Overview: HIV Rapid Test Continuous Quality Improvement (RTCQI)

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International Laboratory Branch, DGHT
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June 3, 2024

RTCQI Best Practice Workshop – Africa Region, Cape Town

RTCQI
Rapid Test Continuous Quality Improvement

Division of Global HIV & TB

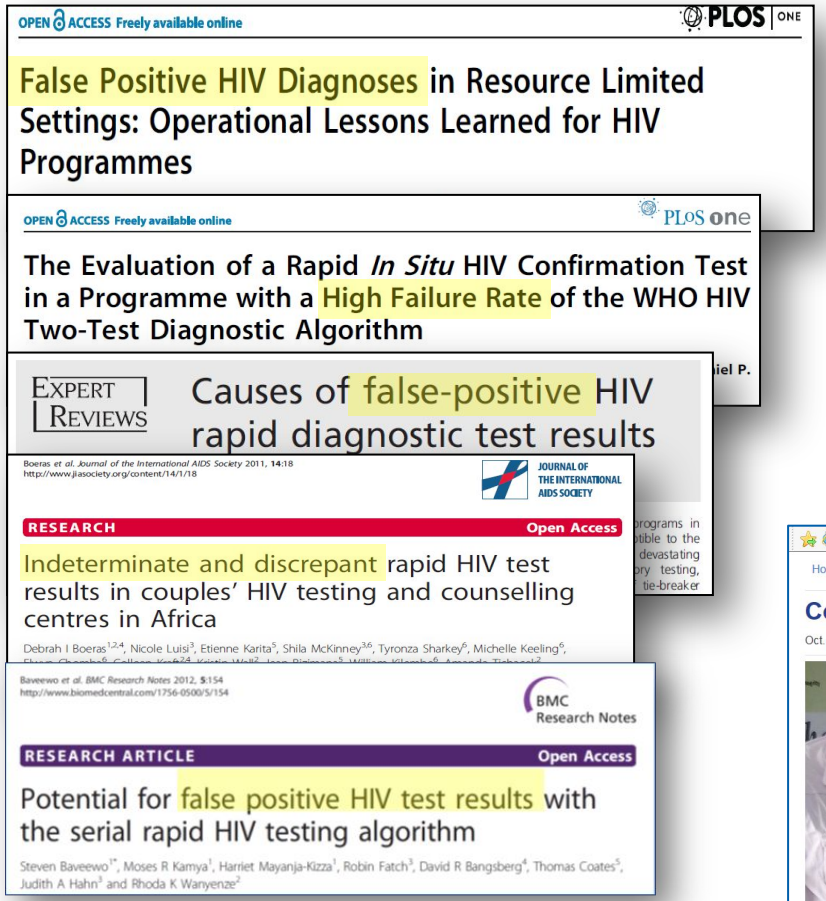
CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

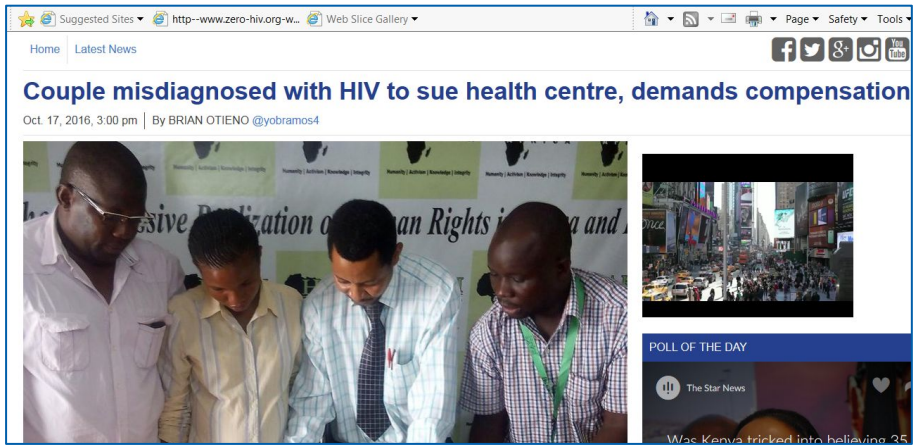
Outline

- Context of RTCQI
- The concept of RTCQI
- Tools for RTCQI implementation
- Where we are & the way forward

In the era of “Test and Start”

HIV misdiagnosis = unnecessary lifelong antiretroviral treatment





Rapid Expansion of HIV Rapid Diagnostic Tests

Large scale

- As of September 30, 2022, 64+ million individuals received HIV testing through PEPFAR
- 1% misdiagnosis rate = 640,000 people

Testing in Non-Traditional Settings

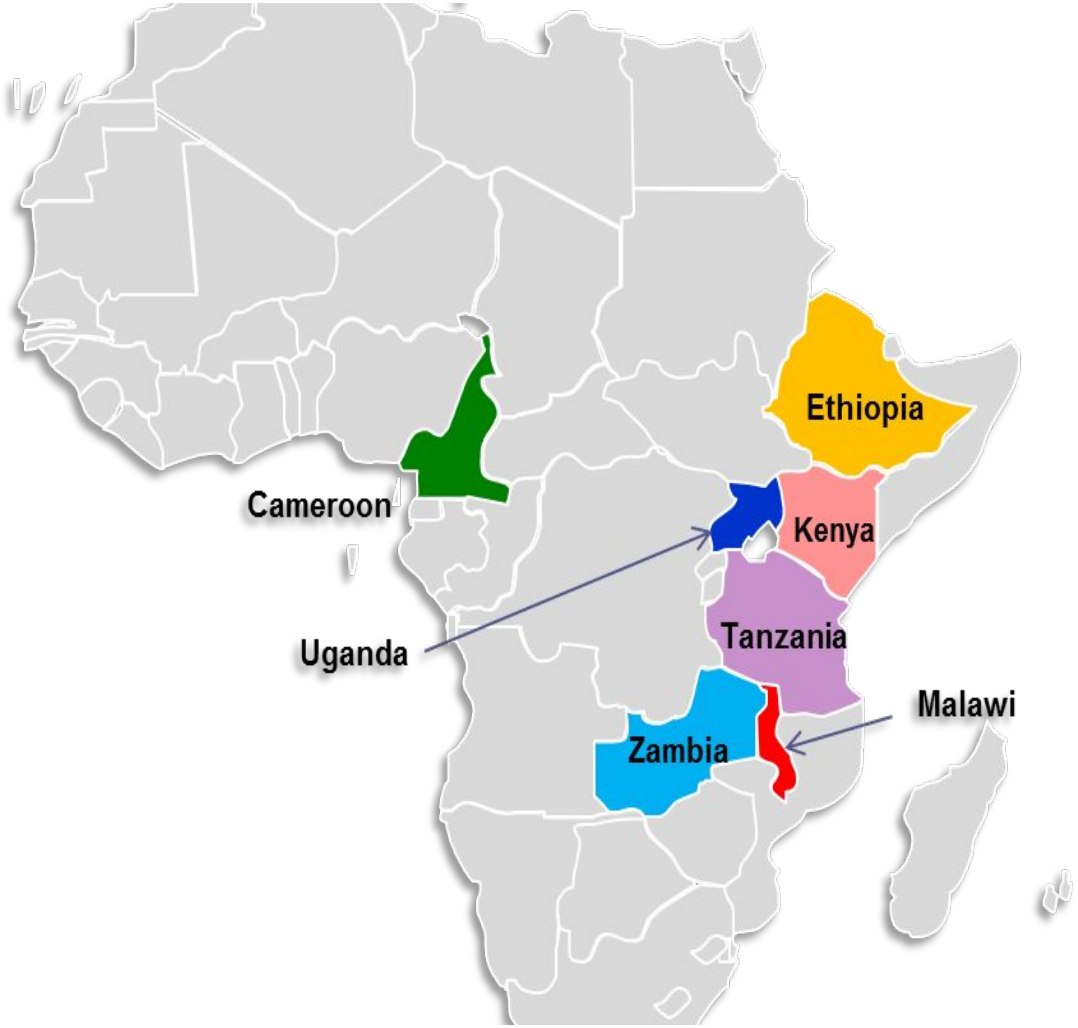
* 2022 PEPFAR Latest Global Results (state.gov)

Realities of HIV Testing Under Program Conditions

- Poor training and training often done by peers
- Testing algorithm and procedures not followed
- Disorganized workspace
- Run-time not followed, no timers
- Safety concerns
- Poor finger-prick procedure
- PT program inconsistent
- Little or no supervision
- No corrective actions/feedback

Rapid Testing Continuous Quality Improvement (RT-CQI) Initiative

- Launched in 2014 as a proof of concept in 7 focus countries
  - Cameroon, Ethiopia, Kenya, Malawi, Tanzania, Uganda, and Zambia
- Driven by innovation to achieve better uptake, coverage, and impact
- Aim at reducing HIV testing errors to ensure the accuracy of HIV test result delivered to clients.



Five Components/Pillars of RTCQI

Policy Engagement

- Provide a framework for quality testing
- Develop and implement country-specific policy
- Engage stakeholders & advocate for resource allocation

Establishing a Certification Program

- Develop a competency-based training program and certify testers
- Monitor quality compliance and certify testing sites
- Analyze data for gap analysis and corrective actions

Increasing Proficiency Testing

- Increase coverage and participation in PT program (DTS)
- Analyze data for corrective actions

Five Components/Pillars of RTCQI

Scaling up Standardized HTS Register

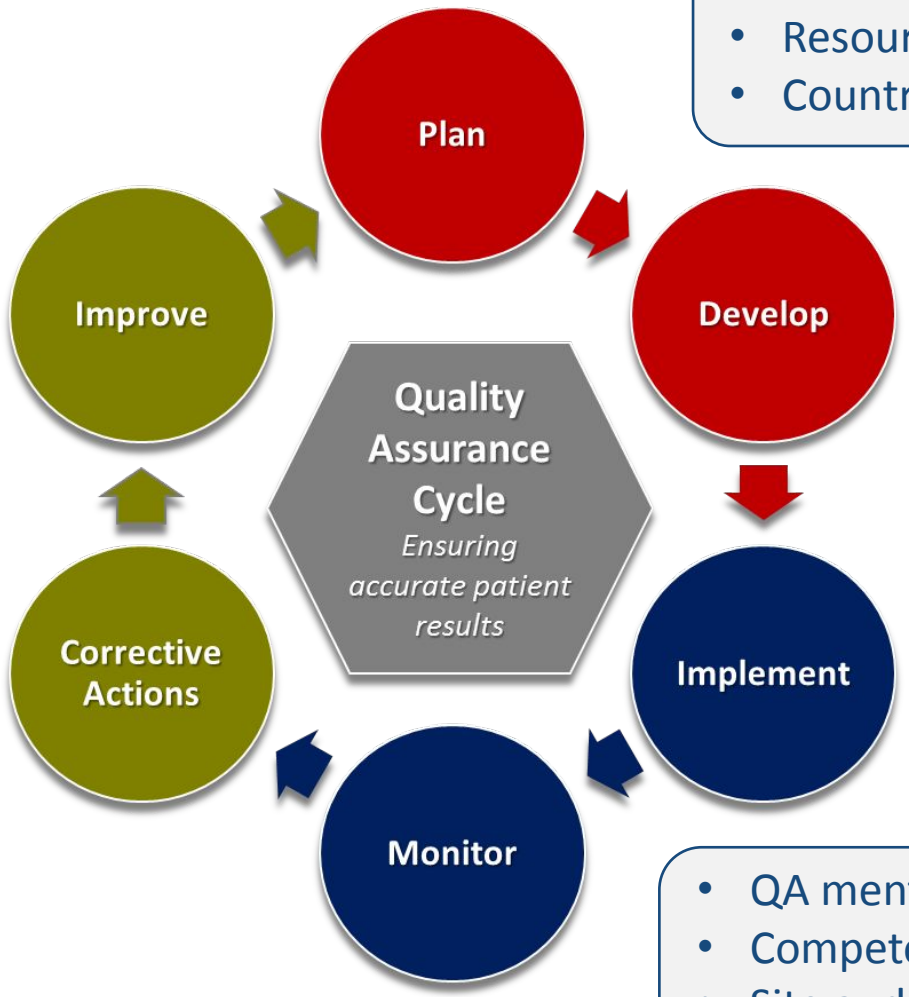
- Increase uptake of standardized HIV testing register
- Analyze register data regularly for corrective actions

Lot testing & post market surveillance

- Strengthen national capacity to implement verification of new lot & post market surveillance

RTCQI Emphasize Quality Assurance Cycle

- MOH leadership & ownership
- Resource allocation
- Country specific plan and objectives



- QA mentors
- Competency assessors
- Site auditors
- Site manager & Tester

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RTCQI (Initiative) Follows Seven Principals

1. Is intended to be catalytic
2. Establish baseline coverage of QA
3. Improve uptake, coverage & impact of QA
4. Develop country specific targets
5. Emphasize site visits, monitoring & recognition
6. Use Innovative Strategies
7. Emphasize Quality Assurance Cycle (QAC)

Innovative Tool – 1

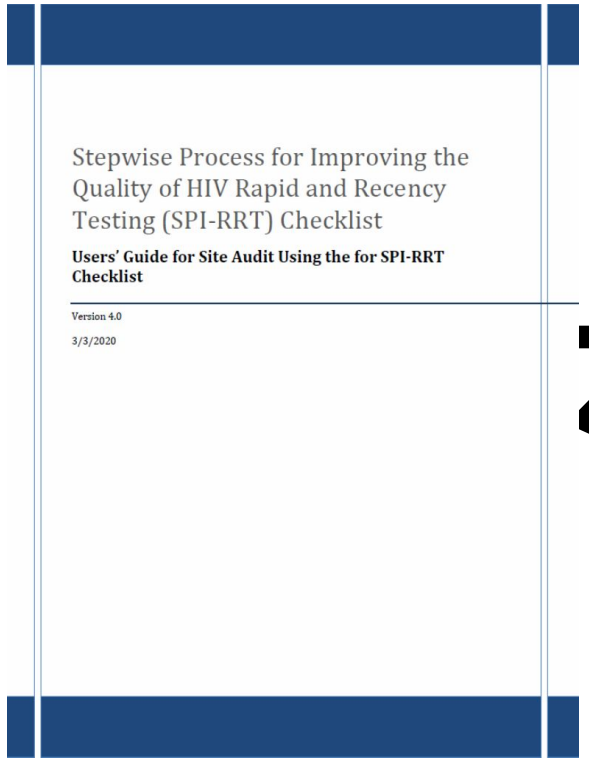
3 activity-based training packages for capacity building

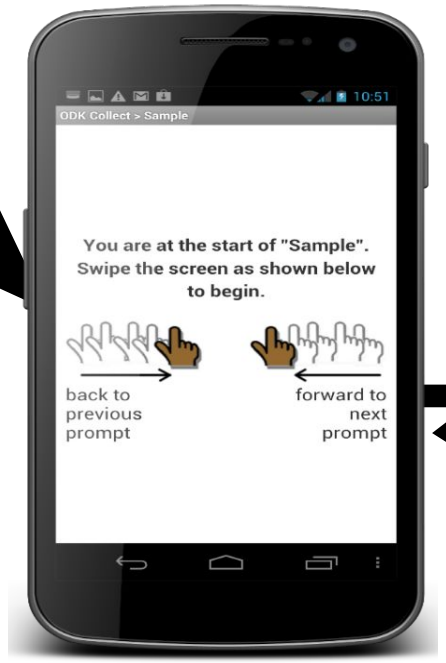
- RTCQI overview – training of QA officers/Q-Corps/QA mentors
- SPI-RRT* training – training of auditor for site certification
- Tester certification training – training of competency assessor

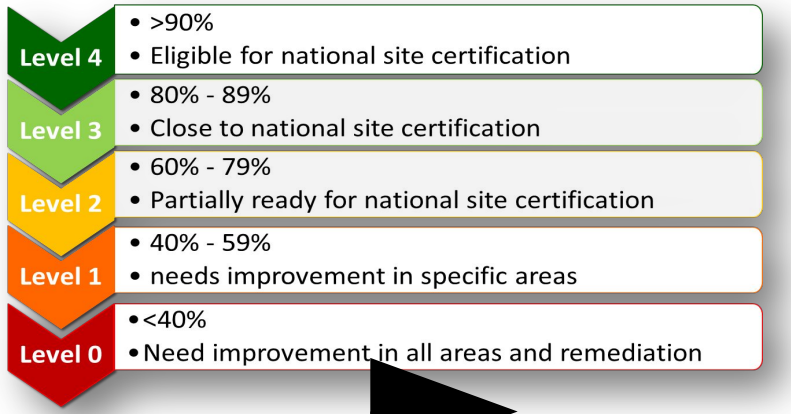
*SPI-RRT, Stepwise Process for Improving the HIV Rapid and Recency Testing

Innovative Tool – 2

SPI-RRT checklist for site monitoring toward certification





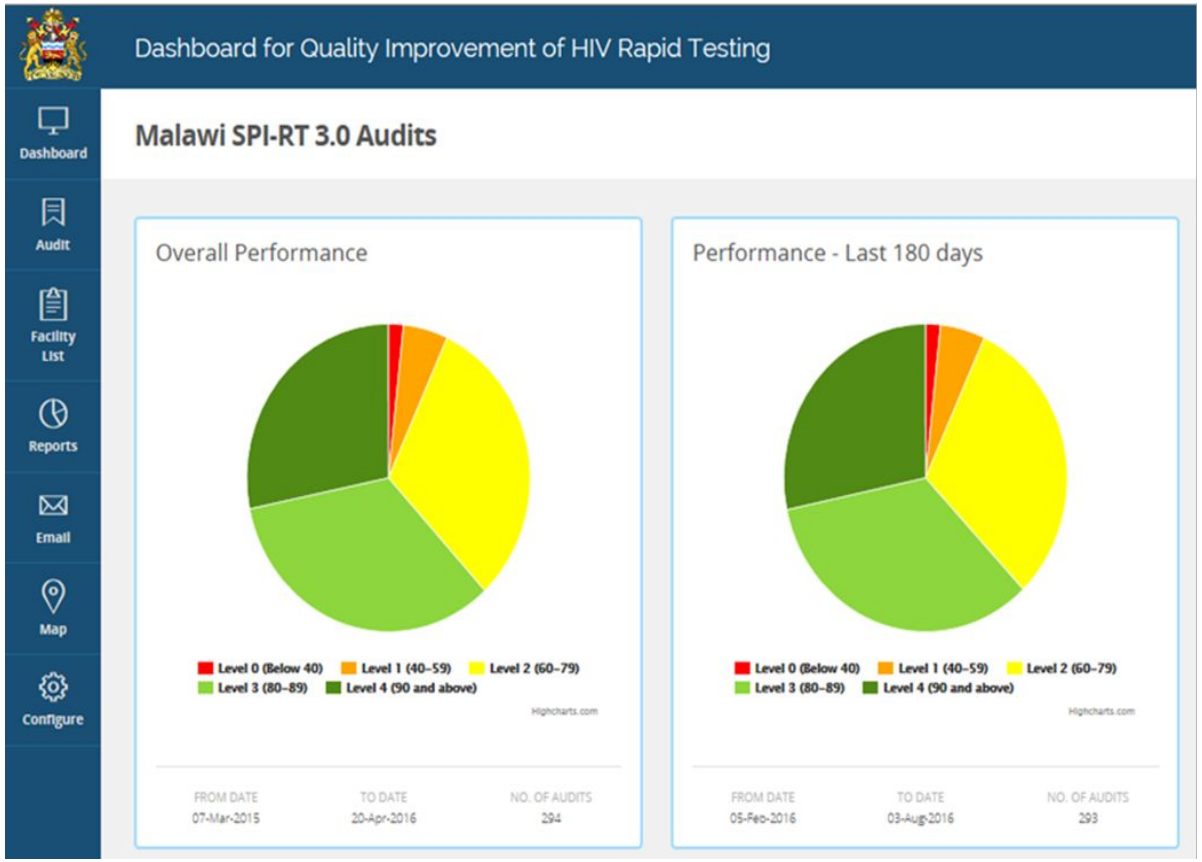


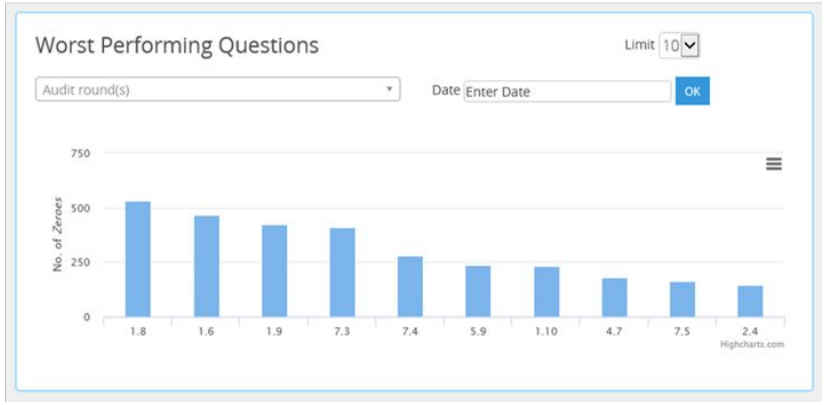
Audit Score Sheet

Section	Section Name	Total Points
Section 1	Personnel Training and Certification	10
Section 2	Physical Facility	5
Section 3	Safety	11
Section 4	Pre-Testing Phase	13
Section 5	Testing Phase	9
Section 6	Post-Testing Phase	9
Section 7	External Quality Assessment	8
Section 8	HIV-1 Recent Infection Surveillance Using Rapid Test For Recent Infection	11
TOTAL SCORE		**64/75**

Innovative Tool – 3

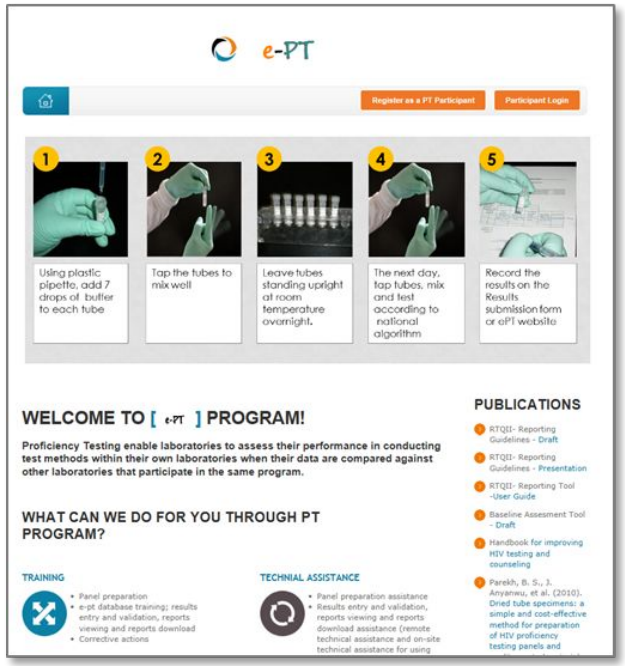
SPI-RRT dashboard for site monitoring data visualization

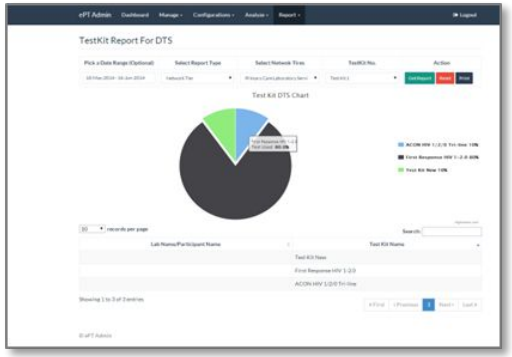


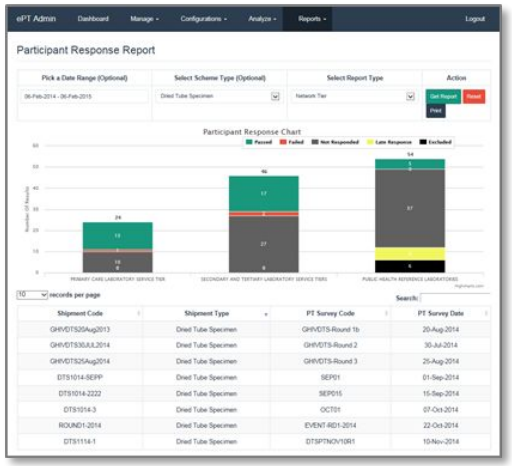


Innovative Tools – 4 & 5

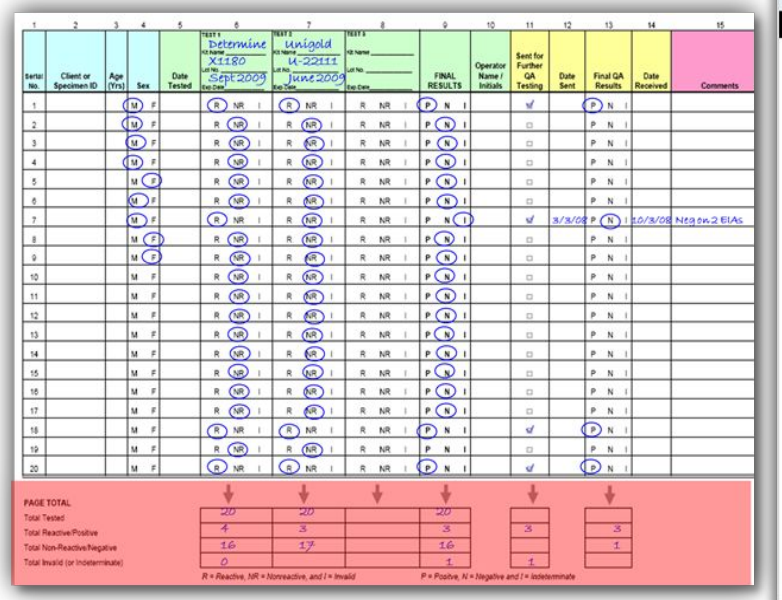
- Dried Tube Specimen (DTS) increased PT coverage and uptake
- ePT tool for data management and visualization

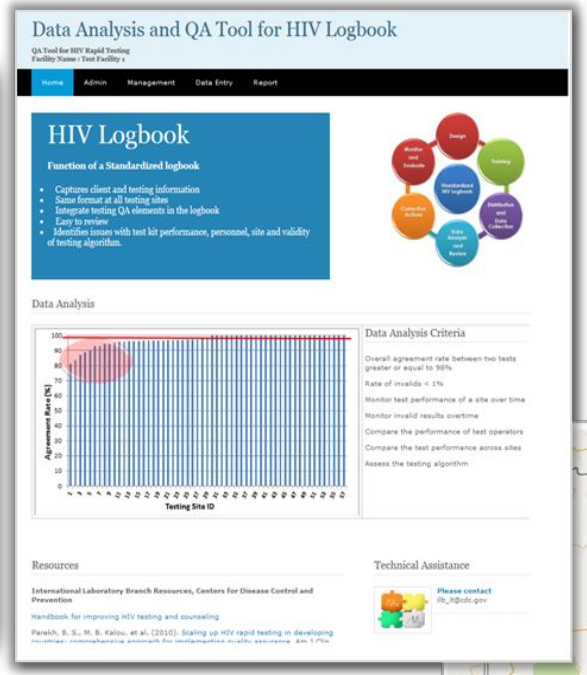




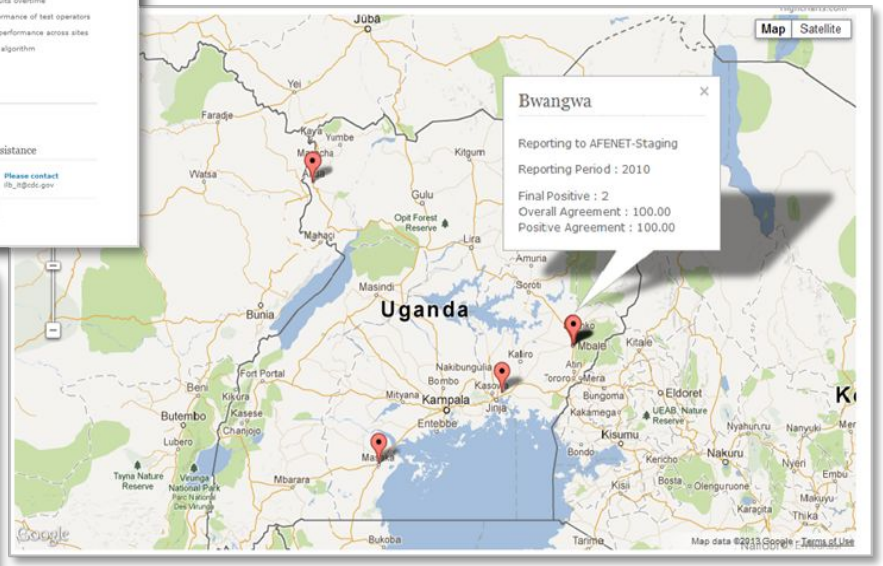


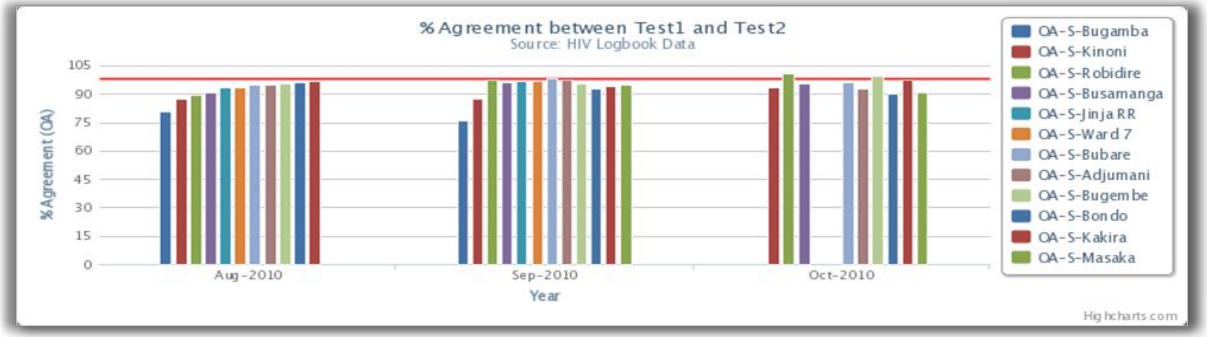
Innovative Tools – 6 & 7





- Standardized HTS logbook
- eTool for logbook data visualization/use

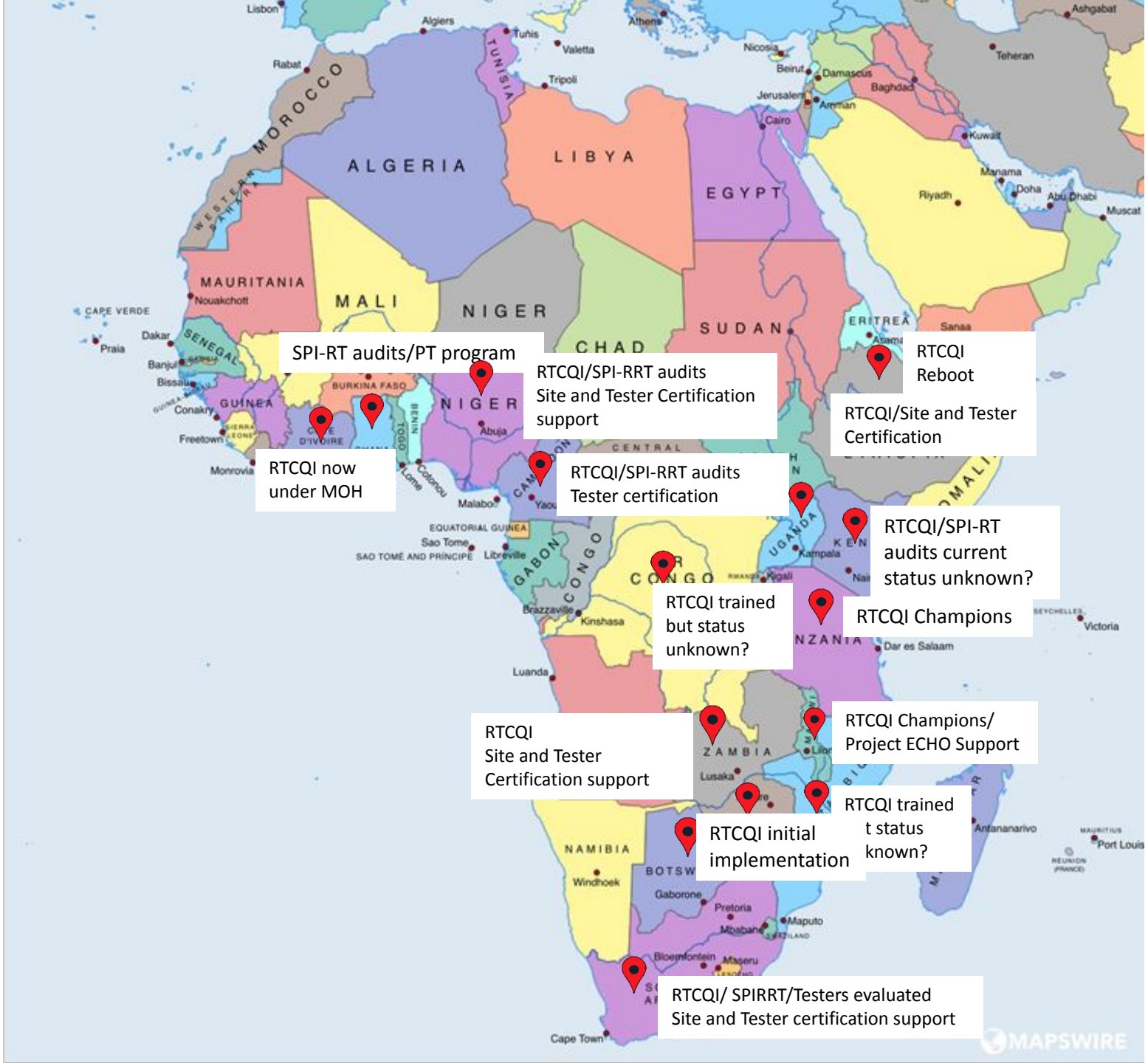




Implementation of Distance Learning Program

- **Project ECHO**
  - Provides accessible and cost-efficient clinical mentorship and continuing professional education
  - Fosters the development of peer networks and communities of practice that increase provider satisfaction
  - Trains healthcare workers while they remain at their posts, reducing costs related to travel and minimize service disruption

RTCQI Countries



A Big Stride – From Initiative to Program

- Endorsement by MOH to incorporate RT-CQI in National HTS guidelines in **+10** countries

Prospects

- Continue to advocate for and provide technical support in implementation of RTCQI
- Provide technical support in country testing algorithm review
- Lay out and strengthen national guidelines for the implementation of RTCQI
- Support in-country capacity building
- Strengthen the use of data for continuous quality improvement
- Apply the concept/principals of RTCQI to other POC testing for impact
- Develop innovative, practical, and efficient ways for continuous quality improvement on rapid testing.

Contact us

- Contact your country Implementing Subject Matter Expert (ISME) from Serology Team/ILB

- Directly contact
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RTCQI
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