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### **UNIVERSITY**

# PREVALENCE AND FACTORS ASSOCIATED WITH PULMONARY TUBERCULOSIS AMONG ADULTS IN FISHING COMMUNITIES OF LAKE VICTORIA, UGANDA.

By

# JOSEPHINE NALUSIBA (BSc/ED-MUK)

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### **SUPERVISORS**

DR ACHILLES KATAMBA, MBChB; DCH; MSc; PhD

DR. EDITH NAKKU-JOLOBA, MBChB; MSc; PhD

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Makerere University

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### ABSTRACT

**Background:** Although TB is both a treatable and immunizable disease, it still causes a lot of morbidity and mortality globally, and particularly in the developing world. With a national TB incidence of 330 cases of all forms and 136 new smear positive cases of TB per 100,000 people per year nationwide, Uganda is one of the 22 TB high burden countries worldwide. HIV is one of the major risk factors for development of active TB, and Ugandan fishing communities have been found to have a prevalence of HIV of about 28.8%, which is about 3 times the national HIV prevalence. It is therefore plausible that fishing communities have a high TB prevalence, but this has not been established.

**Objectives:** To estimate the prevalence and factors associated with Pulmonary Tuberculosis among adults in fishing communities of Lake Victoria, Uganda.

**Methodology:** Using a cross sectional study design, 408 individuals, aged  $\geq$  18 years were selected from Kiimi (Mukono district) and Kavenyanja (Wakiso district) fishing communities of Lake Victoria and requested to participate in the study. Using an interviewer administered semi-structured questionnaire, the participants were assessed for TB symptoms and other factors. Two sputum specimens were collected from those with cough for  $\geq$  2 weeks; one on spot and another (morning) on the next day, and were stained using ZN method. Blood (~4mls) was collected and tested for HIV-1 using the National HIV rapid testing algorithm that uses Determine®, Statpak®, Unigold®.

### **Results:**

Of the 408 participants 56.6% (231/408) were males. The median (IQR) age was 30(26-36) years). The main occupation was fishing (41.2%). Cough for≥ 2 weeks was reported

by 18.4% (75/408) participants, comprised of 69.3% (52/75) males. Among those with chronic cough, 94.7% (71/75) gave sputum. Five out of seventy five people with chronic cough (6.7%) tested positive on ZN. The overall prevalence of PTB was 1.2% [(5/408)\*100]. HIV-1 sero-prevalence was 23.8% (97/408) overall; it was significantly higher among chronic coughers [34.2% (25/73)] than non-coughers [21.6% (75/333)], p=0.018, and was higher in males 27.1% (62/229) than females 19.8% (35/177) but the difference was of borderline statistical significance, p=0.055.

## **Conclusion:**

There is high prevalence of smear positive TB in Kiimi and Kavenyanja fishing communities.