

## Burden of Malnutrition in Clients Enrolled in ART and TB Services in Swaziland

### INTRODUCTION:

Swaziland has the world's highest estimated HIV prevalence (26%) and TB incidence rate of 1,287 per 100,000 population with an 79% TB/HIV co-infection rate. Malnutrition in its different forms currently coexist in Swaziland as in many countries. However, literature on the burden of malnutrition among people living with HIV/AIDS (PLHIV) and on TB treatment in Swaziland is limited and not well documented. An assessment was conducted to determine the levels of malnutrition among adult ( $\geq 15$  years) PLHIV enrolled for ART and TB treatment.

### METHODS:

A cross-sectional, retrospective assessment was carried out. Data was randomly extracted from 3,521 PLHIV and 1,046 TB client records in 33 health facilities using a standardized data collection tools. Analysis was done using SPSS version 19. The confidentiality of collected data was assured at all times. The main limitation was incomplete data from clients' health facility record. Malnutrition was determined using body mass index (BMI) calculations and classified as underweight ( $< 18.5$  kg/m<sup>2</sup>) and overweight or obese ( $> 25$  kg/m<sup>2</sup>).

### RESULT:

The results, upon eliminating missing data and co-infected patients, represent 397 PLHIV and 267 TB clients' records. Median age for PLHIV was 33 years (min;max 15;79) comparable to 34 years (min;max 15;90) for TB patients. Mean BMI for both PLHIV ( $25.3 \pm 5.2$  kg/m<sup>2</sup>) and TB patients ( $22.3 \pm 4.5$  kg/m<sup>2</sup>) compared to ( $24.4$  kg/m<sup>2</sup>) as established by the 2007 Swaziland demographic and health survey (DHS). In both PLHIV and TB patients, females had significantly higher mean BMI than males ( $P < 0.005$ ).

PLHIV: Overweight/obesity (46.4%) was 10 times higher than underweight (4.6%). More females were overweight/obese than males with the inverse observed in underweight. Underweight was slightly lower than DHS while overweight/obesity was higher.

TB patients: Overweight/obesity (23%) was slightly higher than underweight (18%). More females were overweight/obesity than males, but the inverse applied in underweight. Underweight was 3 times higher than DHS while underweight was lower.

### CONCLUSION:

There is a growing presence of a double burden of malnutrition in PLHIV and TB patients. Underweight has been in existence since the discovery of HIV previously referred to as "slim disease". However, the emerging overweight and obesity, and associated non-communicable diseases further complicates the management of PLHIV and TB patients hence an important target for intervention. An integrated approach for tackling malnutrition in all its forms is necessary.

KEY WORD: *BMI, underweight overweight and obesity*

### Country

SWAZILAND

### Institution

WORLD FOOD PROGRAMME

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