

UCSF

University of California  
San Francisco



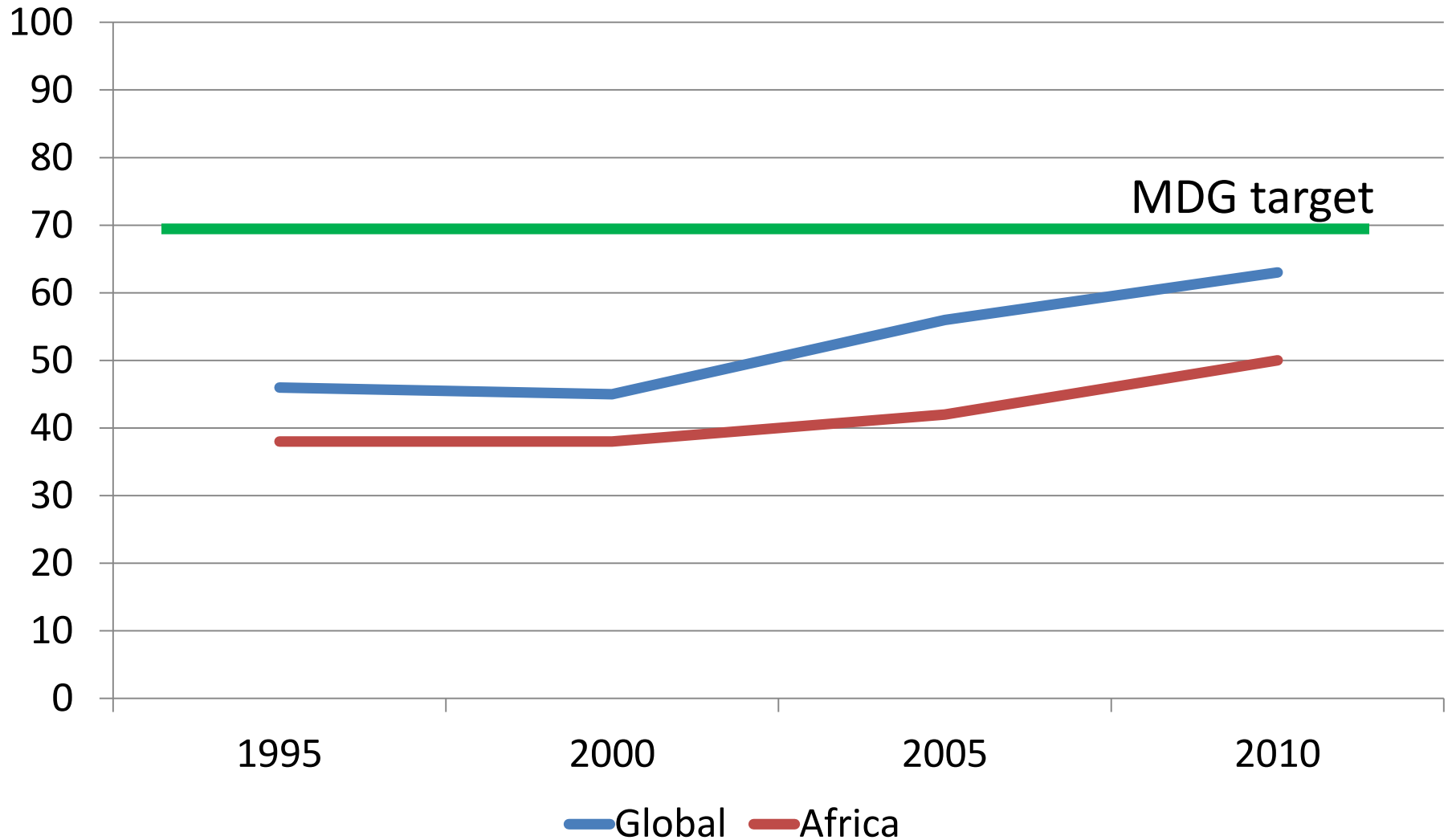
CURRY  
INTERNATIONAL  
TUBERCULOSIS  
CENTER

# Case Study: TB GOAL

## Defining the Evidence Practice Gap

Achilles Katamba

# The Problem: Low TB Case Detection

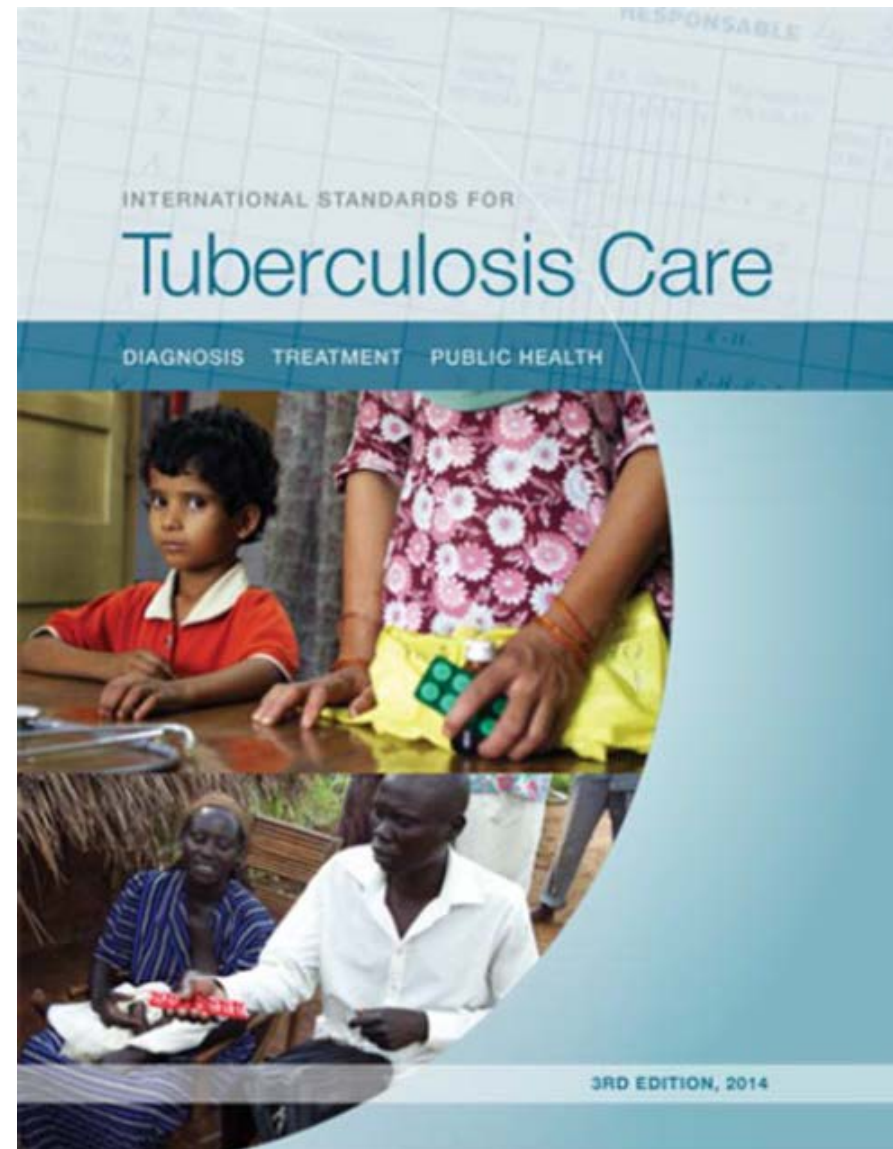


# General reasons for low case detection

- Cases are being diagnosed but not reported
- Cases are not presenting to TB diagnostic centers
- Cases seek care but are not diagnosed
  - Low sensitivity of microscopy (30-70%)
  - Poor quality of TB evaluation

# TB Evaluation Guidelines

- **Standard 2:** All persons with unexplained cough of at least 2 weeks' duration should be evaluated for TB
- **Standard 3:** All persons who require TB evaluation should be referred for sputum-based microbiologic testing
- **Standard 3:** All persons referred for sputum microscopy should have at least 2 smears examined
- **Standard 8:** Smear-positive patients should be prescribed anti-TB therapy



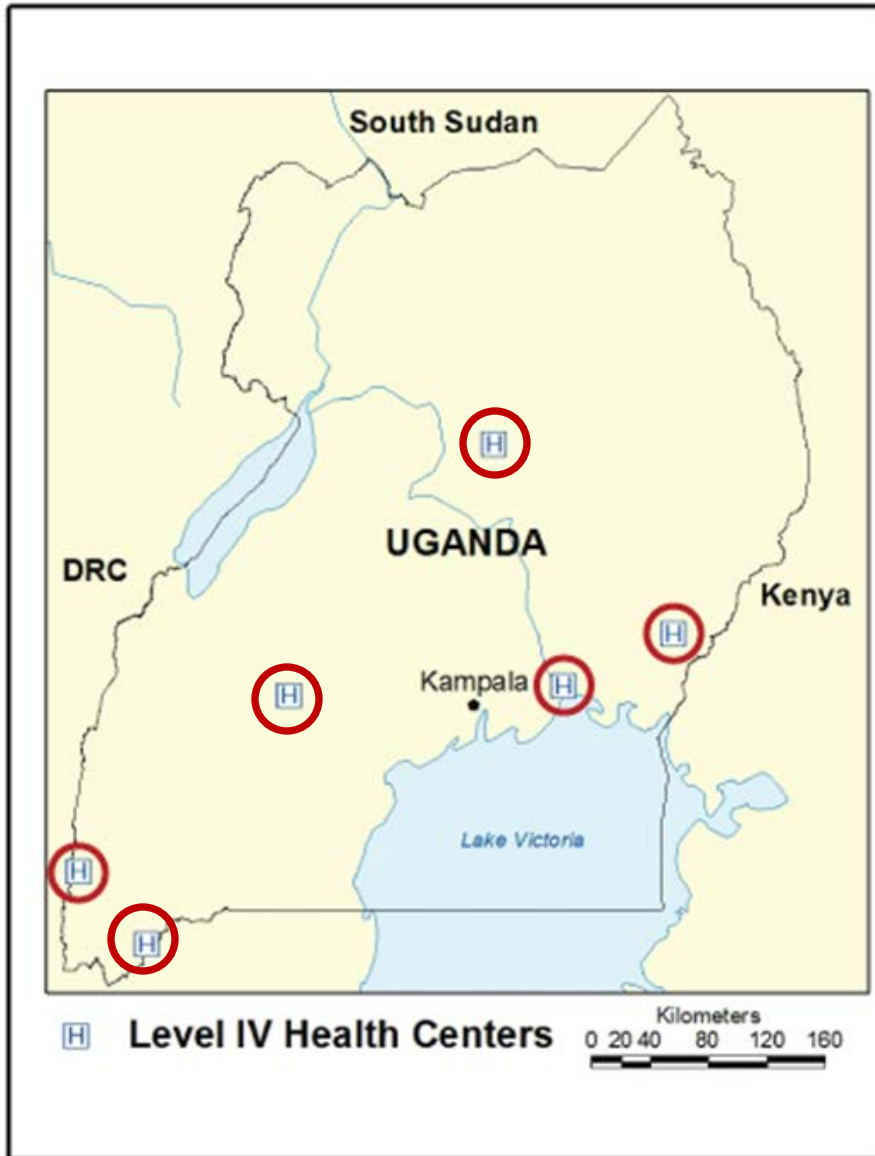
# TB GOAL study

TB Guideline Observation and Adherence in Low-income countries

## Study Objectives

- To define the gap between recommended and actual TB evaluation practices
- To identify modifiable barriers to TB evaluation
- To develop and test a theory-driven intervention to improve the quality of TB evaluation

# Study setting



- Network of 6 government health centers
- Partners
  - Uganda Ministry of Health
  - Makerere University
  - UCSF
- Electronic data collection (>100,000 patients/year)



Patient Record Form

Clinic \_\_\_\_\_

Date	OPD Number	Patient's Last Name	First Name	New attendance <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																																				
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← Patient demographics

← Cough history

← TB exams

← TB diagnoses

← TB medications

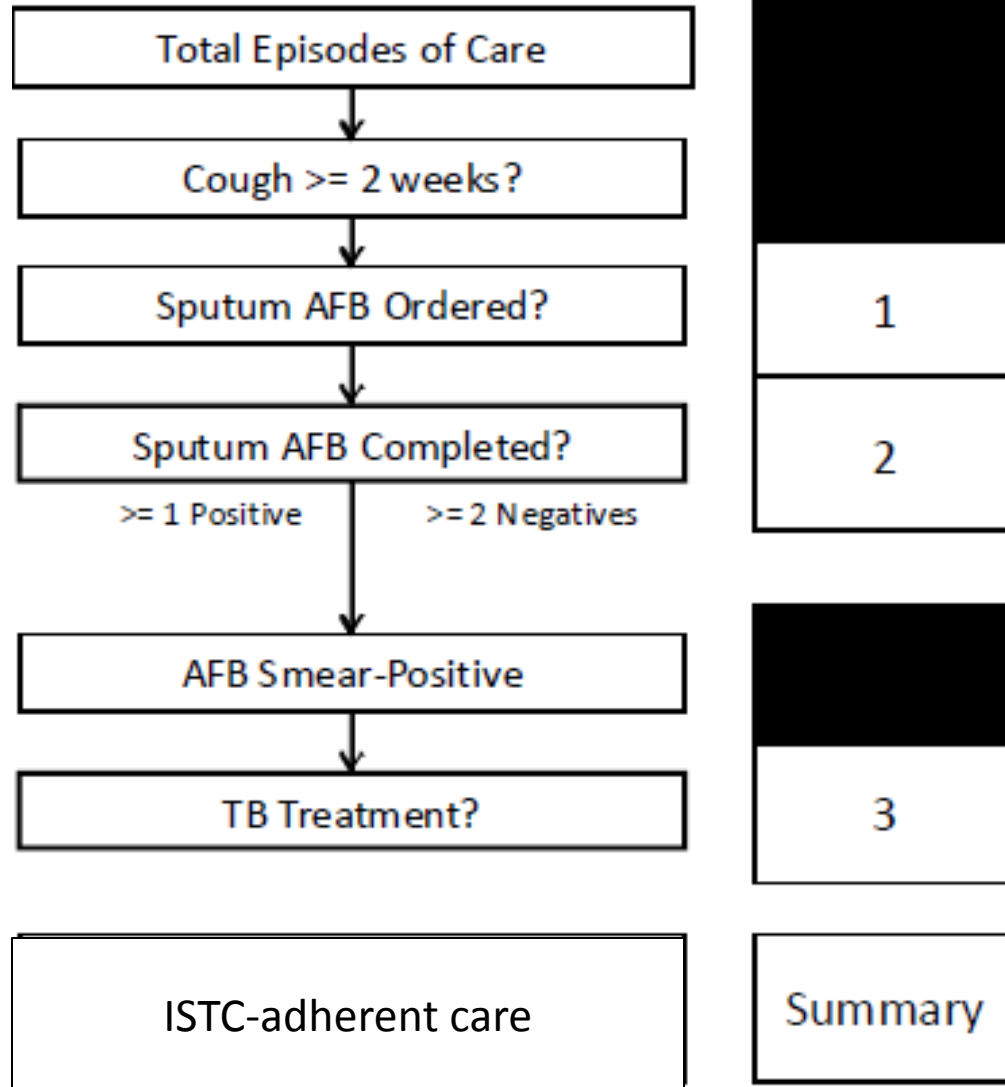
Full Name \_\_\_\_\_

Signature \_\_\_\_\_



# ISTC Quality Indicators

TB Evaluation Flow Diagram  
with Quality Indicators



# Objective 1: “Define quality gap”

- Prospective study Jan-Dec 2009
- Descriptive analysis of ISTC quality indicators
  - Point estimates (95% CI), by quarter
  - Change over time following ISTC training
- Study population

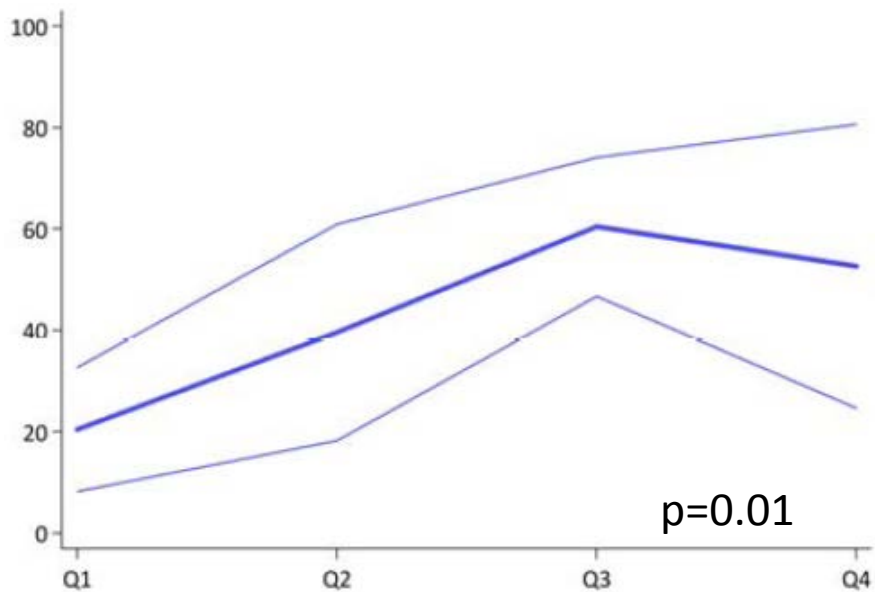
Characteristic	N=62,909
Female, % (95% CI)	70 (69-71)
Age, median (IQR)	29 (21-40)

**Q1 2009 (14,852 patients → 365 with cough >2 weeks)**

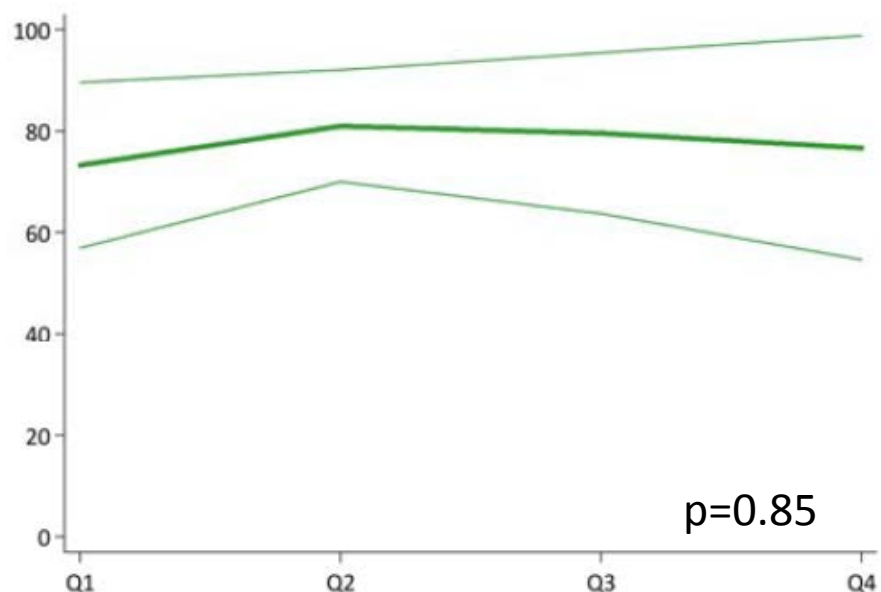
Standard 1: Referred for TB testing	21%
Standard 2: Completed TB testing (if referred)	71%
Standard 3: Treated for TB (if smear-positive)	73%
ISTC-adherent care	11%

ISTC, International Standards for TB Care

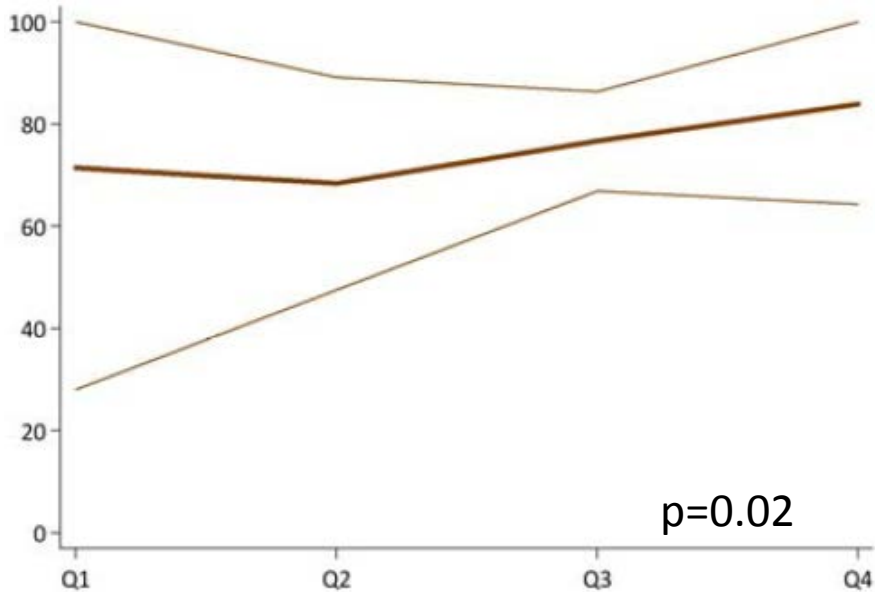
### Indicator 1: Referred for TB exams



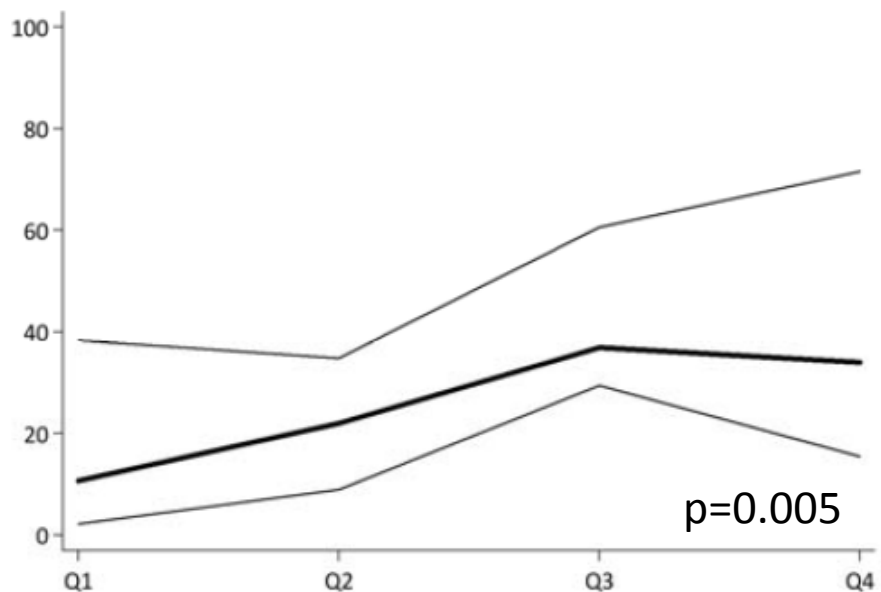
### Indicator 2: Completed TB exams



### Indicator 3: Treated if AFB-positive



### Summary Indicator



# Summary

- Strong need for strategies to improve the quality of TB evaluation
  - **Rate evidence**: TB case detection is a key health priority, and case detection rates are below targets; Consensus guidelines exist to guide TB evaluation
  - **Define as Quality gap**: Adherence to guidelines for TB evaluation is poor across health facilities in Uganda
  - **Link quality gap to outcome**:
    1. Modest improvements in quality → 4-fold increase in TB case detection (7 to 25 cases/quarter)
    2. Literature: Active case finding in clinics has high yield