

REVIEW ARTICLE

A Review of HIV/AIDS Awareness and Knowledge of Preventive Methods in Ghana

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Abstract

This paper reviews HIV/AIDS awareness, knowledge and preventive methods in Ghana over the past two decades drawing heavily on the 2003 and 2008 Ghana Demographic and Health Surveys (GDHS). The review reveals that there is almost a universal awareness of HIV/AIDS in Ghana although there are still some deficiencies in comprehensive knowledge of the epidemic. Nevertheless, there seem to be some gender differences in the level of awareness since men have more knowledge on HIV/AIDS including its prevention than women. Besides, it is revealed that knowledge of preventive measures lagged behind awareness of the epidemic. In addition, male respondents between 15 and 24 years are more aware of the preventive measures than their female counterparts. Against the backdrop that women are more affected by the epidemic than men, there is the need to intensify the knowledge and preventive methods of HIV/AIDS especially among the women in their reproductive age. *Afr J Reprod Health 2013 (Special Edition); 17[4]: 69-82*.

Keywords: HIV/AIDS, Knowledge, Awareness, Prevention, productive population, Ghana

Résumé

Ce document examine la sensibilisation au VIH / sida, les connaissances et les méthodes de prévention au Ghana au cours des deux dernières décennies en s'appuyant fortement sur les Enquêtes Démographiques sur la santé (EDS) de 2003 et 2008 du Ghana. L'examen révèle qu'il y a une prise de conscience presque universelle du VIH / SIDA au Ghana, quoi qu'il existe encore des lacunes dans par rapport à la connaissance globale de l'épidémie. Néanmoins, il semble y avoir des différences entre les sexes quant à la prise de conscience puisque les hommes ont plus de connaissances sur le VIH/SIDA, y compris sa prévention que les femmes. Par ailleurs, il est révélé que la connaissance des mesures préventives vient après la prise de conscience de l'épidémie. En outre, les interviewés de sexe masculin entre 15 et 24 ans sont plus conscients des mesures préventives que leurs homologues féminins. Dans le contexte que les femmes sont plus touchées par l'épidémie que les hommes, il y a la nécessité d'intensifier les connaissances et les méthodes de prévention du VIH/SIDA en particulier chez les femmes en âge de procréer. *Afr J Reprod Health 2013 (Special Edition); 17[4]: 69-82*.

Mots-clés: VIH/Sida, connaissances, sensibilisation, prévention, population productive, Ghana

Introduction

The Human Immunodeficiency Virus (HIV) is the virus that causes Acquired Immune Deficiency Syndrome (AIDS) and was first recognised internationally in 1981, and has since claimed over 25 million lives worldwide. AIDS is defined in terms of how much deterioration of the immune system has taken place as evident by the presence of opportunistic infections like pneumonia and tuberculosis¹. In Ghana, the first HIV/AIDS case

was recognised in March 1986 and by the end of that year, the number of officially reported cases had increased to 42². Since then, the disease has become a serious global problem, particularly in sub-Saharan Africa (Sub-Saharan Africa). According to the Commission on HIV/AIDS and Governance in Africa, in less than two decades after the discovery of the virus, over 65 million people were estimated to have had the HIV virus globally and out of this figure, about 22 million people have died from illnesses related to

HIV/AIDS. What is even more worrisome is the fact that two out of every three persons living with HIV/AIDS are found in sub Saharan Africa³. Currently, it is estimated that there are 33.3 million HIV infected people worldwide with 90 % of the infections occurring in developing countries⁴. Africa, with just about 11% of the world's population is the worst affected; the continent has more than 70% of all HIV/AIDS related cases in the world (<http://www.uneca.org>). Within SSA, countries located in the eastern, central and southern parts are the most affected with disturbing prevalence rates. The main mode of transmission is through sexual intercourse with an infected person. However, one can also be infected with the disease through the use of infected syringes, the transfusion of infected blood products, intravenous drug use with infected needles and from infected mother to the fetus.

Also Ghana, the two most common ways in which one can be infected with the virus are heterosexual contact and mother-to-child transmission⁵. In Ghana, an individual is said to have developed the disease if he/she exhibits some signs and symptoms and is tested HIV positive. The signs and symptoms are grouped into major and minor. The major signs and symptoms are in the form of prolonged fever (more than one month), prolonged and chronic diarrhoea (at least one month) and significant loss of weight (over a period of time and more than 10% of body weight). On the other hand, the minor signs include persistent cough (more than one month), persistent skin infection, aggressive skin cancer, oral thrush, recurrent shingles and the enlargement of lymph glands. Hence any individual with two of the major signs and symptoms and two of the minor signs and symptoms in addition to testing HIV positive is said to have AIDS¹.

Each phase of the epidemic (early illness, chronic illness, critical illness, death and survivors) has a varying impact right from the individual/household level to the macroeconomic level. In the short term, the adverse impact of HIV/AIDS starts from the household where infected persons are discriminated and stigmatised and eventually worsens the inequality among people. Even if the economy is able to educate and control the discrimination, in the long term, as the

virus gets out of control, employers may have to look for replacement and/or conduct some training programmes for newly recruited staff because of the increased morbidity rates. The result would be an increase in cost of production including the replacement cost of labour with far reaching implications for national development. The problem is that if more of the youth are infected, the quality of the nation's future labour force and potential productivity may suffer. That is, such people are less likely to maximize their human capital development, for instance, through schooling because of the fear of deterioration in their health overtime or at worst death. Consequently, infected persons may not be engaged in well-paid jobs because of their low educational level, ill-health and/or the associated stigmatisation. This may eventually engender a cycle of poverty.

While the short term effects need an immediate response because of its implications on the current population and productivity, the long term effects require strategic policies. It is against the backdrop of the productivity implications of the increasing infection among the population of young people that this paper reviews the level of awareness, knowledge of preventive methods and the general behaviour towards the epidemic with emphasis on the 15 – 24 years age group using the Ghana Demographic and Health Survey Reports (GDHS). It is envisaged that the review will help point out some of the gaps in the knowledge and awareness of the epidemic among the population for effective policy interventions.

Section 2: Overview of HIV/AIDS Prevalence Rate in Ghana and the rest of the world

Knowledge of HIV/AIDS prevalence rate is very important to the growth and development of an economy. Such information is necessary especially when most countries now consider the epidemic to be a developmental issue rather than a health issue. Therefore, the prevalence rate is expected to help countries to assess the effectiveness of the various strategies adopted in containing and limiting the spread of the virus in the country.

While the prevalence of HIV/AIDS has become a serious issue, some countries are revealed to be

battling more with the disease because of the high rates. Even more worrying is the fact that the statistics on the prevalence rates only provide information on persons who are aged between 15 and 49 years living with the disease and therefore do not include persons with HIV/AIDS aged at least 50 years. For instance, in Sweden, almost one in every four newly reported cases of HIV/AIDS is at least 50 years, while in China about 11 percent of newly reported cases in 2009 were in people aged between 50 and 64 and 4% in people at least 65 years. In the Netherlands, about 28% of people living with HIV are aged 50 years and over. In Africa, men aged between 50 and 54 have the third highest prevalence rate (after the age groups 35 – 39 and 40 – 44) of almost 30%. In addition, about 28 percent of men between 50 and 54 years have HIV compared to about 20% of men aged 15 and 49⁶. It is also an undeniable fact that not all HIV/AIDS cases are recorded because some people may carry the virus but may not undertake voluntary testing partly due to poor access to health facilities or the fear of stigmatization when their status becomes apparent. This clearly means that in the event where these groups are added, the prevalence rate would be more alarming. Table 1 presents the first twenty-five of the 2012 world ranking of PLWHA.

Table 1 shows that fifteen out of the first twenty-five countries severely hit by the virus are found in Africa, clearly demonstrating the challenge the continent is facing. It is also important to note that most of these African countries are located either in the eastern or in the southern part of the continent. Though Ghana is ranked 23rd indicating that the situation is relatively better than some of its West African neighbours notably Nigeria and Cote d'Ivoire, there is the need for a conscientious effort from all stakeholders in order not to reverse the modest gains achieved in the management of the epidemic. In West Africa, several efforts have been made by the various institutions responsible

for reducing the HIV/AIDS prevalence rates. This is manifested in the general decline in the growth rate of persons living with HIV/AIDS (PLWHA) in most countries within the sub-region. Table 2 presents the trend in population and PLWHA in the last decade.

Table 1: World ranking of persons living with HIV/AIDS

	Country	Number of PLWHA
1	South Africa	5,600,000.00
2	Nigeria	3,300,000.00
3	India	2,400,000.00
4	Kenya	1,500,000.00
5	Mozambique	1,400,000.00
6	Tanzania	1,400,000.00
7	Uganda	1,200,000.00
8	United States	1,200,000.00
9	Zimbabwe	1,200,000.00
10	Zambia	980,000.00
11	Russia	980,000.00
12	Malawi	920,000.00
13	China	740,000.00
14	Cameroon	610,000.00
15	Thailand	530,000.00
16	Cote d'Ivoire	450,000.00
17	Ukraine	350,000.00
18	Botswana	320,000.00
19	Indonesia	310,000.00
20	Lesotho	290,000.00
21	Vietnam	280,000.00
22	Sudan	260,000.00
23	Ghana	260,000.00
24	Burma	240,000.00
25	Mexico	220,000.00

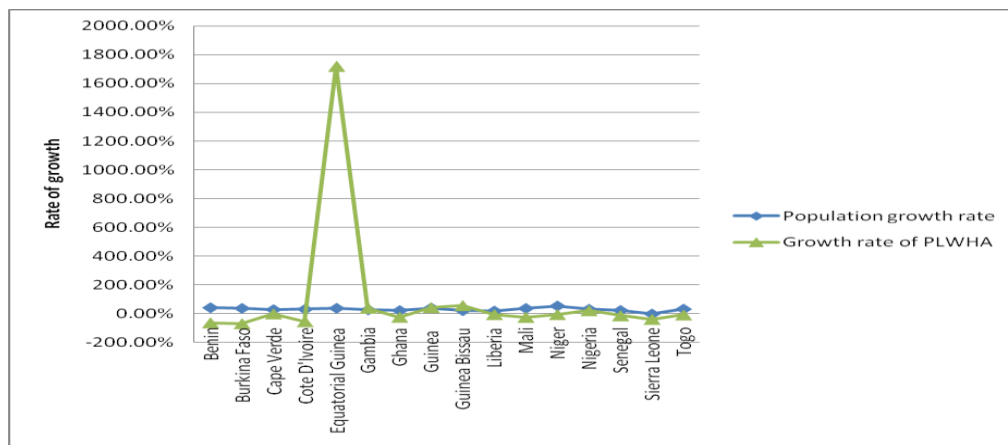
Source: Generated from www.indexmundi.com (Accessed 13/05/13)

Table 2: Population and PLWHA in ECOWAS Region between 2002 and 2012

Country	2002		2012		Population growth rate	Growth rate of PLWHA
	Population	PLWHA	Population	PLWHA		

Benin	6,787,625.00	160,000.00	9,598,787.00	60,000.00	41.42	-62.5
Burkina Faso	12,603,190.00	350,000.00	17,275,120.00	110,000.00	37.07	-68.57
Cape Verde	408,760	775	523,568	775	28.09	0
Cote D'Ivoire	16,804,780.00	1,000,000.00	21,952,090.00	450,000.00	30.63	-55
Equatorial Guinea	498,144.00	1,100.00	685,991.00	20,000.00	37.71	1718.18
Gambia	1,455,842.00	13,000.00	1,840,454.00	18,000.00	26.42	38.46
Ghana	20,244,150.00	340,000.00	24,652,400.00	260,000.00	21.78	-23.53
Guinea	7,775,065.00	55,000.00	10,884,960.00	79,000.00	40	43.64
Guinea Bissau	1,345,479.00	14,000.00	1,628,603.00	22,000.00	21.04	57.14
Liberia	3,288,198.00	39,000.00	3,887,886.00	37,000.00	18.24	-5.13
Mali	11,340,480.00	100,000.00	15,494,470.00	76,000.00	36.63	-24
Niger	10,639,740.00	64,000.00	16,344,690.00	61,000.00	53.62	-4.69
Nigeria	129,934,900.00	2,700,000.00	170,123,700.00	3,300,000.00	30.93	22.22
Senegal	10,589,570.00	68,000.00	12,969,610.00	59,000.00	22.48	-13.24
Sierra Leone	5,614,743.00	79,000.00	5,485,998.00	49,000.00	-2.29	-37.97
Togo	5,285,501.00	130,000.00	6,961,049.00	120,000.00	31.7	-7.69

Source: Generated from www.indexmundi.com (Accessed: 12/05/13)



Source: Generated from www.indexmundi.com (Accessed: 12/05/13)

Figure 1: Rate of growth of population and PLWHA in ECOWAS Region

Even though Figure 1 shows that almost all the countries (except Sierra Leone) have witnessed increases in the population growth rates, most of them recorded a decline in the growth of PLWHA within the same period. It is important to note that in the course of the decline in the rate of growth of PLWHA, the decline in countries like Burkina

Faso, Benin, Cote D'Ivoire and Sierra Leone were outstanding (i.e. they recorded a decline of about 69,63,55 and 38 percentages respectively). The appreciable decline in PLWHA attests to the fact that the population had responded favourably to the policies that were introduced by their respective governments and other related

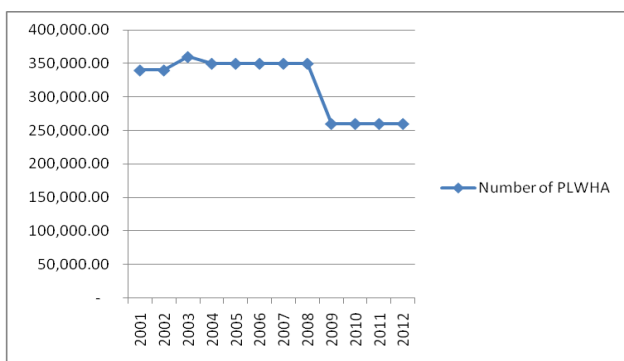
organisations to curb the epidemic in those countries in addition to a probable change in lifestyle and behaviour.

Generally, Ghana is considered to have low prevalence rate compared to other Sub-Saharan African countries; yet, there is the threat of increased prevalence given that its immediate neighbour, Cote d'Ivoire has a relatively high prevalence rate. Although the disease did not receive much attention during the early days, at least within the last ten years, there have been some attempts to help reduce the spread given that the epidemic was spreading slowly but steadily. Thus, the initial response to the epidemic was more of a health challenge. Subsequently, HIV/AIDS was identified to be more of a developmental challenge which is capable of negatively affecting all sectors of the economy. Consequently, the Ministry of Health in Ghana, the agency responsible for formulating health policies initiated control programmes to help contain and limit the spread of the virus among the population. Specifically, some of the strategies include *inter alia* maintenance of safe blood supply, usage of safe needles and dissemination of information through public campaigns to change certain social attitudes and behaviour that are believed to be contributing to the spread of the HIV infection.

in 2003 (from 340,000 in 2002 to 360,000 in 2003), the figure was quite stable between the two periods 2004/2008 and 2009/2012 (see Figure 2). Despite the population growth of about 22% between 2002 and 2012, Ghana recorded a decline in the growth rate of PLWHA by about 24% in the same period. This probably suggests that the Ministry of Health and the Ghana AIDS Commission have been successful in their quest to contain and limit the prevalence of the epidemic in the country⁷.

Section 3.0: Awareness of HIV/AIDS

Globally, the general response to HIV/AIDS has been to reduce the rate at which the virus is spreading among the population with very limited emphasis on the effect of the epidemic on the productive population. In Ghana, the first response to HIV/AIDS was a technical committee that was formed in 1985 to advise the government. Specifically, the committee was formed to work with the Ministry of Health (MoH) and the World Health Organisation (WHO) in developing short-term plan for the prevention and the control of AIDS. This was followed by the establishment of antibody-testing and blood-screening facilities in 1987. Subsequently, a medium-term plan was developed with the WHO's Global AIDS programme by the end of 1988². The National AIDS/STI Control Programme was later established in the Disease Control Unit of the MoH to help educate the populace on the epidemic. The education was done through *inter alia* the mass media and workshops. It is also important to emphasise that other institutions like the Planned Parenthood Association of Ghana and Ghana Social Marketing Foundation have actively participated in the efforts to reduce the prevalence rate in the country. The Ghana AIDS Commission which was established in 2002 is responsible for *inter alia* the formulation of national policies and strategies and provision of high-level advocacy for HIV/AIDS prevention and control among other functions. Given the recognition of HIV/AIDS as a developmental problem, it is not surprising that the Commission is a supra-ministerial and multi-sectorial body. The rest of this section discusses the level of awareness of HIV/AIDS using the



Source: Generated from www.indexmundi.com (Accessed 13/05/13)

Figure 2: Number of Persons Living with HIV/AIDS in Ghana

In fact, the number of persons living with HIV/AIDS in Ghana has remained relatively stable for the past four (4) years. Thus, after the increase

published reports of the GDHS. In fact, the reduction in the national prevalence of the virus from 3.6% in 2003 to 2.7% in 2005 and eventually to 1.9% in 2007, demonstrates that awareness is almost universal⁷. Nevertheless, there are quite a number of misconceptions especially with regards to the mode of transmission and how to avoid the epidemic^{8,11}. Since the introduction of the disease, knowledge on awareness *inter alia* was first captured by the 1993 GDHS and based on the awareness variables used in the GDHS, there is enough evidence that the awareness of the epidemic is almost universal⁸. That is, almost the entire sample interviewed responded that they have heard about the disease before. The high level of awareness of HIV in Ghana is comparable to other countries in the sub-region with average awareness over 90%^{9,11}. Table 3 presents the knowledge of HIV/AIDS for the respondents in the GDHS since 1993 while Table 4 looks at it within the 15 -24 age group.

Table 3: Awareness of HIV/AIDS by men and women in percentages

Period	Women	Men
1993	94.70	96.00
1998	96.70	99.00
2003	98.40	99.30
2008	98.20	99.20

Source: compiled from GDHS Reports, 1993 - 2008

Despite the almost universal awareness of HIV/AIDS, more men are revealed to slightly have more knowledge than women (see Table 3). For the four GDHS reports under consideration in Table 3, men consistently had more knowledge or awareness of HIV/AIDS than women with the highest difference occurring in 1998 where men were 2.3 percentage points more aware than women. A more recent study in Ghana found a significant gender difference in HIV/AIDS awareness, with more females rather having more knowledge about HIV/AIDS than men¹². This result might have been influenced by the data collection method in which the respondents were conveniently sampled. Another probable reason could be that HIV Testing and Counselling (HTC) which is now included in the WHO focused antenatal care checkups has contributed to

educating more women about the disease. It is also important to emphasise that even within the age group of interest in this study, there is universal awareness as indicated by the percentage of the group who have heard about HIV/AIDS before in both the men and women categories. Nevertheless, men on average were still more aware about the epidemic in the 15-24 year group than their female counterparts (see Table 4).

Table 4: Awareness of HIV/AIDS in Ghana by percentage within 15 – 24 age group

<i>Women</i>			
Age group	1998	2003	2008
15 – 19	96.5	98.2	97.6
20 – 24	97.5	98.6	98.9
<i>Men</i>			
15 – 19	97.2	98.1	98.2
20 – 24	99.7	99.6	99.5

Source: compiled from GDHS reports, 1993-2008

Section 3.1: Knowledge of HIV/AIDS

In order to ascertain the knowledge of HIV/AIDS epidemic, the study relied on the Ghana Demographic and Health Survey (GDHS 2008) which is a national household-based survey conducted by the Ghana Statistical Service and the Noguchi Memorial Institute for Medical Research (NMIMR) with technical assistance from ORC Macro, USA. The survey was supported financially by USAID, the Government of Ghana, UNICEF, UNFPA and DANIDA. In all, a total of 11,778 households were interviewed and this was made up of 4,916 women (between 15 and 49 years) and 4,568 men (between 15 and 59 years). Some of the information recorded in the GDHS 2008 includes fertility preferences, family planning awareness and methods, maternal and child health, HIV/AIDS and other sexually transmitted diseases. However, the study relied on the male-subsample for the non-parametric estimations (chi-square test) given that the variables were not accessible in the female-subsample during the estimations given that the variables that were used as proxies for HIV/AIDS knowledge were not easily accessible in the female-sample.

While awareness of HIV/AIDS is necessary, a good knowledge of the epidemic is also very essential for an effective policy intervention. It also helps in reducing the discrimination aspect of the disease. Given that estimating the level of knowledge is not a straight forward exercise, the study used respondents' answers to some AIDS-related questions as proxies for their knowledge of the disease. The variables used were "reduce risk of getting AIDS; (do not have sex at all; always use condoms)", "can get AIDS from mosquito bites", "can get AIDS by sharing food with person who has AIDS", "can get AIDS through witchcraft and supernatural means", and "a healthy looking person can have AIDS". Table 5 therefore reports the descriptive statistics for the responses to these questions against some selected background

characteristics. Subsequently, a chi-square test was used to find out if there are significant variations in those background characteristics of the male sub-sample (also shown in Table 5). Although, almost everybody has heard about HIV/AIDS in Ghana, knowledge about the epidemic is highly dependent on the socio-economic characteristics of the respondents such as wealth status and education. This is evident in the significant variations in HIV/AIDS knowledge among the characteristics using the chi-square test (even though "age" and "place of residence" were not significant throughout). For the rest of the review, we relied extensively on the published reports of the 2003 and 2008 Ghana Demographic and Health Surveys.

Table 5: Knowledge of AIDS by selected characteristics among Ghanaian males (15 – 59 years) in percentages

Characteristics	No	Yes	Don't Know	Chi square
Reduce risk of getting AIDS: do not have sex at all				
Wealth				38.90***
Poorest	16.29	80.52	3.18	
Poorer	17.74	80.28	1.98	
Middle	15.83	82.81	1.36	
Richer	17.38	81.99	0.63	
Richest	13.58	85.65	0.77	
Education				83.53***
No education	15.06	80.65	4.29	
Primary	48.89	49.46	1.65	
Secondary	18.27	81.01	0.72	
Higher	9.92	89.54	0.54	
Place of residence				4.96
Urban	16.20	82.64	1.16	
Rural	16.16	81.86	1.99	
Age				28.43
15 – 24	16.35	81.74	1.91	
25 – 34	16.01	83.19	0.80	
35 – 44	16.37	81.74	1.89	
45 – 59	15.87	82.19	1.94	
Reduce risk of getting Aids: always use condoms				
Wealth				68.32***
Poorest	12.63	81.43	5.94	
Poorer	14.35	82.96	2.68	
Middle	14.52	83.84	1.64	
Richer	15.38	83.68	0.94	
Richest	11.91	86.44	1.65	

				141.49***
Education				
No education	15.71	76.36	7.92	
Primary	10.27	85.51	4.22	
Secondary	14.64	84.23	1.13	
Higher	11.05	88.68	0.27	
Place of residence				9.53***
Urban	14.78	83.27	1.95	
Rural	13.21	83.54	3.25	
Age				63.06***
15 – 24	13.64	83.83	2.53	
25 – 34	13.33	84.89	1.78	
35 – 44	13.90	83.09	3.00	
45 – 59	14.95	81.16	3.88	

Table 5 continued

Characteristics	No	Yes	Don't Know	Chi square
Can get AIDS from mosquito bites				
Wealth				341.62***
Poorest	48.68	37.85	13.47	
Poorer	57.36	36.10	6.54	
Middle	66.26	29.92	3.83	
Richer	73.33	23.12	3.56	
Richest	81.94	14.87	3.19	
Education				503.45***
No education	45.83	37.63	16.54	
Primary	48.18	42.58	9.24	
Secondary	71.42	25.15	3.43	
Higher	90.62	7.77	1.61	
Place of residence				147.69***
Urban	74.89	21.38	3.73	
Rural	57.78	33.86	8.37	
Age				63.08***
15 – 24	69.83	26.10	4.07	
25 – 34	65.87	27.47	6.67	
35 – 44	60.18	32.15	7.68	
45 – 59	59.82	31.05	9.13	
Can get AIDS by sharing food with person who has AIDS				
Wealth				241.13***
Poorest	66.39	24.74	8.87	
Poorer	73.25	22.90	3.86	
Middle	77.08	19.92	3.00	
Richer	82.51	14.76	2.72	
Richest	91.52	7.93	0.55	
Education				400.45***
No education	61.74	25.16	13.10	
Primary	69.85	25.11	5.05	
Secondary	82.72	15.66	1.62	

Higher	91.69	8.04	0.27	
Place of residence				109.92***
Urban	85.39	12.40	2.21	
Rural	72.40	22.29	5.31	
Age				52.39***
15 – 24	79.20	18.27	2.53	
25 – 34	79.84	15.81	4.35	
35 – 44	75.03	20.42	4.55	
45 – 59	75.80	18.49	5.71	

Table 5 continued

Characteristics	No	Yes	Don't Know	Chi square
A healthy looking person can have AIDS				
Wealth				239.13***
Poorest	15.71	74.22	10.07	
Poorer	12.88	82.90	4.22	
Middle	9.86	87.12	3.01	
Richer	7.22	91.00	1.78	
Richest	4.30	94.82	0.88	
Education				216.31***
No education	12.45	75.75	11.80	
Primary	13.20	80.76	6.04	
Secondary	9.80	88.13	2.07	
Higher	2.15	97.58	0.27	
Place of residence				87.71***
Urban	7.00	91.16	1.84	
Rural	12.41	81.65	5.94	
Age				63.16***
15 – 24	13.05	81.94	5.01	
25 – 34	7.12	89.41	3.47	
35 – 44	9.59	86.51	3.90	
45 – 59	9.16	86.83	4.01	
Can get AIDS by witchcraft/supernatural means				
Wealth				157.05***
Poorest	54.95	30.84	14.21	
Poorer	55.66	37.81	6.53	
Middle	59.23	34.47	6.29	
Richer	63.56	31.83	4.61	
Richest	72.58	23.24	4.19	
Education				248.84***
No education	52.67	30.82	16.51	
Primary	49.86	39.89	10.25	
Secondary	63.33	32.00	4.67	
Higher	84.18	12.60	3.22	
Place of residence				74.18***
Urban	68.16	26.80	5.04	
Rural	56.04	34.80	9.17	

Age				33.48*
15 – 24	63.56	29.41	7.03	
25 – 34	61.69	31.02	7.29	
35 – 44	56.95	36.15	6.90	
45 – 59	60.23	30.86	8.91	

Source: GDHS 2008

Knowledge of HIV/AIDS preventive methods

Given that in Ghana, the disease is mostly transmitted by heterosexual contact between the infected partner and a partner who is HIV negative, the main focus of the prevention programmes have been on using condoms, limiting

the number of sexual partners and abstaining from early sex⁵. While the awareness of the epidemic is extremely high, knowledge of preventive measures is not very high. Table 6 looks at the level of knowledge of HIV/AIDS preventive methods by some selected indicators of concern.

Table 6: Knowledge of HIV preventive methods

Characteristics	<i>Risk of getting AIDS virus can be reduced by:</i>							
	Using condoms		Limiting sex to one uninfected partner		Using condoms and limiting sex to one uninfected partner		abstaining from sex	
	2003	2008	2003	2008	2003	2008	2003	2008
Women								
Age group								
15 – 24	76.6	74.9	86.4	82.3	72.2	65.9	79.2	79.8
Wealth								
lowest quintile	63.6	62.8	77.7	77.5	59.7	55.6	68.8	73.2
Second quintile	69.2	77.3	82.4	82.8	65.3	67.6	74.7	78.2
Middle quintile	74.2	76.7	90.1	85.5	71.1	69.4	81.1	81.1
Fourth quintile	76.0	81.3	87.7	87.5	71.1	74.4	83.5	81.7
Highest quintile	77.9	77.6	89.8	89.7	73.9	71.8	82.3	84.0
Place of Residence								
Urban	77.2	79.3	89.3	88.1	73.2	72.8	82.4	82.4
Rural	68.9	72.6	83.1	82.1	64.9	64.6	75.4	78.0
Men								
Age group								
15 – 24	80.6	82.5	87.5	87.3	75.1	76.1	81.9	80.4
Wealth								
lowest quintile	74.3	77.1	81.1	81.8	67.5	70.3	74.8	76.7
Second quintile	82.7	80.5	88.6	86.7	76.8	72.9	81.1	78.7
Middle quintile	82.2	83.1	91.0	90.3	78.7	78.7	85.5	82.1
Fourth quintile	84.4	84.1	91.3	90.4	80.0	79.3	83.3	82.3
Highest quintile	85.2	85.7	95.1	91.3	82.7	80.8	86.1	84.8
Place of Residence								
Urban	84.0	82.8	92.6	89.6	80.1	77.5	85.0	82.2
Rural	80.6	82.1	87.7	87.4	75.6	76.2	80.5	80.4

Source: compiled from GDHS Reports, 2003 and 2008

Level of awareness of HIV/AIDS in Ghana, the same cannot be said about the knowledge of the

preventive methods. The importance of preventive education is underscored by the fact that it remains

the primary means of decreasing the rate of new infections¹³. Generally, male respondents between 15 and 24 years are more knowledgeable of the preventive measures than their female counterparts. In more recent studies, significant gender differences in HIV/AIDS awareness and preventive measures have been reported among Thai University students and secondary school students in China respectively¹⁴⁻¹⁶. Among the female respondents within our age group of interest, the two periods of the survey suggest that there were consistent declines in the knowledge of all the preventive methods in Ghana with the exception of abstaining from sex. For instance, while about 72.2% of the female respondents indicated that *using condoms and limiting sex to one uninfected partner* may reduce the risk of getting infected in 2003, the figure fell to representing about 65.9%, a 6.3 percentage points decline.

The decline in the level of knowledge on HIV preventive methods among women in particular is alarming since elderly and young women are disproportionately hit by the HIV infection in Ghana and elsewhere, reinforcing the feminization of the epidemic¹³. However, the level of knowledge with regard to abstaining from sex as a preventive measure among individuals in the lowest wealth quintile increased marginally. Although not surprising, respondents in the urban areas are more aware of the preventive methods than their rural counterparts probably because of the exposure the urban people may have on reproductive and sexual health through the media and other programmes on reproductive health issues. With the exception of use of abstinence, knowledge of the preventive methods by women in the lowest wealth quintile recorded consistent declines (although marginal) in the two periods of the survey.

Although not pursued in the subsequent surveys, the 1998 GDHS asked respondents about

the source of information about AIDS and Tables 7 and 8 present the outcome in percentages. Among respondents who have ever heard of AIDS (both women and men samples), radio came out to be the major source of information about AIDS given that on average, about 75.7% of women and 84.0 percent of men mentioned that they heard about AIDS through radio broadcast. Also, among women aged 15 – 49, the workplace was revealed to be the second most important source of such information. That is, on average, at least 1 in every 2 women (53.1%) mentioned the workplace as their source of AIDS information. However, in the men’s sample, the second most important source of such information was the television. Thus, at least 1 in every 2 men (53.1%) heard of AIDS through the television. In a recent study among a cross-section of Ghanaian students, television accounted for the major source of information on AIDS (83%) followed by internet (63%) and radio (53 %)¹³. This is consistent with other findings in Asia and the United States, where most young people rely on television, newspapers and radio as their primary source of information on HIV/AIDS^{17,18}. The use of television radio was ranked as the major source of information on HIV among University students is explicable since they have access to television relative to the general population.

With regard to the place of residence, the survey revealed church/mosque, friend/relative and workplace to be very important sources of information about AIDS for rural residents than their urban counterparts in both samples. Specifically in the women sample, the results the figure were 26.6, 12.9 and 58.9 percentages in the rural areas compared to 18.3, 5.5 and 43.2 percentages in the urban areas respectively. Similarly, in the men’s sample, these were 21.4, 12.2 and 55.1 percentages in the rural areas compared to 11.2, 8.0 and 39.7 percentages in the urban areas respectively (see Tables 7 and 8).

Table 7: Knowledge of AIDS and source of AIDS information – Women sample (GDHS 1998)

Background Characteristics	Ever heard of AIDS	Source of AIDS information among those who have heard of AIDS:										
		Radio	TV	News paper	Pamphlet	Health worker	Church/Mosque	School	Community meeting	Friend / Relative	Workplace	Other source
Age												
15 - 19	96.5	66.2	49.2	8.0	4.7	2.3	12.0	8.3	25.6	7.3	51.5	0.2

20 - 24	97.5	78.8	50.2	9.0	5.1	3.8	23.1	8.0	6.4	9.2	53.3	0.1
25 - 29	96.9	78.3	45.9	6.7	3.2	3.0	25.0	7.2	2.4	8.5	53.6	0.9
30 - 39	96.8	78.6	43.7	7.1	3.4	2.5	29.3	8.2	1.4	10.9	53.7	0.7
40 - 49	95.8	76.4	34.9	7.8	4.2	3.5	26.0	8.0	1.2	14.7	53.2	0.5
Place of Residence												
Urban	99.3	85.2	69.9	15.0	7.2	2.4	18.3	8.3	9.4	5.5	43.2	0.3
Rural	95.2	70.5	30.1	3.4	2.3	3.3	26.6	7.8	5.6	12.9	58.9	0.6
Region												
Western	99.6	75.0	37.5	4.4	1.2	2.9	25.9	10.1	7.7	13.2	63.8	0.6
Central	97.8	71.6	40.3	3.9	3.9	2.3	24.7	12.1	4.8	7.3	62.7	0.0
Greater Accra	99.3	87.0	79.4	20.9	9.0	2.3	12.7	4.4	9.6	1.9	33.7	0.4
Volta	96.7	62.5	24.2	5.9	3.6	2.2	26.5	3.9	11.7	12.1	65.8	1.1
Eastern	99.6	82.3	50.7	6.6	3.7	0.5	24.6	6.5	5.3	9.5	44.1	0.5
Ashanti	99.4	87.7	48.7	4.9	4.7	2.4	30.6	16.1	6.6	14.8	51.6	0.2
Brong Ahafo	99.7	76.7	37.3	3.3	1.0	1.6	31.2	3.2	2.9	21.9	44.8	0.0
Northern	73.5	56.7	19.3	4.1	2.2	0.0	11.5	0.4	1.9	10.4	52.8	1.6
Upper West	84.8	34.5	17.7	2.3	2.6	4.4	27.9	12.5	3.4	6.8	61.1	0.7
Upper East	88.3	57.8	16.3	6.6	1.9	18.6	16.4	3.9	8.4	4.5	78.5	1.0
Educational level												
No education	89.8	59.6	20.8	0.4	0.3	4.2	19.1	5.4	0.7	12.6	63.0	0.8
Primary	99.3	74.3	38.6	0.1	1.2	2.1	22.6	5.4	2.8	11.1	60.5	0.5
Middle/JSS	99.5	82.7	53.0	7.0	4.0	2.2	26.9	9.4	9.4	9.4	48.2	0.3
At least Secondary	100.00	91.60	81.90	40.30	18.90	4.00	22.60	12.70	20.50	5.60	35.30	0.30

Source: compiled from GDHS Reports, 2003 and 2008

Table 8: Knowledge of AIDS and source of AIDS information – Men sample (GDHS 1998)

<i>Background Characteristics</i>	Source of AIDS information among those who have heard of AIDS:											
	Ever heard of AIDS	Radio	TV	News paper	Pamphlet	Health worker	Church/Mosque	School	Community meeting	Friend / Relative	Workplace	Other source
Age												
15 - 19	97.2	68.3	46.3	12.5	5.9	2.6	10.7	5.5	29.3	5.1	50.4	0.0
20 - 24	99.7	88.8	60.9	16.2	7.5	4.0	16.0	6.4	16.8	5.6	48.7	0.0
25 - 29	99.8	92.9	68.1	25.5	10.3	4.2	16.3	10.5	5.6	5.9	45.6	0.5
30 - 39	98.9	87.1	52.8	21.3	8.5	3.2	23.0	9.6	2.0	14.6	49.4	0.0
40 - 49	99.5	87.6	45.8	27.3	6.8	3.3	22.9	6.7	1.3	17.4	51.7	0.7
50 - 59	100.0	79.3	44.9	25.7	11.7	3.0	17.5	8.7	4.3	17.9	51.9	0.7
Place of Residence												
Urban	100.0	89.3	75.3	33.9	13.5	2.7	11.2	8.5	13.5	8.0	39.7	0.2
Rural	98.4	80.3	40.7	13.1	5.2	3.7	21.4	7.4	9.2	12.2	55.1	0.3
Region												
Western	100.0	84.8	48.7	16.3	4.5	6.1	29.5	9.1	9.6	12.7	68.5	0.5
Central	99.1	75.4	54.2	14.6	8.2	4.6	26.5	8.2	13.5	9.4	59.6	0.0
Greater Accra	100.0	89.7	83.4	43.5	16.2	2.2	8.1	6.3	12.6	3.6	30.9	0.4
Volta	99.4	73.6	33.1	20.6	7.2	0.6	18.3	3.1	20.6	12.2	52.3	0.0
Eastern	99.4	93.9	60.5	19.0	8.5	1.7	12.7	11.6	7.4	8.5	41.4	0.0
Ashanti	99.5	92.6	63.0	16.7	9.0	1.7	24.6	15.9	9.2	16.4	45.3	0.5
Brong Ahafo	99.0	88.5	48.1	9.6	1.0	1.0	14.4	3.8	2.9	21.1	34.6	0.0
Northern	95.2	70.1	25.6	6.3	4.0	1.6	5.8	0.8	3.3	9.9	51.4	0.0
Upper West	95.5	48.8	15.4	13.4	9.0	0.9	28.5	7.5	6.5	8.3	65.3	0.9
Upper East	95.2	69.2	16.4	12.6	4.4	17.6	8.2	3.1	12.6	5.0	79.9	0.0
Educational level												

No education	95.0	65.7	14.9	1.0	1.6	5.1	11.7	4.8	0.3	18.4	63.3	0.5
Primary	98.7	75.5	40.7	1.3	2.4	1.8	13.3	6.8	6.1	10.3	58.3	0.0
Middle/JSS	99.9	87.3	57.2	18.2	6.9	3.4	20.8	8.7	1.0	9.3	49.1	0.2
At least Secondary	100.0	92.5	79.6	53.6	20.0	2.8	17.4	8.5	23.7	8.5	34.8	0.4

Source: compiled from GDHS Reports, 2003 and 2008

Conclusion

This paper reviewed the trend of awareness and knowledge of HIV/AIDS and its prevention in Ghana over the past two to three decades using mostly, the published reports of the various rounds of the GDHS. The paper could not show a consistent trend of HIV/AIDS and its prevention across the various rounds of the GDHS because of the inconsistencies in the reportage of the data. The paper affirms that Ghana has almost achieved universal awareness of HIV/AIDS although knowledge of preventive measures is not as high as awareness. A comparison of the answers to awareness-related questions asked in both the male and female samples in the various GDHS reports suggest some gender and age differences in the knowledge of HIV/AIDS especially in the area of its prevention where women seem to have less knowledge than men. In addition, the responses seem to suggest that knowledge of preventive measures has marginally declined for women in the 15-24 age bracket. The marginal decline in the knowledge of preventive measures suggests a lapse in our educational campaigns on HIV/AIDS awareness and prevention. The paper concludes that Ghana should not relent on its effort in intensifying the education on the preventive measures against the epidemic especially among women and the productive population.

Competing Interest

The authors declare that they have no competing interest.

Contribution of Authors

ENA conceived and designed the study and also contributed to the review and data analysis. GAM analyzed the data and prepared the manuscript with support from ENA. All authors read through

and agreed for the paper to be submitted for publication.

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