

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

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8

9 **Abstract**

10 Maximum adherence to ART has been recommended for PLHAs for improving treatment
11 outcome. This is through regular attendance to CTC for follow up and refill and completion of
12 prescribed doses as per schedule. This study examined attendance rate to CTC and factors
13 influencing attendance rate by PLHAs living in Luchinga ward enrolled to CTC at the district
14 hospital, as well as perception of stakeholders on the effectiveness of the treatment. This was a
15 cross-sectional descriptive study carried out in the ward between June to July, 2009. About 30
16 of PLHAs, 41 treatment supporters and 6 key informants were involved in the study. Results
17 from this study shows that attendance rate to CTC was poor by a significant portion of
18 PLHAs. About one-third of the interviewed PLHAs admitted to have attended less than 95

19

20 **Index terms**— HIV/AIDS, Anti-retroviral Therapy, Adherence.

21 **1 INTRODUCTION**

22 IV/AID is one of the major health challenges in the world. It is estimated that about 40million in the world are
23 living with HIV/AIDS. Many people (Biddlecom et al., 2007). Sub-Saharan Africa is the most affected region in
24 the world, accounting for two thirds of all people living with HIV/AIDS by 2007 (UNAIDS, 2007). Therefore,
25 a number of interventions trying to control the problem were initiated in several Sub-Saharan countries by
26 both governmental and non-governmental agencies/ organizations. Among others, these interventions include
27 initiation of voluntary counselling and testing centres (VCT), care and treatment clinics (CTCs) for people living
28 with HIV/AIDS (PLHAs) in which free antiretroviral therapy (ART) is provided to PLHAs for improving their
29 health. Free provision of ARVs to PLHAs in Tanzania started in 2004 through CTCs in some public and private
30 health facilities (Hardon et al., 2006).

31 By 2008 there were seven CTCs established in a study area (Newala district) (Newala District Hospital Report,
32 July, 2008). For achieving good treatment outcome, maximum adherence to ART has been recommended for
33 PLHAs (Parades, 2000;Garcia et al., 2003;Ross-Degnan et al., 2010). This is through regular attendance to
34 CTC for follow up and refill and completion of prescribed doses as per schedule. However, as with many other
35 parts of Tanzania, There is dearth of information with regard to these aspects in a study area. This information
36 is important for more informed policy decisions for the program in the study area and similar programs in
37 other parts of Tanzania. Based on the above background information, this study therefore aimed at assessing
38 the attendance to CTC by PLHAs in the study area; determine factors influencing attendance to CTC; and
39 ascertaining perception of respondents/stakeholders on the effectiveness of ART on improving health of PLHAs
40 in the study area. This study was carried out between June to July, 2009. Data for this study was collected from
41 a semi-structured interview with thirty (30) PLHAs from Luchinga ward aged 18 years and above enrolled to

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

62 **2 b) Data analysis**

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

65 **3 III.**

66 **4 RESULTS**

67 **5 a) Attendance to CTC by PLHAs**

68 The rate of attendance is defined in terms of number of appointments attended to CTC by a patient. Attendance
69 to CTC for follow-up and refill of ARV drugs is important in ensuring good recovery and maintenance of good
70 health of PLHAs. Attendance to CTC and hence adherence rate is considered good when a patient attended at
71 least 95% of the appointments. Finding from this study revealed undesirable trend to this aspect. A significant
72 proportion of respondents admitted the rate of patient's attendance to be poor. Thirty seven percent of the
73 interviewed home treatment supporters complained on poor attendance of the patients to CTC and one third of
74 the PLHAs agreed that they have attended less than 95% of the appointment given at CTC (Table 1). Substantial
75 proportion of Key-informants was also of similar perception. Most of them (more than half) indicated poor
76 attendance of PLHAs to CTC. In addition, apart from poor attendance, sometimes some patients may attend
77 few appointments and there after completely drop out/ stop attending CTC. For those indicated attendance to
78 CTC to be poor, long distance to CTC was a reason reported by majority of both treatment supporters and
79 PLHAs (53 and 60%, respectively) as main reason for poor attendance to CTC (Table 1). Patient felt better and
80 stigma were another major reason for poor attendance to CTC indicated by at least one fifth of both treatment
81 supporters and PLHAs that perceived attendance to CTC to be poor. Nearly one third of PLHAs that said
82 attendance to CTC to be poor also indicated tiredness of attending to CTC to be another reason for poor
83 attendance (Table 1). In-depth interviews with key informants also revealed stigma to be one of the main barrier
84 for poor attendance to CTC by PLHAs. One key informant argued that patients who live nearby the CTCs
85 are the ones affected most by stigma rather than the patients living far from the CTCs. The following quote
86 illustrates; '???and majority of those who attends poorly are not living very far from here, you may find those
87 who lives very far attends regularly than those who lives near the clinic???' '?????..Some thinks they are cured
88 after using drugs (ARVs), So they stop attending CTC while others use traditional medicine which they believe
89 can help them better???' ©

90 **6 26**

91 Some patients felt better/ already cure after taking some few ARVs doses as already indicated by treatment
92 supporters as well as PLHAs themselves, together with some patients opting for traditional medicine were another
93 reasons advanced by several key-informants as another main factors for poor attendance. These are demonstrated
94 in the following quote from one of the key-informant; *Percent indicated it to be at least 95% of the appointments

95 In addition to poor attendance to CTC, nonregular intake of ARV while at home was also a problem among
96 PLHAs in the study area. Patient felt better, side effects and patient get bored/feel tired were reasons advanced
97 by most respondents during interview. One key informant lamented that; 'While caregivers assumes that the
98 PLHAs "just refuses" to take drugs, their refusal is due to side effects happening as the results of drugs taken

99 and boredom of the exercise which seems to be life long!' Some of the side effect included rashes, headache and
100 vomiting.

101 **7 b) Perception of respondents on the effectiveness of ART on 102 improving health of PLHAs**

103 To determine whether the treatments had improved health of PLHAs respondent were asked to give their
104 perception on the effectiveness of the drug on improving health of PLHAs. Findings from Table 2 indicate
105 that although majority of the respondents felt that ART has improved health of PLHAs, however, nearly one
106 third of the respondents explained that the treatment has not improved health of PLHAs. This is a substantial
107 proportion and hence cannot be ignored. Similarly, some key-informants (2 out of 6) were of similar perception.
108 Poor nutrition was indicated by more than 70% of respondents reported lack of improvement as important factor
109 for poor treatment outcome (Table 2). Poverty was the most important factors responsible for poor nutrition
110 among PLHAs in the study area. Other factors for poor treatment outcome given by a noticeable proportion
111 of respondents were nonadherence to drugs and heavy workload by patients. This was indicated by more than
112 quarter of treatment supporters and PLHAs reported lack of improvement (Table 2). Although nearly all PLHAs
113 were getting at least two meals per day, however, diversity of food consumed was generally low. This was limited
114 to stiff porridge (Ugali) and sometimes rice which are usually saved with beans (Maharage) or green vegetables
115 or both. Fruits as well as protein rich food such as beef, eggs, milk, and fish were infrequently taken (From FGD
116 with treatment supporters; FGD with PLHAs; and Indepth interviews with key-informants).

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

119 **8 DISCUSSION**

120 In response to global initiatives to fight against HIV/AIDS and improving health of PLHAs the government
121 of Tanzania rolled out its program of free provision of ART since 2004. For success of the program regular
122 attendance to CTC and adherence to drugs are necessary for improving treatment outcome. Studies have shown
123 that irregular intake of ART may result into treatment failure and generation of ARVresistant virus (Bangsberg
124 et al., 2000; Hardon et al., 2006). In the study area it was observed that attendance to CTC and hence adherence
125 to ARV among PLHAs was indicated to be poor by a significant proportion of respondents. These observations
126 corroborate findings by Hardon et al. (2006) in some clinics in Botswana, Tanzania and Uganda, and Birbeck
127 et al. (2009) in Zambia. These problems have been one of the major challenges for efforts in improving health
128 of PLHAs in Africa. Therefore, concerted efforts are required for addressing these problems. Knowing factors
129 for poor attendance to clinics and hence poor adherence to drug are important for devising intervention for
130 solving the problems. Current study indicated long distance to the centre was a frequently mentioned reason
131 by respondents for poor attendance CTC. Long distance as barrier to regular attendance to CTC commensurate
132 with studies carried out in Nigeria, Botswana, Uganda and other parts of Tanzania (Hardon et al., 2006; Ware et
133 al., 2009), in which as a result of poverty it was found that patients frequently faced a problem of getting a bus
134 fare (i.e. transportation costs) for attending clinic in case they are located at distance places, a situation resulted
135 into missing of several ART doses by patients. The situation is further worsened by deteriorating health of some
136 patients who are unable to travel a long distance. This situation undermines efforts of free provision of ART
137 to patients. Similar to most other studies in Sub-Saharan Africa, fear of stigma also featured as main barrier
138 for regular attendance to CTCs by PLHAs in a study area, indicating more efforts to discourage stigma in a
139 community are required. It was also observed in this study that apart from poor attendance to CTC, nonregular
140 intake of drugs while at home was another problem in the area. Patient felt better after taking several few doses
141 of ART was one of the major reasons given by respondents for irregular intake of ART while at home. This
142 behavior need to be discouraged as it could lead to treatment failure and development of drug resistant strains of
143 virus. This observation stresses the need for more education to patients on the importance regular taking of ART
144 for their sustained improved health. Side effect and patient get bored also emerged as important factors for poor
145 adherence. Stopping of drugs after recovery, side effect and get bore as barriers for ART adherence were also
146 reported elsewhere in Africa ??Waiser et al., 2004; ??anyika-Tusiime et al., 2005; Iliyasu et al., 2005; Spacek et al.,
147 2006; Ware et al., 2009). According to ??ardon et al. (2003), several studies have shown side effects to disappear
148 over time. Therefore, for improved adherence, it is important that patients are given adequate education about
149 potential side effects and their likely duration for the prescribed ARV.

150 This study also tried to evaluate perception of respondents on the effectiveness of ART on improving health of
151 PLHAs. A noticeable proportion of the respondents (nearly one-third) indicated the treatment hasn't improved
152 health of PLHAs. Apart from non adherence to ART, poor nutrition was the main reason given by most of the
153 respondents for poor treatment outcome. Good nutrition is essential to survival and functional recovery while
154 on ART. Most respondents (both treatment supporters and PLHAs) were aware of this; however, household
155 poverty was the main limitation. Most families were unable to afford to provide adequate and a variety of food
156 to their patients on regular basis. Rampart poverty and hence poor nutrition has also been indicated in previous
157 studies to be one of the main obstacles for efforts in improving health of PLHAs. Apart from direct effect,
158 lack of food or poor nutrition could also discourage patients into taking ART regularly due to fear of side effect

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159 and hence reduced effectiveness of the treatment. A study by Ware et al (2009) revealed that side effect such
160 as stomach ache and vomiting resulted from taking ART without adequate food was one of the major reasons
161 for treatment interruption by patients. In addition to poor nutrition which is linked to poverty, results of this
162 study also revealed that for those PLHAs with family responsibilities, the need to work (i.e. going to farm)
163 for meeting family needs which results into heavy workload also seemed to be another limitation for improved
164 treatment outcome. This observation calls for need for designing a mechanism for ensuring reduced workload by
165 ARV users.

166 V.

167 9 POLICY IMPLICATION

168 Based on findings of this study it is suggested that more education on the importance of regular attendance and
169 drug adherence should be given to patients in the time they are enrolled to CTCs. To minimize the problem of
170 long distance, more CTCs need to be established especially in remote areas such as rural areas. Furthermore,
171 community education to reduce stigma (anti-stigma campaigns) need to be strengthened to increase uptake of
172 ART. Moreover, special program for provision of food (e.g fortified maize flour) for ARV users could also be
173 instituted to improve treatment outcome. Provision of loans to run small scale business for poor ARV users
174 should be considered to help them cope with additional costs incurred through being on ART (i.e. bus fares and
175 improved nutrition). This would also minimize heavy workloads by ARV users by reducing their engagement in
176 too involving activities such as farming. Finally, both government and nongovernmental agencies should take
177 part in such interventions to ensure broader coverage.

178 VI.

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180 We would like to thank interviewed respondents and other stakeholders in the study area for their maximum
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Figure 1:

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Figure 2:

181

1

Variable	supporters	Treatment	PLHAs
Attendance to CTC*	(n = 41)	(n = 30)	
	63%	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%

Figure 3: Table 1 :

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'.

Figure 4:

2

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Variable	Treatment	PLHAs
Perceived health of PLHAs after enrollment	supporters (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%

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Figure 5: Table 2 :

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