



## Centre for health Systems Research & Development

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### Community-based Directly Observed Treatment for tuberculosis in a province of South Africa

#### CITATION

Howell EM, Kigozi NG & Heunis JC. 2018. Community-based Directly Observed Treatment for tuberculosis in a province of South Africa. *BMC Health Services Research*, 18:255. DOI: <https://doi.org/10.1186/s12913-018-3074-1>

#### ABSTRACT

**Background:** There is uncertainty about how directly observed treatment (DOT) support for tuberculosis (TB) can be delivered most effectively and how DOT support can simultaneously be used to strengthen human immunodeficiency virus (HIV) prevention and control among TB patients. This study describes how DOT support by community health workers (CHWs) was used in four municipalities in the Free State province – a high TB/HIV burden, poorly-resourced setting – to provide HIV outreach, referrals, and health education for TB patients.

**Method:** The study was part of a larger cross-sectional study of HIV counselling and testing (HCT) among 1101 randomly-selected TB patients registered at 40 primary health care (PHC) facilities (clinics and community health centres) across small town/rural and large town/urban settings. Univariate analysis of percentages, chi-square tests and t-tests for difference in means were used to describe differences between the types of TB treatment support and patient characteristics, as well as the types of – and patient satisfaction with – HIV information and referrals received from various types of treatment supporters including home-based DOT supporters, clinic-based DOT supporters or support from family/friends/employers. Multivariate logistic regression was used to predict the likelihood of not having receiving home-based DOT and of never having received HIV counselling. The independent variables include poverty-related health and socio-economic risk factors for poor outcomes. Statistical significance is shown using a 95% confidence interval and a 0.05 p-value.

**Results:** Despite the fact that DOT support for all TB patients was the goal of South African health policy at the time (2012), most TB patients were not receiving formal DOT support. Only 155 (14.1%) were receiving home-based DOT, while 114 (10.4%) received clinic-based DOT. TB patients receiving home-based DOT reported higher rates of HIV counselling than other patients.

**Conclusion:** Public health providers should train DOT supporters to provide HIV prevention and target DOT to those at greatest risk of HIV, particularly those at greatest socio-economic risk.