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# Integration of HIV-Exposed Infant Services in Rural Rwanda

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# Background

- In Rwanda, over 7000 infants are born to HIV-positive mothers each year
- At high risk for infection with HIV, early morbidity and mortality, and lifetime disability from chronic illness<sup>1,2</sup>

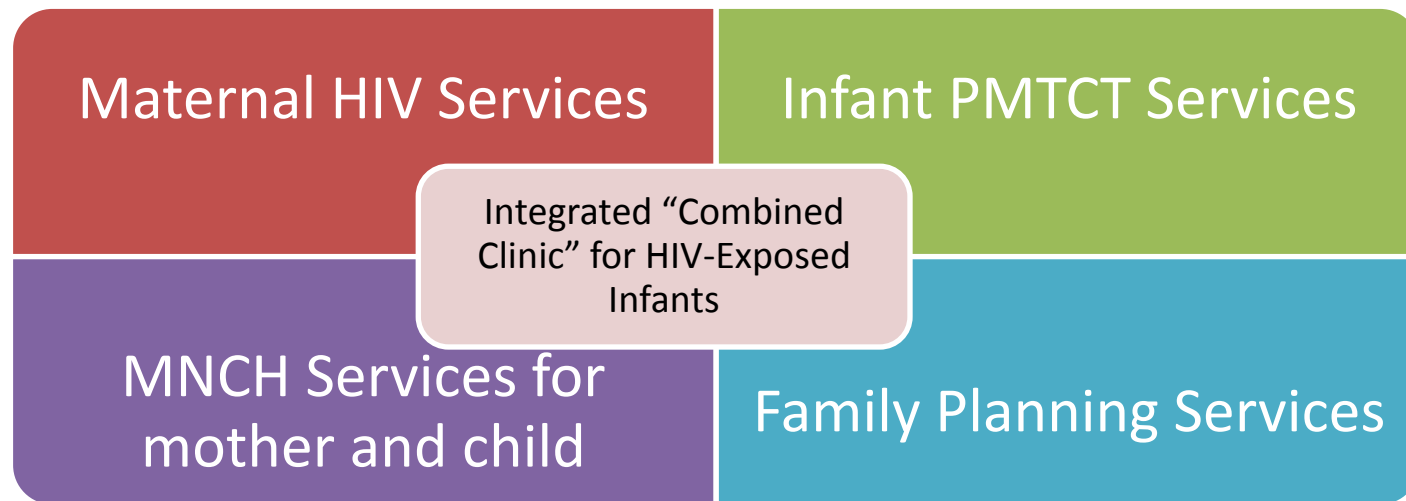
# Challenges for HIV-affected Mother-Infant Pairs (2010)

- On average, mothers reported<sup>3</sup>:
  - 2-3 visits per month to health centers
  - 3-4 hours transport time per visit
  - 5-6 hours total for HC visit
  - \$5-7 transport fee (round-trip)
  - \$0.50-2 meals per day
  - \$1.60-5 lost wages per day
  - Total: Average \$8.30 per HC visit for mother and baby (range \$3.30-23)

# Rationale for Service Integration for Mother-Infant Pairs

- Improve access to care by reducing barriers (costs, transport, loss of productivity, child care)
- Combine low-attendance activities with high-attendance activities to improve service utilization
- Improve efficiency of limited resources in health system

# Integration of services for HIV-exposed Infants: “Combined Clinic”

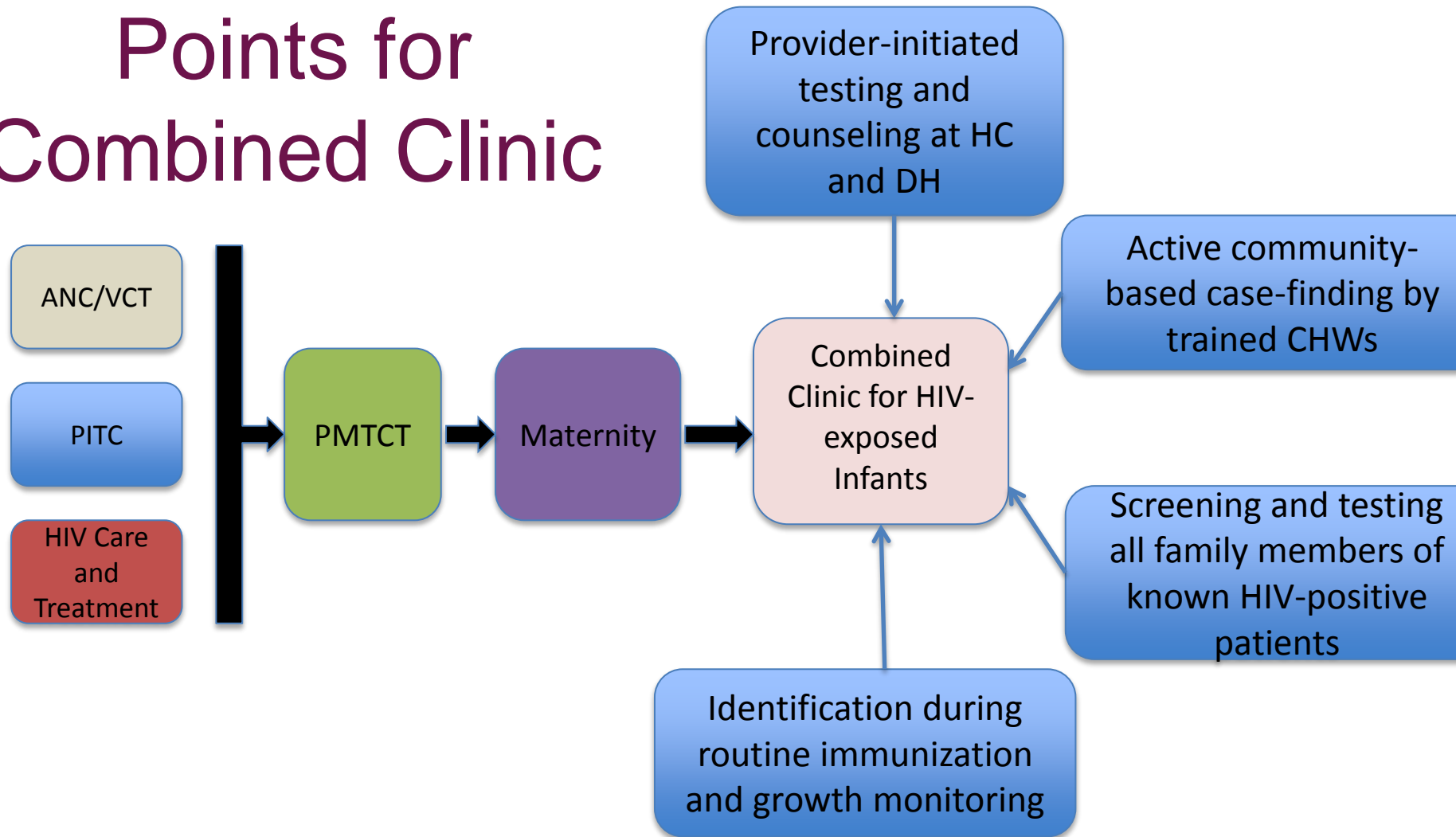


Additional supports provided:

- Continuous facility and nurse mentorship by nurse expert
- Electronic medical records for infant and mother
- Nutritional supplementation
- Community health worker linkage and follow-up

Infant/Child			Mother		
Activity	Category	Time	Activity	Category	Time
Post-partum care (cord care, weight monitoring)	MNCH	0-6wk	Post-partum care	MNCH	0-6wk
Entry/Referral to one-stop clinic	HIV	0-6wk	Return to ID care via one-stop clinic	HIV	0-6wk
Continuation of NVP prophylaxis until 6 weeks	PMTCT	0-6wk	Initiation or continuation of ART	PMTCT/HIV	0-6wk
6 week DBS testing with rapid response and link to care if positive	PMTCT	6wk	Initial or continuation of CD4 testing	HIV	0-18mo
Initiation of co-trimoxazole prophylaxis	PMTCT	6wk-18mo	Initial or continuation of ancillary laboratory testing or radiography	HIV	0-18mo
Routine infant care (growth monitoring, vaccination review, albendazole, vitamin A)	MNCH	6wk-18mo	Screening and treatment of IST/OIs per Adult HIV recommendations	HIV	0-18mo
Nutrition support and counseling for infant needs (including AFASS option)	MNCH	0-18mo	Breastfeeding support and counseling	MNCH	0-18mo
9 month serotesting with rapid response and link to care	PMTCT	9 mo	Nutrition counseling and support for breastfeeding mother	MNCH	0-18mo
18 month serotesting with rapid response and link to care	PMTCT	18 mo	Safe food and water preparation for child	MNCH	0-18mo
Tb screening and link to care	MNCH	0-18mo	Recognition and management of neonatal and early childhood illness	MNCH	0-18mo
Malnutrition screening and link to care	MNCH	0-18mo	Family planning or referral to family planning option in faith-based clinics	FP	0-18mo
Malaria prevention for infant	MNCH	0-18mo	Active case finding and follow up of HIV+ women with infant <18 mo	MNCH/ PMTCT/HIV	N/A
Recognition and treatment of acute childhood illness per IMCI (LRTI, diarrhea/dehydration, febrile illness)	MNCH	0-18mo	Routine testing of serodiscordant mothers	PMTCT	0-18mo
Active case finding from immunization and growth monitoring, CHW case finding, screening family members of HIV-positive individuals, and PITC	HIV	0-18mo	Psychosocial support for PLWH	HIV	0-18 mo
Referral and management of HIV+ child to pediatric ID clinic	HIV	0-18 mo	Return to routine ID care for seropositive mothers	HIV	18 mo

# Key Entry Points for Combined Clinic



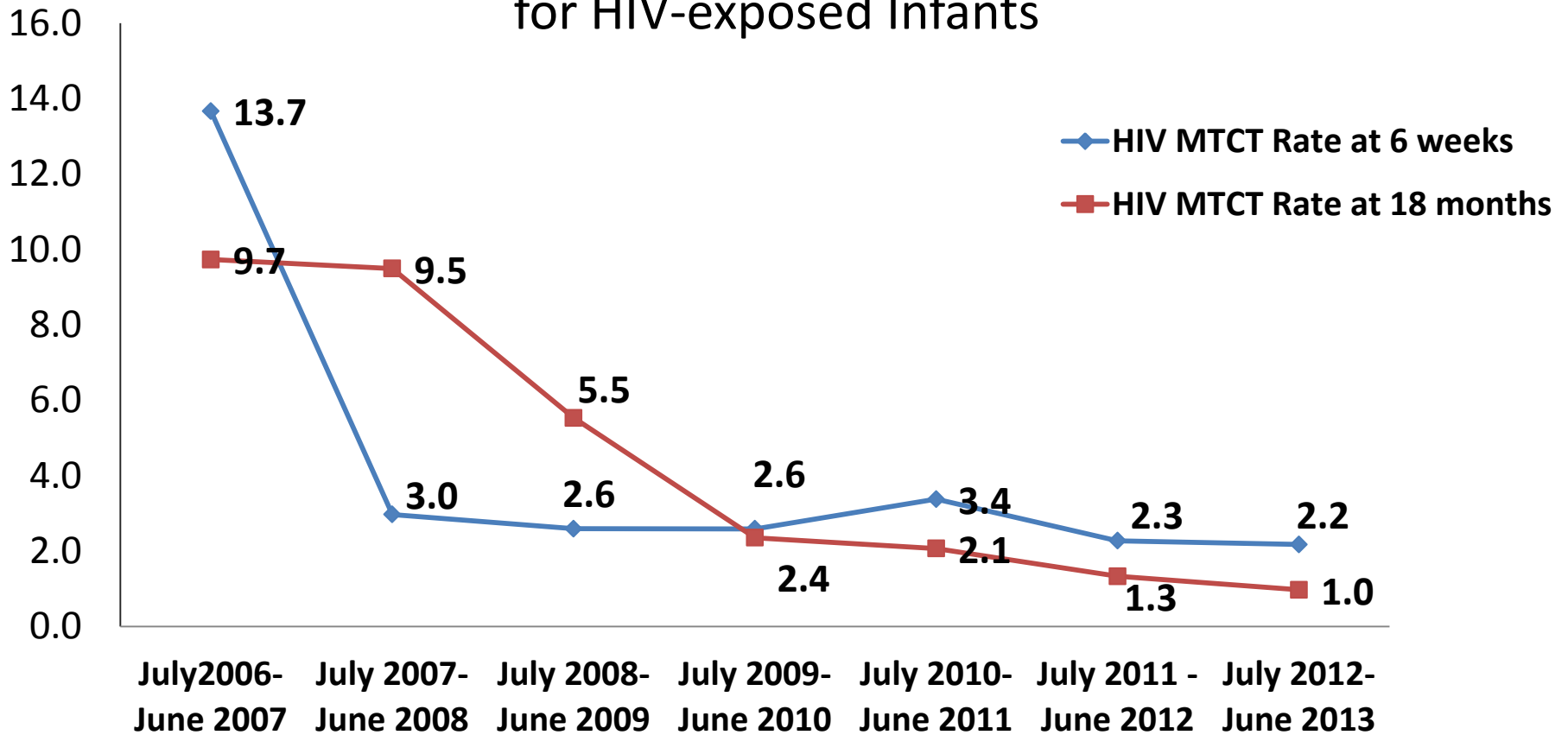
# Outcomes from Integration

- From Nov 2010 – Oct 2012:
  - Achieved integration in 37 rural HFs
  - 973 mother-infant pairs enrolled
  - 1.6% of enrolled infants HIV positive as of Oct 2012 (cross-sectional)
  - High rate of satisfaction from providers and patients
- MOH policies adopted for:
  - Integration of PMTCT, HIV, MNCH, & FP services
  - Care of mother-infant pair during single visit
- Not yet evaluated: retention in care, child survival, maternal outcomes, costs, patient satisfaction



# MTCT in Rwanda

MTCT rate at 6 weeks and at 18 months  
for HIV-exposed Infants



# Key Implementation Challenges

- Integrated Trainings and Protocols
- Integrated Tools (Registers, Patient Charts)
- Physical orientation of integration (higher vs. lower volume HFs)



# Murakoze!

## Acknowledgements

- Rwanda Biomedical Center
- District Hospital leadership and ID clinicians
- Partners In Health Infectious Disease team

