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Preferences for antiretroviral therapy services: Qualitative evidence from people living with HIV in Ghana

Augustine Tanle¹

Akwasi Kumi-Kyereme¹

Simon Mariwah²

Kobina Esia-Donkoh¹

Samuel Asiedu Owusu³

Jewel Lamptey⁴

Abstract

Antiretroviral therapy (ART) is one of the interventions meant to prolong the progression from HIV to AIDS for People Living with HIV (PLHIVs). Although ART was introduced in Ghana in 2003, there is little or no information about the preferences of those on ART services. The main objective of the study therefore was to examine the preferences of PLHIVs concerning ART services. The data were extracted from a nationwide qualitative study conducted by the Ghana AIDS Commission (GAC) which covered 12 cities/towns sampled from the three ecological zones of Ghana. Focus Group Discussions (FGD) and In-Depth Interviews (IDI) were the methods used in the data collection. A total of 145 FGDs and 171 IDIs were conducted in all the study sites among a wide range of target groups. The data were transcribed and analysed using NUD*IST (Non-numerical Data* Indexing Searching and Theorizing) version 6. The results showed that the hospital was the most preferred place for ART medications and most PLHIVs preferred to receive ART drugs from health personnel, trained PLHIVs or 'foreigners'. PLHIVs preferred to access ART services free of charge and abhorred delays at ART centres. The preferences of PLHIVs regarding ART services must be considered in policies and programmes aimed at increasing enrolment, retention and coverage of ART in the country.

Keywords: PLHIVs, ART Services, Preferences for ART, Ghana

¹Department of Population and Health, University of Cape Coast (UCC), Cape Coast, ²Department of Geography and Regional Planning, UCC, Cape Coast, ³Directorate of Research, Innovation and Consultancy (DRIC), UCC, Cape Coast,

⁴Ghana AIDS Commission (GAC), Accra, Ghana

Corresponding author: Augustine Tanle Email: atanle@ucc.edu.gh

Introduction

Since the advent of the Human Immuno-Deficiency Virus and Acquired Immune Deficiency Syndrome (HIV and AIDS) in Ghana in 1986, there has not been any known cure for the disease in spite of all the efforts made by individuals, researchers, governments and Non-governmental Organizations (NGOs) over the years. However, through the efforts of the World Health Organization (WHO) and other relevant institutions, antiretroviral therapy (ART) has been introduced as one of the interventions meant to prolong the progression from HIV to AIDS for Persons Living with HIV (PLHIVs). ART helps the body's immune system to recover from the damage caused by infection with HIV. It was piloted in Ghana in June 2003 as part of the global effort to scale-up antiretroviral therapy (ART) for HIV patients. Since then there has been a phenomenal increase in the number of people put on ART, from 197 in 2003, to 45,000 in 2010, to over 66,000 people in 2012 (Dako-Gyeke et al., 2012; Sabin et al., 2014). In sub-Saharan Africa, the number of patients on antiretroviral therapy has also increased from less than 1 million in 2005 to 7.1 million in 2012 (Okafor & Ekwunife, 2013; UNAIDS, 2013).

Subsequently, a number of studies have been carried out on access to and the impact of ART on PLHIV (Bajunirwe et al., 2009; Chi & Cantrell, 2009; Ohene & Forson, 2009; Okafor & Ekwunife, 2013). In a study on 227 persons living with HIV who were receiving ART at the Komfo Anokye Teaching hospital (KATH) in Kumasi, Ohene & Forson (2009) found that the challenges that clients encounter in accessing ART include cost of the treatment, complaints of side effects from the patients and long waiting hours (3 hours or more) at the clinic.

Financial constraints have also been found to be one of the barriers for non-adherence to ART medications (Weiser et al., 2003; Obeng, 2010; Okafor & Ekwunife, 2013). For example, in a study conducted at Komfo Anokye Teaching Hospital (KATH), Obeng (2010) found that financial constraints were the main reason for respondents' non adherence to therapy. Although treatment is subsidized by the government and patients are expected to pay GH¢ 5.00 (US\$ 1.34) per month (i.e. GHC 3.60 to US\$ 1.00 as at 14th September, 2015) for a comprehensive package of healthcare, the study revealed that more than 50 per cent of patients who attended clinic at KATH were unable to pay for the drugs and therefore they could not adhere to the regular drug use regimen. This was attributed to the fact that over 80 per cent of the respondents were either unemployed or had no source of regular income. Similarly, studies

Preferences for antiretroviral therapy services: Qualitative evidence from people living with HIV in Ghana

by Weiser et al. (2003) and Okafor & Ekwunife (2013) showed that financial constraints were the main barrier to adherence to ART in some parts of sub-Saharan Africa.

In sub-Saharan Africa, it has been noted in some studies that most countries have few centres for ART medications. This challenge becomes more aggravated where an ART centre is far away from the patients. This situation could prevent some patients from visiting clinics regularly according to schedule (Adedayo et al., 2005; Ramadhani et al., 2007; Okafor & Ekwunife, 2013).

Furthermore, in a study titled: “Who is utilizing anti-retroviral therapy in Ghana: An analysis of ART service utilization”, Dako-Gyeke et al. (2012) compared data on ART utilization by region. Among other things, their study revealed that there was a general inequality in access to ART by region and sex. ART enrolment was found to be lower in some regions compared with the number of PLHIV in those regions, and in terms of sex, more females than males were enrolled in ART treatment in all the regions. Dapaah (2012) also observed in a study conducted at St Patrick and Okomfo Anokye Teaching Hospitals that most of the patients who accessed ART were women. According to the study, males who tested positive refused to access ART for fear of being identified and stigmatised or discriminated against, losing popularity (for those who considered themselves popular and respectable in their communities) or as a sign of bravery.

From the studies on ART in Ghana, there is a paucity of literature on the preferences of PLHIVs on ART services. Even outside Ghana, the literature on preferences for ART among HIV positive patients focuses more on the types of drug regimens that patients prefer (Rosenfeld et al., 1997; Miller et al., 2002) than on the processes involved in providing the services. It is expected that the people for whom the services are provided should have a greater say about where, by whom, when and how the services should be delivered to them. Although there has been an increase in the number of patients receiving ART, about 70 per cent of PLHIV in Ghana are not enrolled in ART treatment (Dako-Gyeke et al., 2012). The large number of PLHIVs who are not regarding ART could be due to a number of reasons including their preferences about ART services. The main objective of the paper therefore is to examine the preferences of PLHIVs concerning ART services in terms of the most preferred media for delivering information, service delivery centre, service provider, cost of the services and time spent at service centre. The paper is divided into seven sections. Following the introduction are contextual issues, theoretical perspectives, data and methods, results and

discussion, conclusions and policy recommendations. The findings of the study have implications for the national policy of scaling-up the use of ART among PLHIVs.

Contextual issues

In Ghana, the first case of AIDS was diagnosed in March 1986. By the end of 1986 only 26 cases were reported, but the number of HIV patients kept on increasing with time. One of the initial responses to the disease was the establishment of the National AIDS/STI Control Programme in 1989 by the Government of Ghana and the Ministry of Health to coordinate the national response. Various activities such as public educational campaigns and workshops were organized to sensitize the public on ways to reduce risky sexual behaviour.

The Ghana AIDS Commission (GAC) was later established in September 2000 under the office of the President of Ghana to coordinate all HIV and AIDS-related activities within the country. The GAC came out with the *Ghana HIV and AIDS Strategic Framework 2001-2005*(NSF I), the main objective of which was to mitigate the socio economic impact of HIV and AIDS on individuals, communities and the nation at large. The framework had five specific objectives, namely the prevention of new transmissions of HIV; care and support for people living with HIV and AIDS; creating an enabling environment for the national response; decentralized implementation and institutional arrangements; and research, monitoring and evaluation (Wong, 2005).

The implementation of NSF I triggered the enactment of several policies and guidelines to create an environment conducive for the delivery of effective HIV and AIDS services. It stimulated the preparation of policy documents, such as the 2004 National HIV and AIDS and STI Policy, the National HIV and AIDS Workplace Policy, the 2002 Guidelines for Antiretroviral Therapy, the Policy on HIV and AIDS for Faith Based Organisations, the 2003 National Guidelines for the Development and Implementation of HIV Voluntary Counselling and Testing, National Policy Guidelines on Orphans and Vulnerable Children, the 1999 Draft National Guidelines for Blood Safety and the National Monitoring and Evaluation Plan of 2001-2005 (GAC, 2005).

In September 2005, a second National HIV and AIDS Strategic Framework for 2006-2010 (NSFII) was implemented. The rationale was to build on the lessons learnt from implementing the first National Strategic Framework and also to take account of the changing dynamics of the epidemic and the socioeconomic environment, the emerging HIV and AIDS treatment

Preferences for antiretroviral therapy services: Qualitative evidence from people living with HIV in Ghana

technologies and new relevant research findings (GAC, 2005). One of the strategies of the NSF II was to scale-up programmes necessary to combat the HIV and AIDS epidemic, such as Prevention of Mother-to-Child Transmission (PMTCT), Antiretroviral Therapy (ATR) and Post-Exposure Prophylaxis (PEP) services, and targeted behaviour change communication programmes.

A third national HIV and AIDS strategic framework dubbed National Strategic Plan for Most at Risk Populations 2011-2015 (MARPs) was implemented in August 2011. The overarching goal of the MARPs strategy was to provide evidence-based prevention, protection, treatment, care and support services for 80 per cent of all identified MARP groups by 2015. The target group includes female sex workers (FSW), men sleeping with men (MSM), injecting drug users and prisoners.

In addition to the strategic framework, a National Guidelines on Antiretroviral Therapy was implemented in 2002, and since then regular revisions have been carried out to meet emerging new evidence in therapeutic guidelines. Among other things, the objectives as stated in the fourth edition (Implemented in August, 2010) were to facilitate the provision of standard ART and to provide information on ART in Ghana; guidance on monitoring of ART – clinical, laboratory and adherence— and on the provision of comprehensive care including counselling in ART; direction on logistics management and information for Antiretroviral drugs. In addition, the Government of Ghana, through the National AIDs Control Programme (NACP) and the Ghana Health Service, scaled up ART in all 10 Regional hospitals and some selected district hospitals in Ghana (Ministry of Health / Ghana Health Service, 2005; 2010).

The National AIDS/STIs Control Program (NACP) recommends patients to initiate treatment when their CD4 count is less than 350 cells/ml. Antiretroviral drugs inhibit the reproduction of HIV in the blood's T-cells. They are usually given as a combination therapy, combining different kinds of drugs that block different steps in the viral reproduction. ART can prolong the life and improve the health and productivity of PLHIVs. In Ghana, antiretroviral therapy is provided through a government-sponsored programme. Patients pay a subsidized monthly fee of GH¢ 5.00 (US\$ 1.34) for counselling, doctor's visit and antiretroviral medication.

Theoretical perspectives

The word ‘preference’ means a strong feeling or liking for something more than something else. It also means selection of someone or something over another or others, the right or chance to so choose or a predisposition in favour of something. It is a subjective concept and therefore operates on the principle that the individual is the ultimate person who can decide what is good or bad for him/herself based on his/her own wants and preferences (Nussbaum, 2001). It has been observed that preferences are influenced by perceived options and life circumstances. A person’s choice or preference for one thing over the other could be influenced by a number of factors which include socio-demographic characteristics, community level elements, peer influences or the cost of the item or service involved. Patients’ preferences have been widely acknowledged as an integral part of treatment or service decision-making. This has been done particularly in situations where treatment or services involve many options or choices (Rosenfeld et al., 1997). For instance, HIV patients need information on what ART is about, service delivery points, service providers and cost of the services. These involve some options which give room for clients to choose or prefer one option to the other.

This study is situated within the context of the rational choice theory proposed by Coleman (1990). The basic tenet of the theory is that patterns of behaviour in societies reflect the choices made by individuals as they try to maximise benefits and minimize cost. In other words, people make decisions about how they should act by comparing the costs and benefits of different courses of action. The assumptions underlying the rational choice theory are individualism and optimality. It is an individual who ultimately takes action and the main objective of the action is to optimise the satisfaction from that action given the enabling or constraining elements in the social structure. The use of healthcare services involves making choices from the alternatives available. Generally, PLHIVs prefer to use services in privacy so that their status will not be known by others (Dapaah, 2012). To minimize the social cost in terms of stigma and discrimination associated with HIV and AIDS, it is imperative to consider the preferences of PLHIVs regarding ART services. For instance, although the cost of ART services per month has been heavily subsidized by the government of Ghana, some HIV patients would prefer that the cost is reduced further or that they access the services free of charge. This implies that the preferences of PLHIVs should not be glossed over when considering strategies for scaling-up the number of HIV positive patients on ART.

Data and methods

The data for this paper were extracted from a nationwide qualitative study on Behavioural Change Communication funded by the Ghana AIDS Commission (GAC) and carried out by the Directorate of Research, Innovation and Consultancy (DRIC) of the University of Cape Coast. The purpose of the research was to provide information on the perceptions, beliefs and attitudes of Ghanaians to inform the development of appropriate form(s) of messaging that will help to combat the spread of the HIV and AIDS pandemic. The study sites were purposively chosen from the three ecological zones of Ghana. The coastal zone consisted of the Central, Greater Accra, Western and Volta Regions; the forest zone comprised the Ashanti, Brong Ahafo and Eastern Regions while the savannah zone covered the Northern, Upper East and Upper West Regions. Twelve cities/towns were selected from the three ecological zones. The inclusion criteria were border towns, towns/cities noted for commerce/trading, mining, construction, and towns/cities with high HIV and AIDS prevalence rates. Accra-Tema, Aflao, Sekondi-Takoradi and Sefwi Asafo were selected from the coastal zone while Kumasi, Obuasi, Kete Krachi and Agomanya were chosen from the forest zone. The study sites selected from the savannah zone were Nadowli, Paga, Wa and Tamale. The target group comprises people living with HIV and AIDS (PLHIVs)/people on Antiretroviral drugs, in and out of school youth (15-24 years), pregnant women and their partners, religious and traditional leaders, migrant workers (e.g. long distance drivers and their assistants, artisanal “galamsey” miners, construction workers, traders, and cross-border migrants who are away from their regular sexual partners for at least 3 days), Female Sex Workers (FSW), Men having sex with Men (MSM) and a cross-section of male and female adults not captured in these groups. The instrument which was reviewed and approved by the University of Cape Coast Institutional Review Board (IRB) covered Background Characteristics, Condom Use, Stigmatization and Discrimination, Mother-to-Child Transmission. Counselling and Testing, ART and Post-Exposure Prophylaxis (PEP). Ethical issues were considered in the study: participation was voluntary, individual informed consent forms were signed, and anonymity and confidentiality were assured. The authors of this paper were among the six research teams comprising lecturers and postgraduate students of both sexes who collected the data. Two teams were allocated to each ecological zone and a team consisted of five members including a supervisor. On average, seven people participated in each of the FGDs based on their ages and sex. In all, a total of 145 FGDs and 171 IDIs were conducted in the sampled study sites concurrently.

The data collected were transcribed, cleaned and analysed using NUD*IST (Non-numerical Data* Indexing Searching and Theorizing) version 6. A one hundred and one-code scheme grouped into five categories (condom use, stigma and discrimination, mother-to-child-transmission and, counselling and testing) around the main themes was developed. Two different people coded the FGD and IDI transcripts using the 101-code scheme. Text searches on relevant codes were done and matrices were prepared based on the substantive points for the category of respondents. This paper used the data on PLHIVs who were on ART medications at the time of the survey.

Results and discussion

Sources of information on ART

Although the study focuses on the preferences of PLHIVs regarding ART services, the main source (s) of information on ART must first be analysed, as this could influence one's acceptance, taste and preferences. Moreover, one of the objectives of the 2010 revised edition of the National Guidelines on Antiretroviral Therapy was to provide information on ART in Ghana. The major sources of information on ART identified by the respondents in both the IDIs and FGDs were the media, particularly television (TV) and the radio:

I got the information on ART from the TV and radio. They said there is a drug that can help AIDS patients to live longer (Male, PLHIV, 36 years) and at the hospital: I heard about it from the hospital... After testing when I was positive, the nurse informed me of the availability of ART (Male, PLHIV, 39 years). I heard of the ART drug from the hospital when my husband brought me and I was tested positive. The doctor said there is a drug that will make us stronger all the time (Female, PLHIV, 32 years). I heard of it from the hospital when I was tested positive. The message was that it is a drug that will make us live longer than if we do not take the drug (Female, PLHIV, 35 years).

The main sources of information mentioned above are credible. Information in the media mostly comes from the Ghana AIDS Commission while health personnel are trained on matters concerning health. However, access to and use of information on ART could be influenced by a number of factors which include place of residence and perception about information on ART. These factors could enable or constrain access to information on ART. PLHIVs living in rural areas where there are no electricity may not have access to information on ART from the television which is available to their counterparts in urban areas where there is fairly regular supply of electricity. In Ghana, about 40 per cent of households do not have access to electricity, especially in some rural areas (Ghana Statistical Service, 2012). Consequently, television ownership is higher in urban areas (56.2 per cent) than in rural areas (15.9 per cent), but access to the radio is rather higher in rural areas (55.7 per cent) than in

Preferences for antiretroviral therapy services: Qualitative evidence from people living with HIV in Ghana

urban areas (42.2 per cent) (Ghana Statistical Service, 2008). This means that on average, more urban than rural dwellers have access to information on ART from both the television and the radio. Also, physical distance to the nearest health facility could influence access to information from a healthcare facility. PLHIVs who live farther away from the nearest health facility are less likely to access information on ART than those who live closer. Furthermore, some PLHIVs who have information on ART may not access ART services based on their perceptions about ART vis-a-vis other 'remedies' for HIV and AIDS. For instance, some PLHIV continue to rely on unorthodox medicine, prayers from pastors, fetish priests and herbalists for 'cure' for HIV and AIDS instead of accessing ART from the hospitals (Bamidele et al., 2009; Boateng et al., 2013). The low enrolment (30.0 per cent) of PLHIV on ART in Ghana (Dako-Gyeke et al., 2012) could be attributed to place of residence and perceptions of information on ART.

Preferred place for ART services

ART services are provided at some designated hospitals across the country. In 2011, there were 150 health facilities providing ART medications to more than 60, 000 HIV-positive patients (Sabin et al. 2014). However, it has been proposed that home-based ART services should be provided for HIV patients who would want to access ART services at home instead of at the hospital (Baiden et al., 2005). In the interviews, respondents were asked to mention the most preferred facility from which they would like to access ART services. Generally, participants of the FGDs reported that they preferred facility-based ART services as indicated by these excerpts:

For ART drugs we prefer the hospitals because these drugs are not just any drugs to be administered at home, because there are a lot of education and preparation before these drugs are given (Male PLHIV, 39 years). We prefer facility based because it will be a big problem if it is home-based. Anytime I come here, people see me to be coming to hospital for different purpose other than coming for the ART drug and it is better that way. But if it is home-based, it will make us think about it and that alone can kill us early (Male, PLWHA, 32 years).

Also, it emerged from the in-depth interviews that health facilities were the preferred places for ART services because they offer PLHIVs the opportunity to meet and interact:

*I prefer facility based like the ***** hospital because when we all come to meet at the centre to take our drug, we share our problems together and laugh and make ourselves happy which help take some of our sorrows away (Female, PLHIV, 32 years). I prefer the facility-based service to home-based because there are some people who have the disease but don't want their relations to know because of stigmatisation. Home-based treatment will increase stigmatisation ((Male, PLWHA, 44 years).*

The results from both the FGDs and IDIs show that PLHIV prefer facility-based to home-based ART services. The main reasons given for their preference were the opportunity to meet and interact with their colleagues (PLHIVs) and also to avoid stigma and discrimination. Home-based services may require training of additional personnel to provide ART services in designated communities. In spite of the preference for and confidence in facility-based care, physical distance and the open location of some ART clinics are some of the constraints to accessing ART services at some ART clinics. For instance, on physical distance, a female PLHIVs aged 33 years gave the following comments:

My problem is transportation. Where I stay is far from where I take the drugs from. It cost me about GH¢ 5.00 (US\$ 1.34) anytime I come for my drugs. Under such circumstances, if you don't have somebody to support you financially, it will be difficult for you to collect your drugs regularly as required.

Also, it has been noted that some facilities do not protect the privacy of PLHIVs who access ART services. In a study on HIV and AIDS treatment in two Ghanaian hospitals, Dapaah (2012) found that the open location of some ART clinics directly reveals the HIV positive status of PLHIVs. The open location of clinics or service points has also been found in some studies to be a barrier to adolescents accessing sexual and reproductive health services in the country (Awusabo-Asare et al., 2006).

Preferred person to deliver ART services

This section quizzed PLHIVs on whom they prefer to receive ART services from. In both the FGDs and IDIs, the most preferred persons mentioned were health workers, trained PLHIVs and 'foreigners' (People not from the community):

I will prefer health workers who have been rendering the service because they know how the drug has been improving our situation (Male, PLHIV, 35 years). We want the doctors and nurses because they have been trained so they know all about the drugs and the disease (Female PLHIV, 45 years). PLHIVs should be trained to help in giving out the drugs. If this is done it will encourage us to feel free to go for the drugs because if a PLHIV gets there and sees the colleague HIV patient giving the drug they will not feel shy again (Male, PLHIV, 53 years). I think it is best if 'foreigners' come because the indigenes would let others know about your status. As at now those who give the drug to us are not from this community and they relate to us very well. I like the way they relate to us, so if they continue, it will be better (Female PLHIV, 32 years).

From the responses, health workers are one group of people that PLHIVs would like to receive ART services from because they are trained and have the experience to provide such services. However, divergent views have been expressed on the attitude of healthcare providers towards

Preferences for antiretroviral therapy services: Qualitative evidence from people living with HIV in Ghana

PLHIVs accessing ART services. In this study for instance, some of the respondents gave positive comments about the attitudes of health workers as indicated in these two excerpts:

The health workers behave towards us very well. They handle us like we are siblings. In the beginning before they put you on these drugs, they ask you to bring a family member along. It is not difficult to get such a person. It should be someone who you believe will not go and spread the information that you are infected. When they put you on the drugs, you wouldn't have to come with anybody to the hospital again (Male, PLHIV, 36 years). They are generally good. She will ask which part of your system is disturbing you. They don't meet us with frown faces; we converse with them nicely (Female, PLHIV, 19 years).

But some studies have documented the unprofessional behaviour or negative attitudes of some health workers towards their clients (Awusabo-Asare et al., 2006; Dapaah, 2012). In a book titled: *HIV and AIDS treatment in two Ghanaian hospitals: Experiences of patients, nurses and doctors*, Dapaah (2012) documented many instances in which some nurses and medical doctors in some hospitals deliberately disclosed the HIV positive status of some PLHIVs who visited those hospitals for ART services to other patients. The use of trained PLHIVs to provide counselling and ART services for people with HIV has been advocated in many fora. The rationale is that, among other things, PLHIVs feel more comfortable receiving services from their own colleagues than from others who are not HIV positive, and services from trained PLHIVs are devoid of stigma and discrimination. Similarly, the preference for a 'foreigner' rather than a known person to provide ART services is due to the desire to conceal one's identity and HIV-positive status and to reduce stigmatization of PLHIVs. This means that stigma and discrimination, whether experienced or anticipated, are fundamental to PLHIVs' choice of the person they prefer to administer ART services to them (Mshana et al., 2006). Again, HIV-related stigma, whether real or feared, has been identified as one of the main community or societal level barriers and challenges to the retention of HIV-positive patients on ART (Weiser et al., 2003; Hardon et al., 2007; Sabin et al., 2014).

Cost of ART medications

The government of Ghana has subsidized the cost of drugs for treatment for HIV positive patients enrolled on ART, and such patients are expected to pay only GH¢ 5.00 (US\$ 1.34) per month for a comprehensive package of ART medications. However, a number of studies have documented that most (about 80 per cent) PLHIVs are unable to pay upfront for their drugs because most of them had become unemployed or had no regular source of income (Weiser et al., 2003; Ohene & Forson, 2009; Obeng, 2010; Dapaah, 2012; Okafor & Ekwunife, 2013).

Also, it is instructive to note that besides the cost of the drugs, some PLHIVs have to pay for transport to the preferred service delivery point, which could be high depending on where one lives. Transport cost has been identified as one of the barriers to accessing ART in some studies (Mshana et al., 2006; Hardon et al., 2007; Dako-Gyeke et al., 2012). For example, in a three country study conducted in Botswana, Tanzania and Uganda, aimed at identifying the main factors challenging optimal adherence to ART, Hardon et al. (2007) found that study participants in all three countries received medicines free of charge, but transport cost, particularly for those in remote areas, was the reason why some could not visit the health facilities for follow-up and refill. In this study, some of the sentiments expressed on cost of transportation and drugs were as follows:

The distances are far. Due to this, there are some people who hardly come for the drugs on regular basis because they cannot afford the cost of transport involved (Female, PLHIV, 37 years). My problem is transportation. Where I stay is far from where I take the drugs. It cost me about GHC5 anytime I come for my drugs. Under such circumstances, if you don't have somebody to support you financially, it will be difficult for you to collect your drugs regularly as required (Female, PLHIV, 33 years). The drugs should be given to us free of charge. Sometimes, for one year, I will not have money but they give the drugs to me (Male, PLHIV, 44 years).

The findings that the cost of ART medications and transport could lead to irregular attendance of ART clinics by some PLHIVs is consistent with a study conducted by Sabin et al. (2014) on Keeping HIV-Positive Patients on Antiretroviral Therapy at the Suntreso Government Hospital in Kumasi. They observed that financial constraints, which constitute a major individual level barrier as mentioned by 80.0 per cent of PLHIVs, pertained mainly to the cost of ART medications and transport to a clinic for medication refills. This point also ties in with a study by Dako-Gyeke et al. (2012) which indicates that inequalities in the distribution of healthcare facilities in the country account for the regional variations in number of PLHIVs enrolled at ART centres. With no money to pay for their drugs, new PLHIVs are likely not to enrol and access ART drugs, while those already enrolled are likely to access ART services irregularly. This poses a challenge to the national policy of increasing the number of HIV positive patients enrolled on ART (Ministry of Health / Ghana Health Service, 2005).

Time spent at ART clinics or service delivery points

There is limited literature on the time PLHIVs spend at ART service delivery points waiting for their medications (Hardon et al., 2007; Ohene & Forson, 2009; Dapaah, 2012). In the study by Hardon et al. (2007), long waiting times at health facilities was found to be a major challenge to adherence to ART medication regimens. Similarly, Dapaah (2012) observed in one of his study areas that PLHIVs known to be purchasing drugs on credit were often made to wait until those who paid upfront had been served, which is contrary to the principle of ‘first come, first served’ in customer service practice. This implies that those without money to make prompt payment for the drugs are more likely to spend a longer time at such ART service delivery points than those with money. In this study, however, PLHIVs expressed divergent views on time spent at ART service delivery points, as indicated in these excerpts:

At times, you spend a lot of time over there, from 8:00am to 3:00pm, due to huge numbers coupled with small number of health workers (Female, PLHIV, 28 years). It depends on your schedule for collecting the ART drugs; yesterday for instance, by 1:30pm everybody had been served and the centre had closed. There are some days when the pressure is quite high, particularly on Fridays but on Wednesdays, there are few people (Female, PLHIV, 45 years).

However, it can be deduced from the study that most PLHIVs would prefer to spend less time at ART centres. This is consistent with Dapaah’s (2012) observation at one of his study areas that some HIV-positive patients complained about spending a long time at ART clinics. The time spent at ART centres could influence attendance at such facilities, as noted in some studies (Hardon et al., 2007; Dilger et al., 2010).

Conclusion

The paper examines preferences of PLHIVs regarding ART medications using qualitative data from a nationwide study which covered a wide range of target groups including PLHIVs on ART. The rational choice theory which guided the study was very relevant because the main findings of the study were the choices/preferences of the respondents from the alternatives or options available for accessing ART. The media (television and radio) and health facilities were the main sources of information about ART among PLHIVs. In order to avoid stigma and discrimination, PLHIVs prefer to access ART services from health facilities, especially from health professionals who behave professionally, trained HIV-positive patients or a ‘foreigner’. Although the cost of ART services has been heavily subsidized by the government, HIV-positive patients prefer to access ART services free of charge because some of them pay for transport in addition to the cost of ART medications. Lastly, they prefer to

spend less time at ART clinics or service delivery points. These preferences/concerns need to be addressed by the Ministry of Health as part of the national strategy to scale-up the patronage of HIV-positive patients and retain them on ART (Ministry of Health / Ghana Health Service, 2005).

Policy recommendations

There is the need to increase the number of ART clinics in the country to reduce the physical distance and cost of transportation to such centres. One of the objectives of the National Guidelines on Antiretroviral Therapy is to scale-up ART coverage by increasing the number of ART centres in the country. However, some HIV-positive patients still travel long distances to access ART services. This could affect both enrolment and attendance at ART centres.

There is the urgent need to minimise or eliminate stigma and discrimination at ART clinics. In this regard, health personnel must be professional in their attitudes and behaviour towards HIV-positive patients. This requires training and periodic sensitization of health personnel on the need to avoid stigma and discrimination. In addition, there is the need to increase the number of health personnel at ART clinics to reduce the time HIV-positive patients spend at such facilities.

To scale-up the number of HIV positive patients enrolled on ART, there is the need for the government to collaborate with donor agencies to provide ART medication free of charge as is done in other countries (Hardon et al., 2007). In addition, the government and Non-Governmental Organizations (NGOs) should provide some incentive packages to HIV-positive patients to motivate them to access ART services since some of them are from poor homes.

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References

- Adedayo ,A., Modupeola, A., & Timothy, A. (2005). *Scaling up Antiretroviral Therapy use for HIV-positive Adults in Southwestern Nigeria*. A Paper presented at: 12th Conference on Retroviruses and Opportunistic Infections; February 22-25; Boston, Mass. Abstract A623
- Awusabo-Asare, K., Biddlecom, A., Kumi-Kyereme, A. & Patterson, K. (2006). *Adolescent Sexual and Reproductive Health in Ghana: Results from the 2004 National Survey of Adolescents. Occasional Report*, New York: Guttmacher Institute, No. 22.
- Baiden F, Remes P, Baiden R, Williams J, Hodgson A, Boaleart M, & Buve A. (2005). *Voluntary counselling and HIV testing for pregnant women in the Kassena-Nankana district of northern Ghana: Is couple counselling the way forward?* *AIDS Care*, 17(5), 648–657
- Bamidele J, Adebimpee, O., & Oladele, E. (2009). Knowledge, attitude and use of alternative medical therapy amongst urban residents of Osun State SouthWestern Nigeria. *Afri J Trad Compl Altern Med*, 6(3), 281-288.
- Bajunirwe, F., Arts, E.J., Tisch, D.J., King, C.H., Debanne, S. M. & Sethi, A.K. (2009). Adherence and Treatment in HIV-1 Infected Adults Receiving Antiretroviral Therapy in Rural Government Hospital in Southwestern Uganda. *JIAPAC*, 8, 139-147.
- Boateng, D., Kwapong, G.D. & Agyei-Baffour, P. (2013). Knowledge, perception about Antiretroviral therapy (ART) and prevention of mother-to-child transmission (PMTCT) and adherence to ART among HIV positive women in the Ashanti Region, Ghana: a cross-sectional study. *BMC Women's Health*, 13:2, Retrieved August 16, 2014 from <http://www.biomedcentral.com/1472-6874/13/2>
- Chi, B. H. & Cantrell, R. A. (2009). Adherence to First-line Antiretroviral Therapy affects non-virologic outcomes among Patients on Treatment more than 12 months in Lusaka, Zambia. *Int. J. Epidemiology*, 38(3), 746-756.
- Coleman, J. (1990). *Foundations of social theory*. Cambridge ma: Belknap press of Harvard University Press
- Dako-Gyeke, P. Rachel, S. R. & Yawson, A. E. (2012). Who is utilizing anti

- retroviral therapy in Ghana: An analysis of ART service utilization. *International Journal for Equity in Health*, 11:62, Retrieved October 21, 2014 from <http://www.equityhealthj.com/content/11/1/62>
- Dapaah, J.M. (2012). *HIV/AIDS treatment in two Ghanaian hospitals: Experiences of Patients, Nurses and Doctors*. The Netherlands: African Studies Centre.
- Dilger, H., Burchardt, M. & Rijk van Dijk, (2010). Introduction--The redemptive moment: HIV treatments and the production of new religious spaces. *African Journal of AIDS Research*, 9(4), 373–383
- Ghana AIDS Commission (2005). *National HIV/AIDS Strategic Framework II, Ghana AIDS Commission*. Accra: Ghana AIDS Commission.
- Ghana Statistical Service (2008). *Ghana Living Standard Survey (GLSS 5)*. Accra: Ghana Statistical Service.
- Ghana Statistical Service (2012). *National Analytical Report, 2010 Population and Housing Census*. Accra: Ghana Statistical Service.
- Hardon, A., Akurut, D., Comoro, C., Ekezie, C., Irunde, H.F., Gerrits, T., Kglatwane, J., Kinsman, J., Kwasa, R., Maridadi, J., Moroka, T.M., Moyo, S., Nakiyemba, A., Nsimba, S., Ogenyi, R., Oyabba, T., Temu, F. & Laing, R. (2007). Hunger, waiting time and transport costs: time to confront challenges to ART adherence in Africa. *AIDS Care*, 19(5), 658–665.
- Miller, L.G., Huffman, H.B., Weidmer, B. A. & Hays, R.D. (2002). Patient preferences regarding antiretroviral therapy. *International Journal of STD & AIDS*, 13, 593-601
- Ministry of Health / Ghana Health Service (2005). *National HIV/AIDS/ STI Control Programme*. Accra: Ministry of Health / Ghana Health Service.
- Ministry of Health / Ghana Health Service (2010). *National HIV/AIDS/ STI Control Programme*. Accra: Ministry of Health / Ghana Health Service
- Mshana GH, Wamoyi J, Busza J, Zaba B, Changalucha J, Kaluvya S, & Urassa M. (2006). Barriers to assessing antiretroviral therapy in Kisesa: A qualitative study of early rural referrals to the national program. *AIDS Patient Care STDs 2006*, 20, 649–657.
- Nussbaum, M. (2001). Adaptive Preferences and Women's Options. *Economics and*

Preferences for antiretroviral therapy services: Qualitative evidence from people living with HIV in Ghana

Philosophy, 17, 67-88, Retrieved September 16, 2013 from www.sandiego.edu/baber/research/adaptive_preference.pdf.

Obeng, R.K. (2010). *Prevalence and causes of antiretroviral treatment failure*

among adult receiving therapy at the Komfo Anokye Teaching Hospital (KATH). An M. A. Thesis submitted to the Department of Clinical and Social Pharmacy, Kwame Nkrumah University of Science and Technology, Kumasi

Ohene, S. & Forson, E. (2009). Care of patients on antiretroviral therapy in Kumasi

Metropolis. *Ghana Medical Journal*, 43, 4.

Okafor, C.E. & Ekwunife, O. (2013). Self-reported adherence to antiretroviral therapy

in sub-Saharan Africa: A meta-analysis, *International Journal of Public Health and Epidemiology*, 3 (3), 017-025, Retrieved February 16, 2016 from

<http://www.internationalscholarsjournals.org>

Ramadhani, H.O., Thielman, N.M., Landman, K.Z., Ndosi, E.M., Gao, F., Kirchherr,

J.L., Shah, R., Shao, H.J., Morphet, S.C., McNeill, J.D., Shao, J.F., Bartlett, J.A., & Crump, J.A. (2007). Predictors of Incomplete Adherence, Virologic Failure and Antiretroviral drug Resistance among HIV-Infected Adults Receiving Antiretroviral Therapy in Tanzania. *Clinical Infectious Disease*, 45(11), 1492-1498.

Rosenfeld, B.D., White, M. & Passik, S.D. (1997). Making Treatment Decisions with

HIV Infection: A Pilot Study of Patient Preferences. *Med Decis Making*, 17, 307, Retrieved July 16, 2014 from <http://mdm.sagepub.com/content/17/3/307>.

Sabin, L., Longobardi, D., Agyarko, P.T., Abacan, A. Zu Kyaw, M. M.,

Falconer, A., Kissiwah Asafo, M., Messersmith, L., Beard, J., & Adu-Sarkodie, Y. (2014). *The Ghana Retention on ART Study (ROARS): Keeping HIV-Positive Patients on Antiretroviral Therapy*. Washington, DC: USAID Project SEARCH

UNAIDS Report on HIV/AIDS (2013). Update Report on the AIDS Response in

Africa. Geneva: UNAIDS Report on HIV/AIDS

Weiser, S., Wolfe, W., Bangsberg, D., Thior, I., Gilbert, P., Makhema, J.,

Kebaabetswe, P., Dickenson, D., Mompati, K., Essex, M., Marlink, R. (2003). Barriers to Antiretroviral Adherence for Patients Living with HIV Infection and AIDS in Botswana. *J. Acquir. Immune Defic. Syndr*, 34 (3), 281-288.

Wong, J.V. (2005). *A descriptive study of voluntary counselling and testing and rapid*

HIV testing in the Accra Metro District, Ghana. A Master of Science thesis submitted to the Medical Faculty Charate of Humboldt University at Berlin.