HARI TB SEDUNIA, 24 MARET

Indonesia's Experience in Introducing Xpert MTB/RIF

The 4th Annual Global Laboratory Initiative (GLI) partners meeting
Veyrier-du-Lac, France, 17-19th April 2012

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Background

- Earlier and improve TB case detection to reduce the diagnostic delays are global and national priorities for TB control
- Alarming increases in MDR-TB → TBMDR pilot implemetentation and KAP survey of Private Practitioners in 12 provinces
- Low reported of HIV-associated TB largely goes undetected due to the limitations of current diagnostic techniques
- WHO endorsed Xpert MTB/RIF in December 2010 and recommended to implement it in specific settings
- Xpert MTB/RIF expect to improve TB diagnosis in HIV patient and expand capacity as proxy to diagnose MDR-TB.

Initial Input of Xpert Implementation

- Procurement of 17 Xpert *machines* *(support by USAID through TBCARE I project)*
- Supply of 1700 Xpert MTB/RIF cartridges *(support by USAID through TBCARE I project)*
- TA for Xpert roll-out by TBCARE I in close coordination with NTP, Directorate of Medical Services Support (DMSS)
- Successful negotiation to include cartridge at SSF 1 – TB funding (75,000 cartridge up to December 2013)
- OR component:

  Monitoring implementation and collecting evidence for further scale-up of Xpert, in collaboration with local research group (TORG)

Country Focal Person and Partners

- **Focal Person:**
  Dyah Mustikawati (NTP) & Sri Widyastuti (DMSS)

- **Country GeneXpert Advisory Team (CGAT) consist of:**

• NTP & BPPM	• USAID
• TB Expert committee	• KNCV
• PMDT Working Group	• WHO
• TB Lab Working Group	• FHI
• TORG	• MSH

- **National Reference Lab:** Microbiology UI
- **Supranational Lab:** IMVS, Adelaide, Australia
- **Local Service Provider:** PT Fajar Mas Murni

GeneXpert Implementation Steps

- Step1: Workshop
- Step 2: Select the team
  - ✓ Xpert focal person
  - ✓ Country GeneXpert Advisory team (C-GAT)
  - ✓ Research institutes for OR
- Step 3: Selection of sites
- Step 4: Developing country specific implementation action plan
- Step 5: Develop OR plan
- Step 6: ToT and training
- Step 7: Implementation, supervison & monitoring

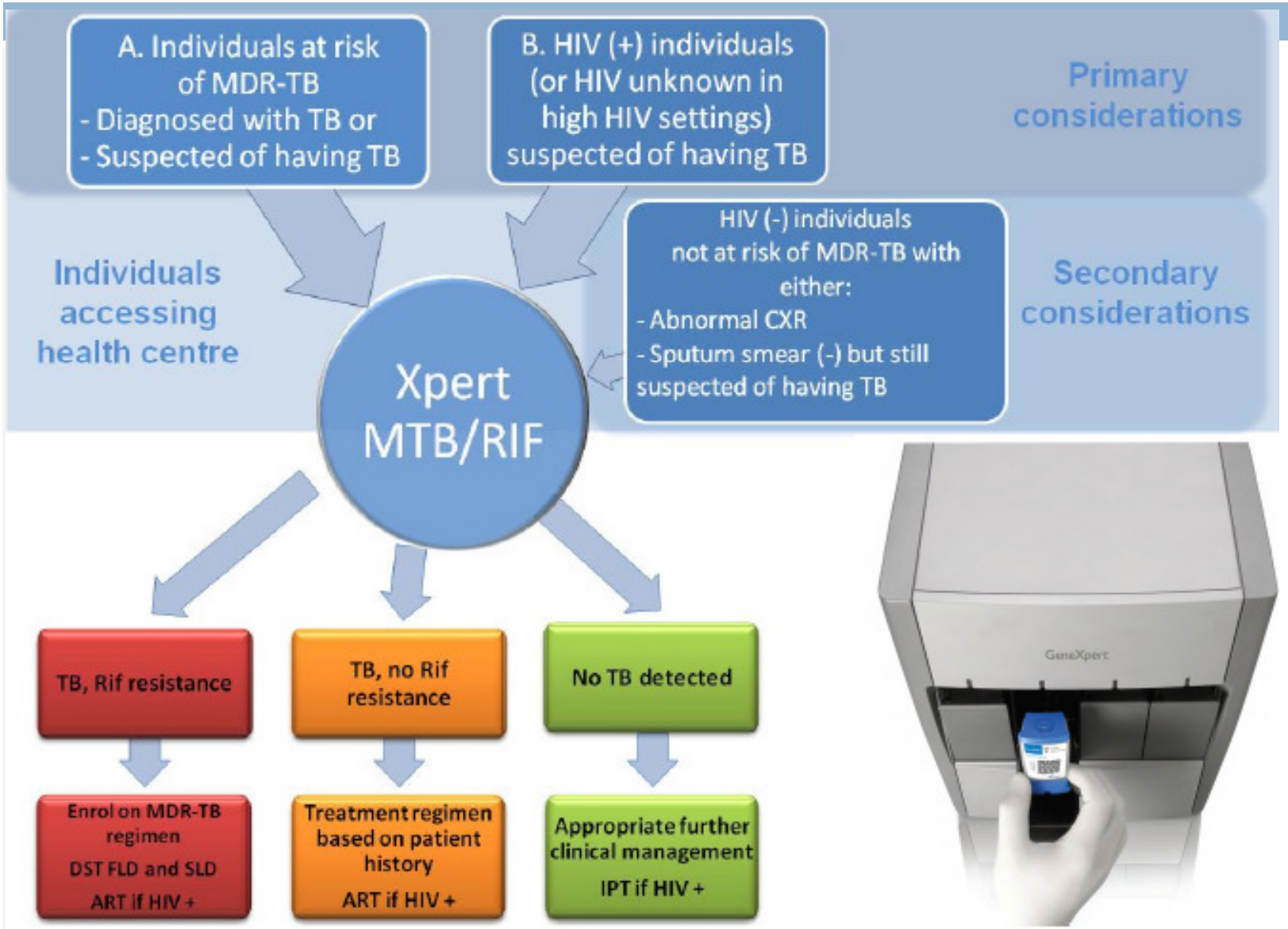
Main Activities

Date	Activities
12-18 Jun 2011	Visit by PMU TBCARE I to assist in developing implementation plan
July 2011	Procurement process for 17 unit Xpert MTB/RIF and 1700 cartridge through TBCARE I support , negotiation with TGF for continuation support of Cartridge
24 Aug 2011	Coordination meeting of CGAT (Country GeneXpert Advisory Team)
Aug 2011	Asessment to several GeneXpert sites
20 Sept 2011	Final decision for 17 GeneXpert sites
19-23 Sept 2011	Workshop for preparation of ToT and GeneXpert training including training material, curricula etc.

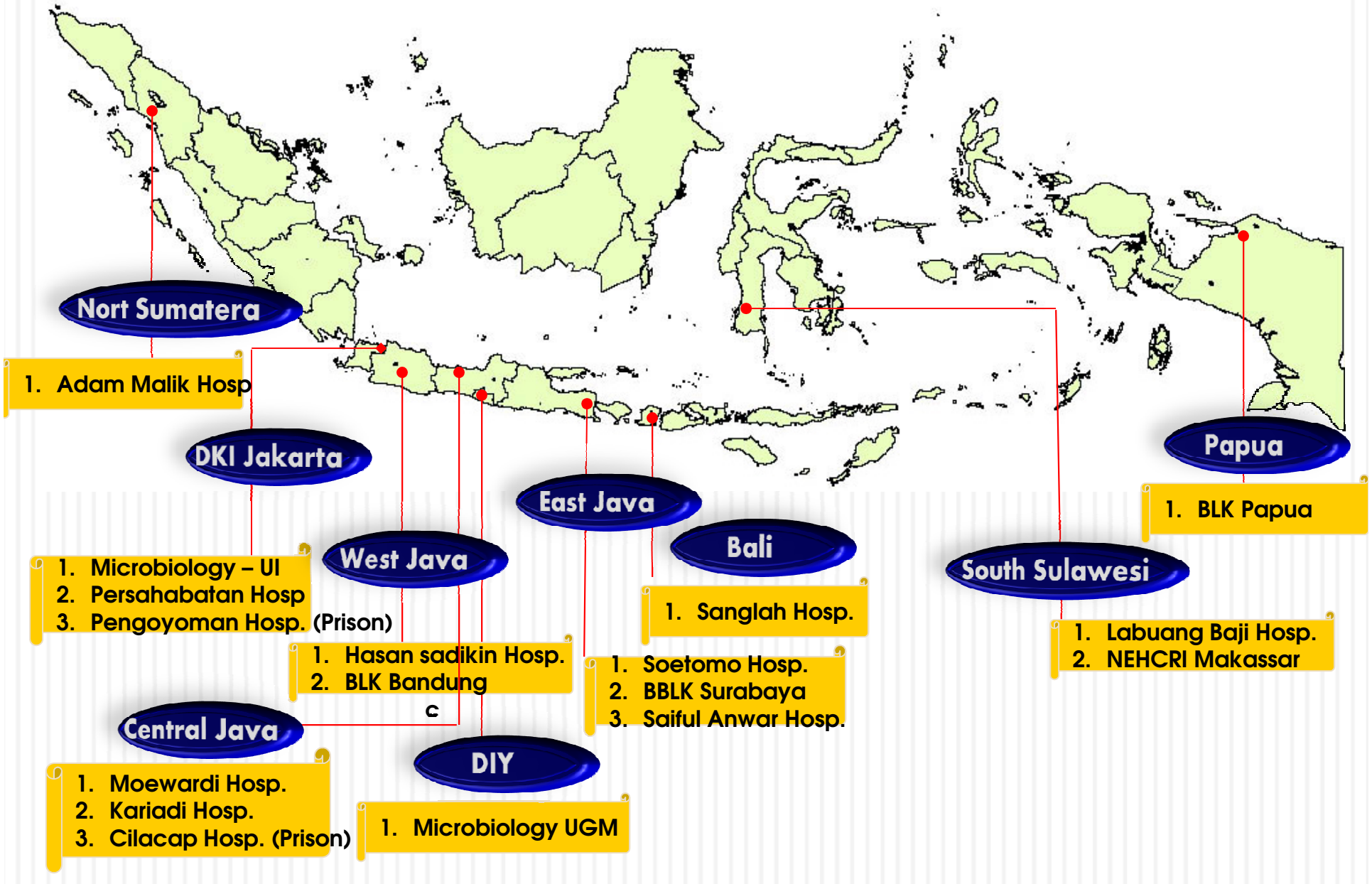
Main Activities (2)

Date	Activities
26-30 Sept 2011	GeneXpert Training for Trainer
03-05 Oct 2011	Training for 6 GeneXpert sites from Jakarta and Bandung
15 Nov 2011	CGAT meeting to finalize algorithm and M & E forms
24 Jan 2012	Signing of Mou between MoH and 6 initial sites
February 2012	Final asessment to review readiness of 6 GeneXpert initial sites and meeting with TORG to finalize OR protocol.
March 2012	GeneXpert on site training and machine installation at 5 sites: 1. Persahabatan Hosp., 2. Microbiology UI, 3. Moewardi Hosp., 4. Soetomo Hosp. 5. Hasan Sadikin Hosp. * All above sites start implementation directly after on site training. *Implementation at Hasan sadikin Hosp. will be started once preparation of PMDT and collaboration of TB HIV are finalized.

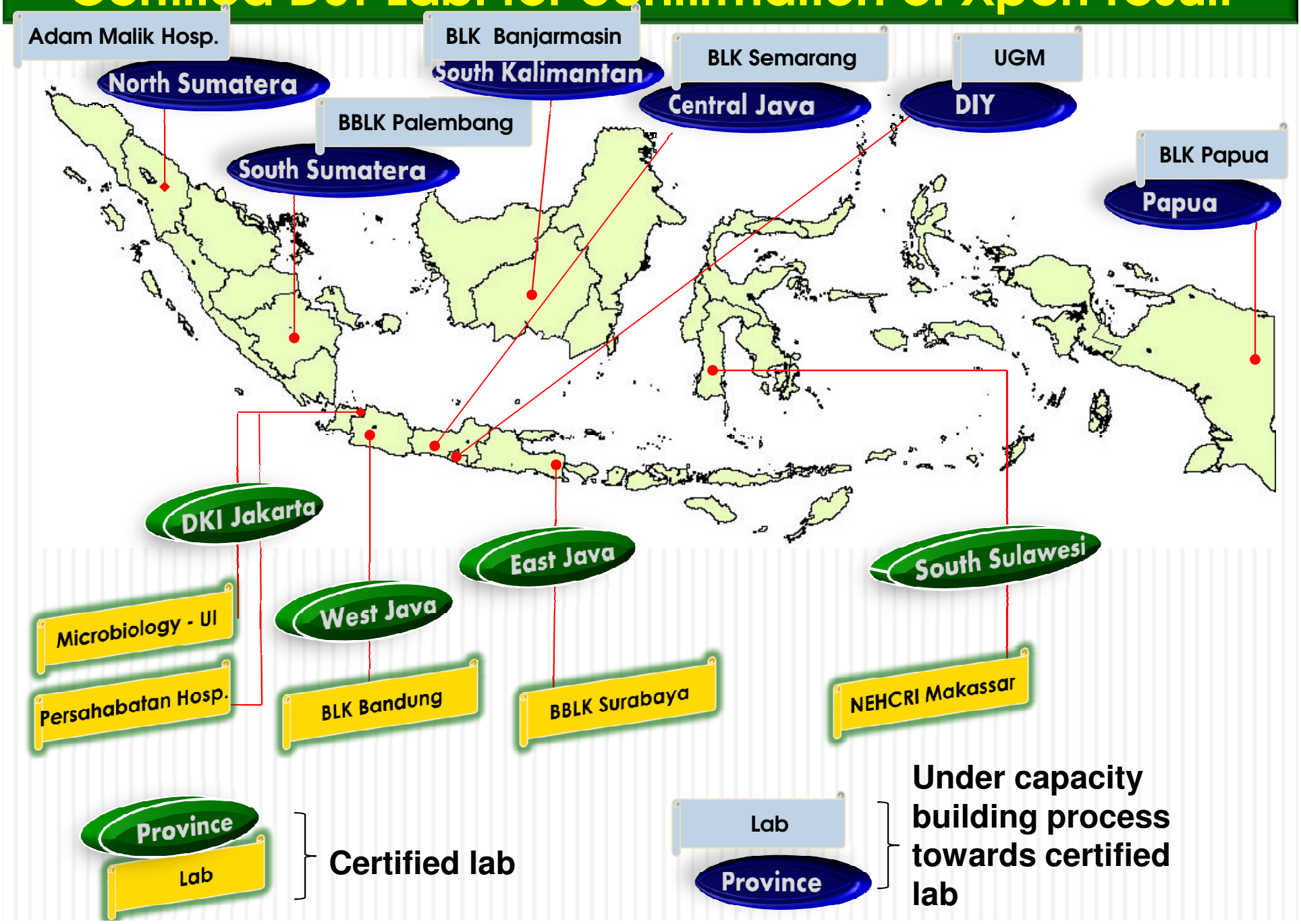
Diagnostic algorithms: 2 risk groups (HIV TB & MDR TB suspects)



Placement plan of 17 GeneXpert machines



Certified DST Lab. for confirmation of Xpert result



GeneXpert Workshop/TOT

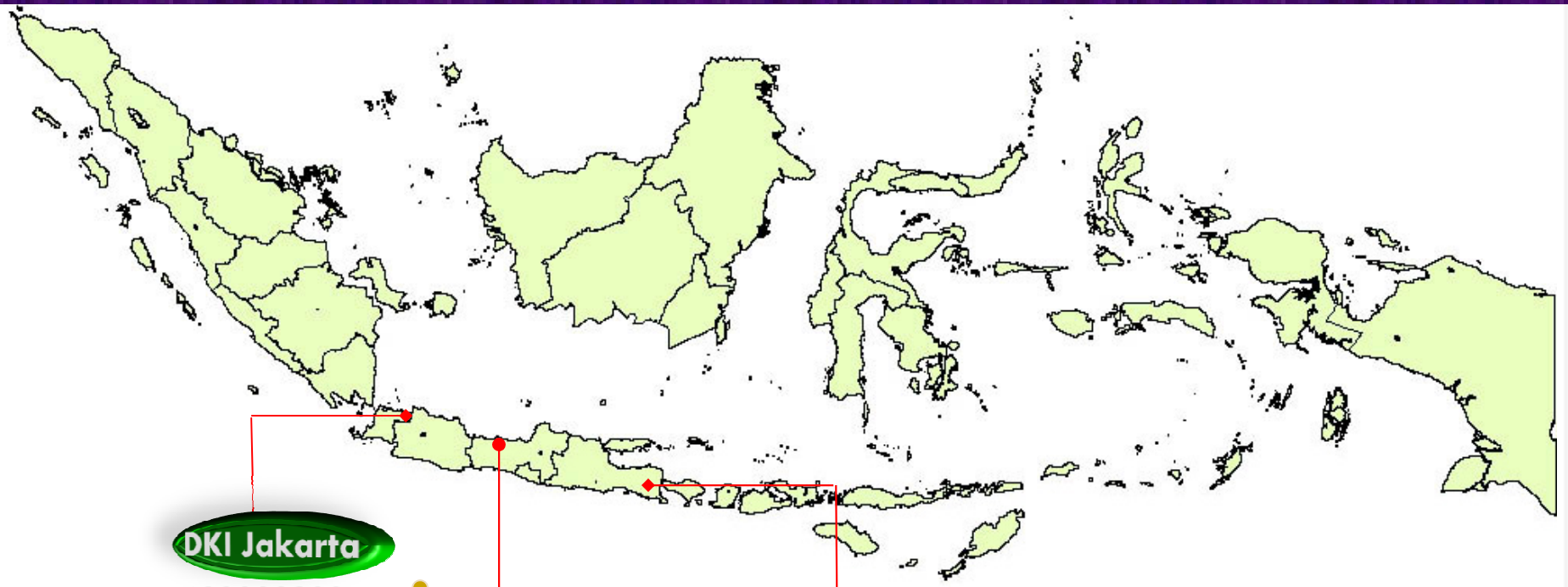
Signing of MoU between MoH and GeneXpert Sites

GeneXpert On site training

GeneXpert Operational research

- Based on the WHO 'Rapid Implementation' document.
- Hired 2 researcher to conduct GeneXpert Operational Research
- OR objectives: compare Xpert with currently used diagnostic algorithms by assessing the effect on:
  - Case notification rates and diagnostic delays
  - Operational implications of Xpert introduction
  - Service satisfaction of patients, lab-technicians and clinicians

Up to March 2012, 4 GeneXpert sites already operated



DKI Jakarta

1. Microbiology – UI
2. Persahabatan Hosp

Central Java

Moewardi Hosp.

East Java

Soetomo Hosp.

Preliminary Data up to 31 Mar 2012

No	Sites	Date start implementation	Number of Suspects			MTB positive/Rif resistant
			MDR TB	TB HIV	Total	
1	Persahabatan Hosp.	05 March 2012	69	0	69	31
2	Moewardi Hosp.	08 March 2012	23	3	26	6
3	Microbiology UI	12 March 2012	0	18	18	1
4	Soetomo Hosp.	20 March 2012	2	2	4	2
	Total				117	40

Note: All patients who diagnosed Rif Resistant by GeneXpert were refer to MDR TB Treatment Centre/Clinic for treatment.

Challenges in introduction and roll out of Xpert MTB/RIF

- Expensive machines and consumables .
- Quality assurance, maintenance and calibration.
- Capacity to treat more MDR TB patients (Human Resources, infrastructure, funding etc)
- Availability of SL Drugs, not only in country level but also globally (Global Stock Scarcity)
- Limited Quality assured Culture/DST lab to support confirmation of Xpert TB/Rif result.
- Limited MDR TB treatment centre.

Next step

- Reguler supervision and monitoring to all operating sites
- Asessmen to other 11 GeneXpert sites to review readiness
- Speed up expansion of MDR TB treatment centre
- Increase capacity to treat more MDR TB patients (Human Resources, infrastructure, funding etc)
- Ensure availability of SL Drugs to cover more MDR TB patients.
- Speed up expansion of Quality assured DST lab and its networking to support confirmation of Xpert TB/Rif result.

Thank You