TB prevalence in Zimbabwe: a national cross-sectional survey, 2014

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Abstract

BACKGROUND: We conducted the first national TB prevalence survey to provide accurate estimates of bacteriologically confirmed pulmonary TB disease among adults aged ≥15 years in 2014**.**

METHODS: A TB symptoms screen and chest X-ray (CXR) were used to identify presumptive TB cases who submitted two sputum samples for smear microscopy, liquid and solid culture. Bacteriological confirmation included acid-fast bacilli smear positivity confirmed using Xpert® MTB/RIF and/or culture. Prevalence estimates were calculated using random effects logistic regression with multiple imputations and inverse probability weighting.RESULTS: Of 43,478 eligible participants, 33,736 (78%) were screened; of these 5,820 (17%) presumptive cases were identified. There were 107 (1.9%) bacteriologically confirmed TB cases, of which 23 (21%) were smear-positive. The adjusted prevalences of smear-positive and bacteriologically confirmed TB disease were respectively 82/100,000 population (95% CI 47-118/100,000) and 344/100,000 (95% CI 268-420/100,000), with an overall all-ages, all-forms TB prevalence of 275/100,000 population (95% CI 217-334/100,000). TB prevalence was higher in males, and age groups 35-44 and ≥65 years. CXR identified 93/107 (87%) cases vs. 39/107 (36%) using the symptom screen.

CONCLUSION: Zimbabwe TB disease prevalence has decreased relative to prior estimates, possibly due to increased antiretroviral therapy coverage and successful national TB control strategies. Continued investments in TB diagnostics for improved case detection are required.