District approach to integrated paediatric care

District Partners Meeting
28 July 2011

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WRHI

Goal:
“Zero New paediatric HIV infections”

but also

‘Maximise HIV-free survival of infant”

And

“Maximise maternal health”

Four-Phase Strategy for Prevention of Mother to Child HIV Transmission

Wilcher R et al. Sex Trans Inf 2008;84 (Suppl2):ii54-60

Phase I: Prevention of HIV in Women, (Especially Young Women)

→

Phase 2: Prevention of Unintended Pregnancies in HIV-Infected Women

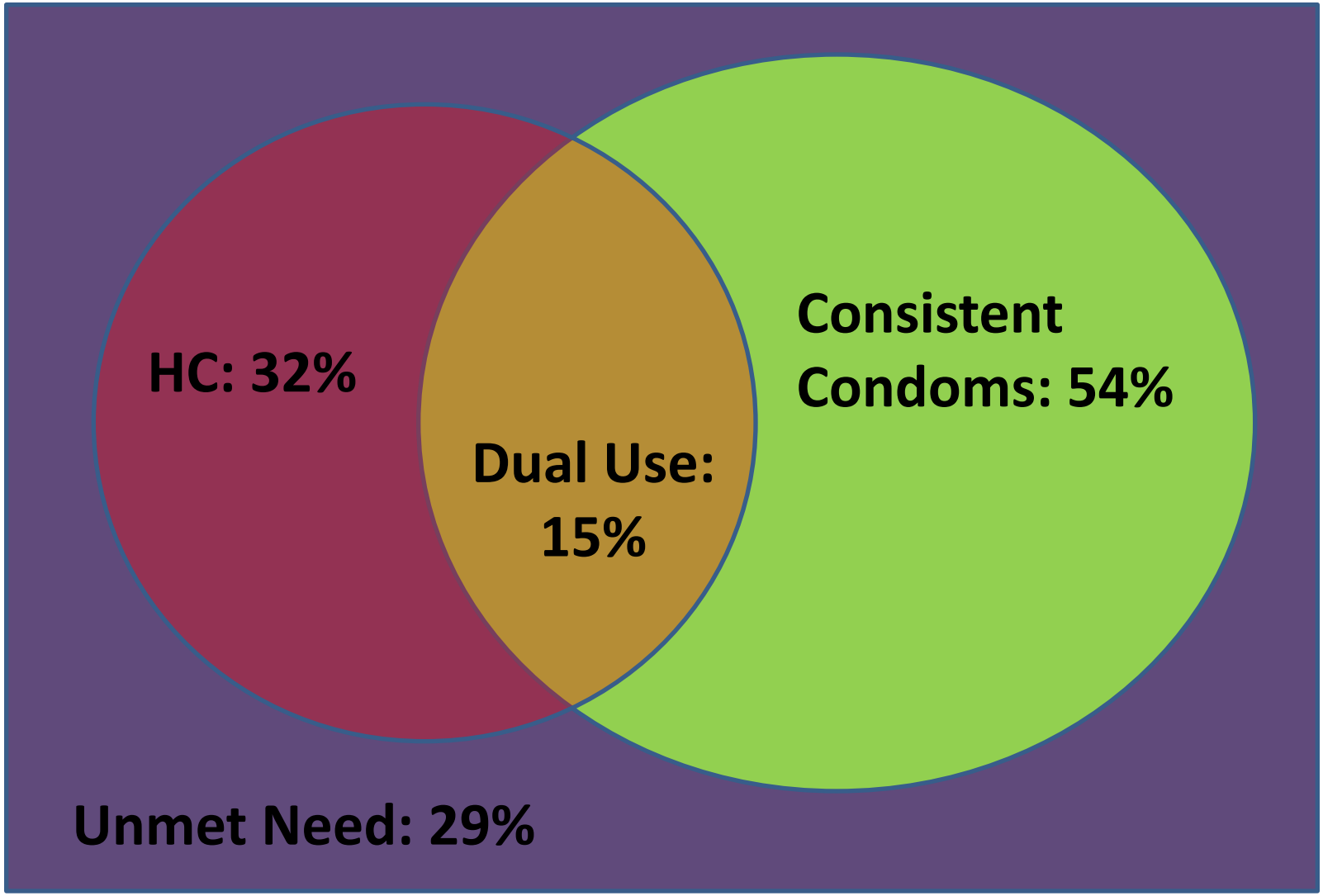
→

Phase 3: Prevention of Transmission from an HIV-Infected Woman to Her Infant

→

Phase 4: Support for HIV-Infected Mother and Family

Results: Contraceptive Use amongst those *not currently* trying to conceive (n=748)



Schwartz et al, AIDS Behaviour, 2011

The face of paediatric HIV is changing

SUMMARY OF NATIONAL FINDINGS – PRIMARY OBJECTIVES

- **Infant HIV-Exposure prevalence (weighted):**
  - **31.4% (95% CI 30.1-32.6%) ≈ ANC survey**
- **National Perinatal Transmission rate measured at 4-8 weeks of infant age (weighted):**
  - **3.5% (95% CI 2.9-4.1%).**

*** Results based on 9915 interviews with completed DBS results**

Gogo et al, AIDS Conference ,2011

Infant HIV-Exposed, MTCT & Infant HIV Prevalence Measured @ 6 Weeks by Province

(Weighted analysis on 9915 completed interviews with DBS results)

PROVINCE	Infant HIV-Exposed %(95%CI)	MTCT %(95%CI)
Eastern Cape	30.0 (26.3-33.7)	3.5* (1.2-5.8)
Free State	31.1 (28.9-33.3)	5.7 (3.5-7.9)
Gauteng	30.2 (27.7-32.8)	2.3 (1.3-3.3)
KwaZulu Natal	43.9 (39.7-48.0)	2.8 (1.7-4.0)
Limpopo	22.6 (20.4-24.8)	3.4 (1.0-5.8)
Mpumalanga	36.2 (33.6-38.9)	6.2 (4.5-7.9)
Northern Cape	15.6 (13.0-18.3)	1.9* (0.0-4.5)
Northwest	30.9 (28.6-33.1)	4.6 (3.0-6.1)
Western Cape	20.8 (16.8-24.9)	3.3 (1.3-5.2)

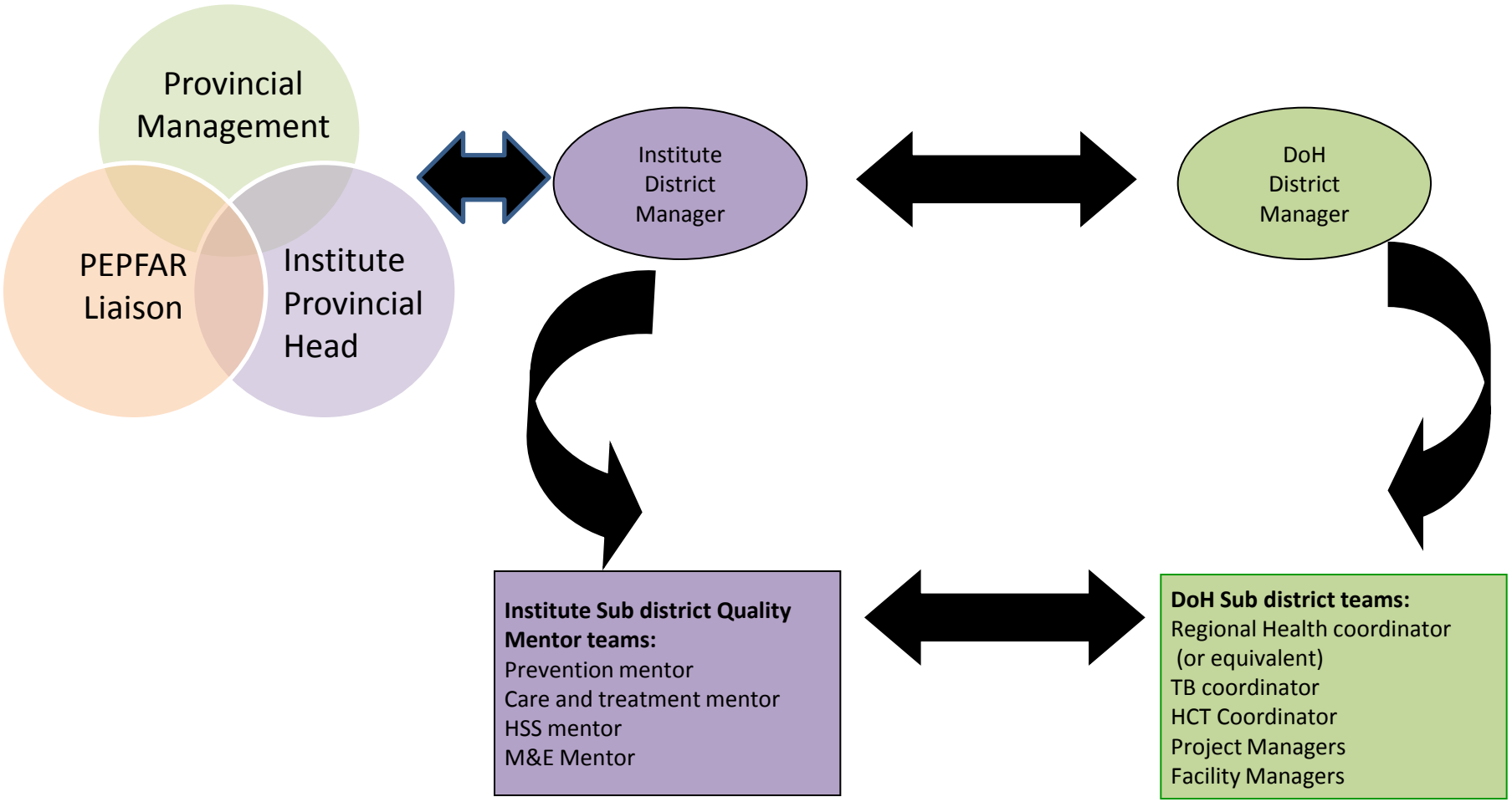
**Note due to smaller sample size realisation precision is low*

Gogo et al, AIDS Conference, 2011

Comprehensive Approach to Health Improvement

- WRHI has a district support strategy using quality improvement mentors
  - To partner with DoH management at a sub-district level
  - Integrated approach to health care improvement
  - Work defined by gaps identified at the sub-district
  - Partnership at all levels of the work plan
    - Identification of gaps
    - Problem-solving
    - Implementing the solution
    - Monitoring implementation and assessing results
  - Goal: improve DHIS indicators for the entire district

Partnership



Gap Analysis

- Understand the district
- Analyse available data
  - DHIS
  - NHLS
  - Studies

- Site visits to understand local challenges

- Baseline assessment at site visits
- Prioritise

Quick wins – understand the data

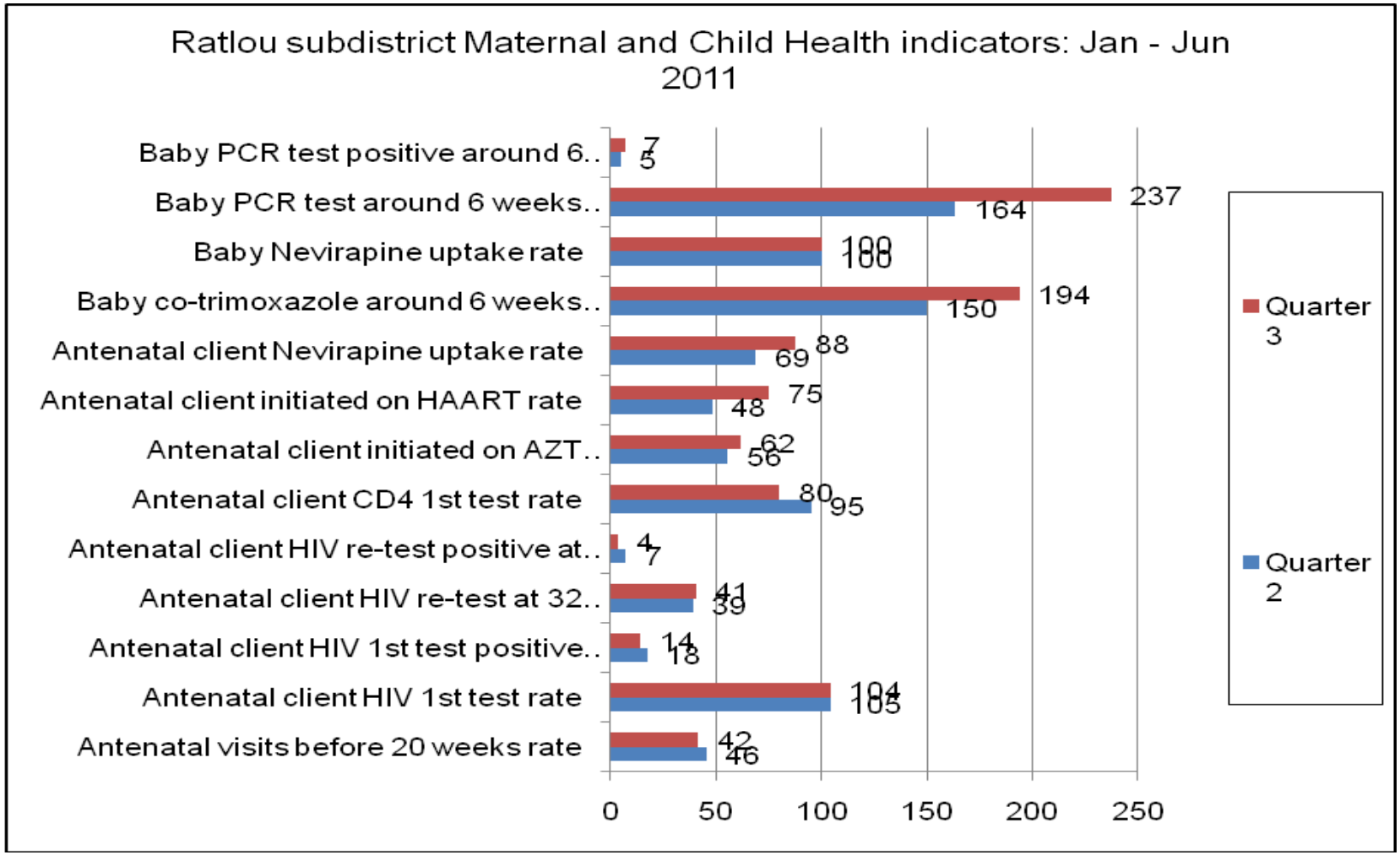
Two districts: 1 with a much higher and the other with a much lower rate of MTCT (DHIS vs NHLS)

Investigate

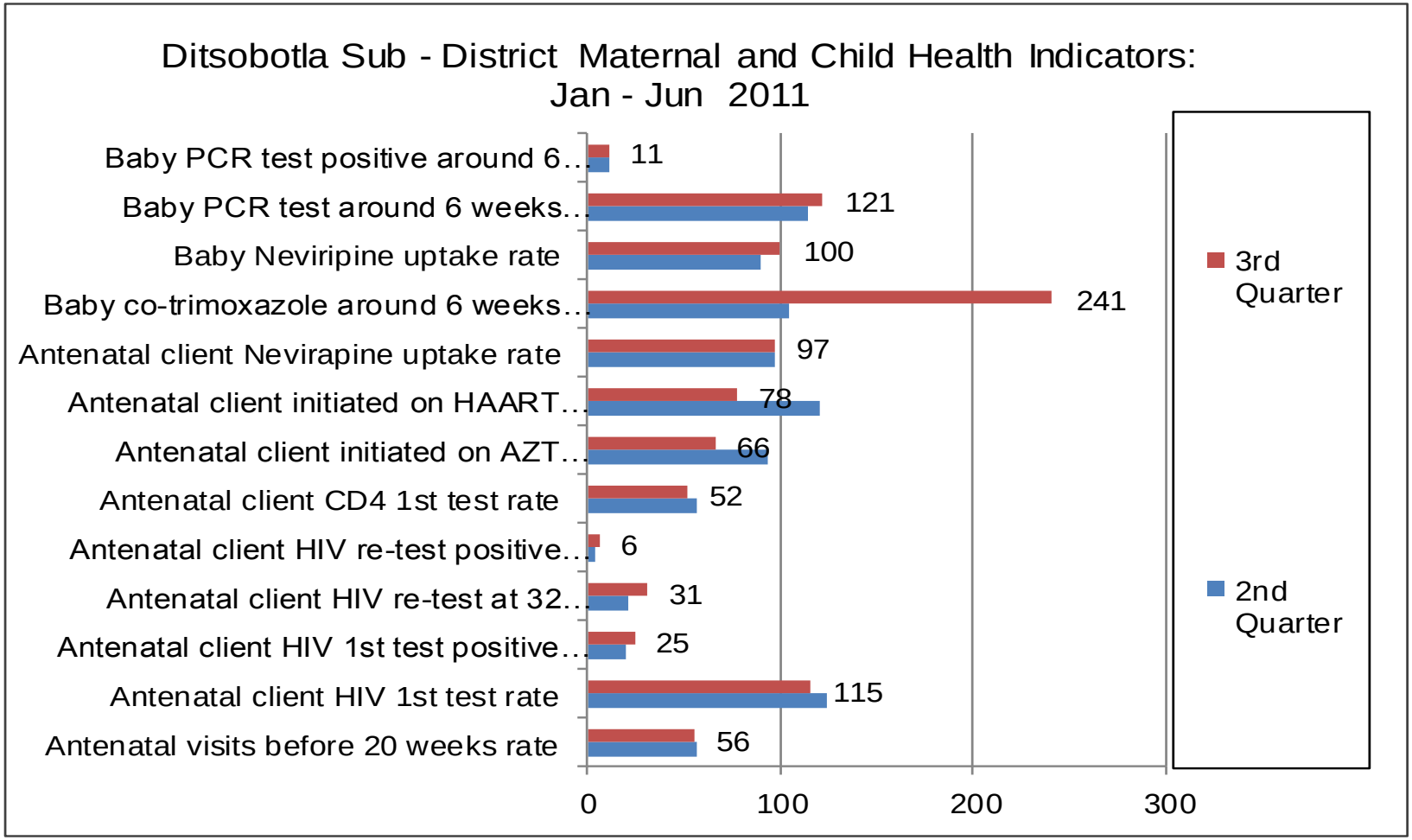
Implement corrective action.

		DHIS	NHLS	DHIS	NHLS	DHIS	NHLS	DHIS	NHLS
	Data Element Short	Sep-10	Sep-10	Oct-10	Oct-10	Nov-10	Nov-10	Dec-10	Dec-10
A Clinic	HIV PCR at =6 wks	21	1	27	16	15	10	18	12
	HIV PCR+ at =6 wks	0	0	0	1	2	2	2	1

NMM Maternal Health Cont.



Maternal Health Cont.



WRHI: Paeds/maternal health Site Assessment Form

SECTION 1: General information

DOH staff member who assisted in compiling this report:

SECTION 2: HIV services offered

Inclusive of paeds, maternal health, well ness, TB

SECTION 3: Training

NIMART training, mentoring and initiations:

SECTION 4: Barriers to ART services

SECTION 5: Support required

Population	Staff actively managing this population	Total number of clients pre-ART	No of initiations in past month	Total number of clients currently on HAART
Paeds: < 18 months				
Paeds: 18 months – 6 years				
Paeds: 6-14 years				
Adults (15years+)				
Pregnant women (HAART)				

Reporting back

- Following the site visit, analyse strengths and weaknesses and work report back to DoH counterparts at district level.

- Remember to give both positive and negative feedback

M Clinic

Paeds: Don’t do paeds HIV at all – refer to hospital (150km away)

- Nurses keen to do paeds ART initiations, but need doctor and pharmacy support
- Barrier appears to be at pharmacy level.
- Recommendation – discussion with DoH ways to resolve pharmacy issues
- We commit to paeds mentorship if above resolve

H Clinic

Paeds:

- No paediatric initiations, however close to hospital where they refer paeds for initiation + subsequent management until age 15.

  System works well

- Recommendation: Consider down referring stable patients on ART from hospital to H clinic

Individual districts have different needs with different challenged

- Help to set district level targets
- Focussed interventions

Modelling loss in PMTCT at clinics

- We can use reported numbers in DHIS at 3 stages of PMTCT to observe if a facility is missing out on identifying mothers and babies for PMTCT
  - Calculate 'reported HIV prevalence' at ANC, Delivery and 6wk EPI visit (and compare to survey prevalence)

$$\text{Reported HIV prevalence} = \frac{\text{How many (ANC/Delivery/EPI) were reported as HIV+?}}{\text{How many (ANC/Delivery/EPI) total came to the clinic?}}$$

  - Data from clinic in NMM District (survey=25.1%) showed:

ANC: 33% → Delivery: 22% → EPI: 13%

Facility PCR Calculator using EPI to calculate targets

	Enter Values
Number of infants who came for 6 week EPI visit (any time period)	
Antenatal clinic (ANC) prevalence rate in District	
Number of infants who had 6 week PCR done (same time period)	
	Calculated values
Estimated number of exposed infants	
Estimated need for PCR testing at 6 weeks	
PCR testing coverage at 6 weeks	

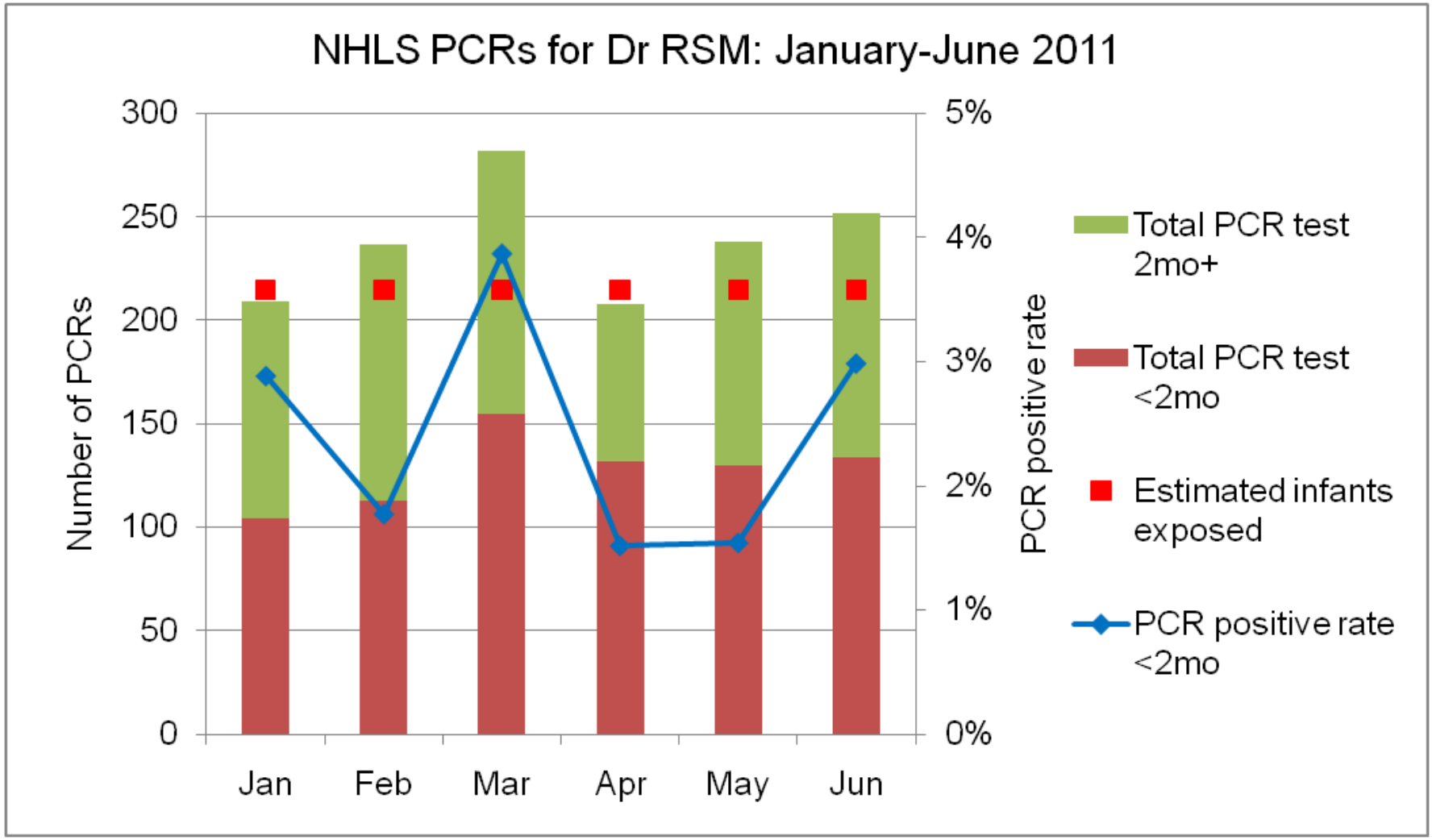
WRHI
Wits Reproductive Health and HIV Institute

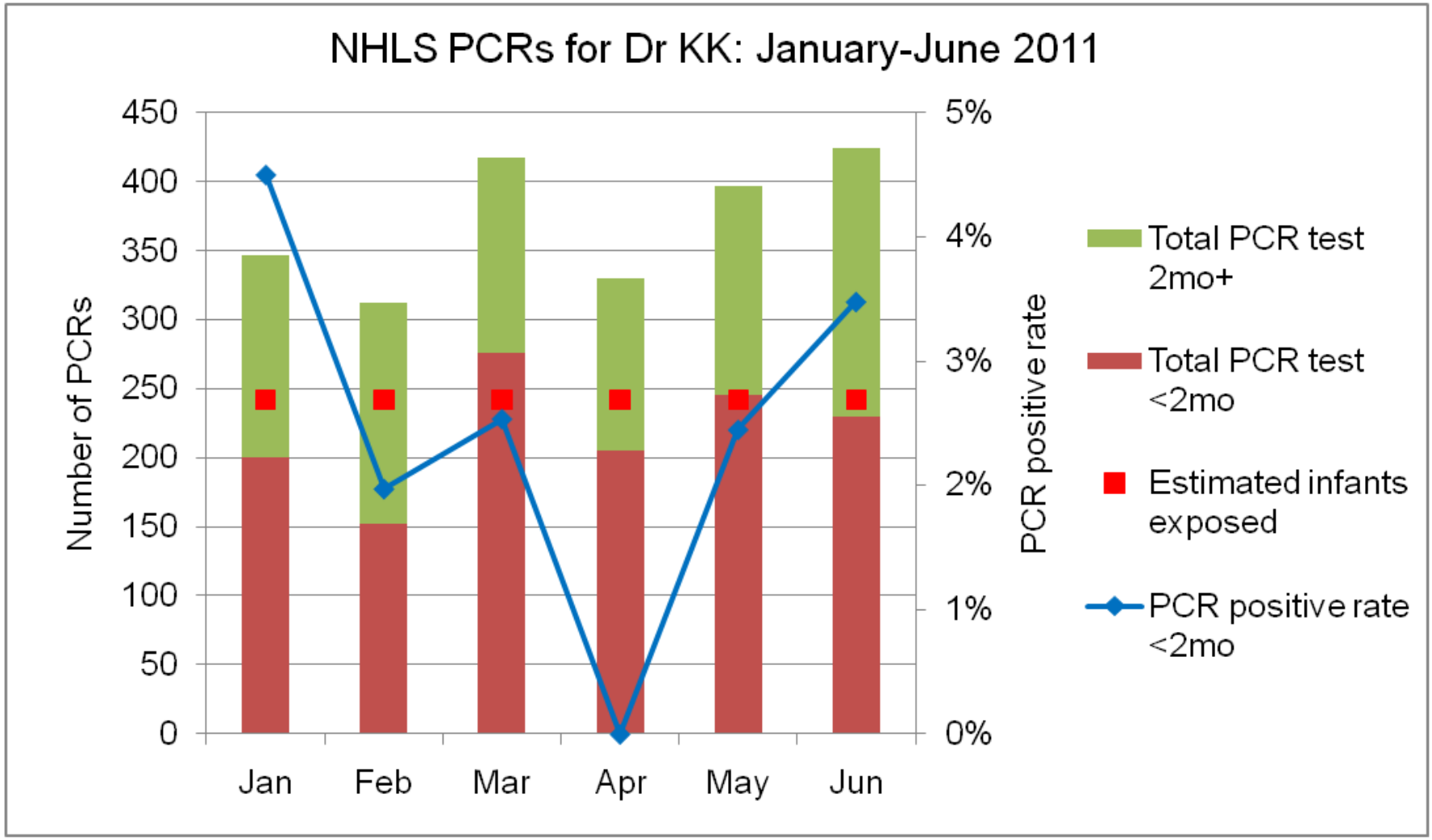
INSTITUTE FOR HEALTHCARE IMPROVEMENT

PCR and ART initiation targets

- ‘Need’ for RSM
  - Adult initiations: 3989 per year, 332 per month
  - PCRs: 2335 per year, 195 per month
  - Paeds initiations: 145 per year, 12 per month

- Can be calculated for each sub district


NHLS PCRs for Dr RSM: January-June 2011
Number of PCRs
300
250
200
150
100
50
0
5%
4%
3%
2%
1%
0%
PCR positive rate
Jan
Feb
Mar
Apr
May
Jun
Total PCR test 2mo+
Total PCR test <2mo
Estimated infants exposed
PCR positive rate <2mo


NHLS PCRs for Dr KK: January-June 2011
Number of PCRs
450
400
350
300
250
200
150
100
50
0
5%
4%
3%
2%
1%
0%
PCR positive rate
Jan
Feb
Mar
Apr
May
Jun
Total PCR test 2mo+
Total PCR test <2mo
Estimated infants exposed
PCR positive rate <2mo

Shared experiences

- Improved recognition of infants who are HIV exposed and require testing:
  - Screening confidentially e.g. in weighing room

On-going challenges for infants:

- PMTCT cascade drop off
- 32 weeks repeat testing, high rate of positives
- Identifying infected children
- Contraceptive provision
- Retention in care up until treatment is initiated
- NIMART