

**MALNUTRITION IN HIV SEROPOSITIVE CHILDREN AGED 6
TO 59 MONTHS: A Case of Institutional Care and Home-Based Care
in Nairobi.**

20031954

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**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN
PARTIAL FULFILMENT
OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF PUBLIC
HEALTH (M.P.H).**

School of Public Health

September 2002

ABSTRACT

Malnutrition in HIV Seropositive Children Aged 6 to 59 Months: A Case of Institutional Care and Home-Based Care in Nairobi.

Malnutrition, skeletal muscle wasting and changes in cardiac mass and function occur in children infected with Human Immunodeficiency Virus (HIV). There is increased energy expenditure in response to opportunistic infection, as well as to HIV infection itself that can lead to Protein-Energy Malnutrition (PEM). The purpose of this study was to determine the level of protein energy malnutrition in HIV seropositive children comparing children receiving two kinds of care. A cross-sectional study was carried out to determine the level of malnutrition HIV seropositive children receiving either institutional or home-based care in Nairobi between January and April 2001. One hundred and twenty seven children were studied. Anthropometric indices of weight-for-age, weight-for-height and height-for-age were used to determine the levels of malnutrition amongst various age groups. Daily dietary intake of energy, protein, iron, zinc and vitamin A were determined by converting the recorded food intake from twenty-four hour food recalls into nutrients using Kenyan food composition tables. Frequency of intake of vitamin A rich foods was determined by calculating the percentage numbers of children with various frequencies of intake in the week.

Malnutrition defined as wasting, stunting and underweight was evident amongst children in both groups. 34.4% (23/67) and 31.7%(19/60) of children receiving institutional and home-based care respectively were normal. More children in the study were stunted than wasted with children receiving home-based care being significantly more stunted and wasted than those receiving institutional care ($p < 0.05$). Children

receiving institutional care were found to take significantly higher energy than those receiving home-based care ($p < 0.05$). Mean daily protein, iron zinc and vitamin A intakes were not significantly different though the mean intake of zinc, iron and vitamin A were less than the Recommended Daily Allowances for children in both groups. A high percentage of the children did not take food rich in preformed vitamin A such as eggs and liver in both institutional and home-based care. The proportion of children in the two groups who had less than or equal to six days per week for mean frequency of consumption of animal and plant sources groups were significantly different ($p < 0.05$).

It is apparent from the results of this study that children receiving home-based care had a significantly higher level of malnutrition defined as wasting and stunting. Setting up of home-based care programs should give considerations to proper nutritional management of HIV seropositive children ensuring that the children get adequate nutrients to avert developing malnutrition from low energy and other nutrient intake. Establishment of proper home-based care programs will seek to integrate HIV care into other community based health care services that already exist and to normalise HIV so that those infected children are integrated in all the normal channels of health care. Further research is recommended to isolate the effects from the duration of stay at the institution and to determine the levels of micronutrient (iron, zinc and vitamin A) intake in HIV seropositive children. It is also recommended that nutritional assessment should be integrated in the care for HIV seropositive children accompanied by targeted nutritional intervention to improve quality of life.