

The Political Economy and Stigmatization of HIV/AIDS in Patients Attending a Clinic in Lagos, Nigeria

ORIGINAL

Abstract

Background: The aim of the study was to highlight the political economy of HIV/AIDS in people living with HIV/AIDS (PLWHA) through use of relevant literature and administration of self-administered questionnaires. The study was carried out in the south-western region of Nigeria, using patients attending the HIV/AIDS clinic at the Lagos University Teaching Hospital, Lagos Nigeria.

Method: The questionnaires were distributed in the HIV/AIDS clinic and respondents were interviewed by the Principal Investigator and medical students. Results were collated and analysed using EPI INFO 6 statistical software. Chi Square analysis was used to test for association between categorical variables at a P value of 0.05. Results were presented in tables and charts. Further, the study determined the socio-demographic pattern of the patients, the changes in marital status, employment status and residential status since diagnosis. In addition, the study sought to determine areas of stigmatization as well as the fraction of monthly income spent on HIV/AIDS care.

Results: Literature showed that employers were not willing to employ a person with HIV/AIDS and that vulnerable employment was the predominant form of employment in sub-Saharan Africa. This was re-affirmed by the study. Thirteen (13%) respondents lost their jobs after diagnosis and about 75 (75.0%) of respondents were in vulnerable employment. Sixty-four (64%) of the respondents were married before diagnosis and 53 (53.0%) still married after diagnosis, five of the respondents' spouses had died, three had been divorced, and four had been separated from their spouses ($P < 0.05$). Sixty-one (61.0%) of the respondents got their financial support from their family. Stigmatization increased with the number of people that knew of their diagnosis ($P < 0.05$).

Titilola T. Obilade MBBS, Ph.D.

Contact information:

Titilola T. Obilade MBBS, MPH, FMCPH, MWACP, MILD, Ph.D.

Senior Education Specialist
Learning Sciences and Technology
144J Smyth Hall.
Virginia Polytechnic Institute and State
University.
Blacksburg, Virginia, 24061- 0488.

✉ obilade@vt.edu

Conclusion: Loss of job occurred in respondents when the employers knew of the diagnosis. The household income spent on HIV/AIDS care ranged from one-third to half of the monthly income. It was recommended that the government provide incentives for employers to hire PLWHA. Efforts should be made to reduce stigmatization through health education. Health education should target employers, religious organizations and family members. Self-sustaining financing schemes should be developed for PLWHA and their families.

Keywords

Political Economy; HIV/AIDS; PLWHA; stigma; health education; employment; workplace; socio-demographic; Lagos, Nigeria; sub-Saharan Africa

Introduction

The aim of the study was to highlight the political economy of HIV/AIDS and the stigmatization of patients attending the HIV/AIDS clinic in Lagos, Nigeria.

Objectives

1. To determine the socio-demographic pattern of people living with HIV/AIDS (PLWHA) attending an human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) clinic at the Lagos University Teaching Hospital, Lagos, Nigeria.
2. To determine how much of the household income is spent on HIV/AIDS care.
3. To determine change or loss of job if any after diagnosis.
4. To determine change in marital status if any after diagnosis.
5. To highlight areas of stigmatization of PLWHA.

Sub-Saharan Africa has 13 percent of the world's population [1] but is home to 71 percent of all PLWHA [2]. Nigeria is the seventh most populous nation in the world [1]. It has the largest number of HIV/AIDS cases in West Africa [2] and the second largest number of infected persons in sub-Saharan

Africa. South Africa has the highest number of PLWHA in sub-Saharan Africa [2].

The National Antenatal Care HIV prevalence increased from 1.8% in 1991 to 5.8% in 2001 and dropped to 4.1% in 2010 [3]. Although the national prevalence rate reduced, there was a variation in the trends across Nigeria's geographic landscape across the states. The HIV prevalence rate ranged from 1.4 percent in Ekiti State (South West geo-political zone) to 12.7% in Benue State (North-Central geo-political zone) [3]. There were also socio-demographic differences. Women, youth and people with low level of formal education were the most severely affected [4]. The prevalence increased for those in the 15-19 years' age group while the highest prevalence was in the 35-39 years age group [4].

Literature Review

AIDS in Nigeria

Following the first reported case of AIDS in Nigeria, [5] a National Expert Advisory Committee on AIDS was created in 1987. The following year, the National AIDS and Sexually Transmitted Infections Control program was established under the health ministry and because a multi sectoral response

was needed, the National Committee on AIDS was established in 2001 which eventually became an agency in 2007 [4]. The National Committee on AIDS was able to coordinate multi sectoral response [4]. Antiretroviral programs were started in 25 sites from 18 states. By 2013, there were 820 sites across all the states [4].

The Hematology Department of Lagos University Teaching Hospital began to see PLWHA before anti-retroviral drugs were available and in 2002, it became one of the sites for the antiretroviral program. The National Committee on AIDS in partnership with the United States, President's Emergency Plan for AIDS Relief (PEPFAR) and other international organizations subsidized the antiretroviral drugs for patients and later, it was entirely free [6].

The provision of free antiretroviral drugs is a commendable effort but measures to control the disease must include steps to reduce the socio economic burden of PLWHA particularly in the workplace.

Political Economy, HIV/AIDS and the Workplace

Studies have shown that when PLWHA maintain their employment, they have better quality of mental and physical health [7]. In a separate study, a cohort of 319 PLWHA followed up for six years showed that those that did not have a stable employment were two and a half times more likely to die or become hospitalized [8]. In a National Longitudinal Mortality Study estimating life expectancy by employment status, income and education for White men and women, the largest difference was for employment status. Employed White males lived 12 years longer than unemployed White males and employed White females lived nine years longer than unemployed White females [9].

In sub-Saharan Africa, the employment-to-population ratio between 2000 and 2012 ranged from 64 to 65.3 [10]. In addition, the vulnerable employment is 77.4 percent [10]. Vulnerable employment can be self-employment or work by contributing

family members. They do not have a secure income and lack social security [10]. A street vendor selling chewing gum is in a vulnerable employment. The challenge in sub-Saharan Africa is not the lack of people in the work force but an inadequate production of goods and services [11].

Unemployment in Nigeria

In 2011, the unemployment rate for Nigeria was 23.9% [12] but it has been suggested that the figures are much higher [13]. The Nigerian labour force includes those between the ages of 15 and 64 years old apart from students, home keepers, retired people, those who stay at home to work and those not interested [13]. Apart from the labour force contributing to the mental and physical health of the workers, it helps in building the economy of the country. An increase in the working force leads to a rise in the production of manufactured goods which amplifies the country's purchasing power, ultimately fueling the economic growth [14].

A study of the unemployment trends in Nigeria between 1985 and 2009 showed that although the Nigerian economy grew between 1991 and 2006 and the population increased by 36.4%, unemployment increased by 74.8% [14]. Further, the oil industry contributed 30.5% to the Gross Domestic Product while the agricultural industry contributed 36.7% implying that agriculture is the major source of employment [14]. Unemployment in Nigeria contributes to a low Gross Domestic Product, increase in crime, decrease output of goods and services, increase in corporate crime and political instability [14]. Other factors identified as contributing to unemployment are high population growth rate, increase in the labour force, recessions, rural-urban migration, mismatch between job seekers' skills and employers' needs and the demise of small scale industries due to economic policies [13, 15].

Loss of Jobs for PLWHA

A study of the practices of small and large business owners across some African countries showed that in order to reduce the cost that an employee with HIV/AIDS might incur, prospective employees have to undergo pre-employment screening to rule out HIV/AIDS infection [16]. Further, small and medium sized businesses have several operational challenges like shortage of electric power, political instability and sudden and unexpected increases in taxes. Therefore, managing an employee with HIV/AIDS is not a welcome addition because they do not have the resources to maintain PLWHA [16].

In a study conducted in Ilorin, Nigeria, 300 PLWHA were interviewed and 2.7% of them admitted that they had been denied promotion at work, 7.7% had been threatened with termination and 0.2% reported employers' refusal to hire them [17]. A quarter of the respondents had experienced discrimination from religious leaders, family members and health care workers [17].

Loss of a job is a risk factor for deterioration in the health of PLWHA apart from the ripple effects it would have on the immediate family members and eventually on the country's economy. This study highlights the political economy and the stigmatization of HIV/AIDS in patients attending the Lagos University Teaching Hospital, Lagos, Nigeria.

Materials and Methods

This study was conducted within the old capital of Nigeria, Lagos State. Lagos State is one of the major commercial nerve centers of Nigeria. The study was carried out in one of the oldest teaching hospitals in Nigeria; the Lagos University Teaching Hospital [18]. The Lagos University Teaching Hospital is a tertiary level of care that trains medical doctors and other health professionals.

Ethical Approval

Ethical Approval for this study was obtained from the Lagos University Teaching Hospital Manage-

ment and consent for the interview was obtained from each respondent before the interview could proceed.

Questionnaire

The questionnaire consisted of 22 close-ended questions. The questions elicited socio-demographic data and change if any in marital, occupational or residential status after diagnosis. The first six questions were on socio-demographic data. Questions 7 to 22 were on stigmatization, change of marital, occupational or residential status after diagnosis.

The questionnaires were distributed daily for one week by medical students volunteering as interviewers and by the Principal Investigator. Prospective respondents who declined to answer the questionnaire were not persuaded to answer the questionnaire. Names of respondents were not required. Respondents were allowed to withdraw from participation at any time during the interview.

Analysis

A total of 100 respondents answered the questionnaire. Raw data were coded and input into the computer and analyzed by EPI INFO 6 [19] statistical software. Entry errors were removed and analysis was only done on the responses. The results were presented in tables and charts. Chi Square analysis was used to test for association between categorical variables at a P value of 0.05.

Results

There were more females than males giving a male to female ratio of 1: 1.17. The modal age range was 25-34 years 42 (42.4%) followed by 35-44 years 31 (31.3%). The youngest respondent was 16 years old and the oldest was 75. Most of the respondents 91 (91.0%) were Christians. Majority 62 (62.0%) had completed either secondary school or tertiary school education. Thirteen (13.1%) reported loss of their jobs after the diagnosis. Majority of the respondents were of the Igbo ethnic tribe 46 (46.0%)

followed by the Yoruba tribe 33 (33.0%). Although there are many people from the Hausa tribe living close to the clinic, none of the respondents marked Hausa in their responses. However, one respondent was Hausa. She was a 50 year old housewife married in a polygamous setting. She did not have a formal education and was not aware of her diagnosis. She could not speak English. Her children had been bringing her to the clinic for up to a year. The children said their father would divorce their mother if he knew of her diagnosis and were waiting for their father to show manifestations of the disease before telling him of the diagnosis.

Table 1. Socio-Demographic Distribution of Respondents.

Distribution of respondents by sex		
Sex	Frequency	Percentage
Male	46	46.0
Female	54	54.0
Total	100	100
Distribution of respondents by age		
Age (in years)	Frequency	Percentage
16-24	7	7.1
25-34	42	42.4
35-44	31	31.3
45-54	15	15.2
55-64	2	2.0
65-75	2	2.0
Total	99	100
Distribution of respondents by religion		
Religion	Frequency	Percentage
Christian	91	91.0
Islam	8	8.0
Other	1	1.0
Total	100	100
Distribution of respondents by level of education		
Level of Education	Frequency	Percentage
Primary School Uncompleted	7	7.0
Primary School Completed	12	12.0
Secondary School Uncompleted	15	15.0
Secondary School Completed	34	34.0
Tertiary Uncompleted	4	4.0
Tertiary Completed	28	28.0
Total	100	100.0

Sixty four of the respondents (64.0%) were married before the diagnosis but only 53 (53.0%) remained married after diagnosis ($P < 0.05$). Four of the respondents (4.0%) had been separated after the diagnosis and three (3.0%) had been divorced since the diagnosis. One artisan got married two months after the diagnosis and he said his wife was aware of the diagnosis. Five people (5.0%) had lost their spouses to the disease after the diagnosis. Nine of the respondents (9.0%) were students in tertiary education and two had completed their academic degrees and were newly employed. Thirteen (13.0%) of the respondents became unemployed after the diagnosis

Figure 1: Distribution of marital status before and after diagnosis.

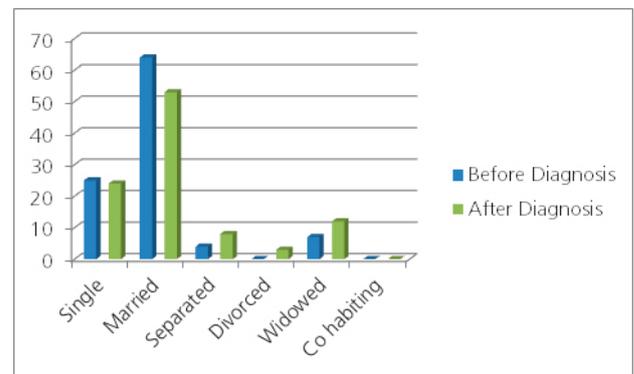


Figure 2: Distribution of employment status before and after diagnosis.

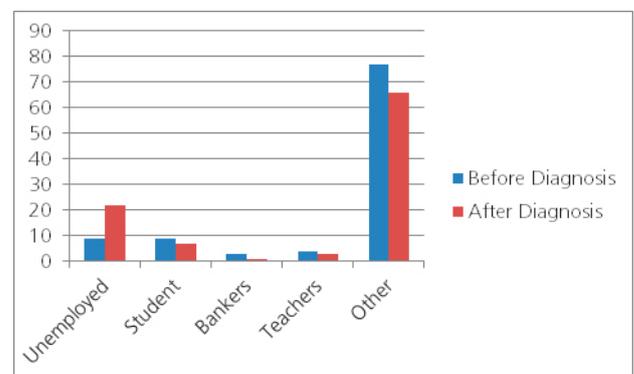
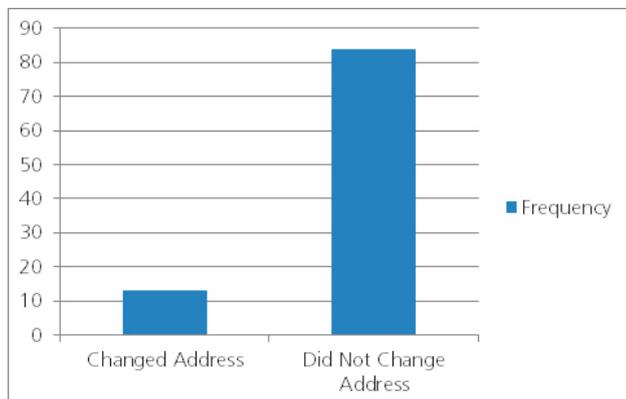


Figure 3: Distribution of respondents who had to change place of abode after diagnosis.

After diagnosis, a total of 24 (24.0%) respondents' employment status changed including changes through job loss or through graduation ($P < 0.05$). Thirteen (13.4%) had to change their place of abode. Some could not change their residential location because they lived in their own homes. Most of the respondents had been attending the clinic for less than six months 66 (66.0%) and 64 (64.0%) of them were diagnosed less than a year ago. Only 8 (8.1%) had informed their employers of their diagnosis. Other occupations included self-employed and artisans. Some were previously not employed or they were self-employed. Employers' awareness of diagnosis was not applicable to respondents that were self-employed.

About half of the respondents 48 (49.5%) felt they had not suffered any loss. Family and job were identified as the greatest losses 20 (20.6%) after other losses like marriage and inability to educate children. One person wrote that sex was the greatest loss. The most stigmatized areas of their lives were family, work and friends 71 (75.5%).

On the number of people that knew about their diagnosis, 43 (44.3%) of the respondents reported that more than two people were aware. Stigmatization increased with the number of people that knew about the diagnosis and was statistically significant ($P < 0.05$).

Table 2. Changes in residential and employment status after diagnosis.

Respondents who changed their place of abode after diagnosis			
Changed Address	Frequency	Percentage	Non Response = 3
Yes	13	13.4	
No	84	86.6	
Total	97	100	
Distribution of respondents who lost their jobs after diagnosis			
Loss of Job	Frequency	Percentage	Non Response = 1
Yes	13	13.1	
No	49	49.5	
Not Applicable	37	37.4	
Total	99	100.0	
Employers' awareness of the diagnosis			
Employers Awareness of diagnosis	Frequency	Percentage	Non Response = 1
Yes	8	8.1	
No	34	34.3	
Not applicable	57	57.6	
Total	99	100.0	

Table 3. Length of time since diagnosis and since attending clinic.

Distribution of respondents by length of time since diagnosis		
Length of Time	Frequency	Percentage
Less than one year	64	64.0
Up to 2 years but > 1 year	15	15.0
Up to 3 years but > 2 years	14	14.0
Up to 4 years but > 3 years	1	1.0
Up to 5 years but > 4 years	3	3.0
More than 5 years	3	3.0
Total	100	100
Distribution of respondents by length of time attending clinic		
Length of Time	Frequency	Percentage
Less than 6 months	66	66.0
More than 6 months but < 1 year	9	9.0
Up to 1 year but > 6 months	10	10.0
Up to 2 years but > 1 year	7	7.0
Up to 3 years but > 2 years	6	6.0
More than 3 years	2	2.0
Total	100	100

Table 4. Highlights of areas of stigmatization.

Respondents' perceived greatest loss since diagnosis			
Greatest Loss Since Diagnosis	Frequency	Percentage	Non Response = 3
Job	10	10.3	
Friends	8	8.2	
Family	10	10.3	
Others	21	21.6	
None	48	49.5	
Total	97	99.9	

Distribution of respondents by area of most stigmatization			
Most Stigmatized Area	Frequency	Percentage	Non Response = 6
Family	11	11.7	
Work	1	1.1	
Friends	10	10.6	
All of the Above	71	75.5	
Others	1	1.1	
Total	94	100	

Distribution of respondents by number of people that knew about diagnosis			
Number that knew	Frequency	Percentage	Non Response = 3
One Person	17	17.5	
Two Persons	24	24.7	
More than Two Persons	43	44.3	
None	13	13.4	
Total	97	99.9	

Relationship between number of people that knew of diagnosis and stigmatization			
Number of People that knew of diagnosis	Ever Suffered Stigmatization		
	Non Response = 3, P < 0.05		
	Yes (%)	No (%)	Total
One	1 (5.9)	16 (94)	17
Two	6 (25)	18 (75)	24
More than Two	17 (39.5)	26 (60.5)	43
None	1 (7.7)	12 (92.3)	13
Total	25	72	97

Table 5. Distribution of respondents by opinion that women are more stigmatized .

Women are more Stigmatized	Frequency	Percentage	Non Response = 3
Yes	57	58.8	
No	40	41.2	
Total	97	100	

More than half of the respondents 57 (58.8%) felt that women were more stigmatized. Religious organizations and groups of people living with HIV/AIDS (PLWHA) were not identified as areas of most financial support. Some 11 (11.3%) did not have any financial support. More than half of the respondents 58 (67.5%) spent between one-third and half of their monthly income on HIV/AIDS care. The most financial support came from family 61 (62.9%).

Table 6. Respondents' financial support and income spent on HIV/AIDS care

Distribution of respondents by area of most financial support			
Area of Most Financial Support	Frequency	Percentage	Non Response = 3
None	11	11.3	
Family	61	62.9	
Hospital	2	2.1	
Religious organization	0	0	
Groups of PLWHA	0	0	
Others	23	23.7	
Total	97	100	

Distribution of household income spent on HIV/AIDS care			
Percentage of Household Income	Frequency	Percentage	Non Response =14
Half of Household Income	30	34.9	
A Third of Household Income	28	32.6	
Two-Thirds of Household Income	7	8.1	
More than Two-Thirds of Household Income	21	24.4	
Total	86	100	

Discussion

Studies have shown that women are more disproportionately affected by HIV/AIDS [2, 6, 17, 20]. The gender distribution in this study was similar to other findings in south-eastern, north-central and south-western regions of Nigeria with more females living with HIV/AIDS [6, 17, 20]. A study conducted in the north-central part of Nigeria had more females 194 (64.7%) than males 106 (35.3%) and an almost even distribution of religion between Christians (47.7%) and Muslims (52.3%) [17]. Respondents in this study were predominantly Christians 91 (91.9%) because in the south-western region where this study was conducted, Christianity is the predominant religion. In a separate study from the south-eastern part of Nigeria, females 162 (67.5%) were twice the number of males 78 (32.5%) [20]. The trend of HIV/AIDS varies across Nigeria's geographic landscape [2, 3].

Religious organizations were not listed as areas of most support in this study. A study from the north-central region of Nigeria showed that religious organizations stigmatized PLWHA by not allowing them to participate in some activities and they were isolated by other members [17]. Stigmatizers felt that HIV/AIDS was a punishment from God and that they must have lived a deviant life style [17].

Stigmatization was one of the reasons why people were afraid of telling others about their diagnosis. Unfortunately, stigmatization drives infected persons into hiding and the disease is able to spread. A case in point was the 50-year old female that her children had been bringing to the clinic for about a year and she was not even aware of the diagnosis. Her children did not tell her because they were afraid she would be evicted from the home. The children admitted that they preferred to wait till their father began to show manifestations of the disease before telling him of their mother's diagnosis. The family is polygamous and their mother did not have any formal education.

The change in marital status was due to both death from the disease and from separation or divorce. The respondents' change in marital status was usually seen as a loss but there was a man, an artisan who got married after the diagnosis. Also, a person that was attending the clinic for treatment declined to take part in the questionnaire survey because he had come to the clinic with his girlfriend and there was no way he could answer the questionnaire without his girlfriend being aware of his diagnosis. The girlfriend did not know that she had escorted her boyfriend to the HIV/AIDS clinic. While the boyfriend was getting treatment, the girlfriend was unaware of her boyfriend's diagnosis and could not get treated or tested.

Employers that terminated respondents with HIV were usually owners of small businesses although one banker reported loss of his job after the diagnosis. Over seventy percent of employment in the sub-Saharan is considered vulnerable employment [10] and do not have a social security net and cannot take on what most employers would consider a liability.

Businesses also mandate pre-employment screening to rule out PLWHA to keep costs down [16]. In this study, most of the income earned was spent on HIV/AIDS care and the support was mostly from family. Although the drugs are provided free, PLWHA still have indirect costs related to their care. About a third of the respondents 30 (34.9%) spent about half of their household income on HIV/AIDS care. Patients sometimes go to clinics far from their homes where they are not known and for some, the transportation costs, travelling time, time away from work and long waiting times are the indirect costs [20].

With the prevailing economic situation, most businesses are struggling to meet overhead costs and are not able to take on the burden of an employee with PLWHA [16]. In addition, vulnerable employment is predominant in Nigeria. The care of HIV/AIDS consumes a lot of resources and some

respondents were no longer able to send their children to school. Education is a key to stepping out of poverty especially where there is high unemployment and children of PLWHA whose education gets truncated face challenges including risky life style behaviors and could be on a path to poverty. However, PLWHA in the seventh most populous nation in the world face difficult circumstances where unemployment is extremely high and stigmatization of the disease is also high. Support by providing antiretroviral drugs is good but more should be done in the area of employment. People with HIV/AIDS that are able to keep their employment have better mental and physical health,[7] live longer and have fewer hospitalizations [8].

Recommendations

1. Health Education should focus on employers of small and large businesses.
2. Health Education should also be extended to religious organizations.
3. Efforts should be made to reduce stigmatization of HIV/AIDS through health education.
4. Governments and Organizations should develop coping strategies for families with HIV/AIDS.
5. Governments should collaborate with International Organizations and develop income self-generating ventures for PLWHA and their families.
6. Governments should develop a scheme that gives incentives to employers that employ PLWHA.
7. People with HIV/AIDS should be counseled to tell their HIV/AIDS status to their sexual partners.

Conclusion

The youngest respondent was 16 years old and the oldest was 75. More than half of the respondents were from Igbo ethnic tribe followed by Yorubas.

None of the respondents identified as Hausa even though there is a predominantly Hausa community close to the hospital. There had been a change in marital status after diagnosis. The change was usually a loss of partner by separation, divorce or death but one respondent got married. There was loss of job after diagnosis usually if the employer knew of the diagnosis. The employers that terminated people with HIV/AIDS were usually small business owners.

Stigmatization increased with the number of people that knew about the diagnosis. Some respondents had to change their place of residence because of stigmatization but those who lived in their own homes were not able to change their place of residence. Some respondents spent up to half of their household income on AIDS/HIV care. They felt stigmatized by family, friends and colleagues at work.

Not employing PLWHA is a loss on the country's economy because loss of a job by a family member affects their dependents and transcends beyond the person infected with HIV/AIDS which in turn can lead to some children dropping out of school and may put them at risk of being lured into risky behaviors thereby increasing their chance of becoming infected. Countries with high unemployment will have a high incidence of crime which destabilizes the economy [14]. Ultimately, looking after the whole person and not just drug provision is promoting a better economy for the country and sustaining the future of the children and the country.

Competing interests

None.

Authors' contributions

TTO conceived the study design, assisted in data collection and analysis. TTO wrote the entire manuscript.

Acknowledgements

The author wishes to express her appreciation to the staff and to the patients at the HIV/AIDS clinic at the Lagos University Teaching Hospital and to the eleven final year medical students that volunteered in the data collection. The author thanks the management of Lagos University Teaching Hospital and the College of Medicine, University of Lagos my former employers.

I would also like to acknowledge Virginia Polytechnic Institute and State University's Open Access Subvention Fund (OASF).

References

1. PRB. Population Reference Bureau 2014 World population data sheet. [cited 2015 January, 14]. Available from: http://www.prb.org/pdf14/2014-world-population-data-sheet_eng.pdf
2. Global Report. UNAIDS report on the global AIDS epidemic 2013.pg 26 [cited 2015 January, 13] Available from: http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf
3. Bashorun A, Nguku P, Kawu I, Ngige E, Ogundiran A, Sabitu K, et al. A description of HIV prevalence trends in Nigeria from 2001 to 2010: what is the progress, where is the problem? *The Pan Afr Med J.* 2014; 18(Suppl 1): 3.
4. National Agency for The Control of AIDS (NACA). Federal Republic of Nigeria Global Aids Response. Country Progress Report Nigeria GARPR 2014.[cited 2015 January, 13] Available from: http://www.unaids.org/sites/default/files/en/dataanalysis/knownyourresponse/countryprogressreports/2014countries/NGA_narrative_report_2014.pdf
5. Chikwem JO, Mohammed I, Bwala H, Ola TO. Human immunodeficiency virus (HIV) infection in patients attending a sexually transmitted diseases clinic in Borno State of Nigeria. *Tropical and geographical medicine.* 1990; 42(1): 17-21.
6. Ojini FI, Coker A. Socio-demographic and clinical features of HIV-positive outpatients at a clinic in south-west Nigeria. *African Journal of AIDS Research.* 2007; 6(2): 139-145.
7. Legarth R, Omland LH, Kronborg G, Larsen CS, Pedersen G, Dragsted UB, et al. Employment status in persons with and without HIV infection in Denmark: 1996-2011. *AIDS.* 2014; 28(10): 1489-1498.
8. Dray-Spira R, Gueguen A, Persoz A, Deveau C, Lert F, Delfraissy J-F, et al. Temporary employment, absence of stable partnership, and risk of hospitalization or death during the course of HIV infection. *JAIDS Journal of Acquired Immune Deficiency Syndromes.* 2005; 40(2): 190-197.
9. Rogot E, Sorlie PD, Johnson NJ. Life expectancy by employment status, income, and education in the National Longitudinal Mortality Study. *Public health reports.* 1992; 107(4): 457-461.
10. International Labour Organisation. Global Employment Trends 2014. [cited 2015 January, 23] Available from: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_233953.pdf
11. International Labour Organisation. Global Employment Trends 2013. [cited 2015 January, 13] Available from: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_202326.pdf
12. Countrystat Nigeria socio-demographic indicators. National Bureau of Statistics. [cited 2015 January 14] available from: <http://www.countrystat.org/home.aspx?c=NGA&p.=ke>

13. Ajaegbu OO. Rising youth unemployment and violent crime in Nigeria. *American Journal of Social Issues and Humanities*. 2012; 2(5): 315-321.
14. Njoku AC, Ihugba OA. Unemployment and Nigerian Economic Growth (1985-2009). *Mediterranean Journal of Social Sciences*. 2011; 2(6): 23-32.
15. Bakare A. The determinants of urban unemployment crisis in Nigeria: An econometric analysis. *Journal of emerging trends in economics and management sciences*. 2011; 2: 184-192.
16. Rosen S, Feeley F, Connelly P, Simon J. The private sector and HIV/AIDS in Africa: taking stock of 6 years of applied research. *AIDS*. 2007; 21: (Suppl 3): S41-S51.
17. Owolabi RS, Araoye MO, Osagbemi GK, Odeigah L, Ogundiran A, Hussain NA. Assessment of stigma and discrimination experienced by people living with HIV and AIDS receiving care/treatment in University of Ilorin Teaching Hospital (UITH), Ilorin, Nigeria. *Journal of the International Association of Physicians in AIDS Care (JIAPAC)*. 2011; 11(2) 121-17.
18. Lagos University Teaching Hospital. [cited 2015 February 13] available from: <http://luthnigeria.org/>
19. CDC. EPI INFO 7[cited 2015 February 13] available from: <http://wwwn.cdc.gov/epiinfo/>
20. Okoli CI, Cleary SM. Socioeconomic status and barriers to the use of free antiretroviral treatment for HIV/AIDS in Enugu State, south-eastern Nigeria. *African Journal of AIDS Research*. 2011; 10(2): 149-155.

Comment on this article:



<http://medicalia.org/>

Where Doctors exchange clinical experiences, review their cases and share clinical knowledge. You can also access lots of medical publications for free. **Join Now!**

Publish with iMedPub

<http://www.imed.pub>

International Archives of Medicine is an open access journal publishing articles encompassing all aspects of medical science and clinical practice. IAM is considered a megajournal with independent sections on all areas of medicine. IAM is a really international journal with authors and board members from all around the world. The journal is widely indexed and classified Q1 in category Medicine.