

# **Can social pathology characteristics be used as a screening tool for detecting active tuberculosis?**

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## **Abstract**

Globally, using tuberculosis (TB) signs & symptoms as a screening tool has become less important due to its low sensitivity and specificity. TB is not the only manifestation of the medical disease but also poverty related social pathology disease. Myanmar is one of the 30 high TB burden countries ranking 11th globally and 4th in the South-East Asia region. This study was to find out role of social pathology characteristics on detecting active TB. We revisited the data set of the National TB prevalence survey 2010, Myanmar. A binary logistic regression model was used to predict the presence of active TB by various combinations of TB signs & symptoms and social pathology characteristics. Akaike information criterion (AIC) and the area under the receiver operating characteristic (ROC) curve were compared for all models. Propensity score was calculated by logistic regression. The model with socioeconomic status, TB history, Body mass index without signs and symptoms had a better predictive performance compared to using any signs and symptoms and cough alone. Adding social pathology characteristics into the screening model can improve the prediction and should be encouraged.