

2013–2022



# A Decade of Health and Economic Benefits for HIV, TB, and COVID-19 in South Africa

Molecular diagnostic testing for TB with GeneXpert® has resulted in:

# \$6.4 BILLION

IN ECONOMIC VALUE GAINED

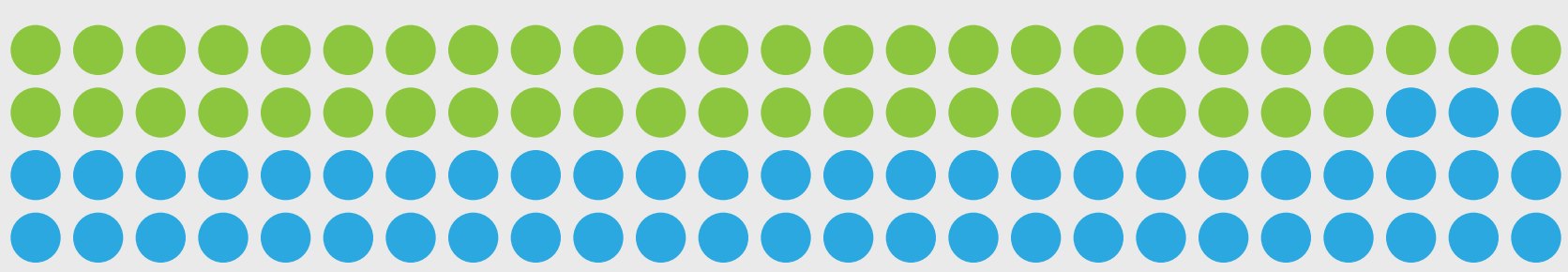
# 1 MILLION

DALYs\* AVERTED

\*Number of years lost due to ill-health, disability, or early death



## THE PROBLEM



# 47%

 of the global population has limited—if any—access to proper diagnostics.

## MOLECULAR DIAGNOSTIC TESTING



Provides real-world economic impacts:  
**\$28.3 BILLION**  
in economic value of health gains



Improves health outcomes:  
**4.3 MILLION**  
DALYs averted



Reduces the economic burden:  
**13.9x ROI\***  
through earlier diagnosis and treatment

\*Average ROI when comparing the economic value of health gains to the cost of implementation.

“The introduction of Xpert® MTB/RIF and Ultra and the scale-up of the molecular testing program has had a clear impact [in reducing the incidence of TB].”

Nichols BE et al., 2024

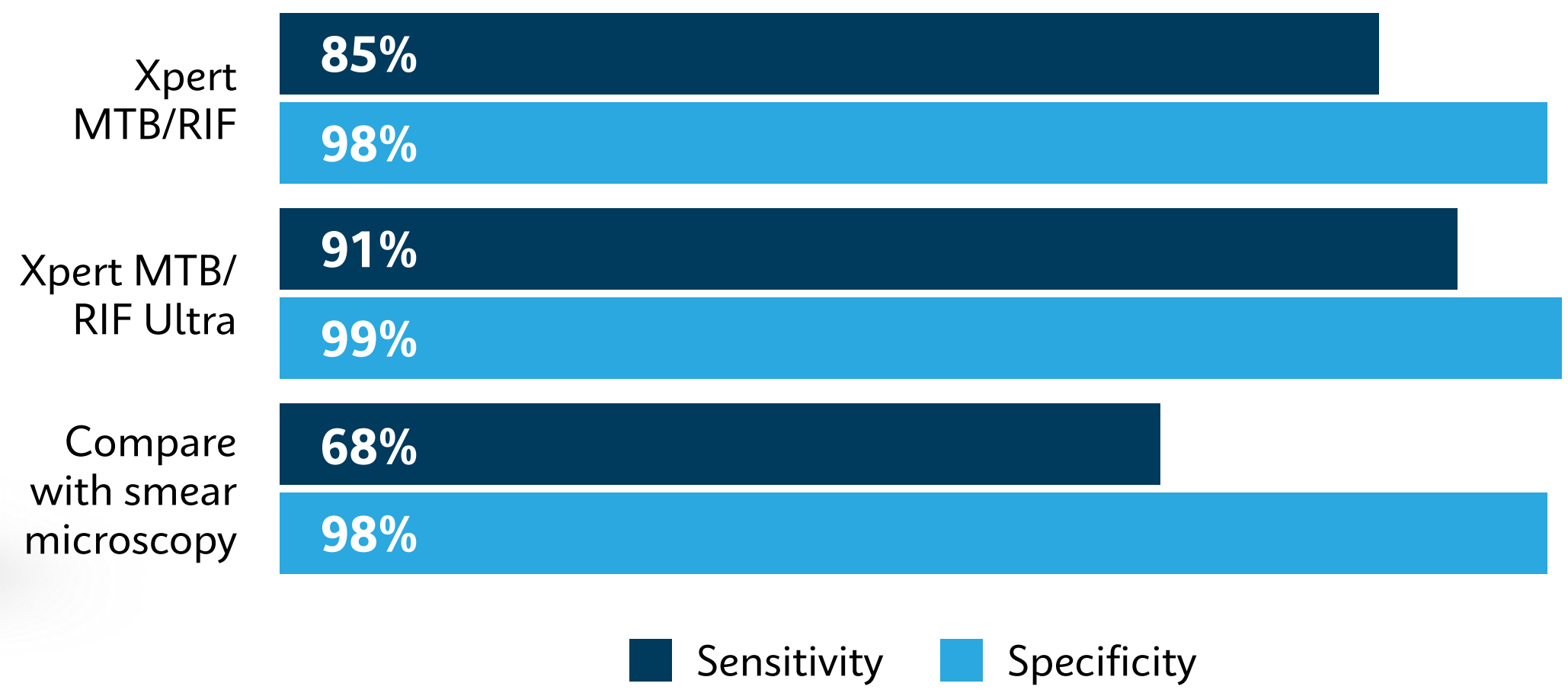


20.3x ROI when comparing the economic value of health gains to the cost of implementation of TB molecular diagnostic testing.

## THE TB SOLUTION



### Molecular diagnostic testing for TB (2013–2022) with the GeneXpert System



## Why it matters

The proven clinical and economic benefits of molecular diagnostic testing can help clinicians guide future investments to **save more lives and save healthcare systems more money.**

## BEYOND TB

The overall clinical and economic impact of molecular testing for HIV and SARS-CoV-2

**HIV VIRAL LOAD TESTING**  
Prognosis enables therapy management for HIV-positive individuals

**1.5M** DALYs AVERTED | **7.7x** ROI

**EARLY INFANT DIAGNOSIS OF HIV**  
Diagnosis enables timely treatment for HIV-positive infants

**1.7M** DALYs AVERTED | **63x** ROI

**SARS-COV-2 TESTING (2020–2022)**  
Diagnosis helps manage outbreaks and reduce transmission

**1.2K** DALYs AVERTED | **2.8x** ROI



In 2024, Xpert MTB/RIF Ultra became the first TB test to meet WHO's pre-qualification standards.\*

\*World Health Organization

## What you can do

Learn how you can **join us in our effort to improve access** to molecular diagnostic testing around the world.

**Partner with Cepheid in our fight to end TB**

### Sensitivity vs Specificity

**Sensitivity:** How accurately a test provides a positive result for a person with the disease. A high sensitivity means that few cases are missed.

**Specificity:** How accurately a test provides a negative result for a person without the disease. A high specificity means that there are few false positives.

For further reading, see the **the BMJ Global Health original research:** Ten-year health impact, economic impact and return on investment of the South African molecular diagnostics programme for HIV, tuberculosis and SARS-CoV-2 by Nichols BE et al. (Published December 3, 2024)