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> [Lung India](#). Jul-Aug 2016;33(4):372-80. doi: 10.4103/0970-2113.184868.

# Impact of socioeconomic status and living condition on latent tuberculosis diagnosis among the tribal population of Melghat: A cohort study

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## Abstract

**Aims:** To study socioeconomic status (SES) and living conditions (LC) as risk factors for latent tuberculosis infection (LTBI) and their impact on QuantiFERON-TB gold (QFT-G) and tuberculin skin test (TST) outcome for determining a better diagnostic test for LTBI in the malnourished tribal population of Melghat.

**Settings and design:** Six hundred sixty nine participants matching the inclusion criteria were recruited from 10 tribal villages of Melghat region, India.

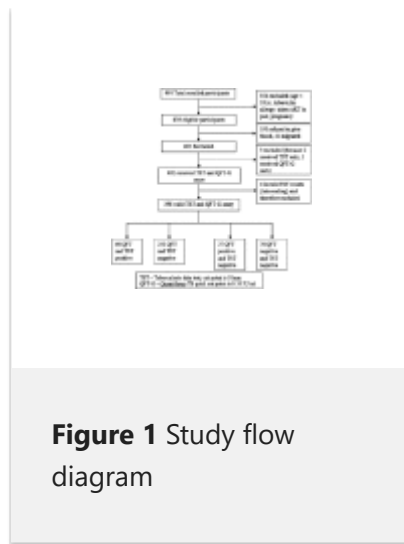
**Subjects and methods:** Complete information related to various risk factors and test outcome was obtained on 398 participants, which was analyzed as per predefined conceptual framework. Factors were classified based on their relevance either at individual or household level, and subsequently based on the possibility of intervention. Data were partitioned into concordant and discordant sets depending on test agreement.

**Results:** In concordant set, the two tests revealed that LTBI was significantly associated with smoking (adjusted odds ratio [aOR]: 2.64 [95% confidence interval [CI]: 1.03-6.79]), tobacco usage (aOR: 2.74 [95% CI: 1.50-4.99]), and malnourishment (aOR: 1.97 [95% CI: 1.12-3.48]) after basic adjustment. Inclusion of latent variable SES and LC in the model has mediating effect on the association of above factors with LTBI. Further, the association of SES and LC with LTBI in concordant set was unaltered in presence of other cofactors. From discordant set, results of QFT-G corroborated with that of concordant set.

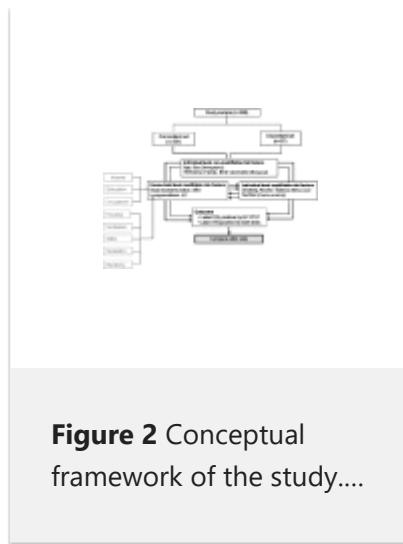
**Conclusions:** Poor SES and LC can be considered as strong risk factors linked with LTBI as compared to malnourishment, which is often targeted in such communities. Further, our study showed QFT-G test as a reliable tool in screening of LTBI in the tribal population of Melghat, India.

**Keywords:** QuantiFERON-TB gold; tribal; tuberculin skin test; tuberculosis.

## Figures



**Figure 1** Study flow diagram



**Figure 2** Conceptual framework of the study....

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