

## **Demographics of Patients with Tuberculosis admitted to Gobabis Hospital (Pilot Study)**

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### **Background**

Significant numbers of TB patients in Omaheke are from marginalized communities. There is no national data to help identify the most affected social groups, making it difficult to develop targeted public health interventions aimed at groups with the greatest disease burden.

This was a pilot study to determine whether there is any evidence supporting the hypothesis that certain language groups are disproportionately affected by tuberculosis. Specifically, the aim was to determine the relative risk of tuberculosis in the Omaheke San-speaking population compared to other groups.

### **Methods**

A small-scale hospital audit was performed. The language group of all patients with smear positive TB admitted to hospital was determined (in accordance with the framework of the Namibia Population and Housing Census and practices and standards of the Namibia Statistics Agency). Notes of patients admitted to the TB ward in Gobabis Hospital between 3/6/14 and 14/9/14 were reviewed and demographic information recorded.

### **Results**

There were 120 admissions. 64 patients (53%) were San-speaking, despite only representing 7% of the Omaheke population. The relative risk of TB in San-speaking patients is 15.1847 when compared to other language groups in Omaheke. (95% confidence level 10.6207-21.7100,  $p < 0.0001$ . Z-score 14.915. Odds Ratio 15.3821).

Figure 1 demonstrates the language spoken by each patient.

### **Conclusions & Recommendations**

This pilot study confirmed the suspicion that San-speaking patients are over-represented among tuberculosis patients. The estimated 6-month prevalence is 10.5%. (General population of Namibia prevalence 0.67%).

We intend to perform a retrospective cohort study using patient records held at Gobabis Hospital to determine which demographic groups are at greatest risk. This will have increased power and will gather more statistically significant data.

Data obtained will help us develop focused public health interventions, formulate new research into TB prevalence in the wider community and develop effective and appropriate screening tools for high-risk communities.

