example, a study in India showed that educated men were significantly more likely to have comprehensive knowledge of HIV/AIDS compared to uneducated men. A similar result was found by Ochako, Ulwodi, Njagi, Kimetu and Onyango (2011), where the odds of having comprehensive HIV and AIDS knowledge was found to be high among women with secondary or higher level of education than those with no formal education. Access to formal education and sustained HIV and AIDS training and awareness creation is imperative to diffuse false prejudices and beliefs about HIV/AIDs (Agyemang, Buor, & Tagoe-Darko 2012; Agyemang et al., 2012).

Household wealth index was associated with comprehensive HIV and AIDS knowledge among males. As expected, the males in the poorest wealth quintile were at lower odds to have comprehensive HIV and AIDs knowledge compared to those on the richest wealth quintile. This finding corroborates previous research (Siziya, Muula & Rudatsikira, 2008; Dimbuene & Defo, 2011; Oginni, Adebajo & Ahonsi, 2017; Ochako et al., 2011; Oljira, Yemane & Alemeyehu, 2013). The possible explanation to this observation could be that those in the richer and richest wealth quintile may have the ability to access multiple sources of exposure to HIV/AIDS information such as mass media items like televisions, radios and newspapers or magazines.

Relatedly, men who listened to radio less than once a week and women who do not read newspaper and watch TV at all were lower odds to have comprehensive HIV and AIDS knowledge. Similar results have been found between media exposure and comprehensive HIV and AIDS knowledge in other studies in other setting such as Bangladesh (Sheikh, 2017) and India (Agarwal, & de Araujo, 2014). The possible explanation is that television newspaper/magazine and radio are effective media tools to reach the general population in other to communicate relevant HIV and AIDS information through music, news items, drama's and advertisements as a result those who are not exposed to these media may be missing such important messages.

It was found that marital status is a predictor of comprehensive HIV knowledge. Specifically, women who were divorced and men who were never in union were less likely to have comprehensive HIV knowledge. Similar to previous studies (Dey, 2013; Ochako et al., 2011) married couple might benefit from their partner's knowledge (Priscilla et al., 2003). However, they can also take fewer precautions in their marital sex, neglecting the possibility of their husbands' sexual relationships outside of marriage.

The facts that the sample for the study was large and nationally representative, there are some limitations that must be acknowledged. The cross-sectional nature of the study did not allow causality but showed correlations. Similarly, as the questionnaire is designed to collect self-reported responses, there could be recall biases and socially desirable responses.

Conclusion

An accurate and high level of comprehensive knowledge on HIV and AIDS transmission is essential if new infections can be prevented. Findings from this study indicate that comprehensive HIV and AIDS Knowledge is low and the predictors are both individual (sex, age and marital status) and contextual (wealth, region and mass media exposure). It is important for both women and men to be targeted with education on HIV and AIDS prevention, a lot more should be done to ensure more women benefit as they are disproportionally affected by HIV and AIDS nonetheless they have lower comprehensive HIV and AIDS knowledge compared to men. There is the need for a concerted effort in the intensification of campaigns on HIV/AIDS targeting specific regions such as the Ashanti region. Mass media advertisement and sensitizations on prevention and transmission modes should also be encouraged.

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