

## Centre for health Systems Research & Development

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The development and piloting of parallel scales measuring external and internal HIV and tuberculosis stigma among healthcare workers in the Free State Province, South Africa

## **CITATION**

Wouters E, Rau A, Engelbrecht M, Uebel K, Siegel J, Masquillier C, Kigozi G, Sommerland N & Yassi A. 2016. The development and piloting of parallel scales measuring external and internal HIV and tuberculosis stigma among healthcare workers in the Free State Province, South Africa. *Clinical Infectious Diseases*, *15*(62, Suppl 3): S244-S254. DOI: 10.1093/cid/civ/1185

## **ABSTRACT**

**Background:** The dual burden of tuberculosis and human immunodeficiency virus (HIV) is severely impacting the South African healthcare workforce. However, the use of on-site occupational health services is hampered by stigma among the healthcare workforce. The success of stigma-reduction interventions is difficult to evaluate because of a dearth of appropriate scientific tools to measure stigma in this specific professional setting.

**Methods:** The current pilot study aimed to develop and test a range of scales measuring different aspects of stigma-internal and external stigma toward tuberculosis as well as HIV-in a South African healthcare setting. The study employed data of a sample of 200 staff members of a large hospital in Bloemfontein, South Africa.

Results: Confirmatory factor analysis produced 7 scales, displaying internal construct validity: (1) colleagues' external HIV stigma, (2) colleagues' actions against external HIV stigma, (3) respondent's external HIV stigma, (4) respondent's internal HIV stigma, (5) colleagues' external tuberculosis stigma, (6) respondent's external tuberculosis stigma, and (7) respondent's internal tuberculosis stigma. Subsequent analyses (reliability analysis, structural equation modelling) demonstrated that the scales displayed good psychometric properties in terms of reliability and external construct validity.

**Conclusions:** The study outcomes support the use of the developed scales as a valid and reliable means to measure levels of tuberculosis- and HIV-related stigma among the healthcare workforce in a resource-limited context. Future studies should build on these findings to fine-tune the instruments and apply them to larger study populations across a range of different resource-limited healthcare settings with high HIV and tuberculosis prevalence.