

Social-Economic Implications of Persons Placed on Antiretroviral Therapy (ART) in Buea Urban, Cameroon

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Abstract

Anti-Retroviral (ARV) drugs are provided free to patients in Cameroon; however there are still a number of associated costs of treatments that have socio economic implications on the lives of the patients on ARVs. This study thus aimed at examining the socio-economic implications of persons placed on ARV therapy. From our findings, there was a reduction in the average number of hours covered at work daily on initiating ART and this relationship was statistically significant (p -value= 0.001). Furthermore, a majority of the participants could not meet up with all the monthly requirements of laboratory tests, supplements and additional foods recommended at hospital and this was due to financial constraints. This is more so because of the general low and ambivalent wage rate in Cameroon. The study recommends that insurance companies should consider including HIV treatments in their schemes and policy makers should do more than the provision of free ARV.

Keywords: Socio-economic implications, ARV Therapy, HIV/AIDS Patients, Buea Urban, Cameroon.

1. Introduction

There have been significant advances in the treatment of HIV/AIDS which has remained a pandemic for more than 30 years today. While there are uncertain informal traditional advances in some areas of the world, much of the formal advances have centred on antiretroviral regimen. According to Yoder, Sibongile, and Siyabonga (2009), the global scale-up of this antiretroviral therapy (ART) is providing assistance to millions of people who are living with HIV/AIDS and who need long-term chronic care. Even though ARV is increasingly being made available in many developing countries today, this scale-up equally presents enormous challenges ranging from ensuring an adequate and consistent supply of medications for patients, setting up a system of enrolment and monitoring of patient health and adherence over time, and creating a mechanism for drug distribution that patients can afford.

ARV is made available to patients for free in all treatment centres in Cameroon and this has scaled up uptake of these drugs. Conversely, patients have to frequent health facilities for monthly refill of drugs, perform routine laboratory analysis and complement their diets with some foods and supplements as advised at hospital. All these additional treatment issues require finance and have therefore come with a number of social and economic implications especially for the patients. Since the ravaging of societies across the world by the HIV/AIDS pandemic, some studies have concentrated on the economic impacts in terms of cost of treatment and the number of labour hours often lost by infected persons and care givers at the family level. One of such studies is that of Thirumurthy and Zivin (2006) who observed that in Kenya, within six months after treatment initiation, there is a 20% increase in patients' likelihood of participating in the labour force and a 35% increase in weekly hours worked. Furthermore, there has equally been the growing concern about the affordability of ARVs especially to patients in developing countries.

In this connection, Forsythe (1999) highlighted that in order to assist countries in developing policies regarding the purchase of ARVs, it is first necessary to identify the contributing issues that would need to be answered by policymakers to make a well-informed decision. This study therefore identifies some of the socio-economic implications of ART with suggested recommendations on the way forward.

2. The Problem

Despite the more than three decades of the existence of AIDS pandemic, the diseases has continued to usher in excruciating social, psychological, and economic memories in affected households and communities especially in developing countries such as Cameroon where the prevalence rate, though stable, remains high at 4.5% (UNAIDS, 2015). In the South West Region of Cameroon which is our study area, the prevalence stands at 5.7%, and according to the DHS of 2011, this prevalence is higher than the overall national average. Even though there has been significant advancement in treatment especially with the ARV regimen, these impacts have continued to linger around as long as a complete cure is not yet envisaged. What seems to prevail is that households and communities concerned are only becoming immune to these impacts rather than less affected by them. Indeed, in most communities in sub-Saharan Africa such as Cameroon, even though communities are increasing burdened with increasing number of infected persons, the diseases, by and large, still remains a tabor thus making the complete social inclusion of patients more complex.

While the great strides in ARV regimens have contributed significantly in saving many lives and reducing a number of psychological impacts, their coming have also brought about new and growing challenges. This explains why in many situations, adherence to ARV regimen by patients is sometimes compromised by issues relating to cost and associated costs, and inadequate support programmes to target the psychology of patients on the positive outlook of life. This is more so because, in Cameroon, within the context of research, more studies on such issues are done largely by researchers in the health sciences thus leaving void issues of social nature which are equally vital in complimenting the clinical therapy offered to patients.

A number of studies which centre on adherence to ARV regimen have been carried out (Sahay, Reddy, Dhayarkar, 2011; Paterson, Seindells, Mohr, Brester, Vergis, Squire *et al.*, 2000; Lal, Kant, Dewan, Rai and Biswas, 2010; Cauldbeck, O'Connor, O'Connor, Sanders, Rao, Mallesh *et al.*, 2009). However, few of these studies go beyond to quantitative analysis the economic and social implications of placing patients on ARV regimens (Dray-Spira *et al* 2003, Wood *et al.*, 2002).

Yet, being under ART could involve growing associated transportation and nutritional costs despite government's policy of free ARVs to patients. Furthermore, given that at times ARVs remain in short supply patients' access to them could sometimes be fraught by bribery and corruption among some wealthy patients and health care providers. For patients who are poor and who do not subscribe to such a societal malaise, this could impact negative on their adherence to ARV regimen. This study therefore aims at examining the socio-economic implications of persons placed on ARV therapy in the Buea Health area. Specifically, the study aims at:

1. Investigating the associated economic costs involved in the treatment of HIV.
2. Assessing the social implications of patients under ARV therapy.
3. Examining the impacts of these social and economic conditions on adherence to treatment.

3. Research Methods

3.1 Study Design

This study is cross-sectional with a mixed method approach – direct observations, analysis of service statistics, and a semi structured survey were used. It was conducted in the Buea Regional Hospital which is a public health facility. This facility offers a wide range of health services ranging from general and specialised consultations to laboratory, ART therapy, and antenatal consultations, to name a few. The centre offers free ART services in the facility and hence provide for all HIV patients in Buea and its environs. Buea is the capital of the South West Region in Cameroon and it hosts one of the major state Universities, the University of Buea and a host of institutions of higher learning.

3.2 Data Collection

This study used two survey instruments which were questionnaires and a purposive interview guide. The study recruited 400 people who have been placed under ART for at least one year, as well as 10 health care providers (HCPs) in order to obtain information relating to the economic and social implications of patients under ART regimen. The study also interviewed four treatment supporters in order to obtain varied information relating to cost of nutrition, cost of transportation to the treatment centre, cost and frequency of associated regimens (CD4 Counts and viral load), inclusion, and behaviour among others. Before commencing the data collection exercise, an ethical clearance was obtained from the Buea Regional Delegation of Public Health to conduct the study and an authorisation of data collection from the facility administration. During the data collection process, respondent's names were not collected and the collected data were treated with strict confidentiality. A consent form was signed by each participant before the questionnaire was administered. The data were collected over a four months period (September to December 2016) and the respondents were approached to fill questionnaires as they were waiting to refill ARVs or to collect laboratory test results.

3.3 Data Analysis

This study collected mostly quantitative data. The data collected were entered in excel on a daily basis. The data were then exported into STATA 10 where they were analysed. The participants' demographic data were analysed using univariate analysis (frequencies and proportions reported). The associated economic costs involved in the treatment of HIV as well as the social implications of patients under ARV therapy were assessed using bivariate analysis and p-values less than 0.05 were considered to be statistically significant.

4. Results and Discussion

The study enrolled 400 participants over a four months period. From the data collected, most of the participants were female (61%) and this collaborates with the 2011 Demographic Health Survey results which reported a higher prevalence of the virus in females than males in Cameroon. The mean age of the respondents was 27.1. A majority of the respondents were business people (28%). The civil servants included people of different works but employed by the state and the other occupations were dress designers, janitors, farmers, and hair dressers just to name a few. A summary of the participant's demographic characteristics presented in Table 1.

More than 80% of the respondents had been on treatment for just one or two years and visited the hospital, on average, once a month. The mean cost of transportation to hospital was calculated to be XAF 500 and most respondents agreed that this amount was fair enough since, in most cases, they had to visit the hospital just once a month. Some only had difficulties paying transport if they were to visit the hospital more than once a month.

ARV therapy is provided to HIV positive patients for free. However, a number of other routine tests were found to cost more on the patients, for example having to do a viral load and CD4 count tests on some visits (every 6 months or 4 months), some patients reported it as a huge cost. As a result, money meant for other expenses at home is often used for hospital bills. Furthermore, some other tests like liver function and kidney function tests (which cost about XAF 25,000) were sometimes requested for patients which some finally did not even run as 40% of the participants reported failure to perform such expensive tests. This could thus account for some of the ARV related deaths that come with the failure of any of these vital organs and not necessarily from the HIV itself.

Furthermore, most of the participants (73%) did not belong to any insurance scheme and so could not be covered for such expenditures. A minority who belonged to insurance schemes complained that most of the insurance companies did not cover or pay for any expenses related to HIV. This is an indication of how people with HIV disease are still stigmatised even by insurance schemes and hence, even when insured, they still incur cost for their treatment by paying from their pockets. According to a study by Wool *et al* 2002, decreased access to health insurance and preventive services is a major contributor to low adherence to ARV treatment. Table 2 below shows the average expenditure in XAF of HIV patients on some selected routine tests in our study.

Given that the HIV virus weakens the immune system since the virus attacks the hosts CD4 cells, patients are often advised to take some supplements and also improve on their food quality adding a lot of vegetables and fruits so as to boost the immune system. All the participants in this study agreed that they had been recommended by the health care providers to take some additional foods. It was calculated that the average monthly expenditure on such food and supplements was XAF 6,200. This cost was independent of other food they normally consume.

From the above findings most of the HIV patients (91%) spend on average 20,000 XAF every month for HIV related issues, that is if they are not required to run routine tests or visit hospital more than once a month. Some of the respondents were students who are still dependent on parents; implying that parents have to spend more than the usual allowances on their children sometimes ignorant of the status of the children. Table 3 shows the average monthly income of respondents, from this income they pay house rents and run their families with the exception of students whose rents are already paid. Considering a driver who earns XAF 85,000 on average for example, having to spend 25% on ART means that the remaining 75% is used to run his daily life and if he has a family, this becomes more herculean as the implication of treatment now is being shared by the family that depends on him. A student with just XAF 15,000 a month might end up without money for school expenses. Participants of other occupations even earn less and hence, it becomes difficult to meet up with both daily living and standards of care per hospital request. This is the reason why some of the patients cannot meet with all the tests requests and supplements that go with ART.

4.1 Implication of treatment on work

In Cameroon, the average number of working hours per day is 7hours for those working in the civil service. In this study, only 25% of the respondents were civil servants and this explains why the average number of hours covered before commencing treatment is 8.7. This is because the other respondents were from different occupations which go beyond 8hours per day. From our findings, there was a decrease in number of hours covered at work after commencing treatment compared to the number of hours covered before engaging in ARV therapy. This decrease was seen to be significant at a p-value of 0.001. This could probably be explained by the fact that most of the respondents had just initiated therapy (on average a year back) hence, were still on constant follow up in order to avoid skipping some hours at work for hospital appointments. Also, 63% of the patients indicated that they were already receiving warnings and queries from their work places due to absenteeism to meet hospital schedules since, in most cases, their bosses at the work place were not aware of their status. Furthermore, the effects of HIV on physical and mental functioning can make maintaining regular employment difficult and patients with HIV infection may also find that their work responsibilities competing with their health care needs (Dray-Spira, *et al.*, 2003; Kass et al., 1994). With all these issues, the patients may sometimes fail to attain to work in a bid to prioritise their health. Also, some students reported missing lectures, especially lectures programmed during the early morning hours, in order to catch up with Hospital appointments or due to side effects of some medications. The implication of treatment on work has been shown on table 4.

4.2 Economic Implications of Adherence to Treatment

ARV is provided to HIV patients for free in all HIV treatment centres in Cameroon. However, there are a number of associated costs for laboratory tests, diets and supplements that need a lot of finance. From our results, 96% of the patients reported using their ARVs as prescribed but only 67% followed the diet and supplements as advised by the health care practitioners. A majority of these patients could not meet up with the finances of frequently buying fruits and vegetables, fish, vitamins and calcium supplements, sometimes maintaining these diets caused them to deprive other members of their homes from getting their own comfort. For the students, 80% of them were on treatment without the knowledge of their parents hence have to, most often, use money meant for other issues to supplement their diets as per hospital advice.

From the in-depth interviews with health care providers and treatment supporters, there is still lost to follow up of patients even though ARV is free. Lost to follow up was still estimated at about 6% and the health facilities were now putting in place measures to bring down lost to follow up to zero. According to the health care providers, most of their patients adhere to ARV but not to the diet plan made for them and they often noted financial constraints as one of the major factors for poor adherence. Furthermore, they explained that although ARVs are provided free to patients, there are other associated costs for laboratory tests and supplements which are quite costly and as a result, some patients end up not doing all of them especially when requested often for follow up.

5. Conclusion

ARV therapy is provided free to all HIV patients in Cameroon like in most countries in sub-Saharan Africa and the world. However, there are other associated treatment cost for laboratory tests, supplements and additional foods which were reported to be huge for patients. More than 50% of the patients find it difficult to complete their laboratory tests as requested due to financial constraints.

The study also showed that there was a reduction in the average number of hours covered at work daily on initiating ART and this relationship was statistically significant. This is probably because more time is given to hospital appointments at the detriment of work hours. Furthermore, a majority of the participants also indicated that health insurance companies do not cover for HIV related cost. The study therefore recommends that health insurance companies should consider including treatment for HIV in their schemes. Also, more pragmatic measures should be put in place to reduce HIV related stigma at work place, so that in case of any infection with the virus, the patient will be comfortable to inform administration of their status so that they can be supported to adhere to treatment and improve on their work output.

Table 1: Demographic characteristics of respondents

	Frequency	Proportion (%)
Age		
Mean=	28.1	
Range=	(19,45)	
SD=	5.59	
Sex		
Male	156	39
Female	244	61
Occupation		
Student	40	10
Business	113	28
Driver	85	21
Civil servants	98	25
Others	64	16

Table 2: Average expenditure on some routine tests per patient

Test	Average Cost (XAF)	Average Cost (USD)
CD4	5250	8.8
Viral Load	2250	3.8
TB	2700	4.5
Others	16,100	26.8
Total	26,300	43.9

*At the time of the research exercise, 1USD exchanged for XAF600

Table 3: Average monthly income of respondents

Occupation	Average monthly income(XFA)	Average monthly income (USD)
Student	15,000	25
Business	100,000	166.7
Driver	85,000	141.7
Civil servants	150,000	250
Others	50,000	83

*At the time of the research exercise, 1USD exchanged for XAF600

Table 4: Implication of treatment on work

Period	Mean hours covered at work
Before starting ARV treatment	8.7
After starting ARV treatment	8.1

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