



health

Department: Health  
REPUBLIC OF SOUTH AFRICA



german cooperation  
DEUTSCHE ZUSAMMENARBEIT

Implemented by  
KFW



# Rates of and factors associated with Tuberculosis (TB) knowledge and testing among men and women in two provinces in South Africa

Simukai Shamu (1,2); Locadiah Kuwanda (1); Thato Farirai (1); Nkhensani Nkhwashu (1)  
Foundation for Professional Development (1); University of the Witwatersrand, School of Public Health (2)

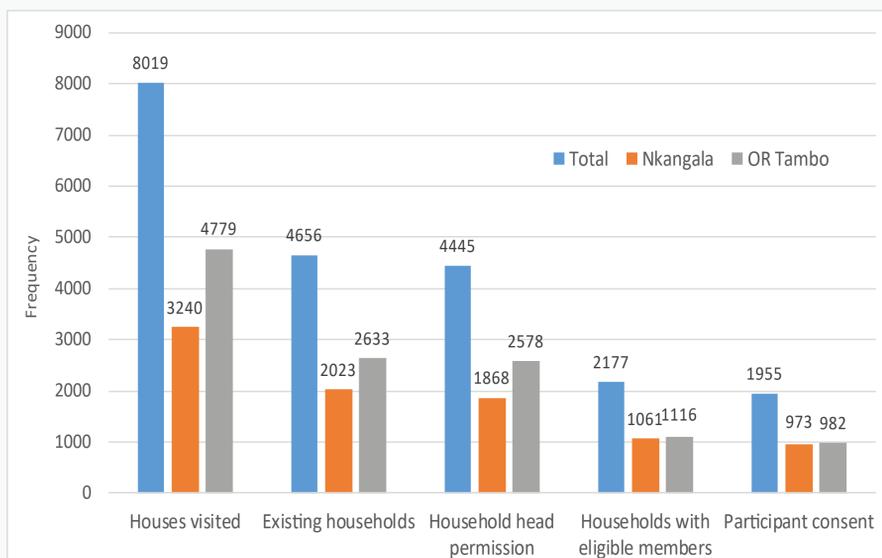
## BACKGROUND

- South Africa (SA) has the sixth highest TB incidence globally and is one of the 22 world's high TB-burden countries carrying 80% of the global TB burden cases.
- TB is the third highest disease in terms of years of life lost.
- Low levels of knowledge of TB transmission and prevention can lead to increased TB incidence.
- To control TB transmission, a community understanding of TB knowledge and practices is a pre-requisite.
- The study investigated levels of knowledge and testing for TB among young people (18-24y) in Nkangala and OR Tambo districts, South Africa.

## METHODS

- Cross sectional quantitative household survey design was utilised
- Multistage cluster sampling in each district
- Questions on TB knowledge, attitudes, and testing were developed from the WHO questionnaire and set on an electronic data collection platform
- Self administered interviews were conducted with one member per household, supervised by trained interviewers between Oct 2017-Jan 2018
- Multivariate analyses were conducted in Stata 13 to assess factors associated with TB knowledge (model 1), TB testing (model 2) and both TB knowledge and testing (model 3)

### Recruitment of Participants



## RESULTS

Table 1: Demographic characteristics of participants by TB knowledge, testing and both knowledge and testing

|   | TB knowledge (72.1%) |      |         | TB Testing (22.1%) |      |         | TB Knowledge & testing (14.7%) |      |         |
|---|----------------------|------|---------|--------------------|------|---------|--------------------------------|------|---------|
|   | n/N                  | %    | p value | n/N                | %    | p value | n/N                            | %    | p-value |
| Age (median, (IQR))                               |                      |      |         | 21 (19-22)         |      |         | 21 (19-22)                     |      |         |
| Married/partnered/lives with partner (vs single)  | 177/235              | 75.3 | 0.257   | 66/235             | 28.1 | 0.019   | 43/250                         | 17.2 | 0.241   |
| Occupation: student (vs out of school)            | 548/783              | 70.0 | 0.074   | 205/761            | 26.9 | <0.0001 | 143/863                        | 16.6 | 0.039   |
| Member of a social club (vs not a member)         | 535/733              | 73.0 | 0.558   | 186/747            | 24.9 | 0.027   | 378/787                        | 48.0 | 0.126   |
| Receives a social grant (vs no grant)             | 186/292              | 63.7 | <0.0001 | 86/288             | 29.9 | 0.001   | 55/308                         | 17.9 | 0.109   |
| Education: Completed Matriculation (vs no Matric) | 751/930              | 58.8 | <0.0001 | 201/947            | 50.9 | 0.302   | 161/1003                       | 56.9 | 0.084   |
| Income source:                                    |                      |      |         |                    |      |         |                                |      |         |
| Employer  | 108/144              | 8.6  |         | 37/141             | 9.6  |         | 31/157                         | 11.2 |         |
| Family/partner                                    | 1011/1360            | 80.4 |         | 274/1391           | 71.0 |         | 207/1459                       | 74.5 |         |
| Social Grant (vs no social grant)                 | 139/239              | 78.0 | <0.0001 | 75/226             | 19.4 | <0.0001 | 40/280                         | 14.4 | 0.171   |
| Lives in a sub-standard house (vs standard)       | 58/93                | 62.4 | 0.030   | 22/91              | 24.2 | 0.611   | 13/99                          | 13.1 | 0.660   |
| Possesses 5+ basic commodities (vs <5)            | 887/1116             | 69.4 | <0.0001 | 212/1138           | 53.7 | <0.0001 | 177/1181                       | 62.5 | 0.638   |
| Women (vs men)                                    | 645/878              | 73.5 | 0.235   | 224/894            | 57.1 | 0.002   | 165/962                        | 17.2 | 0.002   |
| Lives in Eastern Cape (vs Mpumalanga) province    | 627/865              | 72.5 | 0.739   | 234/852            | 27.5 | <0.0001 | 167/959                        | 17.4 | 0.001   |

### Factors associated with TB knowledge and Testing

Table 2: Multivariate analysis showing factors associated with TB knowledge, TB testing and both TB knowledge and testing in Nkangala and OR Tambo

| Factors                                | TB Knowledge aOR (95% CI) | TB Testing aOR (95% CI) | TB Knowledge and testing aOR (95% CI) |
|--|---------------------------|-------------------------|---------------------------------------|
| Age: 18-20 years (ref=21-24years)      | 1.44 (1.06-1.95)          | NS                      | NS                                    |
| Gender: Female                         | 1.47 (1.11-1.95)          | NS                      | 1.42 (1.03-1.96)                      |
| Student (vs Employed or not employed)  | 0.69 (0.51-0.94)          | 1.71 (1.28-2.30)        | 1.44 (1.05-1.97)                      |
| Living in Eastern Cape province        | NS                        | 1.83 (1.35-2.47)        | 1.50 (1.08-2.09)                      |
| Receiving a social grant               | 0.58 (0.41-0.83)          | 1.61 (1.13-2.31)        | NS                                    |
| No household member ever had TB        | NS                        | 0.21 (0.16-0.28)        | 0.19 (0.14-0.27)                      |
| Using print media for health messages  | NS                        | NS                      | 1.63 (1.07-2.47)                      |
| HIV prevention knowledge score (high)  | 2.76 (2.08-3.66)          | 0.73 (0.55-0.97)        | NS                                    |
| Knowledge of pre-exposure prophylaxis  | NS                        | 0.67 (0.47-0.97)        | NS                                    |
| Transactional sex                      | 0.51 (0.36-0.73)          | NS                      | NS                                    |
| Positive attitudes towards PLWH        | 3.72 (2.11-6.57)          | NS                      | NS                                    |
| Positive attitudes towards HIV testing | NS                        | 0.66 (0.48-0.91)        | NS                                    |

## CONCLUSIONS AND RECOMMENDATIONS

- HIV knowledge, attitudes and risk factors were independently associated with either TB knowledge, testing or both knowledge and testing
- Having someone with TB in the family was strongly associated with TB testing and both TB knowledge and testing
- Living in the Eastern Cape, being young, female, a student, receiving a social grant were associated with either TB knowledge, testing or both knowledge and testing
- TB control interventions should also target HIV prevention knowledge, attitudes and risk factors as well as individual and community factors



Simukai Shamu  
FPD  
PO Box 75324,  
Lynnwood Ridge,  
0040, South Africa  
simukais@foundation.co.za



Locadiah Kuwanda  
FPD  
PO Box 75324,  
Lynnwood Ridge,  
0040, South Africa  
locadiahm@foundation.co.za



Thato Farirai  
FPD  
PO Box 75324,  
Lynnwood Ridge,  
0040, South Africa  
thatof@foundation.co.za



Nkhensani Nkhwashu  
FPD  
PO Box 75324,  
Lynnwood Ridge,  
0040, South Africa  
nkhensanin@foundation.co.za