



## Centre for health Systems Research & Development

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### Strengthening HIV and tuberculosis prevention capacity among South African healthcare workers: a mixed methods study of a collaborative occupational health program

#### CITATION

Liautaud A, Adu PA, Yassi A, Zungu M, Spiegel JM, Rawat A, Bryce EA & Engelbrecht MC. 2017. Strengthening HIV and tuberculosis prevention capacity among South African healthcare workers: a mixed methods study of a collaborative occupational health program. *Safety and Health at Work*. DOI: 10.1016/j.shaw.2017.08.004

#### ABSTRACT

**Background:** Insufficient training in infection control and occupational health among healthcare workers (HCWs) in countries with high human immunodeficiency virus (HIV) and tuberculosis (TB) burdens requires Attention. We examined the effectiveness of a 1-year Certificate Program in Occupational Health and Infection Control conducted in Free State Province, South Africa in an international partnership to empower HCWs to become change agents to promote workplace-based HIV and TB prevention.

**Methods:** Questionnaires assessing reactions to the program and Knowledge, Attitudes, Skills, and Practices were collected pre-, mid-, and post-program. Individual interviews, group project evaluations, and participant observation were also conducted. Quantitative data were analyzed using Wilcoxon signed-rank test. Qualitative data were thematically coded and analyzed using the Kirkpatrick framework.

**Results:** Participants recruited ( $n=32$ ) were mostly female (81%) and nurses (56%). Pre-to-post-program mean scores improved in knowledge (12%,  $p=0.002$ ) and skills/practices (14%,  $p=0.002$ ). Pre-program attitude scores were high but did not change. Participants felt empowered and demonstrated attitudinal improvements regarding HIV, TB, infection control, and occupational health. Successful projects were indeed implemented. However, participants encountered considerable difficulties in trying to sustain improvement, due largely to lack of pre-existing knowledge and experience, combined with inadequate staffing and insufficient management support.

**Conclusions:** Training is essential to strengthen HCWs' occupational health and infection control knowledge, attitudes, skills, and practices, and workplace-based training programs such as this can yield impressive results. However, the considerable mentorship resources required for such programs and the substantial infrastructural supports needed for implementation and sustainability of improvements in settings without pre-existing experience in such endeavors should not be underestimated.