TB/HIV Integration in Rwanda: A Smart Investment that Saves Lives

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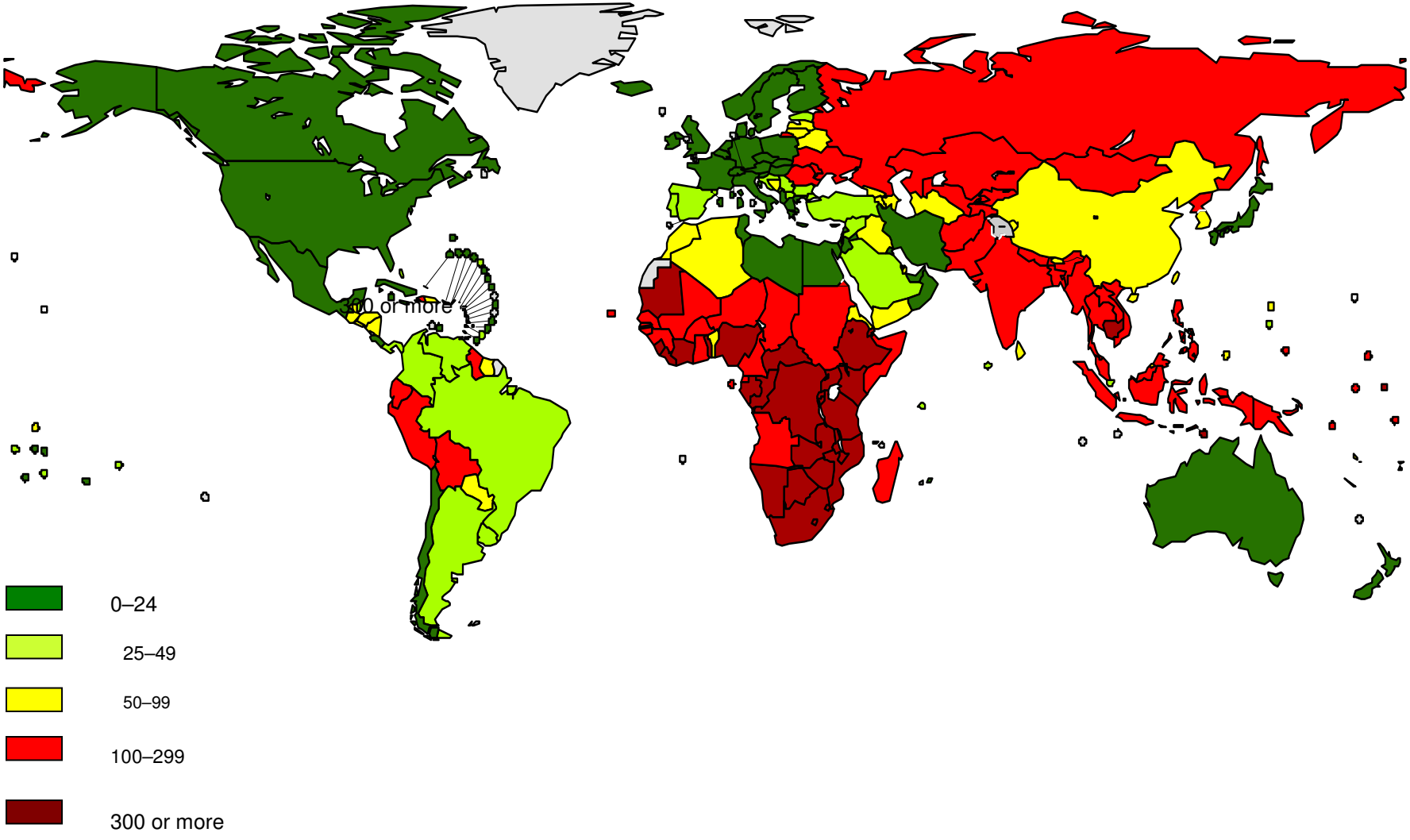
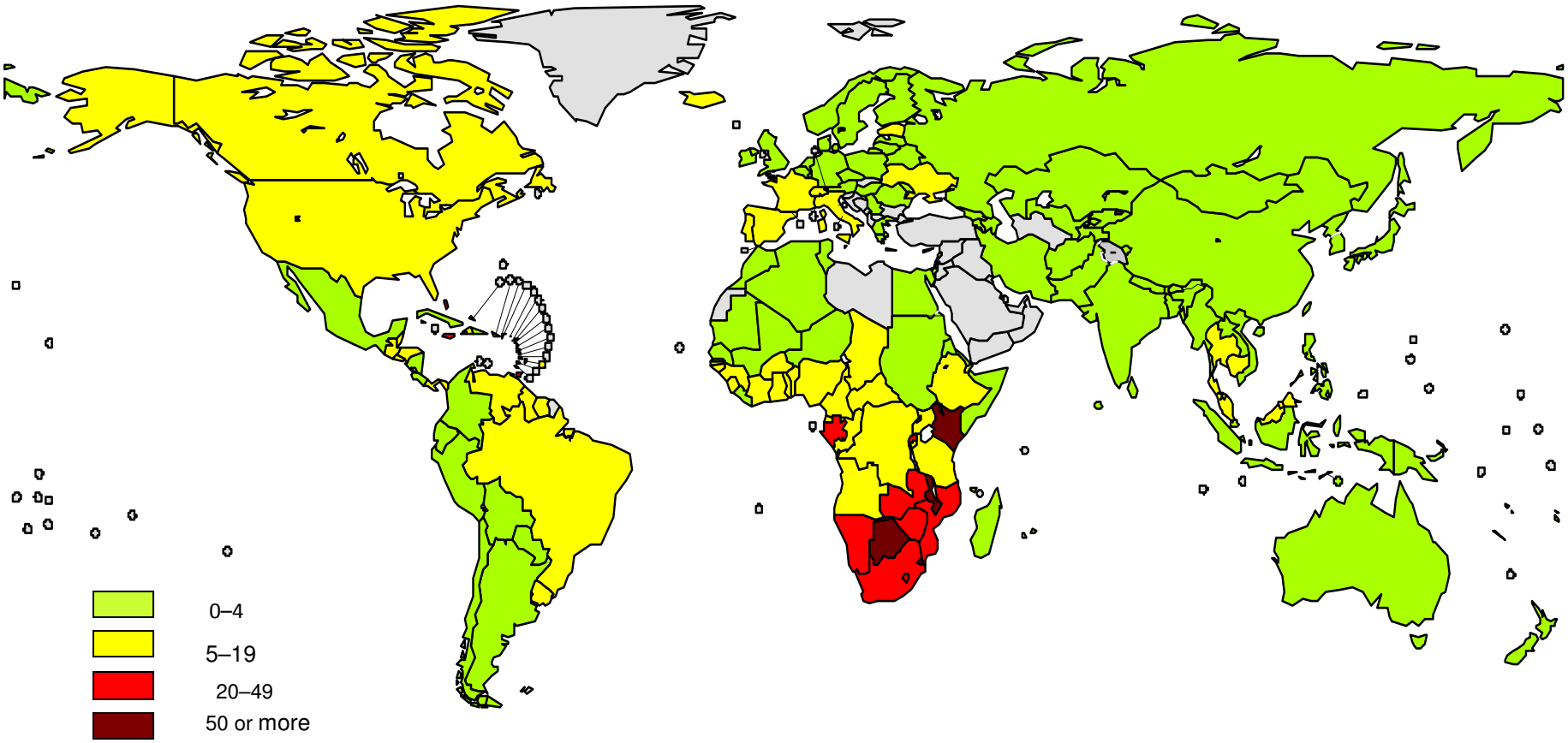
Overview of the Presentation

- HIV and TB: two overlapping epidemics
- TB/HIV Integration: Rwanda, a case study
  - Objectives of TB/HIV integration work
  - Scale up process
  - Results
- Conclusion

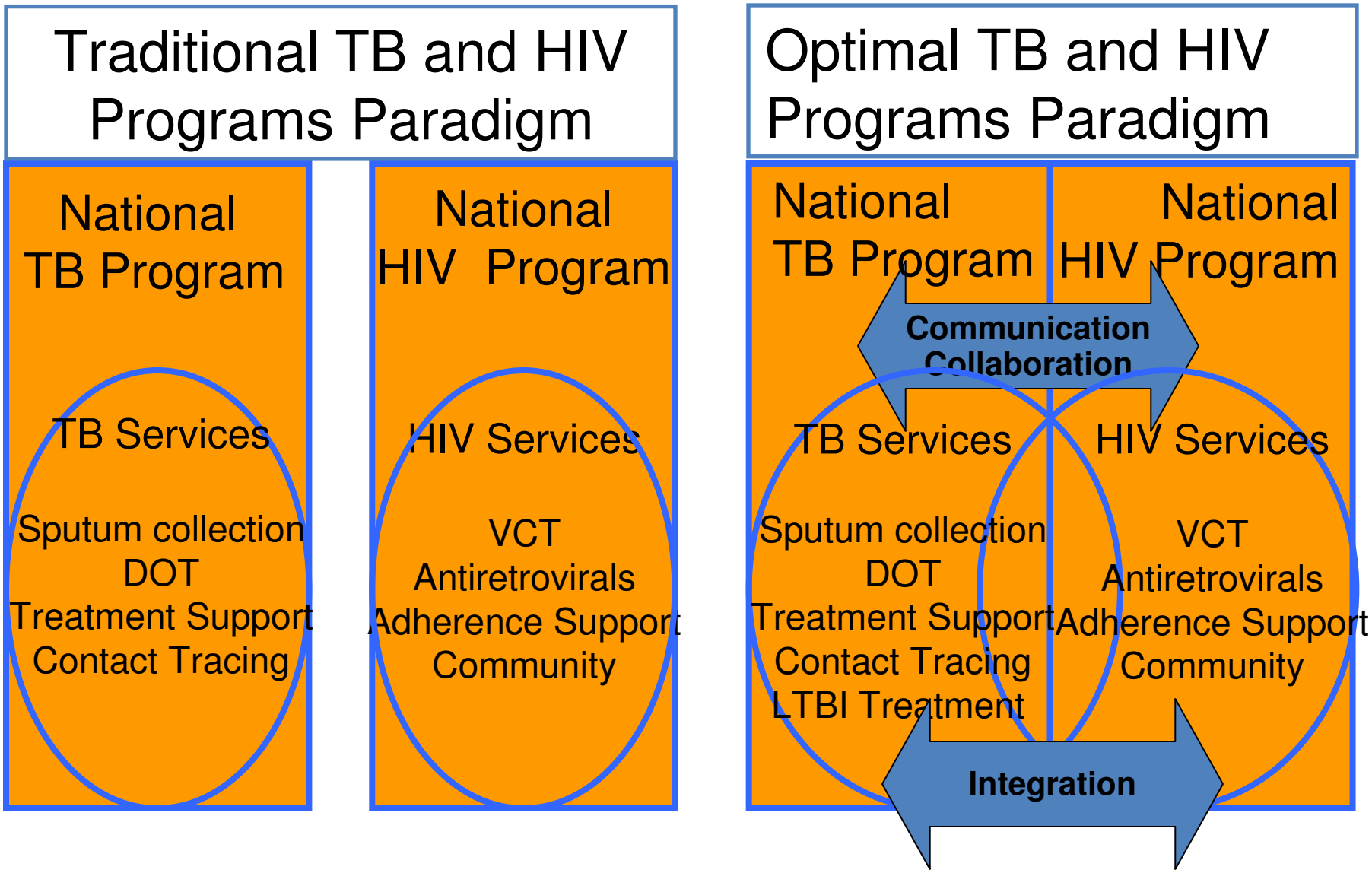
TB Incidence per 100,000



HIV Prevalence in TB Cases



TB and HIV Paradigms



TB and HIV
Program and Service Integration in Rwanda

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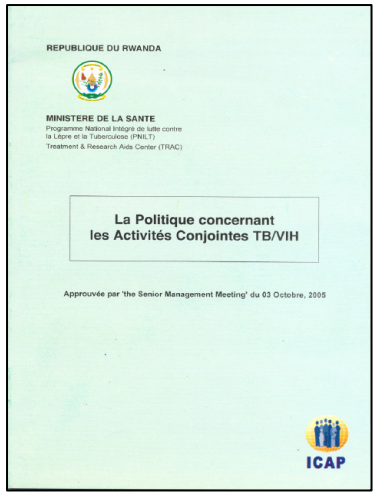
Focus of the Work

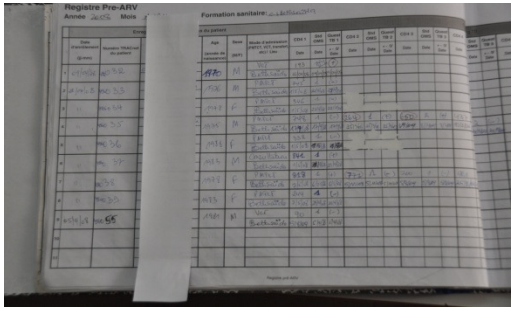
- Provide support to the MOH in improving linkages and integration between HIV and TB programs centrally and at service delivery level

- Provide support to the National Reference Laboratory and the laboratory network in TB diagnostics

Central Level Support for TB/HIV Programming

- TB/HIV policy developed and approved in 2005
  - 2010 IPT accepted
- Establishment of a national TB/HIV working group
- TB and HIV technical manuals and training modules revised to include TB/HIV guidelines
- TB/HIV M&E tools developed
- IEC materials developed
- Support for operational research





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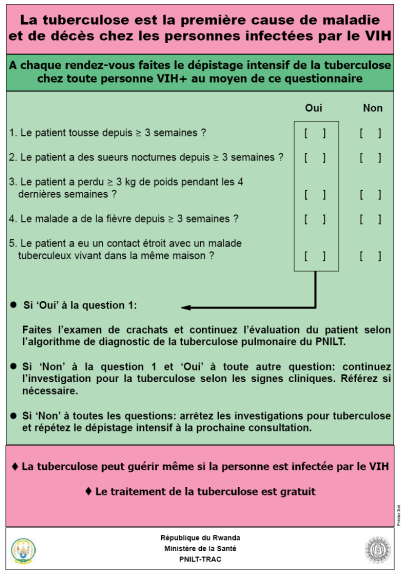
At Service Delivery Level:

- One-Stop Services for TB Patients with HIV through the TB service
  - Early HIV diagnosis in TB suspects and patients
  - Initiation of HIV treatment in TB/HIV patients and appropriate management: CD4 monitoring, clinical care, cotrimoxazole and ART (DOT)
- ART Clinic
  - TB screening by use of a simple 5 question checklist
  - Rapid and accurate TB diagnosis
  - TB Infection control practices (minimum package)



La tuberculose est la première cause de maladie et de décès chez les personnes infectées par le VIH

A chaque rendez-vous faites le dépistage intensif de la tuberculose chez toute personne VIH+ au moyen de ce questionnaire

	Oui	Non
1. Le patient tousse depuis ≥ 3 semaines ?	[ ]	[ ]
2. Le patient a des sueurs nocturnes depuis ≥ 3 semaines ?	[ ]	[ ]
3. Le patient a perdu ≥ 3 kg de poids pendant les 4 dernières semaines ?	[ ]	[ ]
4. Le malade a de la fièvre depuis ≥ 3 semaines ?	[ ]	[ ]
5. Le patient a eu un contact étroit avec un malade tuberculeux vivant dans la même maison ?	[ ]	[ ]

- Si 'Oui' à la question 1:

  Faites l'examen de crachats et continuez l'évaluation du patient selon l'algorithme de diagnostic de la tuberculose pulmonaire du PNILT.
- Si 'Non' à la question 1 et 'Oui' à toute autre question: continuez l'investigation pour la tuberculose selon les signes cliniques. Référez si nécessaire.
- Si 'Non' à toutes les questions: arrêtez les investigations pour tuberculose et répétez le dépistage intensif à la prochaine consultation.

♦ La tuberculose peut guérir même si la personne est infectée par le VIH

♦ Le traitement de la tuberculose est gratuit

République du Rwanda
Ministère de la Santé
PNILT-TRAC

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At Community Level

- Finding TB cases and early diagnosis
- Home visits for TB patients with HIV
  - Contact tracing
  - HIV testing of family members
- TB Screening by HIV-infected peer educators of HIV patients' family members

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Scaling up of TB/HIV Integration Model Nationwide

- Implementation started at 2 model centers in 2005
- National TB/HIV WG adopted the integration approach of the model centers as the national model in 2007
- Joint effort lead by MOH and PEPFAR supported partners, to scale up TB/HIV integrated services nationwide through decentralised training, supervision, mentorship and continuous monitoring and evaluation

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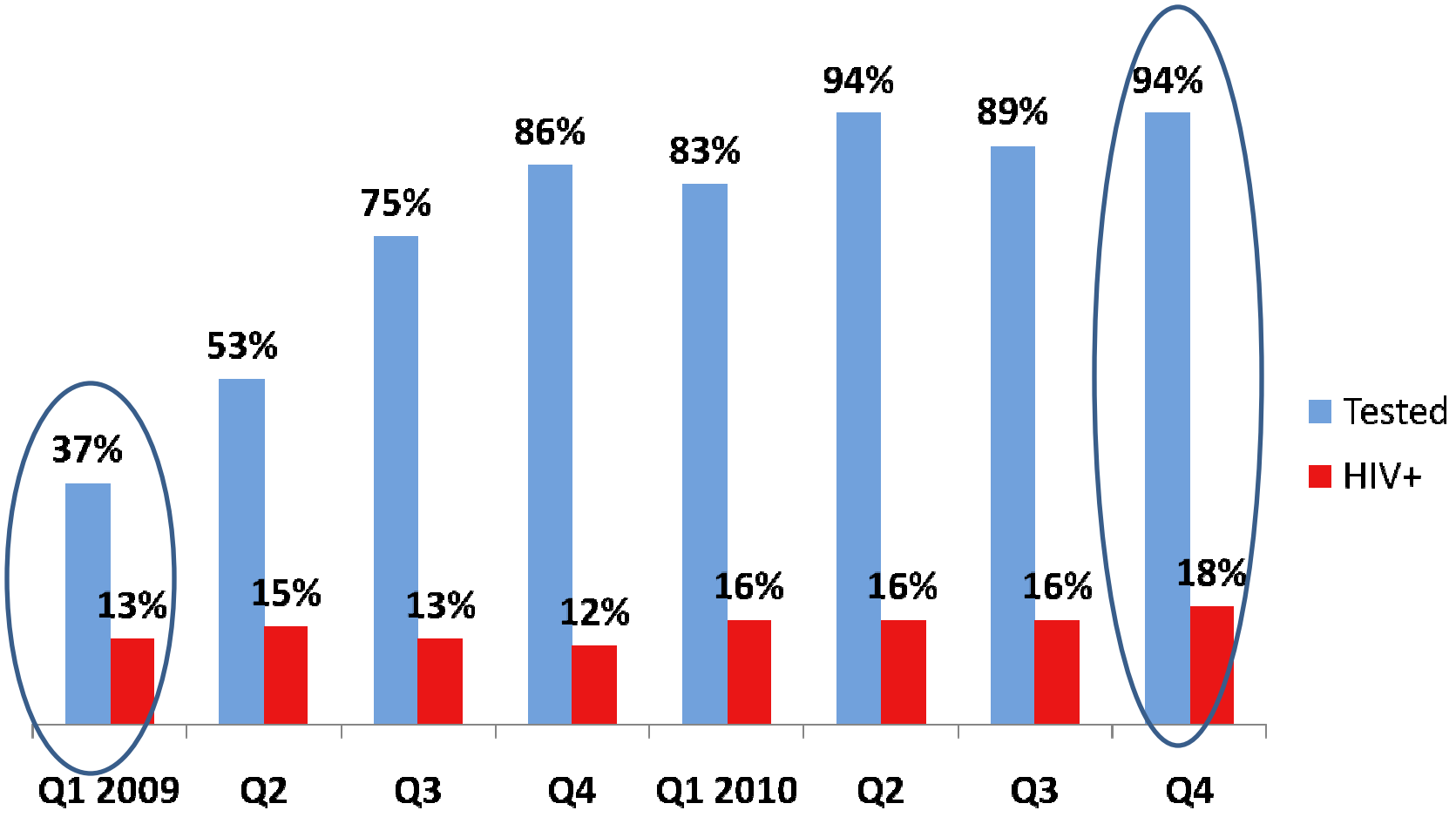
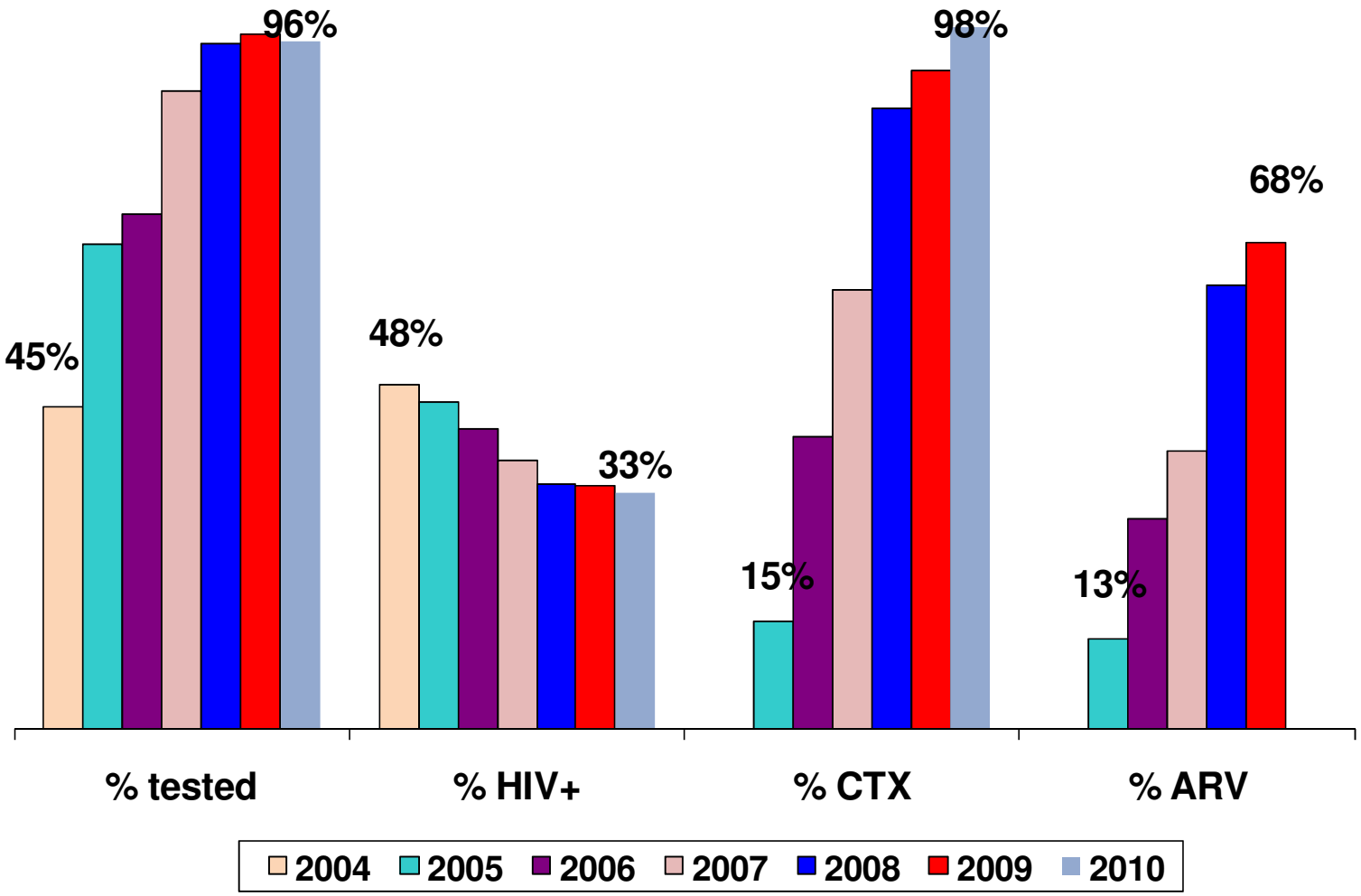
Results

- By the end of 2010:
  - 176 (92%) of the 192 TB detection and treatment centers nationwide had a functioning integrated one-stop TB service for TB patients with HIV
  - 328 (100%) of 328 ART clinics nationwide routinely screened HIV infected patients for TB
  - 67 (35%) of 192 CDT implemented at least 4 of 6 measures of the TB IC minimal package

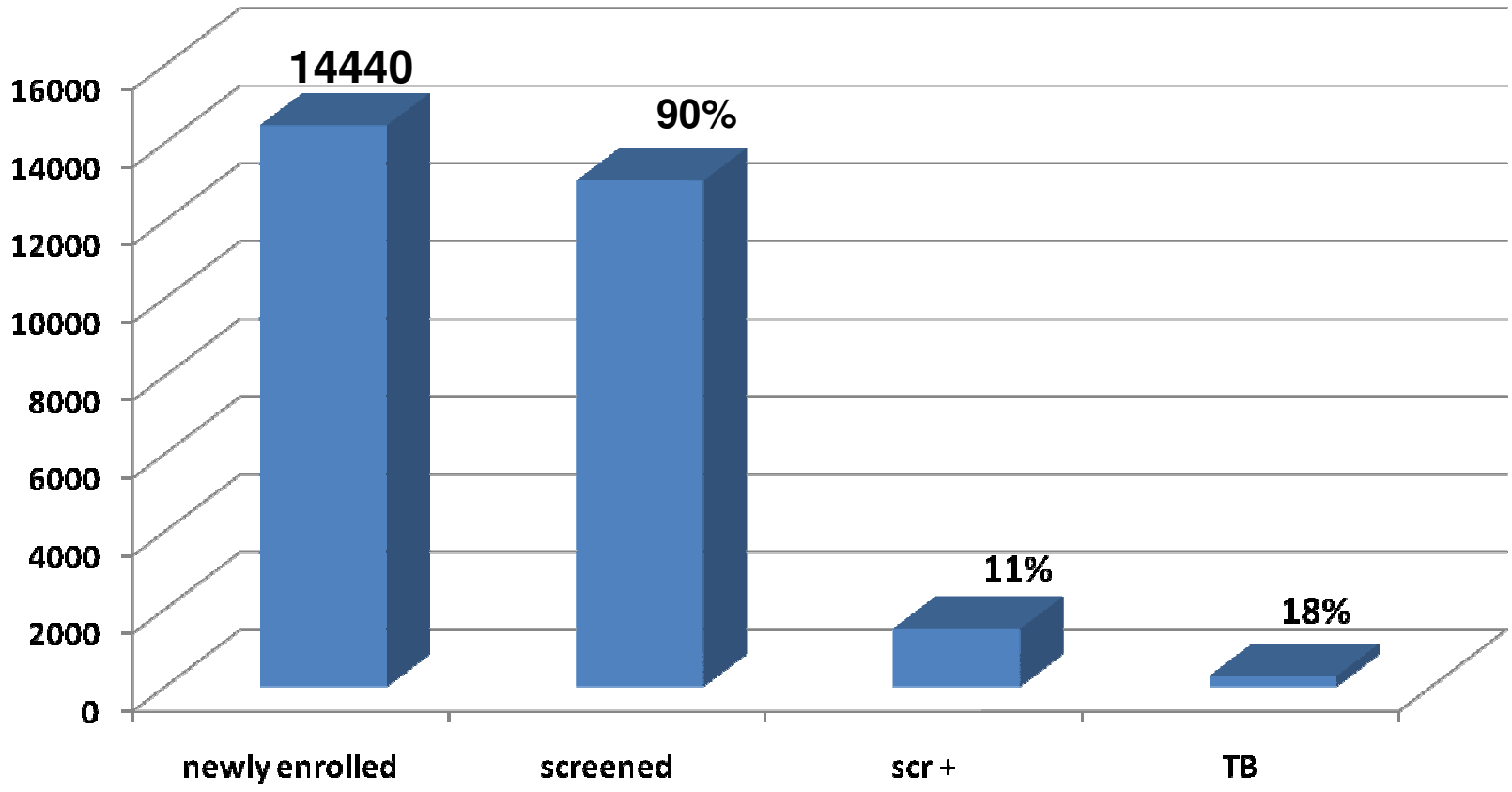
Diagnosis of HIV among TB Suspects 2009 – 2010



Trends in Diagnosis of HIV among TB patients, 2004 – 2010

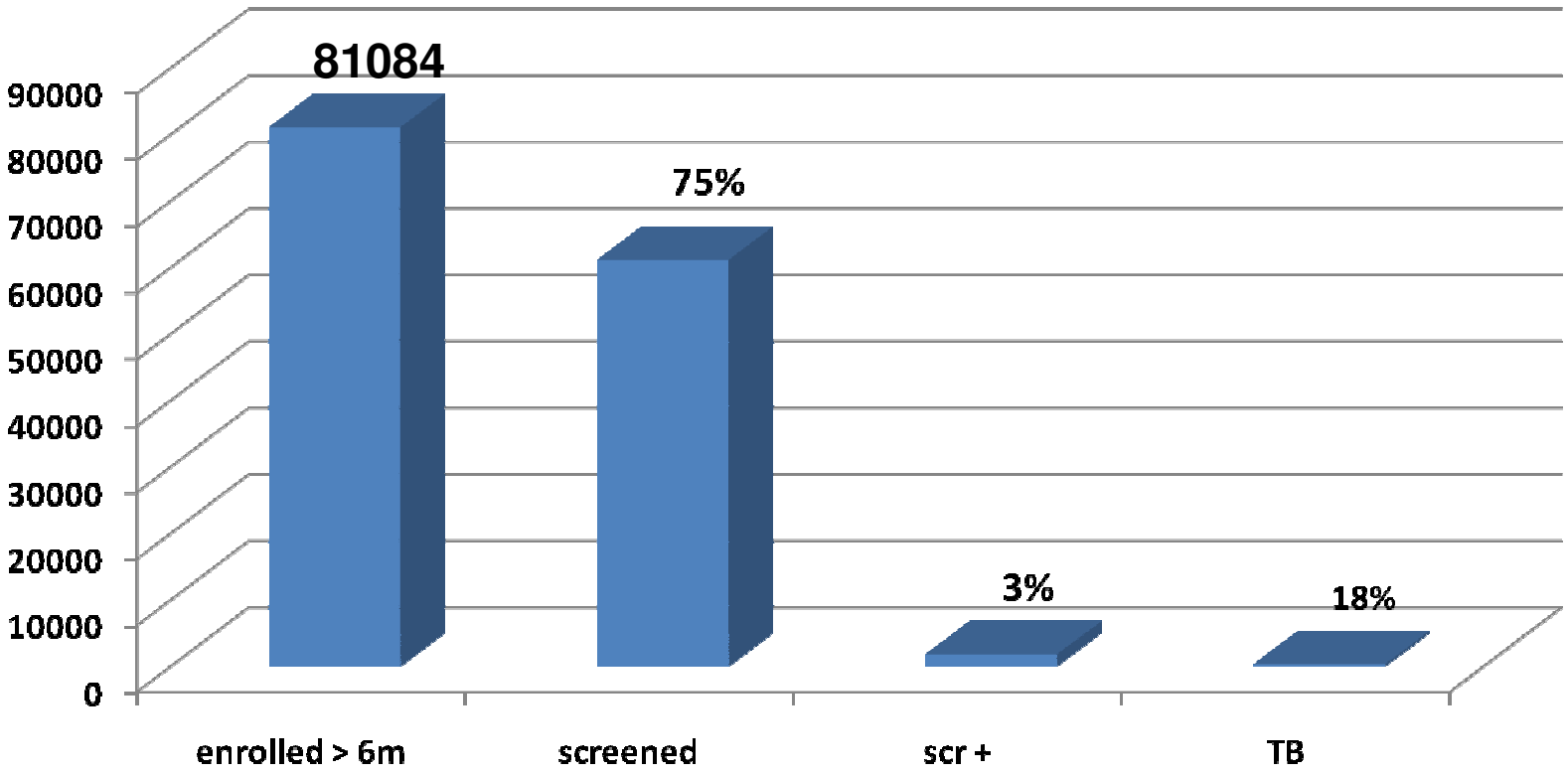


TB Screening of HIV Patients at HIV Clinics, S2 2009



The prevalence of TB in newly enrolled screened patients was 274/13018 (2%)

TB Screening at Follow Up Visits for HIV Patients, S2 2009



The incidence of TB among screened pts enrolled into care for > 6 months was 332/61117 (0.54%)

Community TB Screening by Peer Educators (50 ICAP Supported Sites)

	Jan. – Dec. 2009	Jan. – Sept. 2010
# of persons screened	70459	85 999
# of Persons screened Positive for TB	1038	466
# of Persons referred by PEs	1038 (100%)	466 (100%)
# of Persons received at FOSA	798 (77%)	243 (52%)
# of persons diagnosed with active TB and started TB treatment	68 (7%)	33 (14%)

TB and HIV
Laboratory Program in Rwanda

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Upgrading of Infrastructure

- Renovation (P2) and equipping of TB section of the National reference Laboratory and Kigali University Teaching Hospital

- By ICAP (PEPFAR) and Global Fund

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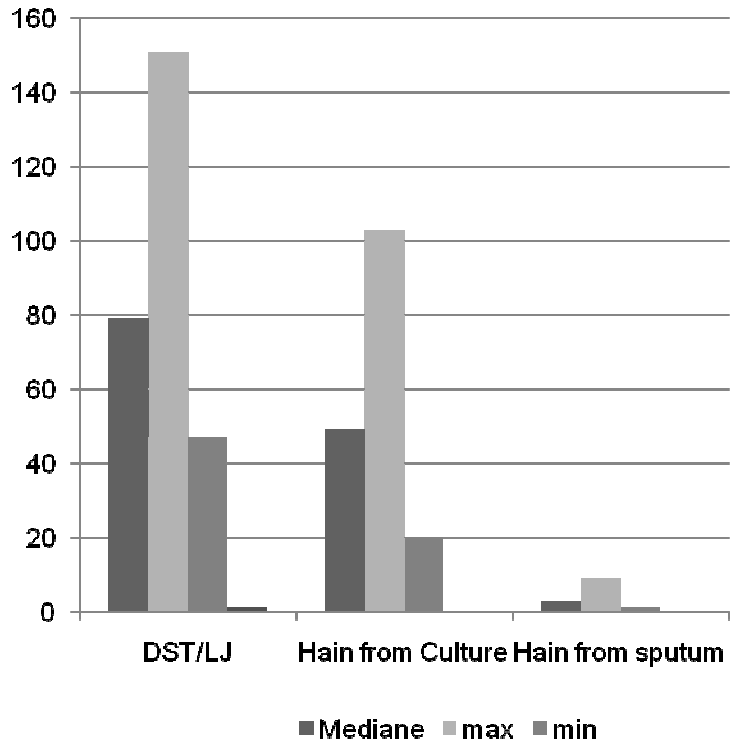
Expansion of TB Diagnostics

- In 2008:
  - Implement Ziehl-Neelsen staining within the entire TB lab network (190 sites)
- In 2009:
  - Fluo LED microscopy at centers with high workload
  - Second line DST at NRL
  - Rapid test (HAIN) at NRL
- In 2010:
  - Liquid culture (MGIT) at NRL, in collaboration with FIND and ICAP
- Expansion of the NRL TB Section with a P3 level LAB (WB and CDC 2010-2012)

Improved Positivity of TB tests with Fluorescent Microscopy

Round	Period	staining method used	Number of patients	positivity percentage
First round	Jan 2008- Sept 2008	Ziehl nelseen	1655	**9,2**
Second round	Oct 2008-Jun 2009	Ziehl nelseen	1270	**9,3**
Third round	July 2009-March2010	Auramine O	1048	**12,7**

Improved Rapidity of TB Diagnosis HAIN Test



TAT of results according to method (days)	Methods		
	DST/LJ	Hain from Culture	Hain from sputum
Median	79	49	3
Max	151	103	9
Min	47	20	1

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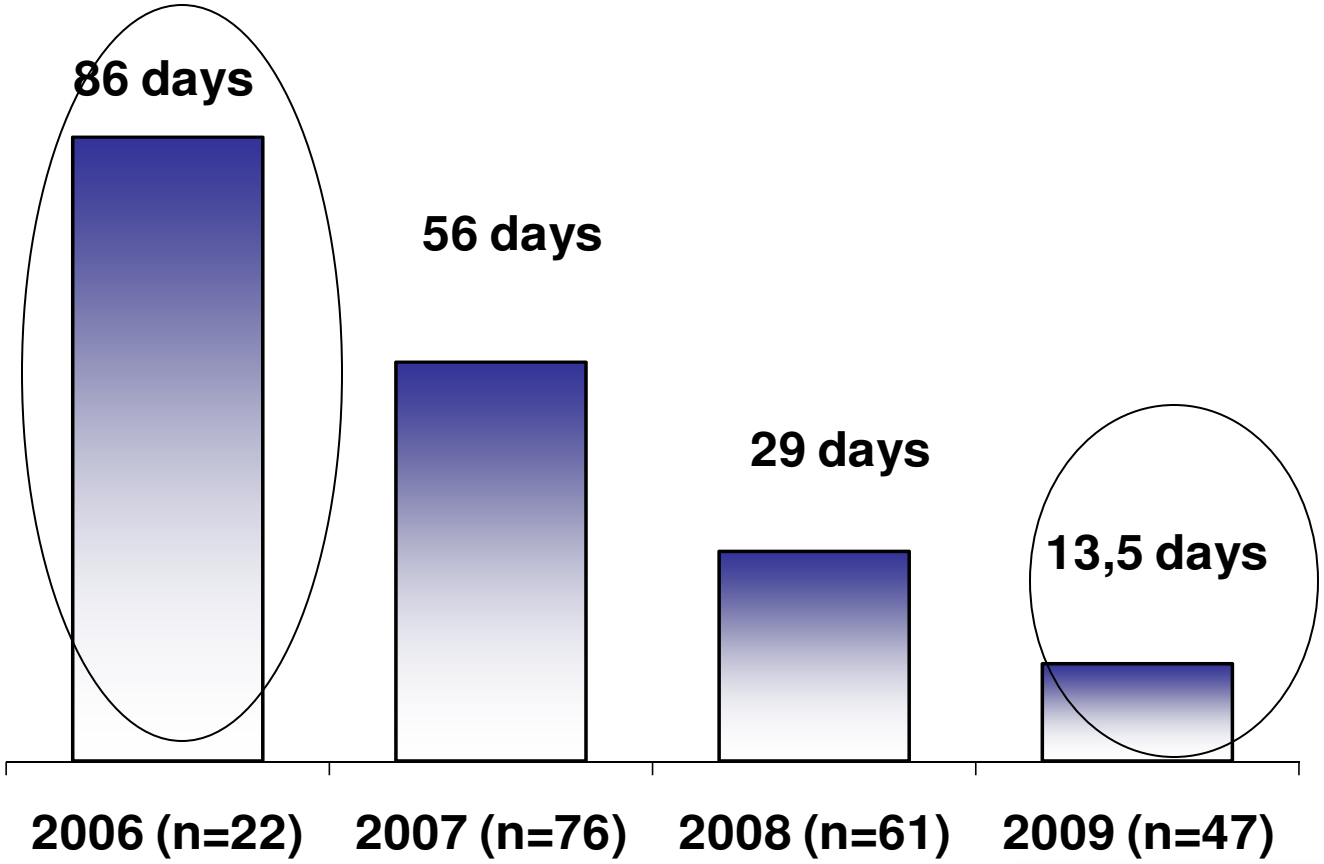
Improving TB Management: Reduction of the Median Time from Receiving Drug Susceptibility Test Results to TB Treatment



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Conclusions

- TB and HIV are linked epidemics around the world
- Investments in HIV programming, in TB/HIV integration and in laboratory infrastructure have had profound effect on quality of HIV care and quality of TB care for all patients (both with and without HIV)
- Integration of TB and HIV activities at the program level (national, district levels) and at the service delivery levels have enhanced quality of programs (a win-win)
- State-of-the art TB laboratory infrastructure has been established to serve all patients

Conclusions (2)

- Rapid TB diagnosis and treatment, enhanced community screening and infection control interventions prevent further spread of TB in the community
- MOH leadership is key for the implementation of the integration policy and responsiveness by all stakeholders
- ICAP technical support to other implementing partners and support at national, district and facility levels with involvement in planning and regular review by the TB-HIV TWG contributed to the building of the national consensus and rapid scale up
- TB/HIV Integrative activities can serve as a model for efforts to link and/or integrate other programs and services

Aknowledgment

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