

**Adherence to Antiretroviral Therapy and Associated Factors Among HIV  
and AIDS Patients at Mnazi Mmoja Hospital, Zanzibar**

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**A thesis submitted in partial fulfillment for the  
Degree of Master of Science in Applied Epidemiology in the  
Jomo Kenyatta University of Agriculture and Technology**

**2009**

HIV and AIDS is a major public health concern in the world with 33.2 million people living with HIV infection by December 2007. Sub-Saharan Africa is the most affected region in the world where more than two thirds (68%) of all HIV positive people live and more than three quarters (76%) of all AIDS deaths in 2007 occurred. Antiretroviral medicines (ARVs) have been documented to delay progression of HIV disease and improve the quality of life in the HIV infected individuals. However, patients need to be on treatment for life. The goals of antiretroviral therapy (ART) are preservation of the immune system, prevention of clinical progression and maximal viral suppression. In order to achieve these goals, adherence to ART is essential with more than 95% ART adherence levels being recommended. Major implication of poor adherence is the emergence of viral resistance with the accompanying immunological and clinical failure. This study was conducted to determine level of adherence to antiretroviral therapy and investigate its associated factors among adult HIV and AIDS patients at Mnazi Mmoja Hospital's HIV care and treatment clinic in Zanzibar.

A comparative cross-sectional study was conducted from September to November 2008 at Mnazi Mmoja Hospital's HIV care and treatment clinic in Zanzibar. Study population consisted of adult HIV and AIDS patients, receiving ART for the previous six months or more from the date of interview at the clinic. A systematic sampling procedure was used to select the study participants. Data was collected by trained research assistants through: interviews using a semi-structured questionnaire, records review to obtain clinical information and through focused group discussions. Both quantitative and qualitative data analysis was done. In analysis of quantitative data, univariate analysis was done to describe HIV and AIDS patients on ART by socio-demographic characteristics and determine proportions of patients on ART reaching optimal and

suboptimal adherence levels. Bivariate analysis was then done to compare adherence levels with CD4 cell counts and factors affecting adherence. Qualitative data was transcribed and summarized using themes.

A total of 280 adult HIV and AIDS patients on ART for six (6) months or more at Mnazi Mmoja hospital's HIV care and treatment clinic in Zanzibar were enrolled in the study. Majority of the patients i.e. 76.1% (95%CI: 70.6% - 80.9%) were found to be reaching optimal adherence level to ART of 95% and above but a significant proportion of the patients i.e. 23.9% (95%CI: 19.1% - 29.4%) were not. The mean CD4 cell count gain for patients who were reaching optimal adherence levels was 221 (95%CI: 201 - 241) as compared to 171 (95%CI: 135 – 207) for those who were reaching suboptimal adherence levels. The difference between the two means was statistically significant ( $p=0.02$ ). This study found no association between adherence and studied demographic, social, economic, behavioural, clinical and health service related factors. Findings of this study indicate the need for timely detection of patients not reaching optimal adherence and implementing interventions to improve adherence.