

Implementing Decentralized CD4 Testing System for HIV+ Pregnant Women: Experience from ICAP-Rwanda

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Context

- **ICAP supports scale up of HIV/AIDS care and treatment (C&T) services in Rwanda since 2004.**
- **The National PMTCT program was launched in 2002, and introduced multi-drug ARV prophylaxis in late 2005.**
- **Decentralization of C&T in 2006: One partner per district providing complete package of care (PMTCT/VCT/ART/TB-HIV)**
 - **ICAP started supporting PMTCT/VCT services in July 2006 at 5 sites with pre-existing Care & Treatment services**
 - **Urgency to rapidly expand PMTCT services to 22 sites, while shifting to more efficacious multidrug ARV regimens for PMTCT .**

Overview 5 PMTCT sites (July-Oct. 06)

- **43%** of HIV+ pregnant women had CD4 count testing and received results.

- **48%** of HIV+ pregnant women were receiving sd-NVP as PMTCT prophylaxis.

Challenges:

- **Weak linkages between PMTCT and ART programs**
- **Inefficient system to ensure CD4 testing**
 - **Dependence on ART unit for CD4 code and blood draw**
 - **Patients referral to district lab vs. samples referral**
- **Few nurses trained on the new PMTCT protocol**

- ▲ PMTCT/VCT sites
- Care and Treatment Sites

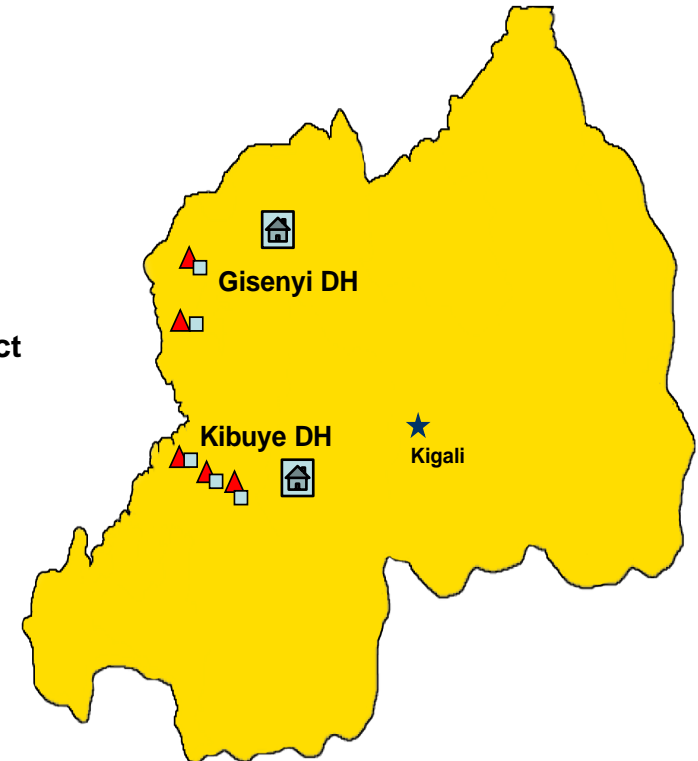
Gisenyi Region

1. Shiyra DH*
2. Kayove HC*

Kibuye Region

1. Kibuye DH*
2. Mugonero DH*
3. Kirinda DH*

- 🏠 CD4 Machine at district laboratory



CD4 testing system meeting HIV+ pregnant women needs

- **Objectives:**

- **Ensure systematic CD4 testing for all HIV+ pregnant women enrolled in PMTCT program.**
- **Decrease CD4 testing turnaround to allow timely initiation of more efficacious multidrug ARV for HIV+ pregnant women.**

District Wide CD4 System Including PMTCT needs (1)

- **Client-based approach**

- Routine blood draw by ANC nurses for all HIV+ pregnant women upon receipt of positive rapid test results.
- Reorganization of ANC clinic schedule to coordinate with days of CD4 blood draw for ART patients.
- Weekly transportation of samples (24-48hours), coordinated with ART program, and return of results (turnaround time: 7-10 days)
- Appointment system for CD4 result retrieval (~10 days) coordinated with ART clinics days.



District Wide CD4 System Including PMTCT needs (2)

- **Lab-based approach**
 - **CD4 machine (FACSCCount) with trained technicians**
 - **Network of HC lab and DH lab (Weekly schedule for CD4 samples processing)**
 - **Quality assurance by the National Reference Laboratory**
 - **Procurement and supply of CD4 machine and reagents**






District Wide CD4 System Including PMTCT needs (3)

- **Support strategies**
 - **Training on new ARV regimens**
 - **Development of job aids/algorithms**
 - **Revision of PMTCT monitoring tools**
 - **Partnership to increase CD4 machines availability**

Strengthening Linkage to C&T and Quality of Care

- **Linkage between ART and PMTCT programs**
 - **Weekly visit by MD to PMTCT/ART sites without doctors.**
 - **Escorting HIV+ women to on-site and off-site ART (standalone PMTCT services) services by nurses or social workers**
- **Clinical Mentorship**
 - **Clinical mentorship of nurses by ICAP PMTCT field officers**
 - **Regular assessment of the quality of care using ICAP PMTCT Standard of Care (SOC) toolkit and joined problem solving with health staff.**





PMTCT Sites (n=19) and CD4 machines (n'=8) expansion -ICAP Rwanda (March

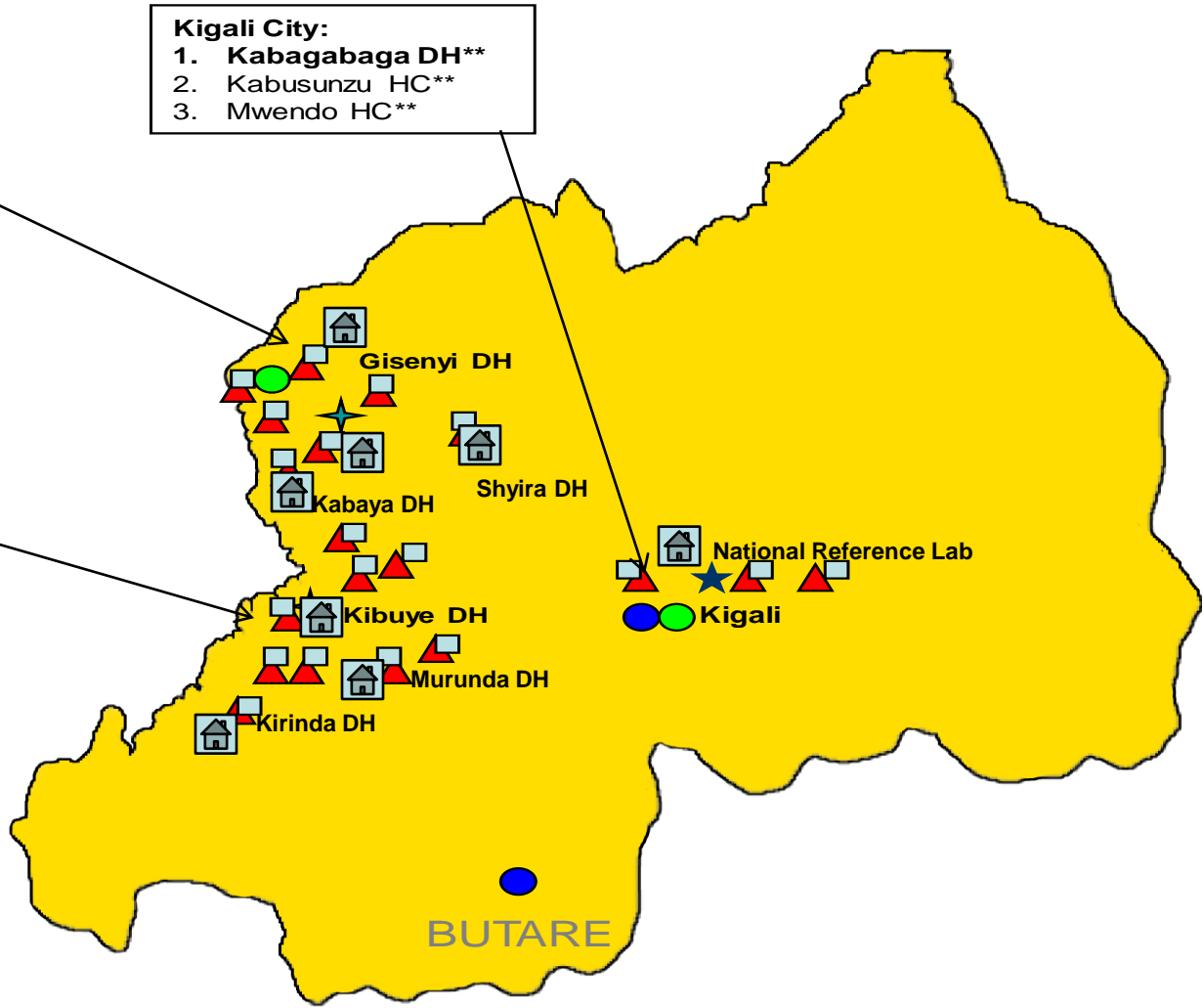
-  PMTCT/VCT Sites
-  Care and Treatment Sites
-  CD4 Machine

- Gisenyi Region (7):**
1. Shyira DH*
 2. Kigufi HC*
 3. Bigogwe HC**
 4. Kayove HC*
 5. Rambura HC*
 6. Murara HC
 7. Nyakiriba HC*

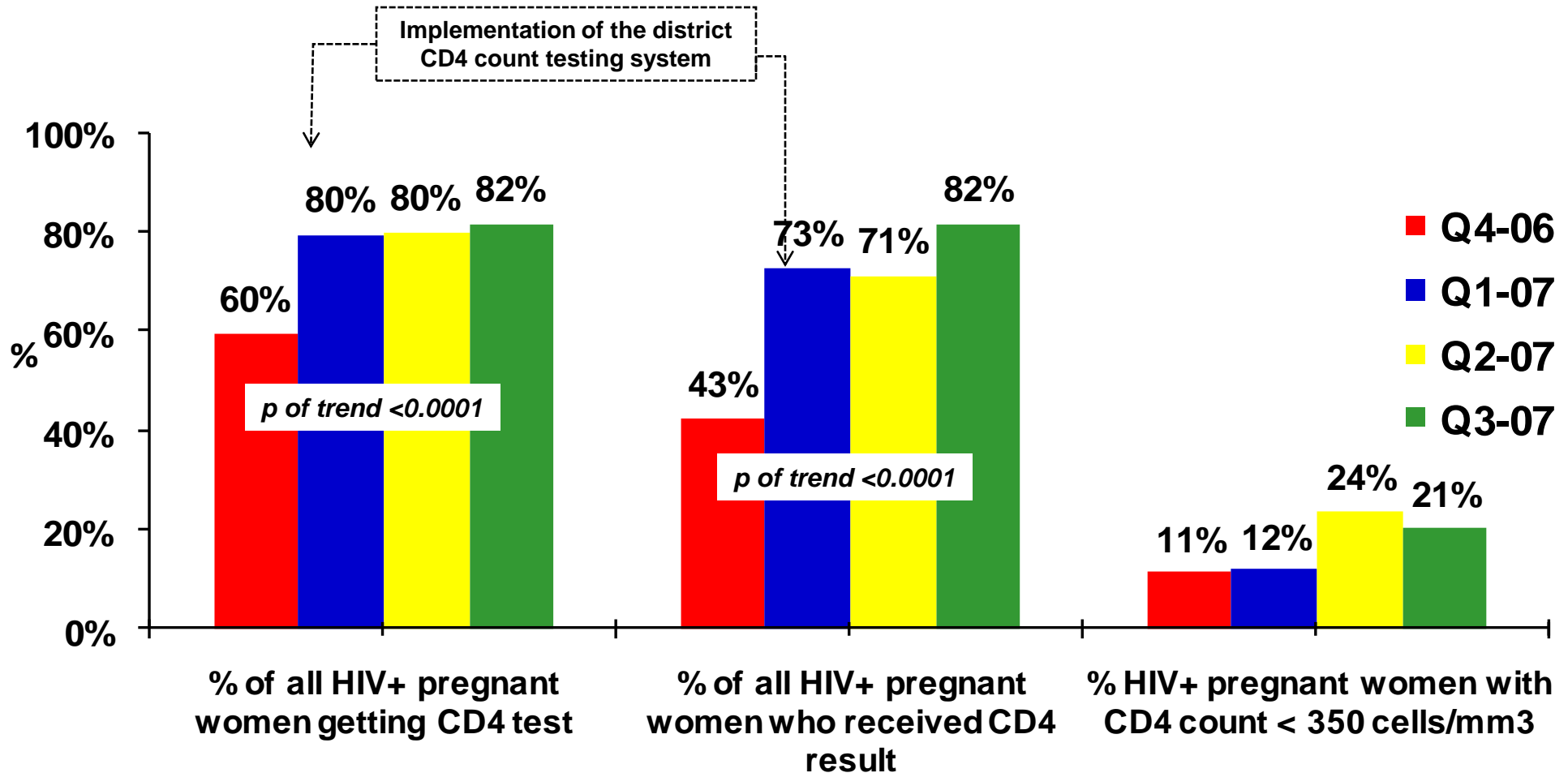
- Kibuye Region (9):**
1. Mubuga HC*
 2. Mukungu HC*
 3. Rubengera HC*
 4. Kibuye DH*
 5. Mugonero DH*
 6. Kirinda DH*
 7. Karengera HC
 8. Kabona HC*
 9. Mushubati HC*

- Kigali City:**
1. Kabagabaga DH**
 2. Kabusunzu HC**
 3. Mwendo HC**

-  **Pediatric Model Centers**
Kigali: CHUK
Butare: CHUB
-  **Central Office**
-  **Regional Office**
-  **TB/HIV Model Centers**



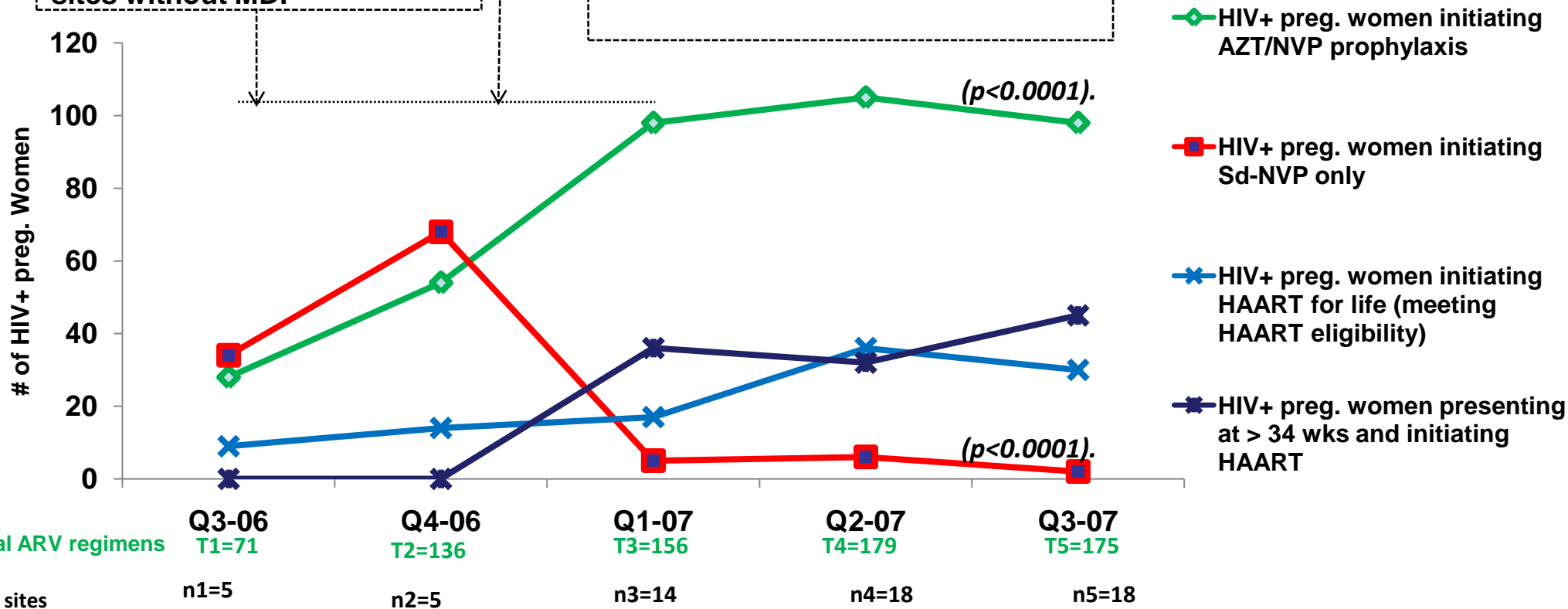
CD4 Testing among HIV+ Pregnant Women in 18 PMTCT sites in Rwanda, July 06 – Sept. 07



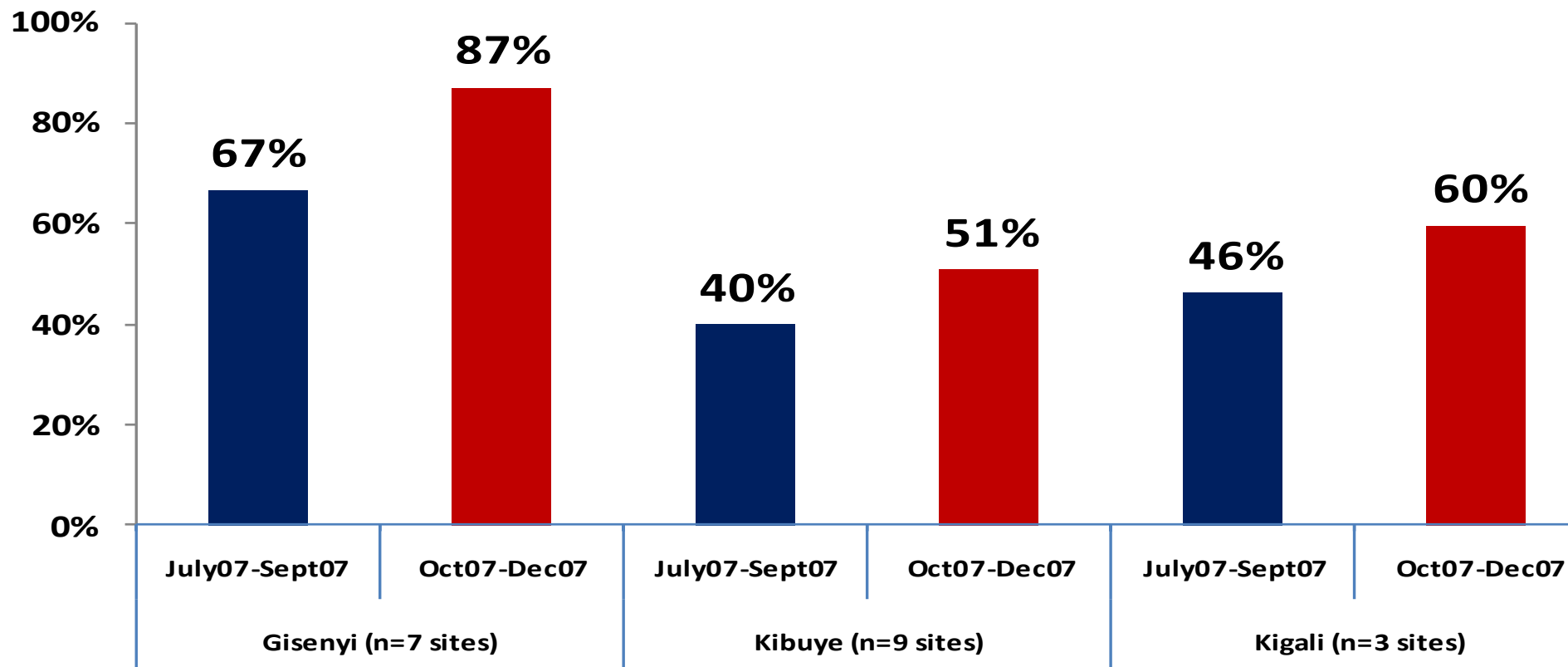
Shift from sd-NVP to multidrug ARV regimens in PMTCT (n=18 sites) in Rwanda, July 06 –Sept. 07

- AZT/NVP initiation by ANC nurses
- HAART initiation by MD from District Hospital for ART sites without MD.

- Launching clinical mentoring of PMTCT staff Active referral of eligible HIV+ pregnant women to ART services on-site and off-site



Enrolment of HIV+ mothers into Comprehensive HIV Care & Treatment, ICAP supported sites (n=19), Rwanda, (July 07-Dec 07)



Challenges to Routine CD4⁺ Testing

- Increased work load within ANC unit and district lab
- Insufficient systems for patient tracking and linkage to Care&Treatment.
 - Some women miss their CD4 results appointment or the visit for ART initiation
- M&E
 - National reporting form does not yet track CD4 count testing for HIV+ pregnant women

Lessons Learned

- **Strong collaboration between PTMCT and ART program needed to build a coordinated system at health facility level.**
- **One-stop shopping for CD4 blood draw at ANC by nurse as well as results interpretation increased uptake of CD4 testing during pregnancy.**
- **Decentralization of CD4 capacity to district lab critical to increase accessibility and build the district network for CD4 testing.**
- **Mentoring health staff contributed increased ability to implement more efficacious PMTCT regimens**

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