



# **External Quality Assessment for Ensuring Quality Diagnostic Services**

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# Background

- ◆ **AFB microscopy is an effective method for diagnosis of infectious TB cases, monitoring treatment progress and cure rates**
- ◆ **Laboratory capacity and quality is a critical component of a successful TB Control Program**
- ◆ **BRAC has expanded its laboratory network and simultaneously strengthened its ongoing quality control system and ensure reliability of laboratory services**



# Objective

- ◆ **To ensure accessibility of quality AFB microscopy up to grass root level**

# **TB Control Programme: BRAC**

- ◆ **NTP-BRAC jointly expanded DOT services to 283 sub-districts , municipalities in 37 districts & part of 5 city corporations.**
- ◆ **22 teaching hospital and prison in 42 districts**
- ◆ **EPZ and industrial areas in districts/cities**
- ◆ **Population Coverage: 86 million**
- ◆ **68,000 community health volunteers ( Shasthya Shebikas) are involved in DOTS expansion**

# **Expansion of laboratory network by BRAC**

- ◆ **319 Additional Peripheral Laboratories each for about 0.25 million populations to increase accessibility at the hard to reach area.**
- ◆ **17 EQA centers are established at government chest disease clinics under the supervision of chest disease consultant**
- ◆ **These EQA laboratories monitor the quality of 589 peripheral laboratories (both Government & BRAC) in BRAC working areas**
- ◆ **Additional outreach smearing centers conducted in remote areas To increase accessibility**

# **External Quality Assessment (EQA)**

- ◆ **District level supervisors collect randomly five slides from each peripheral laboratory every month**
- ◆ **These slides are first sent to Intermediate Laboratory (EQA laboratories) for blinded rechecking by the first controller**



# **External Quality Assurance (EQA).....**

- ◆ **Discordant slides are crosschecked by the second controller at NTP central laboratory**
- ◆ **Provide EQA feedback and take corrective measures after on-site evaluation to the concern laboratories by EQA laboratory technicians and supervisors**

# **Interventions for Quality Services**

- ◆ **Training and retraining of laboratory workers on AFB microscopy**
- ◆ **Refresher training on smearing is conducted regularly to maintain smearing quality**
- ◆ **National guidelines are followed for EQA to develop technical competency of laboratory services**



# **Interventions for Quality Services..**

- ◆ **A quality assurance team routinely monitor TB control services**
- ◆ **Besides Routine supervision of the laboratory services, quality of program activities are monitored**
- ◆ **checklist used and on-site corrective measure taken**

# Area of Quality control

## **Laboratory services Quality**

- ◆ **Service provider skill (Smearing staining quality)**
- ◆ **Adequacy and quality of laboratory supplies & reagent,**
- ◆ **Cleanliness of laboratory**
- ◆ **Laboratory waste management**
- ◆ **Laboratory Record and Report keeping**

## **Program quality**

- ◆ **Visit patients & DOT providers**
- ◆ **Drug store and stock management**
- ◆ **Record and report keeping**

# Result

- ◆ **350 lab technicians were trained on AFB microscopy till 2006**
- ◆ **In 2006, 2.3 million slides were examined for diagnosis and follow up**
- ◆ **In BRAC supported EQA laboratories 1% discordant slides were found by first reader in 2006 which was 2% in 2005**

## Result....

	<b>2005</b>	<b>2006</b>
<b>Total slide examined</b>	<b>10,20,383</b>	<b>23,17,628</b>
<b>Slide positivity Rate</b>	<b>10.87</b>	<b>9.14</b>
<b>slide rechecked</b>	<b>20300</b>	<b>33190</b>
<b>Discordant</b>	<b>2%</b>	<b>1%</b>



# Key Findings



- ◆ **EQA system is crucial to monitor the quality of laboratory activities**
- ◆ **Effective feedback can improve and help to sustain the laboratory performance.**



**Thank You**