

The household economic burden of drug-susceptible TB diagnosis and treatment in The Gambia

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SUMMARY

OBJECTIVE: To determine the costs and catastrophic costs incurred by drug-susceptible (DS) pulmonary TB patients in The Gambia.

METHODS: This observational study collected cost and socio-economic data using a micro-costing approach from the household perspective from 244 adult DS-TB patients with pulmonary TB receiving treatment through the national treatment programme in The Gambia. We used data collected between 2017 and 2020 using an adapted version of the WHO generic patient cost survey instrument to estimate costs and the proportion of patients experiencing catastrophic costs ($\geq 20\%$ of household income).

RESULTS: The mean total cost of the TB episode was

\$104.11 (2018 USD). Direct costs were highest before treatment (\$22.93). Indirect costs accounted for over 50% of the entire episode costs. Using different income estimation approaches and catastrophic cost thresholds, 0.4–75% of participants encountered catastrophic costs, showing the variability of results given the different assumptions we utilised.

CONCLUSIONS: We show that despite the benefits of free TB care and treatment, DS-TB patients still incur substantial direct and indirect costs, and cases of impoverishing expenditure varied vastly depending on the income estimation approaches used.

KEY WORDS: tuberculosis; patient costs; catastrophic costs; The Gambia

Until the COVID-19 era, TB disease was the leading cause of death from a single infectious agent worldwide, and nearly half of patients living with TB in low- and middle-income countries (LMICs) reported financial difficulties due to the disease.¹ TB patients encounter sizeable medical and non-medical costs from before diagnosis until after treatment, but also due to morbidity and disability that can lead to lost productivity during this time.²

The WHO End TB Strategy aims to eliminate TB-related catastrophic costs that patients and their families experience by 2030, and defines TB costs as “catastrophic” when they exceed 20% of annual pre-TB household income.³ Despite efforts from policy-makers and health systems to alleviate patient costs, many households still face catastrophic costs due to

TB.^{1–4} TB treatment is often provided free at the point of access in many settings. While there is information regarding catastrophic costs for high TB burden countries, there is limited information for The Gambia, which has a relatively low incidence of TB, but ranks among the poorest in the world with a gross national income per capita of less than \$1,500.⁵

The majority of patients initiate care at government (public) health facilities in The Gambia, incur no charges for diagnostic GeneXpert testing and are then treated at governmental facilities, where they incur no cost. However, patients who require additional tests such as X-rays or other imaging must pay out-of-pocket expenses at private pharmacies, clinics or hospitals. Patients also incur non-medical costs through expenditure on transport, food, accommodation and indirect costs due to an inability to work or perform daily activities.⁶

Substantial patient costs can impede those most

ID and AKS are joint first authors; DE and MQ are joint last authors.

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