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

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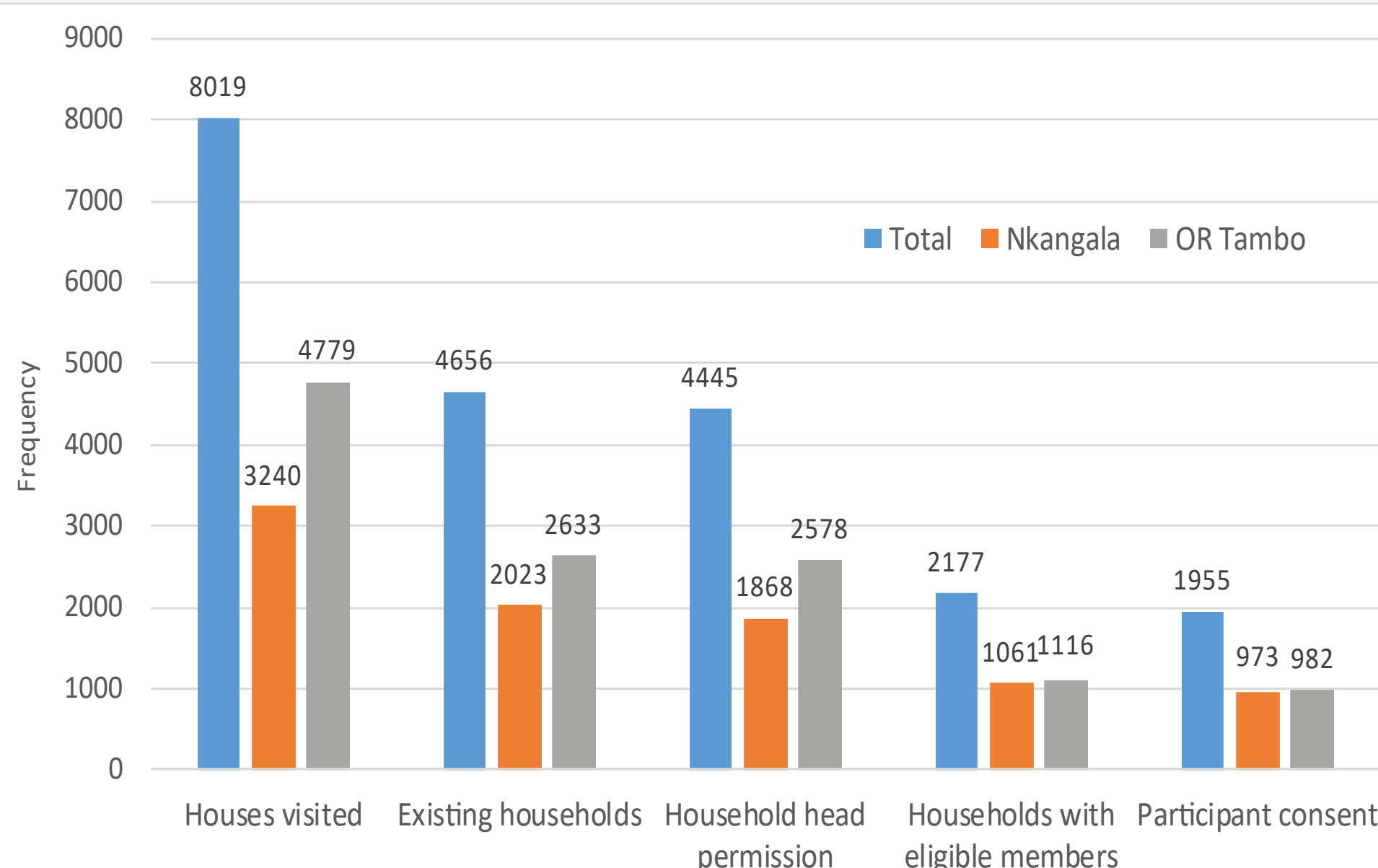
BACKGROUND

- 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)			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



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