

Using community health workers to screen at bars and other alcohol based venues is a useful way to detect active Tuberculosis cases, especially in hard-to-reach populations in rural South Africa

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Where can we find active TB? Case finding at shebeens (community sites and alcohol based venues) in rural South Africa

Intro:

- Community-based intensive case finding (CBICF) is an effective strategy for infectious disease case detection, particularly for hard-to-reach populations
- Alcohol use is a risk factor for tuberculosis
- We report on CBICF targeting shebeens (alcohol based venues (ABV)) in a rural resource limited setting for active tuberculosis

Methods:

- Setting: rural KwaZuluNatal, South Africa
- Community health workers in mobile clinic van stationed outside ABVs and community centers conducted health education and voluntary confidential screening including the following:

- WHO TB symptom screen: ≥ 1 symptom received a sputum collection for GeneXpert. ≥ 2 symptoms were brought to the community hospital for CXR, second sputum samples, and clinical evaluation
- HIV (rapid point of care test)
- Diabetes (random glucose elevated $>7\text{mmol/L}$)
- Hypertension (elevated blood pressures of $>140/>90\text{mmHg}$)
- Alcohol Use Disorder Identification Test (AUDIT) (Hazardous alcohol use ≥ 8 for men, ≥ 6 for women).

- Community members with positive results were referred to their primary care clinic.
- Results:**
- 5 Active TB cases detected :GeneXpert (n= 3) clinical + CXR (n=2)**
- Number Needed to Screen = 288
- Alcohol use disorder was significantly higher among those identified with TB ($p=0.04$)

	n (%)
Screened at ABV	1309 (91.2)
Median Age (IQR)	30 (22-46)
Male Gender	1039 (72.3)
Electricity	1322 (92.0)
Employment	373 (25.9)
Access to running water	423 (29.4)
Hazardous alcohol use	620 (43.1)
Tobacco use	565 (39.3)
Cannabis use	200 (13.9)
Active TB case	5 (0.35)

Category	TB Case	Not a TB Case	P Value
Age Median (IQR)	50 (41-58)	30 (22-45)	0.03
Tobacco use (%)	4 (80.0)	561 (39.2)	0.06
Hazardous AUDIT Score (%)	5 (100)	615 (43.1)	0.01
Median Audit Score (IQR)	13 (10.5-17.5)	4 (11-45)	0.04

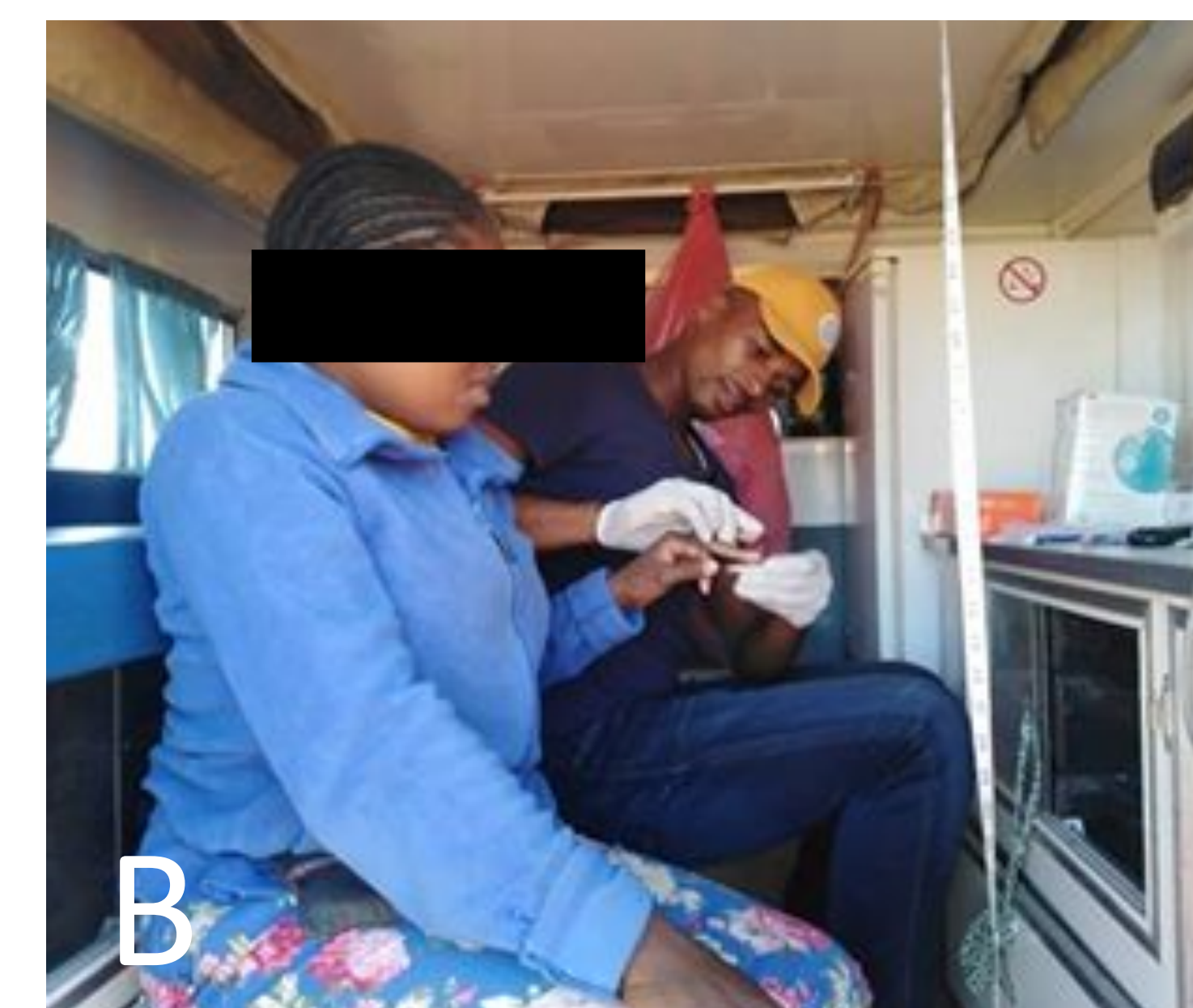


Figure A: A community health worker exits the mobile clinic van parked outside of a local shebeen to ask the owner for permission to screen on premises. Shebeens are common local ABVs in South Africa

Figure B: A community health worker with a study participant in the mobile clinic van

Conclusions:

- CBICF is a useful way to detect people with active TB, especially in hard-to-reach rural populations
- Focusing screening efforts among those at ABVs is high yield and can be an acceptable and productive adjunctive strategy for TB case finding efforts
- There is a strong need for comprehensive alcohol reduction and addiction services to assist those at high risk for active TB

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