

## What is the Xpert MTB/RIF test?

- **PCR-based assay** that is more sensitive than AFB smear microscopy
- Able to confirm TB disease in many smear-negative sputum specimens and extrapulmonary specimens
- Identifies TB and resistance to rifampin in **only 2 hours**
- Endorsed by the World Health Organization in 2010 after rigorous field testing



## Who should receive the Xpert MTB/RIF test?

- HIV-infected individuals
- Other groups at high risk of TB morbidity and mortality, including:
  - Hospitalized TB suspects
  - Previous TB patients
  - Contacts of TB cases
  - Children



### TUBERCULOSIS REFERENCE LABORATORY BAMENDA

For questions about our lab, the Xpert MTB/RIF assay or the TB REACH program, please contact us at:

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### PARTNERS



## Xpert MTB/RIF



**Two-hour** detection of tuberculosis and resistance to rifampin



## Why do we need the Xpert MTB/RIF test?

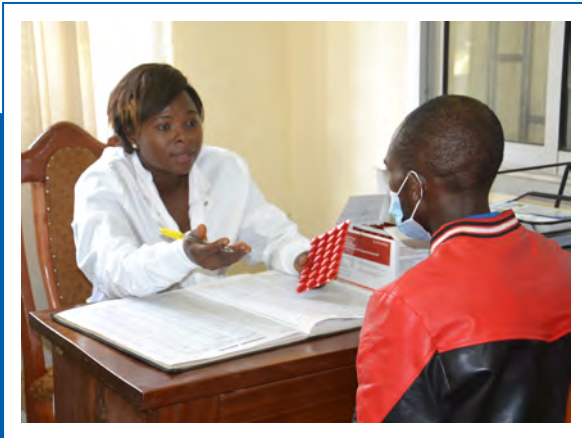
- TB is vastly under diagnosed
- Smear microscopy lacks sensitivity to detect TB and false-negative results are common
- Delayed diagnosis of TB and drug resistance leads to:
  - Higher TB mortality
  - Further spread of TB in the community

## Increased sensitivity and specificity

- A single Xpert MTB/RIF test :
  - Has ~23% increased sensitivity compared to smear microscopy
  - Does not cross react with non-TB mycobacteria
  - Simultaneously detects rifampin resistance

## Rapid detection of rifampin resistance

- The assay is highly sensitive for detection of rifampin-resistance
- Rifampin resistance is a surrogate marker for multidrug-resistant TB
- Rapid detection means patients and contacts can be quickly isolated
- Appropriate treatment can be started earlier



*With the Xpert MTB/RIF assay, more patients can be confirmed as TB cases and put on effective treatment*



- However, the Xpert MTB/RIF is still less sensitive than TB culture and misses some TB cases, particularly in children, people living with HIV and extrapulmonary TB
- When the Xpert result is 'Not detected' and the clinician still suspects TB, the patient can be put on TB treatment as a clinically-diagnosed TB case.



## Summary of benefits

- Better and earlier diagnosis
- Early choice of appropriate treatment
- Fewer clinical encounters for the patient
- Reduced TB transmission