

ABSTRACT

Aim: To determine the predictors of low body mass index (BMI) among tuberculosis (TB) cases in three high TB/HIV burden provinces in Kenya. **Study Design:** Cross-sectional survey, July 2010 to May 2011. **Study setting:** Three high TB/HIV burden provinces in Kenya. **Study Population:** Notified new smear positive TB cases on anti-TB treatment. **Sample Size:** 1,298 **Data Collection:** Structured questionnaire. **Data Analysis:** The association of nutritional status (normal versus low BMI) is tested using a chi square for categorical variables while student t-test was used for continuous variables. Explanatory factors that were significantly associated with nutritional status (p value <0.05) were subjected to a logistic regression. HIV status was considered a priori risk factor in the multivariate model. **Results:** Of the participants, 57% (734/1298) and 43% (564/1298) had normal and low BMI respectively. There was no significant difference (p-value 0.71) by HIV status between normal BMI and low BMI. Employment, water source and HIV status were identified as significant predictors of low BMI in smear positive TB cases. Adjusting for all other factors in the multivariate model, lack of employment with the base being having an employment, was significantly found to have increased odds of low BMI of 1.8 times (95% CI 1.39 -2.26; p value <0.001). HIV status was not found to be a significant predictor of low BMI in TB cases. **Conclusion:** Lack of employment is a predictor of low BMI in TB cases in Kenya. Nutritional status does not differ by HIV status