

CERTIFICATION

The undersigned certify that they have read and hereby recommend for examination of the dissertation *entitled household food insecurity and anti retro viral adherence among adult HIV positive patients attending care and treatment clinics in Temeke, Dar es Salaam*, in fulfillment of the requirement for the degree of masters of Public Health of Muhimbili University of Health and Allied Sciences.

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Dr. Germana H.Leyna

(Supervisor)

Date:.....

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AND
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I **Ruth Nabwire**, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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ABSTRACT

Background: Among those persons taking ARV therapies, more than half were food insecure, and food insecurity was associated with incomplete adherence and viral non-suppression in people who were less than 80% adherent. **Main objective:** To assess the magnitude of household food insecurity and its determinants, its association to adherence to ART among adult patients attending CTCs in Dar es salaam. **Methodology:** A descriptive cross sectional facility-based study, conducted in Feb 2012. Simple random sampling was done daily to select participants from the registry. Data was collected through face-to-face structured interviews using a structured questionnaire. Adherence was assessed by self report in the last month before the study and Household Food Insecurity Access Scale tool was used to assess food insecurity. **Subjects:** A total of 272 HIV/AIDS patients aged 18 years and above attending CTCs in Dar es Salaam who have been on ART were selected. **Results:** A total of 272 (females=67.9%; males= 32.1%) people living with HIV/AIDS attending CTC were interviewed. The average age of the respondents was 38 years old and most (43.9%) were married. The majority (65.1%) respondents had primary school education. However, food insecurity was least (48.2%) among those who were single and highest (57.7%) among those widowed. Low level of food insecurity was associated with having completed secondary education (Adjusted OR=0.75; 95%CI, 0.047–1.19) and high household size with adults who are employed (OR=0.54; 95%CI, 0.34–0.85). Participants who lived as singles were less associated food security or less meals increased the likelihood of food insecurity (OR=4.2; 95% CI 1.7-9.8). Low frequency of meals was significantly more prevalent (18.6%) multiple logistic regression to determine socio-demographic and factors associated with food insecurity which was measured using the Household Food Insecurity Access Scale. The study showed that approximately 42% of the households were categorized as food secure, 9.6% as mildly food-insecure, 32.9% as moderately food-insecure and 13.2% as severely food-insecure. Food insecurity was positively associated with the number of members in the household ($P<0.05$) and negatively associated with parental education level and job status and ART adherence ($P<0.05$). **CONCLUSIONS AND RECOMMENDATIONS:** Food insecurity was prevalent among households in HIV patients in Temeke district and food insecurity status was associated with socio-economic factors. Screening for and

addressing food insecurity should be a critical component of HIV prevention and treatment programs. Household food insecurity should be assessed in a larger and more diverse population in urban setting.

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LIST OF ABBREVIATIONS

ARV	Antiretroviral
CD4	Clone of differentiation group 4
CI	Confidence Interval
CTC	Care and Treatment Centers
FAO	Food and Agriculture Organization
HAART	Highly active antiretroviral therapy
HFIAS	Household food Insecurity Access Scale
HIV	Human Immunodeficiency Syndrome
MDH	Management and Development for Health
MEMS	Medication Event Monitoring System
MUHAS	Muhimbili University of Health and Allied Sciences
NACP	National AIDS Control Program
PEPFAR	US President's Emergency Plan for AIDS Relief
PLWHIV	People Living With HIV
RNA	Ribonucleic Acid
SIDA	The Swedish's International Development Agency
SR	Self Reporting
TDHS	Tanzania Demographic Health Survey

OPERATIONAL DEFINITION OF TERMS

Household food insecurity: Food insecurity was defined as a temporary, complete lack of and/or decline in access to productive resources, deterioration of the household food over time, declining in dietary intake causing change in self response and behavior to cope with the situation. The nine food insecurity questions in the HFIAS were used to examine the distribution of the households in different categories of food insecurity (quality and quantity). The questions follow a progression that begins with anxiety about the food supply, followed by a decrease in the quality of food, a decrease in the quantity of food, and finally going to sleep hungry and going all day and night without eating any food (during the 4 weeks preceding the survey).

ART non-Adherence: non-adherence includes not taking medications at prescribed time intervals and non-compliance to dosing instructions regarding dietary or fluid intake in last previous month before this study. ART adherence was assessed with self-report by the participants. Non-ART adherence in this study is when a patient misses one or more doses in the last month. Therefore, s/he would have not achieved >95 adherence.