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## Attendance To Care And Treatment Clinics (CTCs) And Perceived Effectiveness Of Anti-Retroviral Therapy (ART) For People Living With HIV/AIDS (PLHAs) In Newala District, Tanzania- A Case Of Luchinga Ward

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**Abstract** - Maximum adherence to ART has been recommended for PLHAs for improving treatment outcome. This is through regular attendance to CTC for follow up and refill and completion of prescribed doses as per schedule. This study examined attendance rate to CTC and factors influencing attendance rate by PLHAs living in Luchinga ward enrolled to CTC at the district hospital, as well as perception of stakeholders on the effectiveness of the treatment. This was a cross-sectional descriptive study carried out in the ward between June to July, 2009. About 30 of PLHAs, 41 treatment supporters and 6 key informants were involved in the study. Results from this study shows that attendance rate to CTC was poor by a significant portion of PLHAs. About one-third of the interviewed PLHAs admitted to have attended less than 95% of the appointment and about 37% of treatment supporters indicated similar trend with regard to their patients. Main factors for poor attendance to CTC included long distance, patient felt better after taking few doses of ARV, fear of stigma and patient feeling tired. It was also noted that some patients fail to complete prescribed doses of ARV while at home. Main reason indicated by respondents for this trend was side effects of drugs, patient felt better and patient feel tired. With regard to effectiveness of treatment, although majority of respondents indicated ART to have improved health of PLHAs, however, a noticeable proportion of the respondents (nearly one-third) indicated the treatment hasn't improved health of PLHAs. Reasons for lack of improvement as perceived by respondents were mainly poor nutrition due to poverty, non-adherence to drugs, and heavy workloads by PLHAs. Based on these findings, policy implications for improving the situation have been indicated.

**Keywords :** HIV/AIDS, Anti-retroviral Therapy, Adherence.

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*Strictly as per the compliance and regulations of.*



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## I. INTRODUCTION

**H**IV/AIDS is one of the major health challenges in the world. It is estimated that about 40million in the world are living with HIV/AIDS. Many people

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including those in working-age group has been lost due to the pandemic, therefore, threatening economic development of the severely affected countries (Biddlecom *et al.*, 2007). Sub-Saharan Africa is the most affected region in the world, accounting for two thirds of all people living with HIV/AIDS by 2007 (UNAIDS, 2007). Therefore, a number of interventions trying to control the problem were initiated in several Sub-Saharan countries by both governmental and non-governmental agencies/organizations. Among others, these interventions include initiation of voluntary counselling and testing centres (VCT), care and treatment clinics (CTCs) for people living with HIV/AIDS (PLHAs) in which free anti-retroviral therapy (ART) is provided to PLHAs for improving their health. Free provision of ARVs to PLHAs in Tanzania started in 2004 through CTCs in some public and private health facilities (Hardon *et al.*, 2006). By 2008 there were seven CTCs established in a study area (Newala district) (Newala District Hospital Report, July, 2008). For achieving good treatment outcome, maximum adherence to ART has been recommended for PLHAs (Parades, 2000; Garcia *et al.*, 2003; Ross-Degnan *et al.*, 2010). This is through regular attendance to CTC for follow up and refill and completion of prescribed doses as per schedule. However, as with many other parts of Tanzania, There is dearth of information with regard to these aspects in a study area. This information is important for more informed policy decisions for the program in the study area and similar programs in other parts of Tanzania. Based on the above background information, this study therefore aimed at assessing the attendance to CTC by PLHAs in the study area; determine factors influencing attendance to CTC; and ascertaining perception of respondents/stakeholders on the effectiveness of ART on improving health of PLHAs in the study area.

## II. METHODOLOGY

### a) Study area and methods of data collection

This study was carried out between June to

July, 2009. Data for this study was collected from a semi- structured interview with thirty (30) PLHAs from Luchingu ward aged 18 years and above enrolled to CTC at the District Hospital (Newala District) located within the ward for at least past three months, and forty one (41) treatment supporters from the ward also aged 18 years. Respondents were obtained from both the clinic and the community (i.e. from their homes). Treatment supporters were individuals nominated by patients to help treatment adherence. Among others, they remind patients of dosing times as well as dates for appointment to CTC and sometimes escorting them to the clinic (Ware et al., 2009). These are mostly relatives or a close friend. Most of the PLHAs were obtained from the clinic on attending their appointments, while for treatment supporters majority of them were obtained from their homes. Treatment supporters were identified with the help of Home based care providers (HBCs) (trained individuals for dealing with PLHAs at their homes/community) from the Hospital as well as patients themselves. Willingness to participate in the study was also another criteria used in selecting participants (i.e. informed verbal consent were asked from the respondents before interview). In addition, one focus group discussions (FGD) with PLHAs at the clinic and one for treatment supporters in the community, as well as in-depth interviews with six (6) key informants were also carried out for gathering some qualitative data. Key informants for the study were purposively selected. This involved District Home Based Care Coordinators (DHGCC) - 1, Community HIV/AIDS Control Coordinators (CHACC) - 1, District HIV/AIDS Control Coordinators (DACC) - 1, and Home Based Care providers (HBCs) at based at facility level - 2, volunteer from the Clinton foundation working in the area-1. Luchingu ward was selected purposively since it enjoyed support for HIV / AIDs earlier as compared to other wards in Newala District Council. Since the Newala the district hospital is located in Luchingu ward, the ward contains the largest Care and Treatment Clinic in the district. Newala CTC also had relatively larger number of trained HBCs, and enjoyed support from the Community HIV/AIDS Fellow's (CHAF) project, the subsidiary of The Clinton HIV/AIDS Initiative (CHAI).

#### b) Data analysis

Quantitative data were analyzed for descriptive statistics such as percentages using Statistical Package for Social Sciences (SPSS) program, while qualitative data were analyzed using content analysis.

### III. RESULTS

#### a) Attendance to CTC by PLHAs

The rate of attendance is defined in terms of number of appointments attended to CTC by a patient. Attendance to CTC for follow-up and refill of ARV drugs is important in ensuring good recovery and maintenance of good health of PLHAs. Attendance to CTC and hence

adherence rate is considered good when a patient attended at least 95% of the appointments. Finding from this study revealed undesirable trend to this aspect. A significant proportion of respondents admitted the rate of patient's attendance to be poor. Thirty seven percent of the interviewed home treatment supporters complained on poor attendance of the patients to CTC and one third of the PLHAs agreed that they have attended less than 95% of the appointment given at CTC (Table 1). Substantial proportion of Key-informants was also of similar perception. Most of them (more than half) indicated poor attendance of PLHAs to CTC. In addition, apart from poor attendance, sometimes some patients may attend few appointments and there after completely drop out/ stop attending CTC. For those indicated attendance to CTC to be poor, long distance to CTC was a reason reported by majority of both treatment supporters and PLHAs (53 and 60%, respectively) as main reason for poor attendance to CTC (Table 1). Patient felt better and stigma were another major reason for poor attendance to CTC indicated by at least one fifth of both treatment supporters and PLHAs that perceived attendance to CTC to be poor. Nearly one third of PLHAs that said attendance to CTC to be poor also indicated tiredness of attending to CTC to be another reason for poor attendance (Table 1). In-depth interviews with key informants also revealed stigma to be one of the main barrier for poor attendance to CTC by PLHAs. One key informant argued that patients who live nearby the CTCs are the ones affected most by stigma rather than the patients living far from the CTCs. The following quote illustrates;

*'.....and majority of those who attends poorly are not living very far from here, you may find those who lives very far attends regularly than those who lives near the clinic.....'*

Some patients felt better/ already cure after taking some few ARVs doses as already indicated by treatment supporters as well as PLHAs themselves, together with some patients opting for traditional medicine were another reasons advanced by several key-informants as another main factors for poor attendance. These are demonstrated in the following quote from one of the key-informant;

*'.....Some thinks they are cured after using drugs (ARVs), So they stop attending CTC while others use traditional medicine which they believe can help them better.....'*

Table 1 : Attendance rate to CTC by PLHAs

| Variable                    | Treatment supporters | PLHAs           |
|-----------------------------|----------------------|-----------------|
| Attendance to CTC*          | (n = 41)<br>63%      | (n = 30)<br>67% |
| Reasons for poor attendance | (n = 15)             | (n = 10)        |
| Long distance               | 53%                  | 60%             |
| Poor health                 | 13%                  | 10%             |
| Feel better                 | 33%                  | 40%             |
| stigma                      | 20%                  | 20%             |
| Feel tired                  | 7%                   | 30%             |

\*Percent indicated it to be at least 95% of the appointments

In addition to poor attendance to CTC, non-regular intake of ARV while at home was also a problem among PLHAs in the study area. Patient felt better, side effects and patient get bored/feel tired were reasons advanced by most respondents during interview. One key informant lamented that;

*'While caregivers assumes that the PLHAs "just refuses" to take drugs, their refusal is due to side effects happening as the results of drugs taken and boredom of the exercise which seems to be life long!'*

Some of the side effect included rashes, headache and vomiting.

#### b) Perception of respondents on the effectiveness of ART on improving health of PLHAs

To determine whether the treatments had improved health of PLHAs respondent were asked to give their perception on the effectiveness of the drug on improving health of PLHAs. Findings from Table 2 indicate that although majority of the respondents felt that ART has improved health of PLHAs, however, nearly one third of the respondents explained that the treatment has not improved health of PLHAs. This is a substantial proportion and hence cannot be ignored. Similarly, some key- informants (2 out of 6) were of similar perception. Poor nutrition was indicated by more than 70% of respondents reported lack of improvement as important factor for poor treatment outcome (Table 2). Poverty was the most important factors responsible for poor nutrition among PLHAs in the study area. Other factors for poor treatment outcome given by a

noticeable proportion of respondents were non-adherence to drugs and heavy workload by patients. This was indicated by more than quarter of treatment supporters and PLHAs reported lack of improvement (Table 2). During FGD with PLHAs one participant stood up and busted;

*'Drugs alone can't improve the health.....we use drugs without enough food, at the same time you need to do a lot of works because you can't stay without supporting your family, children depends on you because they do not know your status'.*

Another participant added;

*'Despite having sympathy to us (PLHAs) what can they give us?. Even themselves are poor, may be if the government brings assistance. Even those who love us (PLHAs) do not have something to provide'.*

Although nearly all PLHAs were getting at least two meals per day, however, diversity of food consumed was generally low. This was limited to stiff porridge (*Ugal*) and sometimes rice which are usually saved with beans (*Maharage*) or green vegetables or both. Fruits as well as protein rich food such as beef, eggs, milk, and fish were infrequently taken (From FGD with treatment supporters; FGD with PLHAs; and In-depth interviews with key-informants).

Alcohol abuse and lack of support from families were mentioned by few respondents (less than 20% of those reported poor improvement) as factors for lack of improvement of health of PLHAs after enrollment to ART.

Table 2 : Perception by respondents on the health of PLHAs after enrollment on ART

| Variable                                   | Treatment supporters | PLHAs    |
|--|----------------------|----------|
| Perceived health of PLHAs after enrollment | (n= 41)              | (n = 30) |
| Improved                                   | 73%                  | 70%      |
| Not improved                               | 27%                  | 30%      |
| Reasons for lack of improvement            | (n = 11)             | (n = 9)  |
| Poor nutrition                             | 73%                  | 78%      |
| Non-adherence to drugs                     | 46%                  | 44%      |



|                               |     |     |
|-------------------------------|-----|-----|
| Heavy workload                | 27% | 33% |
| Lack of support from families | 9%  | 11% |
| Alcohol abuse                 | 9%  | 0%  |

#### IV. DISCUSSION

In response to global initiatives to fight against HIV/AIDS and improving health of PLHAs the government of Tanzania rolled out its program of free provision of ART since 2004. For success of the program regular attendance to CTC and adherence to drugs are necessary for improving treatment outcome. Studies have shown that irregular intake of ART may result into treatment failure and generation of ARV-resistant virus (Bangsberg *et al.*, 2000; Hardon *et al.*, 2006). In the study area it was observed that attendance to CTC and hence adherence to ARV among PLHAs was indicated to be poor by a significant proportion of respondents. These observations corroborate findings by Hardon *et al.* (2006) in some clinics in Botswana, Tanzania and Uganda, and Birbeck *et al.* (2009) in Zambia. These problems have been one of the major challenges for efforts in improving health of PLHAs in Africa. Therefore, concerted efforts are required for addressing these problems. Knowing factors for poor attendance to clinics and hence poor adherence to drug are important for devising intervention for solving the problems. Current study indicated long distance to the centre was a frequently mentioned reason by respondents for poor attendance CTC. Long distance as barrier to regular attendance to CTC commensurate with studies carried out in Nigeria, Botswana, Uganda and other parts of Tanzania (Hardon *et al.*, 2006; Ware *et al.*, 2009), in which as a result of poverty it was found that patients frequently faced a problem of getting a bus fare (i.e. transportation costs) for attending clinic in case they are located at distance places, a situation resulted into missing of several ART doses by patients. The situation is further worsened by deteriorating health of some patients who are unable to travel a long distance. This situation undermines efforts of free provision of ART to patients. Similar to most other studies in Sub-Saharan Africa, fear of stigma also featured as main barrier for regular attendance to CTCs by PLHAs in a study area, indicating more efforts to discourage stigma in a community are required. It was also observed in this study that apart from poor attendance to CTC, non-regular intake of drugs while at home was another problem in the area. Patient felt better after taking several few doses of ART was one of the major reasons given by respondents for irregular intake of ART while at home. This behavior need to be discouraged as it could lead to treatment failure and development of drug resistant strains of virus. This observation stresses the need for more education to patients on the importance regular taking of ART for their sustained improved health. Side effect and patient get bored also emerged as important factors for poor adherence. Stopping of

drugs after recovery, side effect and get bore as barriers for ART adherence were also reported elsewhere in Africa (Waiser *et al.*, 2004; Banyika-Tusiime *et al.*, 2005; Iliyasu *et al.*, 2005; Spacek *et al.*, 2006; Ware *et al.*, 2009). According to Hardon *et al.* (2003), several studies have shown side effects to disappear over time. Therefore, for improved adherence, it is important that patients are given adequate education about potential side effects and their likely duration for the prescribed ARV.

This study also tried to evaluate perception of respondents on the effectiveness of ART on improving health of PLHAs. A noticeable proportion of the respondents (nearly one-third) indicated the treatment hasn't improved health of PLHAs. Apart from non adherence to ART, poor nutrition was the main reason given by most of the respondents for poor treatment outcome. Good nutrition is essential to survival and functional recovery while on ART. Most respondents (both treatment supporters and PLHAs) were aware of this; however, household poverty was the main limitation. Most families were unable to afford to provide adequate and a variety of food to their patients on regular basis. Rampart poverty and hence poor nutrition has also been indicated in previous studies to be one of the main obstacles for efforts in improving health of PLHAs. Apart from direct effect, lack of food or poor nutrition could also discourage patients into taking ART regularly due to fear of side effect and hence reduced effectiveness of the treatment. A study by Ware *et al.* (2009) revealed that side effect such as stomach ache and vomiting resulted from taking ART without adequate food was one of the major reasons for treatment interruption by patients. In addition to poor nutrition which is linked to poverty, results of this study also revealed that for those PLHAs with family responsibilities, the need to work (i.e. going to farm) for meeting family needs which results into heavy workload also seemed to be another limitation for improved treatment outcome. This observation calls for need for designing a mechanism for ensuring reduced workload by ARV users.

#### V. POLICY IMPLICATION

Based on findings of this study it is suggested that more education on the importance of regular attendance and drug adherence should be given to patients in the time they are enrolled to CTCs. To minimize the problem of long distance, more CTCs need to be established especially in remote areas such as rural areas. Furthermore, community education to reduce stigma (anti-stigma campaigns) need to be strengthened to increase uptake of ART. Moreover,

special program for provision of food (e.g fortified maize flour) for ARV users could also be instituted to improve treatment outcome. Provision of loans to run small scale business for poor ARV users should be considered to help them cope with additional costs incurred through being on ART (i.e. bus fares and improved nutrition). This would also minimize heavy workloads by ARV users by reducing their engagement in too involving activities such as farming. Finally, both government and non-governmental agencies should take part in such interventions to ensure broader coverage.

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