

TS-71614-11 Costs and affordability of TB diagnosis and treatment from the patient's perspective in Lusaka, Zambia

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Introduction: Increasing case detection and cure rates are the principal means of reducing tuberculosis (TB) incidence and averting TB-related deaths. Achieving these increases in TB case-detection and cure rates will require patients' money and time.

Objectives: The overall aim of this economic study was to estimate the costs and affordability of TB diagnosis and treatment from the patient's perspective in Lusaka, Zambia. Our secondary objective was to identify potential determinants of variation in patient costs.

Methods: A cross-section of adult TB patients in the intensive phase of treatment at four primary health centres in Lusaka were interviewed using a standardised questionnaire between 10 and 29 July 2006 ($n = 103$). Direct and indirect costs were estimated on a microlevel and categorised into two time periods: 'pre-diagnostic' and 'post-diagnostic' in 2006 US\$. Determinants of individual patient costs were analysed using a multiple linear regression model.

Results: The patient resources required to detect and provide 2 months of treatment for 103 TB patients at four urban clinics in Lusaka amounted to a total cost of \$3109.93. Pre-diagnosis, direct costs composed the largest proportion (68%) of total costs, with user fees as the largest cost item (average total cost per patient \$4.23 (95%CI 3.60–4.86)). Post-diagnosis, indirect costs comprised 97.7% of total patient costs—largely a function of the high opportunity cost associated with DOT (average total cost per patient \$22.7 (95%CI 18.8–26.6)). The burden of total direct costs on females was almost 50% higher for women than for men when expressed as a proportion of their average income ($P < 0.001$). Gender, patient delays in seeking care and treatment strategy together explained 39.8% of the variation in total patient costs.

Conclusion: Our findings suggest that enhancing TB case-finding and the creation or strengthening of community-based DOT programmes would be the most effective means of reducing patient costs.