BEST PRACTICES IN PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV (PMTCT)

SOUTH AFRICA

5 June 2009

NATIONAL DEPARTMENT OF HEALTH

MEDICAL RESEARCH COUNCIL
UNICEF
UNIVERSITY OF THE WESTERN CAPE
USAID

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

SOUTH AFRICAN MEDICAL RESEARCH COUNCIL
unicef
USAID FROM THE AMERICAN PEOPLE
HEALTH CARE IMPROVEMENT PROJECT

BEST PRACTICES IN PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV

South Africa

5 June 2009

NATIONAL DEPARTMENT OF HEALTH

MEDICAL RESEARCH COUNCIL

UNIVERSITY OF THE WESTERN CAPE

UNICEF

USAID

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

The following people need to be acknowledged for their guidance and support during the development of this document:
Dr Yogan Pillay, DDG Strategic Health Programmes, National Department of Health
Dr Nonhlanhla Dlamini, Child Health Specialist, National Department of Health

The following people (in alphabetical order) need to be acknowledged for their willingness to share information and participate in the development of this document:

Professor Miriam Adhikari
Dr Mitch Besser
Dr Ashraf Coovadia
Professor Anna Coutsoudis
Dr Tanya Doherty
Dr Donna Jacobs-Jokhan
Dr Hoppy Kemp
Mr Sikhonjiwe Masilela
Ms Coceka Mnyani
Dr Nadia Nair
Mr Chris Newton
Ms Dudu Nsibande
Professor Bob Pattinson
Ms Pauline Pieters
Ms Lesley Rose
Dr Anne Robertson
Dr Jennifer Reddy
Professor Nigel Rollins
Dr Yusuf Carrim
Dr Michele Youngleson
Ms Karen Jennings

This document was prepared by a team from the Health Systems Research Unit (Medical Research Council) and School of Public Health (UWC)

The development of this document was funded by UNICEF (SA) and USAID.

NOTE

The authors would like to emphasize that this document is a work in progress and is meant to be an illustrative example of selected best practices in South Africa. It is the intention of the DOH to collect best practices in an ongoing fashion and request that independently verified and documented best practices are sent to Dr Yogan Pillay at **pillay@health.gov.za**

ABBREVIATIONS AND ACCRONYMS

AFASS	Acceptability, Feasibility, Affordability, Sustainability and Safety of avoiding all breastfeeding
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal care
ARV	Antiretroviral
AZT	Zidovudine (antiretroviral medication)
BANC	Basic Antenatal care
CCMT	Comprehensive Care, Treatment and Management of HIV
CHW	Community Health Worker
DFID	Department For International Development
DoH	Department of Health
DNA PCR	DNA-based Polymerase Chain Reaction Test
EBF	Exclusive Breast feeding
ECHO	Enhancing Children's HIV Outcomes
EFF	Exclusive Formula Feeding
ELISA	Enzyme-linked Immunosorbent Assay
FG	Maternal, Neonatal, Child, Women's Health and Nutrition Framework Group
GDoH	Gauteng Department of Health
Govt	Government
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immuno-deficiency Virus
MCH	Maternal and Child Health
MRC	Medical Research Council
MTCT	Mother To Child Transmission
NDoH	National Department of Health
NGO	Non Governmental organization
PCR	Polymerase Chain Reaction
PHC	Primary Health Care

PMTCT	Prevention of Mother To Child Transmission
PN	Postnatal
Pop.	Population
RTHC	Road To Health Card
SANAC	South African National Aids Council
SoPH	School of Public Health, University of the Western Cape
UNICEF	United Nations Children's Fund
UNGASS	United Nations General Assembly, Special Session
UWC	University of the Western Cape
WG	Working Group

DEFINITIONS

Best practices:

Best practices are strategies, processes, activities or systems that have been shown in practice in routine settings, to be effective in overcoming one or more challenges/bottlenecks of the implementation and effectiveness of the PMTCT programme.

Key areas of the PMTCT cascade include:

- HIV testing for pregnant women
- Access to CD4 testing for HIV positive pregnant women
- Antiretroviral prophylaxis for HIV-positive pregnant women
- Antenatal infant feeding counseling
- Modified obstetric practices
- Infant feeding support in the first few hours postnatally
- Postnatal care for mothers
- Infant follow-up for child health
- Initiate Cotrimoxazole at 6wks for HIV exposed infants
- Infant PCR testing at/before 6 weeks
- Postnatal Infant feeding support
- 18-month infant HIV testing
- Access to HAART for eligible pregnant women
- Access to HAART for eligible infants
- Priority setting within clinics
- Integration of PMTCT with routine maternal and child health services
- Quality improvement in the context of PMTCT and
- Routine data collection and use for quality improvement.

A basic PMTCT service would include all the above activities

Health care personnel

Health care providers and health care workers

Health care provider

Any person providing health services in terms of any law, including in terms of the:

- Allied Health Professions Act, 1982 (Act No.63 of 1982)
- Health Professions Act, 1974 (Act No. 56 of 1974)
- Nursing Act, 2005 (Act No. 33 of 2005)
- Pharmacy Act, 1974 (Act No. 53 of 1974) and
- Dental Technicians Act, 1978 (Act No. 19 of 1979)

Health care worker

Any person who is involved in the provision of health services to a user, but does not include a health care provider. This includes lay counselors and community caregivers.

Infant

A person from birth to 12 months of age

Mother-to-child transmission

Transmission of HIV from a HIV-positive woman to her child during pregnancy, delivery or breastfeeding. The term is used because the immediate source of the infection is the mother, and does not imply blame on the mother.

Routine counseling and testing

HIV testing should be routinely offered to all ANC clients. Health care personnel give group information and individually offer HIV testing. At this stage the patient / client always has the option to decline this. The patient/client receives post-refusal counseling or post-test counseling.

The consortium

Health Systems Research Unit of the MRC and School of Public Health of the University of the Western Cape

HOW DOCUMENT WAS DEVELOPED

This document was agreed upon as part of the National Department of Health (NDoH) process to develop and implement the accelerated PMTCT operational plan. The latter commenced with a stakeholder meeting hosted by the NDOH and opened by the Minister of Health in November 2008, and this document grew out of discussions held after this meeting.

This document was developed in a short space of time using data gathered during recent conferences (Child Health Priorities Conference, December 2008, South Africa AIDS conference, April 2009) and from stakeholder meetings:

- Snowball techniques were used to identify sites with possible best practices in PMTCT, and key individuals within these sites were either interviewed telephonically or sent a self-administered questionnaire via e-mail.
- Site visits were conducted in the Cape Metro District Services and Cape Town City Health IHI sites, and to observe the milk bank and flash heating facility in KZN.
- Face to face interviews were conducted with staff of 20,000plus and the Western Cape IHI projects.
- All clarifications were either obtained via e-mail or telephonic discussions.

All information obtained was synthesized according to the PMTCT cascade, into user-friendly text boxes so that the document is easy to read. The best practices are summarized under the following headings for ease of reference:

- Context within which the best practice operates
- What is the best practice?
- What effect has the best practice had?
- What has made it sustainable?
- Implications for other sites
- Key contact people if further information is needed?

This document contains a summary of the best practices that have been identified in various areas of the PMTCT cascade.

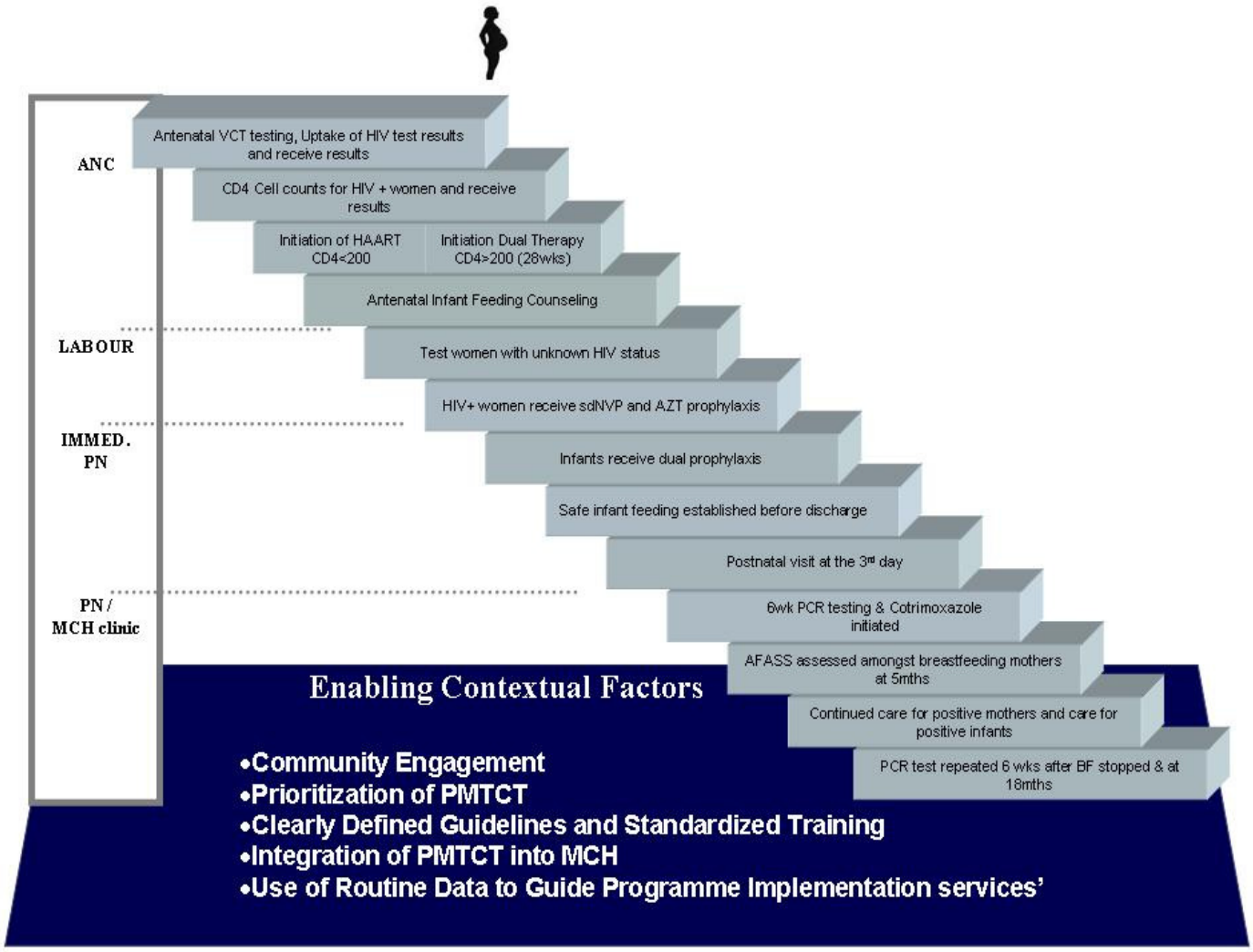
Essential smaller tools have been added in the text of the document.
Larger tools have been included in the Annex.

EXECUTIVE SUMMARY

Preventing mother-to-child transmission of HIV is a key intervention to improving maternal and child health and meeting the 4th and 5th Millennium Development Goals. Preventing mother to child transmission of HIV should be an integral part of routine maternal and child health services so that:

- every health care worker working in maternal and child health service provides services that prevent mother-to-child transmission of HIV as part of their routine activities, and
- every mother and child accesses services that prevent mother-to-child transmission of HIV before pregnancy (preventing HIV infections), during pregnancy (PMTCT services integrated into routine basic antenatal care) and postnatally.

To achieve less than 5% HIV transmission from mother to child the following key cascades in the PMTCT care pathway need to be functioning optimally: HIV-positive women need to flow from one step in the cascade to the next, and there should be no fall-out as one descends the PMTCT cascade.



The sites listed in the table below have been show cased as case studies in this document. Contact details of key individuals have been provided so that implementers can contact them for more detailed information.

Key PMTCT focus area	Best Practice site Province / site / specific practice	Specific Activity/Activities	Key driver (KD) and partners
Section 1: Creating an enabling environment			
• Creating a positive environment for PMTCT – community engagement	Ndawana – Edzimkulu - Sisonke district WC/ Mothers to mothers	Community engagement to address stigma regarding HIV, and to develop a system whereby community workers offer VCT and PCR testing at home	Edzimkulu (NGO) and the District Health Management Team
• Prioritization of PMTCT	Gauteng / PMTCT working group	Creation of a PMTCT working group, and regular meeting of this group to coordinate PMTCT activities within the broader MCH framework, and to address bottlenecks in PMTCT. This group should comprise all stakeholders working on PMTCT in the province	Gauteng Department of Health
• Developing standardized guidelines / protocol for PMTCT	Western Cape / provincial process to develop a PMTCT protocol	Consultation with technical experts and implementers to develop standardized guidelines and protocols for PMTCT implementation	Western Cape Provincial Department of Health
Section 2: Comprehensive approaches to PMTCT improvement			
• PMTCT integration into MCH and nutrition services	Kwa Zulu Natal / Amajuba district / Integration Mpumalanga / South west Tshwane / birth register and BANC Mpumalanga – MRC / birth register Western Cape – IHI / Infant follow-up and mother-child card	Reorganization of clinic activities and flow, and task shifting or task sharing to facilitate and integrated PMTCT activities into routine services Development of a new birth register that includes PMTCT, and postnatal patient-held card that integrates PMTCT and adaptation of the RTHC to facilitate follow - up	Amajuba District Health Management Team and MRC Mpumalanga DoH, MRC, IHI
• Developing comprehensive HIV care and treatment of mothers and children: Experiences from Limpopo Province	Limpopo / Vhembe / UL project on comprehensive HIV care for mothers and children	Creation of mentoring teams to improve quality of PMTC care; use of an antenatal register	Limpopo DoH, University of Limpopo Department of Paediatrics and Child Health
• Use of data / audit cycle to improve PMTCT services	Kwa Zulu Natal / 20 000 plus / IHI site Cape Metro District Services and Cape Town City Health IHI supported sites	Use of data to change practices and improve PMTCT implementation	KZN Department of Health, District Health Management Teams, Department of Padiatrics and Child Health, IHI
• Comprehensive quality improvement in PMTCT programs	Mpumalanga, KZN, North West, Limpopo, Eastern Cape	Implementation of a comprehensive QI approach including QA training, monthly monitoring and quarterly evaluation (continuous quality improvement cycles) to improve PMTCT implementation	DOH, URC/HCI Project
Section 3: Specific interventions addressing one area of the PMTCT cascade			
• HIV testing	Gauteng / Soweto-PHRU collaboration/ IHI site Cape Metro District Services and Cape Town City Health IHI supported sites	VCT offered to every pregnant woman who comes through the clinic. Testing is done on the same day and results are available immediately	District Health Management Team, PHRU

Key PMTCT focus area	Best Practice site Province / site / specific practice	Specific activity(ies)	Key driver (KD) and partners
Section 3: Specific interventions addressing one area of the PMTCT cascade			
• CD4 cell count	Kwa Zulu Natal / Amajuba district	HIV testing bundled with CD4 cell count and sent off on same day	Amajuba District Health Management Team and MRC
	Gauteng / Soweto-PHRU collaboration	Pregnant woman testing HIV positive have blood drawn and sent for a CD4 count at the same visit. A return date is set for a week's time to collect the results.	District Health Management Team, PHRU
• Dual prophylaxis for mothers	Gauteng / Soweto-PHRU collaboration Cape Metro District Services and Cape Town City Health IHI supported sites	Patient contacted directly or via sms if the CD4 count result is <200 and are fast tracked to come in before return date	District Health Management Team, PHRU
• Dual prophylaxis for infants	Cape Metro District Services and Cape Town City Health IHI supported sites	Paediatrics day - a special day for paediatric HAART where HIV+ caregivers of HIV positive children also receive treatment. Paediatric outreach from the tertiary hospital allows paediatric patients to receive HAART at their home PHC and staff at primary care level are skilled up over time to deliver paediatric HAART' Mothers day – a special day for HIV pregnant women eligible for HAART held on the paediatric clinic day. Allows natural peer support groups to form and focused attention to be given to pregnant women. Women also observe mothers and children receiving HAART. Mother's are kept at the ARV clinic on Mothers Day until the infants PCR results are available. If the baby is PCR+, mother and baby remain in care on the same day, if the baby is PCR_ the mother is moved to a regular dault HAART day for continued treatment	Western Cape DoH and IHI
• 6-week PCR testing	Kwa Zulu Natal / Amajuba district	Onsite re-training of staff on correct coding and decoding in all facilities, providing guidelines on HIV coding. Allocation of lay counselor at the immunization station to screen RTHC for HIV codes and motivate mothers with unknown HIV status to test. Ensure that all babies are seen by professional nurses before immunization for screening purposes.	Amajuba District Health Management Team and MRC
• Infant feeding counseling	Kwa Zulu Natal / Cato Manor Clinic – antenatal infant feeding counseling Kwa Zulu Natal / King Edward Hospital -	A 5-finger approach is used to counsel on infant feeding options. This operationalizes AFASS and assesses the following 5	Department of Paediatrics and Child Health, UKZN, King Edward VIII hospital and District DoH

	flash heating breast milk	criteria – disclosure (acceptability), fuel course (feasibility), financial stability (affordability and sustainability) and piped running water (safety) A facility for flash heating breast milk from HIV positive women in hospital has been set up	
Key PMTCT focus area	**Best Practice site** **Province / site / specific practice**	**Specific activity(ies)**	**Key driver (KD) and partners**
Section 3: Specific interventions addressing one area of the PMTCT cascade			
• Infant follow-up	Gauteng / Mpumalanga / Western Cape use of PMTCT stamps, postnatal card, stapling mother and infant cards together, labour ward checklist Infant follow-up / mother-infant registers	A PMTCT stamp is used to document all relevant PMTCT information on the road to health chart SA postnatal card – which is given to the mother and is a hand-held card is used to document all relevant information regarding antenatal and PMTCT-related care to facilitate follow-up. The labour ward checklist (PMTCT checklist) is used to ensure that all PMTCT activities have been conducted and that all relevant information is recorded on the infant's Road to Health Chart. The mother-infant follow-up registers and children with special needs register are intended to optimize follow-up of mothers and infants.	MRC IHI Tshwane sub-district Mpumalanga province Western Cape District

The document provides key information from these sites so that other facilities and health workers can learn from them experiences and consider adopting or adapting the successful interventions for their particular setting.

The document is divided into 3 sections:

1. How sites create an enabling environment for PMTCT implementation
2. Comprehensive approaches to improving PMTCT implementation, including integration of PMTCT into routine services, use of mentoring teams to facilitate provision of comprehensive care and use of quality improvement approaches to improve PMTCT implementation
3. Best practices in specific areas of the PMTCT cascade

In summary these sections highlight the following approaches that have been used to improve PMTCT implementation:

Section 1:

- Engaging with communities to de-stigmatize HIV and increase uptake of HIV testing and PMTCT services
- Community-based HIV testing and PCR for infants
- Peer counselling or support for HIV-positive mothers
- Development of standardized guidelines / protocols for PMTCT implementation at local level

Section 2:

- Integrating PMTCT into routine services
- Use of mentoring teams to improve the quality of integrated PMTCT care
- Use of the audit cycle to identify gaps in PMTCT service delivery
- Use of a comprehensive quality improvement methodology to improve PMTCT implementation

Section 3:

Specific interventions that have been used to improve performance and outcome in some aspects of the PMTCT cascade. These interventions have included:

- changing the flow of the clinic

- changing when blood is taken for HIV testing
- changing transport schedules available to improve CD4 cell count turnaround time
- Re-defining roles and responsibilities at facility level
- Task shifting or task sharing
- Training enrolled nurses and lay counselors to assist with identification of HIV positive women and HIV exposed infants; encouraging mothers to bring their children back for PCR testing
- Developing a simple 5-pronged format for infant feeding counselling
- Setting up a facility to flash heat milk

Key factors that seem to have facilitated successful implementation have been:

- Engagement of all stakeholders including local leaders, district management, sangomas and inyangas (depending on the situation)
- Existence of a committed team comprising all key stakeholders
- Training that specifically focuses on implementation issues and updates in the protocol
- Training on using data to inform implementation and quality improvement
- Adapting existing tools in antenatal and postnatal care to include PMTCT
- Creating a new birth register that includes PMTCT
- Development of a postnatal card to facilitate postnatal care
- Using stamps on the antenatal card or Road to Health Chart to facilitate continuity of care

INTRODUCTION AND BACKGROUND

International and Regional Context

Best practices are strategies, processes, activities or systems that have been shown in practice to be effective in overcoming one or more challenges or bottlenecks in the implementation and effectiveness of health care and other service programmes. This report focuses on best practices for implementing PMTCT in South Africa.

Internationally and nationally, preventing mother-to-child transmission of HIV (PMTCT) has been recognised as an essential intervention in the fight against HIV/AIDS. The UNGASS declaration aims, *inter alia*, to reduce the proportion of infants infected with HIV by 20% by 2005 and by 50% by 2010.

Countries across Sub-Saharan Africa are now attempting to scale up programmes to prevent MTCT. Achieving national coverage is essential to meeting UNGASS goals for 2010. However, in order for PMTCT programmes to be successful, a number of steps have to be undertaken. In particular there must be: (1) good quality antenatal HIV counseling and testing; (2) CD4 cell counts for HIV positive women; (3) acceptance of antiretroviral therapy at health worker, pregnant women, family and community levels (4) correct administration of antiretroviral therapy within the health system; (5) safe and appropriate obstetric practices; (6) appropriate infant feeding counseling for all women tested for HIV; (7) continuity of care, including follow-up counseling and continuous support for optimal infant feeding (regardless of feeding choice) and linkages to other services, such as neonatal and child health care as well as HIV care and treatment and; (8) Infant PCR testing at or before 6 weeks. A thorough evaluation of each of these key steps is important.

PMTCT programme evaluations from a number of countries in Africa have found deficiencies in various components of PMTCT programmes including uptake of antenatal HIV testing[i,ii], receipt of test results[iii], uptake of antiretroviral prophylaxis[iv,v,vi] and postnatal mother-infant

follow up[1]. Table I summarizes some of the data from operational / routine PMTCT settings and the deficiencies in this data. These deficiencies are mainly due to the fact that PMTCT programmes are being introduced into already overburdened health systems. The cost and complexity of maintaining high follow-up rates of infants are major challenges that make operational evaluations of HIV transmission and HIV-free survival difficult to carry out; yet accurate follow up data is necessary in order to measure the true impact (both positive and negative) of PMTCT programme components. Loss to follow up occurs because many mothers do not return for postnatal care, others move out of the area and children's deaths may not be documented.

There is little documentation of how these challenges have been / are being addressed in routine (programmatic) settings where PMTCT programmes are taken to scale.

Table 1: EXISTING OPERATIONAL RESEARCH ON PMTCT INCLUDING INFANT FEEDING AND HIV

	Study design	Study setting	Main findings
Manzi et. al., 2005 [vii]	POC	Malawi – H - rural Data collected from routine registers	By 6 months 122/646 (19%) returned for follow-up – 81% loss to follow-up. Of these, 65 (53%) infants were being fed RM and 59 (48%) were EBF
Mlayuta et. al., 2006[viii]	POC	Ukraine – H - urban	Young cohort (n=860 HIV+), mainly primis, 99% chose to ERF. ERF not stigmatising. Free RM given.
Jackson et. al.[ix] **2007**	POC	South Africa – CHV – 3 sites (1 urban, 1 rural, 1 semi-urban)	n=665 HIV+. HIVFS varied between sites (84%; 74% 65%). Ever BF and health system factors accounted for the difference between Umlazi and Paarl and Rietvlei and Paarl, respectively. Maternal viral load was the largest predictor of HIV-free survival. Detailed feeding results yet to be reported.
Welty et. al., 2005[x]	POC	Cameroon – H – urban and rural	RM offered free when available, but ERF not an option due to rural settings, limited access to safe water and because MF was a norm. Detailed feeding results yet to be reported.
Magoni et. al. 2005[xi]	POC	Uganda – H urban	N=306. 152/179 breastfeeders (85%) EBF, 25% of the EBF group gave other liquids or foods; 11% of women who chose to ERF gave breast milk.
Sherman et. al., 2004[xii]	RC	South Africa – H – urban	13-month retrospective data from record and prospective data on a sample of patients. Urban setting with free formula HIV transmission rates of 8.7% and 8.9% - 6 and 12 weeks verifies the ability of women to ERF.
Coetzee et. al., 2006[xiii]	C/S	South Africa – H – urban	n=535 HIV+ women. Cross sectional study at 6-10 weeks post-delivery. 4 reported MF – the rest reported ERF.
Perez et. al., 2004[xiv]		Zimbabwe- H-urban	ERF not an option in this population. 77.6% opted for EBF.

Footnotes: POC = prospective observational cohort study; RC = Retrospective cohort; C/S= cross-sectional; H=hospital; HIVFS = HIV-free survival; CHV=community-based with home visits; EBF = exclusively breastfed; BF=breastfeeding; BM = breast milk; ERF = exclusively replacement fed; MF= Mixed feeding; RM = replacement milk; n= sample size;

The South African National PMTCT Programme

The South African National PMTCT programme was launched at 18 pilot sites in 2001. Between 2001 and 2007, the package of care for the programme included offering all antenatal clients voluntary counseling and rapid HIV testing, infant feeding counseling, single dose nevirapine to those women identified as HIV infected and their infants, and free formula milk for a period of 6 months for HIV-positive women choosing not to breastfeed. The programme also stipulated that all infants should be followed up and tested for HIV, with a rapid antibody test, at 12 months, although in later years PCR testing at the 6 week immunization visit was also being used in many sites across the country. The operational effectiveness of this programme was determined in 3 purposively-selected sites in 2002-2003 (Good Start study)[xv]. The Good Start Study was the first attempt to evaluate the PMTCT programme in South Africa[9, 15]. This study, designed to assess the impact of the South African National PMTCT programme, followed 665 HIV-positive mothers and their infants from birth to 36 weeks in three PMTCT programme sites, representing urban (Paarl), peri-urban (Umlazi), and rural (Rietvlei) settings. Early transmission, measured at 3 weeks was 8.6%, 11.9% and 13.7%, respectively, suggesting that early PMTCT interventions were nearly as effective in all 3 programme sites as reported in clinical studies. However, by nine months, the early benefits of the programme were substantially diminished, with a widening in the gap between the well (urban) and poorly functioning sites (rural). HIV-free survival at 36 weeks varied significantly across sites ($p=0.0003$) and further analysis suggested that traditional risk factors, such as maternal viral load, infant pre-maturity, and breastfeeding status did not substantially explain the differences. Differences appeared to be associated with variations in infant feeding practices and the quality of health care services. The Good Start study team also documented challenges with PMTCT training and case studies[xvi,xvii]. However Best Practices have not been systematically reported and updated since 2004.

The National Strategic Plan (NSP), South Africa, 2007-2011, recognises PMTCT as a mainstay of the response against HIV and AIDS in children. The current NSP prioritises the following strategies (listed under Key Priority Area 1: Prevention) to prevent HIV in children under the age of 14 years:

- Reduction of mother-to-child transmission of HIV through expansion of existing mother-to-child transmission services including contraception fertility services, reducing unintended pregnancies and involving men, as well as HIV prevention services in uninfected pregnant women
- Scaling up of coverage of PMTCT to reduce MTCT to less than 5% by 2011.

In 2008 an updated PMTCT protocol was approved for implementation. The present PMTCT protocol covers a wide range of activities[1]. Anecdotal information reported at National PMTCT meetings suggests that lessons can be learnt from the way several PMTCT sites have addressed one or more of the key bottle necks to PMTCT implementation[xviii]. We aim to systematically document these best practices so that PMTCT implementation can be strengthened throughout South Africa.

[1] The current package of care now includes voluntary counseling and rapid HIV testing, CD4 cell count, antenatal infant feeding counseling, dual therapy for pregnant women (AZT and Nevirapine) and CD4 count checking from 28 weeks gestation - HAART if CD4 count ≤250 or if the woman has stage IV disease; continued AZT from 28 weeks if CD4 count > 250; single dose nevirapine at the onset of labor; regular AZT during labor; dual therapy for infants postpartum (single dose nevirapine and AZT for 7 days or for 28 days if mother has not received adequate antenatal cover with ARVs); postnatal infant feeding counseling and support; 6-week DNA PCR testing for all HIV-exposed infants; 5-6 months PCR testing for breastfeeding infants; PCR testing 6 weeks post-breastfeeding cessation; HIV antibody testing on all HIV-exposed infants at 18-months.

SECTION 1 – SETTING THE SCENE FOR INTENSIFIED PMTCT IMPLEMENTATION:

ENABLING CONTEXTUAL FACTORS FOR PMTCT IMPLEMENTATION

One of the key bottlenecks to PMTCT implementation is lack of a supportive / enabling environment.

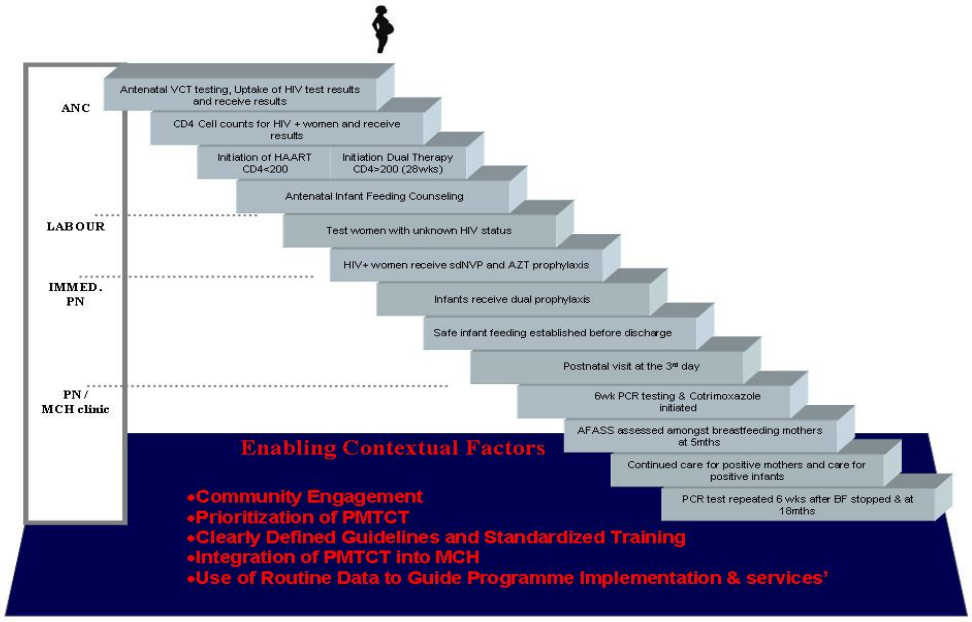
This may be due to several factors, viz.:

- communities have not been engaged in the PMTCT implementation process;
- PMTCT has not been prioritized and supported at family / household / sub-district / district / provincial levels;
- guidelines and training materials / courses have not been clearly defined;

This section of this document presents best practices that illustrate how sites have created an enabling environment for PMTCT implementation.

In particular the following will be show-cased:

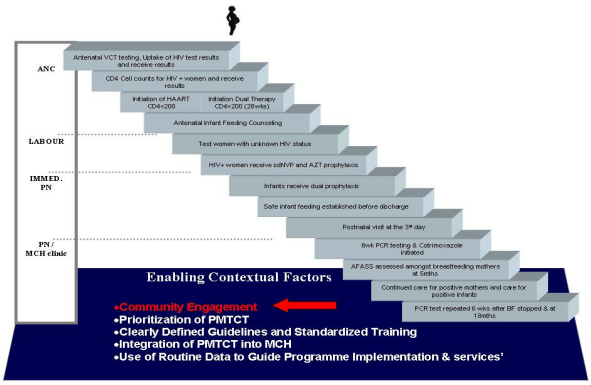
- Ways that can be used to intensify community based action to increase access to HIV & AIDS care and reduce, stigma & discrimination
- Ways that can be used to increase peer support and group support for HIV-positive mothers
- A way to increase the provincial prioritization and coordination of PMTCT implementation
- How standardized guidelines can be developed at provincial level



1.1 COMMUNITY ENGAGEMENT: Ways to intensify community based action to increase access to HIV & AIDS care and reduce stigma & discrimination

COMMUNITY ENGAGEMENT, NDAWANA, KZN

Location: Ndawana, Sisonke District, KZN
Setting: Deep rural village with prior access only to a monthly mobile clinic
Pop served: All 3900 community members
Year Started: 2003
Lead Agency: Edzimkulu
Collaborating Agencies: Sisonke Department of Health, TB/HIV Care
Funding: DoH for staff and some campaign costs; small Canadian foundations and individuals
For more information: www.edzimkulu.org



How was COMMUNITY ENGAGEMENT TO INCREASE ACCESS TO HIV/AIDS CARE started?

- Edzimkulu (a Canadian charity started in May 2003) commenced work in Ndawana, Sisonke district after a plea for help in a letter written by an HIV/AIDS volunteer in the Ndawana Women's Leadership and Training Programme,
- 400 community members were mobilized & employed in all aspects of constructing a four-building community centre – part of which is now used as a clinic and for early childhood education
- Edzimkulu, in consultation with the District, trained CHWs in June 2005 and thereafter so that VCT and HIV/AIDS care can be integrated into routine public / district health care

What processes facilitated COMMUNITY ENGAGEMENT and increased access to HIV & AIDS-related care?

Working with key stakeholders, including chiefs, sangomas, inyangas, community workers and health professionals in the community to address issues around HIV disclosure / de-stigmatization

Work at community level resulted in community readiness and Ndawana became an ARV down-referral site (January 2007). ARV treatment is also now initiated on site (since 2008):

- Children who account 15% of the total on ARV treatment in Ndawana are given support/follow-up & care through home to home visit by community based health workers (CHWs)

Following liaison with DoH and following advocacy a community-Based VCT, ANC and PCR testing service was started

- CHWs are trained to give basic ANC service & do PCR testing
- Door to door VCT service is provided by community based health workers.

A strong relationship between the local NGO (Edzimkulu), leadership in the district office, and with CHWs, community members and health facilities has facilitated progress

What effect has this best practice had on HIV/AIDS care?

- More than 50% of the entire community has been tested for HIV
- Over 230 people have been in the ARV program in Ndawana – about 130 of those initiated ART on site. Loss to follow-up is very low (approximately 3%).
- Death rate among those who take ARV is 8%.
- People enter the HIV/AIDS support & care program with higher CD4 cell count.
- Until the ANC programme was initiated, most pregnant women in the catchment area did not present for first ANC visits until the third trimester & 26% of births were home deliveries

What structures / approaches / tools support the best practice and what makes it sustainable?

Structures:

- Most aspects of the program are *sustainable* because they are now *embedded within the District Health Management Team and local Department of Health.* Although Edzimkulu funds maintenance of the community centre, the clinic (staff, equipment and supplies) is funded by the local DoH. Negotiations are underway for the district to take over management of the community centre over the next few years
- Good program management and deep *commitment* exists at *community level.*

***Tools and approaches that have made a difference include*:**

AIDS awareness campaigns

- usually several months long
- engage target segments of the population
- start with workshops and then involve the target groups
- feed back the messages to others through competitions etc.

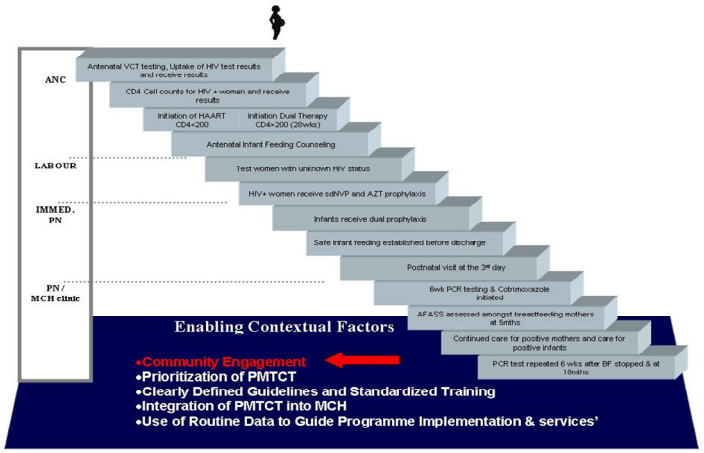
Supporting the development of support groups **-** these provide a platform for people to discuss issues in a safe environment.

What are the keys to increasing COMMUNITY ENGAGEMENT so that access to HIV & AIDS-related care is increased? *Implications of the Ndawana experience for other sites in SA wanting to create an enabling environment for HIV & AIDS and PMTCT-related care:*

1. ***Developing a partnership between all role-players and stakeholders in the community,*** including health care personnel, district management, sangomas and inyangas is critical to the success of HIV & AIDS, including PMTCT programmes
2. ***Health care personnel*** (both professionals/lay counselors), sangomas and inyangas need to *overcome their own stigma* about HIV, STIs etc. *Their comfort level creates the basis for an ongoing relationship with the client*
3. The ***CHWs*** *(doing case finding and case holding) must be* ***from the community*** *and truly committed to their community.* They need to have manageable case loads so that they can follow-up with clients
4. ***PMTCT as well as all other aspects of HIV prevention/ treatment etc. needs to be normalized and viewed as part of primary health care so that it can be dealt with effectively and further de-stigmatized***
5. ***Informal health education*** (communication via CHWs to the community members through informal/unplanned meetings) *works better to bring behavioral change compared to the traditional (one way) health education*
6. Providing access to service in the community breaks a huge barrier that is often overlooked.

1.2 COMMUNITY ENGAGEMENT: Ways to increase peer support and group support for HIV-positive mothers

m2m (mothers2mothers)
Year started- 2001
Setting: Operates in 304 sites in 6 provinces across South Africa Western Cape, Eastern Cape, Mpumalanga and KwaZulu-Natal, Northwest Province and Gauteng. Both **rural and urban.** Antenatal, labor and delivery and postnatal clinics and hospitals
Collaborating agencies- Dept. of Health **Ext. funding-** Yes
Population served-antenatal and postnatal clients
Contact: www.m2m.org



What is m2m?

- m2m is a community-based education and mentoring programme for HIV-positive women and new mothers.
- It uses peer support as a model for effective education and social empowerment for HIV-positive pregnant women.
- It trains new mothers with HIV as peer educators and psychosocial care supporters

What does m2m aim to do? Reduce number of babies born with HIV by:

- enabling affected women to learn to advocate for their own health and health of their families
- encouraging and supporting disclosure
- working to de-stigmatize HIV/AIDS within communities
- linking mothers and mothers-to-be with the health care system

How does it do this?

Provides ***information and education*** to mothers on

- Basic medical knowledge on HIV infection and ART
- Behaviors that can help prevent MTCT
- Safer feeding options for infants
- Counseling methods that can help women disclose their status
- Strategies for negotiating safer sexual practices
- Nutritional guidelines for women living with HIV
- Information about where to seek services and how to apply for grants

Provides a ***safe environment*** for positive pregnant women and mothers where they can:

- Interact and meet similarly affected women, share experiences, support each other, problem solve for healthier outcomes

What is its format?

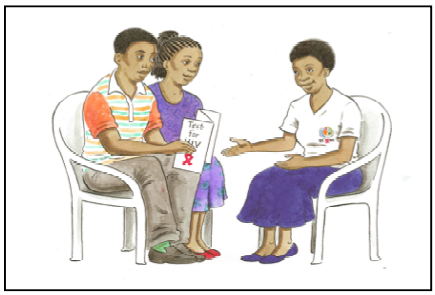
- General health talks are conducted in waiting rooms of facilities providing ANC and/or MCH services – informing pregnant women and new mothers of m2m services and how to access them.
- One on one counseling provided on a daily basis in clinics and labor and delivery wards to address concerns and questions on an individual basis.
- Group meetings for HIV positive pregnant women and mothers are held in private rooms

RESULTS:
A study sponsored by the Horizons Program found the following outcomes when comparing mothers who were enrolled in m2m program vs mothers who were not enrolled in the program in Kwa-Zulu Natal:

- Improved PMTCT outcomes
- Reported greater psychosocial well being
- Greater use of PMTCT services
- Improved link with health facilities after delivery

Baek C, Mathambo V, Mkhize S, Friedman I, Apicella L, Rutenberg, N. *Key Findings from an Evaluation of the mothers2mothers Program in Kawzulu- Natal, South Africa.* Horizons Program and Health Systems Trust, 2007.

What are some of the factors LINKED to m2m's successes?



- The program is the ***health facility-based*** and encourages utilization of health facilities (clinics and hospitals) and facility-based peer support.
- A ***designated space*** within the health facility is allotted for counseling and support group meetings. This provides a safe, confidential and inclusive space for peer interaction.
- A ***positive peer support environment*** is created – this is a key to successful learning and behavioral changes and helps enable women to negotiate stigma and discrimination surrounding their HIV status. It also works to enable behavior change for HIV positive women so that participation in all steps of the PMTCT cascade occurs and PMTCT outcomes are improved.
- Meetings provide information and psychosocial support to enable women to make the changes necessary in their lives to successfully complete the PMTCT program.
- It is based on the philosophy that knowledge is one thing but the ability to act upon that knowledge is the real driver for change.

KEY factors that facilitate successful group mentoring in m2m:

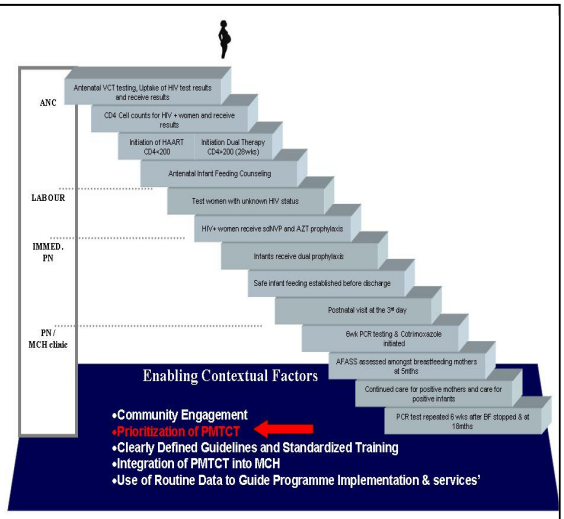
- An incentive (a nutritious and free meal at every meeting) for women attending the group meetings encourages participation
- Spatial accommodation in the health care setting for a confidential, safe space for meetings
- The use of HIV-positive mentors – who have gone through similar experiences, facilitates a positive and supportive environment by using mentors who have been similarly affected.

"Behavior change is driven by group interaction and not just a linear didactic process"
Mitch Besser- m2m founder and director

Implications of the m2m experience for other sites in SA wanting to create an enabling environment for HIV & AIDS and PMTCT-related care through peer-supporters / mentors:

- Enroll / Engage HIV-positive women who have been through the PMTCT programme, as on-site mentors or as community-based workers, and train them appropriately
- Ensure that a designated, safe space is provided for such mentors to run group support and education programmes
- Provide an incentive for women to attend these support groups, if funding allows e.g. a nutritious meal

1.3 Prioritising PMTCT: Developing a provincial steering committee to prioritise and coordinate PMTCT activities and implementation



Why A Provincial Steering Committee?
The Provincial Committee was a necessity so that the revised PMTCT Protocol (11 February 2008) could be implemented in a coordinated speedily manner and as quickly as possible
Location: Gauteng Province
Year Started: February 2008
Lead Agency: Department of Health Directorate Maternal Child Health and Nutrition
Collaborating Agencies: HAST Directorate (Gauteng DOH), Perinatal HIV Research Unit (PHRU), Reproductive HIV Research Unit (RHRU), Enhancing Childhood HIV Outcomes(ECHO), Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Medical Research Council (MRC), Right-To-Care (RTC), AED, Kagiso TV, Mothers2Mothers, University of Pretoria (Paediatrics), University of the Witwatersrand(Community Paediatrics), Dr George Mukhari Hospital (Paediatrics and O&G)
External Funding: None

How was the Steering Committee Started?

- The Working Group was an initiative to achieve the speedily implementation of the PMTCT 'dual therapy'.
- The Directorate Maternal Child Health and Nutrition Director (Sikhonjiwe Masilela) requested Dr Ashraf Coovadia to collaborate in developing an implementation plan for the newly revised protocol, Directorate MCH and Nutrition with ECHO invited partners working on HIV / AIDS prevention and management.
- The Directorate MCH and Nutrition had established a Maternal Newborn Child Women's Health and Nutrition Framework Group (FG).
- The urgency of implementing 'dual therapy' required all energies to be channeled on getting the WG on PMTCT off the ground and every member to hit the ground running.
- The main funding came from the PMTCT Programme / HAST Directorate, sometimes Directorate MCH and Nutrition and ECHO.
- The MNCWH and Nutr, has established subgroups and the WG has similar or more groups called subcommittees (e.g. communication, infant diagnosis, infant feeding training etc.)
- Eventually the WG will be incorporated to the Framework Group to facilitate effective information education and service delivery of programmes targeting the mother and child to improve quality of care
- Experiences gained from the WG will be priceless for the FG.

What tools / structures support the working group and what makes it sustainable?

- Committed leadership (from all sectors). There is strong representation from GDOH and from the partners
- Excellent working relationship between govt and the partners built on trust and mutual respect with recognition of each others strengths and limitations
- A strong coordinating structure from ECHO – a partner organisation that functions as a secretariat
- An effective communication strategy that involves email communication between all.
- High level support from the Provincial DOH – Chief Director (Mrs Thandi Chaane – very supportive)
- MEC for Health in province has recognized and acknowledged the value of partnerships and was present to officiate at celebration of milestone achievement of programme (August 2008)

What have been the successes of the working group?

1. Establishment of one body coordinating PMTCT in the entire province (inclusive of all regions)
2. A strong partnership established between govt and NGOs (partners)
3. Roll out of uniform and standardized training throughout the province on the new protocol
4. Ensuring that logistics for the scale-up of the programme were taken care of with much support from partners initially including the provision of AZT supplies.
5. The establishment of 6 subcommittees
    a. Training
    b. Logistics
    c. Infant Feeding and Follow up
    d. Infant Diagnosis
    e. Monitoring and Evaluation
    f. Communication
6. Sharing of M&E data within group.
7. Development on infant feeding position for the WG
8. The "Launch" in August 2008 celebrating the passing of 7500 mother-infant pairs who were recipients of the new PMTCT protocol.
9. The development of recommendations on the new Road To Health Card by NDoH were discussed at the WG and will be piloted soon.

Contact Details for more information:

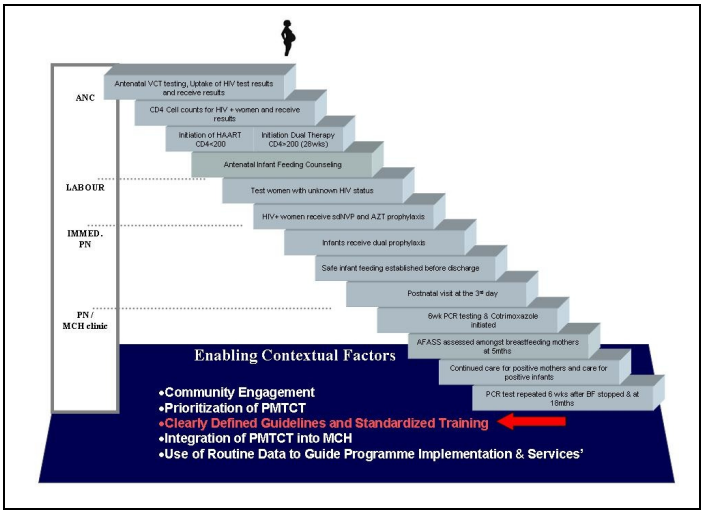
Sikhonjiwe Masilela – Director: Directorate Maternal Child Health and Nutrition, Gauteng DoH,
Tel: +27 (0) 11 355 3397 or 3266; facsimile: +27 (0) 11 355 3551 cell: +27 (0) 82 335 2982
e-mail: sikhonjiwe.masilela@gauteng.gov.za

Dr Ashraf Coovadia – Paediatrician: Rahima Moosa Mother and Child Hospital, Gauteng DoH / ECHO
Tel +27 (0) 11 470 9290 or 9168 ; facsimile: + 27 (0) 11 673 4905 Cell: +27 (0) 82 927 9097
email: Ashraf.Coovadia@wits.ac.za

Implications of the Gauteng experience for sites wanting to raise the priority of PMTCT:

- A strong coordinating structure to coordinate all aspects of the PMTCT programe, and which locates PMTCT within broader maternal, neonatal, child, women's health and nutrition interventions is critical
- The structure must involve key stakeholders in Government and must complement Government plans and activities

1.4 Developing standardized guidelines for PMTCT : Developing a provincial protocol, which is based on the national protocol, for PMTCT implementation



What was the process of a protocol development/ revision?

1. **Involve stakeholders!** Identify who these are and draw on their expertise and experience. For the WC this included
   - Clinicians, nutritionists
   - NGOs e.g. m2m, IHI, Desmond Tutu Aids Foundation, MSF
   - District program managers- including TB, HIV, PMTCT, STI, HIV Maternal Child Health
   - Researchers and academics
   - Data Monitors
2. **Form working groups.** Include experts/ researchers/ practitioners/ academics in working groups that focus on specific areas of the Protocol e.g. experienced nutritionists, researchers and academics formed a working group to inform the infant feeding sections of the protocol. This helped to get buy in of local people.
3. **Compile** the information into a working document.
4. Hold discussions focusing on components, and ***send to stakeholders for comments and suggestions***.
5. Receive and **incorporate** feedback.
6. Provide training for practitioners/ health care workers: Focus training on updates, how to use tools and how to integrate the protocol into routine services
7. **Roll out** in one district at a time to monitor its reception and implementation
8. **Distribute copies** of protocol and its **flowcharts/ algorithms** to all relevant facilities.
9. Distribute poster size flowcharts to be placed on the walls of clinics, MOUs, and L&D wards of hospitals
10. **Develop M&E tools** to mirror relevant components of the protocol - Registers and data capturing systems have been developed in the WC to monitor and improve on the PMTCT program

Why a provincial protocol?

"The purpose of this document is to rapidly orientate the midwife and attending medical staff on how to manage an HIV positive woman who comes into the PMTCT programme in the Western Cape Province."

In 2003-2004, the Western Cape Province developed a provincial protocol based on the national protocol for PMTCT implementation. This protocol provided clear guidelines on what procedures should be followed for optimal PMTCT delivery. The protocol incorporated evidence from clinical studies that demonstrated that dual anti-retroviral therapy for pregnant women clearly reduced vertical transmission rates of HIV from mothers to their babies. It developed from the recognition that a standardized guideline for PMTCT delivery was crucial to successful PMTCT programming.

The protocol:

- Addresses **care delivery** at antenatal and post-natal clinic, labour and delivery settings for comprehensive continuity of care at all points in PMTCT cascade.
- Guides health care workers through each stage of the PMTCT cascade, clearly **defining roles and procedures**.
- Acts as a tool and reference to best **inform practice** for comprehensive care delivery for HIV positive pregnant women.

The 2004 protocol is clearly divided into the following **key sections**:

- Voluntary counseling and testing
- Antenatal care and antiretroviral distribution
- Management of patients during labour and delivery
- Management of the neonate in the obstetric facility
- Pediatric follow-up at baby clinics
- PCR testing of babies

Current **revision/ expansion** of 2004 Protocol

- Takes into account new evidence
  - Initial PCR testing for infants at 6 wks (previously set at 13 wks)
  - AZT therapy initiated at 28 wks (initially set at 34 wks)
  - HAART initiated at 250 and below (national guidelines set at CD4 200)
- Focuses on integration of PMTCT into all services e.g. TB/Nutrition/ Maternal and Child Health/ STI/ Family Planning.

Some features of the 2004 Summary PMTCT Protocol

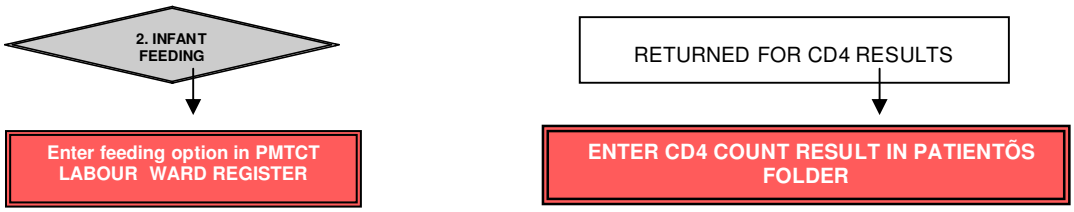
Uses **flow charts/algorithms** to explain**:**

- VCT, antenatal care, how to manage women with low CD4 cell counts, management during labour and delivery, management of the neonate and postnatal care, Infant feeding counseling. (see Annex 1 for examples)

Uses **simple tables** and **explanations** to describe:

- When and what **documentation** should be used in conjunction with the protocol.

Below is an example of when and where to document information. All documentation is indicated in red boxes in the flow charts.



- **Guidelines** for identifying HIV positive women to **provide needed care and interventions.**

*Below is an example of the **PMTCT antenatal stickers** to be placed on antenatal cards and folders and the key to reading these identifiers.*

Annexure E: Retroscreen:
Yes……. No…….. Declined……

MTCT: Yes…….. No……

CD4 count: ……..

Feeding Choice: Excl BF …… Excl FF ……

Booking Facility: ……

Retroscreen Yes: HIV positive
Retroscreen No: HIV negative
Retroscreen Declined: Did not agree to testing
PMTCT Yes: Participation in program
PMTCT No: Not participating in program
BF: Breast feeding
FF: Formula feeding

- Clear indication of **medication and dosing for women and infants**.

Below is an example of dosage instructions for neonates exposed to HIV.

Maternal Anti-retrovirals taken:

NEONATAL ANTIRETROVIRAL THERAPY

NEVIRAPINE	AZT (b.d. for 7 days)
>4 HRS POST DELIVERY >1 HR PRE DISCHARGE < 72 HOURS AFTER DELIVERY ONE DOSE ONLY UNLESS BABY VOMITS WITHIN ONE HOUR	FIRST DOSE WITH NEVIRAPINE STARTING ON DAY 1, for 7 days
DOSE:	**DOSE:**
BW >2kg = 0.6 ml **BW <2kg = 0.2 ml/kg**	**BW>2kg = 1.2 ml bd** **BW<2kg = 0.4 ml/kg bd**

No Maternal Anti-retrovirals Taken

ADMINISTER NEVIRAPINE DOSE TO BABY AT **60 MINS**. FIRST DOSE OF AZT AFTER FEEDING.

DOSE NEVIRAPINE:	DOSE AZT (b.d. for 7 days)
BW >2kg = 0.6 ml	BW>2kg = 1.2 ml bd
BW <2kg = 0.2 ml/kg	BW<2kg = 0.4 ml/kg

What are the benefits of developing a provincial PMTCT protocol?

- **Standardizes practice**
  - Ensures all facilities are doing 6 wk PCR testing on infants, providing dual therapy, referrals for HAART at determined CD4 count level
- **Incorporates latest evidence** to produce most feasible ideal for PMTCT implementation.
- **Establishes guidelines** and clarifies roles for PMTCT implementation for health care workers
- Helps guide the **integration** of a PMTCT programme into existing MCH services

Key points from the Western Cape experience that aimed to operationalise the PMTCT protocol: *Implications for sites wanting to establish standardized protocols*:

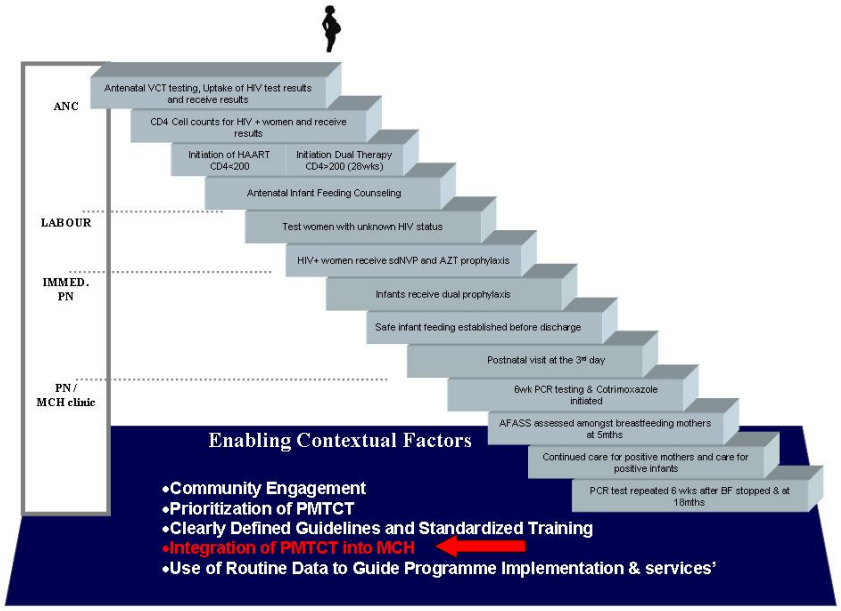
- The protocol / guidelines should be **in line** with the new National PMTCT Protocol
- It should be **evidence-based** as identified by stakeholders and experts - as new evidence comes to light, this must be incorporated
- It should take into account the **capacity, resources, infrastructure** of province/ context for which it serves.

Western Cape example of setting ART initiation at a CD4 cell count of 250 or below in HIV+ pregnant women

WHO stipulates the optimal stage at which a pregnant HIV+ woman should be initiated on ART at a CD4 cell count of 350 or below while the National Protocol stipulates that ART should be initiated at a CD4 cell count of 200 or below. To follow the WHO standard was not feasible given the capacity of the WC Province to accommodate the increased numbers of HIV+ pregnant women who would then qualify for ART. Factors taken into account included the ability to procure the necessary drugs and the capacity for the WC ARV program to incorporate the increased number of women who would now be referred. It was decided that a CD4 cell count of 250 was a viable cut off point that improved upon the national standard of CD4 200 yet remained feasible given the capacity and infrastructure of the Province.

SECTION 2 COMPREHENSIVE APPROACHES TO IMPROVING PMTCT IMPLEMENTATION

2.1. Integrating PMTCT into routine antenatal and postnatal care



INTEGRATING PMTCT INTO ROUTINE ANTENATAL AND POSTNATAL CARE

Location: Mpumalanga province, south west Tswane

Setting: urban and rural hospitals and clinics

Pop. served: All pregnant women

Lead Agency: MRC – maternal and infant health strategies
Collaborating Agencies: Department of Health (GDoH / Mpumalanga DoH)

Funding: MRC / DoH

For more information: Professor Bob Pattinson – cathy.bezuidenhout@up.ac.za or Dr Yusuf Cassim – yusufc2@tshwane.gov.za

What is the best practice?

PMTCT has been integrated into basic (routine) antenatal care (BANC):

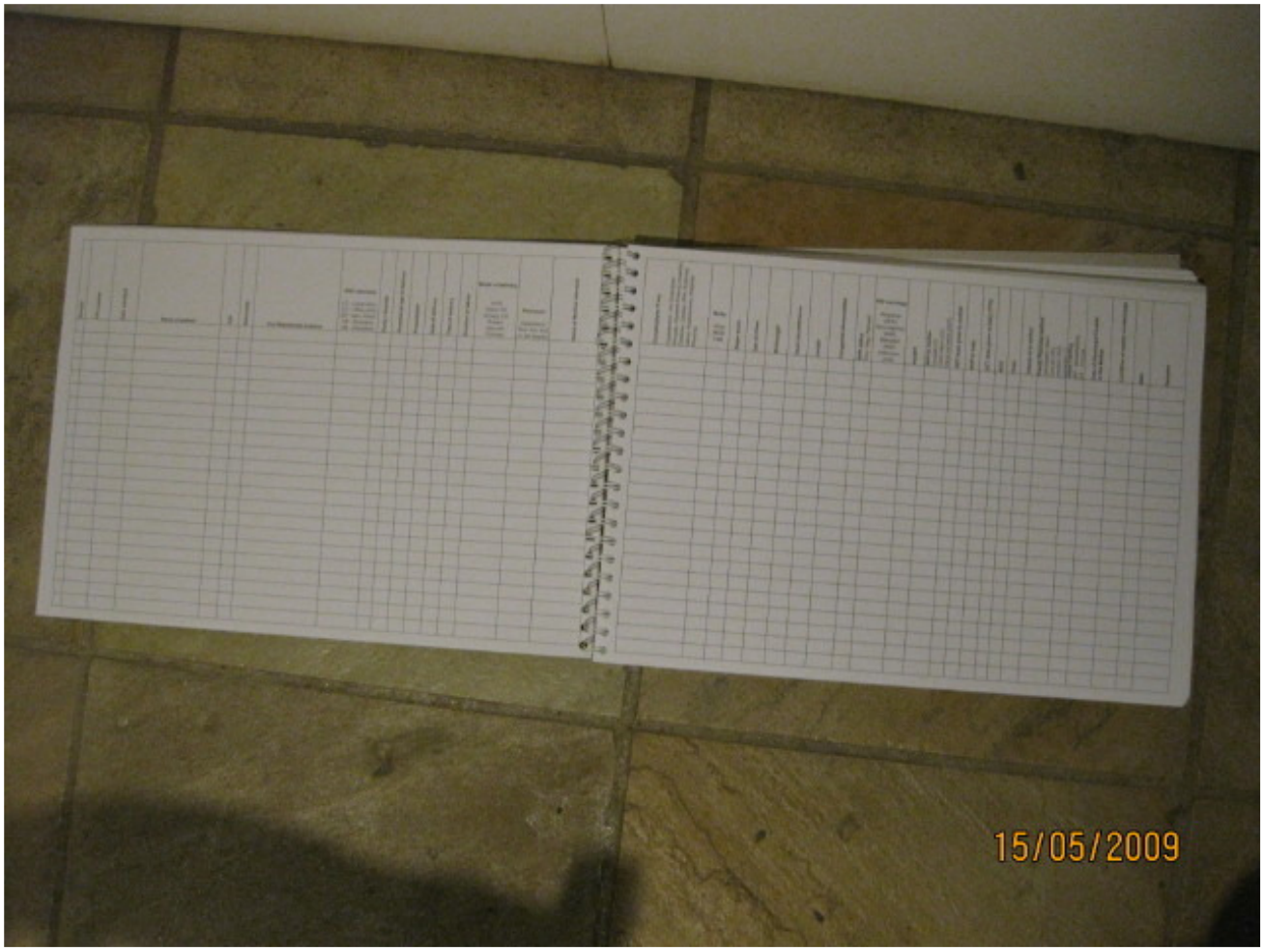
A Training package including:
- BANC Referral hospital notes
- BANC Training of Trainers manual
- a BANC Hand booklet,
- BANC Task booklet,
- BANC protocols and audit tools,
- BANC posters,
- a format for the development of on-site good care and practice guidelines,
- a postnatal card (See Annex 2) and
- a training manual on essential postnatal care

has been developed to ensure the integration of PMTCT into routine antenatal and postnatal care

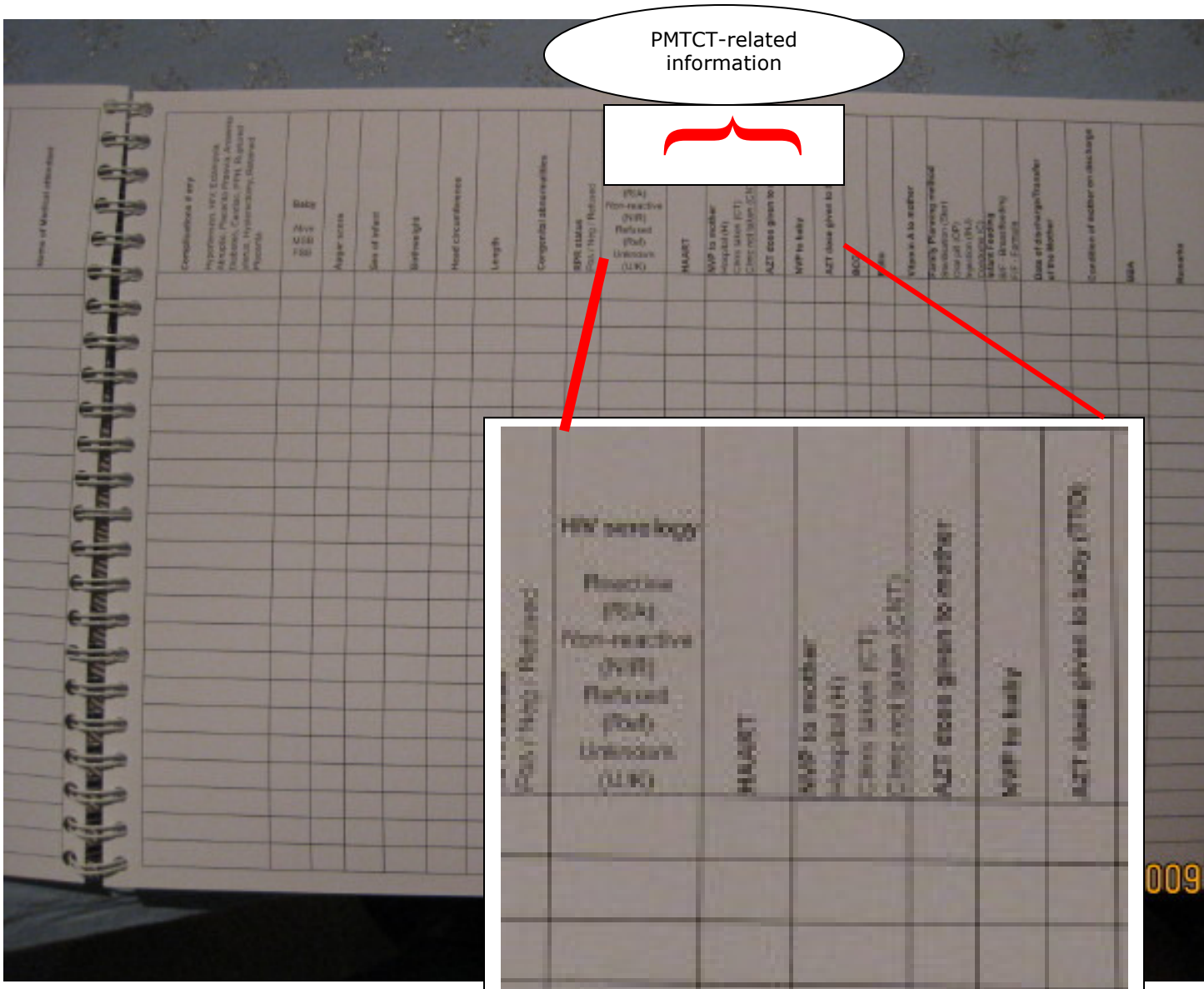
A package containing all the above documents and the PMTCT protocol are distributed to all facilities implementing antenatal and postnatal care
In addition a standardized birth register has been developed to ensure that all elements of PMTCT are integrated into routine labour ward practices.

The birth register and postnatal card are shown on the pages that follow. The postnatal card is also included in Annex 2

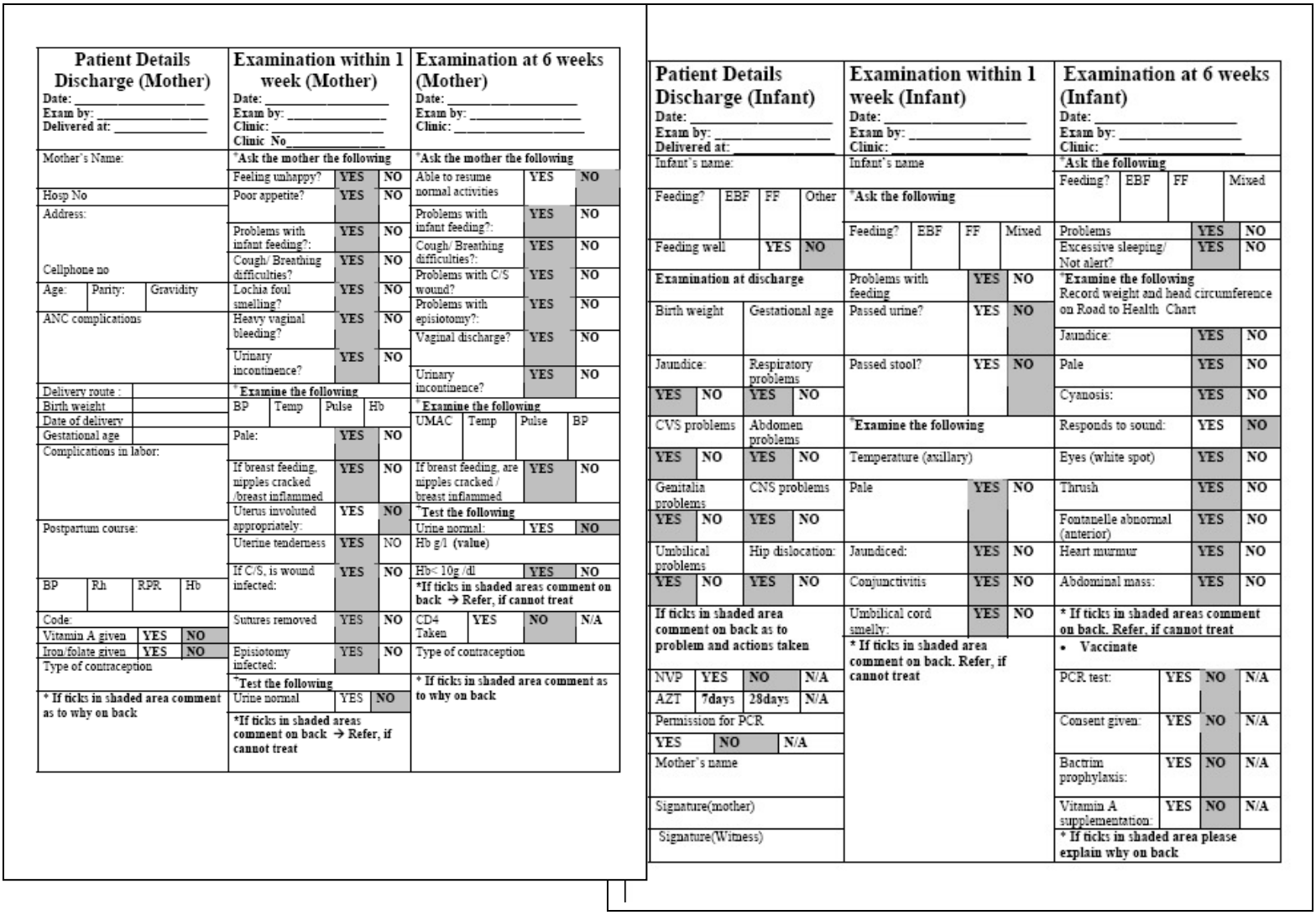
The Birth Register



The PMTCT-related information included in the Birth Register



The Postnatal Card



Patient Details Discharge (Mother) Date: _____ Exam by: _____ Delivered at: _____			
Mother's Name:			
Hosp No			
Address: Cellphone no			
Age:	Parity:	Gravidity	
ANC complications			
Delivery route :			
Birth weight			
Date of delivery			
Gestational age			
Complications in labor:			
Postpartum course:			
BP	Rh	RPR	Hb
Code:			
Vitamin A given	YES	NO	
Iron/folate given	YES	NO	
Type of contraception			
* If ticks in shaded area comment as to why on back			

Examination within 1 week (Mother) Date: _____ Exam by: _____ Clinic: _____ Clinic No_____		
*Ask the mother the following		
Feeling unhappy?	YES	NO
Poor appetite?	YES	NO
Problems with infant feeding?:	YES	NO
Cough/ Breathing difficulties?	YES	NO
Lochia foul smelling?	YES	NO
Heavy vaginal bleeding?	YES	NO
Urinary incontinence?	YES	NO
*Examine the following		
BP / Temp / Pulse / Hb		
Pale:	YES	NO
If breast feeding, nipples cracked /breast inflammed	YES	NO
Uterus involuted appropriately:	YES	NO
Uterine tenderness	YES	NO
If C/S, is wound infected:	YES	NO
Sutures removed	YES	NO
Episiotomy infected:	YES	NO
*Test the following		
Urine normal	YES	NO
*If ticks in shaded areas comment on back → Refer, if cannot treat		

Examination at 6 weeks (Mother) Date: _____ Exam by: _____ Clinic: _____		
*Ask the mother the following		
Able to resume normal activities	YES	NO
Problems with infant feeding?:	YES	NO
Cough/ Breathing difficulties?:	YES	NO
Problems with C/S wound?	YES	NO
Problems with episiotomy?:	YES	NO
Vaginal discharge?	YES	NO
Urinary incontinence?	YES	NO
*Examine the following		
UMAC / Temp / Pulse / BP		
If breast feeding, are nipples cracked / breast inflammed	YES	NO
*Test the following		
Urine normal:	YES	NO
Hb g/l (value)		
Hb< 10g /dl	YES	NO
*If ticks in shaded areas comment on back → Refer, if cannot treat		
CD4 Taken	YES	NO / N/A
Type of contraception		
* If ticks in shaded area comment as to why on back		

Patient Details Discharge (Infant) Date: _____ Exam by: _____ Delivered at: _____				
Infant's name:				
Feeding?	EBF	FF	Other	
Feeding well		YES	NO	
Examination at discharge				
Birth weight	Gestational age			
Jaundice:	Respiratory problems			
YES / NO	YES / NO			
CVS problems	Abdomen problems			
YES / NO	YES / NO			
Genitalia problems	CNS problems			
YES / NO	YES / NO			
Umbilical problems	Hip dislocation:			
YES / NO	YES / NO			
If ticks in shaded area comment on back as to problem and actions taken				
NVP	YES	NO	N/A	
AZT	7days	28days	N/A	
Permission for PCR				
YES	NO	N/A		
Mother's name				
Signature(mother)				
Signature(Witness)				

Examination within 1 week (Infant) Date: _____ Exam by: _____ Clinic: _____				
Infant's name				
*Ask the following				
Feeding?	EBF	FF	Mixed	
Problems with feeding			YES	NO
Passed urine?			YES	NO
Passed stool?			YES	NO
*Examine the following				
Temperature (axillary)				
Pale			YES	NO
Jaundiced:			YES	NO
Conjunctivitis			YES	NO
Umbilical cord smelly:			YES	NO
* If ticks in shaded area comment on back. Refer, if cannot treat				

Examination at 6 weeks (Infant) Date: _____ Exam by: _____ Clinic: _____				
*Ask the following				
Feeding?	EBF	FF	Mixed	
Problems			YES	NO
Excessive sleeping/ Not alert?			YES	NO
*Examine the following Record weight and head circumference on Road to Health Chart				
Jaundice:			YES	NO
Pale			YES	NO
Cyanosis:			YES	NO
Responds to sound:			YES	NO
Eyes (white spot)			YES	NO
Thrush			YES	NO
Fontanelle abnormal (anterior)			YES	NO
Heart murmur			YES	NO
Abdominal mass:			YES	NO
* If ticks in shaded areas comment on back. Refer, if cannot treat				
• Vaccinate				
PCR test:	YES	NO	N/A	
Consent given:	YES	NO	N/A	
Bactrim prophylaxis:	YES	NO	N/A	
Vitamin A supplementation:	YES	NO	N/A	
* If ticks in shaded area please explain why on back				

The Postnatal Card is a patient-held check list that aims to provide continuity of antenatal and PMTCT care following pregnancy and delivery into the postnatal period.

The card tells mothers:

- when they should visit the clinic for basic essential care
- what they should expect at each visit

The card reminds health workers about what they should do at each visit

The infant and maternal sections can be detached and separated in case mother and child are separated

Implications of the work on the birth register and postnatal card for routine services:

- PMTCT should be a routine antenatal service and PMTCT prevention activities should be integrated within routine services.
- The birth register provides an attempt to integrate PMTCT into routine labour ward services so that prior to delivery health workers can check that all information relevant to maternal and infant well-being (including HIV-related information) has been checked and all relevant action (e.g. Nevirapine administration) has been taken
- The postnatal card is a patient-held card that aims to create a demand from mothers for high quality postnatal care, including HIV-related care. It also aims to remind health workers of the basic checks that need to be done postnatally for mother and child, including HIV-related checks.

- The birth register and postnatal card are currently being tested in Mpumalanga and south west Tshwane.

INTEGRATING PMTCT INTO ROUTINE POSTNATAL CARE

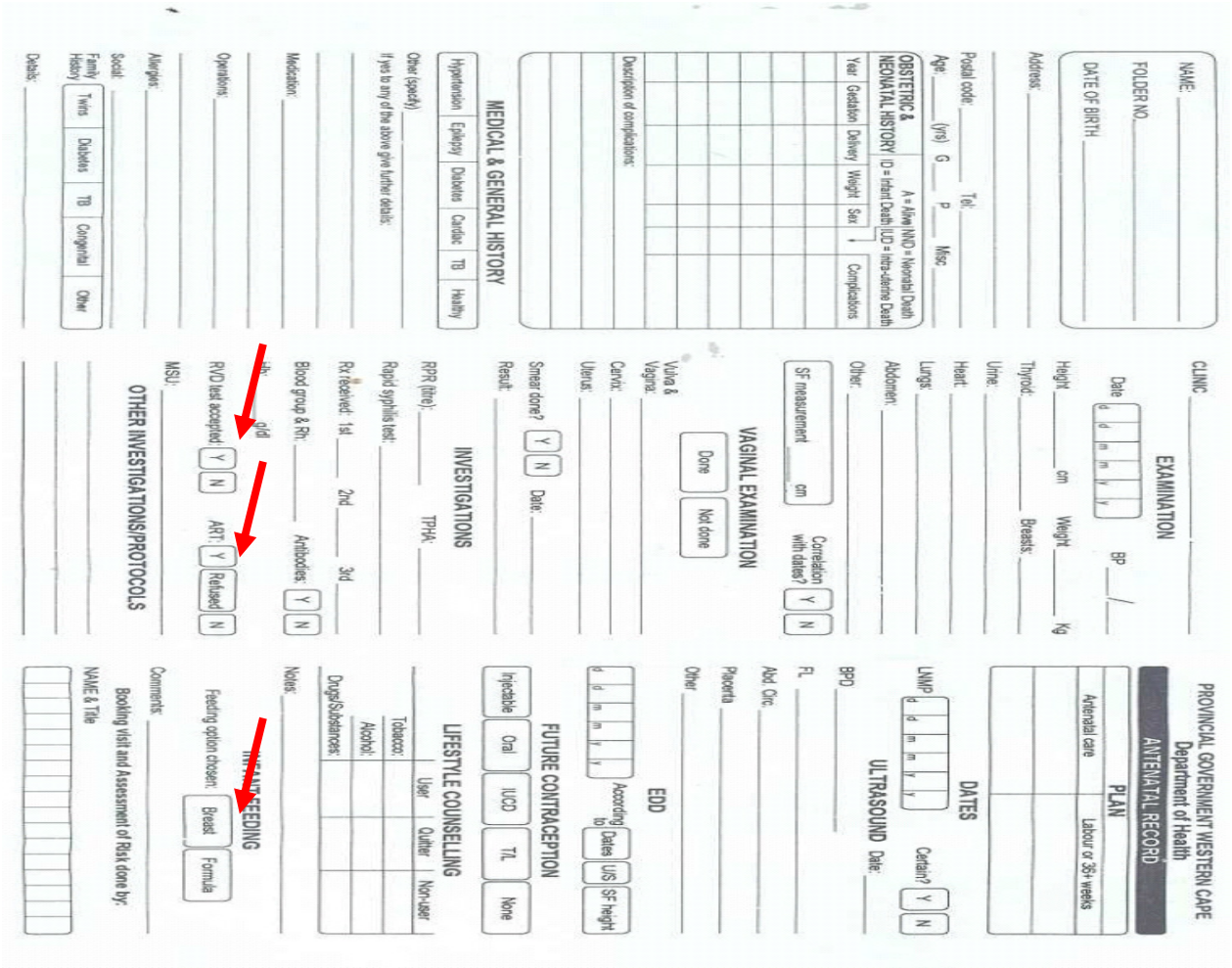
Other experiences on integrating PMTCT into routine postnatal care:

For more information:
Michele Youngleson – IHI – m.youngleson@mweb.co.za
Dr Yusuf Cassim – yusufc2@tshwane.gov.za
Dr Hoppy Kemp – kemp@webafrica.co.za

In order to facilitate continuity of care, smooth & confidential communication of the following information between antenatal clinics , labour & delivery care and postnatal clinics was needed.

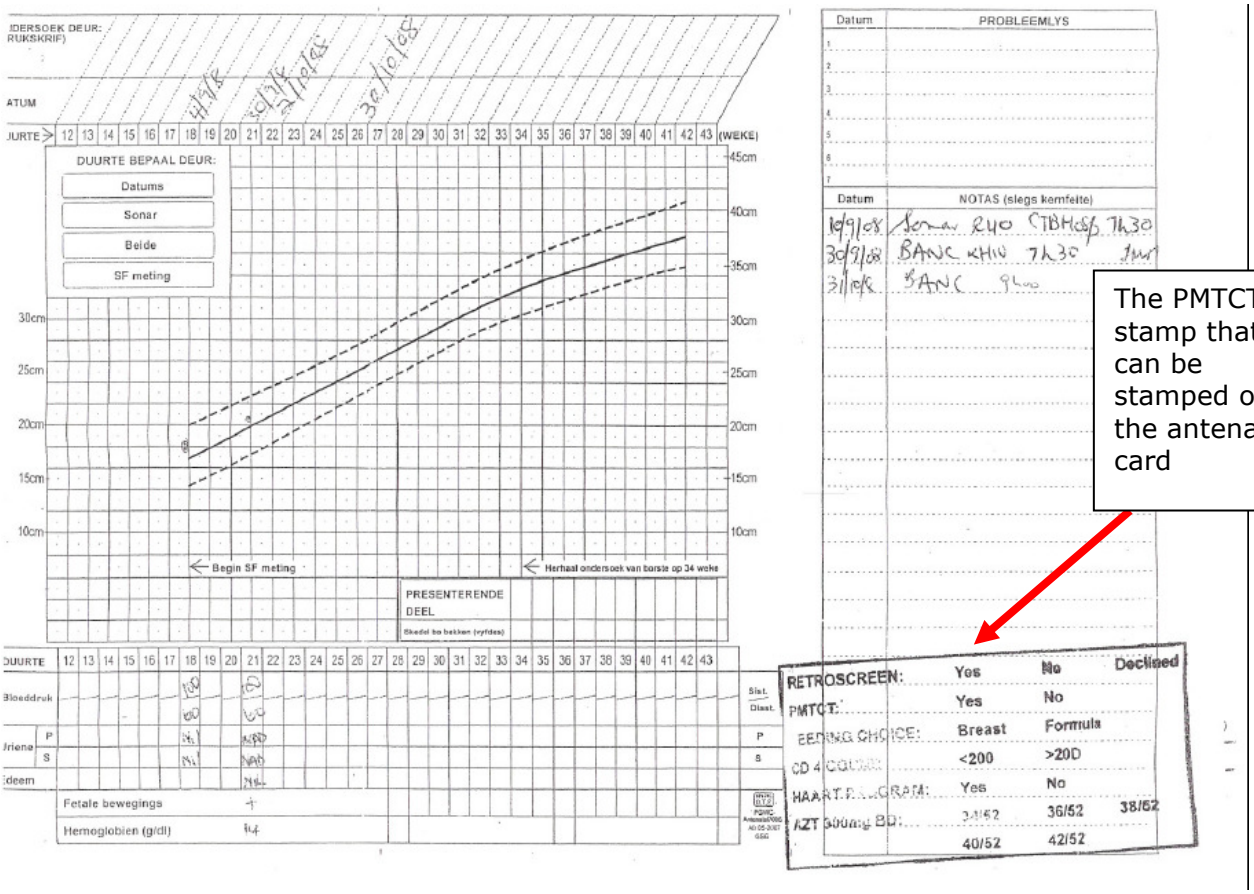
- Mothers HIV status
- Feeding option
- CD4 count
- HAART
- NVP
- AZT

At National level, the RTHC card is in the process of revision to include some of the above mentioned components.
In Western Cape IHI supported sites, while awaiting the RHTC card, as an interim measure, the above components were printed as part of the ANC card (see the ANC card below)



In other sites, stamps were used as follows:

RETROSCREEN:	Yes	No	Declined
PMTCT INDICATED:	Yes	No	
FEEDING OPTION:	EBF	EFF	
CD4 - Date taken:	_____	< 250	> 250
AZT - starting date:	_____		
NVP 200mg - given:	Yes	No	
HAART starting date:	_____		



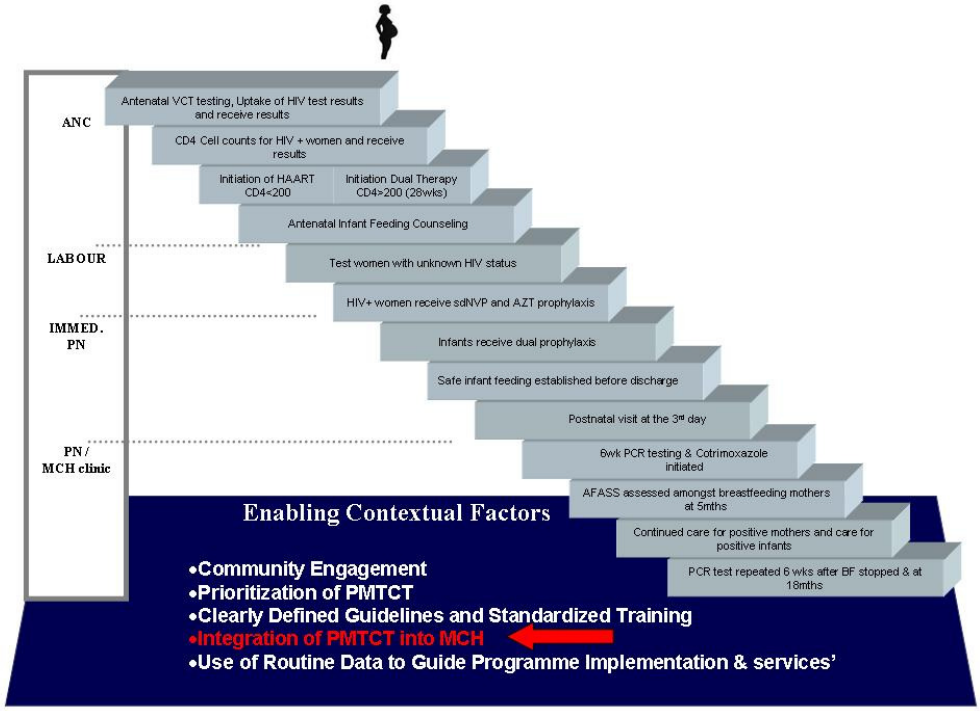
The PMTCT stamp that can be stamped onto the antenatal card

Implications for practice:

Whilst awaiting the new Road to Health Chart simple inexpensive measures such as stamps can be used to facilitate continuity of care between antenatal / labour and delivery care and postnatal care
The new RHTC should include the components mentioned in the first box under this section.

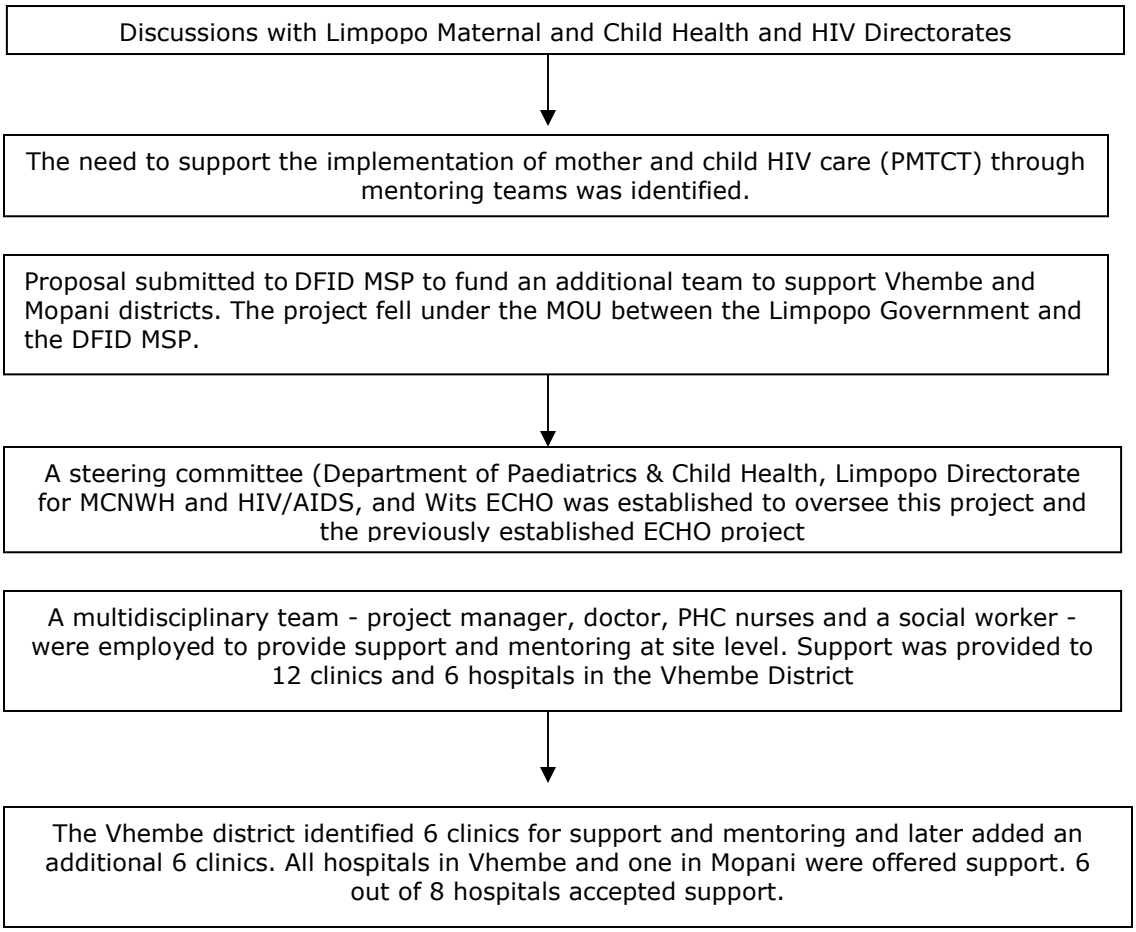
2.2 Using mentors / teams to facilitate a comprehensive approach to PMTCT implementation and integrate PMTCT into routine services

Support for comprehensive HIV prevention, care and treatment for mothers and children in Limpopo: Vhembe and Mopani districts.
August 2007 – October 2008



Context within which the BP operates:
Location: Vhembe district – a predominantly rural district, just south of Zimbabwe, in Limpopo Province
Setting: 12 Clinics and 6 hospitals in Vhembe selected by the District were offered support. Nkhensani hospital in Mopani District was also offered support as it is geographically near and required support. All sites are rural and some were remote.
Year Started: August 2007: Support for PHC clinics commenced; November 2007: hospital support commenced. Support continued until October 2008.
Lead Agency: Department of Paediatrics and Child Health, Polokwane Campus, University of Limpopo,
Collaborating Agencies: HLSP provided administrative and technical support on behalf of DFID, and Wits ECHO provide in-service training to the team.
Funding: DFID Multisectoral HIV/ AIDS Programme

How was the BP started?



As agreed by the steering committee the team provides on –site assessment, mentoring and health systems support to sites to improve

1) PMTCT uptake at PHC clinics
2) Comprehensive HIV services for mothers in hospitals
3) Effective HIV identification and care of children in hospitals
4) Coordination, liaison and advocacy with all stakeholders to facilitate identification and care of mothers and children with HIV.

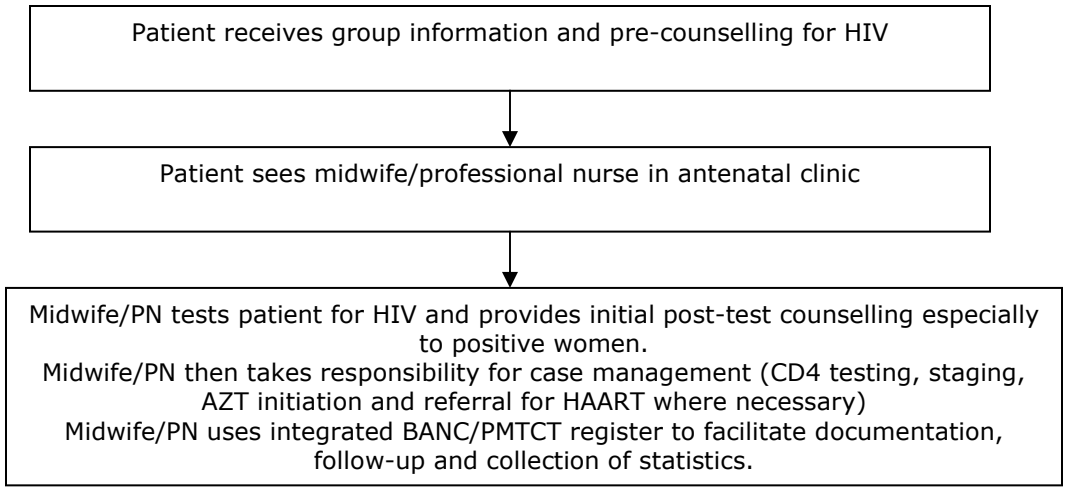
What is the best practice?

Best Practice 1. Reorganization and task shifting or task sharing at PHC clinic level
Why?

1. to improve identification and case management of:
   - HIV positive pregnant women and
   - HIV exposed children at primary health care clinics and
2. to integrate HIV into routine maternal and child health services and
3. to provide nurses and counselors with mentoring to support their new roles.

What was done?

1. The patient flow was shifted in the clinic:



2. Counsellors and enrolled nurses turned their attention to:
   - identifying infants and children affected by HIV and referring them for PCR testing, providing ongoing counseling and follow up.

Best Practice 2: Shifting Initiation of HAART for pregnant women from CCMT service point to High Risk Antenatal clinics.

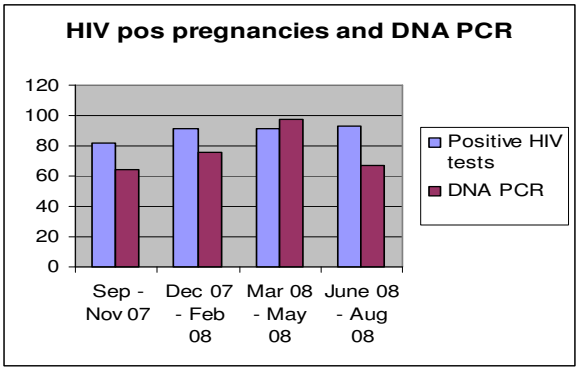
- Hospital obstetric and maternity staff trained and mentored o how to manage pregnant women on HAART.
- The High risk ANC clinic and ARV sites worked in partnership so that HAART and counselling could now be provided at the ANC.

Best Practice 3: IMCI training for enrolled nurses
As a result of the task shifting or task sharing of basic Child Health Supportive care e.g. weighing, to the enrolled nurse, the province has now adapted and initiated IMCI training for enrolled nurses.

What effect have these changes had?

At 12 PHC clinics:

Care for pregnant women: More than 90% of pregnant women had antenatal HIV testing; 92% of the pregnant women, who had positive HIV tests, also had blood drawn, for CD4 count estimation

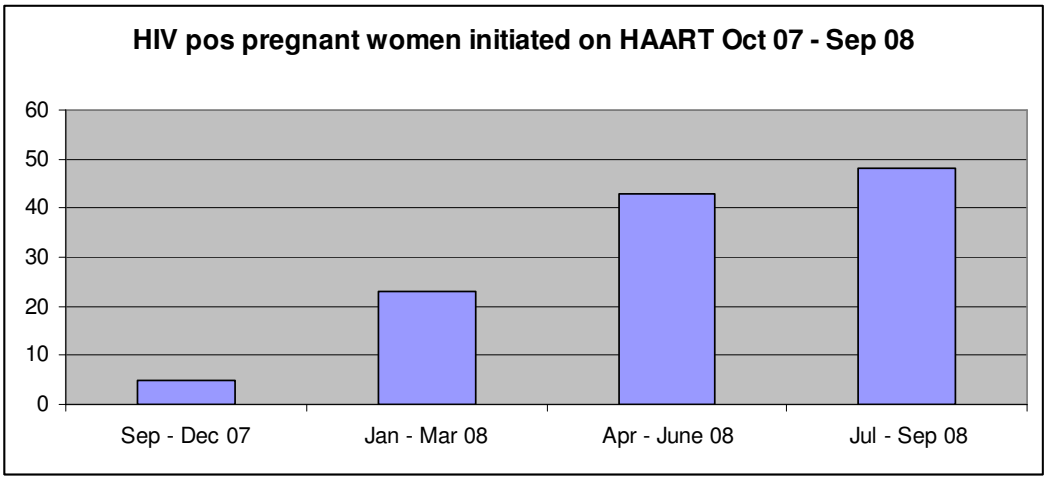


Prior to commencing the project only 1 PCR test had been performed in the initial 6 clinics
This immediately improved, and over 90% of HIV exposed infants were identified and had a dried blood spot test taken for HIV DNA PCR. The graph to the left show the number of HIV positive pregnant women and the number of HIV DNA PCR tests done

At hospital level

The changes have resulted in a 9 fold increase in the number of pregnant women accessing HAART from the first quarter to the last quarter of the project.
In the first quarter prior to commencing the best practice, 4 women were initiated on HAART. In the next 9 months an additional 114 women were initiated on HAART.

Figure : Quarterly initiation of pregnant women on HAART, 6 hospitals (Elim, Makhado, Nkensani, Malamulela, Tshilidzini, Silloam) Oct 07 – Sep 08



Training of maternity and obstetric staff on ARV initiation and management, and training of enrolled nurses was well received.

What tools / structures support the comprehensive service and makes it sustainable?

The BANC and PMTCT Register (see Annex 3) for PHC clinics that incorporates BANC and PMTCT has facilitated care, and reduced duplication of documentation. It is used instead of the tick register, PMTCT register and various counseling and results books. Results are recorded in the register and thus information is not missed.
The Children with Special Needs Register (for PMTCT follow-up of children) has also been developed, but this has not been as extensively tested as the BANC and PMTCT Register (see Annex 4)

The work is sustainable, as **the team provided support by mentoring**.
It is also important to note that mentoring and support at site level helps facilitate change. Most of the nurses had received PMTCT implementation training but it was inadequate. Mentoring is a more effective way to facilitate these changes.

What have been the keys to success in the model and what are the most important elements of this BP if one wanted to replicate it?

Mentoring is a key method for improvement but it would be better if the clinic supervisors or sisters in charge were responsible for this themselves, and provided clinical leadership in their service.

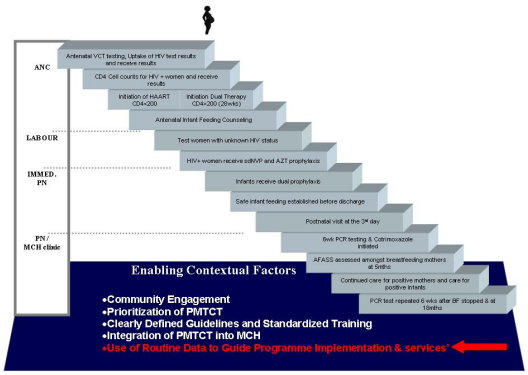
Integration of ALL (comprehensive) HIV care into routine maternal and child health services. For pregnant women this is currently getting HAART at high risk antenatal clinic, but the anticipated implementation of NIMART should bring this service even closer and not require referral for HAART at all.

Contact details for more information:
Refer to appendices for tools –
Dr Anne Robertson
arobertson@dhw.norprov.gov.za
annerobertsonsutton@dhw.norprov.gov.za
P.O.Box 11725, Bendor Park, 0699

2.3 Using Quality Improvement Approaches / the Audit Cycle to improve PMTCT implementation

2.3.1 Experiences from Western Cape

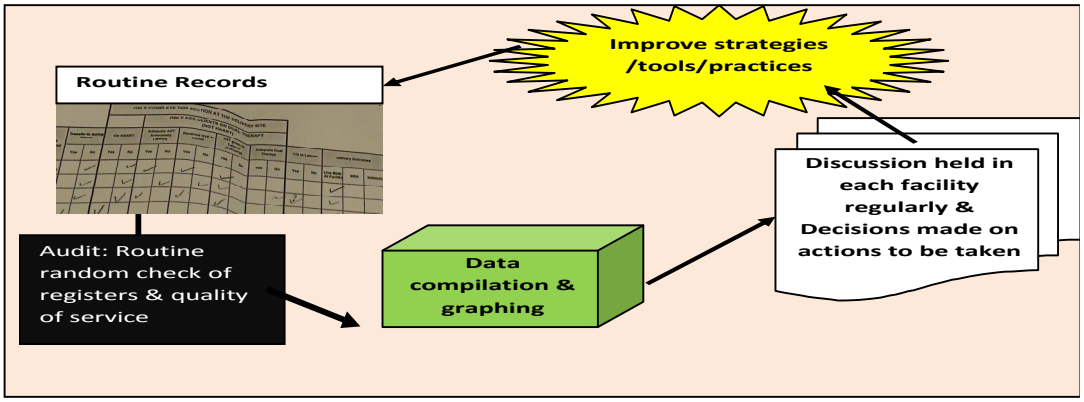
Location: Western Cape Setting: urban & rural
Lead Agency: Western Cape, Cape Town, City Health
Collaborating Agencies: IHI Desmond Tutu, UWC/SOPH
External Funding: no
Population served: PMTCT
Contacts: Papiters@pgwc.gov.za / m.youngleson@mweb.co.za
Tell: 082-8288332



Target
- Improving quality of service through use of routine data

Challenges
- time lag in reviewing data
- data not reviewed locally
- excellent registers and templates offering unused opportunity for review and timely interventions

Best practice
The following model was developed by Western Cape DOH, Cape Town City Health and IHI



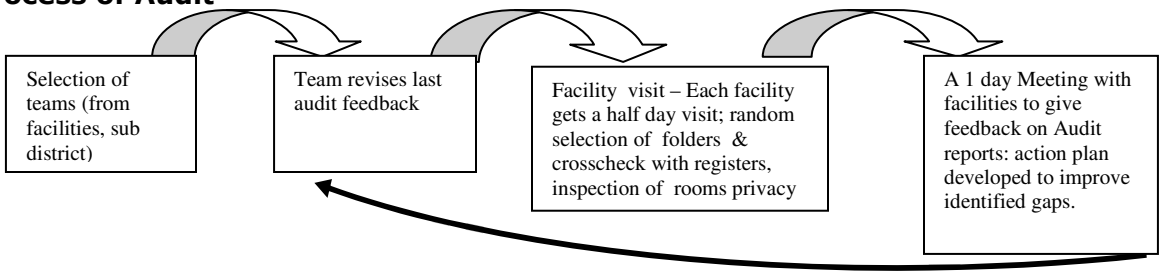
Data collection, compiling

- All facilities collect data on all indicators
- Registers, templates developed
- Data compiled, reviewed/ interpreted & used locally
- The sub districts compare the various facilities data & give feedback on areas that need improvement
- The copy of the compiled data is sent to the district after being reviewed locally

Data use/ data driven improvements

- Registers/tools continuously modified/updated based on feedback from the M&E process
- Based on data, priority areas identified & addressed

Process of Audit



What tools / structures support the best practice?
These tools are used to ensure continuity of care: this smoothens the communication line between antenatal clinics, labour wards (MOUs/hospitals) & baby clinics.

RECORDING (REGISTRATION BOOKS & CARDS) TOOLS

- ANTENATAL VCT REGISTER (separate counseling register for mothers)
- ANTENATAL CARD - this remains with mother – see Annex 6
- LABOUR WARD PMTCT REGISTER
- PMTCT PCR COHORT REGISTER

DATA COLLATION TOOLS

- ANTENATAL VCT REGISTER TEMPLATE (see Annex 6)
- LABOUR WARD PMTCT REGISTER TEMPLATE (see Annex 7)
- Sub-district Labour ward data collation template (see Annex 8)
- Instructions for and PMTCT Infant –mother follow up register (see Annexes 9 and 10)

AUDIT TOOLS
PMTCT AUDIT TOOLS - PMTCT Audit tools instructions and audit tools (see Annexes 11 and 12)

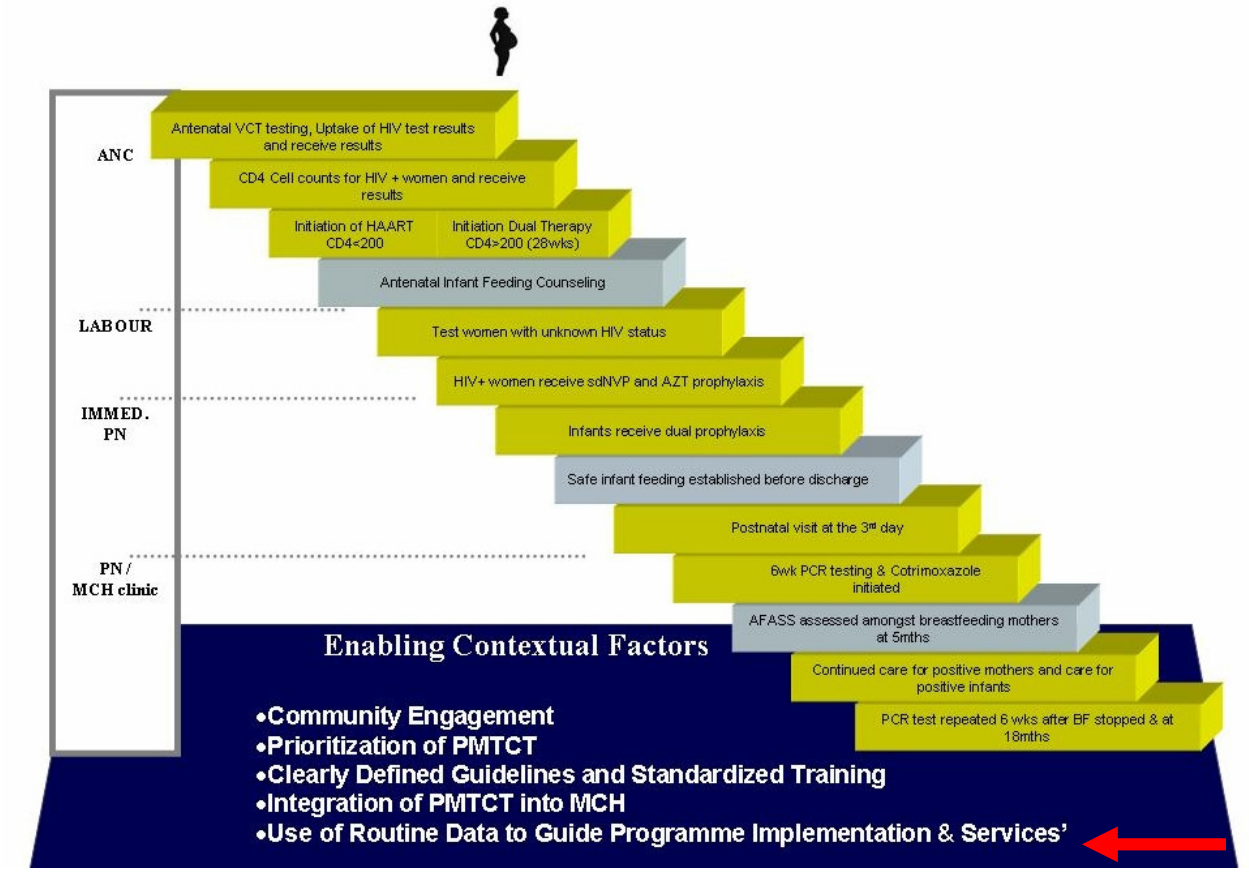
Sustainability

- bottom-up approach in identifying & prioritizing problems
- Decisions are decentralized

Key reasons for success

- Leadership style – The leadership style in IHI supported projects is participatory in style
- HAST co-coordinators are very effective in supporting the use of registers, feedback of data and helping sites improve data collection and quality
- Motivated staff

2.3.2 Experiences from KZN - using a data-driven approach (audit / quality-improvement cycle) to improve comprehensive PMTCT care: 20,000PLUS



20,000plus is based on the audit cycle and uses data to improve PMTCT-related care throughout the PMTCT cascade

The key elements of the 20,000plus project are listed on the pages that follow

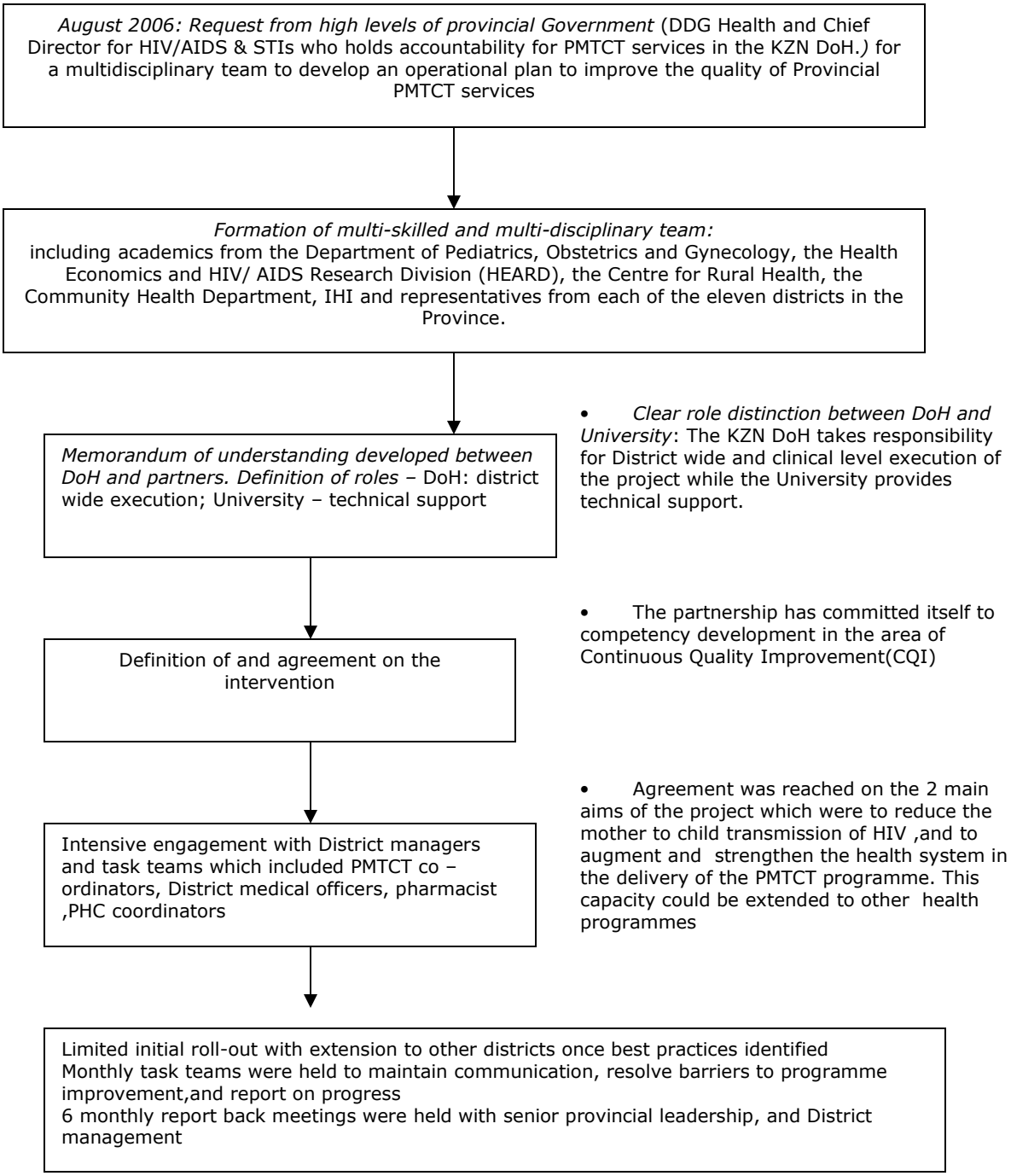
Why 20,000PLUS?
20,000 is the number of HIV infections from mother to infant that can be prevented each year in KwaZulu Natal if every mother receives care according to the national PMTCT guidelines. At present, the mother to child HIV transmission rate is about 20%. "20,000+" is a partnership between the Provincial Department of Health and the University of KwaZulu Natal, IHI, that aims to decrease transmission to 5% (the National Strategic Plan target) in Ethekwini, Umgungundlovu and Ugu Districts in the next 2 or 3 years.

Location: three districts chosen by the KZN DoH, namely, Ethkwini, Ugu, Umgungundlovu.
Setting: urban and rural health facilities providing PMTCT services, including hospitals, community health centres , clinics and mobile facilities
Year Started: 2008
Lead Agency: University of Kwa Zulu Natal
Collaborating Agencies: Department of Health, Institute for health care improvement
External Funding: PEPFAR
Population served: please indicate: 5.5 million .We are focusing on the PMTCT programme alone
Clients Served: <137000 annually>

	Clinics (excl. mobiles)	**Hospitals**	**Total births (2006)**
Ethekwini	130	10 (incl. one tertiary and 1 state-aided 'private' hospitals – St. Mary's)	51,352
Ugu	62	3	13,770
Umgungundlovu	72	3	17,486

These districts represent more than half the population of the Province and suffer high antenatal HIV prevalence (41.6%, 38.9%, and 44.4%). Between the three districts there are 260 PHC facilities and 16 state hospitals.

How was the QUALITY-IMPROVEMENT APPROACH OF 20,000PLUS started?



What is the best practice?

Essentially an audit cycle / quality improvement approach is used. This has numerous facets, depending on the setting. Some of the facets are explained below: In essence routine data are discussed with facility managers and staff, and ways to improve the uptake / utilization of services are idne4tified and implemented. Often these changes include simple interventions such as reorganizing patient flow, redefining and reallocating responsibilities, pre-packaging medication and providing regular feedback to staff on their performance.

Site-specific examples of best practices:

King Edward VIII Hospital, Durban:

- Multi-disciplinary improvement teams involving both frontline workers and management were convened in hospitals including King Edward VIII Hospital (KEH), a major academic centre in Durban.
- KEH piloted multiple changes targeting key PMTCT processes in the labour ward and nursery which were centred on utilizing available resources more efficiently.
- Babies with unknown HIV exposure status were identified on admission through a well coordinated and integrated system that involved active VCT efforts by the lay counselors and nursing staff
- Salvage therapy was then administered where appropriate.
- The prescription, dispensing and administration of AZT to infants were simplified through the use of dose and duration specific pre-packs of AZT.
- Regular data feedback to the staff on PMTCT performance contributed to the improvements.

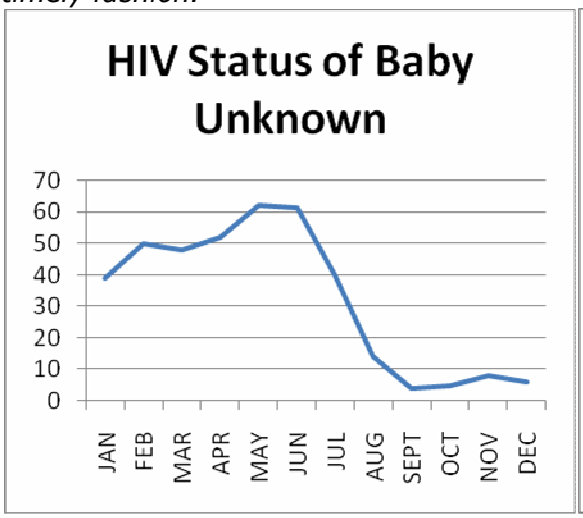
Amanzimtoti Clinic

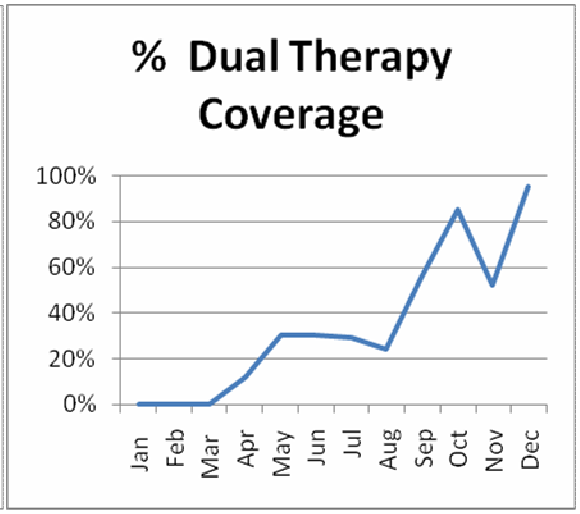
- When Amanzimtoti clinic began working with the 20,000plus project in April 2008, the time from when a client was found to be HIV positive to when they had a CD4 test returned was approximately 3 weeks.
- Through bi-weekly improvement meetings, a number of change ideas were tried:
- First a column was added to the existing clinic registers to note exactly when the CD4 tests were done and when they were returned. This allowed the clinic to collect continuous data on the issue of turnaround time.
- Next, the Quality Mentor noted that all clients who tested HIV+ were asked to return the following day for their CD4 count test. A small study (one day's sample) showed that of 7 HIV+ women only 2 returned the following day for their CD4 test. The following day CD4 tests were drawn at the same time as the HIV test—all patients who were HIV positive now received a CD4 test.
- Next, the clinic staff started to phone the lab for test results to get the results earlier—this shortened the lab turnaround to 3 days.
- On December 2nd all patients who presented to Amazimtoti clinic who were found to be HIV+ were tested for CD4 count the same day. Their bloods were sent by courier to the lab on December 3rd and the results returned by phone on December 7th. Turnaround time had been shorted to 5 days.

What effect have these best practices had on maternal and child health care?

The Best practice has had a multitude of positive effects on maternal and child health at hospital and clinic level. These are explained below.

King Edward Hospital:
The proportion of babies in the nursery with known HIV exposure status increased from an approximately 81.9% to 95.4% from June to Dec 2008. The delivery of dual-therapy to mothers and babies increased from 12.2% to 94.9% from April to December 2008. Continuous quality improvement methods can result in better delivery of quality healthcare to mothers in the PMTCT programme.
Novel solutions like task-shifting and pre-packing medications can significantly improve the ability of large hospitals to identify HIV positive mothers and deliver ARV therapies in a timely fashion.





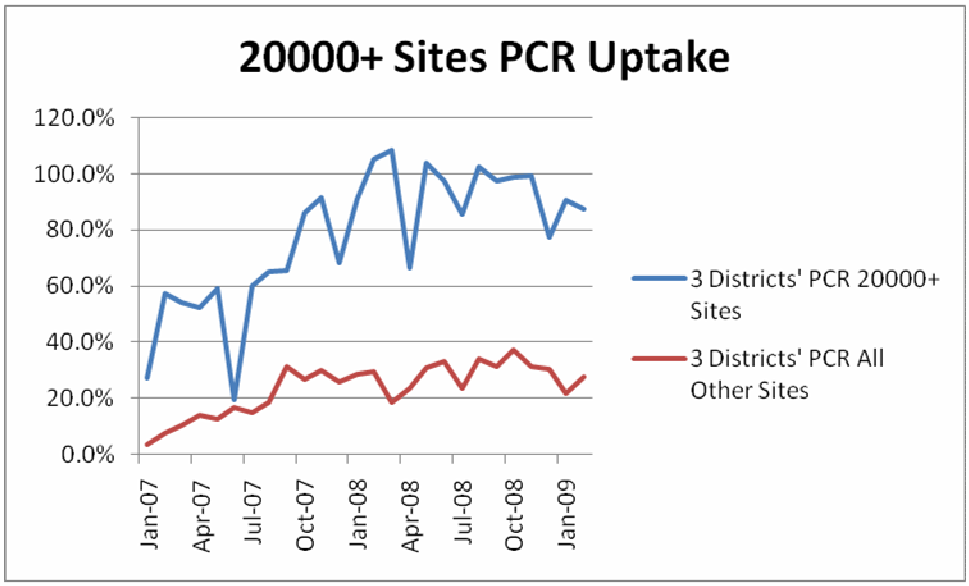
Amanzimtoti Clinic
Turnaround time for receiving CD4 cell count results was shorted to 5 days.

Nyangwini Clinic
Since the start of the 20000+ project, nearly all first visitors to the Nyangwini ANC are now counseled and tested for HIV.
Of those that are found to be HIV positive all are tested for their CD4 counts on the same day.
Nyangwini has made incredible strides since the start of the program and recently they have recorded the following case story:

LW, a 30-year old pregnant woman, visited the Antenatal Clinic of the Nyangwini PHC on July 23, 2008—soon after the start of the 20000+ Partnership. The staff were testing a change whereby all first visitors to the antenatal clinic were counselled, HIV tested and CD4 tested on the same day. LW was seen quickly and a blood tube for CD4 testing was drawn with her standard prenatal labs. She was found to be HIV positive so the CD4 test was sent that very same day. On August 13, her CD4 test results returned with an absolute count of 3. She was referred to CCMT service point that same day (as part of another round of change ideas that were being tested at the clinic). By the 18th of August (5 days later), LW had started ARVs on standard regimen 1B.

LW had delivered a healthy 2.9kg baby boy in January and at her six week immunization visit, the baby was PCR tested for HIV (another change 20,000plus has been encouraging). Nyangwini is proud to report that LW's baby boy will be given a great head start in life free of HIV disease as he was found to be PCR negative.

PCR testing across all 3 districts has improved:



Success stories using a data-driven approach / audit cycle have been documented

What tools / structures support the best practice and make it sustainable?)

1. Creation of improvement teams at clinics and hospitals - The creation of multidisciplinary improvement teams at hospitals and CHCs have contributed to improved implementation of the PMTCT programme-reduced turnaround times for lab specimens, and in improved communication between labour wards and nursery.

2. Transference of skills to PHC supervisors/clinic managers/improvement teams at hospitals

3. Use of run charts. One of the key weaknesses of this programme, is the lack of usage of local data to plan or monitor programme implementation. Improvement teams are taught to tally key data elements ,and record them on run charts, which achieves 2 purposes-it improves their numeracy skills, and gives them real –time facility specific programme progress. It has been very rewarding for facilities to monitor progress in key areas e.g. counselling coverage of antenatal attendees, and the prevalence of HIV in their pregnant women. An example of a run chart is given on the page that follows.

4. Use of systematic process maps. These maps identify queues and gaps in systems e.g. The number of pregnant women who receive antenatal counselling has reached almost 100% in clinics, which have changed processes, to ensure that counselling is done before palpation This is not dependent on additional resources, and may result from task shifting or task sharing, and increasing capacity e.g. the usage of professional nurses to complement counselling done by lay counselors. The concurrent usage of run charts help to measure specific changes-in this case, measuring the percentage of pregnant women receiving counseling .Staff feel empowered when successful changes are made by them, and are able to apply the methodology, to other programmes.

What have been the keys to success in 20,000plus and what are the most important elements of this BP if one wanted to replicate it?

1. Creation of multi-disciplinary teams
2. Engagement of District and senior managers at provincial level
3. getting staff to engage in their facility data
4. Implementation of comprehensive quality improvement methodology, which entails making small changes, which have measurable outputs

Please go to http://www.20000plus.org.za for more information

BEST PRACTICES IN PMTCT THROUGH A CONTINUOUS QUALITY IMPROVEMENT APPROACH – URC/HCI

University Research Co.,LLC/Health Care Improvement Project (URC/HCI)is a USAID funded project. The project staff works closely with DOH staff at National, Provincial, District and facility level to improve the quality of care within HIV and AIDS programs. The URC/HCI approach was applied to 158 facilities in Mpumalanga, KZN, Eastern Cape, North West and Limpopo. This approach has been applied to PMTCT since 2005.

Strategy used:
Improving content of care: Ensuring that National and Provincial guidelines are available at facility level and that staff is trained on the guidelines.
Improving process of care: Monitor and improve compliance to guidelines, strengthen support services and improve staff attitudes

Model used:
A continuous quality improvement model is , commencing with training of staff on basic quality assurance technology, performing baseline assessments, developing improvement strategies and ongoing plan, do, study, act (PDSA) cycles.

What structures support the best practice and what makes the best practice sustainable?
The existing supervision system and quality assurance system is used to drive and support quality improvement. All staff are made aware of their role in contributing towards better implementation of the PMTCT program. Building quality assurance into every program and supervision strengthens sustainability.

What tools support the best practice?
URC/HCI has developed PMTCT data collection tools that are used to collect both quantitative as well as qualitative data. These tools are based on data elements that are currently collected within the DHIS. Additionally, a chart audit tool has been developed to review health worker compliance with the National PMTCT guidelines.

The tools can be obtained from: sisandam@urc-sa.com

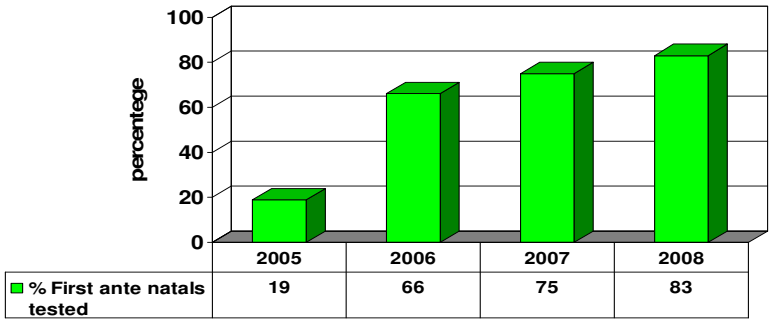
What are the key activities in the best practice?

- Monthly monitoring of availability of National guidelines related to maternal and child health including PMTCT, TB/HIV, ARV at each facility.
- Monthly monitoring of data at each facility.
- Checking accuracy of data in registers against data submitted to district offices.
- Data analysis and evaluation of quality improvement progress is done quarterly.
- Chart audits are done monthly to assess compliance with guidelines. Activities checked for include evidence of: advice provided on family planning, advice provided on infant feeding, screening done for STI and TB, date provided for six week post natal follow up, clinical staging done, CD4 count done, mother and baby provided with AZT and Nevirapine according to guideline, PMTCT code on record, completeness of maternal record including partogram.
- Identification of problem areas and solutions are done monthly based on the program data at facility level.

- Linking of clinics, hospitals and home based care through quarterly meetings and weekly meeting between home based care and clinic. Linking of services at different levels promotes continuity of care.
- Community health workers create awareness of HIV/AIDS, TB, TB/HIV and promote HIV testing, PMTCT, PCR testing and testing for TB in the community at community meetings, schools, churches, taxi ranks and door to door.
- Involving facility staff in data analysis and evaluation of progress motivates staff to work on improving quality as they can see that they can make a difference.

What effect has the best practice had?

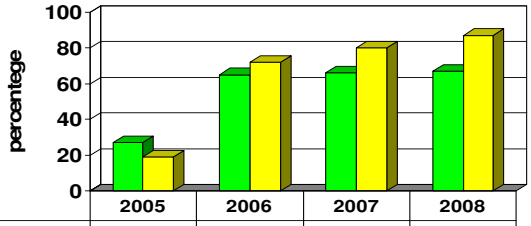
PMTCT: Percentage of first antenatal women tested for HIV (data from 158 facilities in 5 provinces)



	2005	2006	2007	2008
Number of first ante natals	9837	52511	56066	54967
Number of ante natals tested	1899	34528	42043	45448

The promotion of HIV testing of pregnant women in the community and staff dedication to counsel and test all pregnant women has resulted in the percentage of pregnant women tested at the 158 facilities increasing from 19% in 2005 to 89% up to April 2009.

PMTCT: Nevirapine Coverage for pregnant women and babies
(data from 158 facilities in 5 provinces)



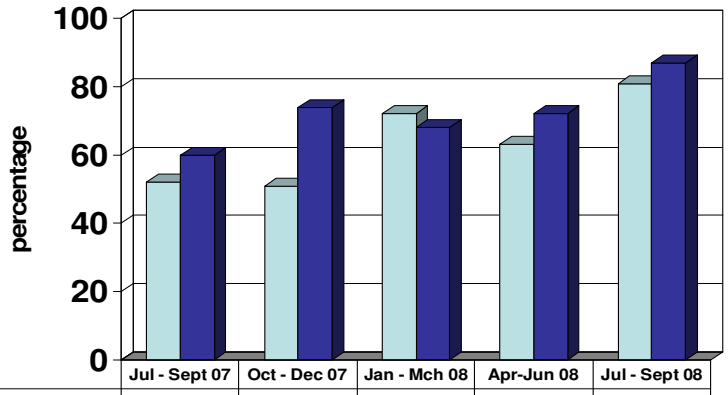
	2005	2006	2007	2008
Nevirapine coverage pregnant women	27	65	66	67
Nevirapine coverage for babies	19	72	80	87

	2005	2006	2007	2008
Number of first ante natals	9837	52511	56066	54967
Number of mothers received NVP	789	9865	10828	10673
Number of babies received NVP	562	10964	13127	13899

Nevirapine coverage for pregnant women has increased from 27% in 2005 to 77% in May 2009. Nevirapine coverage for babies has improved from 19% to 89% in the same period[2].

[2] Nevirapine coverage is described here as implementation of dual therapy has not been uniform across all 5 provinces

PMTCT: Mpumalanga
% Compliance with performing clinical staging and CD4 count for HIV+ pregnant women



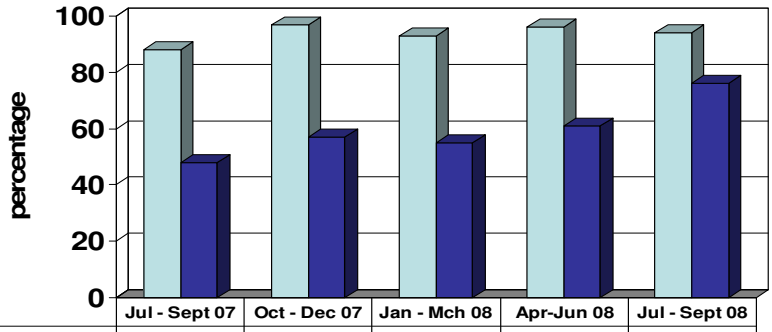
	Jul - Sept 07	Oct - Dec 07	Jan - Mch 08	Apr-Jun 08	Jul - Sept 08
% Compliance with clinical staging of HIV+ pregnant women	52	51	72	63	81
% Compliance with performing CD4 count (HIV+) pregnant women	60	74	68	72	87

550 Records from 26 facilities per quarter

Compliance with guidelines has improved and good compliance for some indicators has been sustained.

PMTCT: Mpumalanga

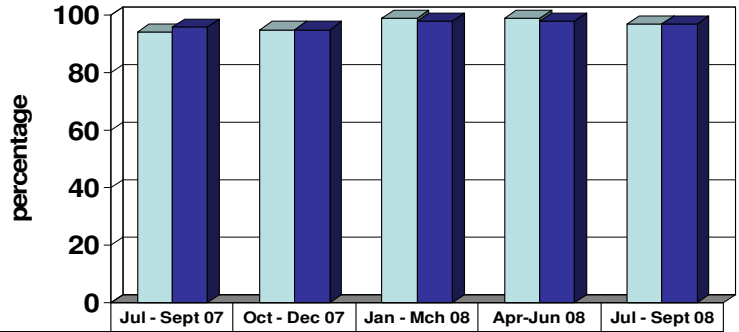
% Compliance with screening pregnant women for STI and TB



	Jul - Sept 07	Oct - Dec 07	Jan - Mch 08	Apr-Jun 08	Jul - Sept 08
% Compliance with screening for STIs	88	97	93	96	94
% Compliance with screening for TB	48	57	55	61	76

550 Records from 26 facilities per quarter

PMTCT: Mpumalanga: % Compliance with giving mothers advice on Family Planning and Infant Feeding



	Jul - Sept 07	Oct - Dec 07	Jan - Mch 08	Apr-Jun 08	Jul - Sept 08
% Compliance with advice on family planning	94	95	99	99	97
% Compliance with advice on infant feeding	96	95	98	98	97

550 Records from 26 facilities per quarter

Contact details for more information:

Dr D Jacobs-Jokhan URC/HCI: Tel: 012 3421427 / 012 3421419
donnaj@urc-sa.com

SECTION 3: BEST PRACTICES IN SPECIFIC AREAS OF THE PMTCT CASCADE

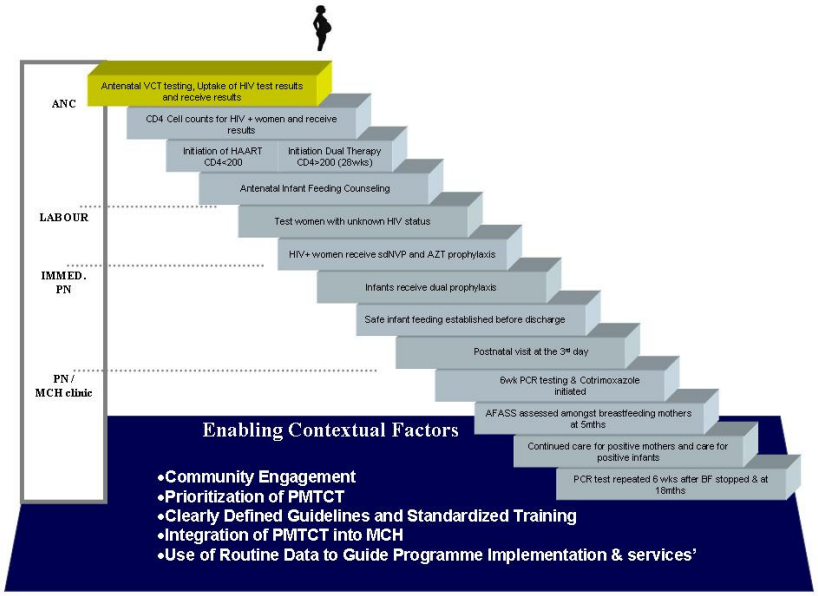
3.1. Summary: HIV testing and uptake of results

There are many examples of best practices that aim to increase HIV testing and uptake of HIV results. These are currently occurring in both rural and urban settings, in provinces with high prevalence of HIV and in provinces with low HIV prevalence. These are summarized below.

Box of key practices/strategies to increase HIV testing and uptake of results

- To increase early booking during pregnancy it has been suggested that every woman of child-bearing age attending PHC facilities should be routinely asked when their last menstrual period was. If it was more than 2 months ago then pregnancy tests are offered. If these are positive women are referred for antenatal booking.
- Same day HIV testing with immediate availability of results
- Group counseling followed by testing at ANC room to reduce time spent in waiting individual counselling (the ANC sister asks clients for any question they need to discuss individually before testing)
- Strengthen all PHC facilities to provide antenatal service (BANC)
- PMTCT status of all women is conveyed on the ANTENATAL CARD (No Code used) (see Annex 5)

Figure 1: HIV testing & uptake of result



The two examples cited below are from different settings and involve collaborations with varying partners from research agencies to non-governmental organizations.

3.1.1 HIV testing& uptake of results: Gauteng / Soweto-PHRU collaboration

Context within which the best practice operates. Location: Johannesburg, Johannesburg Metro district, Gauteng province Setting: urban; clinic Year started: 2000
Lead Agency: Perinatal HIV Research Unit **External Funding**: **Yes**
Population served: PMTCT, VCT
Contact details:
Coceka Mnyani
Land line number : 011 989 9812
Cell phone number: 082 491 9203
E-mail address:mnyanic@hivsa.com

How the best practice started:

- The Perinatal HIV Research Unit (PHRU) works in partnership with the Gauteng
- Department of Health in running the PMTCT programme in the Soweto clinics.
- In 2007, PHRU signed a memorandum of understanding with the Gauteng Department of Health to continue supporting the PMTCT programme as it was felt that there was a need. The main needs are staff and equipment to support the programme. The PHRU assisted with the appointment and employment of staff dedicated to the programme. It also assisted with resources necessary for the programme, e.g. purchasing of drugs and haemoglobin meters during the dual therapy roll-out.

What is the best practice:

VCT offered to every pregnant women who comes through the clinic.
Testing is done on the same day and results are available immediately.

What effect has the best practice had?

Uptake of VCT has been 99% in 2008.
A total of 29 968 pregnant women were tested for HIV in 2008.

What tools / structures support the best practice and what makes the best practice sustainable?)

Staff dedicated to the programme
Staff working closely with midwives
Integration of PMTCT services within antenatal clinics

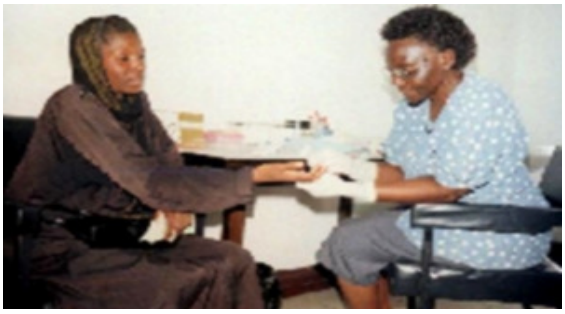
What are the keys to breaking the barriers in this area of the PMTCT cascade

Lessons to learn from PHRU

- PMTCT services are integrated within the antenatal clinics
- Staff, professional nurses and counselors are dedicated to the PMTCT programme within the antenatal clinics each with specific clinical and monitoring (check point) duties.
- Same day testing and results are available immediately

3.1.2 HIV testing & uptake of results
Cape Town City Health and Metro District Health Services and IHI supported sites

Location: Western Cape
Setting: urban & rural
Lead Agency: Western Cape Provincial DoH
Collaborating Agencies: IHI, Cape Town City health
External Funding: No
Population served: PMTCT
Contacts: Papiters@pgwc.gov.za / m.youngleson@mweb.co.za Tell: 0214833359



Target

- Increase HIV testing & uptake of results

Challenges

- timely access to PMTCT (requires early antenatal booking)
- ensuring HIV testing of many antenatal clients
- effective use of limited resources
- support for pregnant women to test

Best practices: Below are actions taken to improve the VCT & result uptake rate at antenatal clinics in Western Cape /IHI sites.

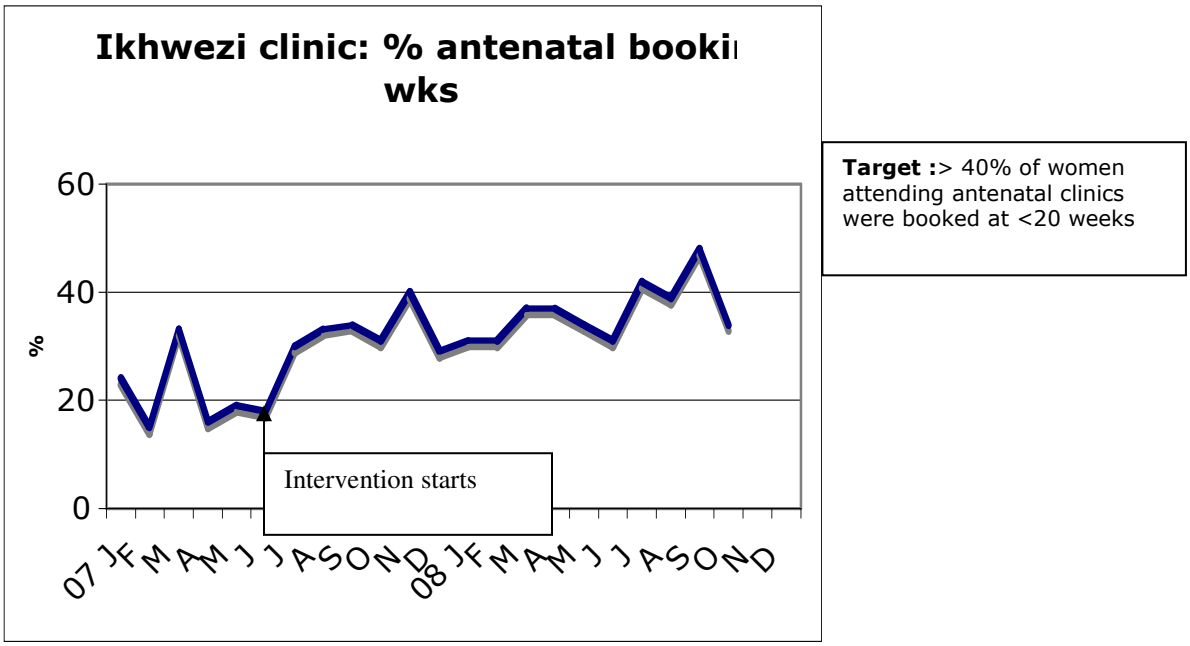
Increase HIV testing & uptake

- Strengthen all PHC facilities to provide antenatal service (BANC)
- PMTCT status of all women is conveyed on the ANTENATAL CARD (No Coding but uses discrete wording – see Annex 5)
- Group counseling followed by testing at ANC room to reduce time spent in waiting individual counselling (the ANC sister asks clients for any question they need to discuss individually before testing)
- Separate registration for Antenatal VCT
- Provide HIV test result on the same day & take blood sample for CD4 count on the same day
- Routinely asking every woman at the PHC when her last menstrual period was and immediately do pregnancy test and refer directly for antenatal booking if positive

  - A separate registration book for ANC VCT counseling was developed to monitor & keep track of those tested & those refused
    - The register made it simple to track & offer again VCT for those who refused to get tested in the 1st visit & at 32 wks to repeat test (the later is used to identify those mothers who acquire the infection during pregnancy)
    - For positive mothers the register is used to keep record of PMTCT services given (CD4 count, staging, referral for HAART & dual therapy) during ANC visit
  - strategic placement of extra Clinical Nurse Practitioner at antenatal clinic to eliminate backlog and waiting time for antenatal booking by balancing demand for and supply of services
  - strategic placement of extra antenatal nurse

Effects of best practices:

Early ANC booking increased gradually to above 40% (national target) after the introduction of the best practice (i.e. offering pregnancy testing to all women of child-bearing age who had a last menstrual period more than 2 months ago).

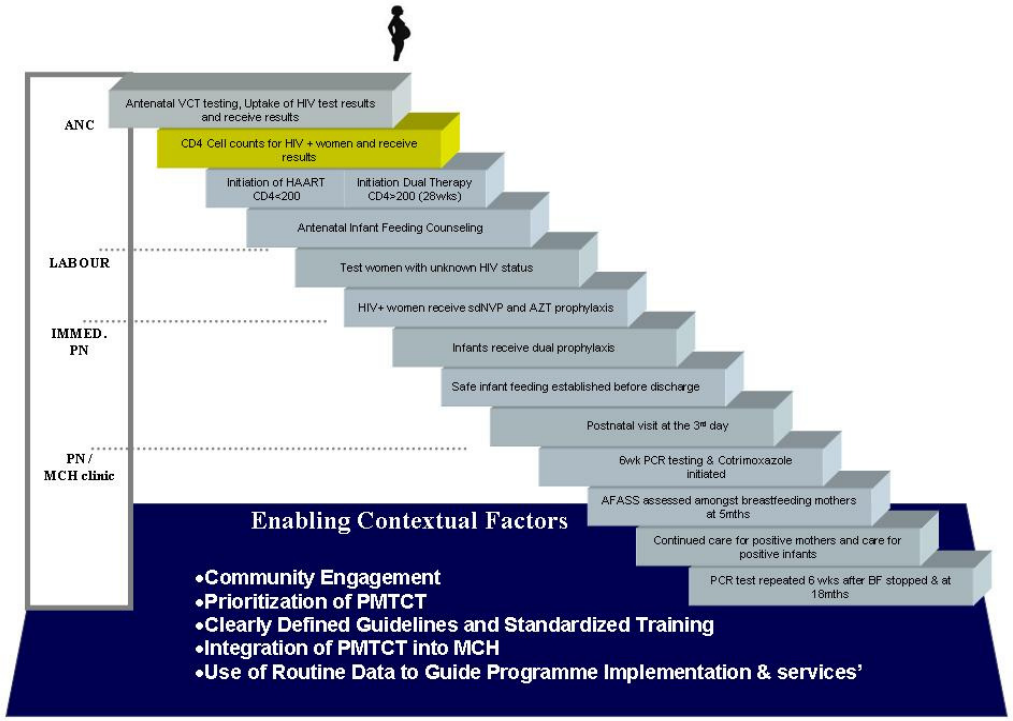


3.2. CD4 count for HIV positive women

Box of key ways to increase CD4 count for HIV positive women

- Bundle CD4 count testing with ANC baseline blood tests for HIV positive women
- Fast track results through improved communication between lab and clinic
- Use of technology to minimize loss to follow up- phone calls, sms messages to remind women to collect results
- Increase capacity for PMTCT implementation through training
- Clearly define roles for staff with focus on clinical and monitoring duties

Figure 2: CD4 count for HIV positive women



3.2.1 CD4 counts for HIV postive women – experiences from the Gauteng / Soweto-PHRU collaboration

Context within which the best practice operates:
Location: Johannesburg, Johannesburg Metro district, Gauteng province
Setting: urban; clinic
Year Started: 2000
Lead Agency: Perinatal HIV Research Unit
External Funding: yes
Population served: PMTCT, VCT
Contact details:
Coceka Mnyani
Land line number : 011 989 9812
Cell phone number: 082 491 9203
E-mail address: mnyanic@hivsa.com

The Perinatal HIV Research Unit (PHRU) works in partnership with the Gauteng Department of Health in running the PMTCT programme in the Soweto clinics

In 2007, PHRU signed a memorandum of understanding with the Gauteng Department of Health to continue supporting the PMTCT programme as it was felt that there was a need. The main needs are staff and equipment to support the programme. The PHRU assisted with the appointment and employment of staff dedicated to the programme. It also assisted with resources necessary for the programme, e.g. purchasing of drugs and haemoglobin meters during the dual therapy roll-out.

What is the best practice:

In the Soweto clinics, pregnant woman testing HIV positive have blood drawn and sent for a CD4 count at the same visit. A return date is set for a week's time to collect the results.

What are the keys to breaking the barriers in this area of the PMTCT cascade

Known barriers to successful HAART initiation:

- Delays in collection of CD4 results
- Delays in referrals to the initiation sites, and delays at the initiation sites

Lessons to learn from PHRU:

- Blood taken for CD4 test same day as positive HIV result
- Return date given for result collection
- Patient contact directly or via sms if the CD4 count result is <200 to come in before return date
- Dedicated staff with specific clinical and monitoring (check point) duties.

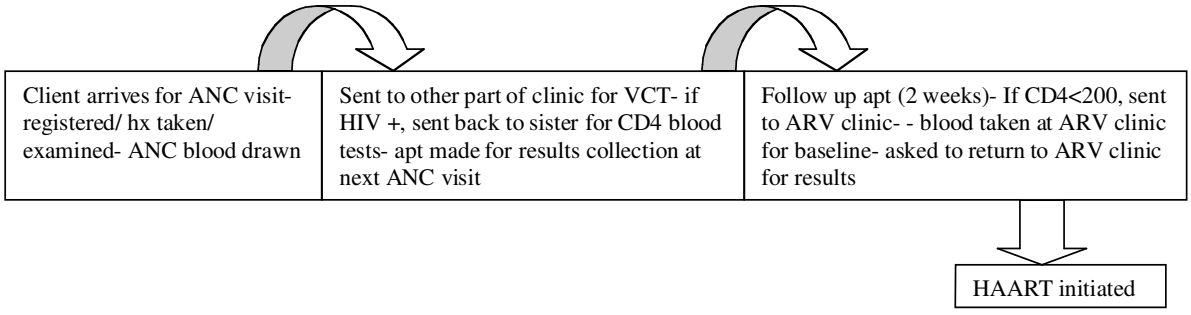
3.2.2 CD4 counts for HIV postive women Amajuba District KZN

Amajuba District in KZN
Year started- 2007 **Setting:** All primary health care facilities rendering antenatal services in Amajuba district
Lead Agency- **Collaborating agencies**- MRC **External funding-** PEPFAR, CDC
Population served-antenatal and postnatal clients accessing maternal and child health services
 # Clients served- Counseled: 13,615; Tested: 13,536; HIV positive new (between Jan 08 and Jan 09): 4,331
Contact: Tanya Doherty Tanya.Doherty@mrc.ac.za

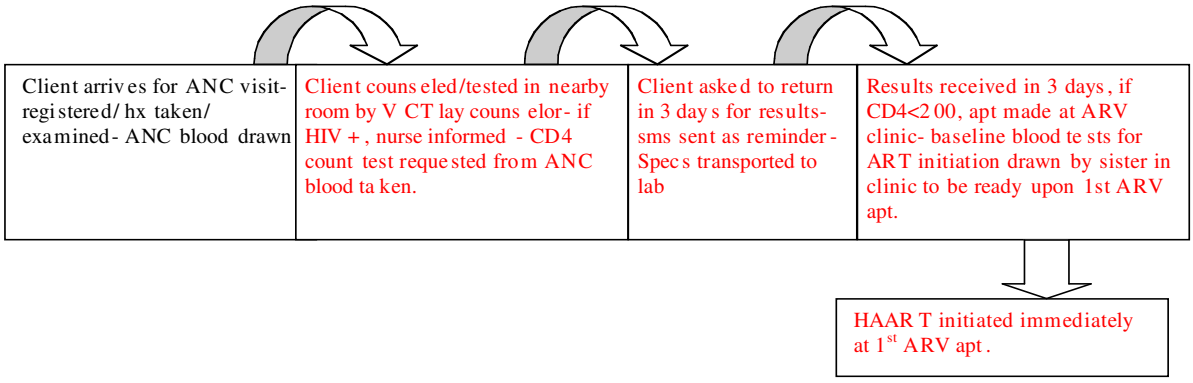
Target
Pregnant women who have tested HIV positive get their CD4 cell count completed quickly and are fast tracked on HAART if CD4< 200

Problem: *Increased waiting time and loss to follow up for CD4 testing of HIV positive women. Low uptake of CD4 testing for HIV positive clients*
Strategy: Bundling of CD4 testing with HIV testing at first antenatal visit and reduced turn around time for CD4 count results
Identified Challenges 1: Flow of clients between ANC and VCT/ ARV services

Original Flow:



Improved Flow:



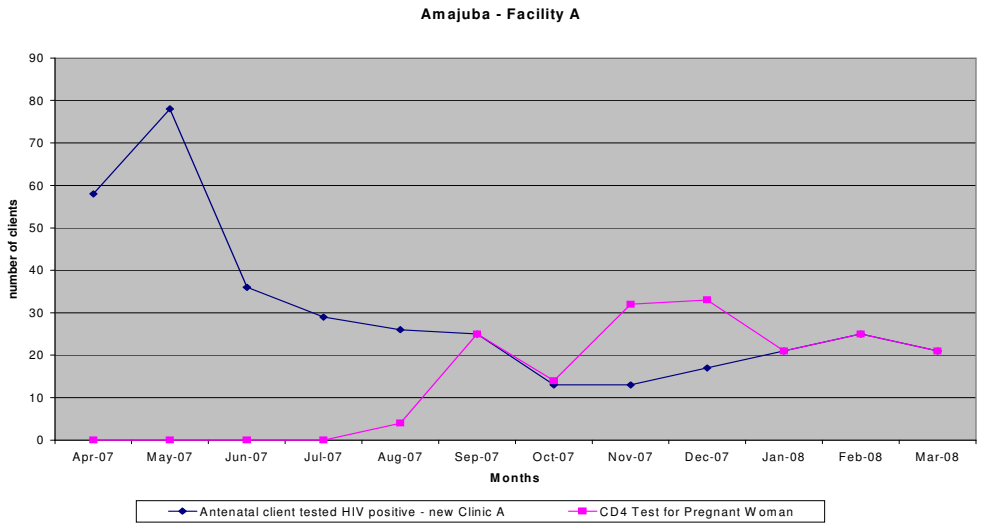
To improve efficiency and movement of clients between stages of ANC and PMTCT services, changes in the spatial lay out of clinics were made. By locating the VCT counseling room near to the ANC room, lay counselors and nurses worked better together and women were less likely to be missed. Furthermore, CD4 cell count was bundled with ANC blood taken to minimize wait times. Eligible women were booked telephonically and given appointment dates when referred to ARV Clinic. Baseline bloods for ART initiation were drawn at the clinic to be ready at 1st ARV clinic apt. Literacy classes were commenced on the day clients collect results for CD4. This process significantly fast tracked the identification of women eligible for HAART and initiation of HAART amongst these women. ARV clinic staff meets with referring facilities to discuss challenges relating to referral of clients.

Identified Challenge 2: Increased turn around time for CD4 count results:
Solution: Transport was provided by the district to collect blood and drop lab results at least once a day (sometimes twice) between clinics and lab facility. This significantly improved the turn around time for CD4 count results from weeks to 3 days thus enabling the fast tracking of mothers eligible for HAART.

Identified Challenge 3: Lack of capacity and poorly defined roles for PMTCT service delivery

Solution: *It was found that some health providers felt they were not adequately trained to handle HIV positive mothers effectively. Intensive training on PMTCT for lay counselors and professional nurses followed by onsite supportive supervision, and provision of PMTCT guidelines . Monthly meetings to discuss indicators and to clarify the roles and client flow processes helped to improve integration of PMTCT with maternal and child health services. Professional nurses were provided with Check lists to observe performance staff performance during immunizations and ANC .*

What effect has the Best Practice had?



The number of clients testing HIV positive and the number being tested for CD4 cell counts started approximating each other after introduction of the interventions

PROCESS TOWARDS DEVELOPMENT OF THE BEST PRACTICE

- Comprehensive **evaluation** using a participatory approach was done with team of district program managers and researchers from MRC to assess status of integrating PMTCT into MCH services.
  - **Team Included** PHC supervisors, facility managers, district program coordinators for HIV, PMTCT and MCH.
- Findings from survey **identified key bottleneck and challenges** with implementation
- **Ideas and tactics introduced** into affected clinics with input from senior medical and nursing staff
- **Trial testing of change ideas** for two weeks during which time they are reviewed and modified as needed.
- On-site meetings conducted to **review progress and improve strategies**
- Small test cycles of change enabled the **identification of successful approaches** and ability to hone into a BP that could be **shared** with others.

Tools / Resources to Implement this Best Practice

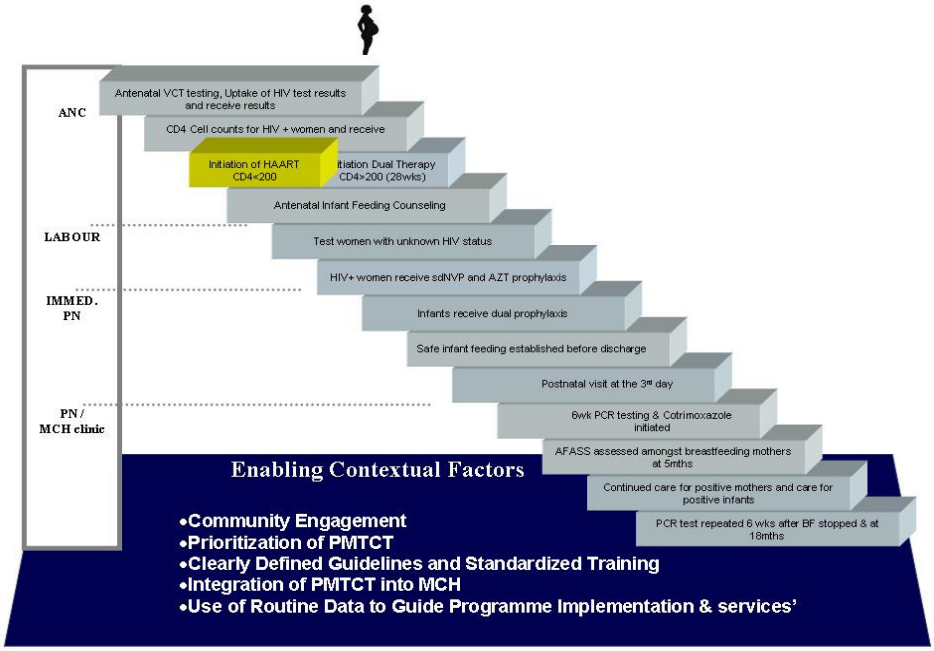
- Trainings for nurses in PMTCT
- Daily transport of lab specimens/ results
- Spatial allocation in clinics to allow VCT rooms moved closer to examination rooms
- Checklists and facility assessment tools

3.3 Initiation of HAART

Box of key ways to ensure HIV positive women <200 CD4 count are initiated on HAART & adhere to treatment.

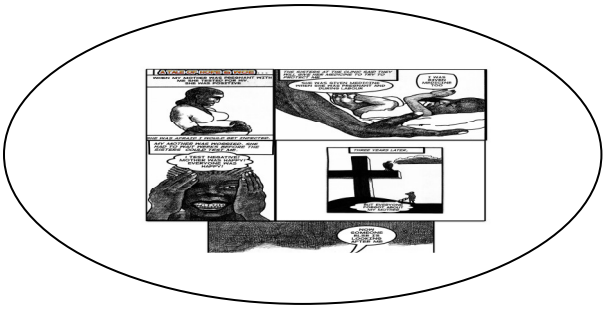
- If there is an on site CCMT service point walk the patient across to the CCMT service point by the hand.
- Have a patient friendly CCMT service point to retain mothers in care
    - **Paediatric Day -** a special day for paediatric HAART where HIV+ caregivers of HIV positive children also receive treatment. Paediatric outreach from the tertiary hospital allows paediatric patients to receive HAART at their home PHC and staff at primary care level are skilled up over time to deliver paediatric HAART
    - **Mother's Day** - a special day for HIV pregnant women eligible for HAART held on the paediatric clinic day. Allows natural peer support groups to form and focused attention to be given to pregnant women. Women also observe mothers and children receiving HAART. Mother's are kept at the ARV clinic on Mothers Day until the infants PCR results are available. If the baby is PCR+, mother and baby remain in care on the same day, if the baby is PCR -ve the mother is moved to a regular adult HAART day for continued treatment.

Figure 3: timely initiation of HAART



3.3.1 Timely HAART - Gauteng / Soweto-PHRU collaboration

Context within which the best practice operates.
Location: Johannesburg, Johannesburg Metro district, Gauteng province
Setting: urban; clinic
Year Started: 2000
Lead Agency: Perinatal HIV Research Unit
External Funding: yes
Population served: PMTCT, VCT



The Perinatal HIV Research Unit (PHRU) works in partnership with the Gauteng Department of Health in running the PMTCT programme in the Soweto clinics.

In 2007, PHRU signed a memorandum of understanding with the Gauteng Department of Health to continue supporting the PMTCT programme as it was felt that there was a need. The main needs are staff and equipment to support the programme. The PHRU assisted with the appointment and employment of staff dedicated to the programme. It also assisted with resources necessary for the programme, e.g. purchasing of drugs and haemoglobin meters during the dual therapy roll-out.

What is the best practice:

- Timely initiation of HAART in HIV positive pregnant women. Patient contacted directly or via sms if the CD4 count result is <200 and are fast tracked to come in before return date

What effect has the best practice had?

In 2008, 88% of HIV infected women with CD4 counts less than 200 received their results. Therefore overcoming one of the know barriers to accessing HAART.

What tools / structures support the best practice and what makes the best practice sustainable?)

This system of sending text messages has been a success, and has ensured that HIV-infected women are referred for HAART as soon as possible.

Those who do not have cell phones, or do not respond to text messages are called directly

What are the keys to breaking the barriers in this area of the PMTCT cascade

Known barriers to successful HAART initiation:

- Delays in collection of CD4 results
- Delays in referrals to the initiation sites, and delays at the initiation sites

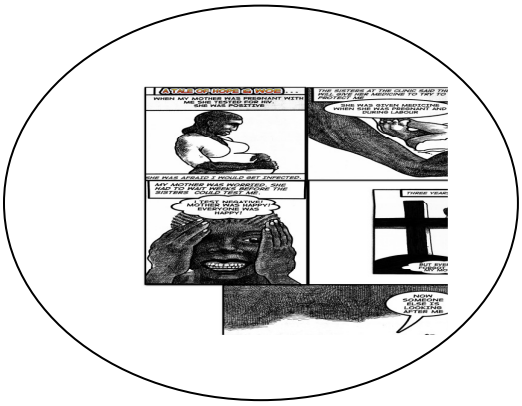
Lesson to be learnt for PHRU

- Patient contact directly or via sms if the CD4 count result is <200 and are fast tracked to come in before return date
- Dedicated staff with specific clinical and monitoring (check point) duties.

Contact details
Coceka Mnyani
Land line number : 011 989 9812
Cell phone number: 082 491 9203
E-mail address: mnyanic@hivsa.com

3.3.2 Timely HAART during pregnancy - Western Cape

Location: Western Cape
Setting: urban & rural
Lead Agency: Western Cape provincial DOH
Collaborating Agencies: Cape Town City Health IHI
External Funding: No
Population served: PMTCT
Contacts: Papiters@pgwc.gov.za / m.youngleson@mweb.co.za Tell: 0214833359



AIM1: TIMELY TRIAGE TO DUAL THERAPY OR HAART

1.1 Reduce loss of patients

Active recall of patients who have not returned for CD4 results (by phone, sms, letter, home visit)

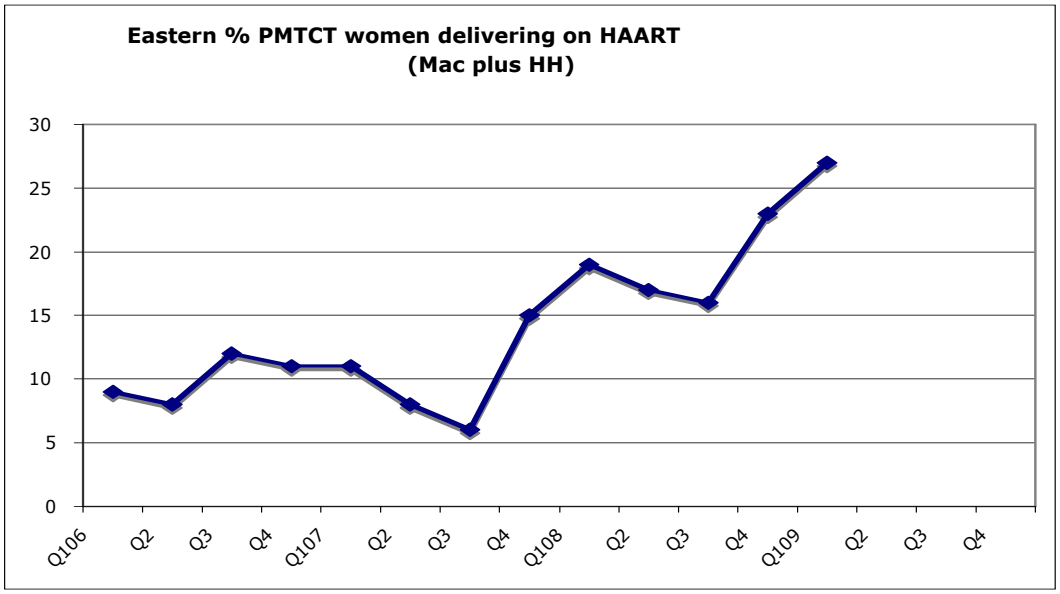
1.2. Improve access to HAART

If there is an onsite CCMT service point walk the patient across to the CCMT service point by the hand.

1.3 Have a patient friendly CCMT service point to retain mothers in care

- **Paediatric Day -** a special day for paediatric HAART where HIV+ caregivers of HIV positive children also receive treatment. Paediatric outreach from the tertiary hospital allows paediatric patients to receive HAART at their home PHC and staff at primary care level are skilled up over time to deliver paediatric HAART
- **Mother's Day** - a special day for HIV pregnant women eligible for HAART held on the paediatric clinic day. Allows natural peer support groups to form and focused attention to be given to pregnant women. Women also observe mothers and children receiving HAART. Mother's are kept at the ARV clinic on Mothers Day until the infants PCR results are available. If the baby is PCR+, mother and baby remain in care on the same day, if the baby is PCR -ve the mother is moved to a regular adult HAART day for continued

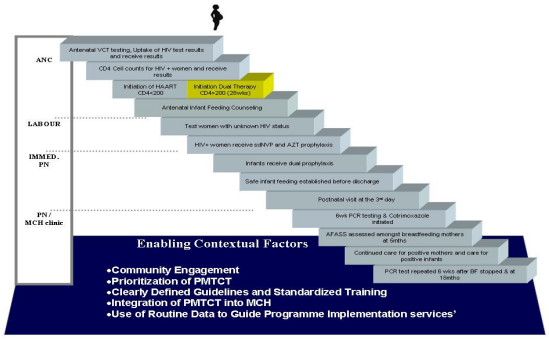
What effects the best practice had? The number of women delivering on HAART increased following the interventions



3.4 Initiation of Dual therapy

Gauteng/Soweto- PHRU collaboration

Context within which the best practice operates.
Location: Johannesburg, Johannesburg Metro district, Gauteng province
Setting: urban; clinic
Year Started: 2000
Lead Agency: Perinatal HIV Research Unit
External Funding: yes
Population served: PMTCT, VCT



The Perinatal HIV Research Unit (PHRU) works in partnership with the Gauteng Department of Health in running the PMTCT programme in the Soweto clinics.

In February 2008, the PMTCT programme was updated to include Zidovudine. In conjunction with the Gauteng Department of Health, we started an intense drive to train and mentor staff in the new PMTCT protocol. Systems were also put in place to ensure successful implementation of the programme. Introducing dual therapy, AZT and NVP, was more complex.

What is the best practice:

Timely initiation of dual therapy, AZT and NVP

What effect has the best practice had?

- From March to December 2008, 5 704 HIV-infected women and 6 641 HIV exposed babies received AZT
- Perinatal transmission rate has decreased to below 5% from previous 6 to 8% with single dose nevirapine

What are the keys to breaking the barriers in this area of the PMTCT cascade

- Counselling requires more detail and should be more intensive as increased information needs to be given to the pregnant women.
- Staff also need more time for the issuing of AZT.
- There is also a need to monitor patients on AZT – haemoglobin done every 4 weeks.

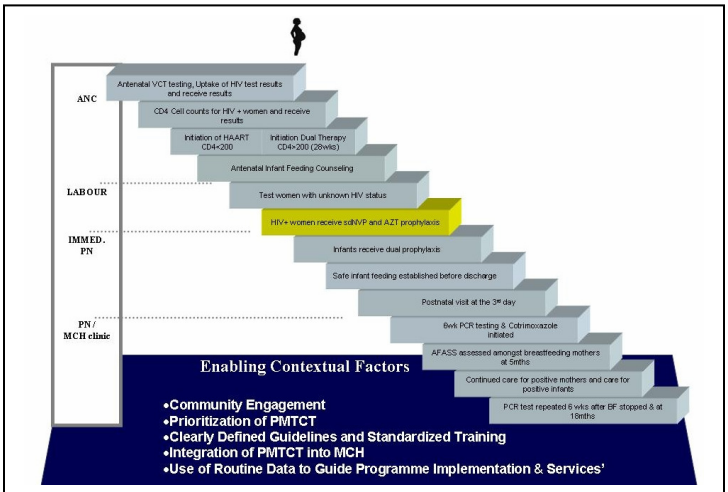
Lessons to be learnt for PHRU:

- effective training and ongoing mentoring of staff

Contact details
Coceka Mnyani
Land line number : 011 989 9812
Cell phone number: 082 491 9203
E-mail address: mnyanic@hivsa.com

3.5 Dual Therapy for HIV positive mothers during labour

Location: Western Cape **Setting:** urban & rural
Lead Agency: Western Cape
Collaborating Agencies: IHI
External Funding: No
Population served: PMTCT
Contacts: Papiters@pgwc.gov.za / m.youngleson@mweb.co.za
Tell: 082-8288332



Best practice

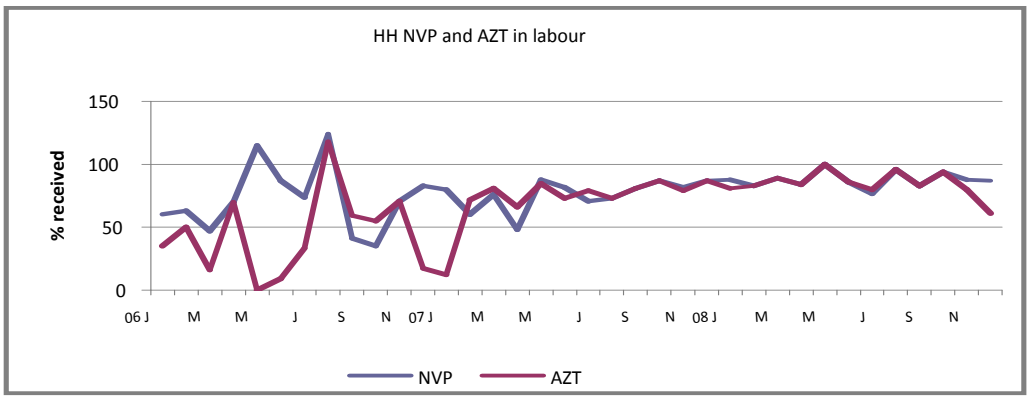
IN the WC, NVP and AZT are issued in the Labour Ward. The LABOUR WARD CHECKLIST is an A4 sheet placed in the folder. Based on the protocol it tracks the administration of PMTCT medications to the mother and baby. Monthly review of labour ward PMTCT data at sub-district office and feedback to labour ward

Targets	**Challenges**
- Dual therapy for HIV positive mothers	- Poor reliability of care - Poor record keeping in the labour ward

AIM 1: EASILY IDENTIFY WOMEN ON THE PMTCT PROGRAMME

AIM 2: IMPROVE RELIABILITY OF PMTCT IN THE LABOUR WARD

Effects the Best Practice has had:
The graph shows the improvement in performance & the reduction in variability of the data since after (May) the introduction of the improvements mentioned above



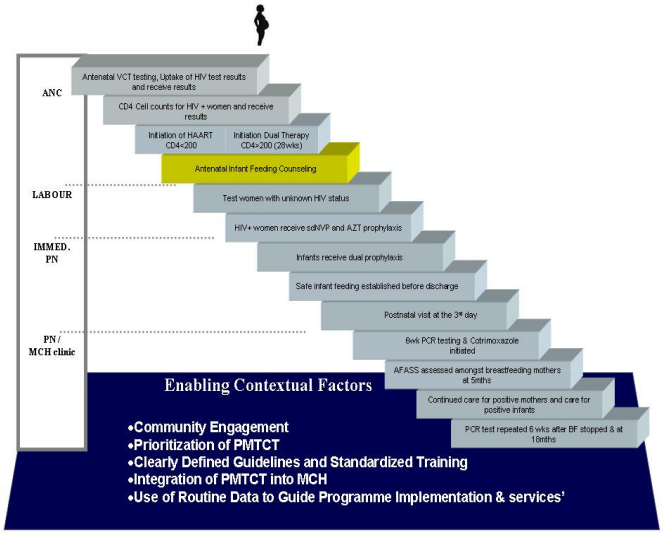
What tools / structures support the best practice and what makes the best practice sustainable?
The following tools have been integrated into routine practices:

- LABOUR WARD PMTCT REGISTER
- LABOUR WARD PMTCT REGISTER TEMPLATE

Key reasons for success/sustainability

- Leadership style – The leadership in Western Cape is participatory type. Implementers at PHC level participate in Problem identification/prioritization & coming-up with practical solutions applicable to their sites.
- Motivated staff
- Proper collation & interpretation of routine Data, followed by data driven action for improvement/modification of the BP model & tools (see how this is done in section 2.3.1)

3.6. Antenatal infant feeding counselling



Where, how and by whom is the tool used?

This tool is used by nurses and infant feeding counselors and any health professional working with mothers in the antenatal clinic of King Edward Hospital and Cato Manor Clinic. It is used during antenatal visits, and is sometimes also used postnatally when a mother has not made, or is unsure of her infant feeding choice.

Location: Ethkwini
Setting: urban/rural urban
Year Started: 2008
Lead Agency: Dept Paediatrics and Child Health, UKZN
Collaborating Agencies: none
External Funding: ICAP/PEPFAR
Population served: Cato Manor clinic does approximately 300 deliveries per month and King Edward hospital approximately 6000-7000 per year

The tool was developed because health care workers do not have the expected 30 minutes that are needed to do infant feeding choices counseling as suggested by WHO materials.

The tool was developed by Prof Coutsoudis in consultation with the consultants in the Dept Paediatrics and Child Health and the infant feeding counselors in the MTCT Plus programme at Cato Manor.

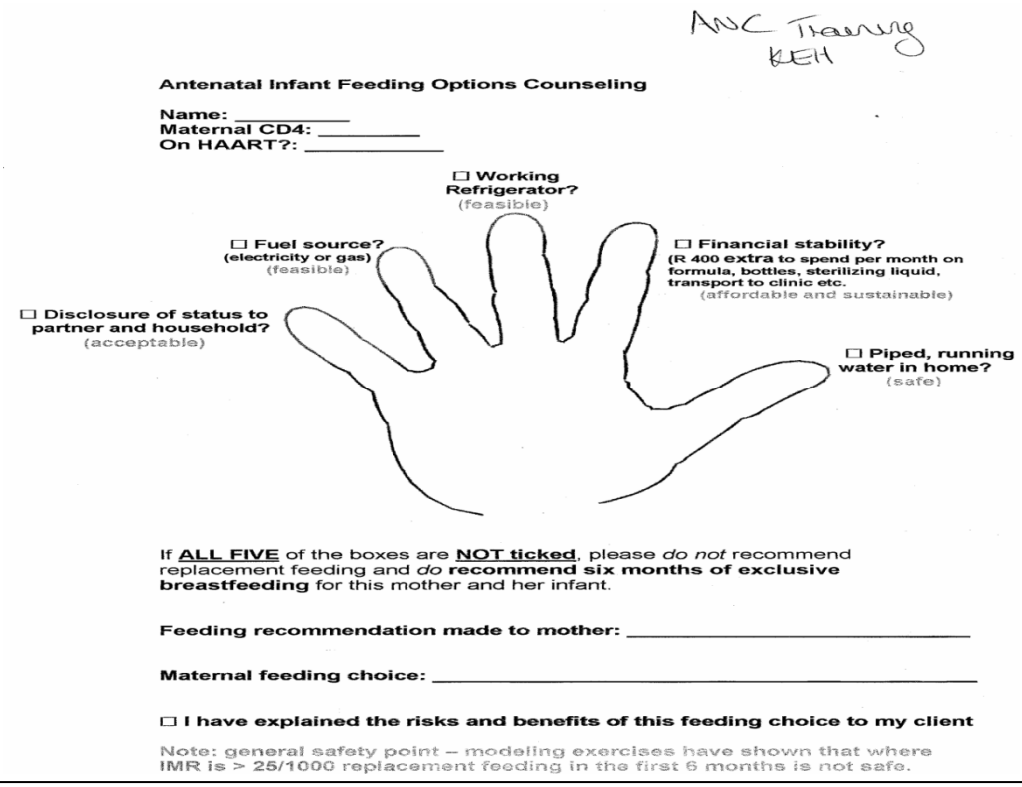
↓

The tool was based on a the work of the MRC (Doherty et al, AIDS 2007; 21: 1791-7) which showed that infants of women who choose to formula feed without satisfying 3 criteria had the highest risk of HIV transmission/death (HR 3.6). In order to fit in with the 5 AFASS criteria we then added in 2 other criteria which we have found are important for safe formula feeding in the Cato Manor context.

↓

We discussed the completed tool with counselors and nurses and the general feeling was that it was useful because it cuts down time considerably and it is a transparent tool that does away with counselors bring their own biases into the counseling sessions.

The Department of Paediatrics & Child Health, UKZN have developed a simple tool (shown below) to guide health workers at the Cato Manor Clinic and King Edward Hospital as they assist mothers and pregnant women with making an infant feeding choice. The tool uses a simple 5-finger approach to determining whether a woman meets all the AFASS (also see Annex 13)



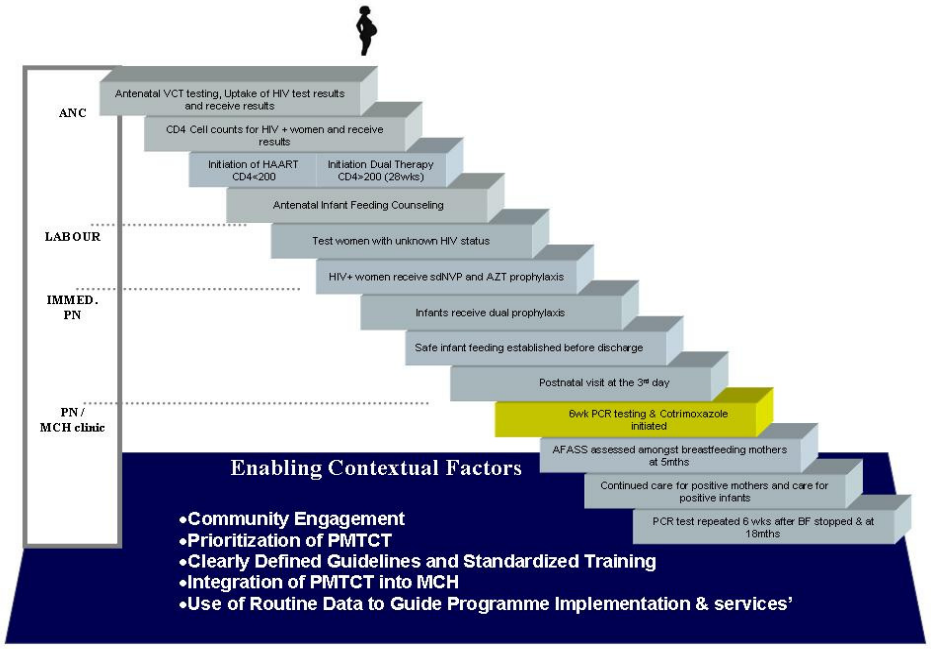
What makes use of the tool sustainable? Where does the tool stay? Does every woman have a copy of the tool in her file, or is it mainly a tool for nurse use? Do nurses / counselors record which criteria the woman met and write this in her notes? i.e. how is the tool used?

Originally when we developed the tool the idea was that each mother would have a copy in her chart but we found that the nurses and counselors were not keeping up with this. We still believe this is important and we would encourage it. If this is not possible the next best would be for an A3 copy of the chart to be laminated and put on the wall of the office where nurses/counselors are counseling and each nurse/counselor should have her own A4 laminated copy which she can show to the mothers.

3.7. Infant PCR testing at 6 weeks

Box of key practices/strategies to ensure PCR testing of exposed infants at 6 weeks

- Identify HIV exposed infants through improved recording and literacy of RTHC for lay counselors and nurses
- Perform PCR test on all HIV exposed infants presenting for immunization
- Increase capacity for PCR testing by enrolled nurses through onsite training in heel prick method
- Ensure immunization clinics are held in private space within clinic to encourage safe disclosure for HIV + mothers/ untested mothers
- Initiate Cotrimoxizole treatment on all HIV exposed infants



Amajuba District in KZN
Year started- 2007 **Setting:** All primary health care facilities rendering antenatal services in Amajuba district
Lead Agency- **Collaborating agencies**- MRC **External funding-** PEPFAR, CDC
Population served-antenatal and postnatal clients accessing maternal and child health services
 # Clients served- Counseled: 13,615; Tested: 13,536; HIV positive new (between Jan 08 and Jan 09): 4,331
Contact: Tanya Doherty Tanya.Doherty@mrc.ac.za

Target

- Identify infants who have been exposed to HIV when they present at immunization clinics.
- Perform a PCR test on these infants to determine if they have been infected during pregnancy/ labor
- Give cotrimoxazole as prophylaxis to all infants of HIV positive mothers

Problem:
Despite a high immunization coverage rate for the district, only 24% of infants are being tested for HIV with a PCR test at the six-week immunization visit to determine their HIV status.

Identified challenge 1: **Using the RTHC to identify HIV exposed infants**

Three main shortcomings identified:

1) HIV exposed infants were not identified on the RTHC.
2) Infants whose HIV exposure was written on the RTHC were being missed due to a lack of knowledge or similar interpretation of HIV coding system
3) Enrolled nurses are mostly allocated in immunization and some were not trained on PMTCT.

Solution: *On site re-training of staff on correct coding and decoding in all facilities, providing guidelines on HIV coding. Allocation of lay counselor in immunization station (designated room / space for immunization or waiting room – if privacy can be maintained) to screen RTHC for HIV codes and motivate mothers with unknown status to test. Ensure that all babies are seen by professional nurses before immunization for screening purposes.*

Identified challenge 2: Lack of capacity and ill-defined roles for PCR testing: Shortage of staff trained to do PCR testing which was viewed as a complicated procedure.

Solution: *On site training of other professional nurses on PCR testing. Staff who were trained to do infant immunizations received further **training** in conducting a heel prick for PCR testing of infants*

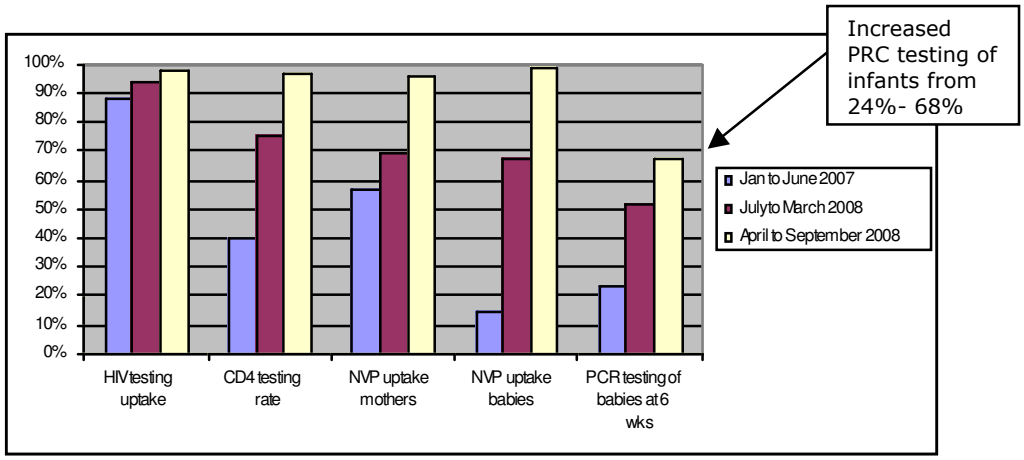
Identified challenge 3: **Lack of privacy for safe disclosure**

Immunization stations located in the corridors and main areas of busy clinics due to spatial constraints. This was found to inhibit truthful disclosure by HIV positive mothers of their status.

Solution: *Immunization stations moved from central clinic areas **to private rooms** to provide an environment conducive to open discussion regarding infant exposure and the provision of information. Mothers of infants whose exposure status was not noted on the RTHC were then asked if they knew their HIV status. A private environment was more conducive to disclosure. Untested mothers were encouraged to test by lay counselors and if positive, babies were given PCR test and cotrimoxazole.*

Note: although this approach might not be feasible in clinics with limited space, it emphasizes the usefulness of identifying any private space inside or outside the clinic to discuss issues relating to the infant's health and HIV.

What effect has the Practice had?



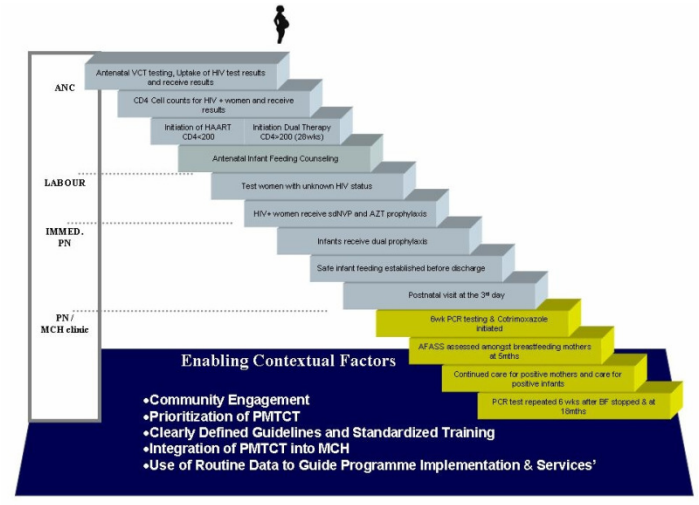
PROCESS TOWARDS DEVELOPMENT OF THE BEST PRACTICE

- Comprehensive **evaluation** using a participatory approach was done with team of district program managers and researchers from MRC to assess status of integrating PMTCT into MCH services.
  - **Team Included** PHC supervisors, facility managers, district program coordinators for HIV, PMTCT and MCH.
- Findings from survey **identified key bottleneck and challenges** with implementation
- **Ideas and tactics introduced** into affected clinics with input from senior medical and nursing staff
- **Trial testing of change ideas** for two weeks during which time they are reviewed and modified as needed.
- On-site meetings conducted to **review progress and improve strategies**
- Small test cycles of change enabled the **identification of successful approaches** and ability to hone into a BP that could be **shared** with others.

Tools / Resources to Implement this Best Practice

- Trainings for Enrolled Nurses and lay counselors in literacy coding on the RTHC
- Spatial allocation in clinics for private rooms for immunization clinics
- Training for staff on how to do a heel prick on infants

3.8. Postnatal care & Infant- mother follow-up



Location: Western Cape
Setting: urban & rural
Lead Agency: Western Cape
Collaborating Agencies: IHI
External Funding: No
Population served: PMTCT
Contacts: Papiters@pgwc.gov.za / m.youngleson@mweb.co.za Tell: 082-8288332

Infant mother follow-up

Target

Continuity of care for the baby & the mother postnatally

Challenge

- Not having any system in place to identify exposed infants at postnatal clinics/ not able to know feeding decisions of mother/ what has been given & not given antenatally & postnatally
- Mothers default from HAART after giving birth.

Best practice

Good information transfer between labour ward & baby clincs - **attach the ANC card on to the** RHTC, so the status of the baby & feeding decisions/pattern could be known in the 1st PNC visit.
In some areas a PMTCT / Labour ward checklist has also been developed. This is held by the mother (see Annex 14) and facilitates monitoring whether all PMTCT-related activities have been performed

A 0-6 month infant-mother follow-up register developed to capture all information needed to be tracked about the infant & the mother for the first 6 months. The register keeps babies born in the same month in one page to simplify follow-up & identify loss to follow-up. The register also gives reliable denominator for calculation of transmission rate (see Annex 10)

What tools / structures support the best practice and what makes the best practice sustainable?)

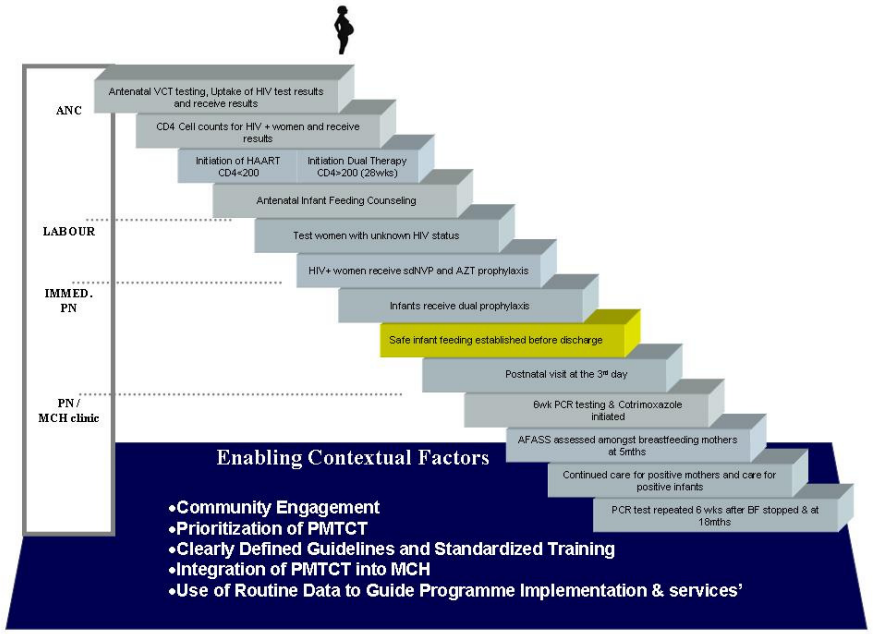
- POSTNATAL PMTCT PCR COHORT REGISTER (Annexes 9 and 10)
- POSTNATAL PMTCT PCR COHORT REGISTER TEMPLATE

Key reasons for success/sustainability

Leadership style – The leadership in Western Cape is participatory type. Implementers at PHC level participate in Problem identification/prioritization & coming-up with practical solutions applicable to their sites.
Proper collation & interpretation of routine Data, followed by data driven action for improvement/modification of the BP model & tools (see how this done in section 2.2.2)
Staff motivation

Best postnatal practices in Infant feeding

Flash heating breastmilk postnatally



The Department of Paediatrics and Child Health have set designated a space in the nursery of King Edward Hospital where HIV-positive mothers can flash heat their breastmilk.

What is flash heating?

1. Flash heating involves placing breastmilk (between 50-120ml) into a glass jar and then place the glass jar in a 1 litre pot and pour in enough water so that the water level is 2 finger widths above the level of the milk.
2. Bring the water to the boil and when the water is rapidly boiling remove the jar from the water and let it cool and then feed to infant.

What does it do?

3. Flash heating inactivates the HIV virus thus rendering the breastmilk free of HIV, whilst retaining the antibodies and nutritional content of breastmilk.

When should it be used?

4. Flash heating is particularly useful for HIV-positive mothers of premature infants who are hospitalized in the neonatal nursery or HIV positive mothers who have not yet decided how they will feed their infants.
5. It is also useful to use after 6 months of age where mothers can express breastmilk and heat treat it before giving it to their infants.

How is flash heating done?

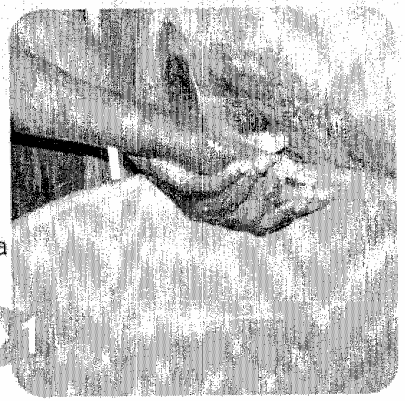
What you will need: 450 ml **Glass** bottle – the kind sometimes used for jam or peanut butter and a small 1 litre aluminium pot. **How to do it:** 1. Make sure that the bottle is clean and wash your hands with soap before you start expressing. 2. Express breast milk into the clean jar. 3 and 4. When you have expressed enough milk put the lid on the bottle. Put cold water in the pot. The water level must be two fingers above the milk level.	5. Take the lid of your bottle, then put the bottle in the pot with the water. Put the pot on the stove or hot plate. 6. When the water is boiling **rapidly** take the pot off the stove. 7. Put the lid on the bottle and then cool the milk. If you want to cool the milk quickly put the bottle in cold water. 8. Pour the breast milk in a clean cup and cup feed the baby.

Yikuphi Okudingayo

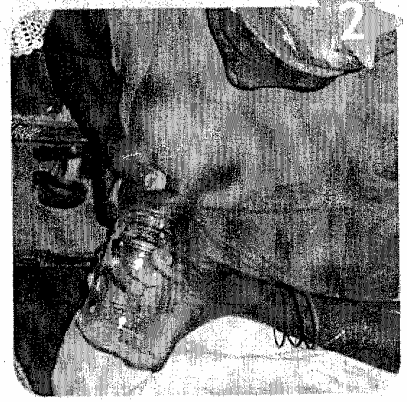
Ibhodlela elifayo (ibhodlela lephinathi bhatha noma ibhodlela likajamu) kanye nebhodwe elincane.

Bese Wenza Njani

Qinisekisa ukuthi ibhodle lakho lihlanzekile bese ugeza izandla zakho ngensipho ngaphambi kokuba uqale ukhame.



Bese ukhama ubisi lwebele ebhodleleni elihlanzekile. Uma usukhame ubisi lwebele olwanele, faka amanzi ebhodweni.

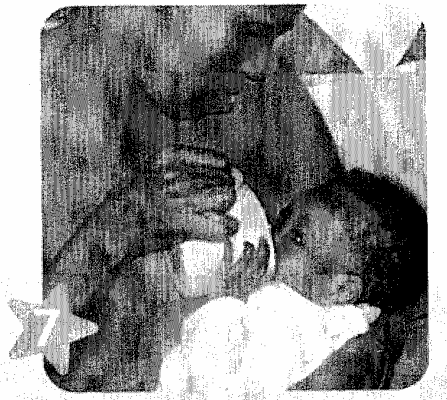


Amanzi akho kufanele abengaphezulu kobisi ngeminywe yakho embili ebhodleleni.

Susa isivalo sebhodlela lakho, bese ufaka ibhodlela ebhodweni elinamanzi. Beka ibhodwe lakho esitofini.

Uma amanzi esebila kakhulu, susa ibhodwe esitofini.

Buyisela isivalo sebhodlela bese upholisa ubisi lwebele. Uma ufuna ukulipholisa ngokushesha, faka ibhodlela lakho esitsheni esinamanzi abandayo.



Thela ubisi lwakho enkomishini bese uphuzisa umntwana wakho ngenkomishi.

Where, how and by whom is flash heating done in Durban?
Flash heating is done by HIV-positive mothers whose infants have been admitted to the neonatal nursery. Is it also used by HIV positive women in the postnatal ward?
The flash heating room is managed by a mother who herself used flash heating to heat her infant's milk. Mothers practicing flash heating are free to enter the room and flash heat their milk whenever they need to feed their infants. The flash heating method is currently used at King Edward Hospital and a few other hospitals are hoping to also set it up.
Location: King Edward Hospital, Durban – an urban hospital.
Year Started: 2008
Lead Agency: Dept Paediatrics and Child Health, UKZN
Collaborating Agencies: University of California assisted in the initial research which we did to provide evidence of the safety of using flash heated breastmilk.
External Funding: Fuchs Foundation
Population served: PMTCT and child follow up clinics, King Edward Hospital Nursery 60 per month, Cato Manor Clinic post 6 months – approximately 10 per month.

What is needed to set up a flash heating facility?
Administrative needs:
Buy in from the matron and neonatal staff.
An agreement with the sterilizing department of the hospital so that the jars that mothers use to flash treat their milk can be auto-claved and reused.
No ethical permission requested as heat treating breastmilk is one of the WHO infant feeding options.

Equipment and supplies
A space where the flash heating can be done
Hot plates
Pots
refrigerator
Glass jars of approximately 450 ml volume (the traditional honey or peanut butter glass jars) that can be sterlised and re-used
Register to record – name of mother, GA and birth weight of infant, date started flash heating and date ended; outcome of infant on discharge.

What has been the effect / impact of the flash heating facility?

On the ward staff?
Ward staff now feel that they can do something for HIV positive women who are breastfeeding

On the mothers?
Mothers feel empowered

On the infants?
Sick infants and premature infants are still able to receive protection from breastmilk, thus potentially reducing their risk of severe illness and complications

Contact details for more information

More information about how to set up a flash heating unit or a breast bank can be obtained from:
Prof Coutsoudis, Dept Paediatrics and Child Health, UKZN (coutsoud@ukzn.ac.za).
More information in flash heating can also be obtained from:
http://berkeley.edu/news/media/releases/2007/05/21_breastmilk.shtml or
http://www.youtube.com/watch?v=NNw1odieIoI or
Bacterial safety of flash-heated and unheated expressed breastmilk during storage.
Israel-Ballard K, Coutsoudis A, Chantry CJ, Sturm AW, Karim F, Sibeko L, Abrams B. J Trop Pediatr. 2006 Dec;52(6):399-405. Epub 2006 Sep 27.
Flash-heat inactivation of HIV-1 in human milk: a potential method to reduce postnatal transmission in developing countries. Israel-Ballard K, Donovan R, Chantry C, Coutsoudis A, Sheppard H, Sibeko L, Abrams B. J Acquir Immune Defic Syndr. 2007 Jul 1;45(3):318-23.
Vitamin content of breast milk from HIV-1-infected mothers before and after flash-heat treatment.
Israel-Ballard KA, Abrams BF, Coutsoudis A, Sibeko LN, Cheryk LA, Chantry CJ.
J Acquir Immune Defic Syndr. 2008 Aug 1;48(4):444-9. Erratum in: J Acquir Immune Defic Syndr. 2008 Oct 1;49(2):235.

ANNEXES

ANNEX 1: STAMPS AND FLOW CHARTS TO FACILITATE PMTCT IMPLEMENTATION

ANNEX 2: POSTNATAL CARD

ANNEX 3: BANC AND PMTC REGISTER

ANNEX 4: CHILDREN WITH SPECIAL NEEDS REGISTER

ANNEX 5: ANTENATAL CARD

ANNEX 6: ANC VCT REGISTER TEMPLATE

ANNEX 7: FACILITY LEVEL LABOUR WARD DATA COLLECTION TEMPLATE

ANNEX 8: SUB-DISTRICT LABOUR WARD DATA ENTRY TEMPLATE

ANNEX 9: INSTRUCTIONS PMTCT BABY REGISTER

ANNEX 10: INFANT-MOTHER FOLLOW-UP

ANNEX 11: PMTCT AUDIT GUIDE

ANNEX 12 PMTCT AUDIT TOOL

ANNEX 13: COUNSELLING ON INFANT FEEDING OPTIONS – 5 FINGER APPROACH

ANNEX 14: LABOUR WARD (PMTCT) CHECKLIST

REFERENCES

[i] Doherty T, Besser M, Donohue S. An evaluation of the PMTCT initiative in South Africa. Durban: Health Systems Trust; 2003.

[ii] Doherty TM, McCoy D, Donohue S. Health system constraints to optimal coverage of the prevention of mother-to-child HIV transmission programme in South Africa: lessons from the implementation of the national pilot programme. Afr Health Sci 2005;5(3):213-8.

[iii] Msellati P, Hingst G, Kaba F, Viho I, Welffens-Ekra C, Dabis F. Operational issues in preventing mother-to-child transmission of HIV-1 in Abidjan, Cote d'Ivoire, 1998-99. Bulletin of the World Health Organization 2001;79(7):641-7.

[iv] Stringer EM, Sinkala M, Stringer JS, et al. Prevention of mother-to-child transmission of HIV in Africa: successes and challenges in scaling-up a nevirapine-based program in Lusaka, Zambia. AIDS 2003;17(9):1377-82.

[v] Perez F, Mukotekwa T, Miller A, et al. Implementing a rural programme of prevention of mother-to-child transmission of HIV in Zimbabwe: first 18 months of experience. Trop Med Int Health 2004;9(7):774-83.

[vi] Temmerman M, Quaghebeur A, Mwanyumba F, Mandaliya K. Mother-to-child HIV transmission in resource poor settings: how to improve coverage? AIDS 2003 May 23;17(8):1239-42 2003.

[vii] Manzi M, Zachariah R, Teck R, Buhendwa L, Kazima J, Bakali E, et al. High acceptability of voluntary counselling and HIV-testing but unacceptable loss to follow-up in a prevention of mother-to-child transmission programme in rural Malawi: scaling-up requires a different way of acting. Tropical Medicine and International Health. 2005;10(12):1242-5

[viii] Mlayuta R, Newell M, Ostergren M, Thorne C, Zhilka N. Prevention of mother-to-child transmission of HIV infection: Ukraine experience to date. European Journal of Public Health. 2006.;16.(2.):123-7.

[ix] Jackson D, Chopra M, Doherty T, Colvin M, Levin J, Willumsen J, et al. Operational effectiveness and 36 week HIV-free survival in the South African programme to prevent mother-to-child transmission of HIV-1. AIDS. 2007;21.:509-16.

[x] Welty T, Bulterys M, E. W, Tih P, Ndikintum G, Nkuoh G, et al. Integrating prevention of mother-to-child HIV transmission into routine antenatal care: The Key to Program Expansion in Cameroon. JAIDS. 2005;40(4):486-93

[xi] Magoni M, Bassiania L, Okong P, Kituukab P, Germinarioa E, Giulianoa, M et.al. Mode of feeding and HIV infection in a program for prevention of mother-to-child transmission in Uganda. AIDS 2005; 19:433-7.

[xii] Sherman GG, Jone S, Coovadia A, Urban A, Boulton K. PMTCT from research to reality - results from a routine service. South African Medical Journal. 2004.;94.(4.):289-92.

[xiii] Coetzee D, Hilderbrand K, Boulle A, Draper B, Abdullah F. Efectiveness of the first district-wide programme for the prevention of mother-to-child transmission of HIV in South Africa. Bulletin of the World Health Organisation. 2006.;83.:489-94.

[xiv] Perez F, Mukotekwa T, Miller A, Orne-Gliemann J, Glenshaw M, Chitsike I, et al. Implementing a rural programme of prevention of mother-to-child transmission of HIV in Zimbabwe: first 18 months of experience. Tropical Medicine and International Health. 2004;9.(7.):774-83.

[xv] Good Start Study Team. The Good Start Study: Draft Report. Cape Town: Health Systems Trust; 2005.

[xvi] Doherty TM, McCoy D, Donohue S. Health system constraints to optimal coverage of the prevention of mother-to-child HIV transmission programme in South Africa: lessons from the implementation of the national pilot programme. Afr Health Sci 2005;5(3):213-8.

[xvii] Doherty T, Besser M, Donohue S, Kamoga N, Stoops N, Williamson L, et al. An Evaluation of the Prevention of Mother to Child Transmission (PMTCT) of HIV Initiative in South Africa: Outcomes and key recommendations. 2003 [cited 2006 13 June]; Available from: www.hst.org.za

[xviii] Kraai, G., Patrik, M. & McKerrow, N. (2008). Improved quality of services: Examining systems and programmes that work. Child Health Priorities Conference, Wits University, 5 December 2008

ANNEX 1: STAMPS AND FLOW CHARTS TO FACILITATE STANDARDISED IMPLEMENTATION OF PMTCT INCLUDING FOLLOW-UP

Retroscreen: Yes……. No…….. Declined……

MTCT: Yes…….. No…….

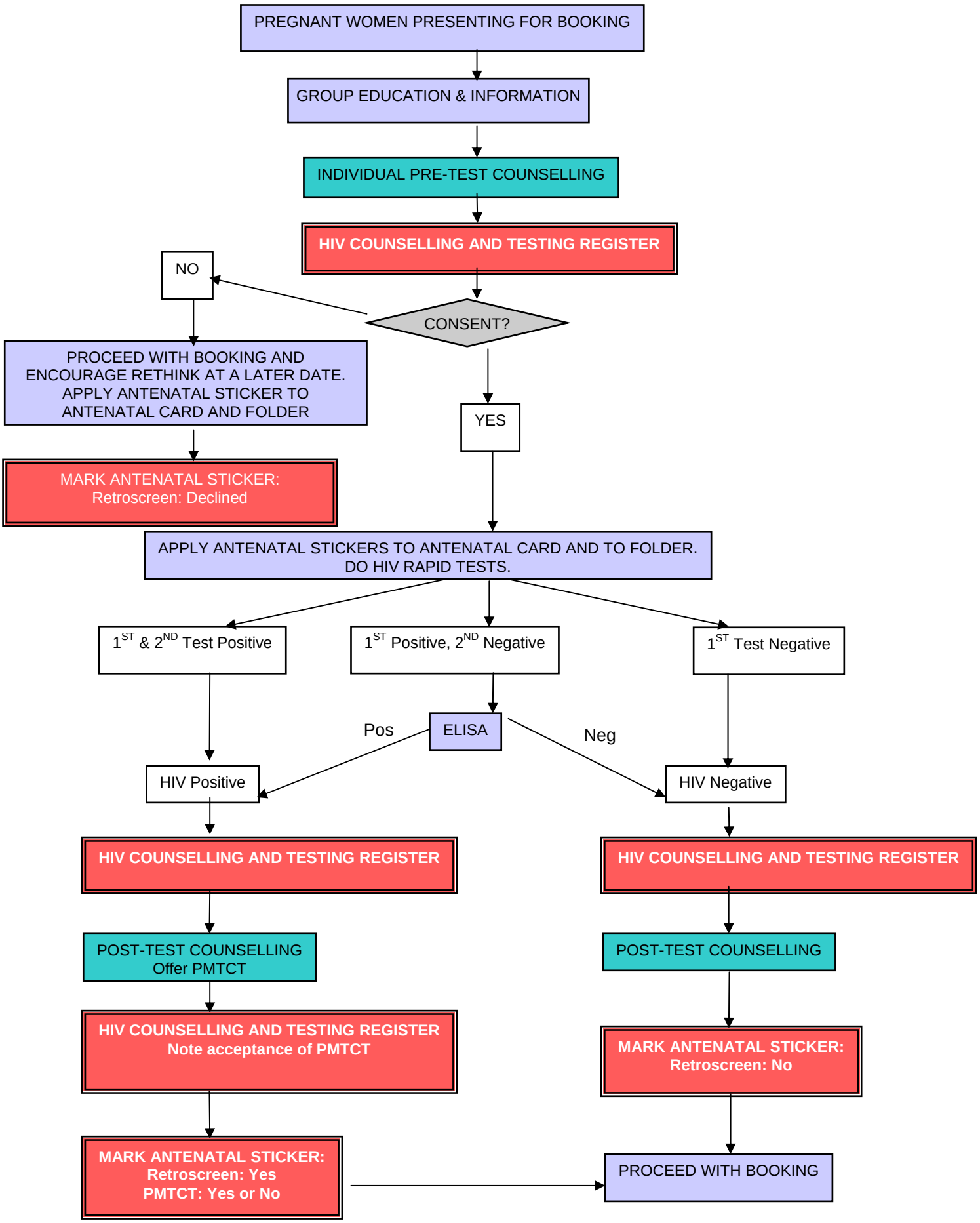
CD4 count: ……..

Feeding Choice: Excl BF …… Excl FF ……

Booking Facility: ……

Retroscreen Yes: HIV positive
Retroscreen No: HIV negative
Retroscreen Declined: Did not agree to testing
PMTCT Yes: Participation in program
PMTCT No: Not participating in program
BF: Breast feeding
FF: Formula feeding

Flowchart One: Voluntary Counselling and Testing



Antenatal Care and Antiretroviral Medication

See Flowchart Two (A, B & C).

(1) Any patient who has a CD4 count above 200 will receive the double therapy regimen of AZT antenatally and AZT and Nevirapine at delivery.

(2) The midwife who palpates the pregnant woman (who are not in the HAART programme) in the antenatal clinic will ensure she returns at a gestational age of 28 weeks in order for AZT to be dispensed.

(3) The dose of AZT is 300mg bd starting at 28 weeks pregnancy, and should be dispensed every two weeks, and continue until delivery. If patients present after 28 weeks gestation and test HIV positive, AZT may be issued until delivery at any stage during the period 28 weeks until delivery, and consequently through delivery. If patients have tested HIV positive at any stage of the pregnancy and subsequently defaulted until presenting in labour, AZT may be initiated during labour.

(4) Since AZT can cause anaemia it is important that attention be paid to Haemoglobin levels. At booking all women with Hb of less than 12gms % must be treated with $FeSO_4$ tablets. This is to ensure adequate Haemoglobin before commencing AZT. At 32 weeks the Haemoglobin must be checked, (Ward Hb) and managed appropriately.

(5) The patient should be informed that she will also receive Nevirapine at the onset of labour. The midwife must check that the patient is aware of the symptoms of early labour. The patient should be counselled to not wait too long before coming in to the MOU or hospital when in labour **and** to present immediately after rupture of membranes.

(6) Each patient who has tested HIV positive and has a CD4 count below 200 or is assessed to be in Stage 3 AIDS illness should be referred to a doctors clinic (preferably on site) for medical assessment using the clinical assessment tool, so that opportunistic infections are treated and prophylactic co-trimoxazole prescribed. The level of subsequent care should then be decided by the clinician.

(7) If there is no doctor's clinic operational in the facility, then the patient should be referred to the nearest ARV site for assessment for HAART. In either case, referral for HAART should be done as soon as possible. The patient's folder number should be entered on to the referral letter to ensure efficient tracking of the patient. This is provided that the patient is less than 34 weeks gestation. The management of her pregnancy will remain in the antenatal clinic. This referral must be entered in the **HIV Counselling and Testing Register** in the comments section. *See Flowchart Two B*

(8) HIV positive pregnant women with a CD4 count below 200 who are in hospital should be managed by the attending obstetrician, and may be initiated on to HAART if she is below 34 weeks gestation. Management should be in consultation with the nearest ARV clinic and HAART should be initiated only if the necessary arrangements are made for the patient to be followed up at her district ARV clinic after delivery.

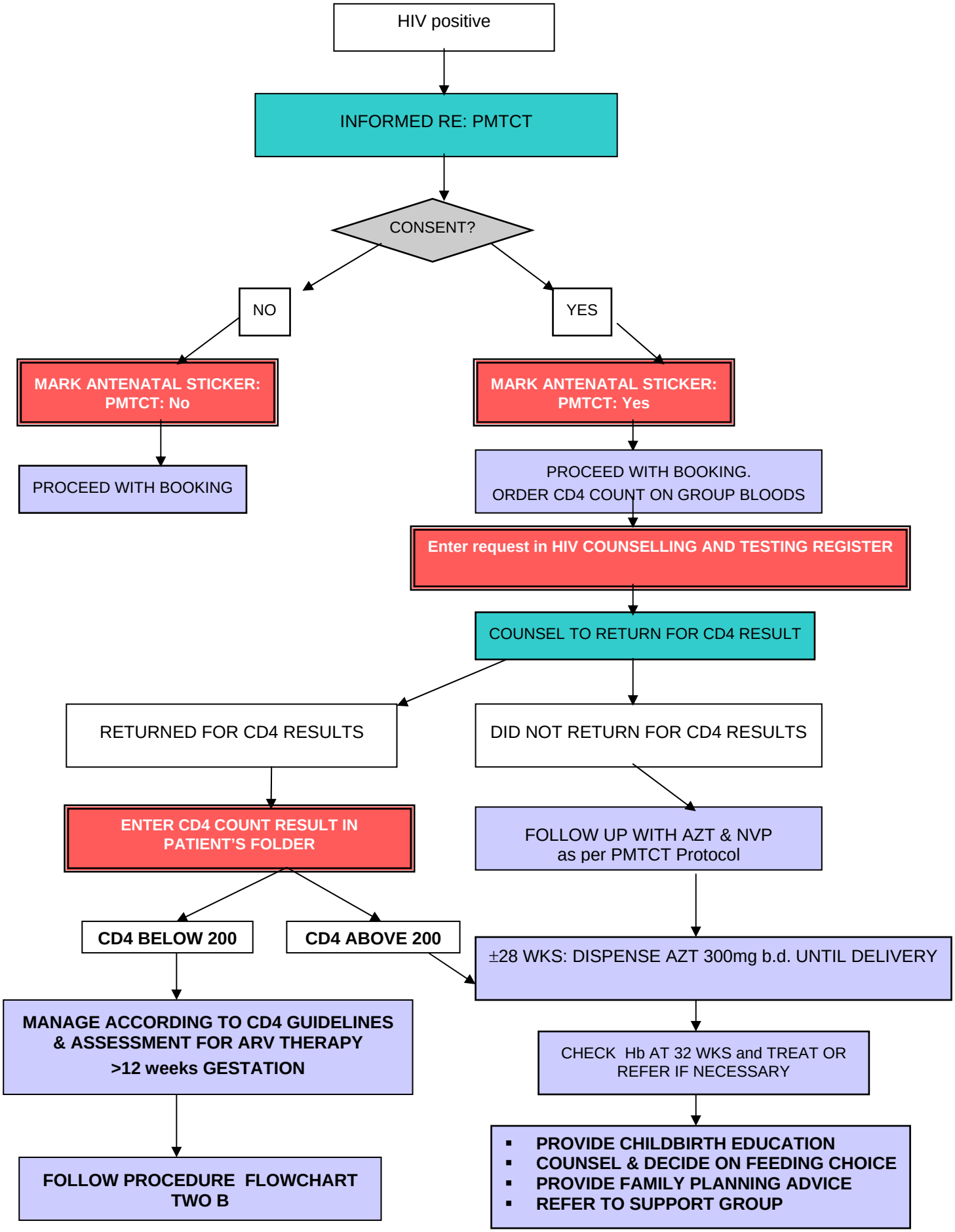
(9) In the event of early diagnosis of pregnancy and referral for antiretroviral treatment, no HIV positive pregnant patient should be initiated on HAART before 12 weeks gestation.

(10) HIV infected women will receive ongoing counselling from attending midwives and counsellors about possible breast milk transmission and about options to prevent transmission through exclusive replacement feeding or minimising transmission through exclusive breast-feeding. The patient should be assisted in making a decision on how to feed the baby prior to going into labour. The midwife must make sure that the patient has made a decision about how to feed her baby, choosing exclusive replacement feeding or exclusive breast-feeding

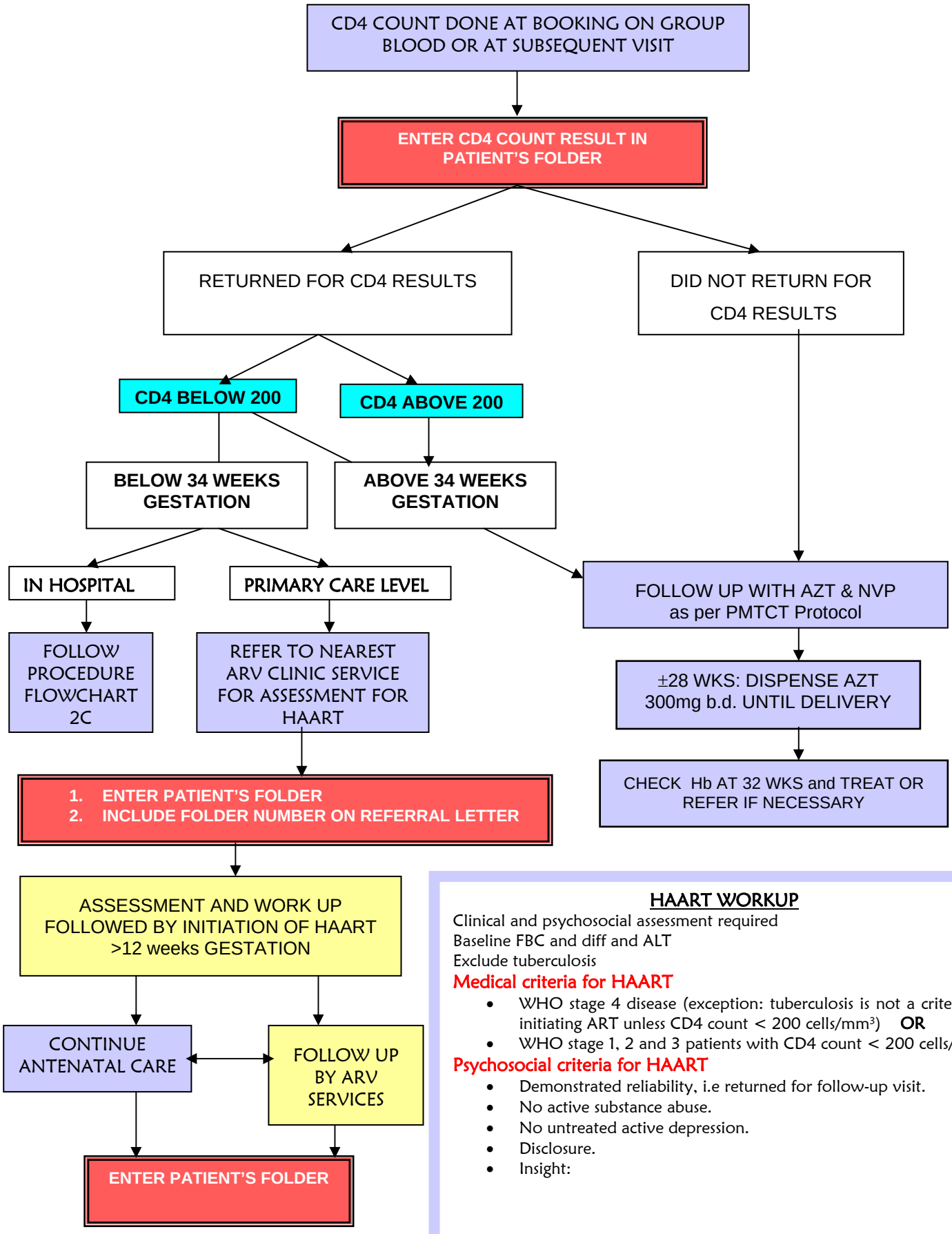
(11) The midwife must make sure that the information on feeding choice is recorded on the **antenatal stickers** both on the antenatal card and in the patient's folder.

(12) All women will be informed of support groups in their area or at the clinic.

Flowchart Two A: Antenatal Care



Flowchart Two B:
Continued Antenatal Care for low CD4 counts



HAART WORKUP

Clinical and psychosocial assessment required
Baseline FBC and diff and ALT
Exclude tuberculosis

Medical criteria for HAART

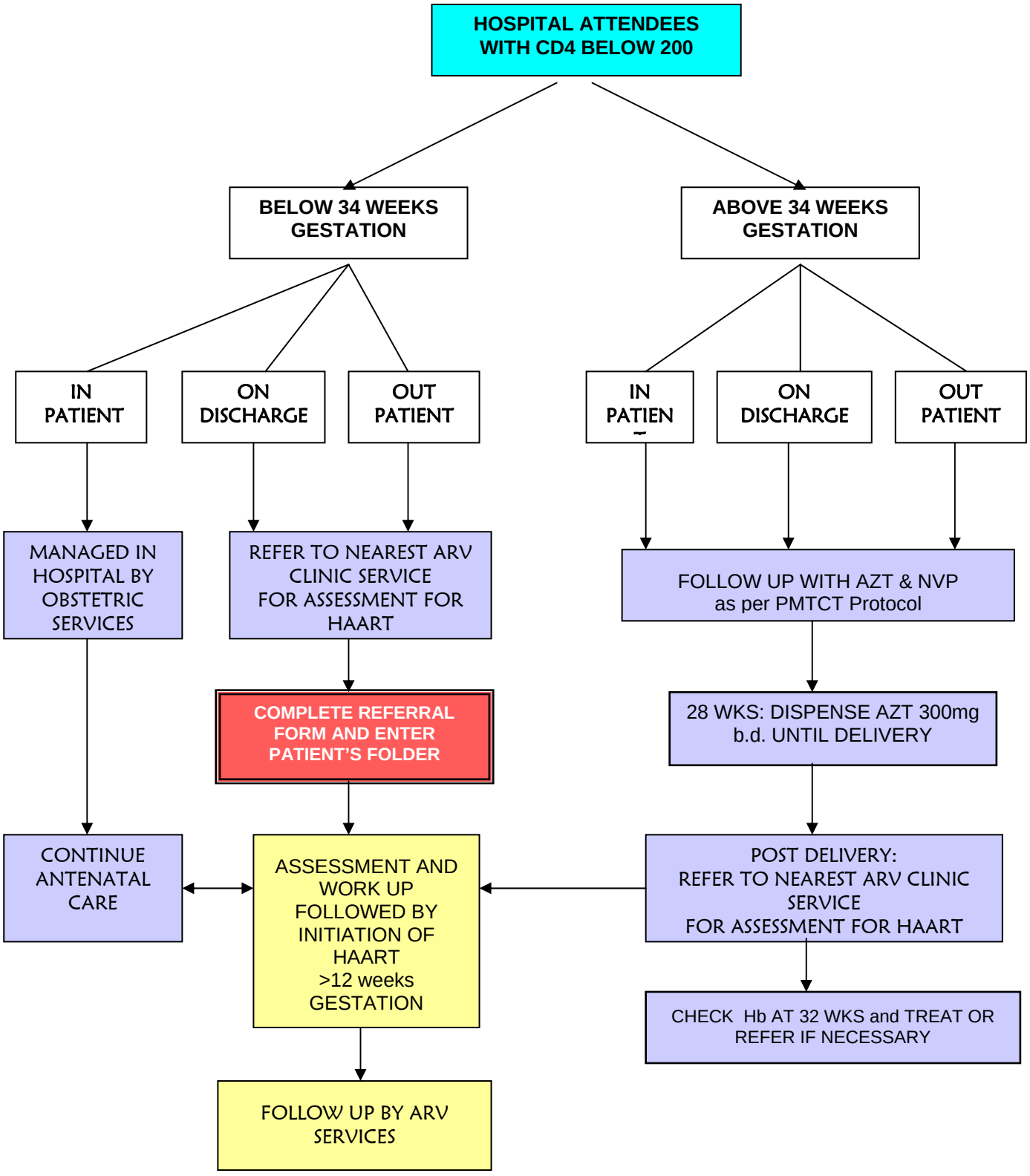
- WHO stage 4 disease (exception: tuberculosis is not a criterion for initiating ART unless CD4 count < 200 cells/mm^3) **OR**
- WHO stage 1, 2 and 3 patients with CD4 count < 200 cells/mm^3.

Psychosocial criteria for HAART

- Demonstrated reliability, i.e returned for follow-up visit.
- No active substance abuse.
- No untreated active depression.
- Disclosure.
- Insight:

Flowchart Two C:

Continued Antenatal Care for Hospital patients with low CD4 counts



Management of Patients during Labour and Delivery

See Flowchart Three

Please note the guidelines for the management of HIV positive women are to be used together with the obstetric management policies for the health facility. As situations arise, i.e. massive bleeding, elevated blood pressure, preterm labour etc.; **the immediate safety of the mother and baby takes precedence over the guidelines for the management of HIV positive women.**

(1) Upon admission, if the patient is found to be in labour she will be given an oral dose of Nevirapine 200mg stat **and** AZT 300mg 3 hourly during labour.

(2) Patients with prelabour rupture of membranes should rather receive Nevirapine when they start having contractions either spontaneously or when induced.

(3) The midwife will check whether the patient has received and taken adequate AZT antenatally and enter this in the **Labour Ward Register**.

(4) When Nevirapine and AZT are dispensed, this must be documented in the PMTCT **Labour Ward Register.** The time of the last dose of self administered AZT must be entered in the first column of Record of AZT in Labour.

(5) In the case of false labour or mistaken rupture of membranes: If the patient is evaluated and found to not be in true labour and to not have ruptured membranes, she is sent home to await more active labour. She is instructed to return with the onset of stronger and more regular contractions or with rupture of membranes. If she is evaluated after she has been given Nevirapine and is found not to be in true labour and not to have ruptured membranes, she is sent home to await more active labour. A second dose of Nevirapine should not be administered in these women.

(6) In the case of an elective caesarean section, the Nevirapine and AZT should be given at least 4 hours before surgery.

(7) In the case of emergency caesarean section, Nevirapine and AZT should have already been administered during labour. If the mother is on the PMTCT Programme but has received no antiretrovirals, the baby should be treated appropriately (see below).

(8) Women can be given Nevirapine in all stages of labour. It is only too late to give Nevirapine if delivery is imminent (the head is crowning).

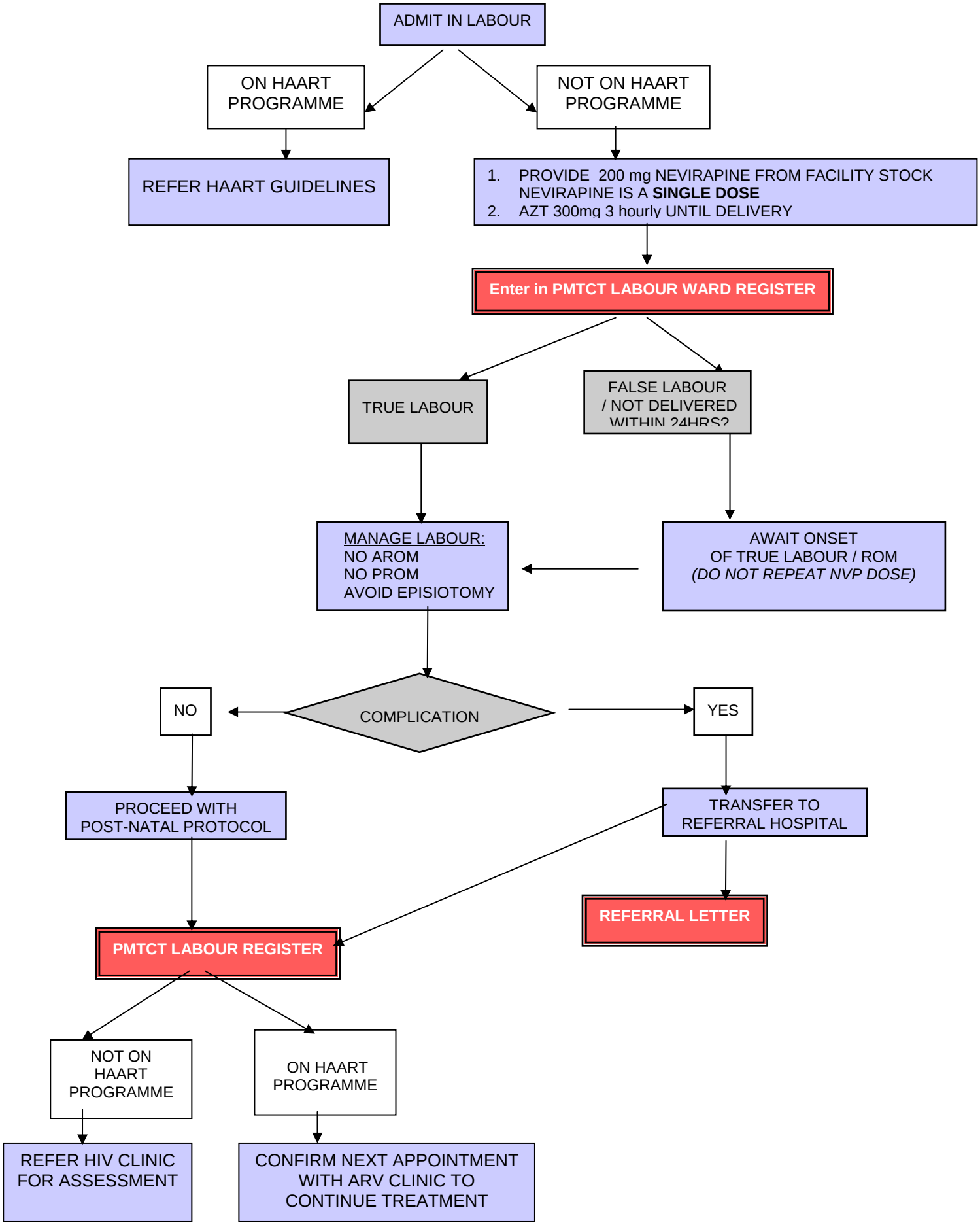
(9) If a mother knows she is HIV-positive at delivery but is not in the PMTCT programme, she may be offered antiretroviral therapy for her and her baby when she presents in labour, as long as she is also counselled about the PMTCT programme, including feeding practices and the importance of care, follow-up and HIV testing for her baby. In such cases a clear plan should be made for infant follow-up and the provision of formula if required. (See circular H13/2002 in the Western Cape Province)

(10) HIV counselling and testing during labour should not be encouraged as a last minute practice, unless the patient is in early labour and there is adequate time for counselling and testing. Pressurising the patient to undergo an HIV test while in established labour is to be discouraged.

(11) If the mother has not received any antiretrovirals antenatally or during labour, or has been given her Nevirapine dose less than two hours before delivery, the baby receives Nevirapine within 60 minutes of delivery (see page 9, item 3).

(12) Artificial rupture of membranes should not be undertaken if progress of labour is adequate. Prolonged rupture of membranes should be avoided, if possible.

Flowchart Three: Labour and Delivery



Management of the Neonate in the Obstetric Facility

See Flowchat Four

Please note that in the case of pre-term births, appropriate adjustments to feeding and supplementation regimens will need to be made according to local guidelines for pre-term neonates and infants.

(1) Nevirapine syrup is given to the baby within 72 hours of delivery (the later the better). It is given at least one hour prior to discharge in order to observe the baby for this period.
Dosage of Nevirapine syrup: If >2kg: 0,6 ml (6mg) If <2kg: 0,2 ml/kg (2mg/kg)

(2) The baby will be discharged with AZT syrup. The first dose should be given with the dosage of Nevirapine.
Dosage of AZT syrup: If >2kg: 1.2 ml twice daily (12 mg b.d.) administered with a 2 ml syringe
If <2kg: 0.4 ml/kg (4 mg/kg b.d.)
This should be administered twice daily for one week.

(3) If the mother did not receive antiretrovirals or received Nevirapine less than two hours prior to delivery, the baby gets the dose of Nevirapine within 60 minutes of life. The first dose of AZT in these babies should be given after feeding. Dosages as above.

(4) If the baby vomits within one hour of the antiretroviral dosing, a second dose of each is given and the baby is observed for another hour. A third dose should not be given if the infant vomits again.

(5) All babies on the PMTCT program should receive dual antiretroviral therapy after delivery according to the above protocols. Irrespective of feeding choice. This includes babies born to mothers who are on long term Antiretroviral Therapy / HAART.

(6) This information (details of Nevirapine & AZT given to the neonate) is recorded in the PMTCT Labour Ward Register.

(7) It is the responsibility of the facility where the baby is delivered to ensure that antiretrovirals are provided to the baby (including TTO).

(8) Babies should receive their routine immunisations (OPV and BCG) before discharge.

(9) If the baby is born outside of the MOU or hospital and presents to the clinic within 72 hours of delivery (when the mother is known to be HIV-positive and is in the PMTCT programme or gives her consent), Nevirapine may be given to the baby as above. This should be noted on the PMTCT Labour Ward Register as 'BBA'.

(10) On the Road to Health Card (RTHC), the baby will receive a **PMTCT baby sticker**, to enable nursing staff to identify the child at subsequent visits.

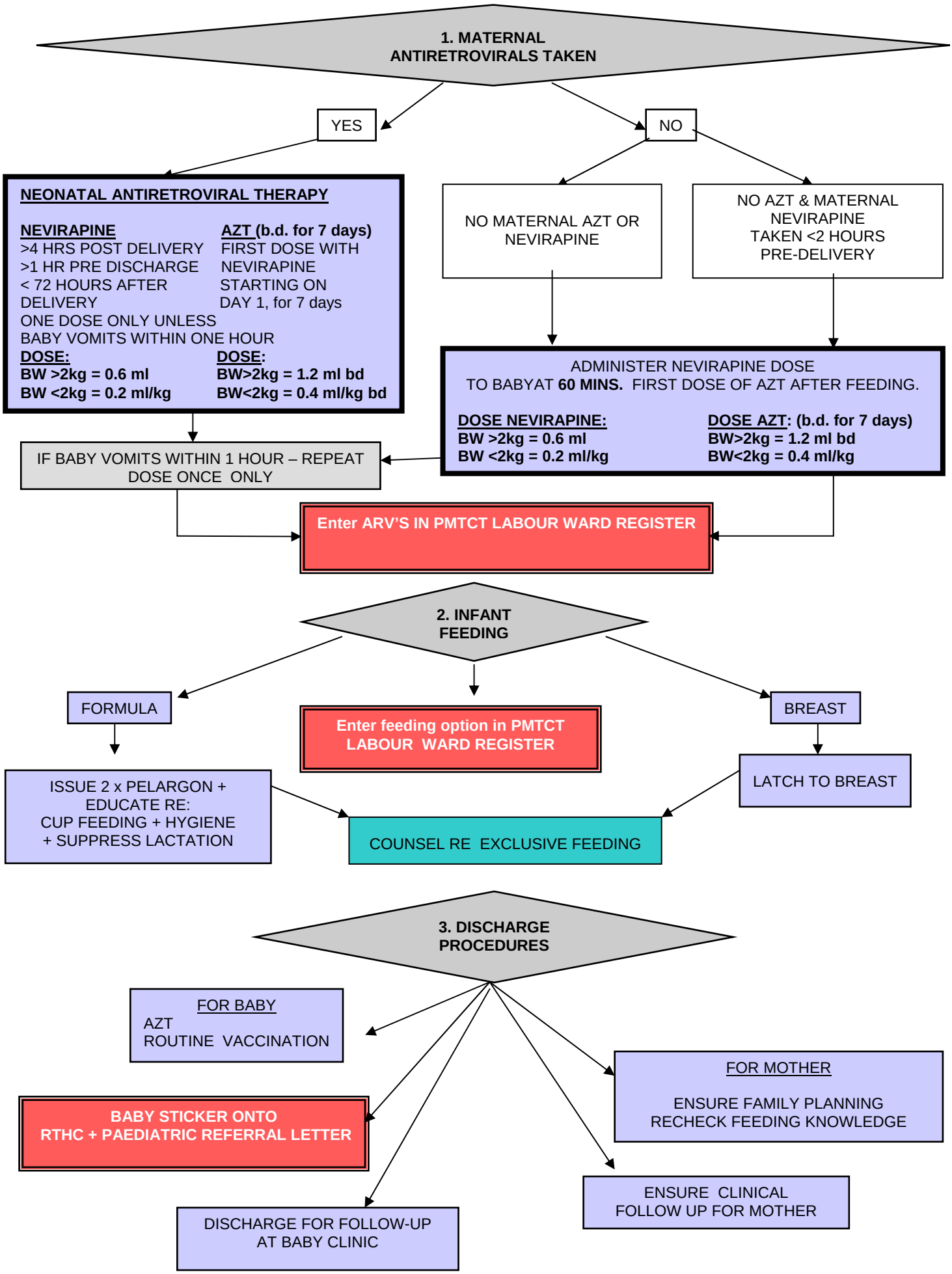
(11) The nursing staff must ask the mother what she decided antenatally about feeding her baby and consult the antenatal sticker on the antenatal card. The baby must not be latched until the midwife knows the infant feeding method chosen by the mother.

(12) If the mother chooses to exclusively formula feed, the care provider (midwife, nurse or doctor) must ensure the mother knows how to sterilise and mix the formula before discharge. An initial supply of formula (1 kg) is supplied from the MOU or hospital.

(13) If the mother chooses to breast-feed, EXCLUSIVE breast-feeding (nothing else but breast milk – no tea, water or cereal) is strongly encouraged. This must take place for four months and the mother should rapidly wean the baby soon thereafter (consult the full PMTCT protocol for details).

(14) In the case of problems with neonates on AZT medication, they should return to the MOU during that time and be referred on if necessary. The importance of clinical follow-up for the baby should be reinforced, and referral to a local clinic that can provide appropriate follow-up is arranged.

Flowchart Four: Postnatal care



Paediatric Follow-up at Baby Clinics

See Flowchart Five

(1) All HIV-exposed babies in the PMTCT programme should arrive from the MOU or hospital within one to two weeks of birth with a referral letter and sticker on the Road to Health Card. HIV care needs are further noted by the presence of a co-trimoxazole dosage and the need for formula.

(2) All babies are weighed, and the weight documented in the RTH card.

(3) Check that babies have completed the course of AZT and document in the RTH card.

(4) Feeding practices are noted and reinforced. In particular, for those formula feeding, the sister will check the method of cleaning feeding utensils and mixing of formula, and for those breast-feeding, the sister will check the mother understands the concept of exclusive breast-feeding. She will check that weight gain is adequate, and if necessary re-counsel the mother on her feeding choice.

(5) For each formula fed baby in the programme the clinic provides 2kg of formula (four 500g tins) every fortnight (4 kgs per month) until six months of age. This is documented in the **Baby Register**.

(6) Co-trimoxazole is given to all HIV exposed infant from 6 weeks of age. Co-trimoxazole is dosed by weight and can be given *once a day, three times a week* – Monday, Wednesday and Friday. The following is the once a day dosage. If given twice a day (b.d.) the dose should be divided in half.

Weight	**Daily Dose**
<5kg	5 ml
5-9.9kg	7.5 ml
10-14.9kg	10 ml
15- 21.9kg	15 ml (1.5 tabs)
>21.9kg	20 ml (2 tabs)

(7) **Allergic reactions** to Co-trimoxazole are rare but can present as generalised body rashes. If a mild rash occurs refer the same day to an experienced HIV clinician for evaluation and possible switching to Dapsone (2 mg/kg daily).
A **blistering rash** involving skin, mouth, red eyes (if scabies or impetigo are ruled out) is a medical emergency. Co-trimoxazole is stopped and the baby is immediately referred to a tertiary hospital. Switching to Dapsone will be required

(8 Multivitamins (containing Vitamin A) are given to HIV exposed infants for nutritional support until HIV infection is excluded. If multivitamins are not available, Vitamin A supplements should be given ORALLY according to the schedule below every 6 months and documented on the RTHC

a.	If baby is	< 6 months,	give Vitamin A 50 000 iu x 1
b.	If baby is	6 –12 months,	give Vitamin A 100 000 iu x 1
c.	If baby is	> 12 months,	give Vitamin A 200 000 iu x 1

(9) Professional nurses see babies at two and six weeks and then every four to six weeks coordinated with the immunisation schedule. The suggested visit schedule for the first year of life is: Weeks: 6,10,14 and18 and Months: 6,9,12,15, and 18. This can be increased if needed. In addition mothers will return every two weeks to collect formula feeds.

(10) At fourteen weeks of age all PMTCT babies will undergo a PCR test to establish HIV infection. This will coincide with the third (fourteen week) immunisation visit.
Blood should be taken and sent with a laboratory form to the laboratory (SAIMR/NHLS).

(11) The mother will return for the result after two weeks to receive counselling and be informed of the HIV status of the baby. All PCR test results are documented in the Baby Clinic Register. A negative PCR test means the baby is uninfected if not breastfed in the past 6 weeks.

(12) Babies with a positive PCR test will continue Co-trimoxazole prophylaxis three times per week. This will continue until they are 12 months old. Co-trimoxazole is continued beyond 12 months if the baby has signs of HIV such as: faltering growth, recurrent bacterial infections, pneumonia, thrush, severe nappy rash or has ever had PCP.

.

(13) Any mother who is breastfeeding whose baby has a negative PCR test will again receive counselling about breast milk transmission and the option to prevent transmission by switching to exclusive formula feeding. She qualifies to receive formula feeding until the baby is 6 months of age.

(14) Breast-fed babies can contract the infection from breast milk. All breast-fed babies, even if testing negative at 14 weeks, should have a PCR test 6 weeks after they are weaned from breast milk.

(15) All test results are documented in the **Baby Clinic Register**.

(16) After formula is discontinued at 6 months, or after weaning for those babies being exclusively breast-fed, the babies should be assessed within two to four weeks to see if there is evidence of growth faltering or if the baby otherwise meets the PEM criteria for ongoing formula or maize meal supplements.

(17) Follow-up occurs at weeks 26 and 28 (seven months) to see if babies can sustain their weight after the formula has been discontinued at six months.

(18) At monitoring visits the professional nurse should assess for the following clinical conditions. If they are present, the baby is referred to a clinical nurse practitioner or doctor.

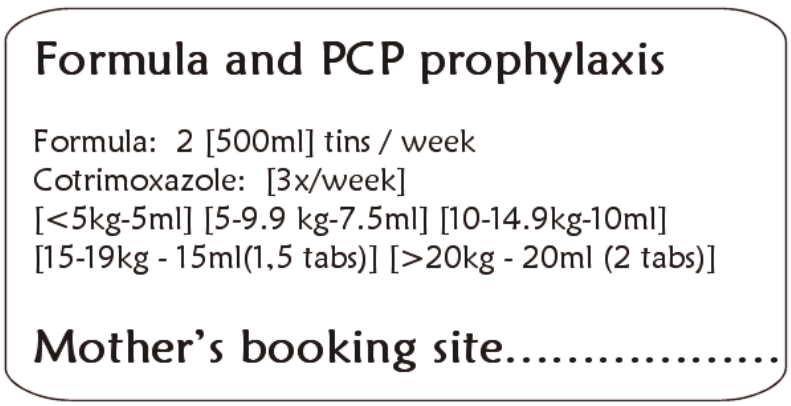
The nurse:

i. Checks weight for faltering growth;
ii. Checks for oral thrush or sores and severe nappy rash;
iii. Checks for fevers, if the baby is floppy or irritable;
iv. Asks about inter-current illnesses;
v. Asks about diarrhoea and cough; and
vi. Asks about TB contacts.

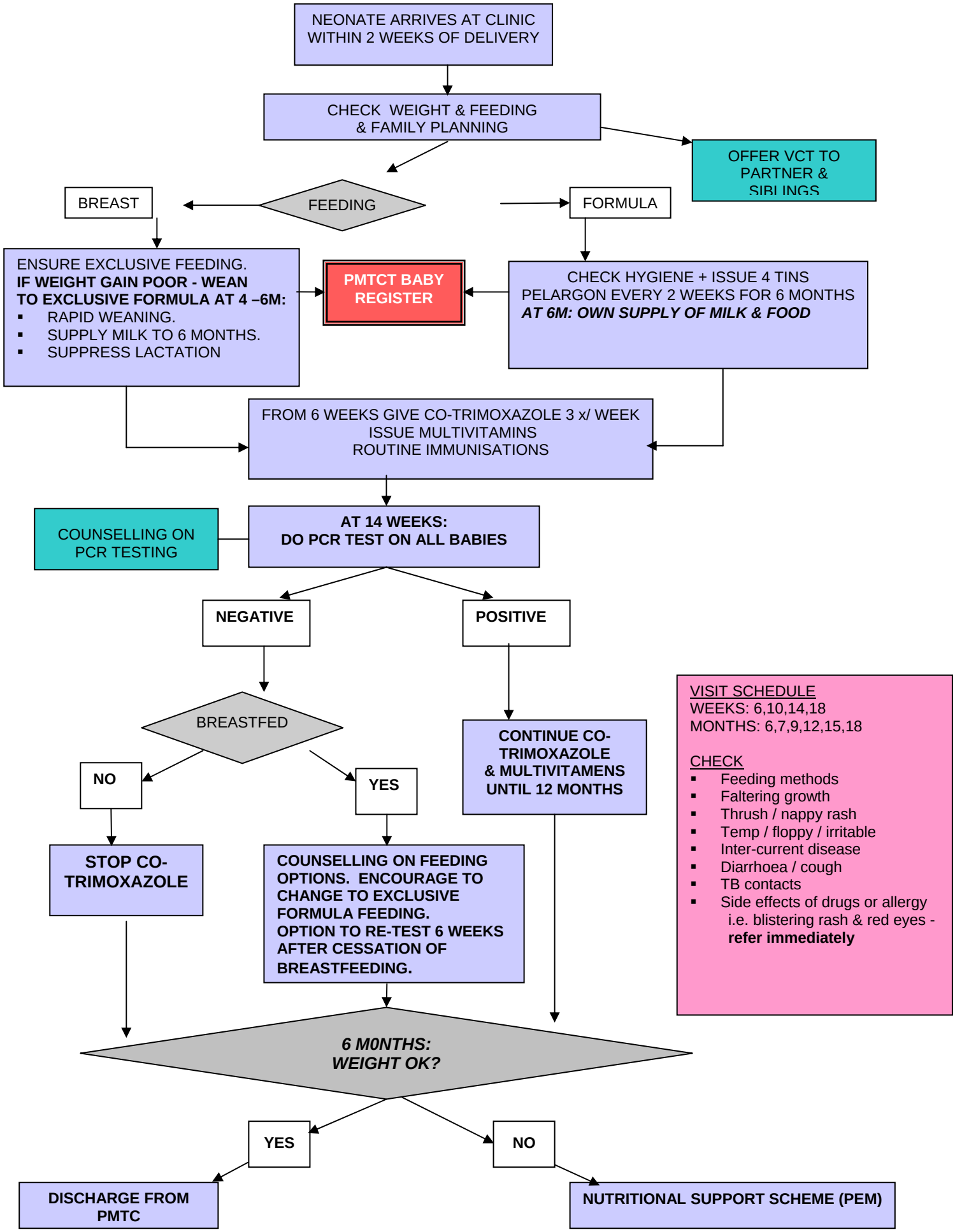
(19) The professional nurse should also routinely assess:

i. The mother's coping and general health.
ii. Clinic visits for the mother and participation in support groups
iii. Feeding practices and problems
iv. Adherence to Co-trimoxazole
v. Adherence with immunisations as per paediatric schedules.
vi. The need for anti-worm treatment. This should be considered every six months starting at one year of age using Mebendazole (5 ml bd for 3 days) or Albendazole (200mg).

(20) At any stage after 12 months, should a baby who initially tested negative show signs of failure to thrive or other opportunistic infections that are suggestive of HIV infection, the baby should be tested using rapid HIV tests as for adults. Blood can be obtained via heel pricks. All test results are documented in the **Baby Clinic Register.**



Flowchart Five: Paediatric Follow-up



	PCR TESTING at 14 weeks	
	POSITIVE	**NEGATIVE**
Baby Breast Fed	▪ Mother continues to exclusively breastfeed ▪ Continue Co-trimoxazole & Multivitamins	▪ Counselling done to review feeding options. ▪ If change to formula supply formula until 6 months. ▪ Retest 6 weeks after breastfeeding has stopped.
Baby Formula Fed	▪ Continue Co-trimoxazole & Multivitamins	▪ No treatment. ▪ Discharge from PMTCT after 6 months.

ANNEX 2: POSTNATAL CARD

Patient Details Discharge (Mother)

Date: _____
Exam by: _____
Delivered at: _____

Mother's Name:

Hosp No

Address:

Cellphone no

Age:	Parity:	Gravidity

ANC complications

Delivery route :	
Birth weight	
Date of delivery	
Gestational age	

Complications in labor:

Postpartum course:

BP	Rh	RPR	Hb

Code:		
Vitamin A given	**YES**	**NO**
Iron/folate given	**YES**	**NO**

Type of contraception

*** If ticks in shaded area comment as to why on back**

Examination within 1 week (Mother)

Date: _____
Exam by: _____
Clinic: _____
Clinic No_____

+Ask the mother the following

Feeling unhappy?	**YES**	**NO**
Poor appetite?	**YES**	**NO**
Problems with infant feeding?:	**YES**	**NO**
Cough/ Breathing difficulties?	**YES**	**NO**
Lochia foul smelling?	**YES**	**NO**
Heavy vaginal bleeding?	**YES**	**NO**
Urinary incontinence?	**YES**	**NO**

+ Examine the following

BP	Temp	Pulse	Hb

Pale:	**YES**	**NO**
If breast feeding, nipples cracked /breast inflammed	**YES**	**NO**
Uterus involuted appropriately:	**YES**	**NO**
Uterine tenderness	**YES**	NO
If C/S, is wound infected:	**YES**	**NO**
Sutures removed	YES	**NO**
Episiotomy infected:	YES	**NO**

+Test the following

Urine normal	YES	**NO**

***If ticks in shaded areas comment on back → Refer, if cannot treat**

Examination at 6 weeks (Mother)

Date: _____
Exam by: _____
Clinic: _____

+Ask the mother the following

Able to resume normal activities	**YES**	**NO**
Problems with infant feeding?:	**YES**	**NO**
Cough/ Breathing difficulties?:	**YES**	**NO**
Problems with C/S wound?	**YES**	**NO**
Problems with episiotomy?:	**YES**	**NO**
Vaginal discharge?	**YES**	**NO**
Urinary incontinence?	**YES**	**NO**

+ Examine the following

UMAC	Temp	Pulse	BP

If breast feeding, are nipples cracked / breast inflammed	**YES**	**NO**

+Test the following

Urine normal:	**YES**	**NO**
Hb g/l **(value)**		
Hb< 10g /dl	**YES**	**NO**

***If ticks in shaded areas comment on back → Refer, if cannot treat**

CD4 Taken	**YES**	**NO**	**N/A**

Type of contraception

*** If ticks in shaded area comment as to why on back**

Patient Details Discharge (Infant)

Date: _____
Exam by: _____
Delivered at: _____

Infant's name:			
Feeding?	EBF	FF	Other
Feeding well		**YES**	**NO**

Examination at discharge

Birth weight		Gestational age	
Jaundice:		Respiratory problems	
YES	**NO**	**YES**	**NO**
CVS problems		Abdomen problems	
YES	**NO**	**YES**	**NO**
Genitalia problems		CNS problems	
YES	**NO**	**YES**	**NO**
Umbilical problems		Hip dislocation:	
YES	**NO**	**YES**	**NO**

If ticks in shaded area comment on back as to problem and actions taken

NVP	**YES**	**NO**	**N/A**
AZT	**7days**	**28days**	**N/A**

Permission for PCR		
YES	**NO**	**N/A**

Mother's name

Signature(mother)

Signature(Witness)

Examination within 1 week (Infant)

Date: _____
Exam by: _____
Clinic: _____

Infant's name

Feeding?	EBF	FF	Mixed
+Ask the following			

Problems with feeding	**YES**	**NO**
Passed urine?	**YES**	**NO**
Passed stool?	**YES**	**NO**
+Examine the following		
Temperature (axillary)		
Pale	**YES**	**NO**
Jaundiced:	**YES**	**NO**
Conjunctivitis	**YES**	**NO**
Umbilical cord smelly:	**YES**	**NO**

*** If ticks in shaded area comment on back. Refer, if cannot treat**

Examination at 6 weeks (Infant)

Date: _____
Exam by: _____
Clinic: _____

+Ask the following			
Feeding?	EBF	FF	Mixed

Problems	**YES**	**NO**
Excessive sleeping/ Not alert?	**YES**	**NO**

+Examine the following
Record weight and head circumference on Road to Health Chart

Jaundice:	**YES**	**NO**
Pale	**YES**	**NO**
Cyanosis:	**YES**	**NO**
Responds to sound:	**YES**	**NO**
Eyes (white spot)	**YES**	**NO**
Thrush	**YES**	**NO**
Fontanelle abnormal (anterior)	**YES**	**NO**
Heart murmur	**YES**	**NO**
Abdominal mass:	**YES**	**NO**

*** If ticks in shaded areas comment on back. Refer, if cannot treat**

- **Vaccinate**

PCR test:	**YES**	**NO**	**N/A**
Consent given:	**YES**	**NO**	**N/A**
Bactrim prophylaxis:	**YES**	**NO**	**N/A**
Vitamin A supplementation:	**YES**	**NO**	**N/A**

*** If ticks in shaded area please explain why on back**

ANNEX 3: BANC AND PMTC REGISTER

Page no_____

	Demographic Info				First Visit																				20 wk BANC				26 week BANC			
	Date of First Visit DD/MM/YY	Name,	Address:	Age	P__ G__	LMP(dd/mm/yy)	EDD(dd/mm/yy)	GA in weeks	Hb	RPR taken Y/N	HIV test taken Y/N	HIV Test Result	CD4 count taken Y/N	WHO stage	TT given Y/N	TB symptoms Y/N	If positive-Sputum sent Y/N	Eligible for BANC? Y/N	RPR result received by patient (pos/neg)	CD4 result received by patient (value)	Referral to ARV Clinic Y/N	Referral to High Risk Y/N	Next visit	DD/MM/YY	BANC Check Y/N	TT Y/N	Next Visit (dd/mm/yy)	DD/MM/YY	BANC Check Y/N	TT Y/N	Next visit (dd/mm/yy)
_1																																
_2																																
_3																																
_4																																
_5																																
_6																																
_7																																
_8																																
_9																																
_0																																

1. No. of first visits
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

2. No. of women tested for HIV
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

3. No. of first visits < 20 weeks
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

4. No. of pregnant women test positive
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

5. No. of HIV positive women CD4 done
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

6. No. of HIV positive women received CD4 results
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

7. No. of referral for HAART
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

8. No. of CD4 < 250
   Month1:_____ OOOOO OOOOO
   Month2:_____ OOOOO OOOOO
   Month3:_____ OOOOO OOOOO

28 Wk PMTCT					32 Wk BANC / PMTCT						36 Week PMTCT				38 Week BANC			40 Week BANC/ PMTCT					2 - 5 day Postnatal											6 weeks postnatal						
Date DD/MM/YY	Hb	HIV+: AZT 300mg bd x 4 weeks	Infant feeding choice	Next visit	DD/MM/YY	Hb	If HIV Neg repeat test Y/N	HIV test results	HIV+: AZT 300mg bd x 4 weeks Y/N	Next Visit (dd/mm/yy)	DD/MM/YY	Hb	HIV+: AZT 300mg bd x 4 weeks	Next Visit	DD/MM/YY	Hb	Next Visit	DD/MM/YY	Hb	HIV+: AZT 300mg bd x 4 weeks	BANC Check	Next Visit	DD/MM/YY	Hb	Referral	Delivery (NVD, CS)	Outcome	Check Vit A, TT mom	NVP received Y/N	AZT received 1week/4weeks	Feeding choice	Tins Formula	Followup date	DD/MM/YY	Hb mom	Contraception	If HIV pos PCRdone? Y/N	PCR results received by patient (pos/neg)	Followup baby (dd/mm/yy)	Followup plan mom (referral wellness)

Ж. No. initiated on AZT at 28 weeks
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of clients retested at 32 weeks
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of clients HIV positive at 32 weeks
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of clients initiated on AZT > 28 weeks
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of clients on AZT at 36 weeks
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of babies receiving AZT
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of babies receiving NVP
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of babies EBF
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

Ж. No. of babies EFF
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ANNEX 4: CHILDREN WITH SPECIAL NEEDS REGISTER

Page no _____

CHILDREN WITH SPECIAL NEEDS REGISTER: EXPOSED BABIES

	6 weeks												10 weeks						14 weeks					4 months					5 months						6 months						6 weeks after BF stopped				18 months			
	PMTCT Ref No.	Surname	Name,	DOB DD/MM/YY	DD/MM/YY	PCR taken	PCR result	Cotrimoxazole given	Feeding choice	If EFF tins provided	Signature		DD/MM/YY	If PCR pos referral to_____	Feeding choice	If EFF tins provided	Cotrimoxazole given	Signature	DD/MM/YY	Feeding choice	If EFF tins provided	Cotrimoxazole given	Signature	DD/MM/YY	Feeding choice	If EFF tins provided	Cotrimoxazole given	Signature	DD/MM/YY	Feeding choice	If EFF tins provided	PCR taken if BF	PCR result	Cotrimoxazole given	Signature	DD/MM/YY	Pos con BF	Pos Cotrimox	Referral_____	If PCR Neg Stop BF	Signature	PCR taken	PCR result	If negative	If pos referred to	HIV ELISA done	HIV ELISA result	Outcome	
1																																																
2																																																
3																																																
4																																																
5																																																
6																																																
7																																																
8																																																
9																																																
0																																																

ж. No. of PCR taken
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of PCR tests positive
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of PCR results to care givers
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of infants on cotrimoxazole at 6 weeks
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of exposed babies referred to wellness
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of babies exclusively breast fed at 6months
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of exposed EBF babies tested at 6 months
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of PCR positive at 6 months
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of exposed babies tested at 18 months
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ж. No. of exposed HIV positive babies at 18 months
Month1:_____ OOOOO OOOOO
Month2:_____ OOOOO OOOOO
Month3:_____ OOOOO OOOOO

ANNEX 5: ANTENATAL CARD

NAME: _____

FOLDER NO. _____

DATE OF BIRTH _____

Address: _____

_____

Postal code: _____ Tel: _____

Age: _____ (yrs) G_____ P_____ Misc _____

OBSTETRIC & NEONATAL HISTORY A = Alive NND = Neonatal Death ID = Infant Death IUD = Intra-uterine Death

Year	Gestation	Delivery	Weight	Sex		Complications

Description of complications:

_____

_____

_____

MEDICAL & GENERAL HISTORY

Hypertension	Epilepsy	Diabetes	Cardiac	TB	Healthy

Other (specify) _____

If yes to any of the above give further details:

_____

_____

Medication: _____

_____

Operations: _____

_____

Allergies: _____

Social: _____

Family History: Twins | Diabetes | TB | Congenital | Other

Details: _____

CLINIC _____

EXAMINATION

Date d d m m y y BP ____/____

Height _____ cm Weight _____ Kg

Thyroid: _____ Breasts: _____

Urine: _____

Heart: _____

Lungs: _____

Abdomen: _____

Other: _____

SF measurement _____ cm Correlation with dates? Y N

VAGINAL EXAMINATION

Done | Not done

Vulva & Vagina: _____

Cervix: _____

Uterus: _____

Smear done? Y N Date: _____

Result: _____

INVESTIGATIONS

RPR (titre): _____ TPHA: _____

Rapid syphilis test: _____

Rx received: 1st _____ 2nd _____ 3rd _____

Blood group & Rh: _____ Antibodies: Y N

Hb: _____ g/dl

RVD test accepted: Y N ART: Y Refused N

MSU: _____

OTHER INVESTIGATIONS/PROTOCOLS

_____

_____

_____

PROVINCIAL GOVERNMENT WESTERN CAPE
Department of Health

ANTENATAL RECORD

PLAN

Antenatal care	Labour or 36+ weeks

DATES

LNMP d d m m y y Certain? Y N

ULTRASOUND Date: _____

BPD _____

FL _____

Abd. Circ. _____

Placenta _____

Other _____

EDD

d d m m y y According to: Dates | U/S | SF height

FUTURE CONTRACEPTION

Injectable | Oral | IUCD | T/L | None

LIFESTYLE COUNSELLING

	User	Quitter	Non-user
Tobacco:			
Alcohol:			
Drugs/Substances:			

Notes: _____

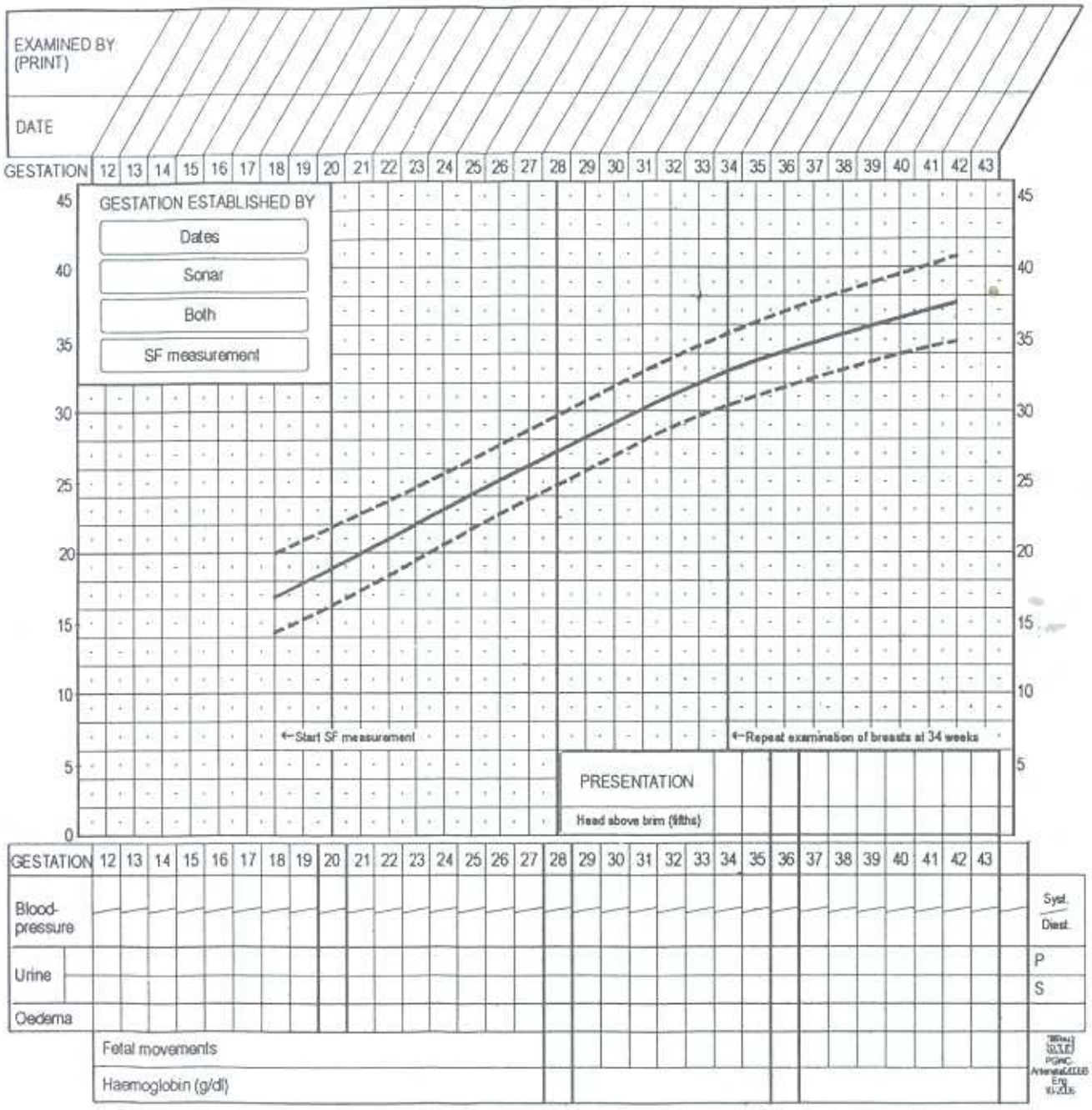
INFANT FEEDING

Feeding option chosen: Breast | Formula

Comments: _____

Booking visit and Assessment of Risk done by:

NAME & Title



Date	PROBLEM LIST
1	
2	
3	
4	
5	
6	
7	

Date	NOTES (essential facts only)

ANNEX 6: ANC VCT REGISTER TEMPLATE

Antenatal HIV Counselling and Testing Client Records

Name of Facility: _____

COMPLETE FOR ALL CLIENTS			ALL ANTENATAL INITIAL TESTS				COMPLETE FOR ALL CLIENTS				COMPLETE FOR CLIENTS FOR VCT AT THIS FACILITY ONLY															ALL CLIENTS			ALL HIV-POSITIVE CLIENTS									ALL CLIENTS
NB: Commence each new month on a new page			Antenatal Booking Section			Refuse VCT at Booking Accept VCT later	Put actual age into appropriate column		Tick appropriate column		As Per Service Category Accept or Refuse Test						HIV Test Results						HIV Positive Result Category			Symptoms of TB Identified on Screening			TB Test Done (e.g Sputum)			Complete for all HIV-Positive Clients									Counsellor's signature Notes (eg. referrals; results not given; appointment date etc)
Month:		Page number:	Known HIV+ Referred for care	Accept VCT at Booking			Age		Sex		MTCT Initial Test		MTCT Repeat Test 32 Wk		Other Medical		Screening Test		Confirmatory Test		ELISA		MTCT Initial Test HIV-positive	MTCT Repeat Test 32 Wk HIV-positive	Other Medical HIV-positive							CD4 Result	WHO Stage	On HAART	Require HAART		Referred / Provided HAART		Accept PMTCT Dual Therapy		
Date	Folder number	Surname, Name		Yes	No		<15	≥15	M	F	Accept Test	Refuse Test	Accept Test	Refuse Test	Accept Test	Refuse Test	Pos	Neg	Pos	Neg	Pos	Neg				NA	Yes	No	NA	Yes	No				Yes	No	Yes	No	Yes	No	
1																																							
2																																							
3																																							
4																																							
5																																							
6																																							
7																																							
8																																							
9																																							
10																																							
11																																							
12																																							
13																																							
14																																							
15																																							
16																																							
17																																							
18																																							
19																																							
20																																							
TOTAL																																							
			A	B	C	D	1	2	3	4	7	8	9	10	15	16	17	18	19	20	21	22	26	27	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
			Known +	VCT Yes	VCT No	VCT Later	<15	≥15	M	F	MTCT Accept	MTCT Refuse	MTCT 32 Wk Accept	MTCT 32 Wk Refuse	Other Accept	Other Refuse	Screen Pos	Screen Neg	Confirm Pos	Confirm Neg	ELISA Pos	ELISA Neg	MTCT Pos	MTCT 32 Wk Pos	Other Pos	TB Sympt NA	TB Sympt Yes	TB Sympt No	TB Test NA	TB Test Yes	TB Test No	Number CD4 Done	Number Staging Done	On HAART	Req ART Yes	Req HAART No	Ref / Prov ART Yes	Ref / Prov ART No	Accept PMTCT Dual Therapy	Refuse PMTCT Dual Therapy	

ANNEX 7: FACILITY LEVEL LABOUR WARD DATA COLLECTION TEMPLATE

Labour Ward PMTCT Data Collation **Name of Facility:**

Year: 2008

ONLY COMPLETE THIS SECTION AT THE DELIVERY SITE (columns "On HAART" to "Adequate Dual Therapy")

ONLY FOR CLIENTS ON DUAL THERAPY (NOT HAART) (columns "Adequate AZT Antenatally" to "Adequate Dual Therapy")

Month	TOTAL CLIENTS	Transfer-in during labour		On HAART		Adequate AZT Antenatally (≥2wks)		Received NVP in labour		AZT given in Labour (3-Hourly)		Adequate Dual Therapy		T/O in Labour		Delivery Outcomes			Medication for Baby: NVP Given		Medication for Baby: AZT Given		Medication for Baby: AZT Shortcourse		Feeding Choice on Discharge	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Live Birth At Facility	BBA	Stillbirth	Yes	No	Yes	No	Yes	No	Formula	Breast
January																										
February																										
March																										
April																										
May																										
June																										
July																										
August																										
September																										
October																										
November																										
December																										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Q1	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Q2	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Q3	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Q4	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Month	Validation: Transfer In	HAART	AZT Antenatal	NVP Labour	AZT labour	Adequate dual therapy	Transfer Out	NVP Baby	AZT Baby	AZT Shortcourse	Feeding	Indicators: % HAART	% AZT Antenatal	% Nevirapine in Labour	% AZT in Labour	% Adequate Dual Therapy in Labour	% Babies Nevirapine	% Babies AZT	% Babies AZT TTO	% Babies Formula
January	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
February	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
March	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
April	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
May	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
June	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
July	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
August	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
September	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
October	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
November	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
December	###	###	###	###	##	#####	####	###	####	#####	##	####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#####	######	#DIV/0!	#DIV/0!
Total	**###**	**###**	**###**	**###**	**##**	**#####**	**####**	**###**	**####**	**#####**	**##**	**####**	**#####**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#####**	**######**	**#DIV/0!**	**#DIV/0!**
Q1	**###**	**###**	**###**	**###**	**##**	**#####**	**####**	**###**	**####**	**#####**	**##**	**####**	**#####**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#####**	**######**	**#DIV/0!**	**#DIV/0!**
Q2	**###**	**###**	**###**	**###**	**##**	**#####**	**####**	**###**	**####**	**#####**	**##**	**####**	**#####**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#####**	**######**	**#DIV/0!**	**#DIV/0!**
Q3	**###**	**###**	**###**	**###**	**##**	**#####**	**####**	**###**	**####**	**#####**	**##**	**####**	**#####**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#####**	**######**	**#DIV/0!**	**#DIV/0!**
Q4	**###**	**###**	**###**	**###**	**##**	**#####**	**####**	**###**	**####**	**#####**	**##**	**####**	**#####**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#####**	**######**	**#DIV/0!**	**#DIV/0!**

ONLY FOR CLIENTS ON DUAL THERAPY (NOT HAART)

Report columns "On HAART" up to "AZT Given in Labour Ward" ONLY AT DELIVERY SITE

ANNEX 8: SUB-DISTRICT LABOUR WARD DATA ENTRY TEMPLATE

Labour Ward PMTCT Data Collation **Name of Facility:**

Year: 2008

				ONLY COMPLETE THIS SECTION AT THE DELIVERY SITE																					
						ONLY FOR CLIENTS ON DUAL THERAPY (NOT HAART)																			
Facility Name	TOTAL CLIENTS	Transfer-in during labour		On HAART		Adequate AZT Antenatally (≥2wks)		Received NVP in labour		AZT given in Labour (3-Hourly)		Adequate Dual Therapy		T/O in Labour		Delivery Outcomes			Medication for Baby						Feeding Choice on Discharge	
																			NVP Given		AZT Given		AZT Shortcourse		
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Live Birth At Facility	BBA	Stillbirth	Yes	No	Yes	No	Yes	No	Formula	Breast
Facility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Facility 2	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Facility 3	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Facility 4	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Facility 5	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Total	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**

Validation											Indicators								
Transfer In	HAART	AZT Antenatal	NVP Labour	AZT labour	Adequate dual therapy	Transfer Out	NVP Baby	AZT Baby	AZT Shortcourse	Feeding	% HAART	% AZT Antenatal	% Nevirapine in Labour	% AZT in Labour	% Adequate Dual Therapy in Labour	% Babies Nevirapine	% Babies AZT	% Babies AZT TTO	% Babies Formula
#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
#REF!	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**	**#REF!**

ANNEX 9: INSTRUCTIONS PMTCT BABY REGISTER

0 – 6 Month PMTCT Baby Register

Note: The baby must be entered into the register according to month of birth and not the month of arrival at clinic

Objectives of the baby register:

- To monitor vitamin A administration, feeding choice, formula and exclusive breast feeding compliance and cotrimoxazole dispensed
- To monitor testing and status of the baby
- To monitor access to HIV care of mother post partum

	Column Heading	Description and Instructions
1	**Baby's Name:**	Complete baby'ssurname and name
2	Baby's Folder Number:	Fill in the baby's folder number at this facility
3	DOB (Date of Birth)	Baby's date of birth DD/MM/YY (Date/Month/Year)
4	DOA (Date of Arrival)	Date of arrival at this health facility
5	6 wk vitamin A admin baby	Tick for administration of vitamin A 50 000 IU at 6 weeks of age to non breast fed baby
6	6 wk vitamin A admin mother	Tick for administration of vitamin A 200 000 IU at 6 weeks post partum to mother (if she did not get it at delivery) Mark with a "D" if she received it at delivery
7	**Months 1 – 6:**	**To record feeding choices and cotrimoxazole dispensed for the first 6 months**
	Exclusive Breastfeeding	Tick if the baby is being **exclusively** breastfed (was not given water, formula milk, porridge ,other solids or non prescription medication since last visit)
	Exclusive formula feeding	Tick if the baby is being **exclusively** formula fed (was not given breast milk since last visit).
	Pelargon	Write in the number of tins of Pelargon issued (e.g. 3, 5 etc.) in the corresponding week in which the Pelargon was issued (e.g.07.01-11.01 are the dates for Monday to Friday of the week). The exact date of issue must be recorded in the baby's folder
	Cotrimoxazole – *Unit*	In column marked Cotrimoxazole Units, write "1" if 50ml cotrimoxazole given or "2" if 100ml cotrimoxazole dispensed. Cotrimoxazole is to be commenced at 6 weeks and given daily according to weight: <5kg 2.5ml, 5 - <14kg 5ml. (To be stopped if PCR negative). Date of issue of cotrimoxazole must be recorded in the baby's folder
8	6mth vitamin A admin baby	Tick for administration of vitamin A 100 000 IU at 6 to 11 months of age to baby
9	6mth total exclusive breast feeding	Tick if exclusive breast feeding for **entire** 6 months
10	6mth total exclusive formula feeding	Tick if exclusive formula feeding for **entire** 6 months
11	6mth Mixed feeding during 6mths	Tick if there was reported mixed feeding at **any point** during the 6 months
12	**Mother's** name and folder number	Complete mother's surname and name and fill in the mother's folder number at this facility
13	Mother's CD4 result	Fill in the actual result of the last CD4 done and the date it was done
14	Mother on HAART	Tick if the mother is on HAART (at the first postpartum visit at this health facility)
15	**Baby Status at PCR**	**To determine the status of the baby at 6 weeks**
	Transfer IN	If a baby is transferred to this clinic from another baby clinic in first 6 weeks enter the baby into the register in the month of birth and tick the "transfer in" column
	Transfer OUT	If a baby is transferred from this clinic to another baby clinic during the first 6 weeks tick the "transfer out" column
	Died	Tick this column If baby has died before 6 weeks
	Lost to follow-up	Tick this column if baby is lost to follow-up at time of PCR testing
16	**PCR Test 6 week**	**To record PCR HIV test result at 6 weeks**
	Date	Enter precise date that PCR test is carried out recorded as DD/MM/YY (Date/Month/Year)
	Accept PCR – YES/NO	Record if the mother agreed to have the baby tested or not. If a mother refuses pre-test counselling or after counselling refuses testing, tick the "No" column
	PCR result – POS/NEG	Record result of PCR test by ticking the appropriate column i.e. POS for a positive test result and NEG for a negative test result
17	**Repeat PCR**	**To record if a repeat PCR is done**
	Date	Enter precise date of repeat PCR test recorded as DD/MM/YY (Date/Month/Year)
	Reason	Fill in the reason that a repeat test is being carried out (e.g. breastfeeding mother, clinical indication, etc.)
	PCR result – POS/NEG	Record result of repeat PCR test by ticking the appropriate column i.e. POS for positive test result or NEG for negative test result
18	**Date referred HIV Clinician**	If the PCR is positive, record the date the baby was referred to a HIV clinician (experienced nurse or doctor) for assessment for ARV's
19	**Comments**	Record other important information e.g. home visits, late to test, attempts to follow-up baby in the community, rapid weaning post a negative PCR, hospitalisations, etc.

ANNEX 10: INFANT-MOTHER FOLLOW-UP

JANUARY 2008

Row Numbers	Baby's Details				Date of Arrival	6 wk Vitamin A admin baby	6 wk Vitamin A admin mother	January-08							February-08							March-08							April-08							May-08							June-08							6 mth Vitamin A admin baby	6mth total		
	Surname	Name	Folder Number	Date of Birth				Exclusive Breastfeeding	Exclusive formula feeding	Pelargon 31.12 - 04.01	07.01 - 11.01	14.01 - 18.01	21.01 - 28.01	28.01 - 01.02	Exclusive Breastfeeding	Exclusive formula feeding	Pelargon 04.02 - 08.02	11.02 - 15.02	18.02 - 22.02	25.02 - 29.02	Cotrimoxazole Units	Exclusive Breastfeeding	Exclusive formula feeding	Pelargon 03.03 - 07.03	10.03 - 14.03	17.03 - 21.03	24.03 - 28.03	Cotrimoxazole Units	Exclusive Breastfeeding	Exclusive formula feeding	Pelargon 31.03 - 04.04	07.04 - 11.04	14.04 - 18.04	21.04 - 25.04	28.04 - 02.05	Cotrimoxazole Units	Exclusive Breastfeeding	Exclusive formula feeding	Pelargon 05.05 - 10.05	12.05 - 16.05	19.05 - 23.05	26.05 - 30.05	Cotrimoxazole Units	Exclusive Breastfeeding	Exclusive formula feeding	Pelargon 02.06 - 06.06	09.06 - 13.06	16.06 - 20.06	23.06 - 27.06	Cotrimoxazole Units		6mth Exclusive Breastfeeding	6 mth Exclusive formula feeding	Mixed feeding during 6mths
1																																																			
2																																																			
3																																																			
4																																																			
5																																																			
6																																																			
7																																																			
8																																																			
9																																																			
10																																																			
11																																																			
12																																																			
13																																																			
14																																																			
15																																																			
16																																																			
17																																																			
18																																																			
19																																																			
20																																																			
21																																																			
22																																																			
23																																																			
24																																																			
25																																																			
26																																																			
27																																																			
28																																																			
29																																																			
30																																																			
(Complete the totals in pencil) **Totals**																																																			

JANUARY 2008

Row Numbers	Row Numbers	Mother's details			Mother's status on arrival				Baby Status at PCR				PCR Test 6 week					Repeat PCR				Date referred HIV Clinician	Row numbers	Comments: Home Visits, Counsellor's Comments, Attempts to Follow-up, Weaning post-PCR, Hospitalisations, etc
					Last CD4		On ARV's							Accept PCR		PCR Result				PCR Result				
		Surname	Name	Folder Number	CD 4 Result	Date	YES	NO	Transfer In	Transfer Out	Died	Lost to Follow-up	Date	YES	NO	POS	NEG	Date	Reason	POS	NEG			
1	1																						1	
2	2																						2	
3	3																						3	
4	4																						4	
5	5																						5	
6	6																						6	
7	7																						7	
8	8																						8	
9	9																						9	
10	10																						10	
11	11																						11	
12	12																						12	
13	13																						13	
14	14																						14	
15	15																						15	
16	16																						16	
17	17																						17	
18	18																						18	
19	19																						19	
20	20																						20	
21	21																						21	
22	22																						22	
23	23																						23	
24	24																						24	
25	25																						25	
26	26																						26	
27	27																						27	
28	28																						28	
29	29																						29	
30	30																						30	

ANNEX 11: PMTCT AUDIT GUIDE

Guideline to the PMTCT Folder Reviews (20 April 2009)

Antenatal VCT and HIV Folder Review

This folder review assesses the quality and continuity of care within the Antenatal VCT and HIV services and the extent to which TB case detection and STI detection are integrated into these services. This review is to be completed by all facilities at which antenatal clients book.

Instructions for Completing the Antenatal VCT and HIV Folder Review

- Make sure that the **facility name** is filled in.
- Make sure that the **date** of the facility audit is filled in.
- Note whether the standard **sampling procedure** was followed. If the standard sampling procedure was not followed, then on the back of the page state why not, describe how the sampling was done and the rationale for the new method.
- Note the **number of folders found for folder review**.
- Note the **number of folders requested for review** that could not be found in the filing system.
- Answer Yes (Y), No (N) or Not Applicable (N/A) for the questions in this section.

Standard Sampling Procedure

A total of fifteen folders are required for the Antenatal VCT and HIV evaluation. You will require 5 folders of antenatal clients who tested HIV-negative and 5 of clients who tested HIV-positive to complete the VCT section (questions 1 to 11) and a total of 10 folders of clients who tested HIV-positive to complete the HIV care section (questions 12 to 20).

The standard procedure for sampling the Antenatal VCT folders is to use the Antenatal VCT register as the source.

1. Calculate the date 3 months ago. For example, if today is 9 December 2007 then start on the 9 September 2007.
2. Decide on a sampling frequency that allows a spread of folders over the period of a month to be evaluated and not only those from one or two days in the month.
3. For the 5 HIV-negative folders:
    a. If the facility sees <20 HIV-negative clients per month, select every folder
    b. If the facility sees >20 HIV-negative clients per month, select every 2nd or 3rd folder
4. For the 5 HIV-positive folders:
    a. If the facility sees <20 HIV-positive clients per month, select every folder
    b. If the facility sees >20 HIV-positive clients per month, select every 2nd or 3rd folder
5. Starting on the selected date 3 *month ago* and *working backwards*, select and note down the folder numbers of 5 sequential HIV-negative and 5 HIV-positive clients as identified above.
6. Draw these folders from the filing system.
7. If any of these folders can't be found, continue the sampling process and note down further folder numbers from the register. Draw these extra folders from the filing system, until you have 5 HIV-negative folders and 5 HIV-positive folders in hand to review.
8. Clients who declined VCT or testing, those having a repeat test at 32 weeks and known positives accessing PMTCT are not included, as many of the questions on VCT would not be applicable. Exclude folders that do not meet the criteria.
9. Using a similar approach, select an additional 5 HIV-positive client folders. Known HIV-positives accessing antenatal care can be included in this selection. .
10. Note the number of VCT folders requested that could be found in the filing system (this includes those not suitable for the evaluation)
11. Note the number of VCT folders requested that could not be found in the filing system.

This methodology assumes that the Antenatal HIV Counselling Register is complete and that all clients attending VCT (testing both positive and negative) are recorded. A selection of HIV positive and negative clients is assessed to ensure that the quality of the counselling package is consistent over a period of time and between these two groups.

Folders from three months ago are selected so that we have a recent picture of counselling, yet enough time (at least three months) to see whether the client is able to access ongoing general HIV care in the form of staging and appropriate management.

Domain	PMTCT	Question	Where to find information	Rationale and guideline to answering question
Quality	1	Has a counselling form been used?	Check through folder for the standardised "HIV Counselling And Testing Record".	The use of the standard "HIV Counselling And Testing Record" improves the quality of services as it provides a prompt and guide to counsellors. • Answer "Yes" if the standard "HIV Counselling And Testing Record" has been used (current or previous versions). • Answer "No" if the facility has its own version of stationery or if there is no specific stationery used and free-text notes are made in continuation sheets or if there are no records.
Quality	2	Was consent for an HIV test taken?	On the first page of the standardised "HIV Counselling And Testing Record" under "Consent To HIV Testing" or in a pro-forma facility consent form.	It is a legal requirement that written consent is taken for an HIV-test. • Answer "Yes" if written consent is taken. • Answer "No" if there is no record of written consent taken.
Quality	3	Is there a record that safer sex was discussed at VCT?	On the first page of the standardised "HIV Counselling And Testing Record" or in the continuation notes in the folder.	Safer sex means risk reduction for both HIV-positive clients (to reduce re-infection) and HIV-negative clients (to prevent infection). Aspects include condom demonstration, a risk reduction plan and the ability to negotiate safer sex. • Answer "Yes" if all above aspects have been adequately assessed. • Answer "No" if one or more aspects have not been assessed.
Quality	4	Were condoms issued at VCT?	On the first page of the standardised "HIV Counselling And Testing Record" under "Condom distribution" or in the continuation notes in the folder.	Condom promotion is a key HIV prevention strategy and condoms are recommended for all sexually active clients. The expectation is that there will be a record of condoms offered and the reason for refusal. An emphasis is placed on the issue of condoms. • Answer "Yes" if the client was issued with condoms. • Answer "No" if there is no record of the client being offered condoms or the reason for not wanting condoms. • Answer "NA" for adults who purchase their own condoms or who already have a supply of condoms or who have a valid reason for not wanting to use condoms (both partners know their status and are in a stable, monogamous relationship for example).
Quality	5	Is there a record that feeding options were discussed at VCT?	On the first page of the standardised "HIV Counselling And Testing Record" under "PMTCT Education" "2. Feeding options" or in the continuation notes in the folder.	About 15-30% of transmission from mother to child occurs through breast-feeding. This is avoided through sole formula feeding and the risk is substantially reduced through sole breast-feeding. Counselling clients about feeding options is therefore important in reducing mother to child transmission of HIV. • Answer "Yes" if feeding options have been discussed. • Answer "No" if there is no record that feeding options have been discussed.
Integration	6	Is there a record of symptomatic screening for TB at VCT and appropriate clinical assessment?	Symptomatic screening on the first page of the standardised "HIV Counselling and Testing Record" under "TB Symptom Screen" or in the continuation notes in the folder. Record of TB tests taken will be in the TB Suspect Sheet or continuation sheet or look for laboratory results in the clinical folder.	TB is the most common opportunistic infection amongst those with HIV and a common cause of morbidity and mortality, including amongst pregnant women. Routine screening for TB is important in early detection as well as in raising clients' awareness of TB. A minimum symptom screen of weight loss and cough and a weight check is required. If there are symptoms, then record of appropriate TB tests done is required. • Answer "Yes" if there are no symptoms noted in the "TB Symptom Screen" (i.e. all answered "No") or it is noted that there are "no signs or symptoms of TB". • Answer "Yes" if there are signs and symptoms and the appropriate tests have been done. • Answer "No" if there is no mention of TB screening • Answer "No" if signs or symptoms are noted but no TB tests are done. • Answer "NA" if the client is already on TB treatment.

Domain	PMTCT	Question	Where to find information	Rationale and guideline to answering question
Integration	7	Is there a record of symptomatic screening for STI at VCT and appropriate clinical assessment?	Symptomatic screening on the first page of the standardised "HIV Counselling And Testing Record" under "STI Symptom Screen" or in the continuation notes in the clinical folder. Record of assessment and diagnosis or exclusion of STI syndromes in the continuation notes.	STIs are common, often not diagnosed and increase the transmission rate of HIV. Symptomatic screen involves completion of the "STI Symptom Screen" in the "HIV Counselling And Testing Record" or at least asking about a discharge, ulcer and burning micturition. If there are symptoms, then referral and appropriate syndromic management should be provided. • Answer "Yes" if there are no symptoms noted in the "STI Symptom Screen" (i.e. all completed and answered "No") or it is noted that there are "no signs or symptoms of STI". • Answer "Yes" if symptoms are found and appropriate syndromic treatment is provided. • Answer "No" if there is no mention of STI or symptoms are recorded but not appropriately treated.
Quality	8	Has an RPR been done and results recorded?	In the "Investigations" section of the Antenatal Record OR Under the "Reproductive Health" section in Part 3 of the "HIV/ARV Patient Summary Folder" or in laboratory result sheets or in the clinical folder	A baseline syphilis test must be done on all pregnant women to diagnose and treat syphilis and to prevent congenital syphilis in the baby. • Answer "Yes" if an RPR has been done and the result is noted in the folder or the laboratory result sheet is in the folder. • Answer "No" if an RPR was not done or if it was done but there is no record of the result in the folder.
Quality	9	Is there a record that weight, BP and urinalysis was done at the last clinical visit?	BP and urinalysis in the "Gestation" chart of the Antenatal Record" and in the continuation notes in the clinical folder. Weight in the HIV/ARV Visit Summary Form or in continuation notes.	Weight gain, BP and urinalysis should be routinely monitored as general indicators of maternal health. • Answer "Yes" if weight, BP and urinalysis were done at the last clinical visit and the results noted in the folder • Answer "No" if weight, BP or urinalysis were not done at the last clinical visit or if results are not recorded in the folder.
Quality	10	Is the expected date of delivery (EDD) recorded?	In the "Antenatal Record" or in the continuation notes in the clinical folder.	The EDD is important in managing the different trimesters of pregnancy and influences a range of issues from scheduling of visits to the care provided. Noting the EDD provides a prompt for when to commence AZT for HIV-positive women receiving dual therapy (AZT and nevirapine) to prevent mother to child transmission of HIV. AZT should commence at 28 weeks, as at least 4 weeks of AZT is considered optimal in reducing the transmission of HIV. • Answer "Yes" if the EDD is noted in the folder. • Answer "No" if the EDD is not noted in the folder.
Quality	11	Is the information from the client's folder correctly entered into the Antenatal HIV Counselling and Testing register?	Standardised "HIV Counselling And Testing Record" or clinical and counselling notes AND Antenatal HIV Counselling and Testing register	This helps to assess the accuracy of the Antenatal HIV Counselling and Testing Register. Data from the VCT register is used to monitor programme performance and it is important that all the elements in the VCT register correctly reflect information from the clinical records. Check all the fields in the VCT register against information in the clinical records • Answer "Yes" if all the fields in the Antenatal HIV Counselling and Testing Register correctly reflect information in the clinical records. • Answer "No" if one or more fields in the Antenatal HIV Counselling and Testing Register do not correctly reflect information in the clinical records.

Questions 12 – 20 apply only to the 10 HIV+ folders selected				
Domain	**PMTCT**	**Question**	**Where to find information**	**Rationale and guideline to answering question**
Quality	12	Has the standard HIV/ARV stationery been used?	Check the general folder for the standard "HIV/ARV Patient Summary Folder" (white folded A3 card) and "HIV/ARV Visit Summary Form" (white folded A3 continuation sheets) or the general clinical folder.	The use of the standard HIV/ARV stationery improves the quality of services as it provides a prompt and guide to clinicians. This stationery facilitates recording and review of information, promoting continuity of care. • Answer "Yes" if the standard HIV/ARV stationery is used (current or previous versions). • Answer "No" if the facility has its own version of stationery or if there is no specific HIV/ARV stationery used and free-text notes are made in continuation sheets. • Answer "NA" if a child (routine stationery not currently available).
Quality	13	Is there a record that client attended for on-going counselling?	On the "On-Going Counselling" standardised stationery or in continuation notes in the clinical folder.	In addition to being a key HIV prevention strategy, VCT is also an entry point to psychosocial support and medical care. The standard is for all clients who are diagnosed positive to attend at least one on-going counselling session to assess how the client is coping, address disclosure and support available and to emphasise the importance of accessing clinical care. • Answer "Yes" if there is a record in the clinical folder that an HIV-positive client attended one or more counselling sessions after the post-test counselling (includes from a nurse, doctor, counsellor, peer supporter or support group). • Answer "No" if there is no record of the content of individual counselling in the clinical folder (even if counsellors have a list of follow-up clients seen) or of the client having accessed other support.
Quality	14	Is disclosure discussed at every clinical visit until client has disclosed?	Back page of HIV/ARV Patient Summary Folder – Under Section 5 "Social Assistance" (Has client disclosed; to whom?) or in the clinical folder.	Disclosure is key to clients coming to terms with their HIV-status, seeking the support and care that they require, being supported in adhering to treatment regimes, practising safer sex and planning for the future. This has particular importance in pregnancy as it could play a role in the mother being supported in her feeding choices. The standard is for clinicians to ensure that disclosure has occurred. Assessment of actual disclosure (rather than *intention* to disclose) is required. This should be discussed at every scheduled clinical visit until disclosure has taken place. • Answer "Yes" if disclosure is reported at the first clinical visit • Answer "Yes" if disclosure is reported a subsequent clinical visit and was noted as having been discussed at routine scheduled visits until this point • Answer "Yes" if it is noted that disclosure has not taken place and it is noted as having been discussed at all routine scheduled visits • Answer "No" if there is no record of disclosure or of it being discussed at all routine scheduled visits and the client has not disclosed

Domain	PMTCT	Question	Where to find information	Rationale and guideline to answering question
Quality	15	Did client have a CD4 count and WHO staging done?	Check the general folder for the standard "HIV/ARV Patient Summary Folder" (white folded A3 card) under Section 2: Long Term Record or in Section 3: Clinical Assessment. Look in general clinical notes if standard stationery not used.	In addition to being a key HIV prevention strategy, VCT is also an entry point to medical care. Both the CD4 count and WHO Clinical Staging are required to determine the appropriate package of care required by the client (unless the client is WHO Stage 4 or has a CD4 count below 200). In a setting with resources to do CD4 bloods and staging, this should be provided for all clients diagnosed HIV positive (though not necessarily on the day of diagnosis). If resources are not available at this facility, referral to another named facility is acceptable. • Answer "Yes" if both a CD4 count and WHO staging have been done. • Answer "Yes" if only a CD4 was done and was less than 200 or only WHO staging was done and the client was Stage 4. • Answer "No" if a CD4 count and WHO staging were not done. • Answer "No" if only 1 has been inappropriately done (eg CD4 only and >200 or WHO staging only and Stage 1-3).
Quality	16	Client is WHO Stage 4	Note the most advanced actual WHO Stage (1-4) under the "Assessment" section of the HIV/ARV Visit Summary Form or in the clinical folder.	This question assesses whether clients qualify for HAART based on their WHO stage. Medical criteria for HAART include an adult who is WHO Stage 4. • Answer "Yes" if adult is WHO Stage 4, whether recorded correctly in the assessment section or not. Refer to Appendix 1: World Health Organisation Clinical Staging For Adults for a guide to Stage 4 defining illnesses. • Answer "No" if adult is WHO Stage 1 – 3. • Answer "NA" if WHO staging was not done
Quality	17	CD4 count is 200 or below.	Under the "Investigations" section of the HIV/ARV Visit Summary Form OR In the Part 2 "Long term Record" section of the HIV/ARV Patient Summary OR In the clinical folder notes or laboratory result sheets.	An adult with a CD4 count 200 or below requires HAART. • Answer "Yes" if CD4 count for an adult was 200 or below. • Answer "No" if CD4 count for an adult was above 200. • Answer "NA" if CD4 count was not done.
Quality	18	If meeting medical criteria for HAART, has client received / been referred for HAART? (Only applicable if answered "Yes" to Q15 and / or Q16)	Under the "Plan and Management" section of the HIV/ARV Visit Summary Form OR In the Part 4 "Clinical Evaluation for ARVs" section of the HIV/ARV Patient Summary.	Clients who qualify for HAART (answered "Yes" to Q15 and or Q16) should be timeously commenced on HAART if provided at the site or formally referred to an ARV site for treatment. • Answer "Yes" if client met medical criteria for HAART and work-up was commenced / client was referred for HAART. • Answer "No" if client met medical criteria for HAART and work-up was not commenced / there is no record of referral for HAART. • Answer "NA" if client did not meet criteria for HAART (ie the answer to both question 17 and 19 was no). • Answer "NA" if client was not staged or CD4 not done or only one was done and the client did not meet the criteria based on the stage / CD4 test.

Quality	19	Were condoms issued at the last clinical visit?	Under the "History and Examination" section of the HIV/ARV Visit Summary Form or in the clinical folder	Condom promotion is a key HIV prevention strategy and condoms are recommended for all sexually active clients. The expectation is that there will be a record of condoms offered and the reason for refusal. An emphasis is placed on the issue of condoms. • Answer "Yes" if the client was issued with condoms • Answer "No" if there is no record of the client being offered condoms or the reason for not wanting condoms • Answer "NA" for those who purchase their own condoms or who already have a supply of condoms or who have a valid reason for not wanting to use condoms (in a stable, monogamous relationship for example).
Quality	20	Was a follow-up appointment and appropriate management plan noted at the last visit?	Under the "Plan and Treatment" section of the HIV/ARV Visit Summary Form or in the clinical folder.	If any problems have been noted (e.g. loss of weight, diagnosis of an opportunistic infection, social problem identified) then there must be a management plan recorded appropriate to further investigating, monitoring or treating the problems. If no new problems are noted, then the management plan needs to record only current treatment. This should include the appropriate antiretroviral regimen. For all clients a follow-up appointment date or time period (e.g. in 1 month) must be noted. • Answer "Yes" if both an appropriate management plan and appointment is given • Answer "No" if the management plan does not address issues picked up at the visit or if an appointment is not given

Guideline to the Labour Ward and Postnatal HIV Care Folder Review

This tool assesses the quality of obstetric HIV care in labour and HIV postnatal care. This component is to be completed by all facilities at which clients deliver. Ten folders are required for the evaluation.

Instructions for completing the Antenatal VCT folder review

- Make sure that the **facility name** is filled in.
- Make sure that the **date** of the facility audit is filled in.
- Note whether the standard **sampling procedure** was followed. If the standard sampling procedure was not followed, then on the back of the page state why not, describe how the sampling was done and the rationale for the new method.
- Note the **number of folders retrieved from the filing system for folder review**. This should be 10. If some of the first 10 folders selected are not found in the filing system, then continue to sample until 10 folders are available for review.
- Note the **number of folders requested for review** that could not be found in the filing system.
- Answer Yes (Y), No (N) or Not Applicable (N/A) for all questions in this section as per guidelines.

Standard sampling procedure

The standard procedure for sampling folders to assess antenatal, labour ward and postnatal HIV clinical services is to sample ten folders of clients from the Labour Ward PMTCT Register.

- Start sampling folders of clients who delivered one month ago and work backwards in sampling. For example, if today is 13 February 2008 then start with clients who delivered on the 13 January 2008 and work backwards.
- Decide on a sampling frequency that allows a spread of folders over the period of a month to be evaluated and not only those from one or two days in the month.
    - If the facility has <20 HIV-positive clients deliver per month, select every folder
    - If the facility has >20 HIV-positive clients deliver per month, select every 2nd or 3rd folder
- Exclude folders for clients not delivering at the site (those transferred out during labour or BBAs), as the information on these clients would be incomplete.
- Note down the folder numbers of the 10 clients selected and request these to be drawn from the filing system.
- If any of these folders can't be found, select further folders from the register, working backwards according to the sampling sequence until you have the folders of 10 HIV-positive clients delivering at the site in hand to review.

Trouble shooting in the field

If the standard recommended sampling method is not possible, contact the audit facilitator to discuss an alternative method. How sampling is done depends on the record keeping system, and you will need to decide what method is best to give a random sample.

If you have used a sampling method other than the one that is recommended as the standard, describe it in detail on the back page (including the rationale) so that peers can learn from it and so that fellow evaluators can consider the implications when comparative reviews are done.

Domain	HIV / PMTCT	Question	Where to find information	Rationale for question and guideline to answering it
Quality	1	Did the mother receive the correct ART regimen antenatally?	In the Labour Ward Records under "Drugs Given To Mother" in the Antenatal Card	Clients who qualify for HAART (CD4 count below 200 and or WHO Stage 4) should be timeously commenced on HAART if provided at the site or formally referred to an ART site for treatment. Those already on HAART may require a change to a regimen that is appropriate in pregnancy ((AZT/3TC/NVP). Those who do not require HAART should receive AZT as part of PMTCT dual therapy from 28 weeks. • Answer "Yes" if client met medical criteria for HAART, work-up was commenced / client was referred for ART or commenced on the appropriate ART regimen (AZT/3TC/NVP). • Answer "Yes" if client did not meet medical criteria for HAART and AZT was commenced and if client received at least 2 weeks of AZT immediately prior to delivery. • Answer "Yes" if client presented too late for HAART and was commenced on dual therapy and received at least 2 weeks of AZT immediately prior to delivery. • Answer "No" if client met medical criteria for HAART and work-up was not commenced / there is no record of referral for HAART. • Answer "No" if client did not meet medical criteria for HAART and AZT was not commenced or it was commenced but client did not receive at least 2 weeks of AZT prior to delivery. • Answer "NA" if client refused the PMTCT intervention (dual therapy or HAART).
Quality	2	Did the mother receive the correct ART regimen in labour?	In the Labour Ward Records under "Drugs Given To Mother" in the "During Labour" section or in continuation notes.	Clients on HAART require their normal dosage of ARVs during labour (AZT & 3TC 12 hourly and NVP daily). Those on dual therapy to prevent mother to child transmission require AZT 3 hourly and NVP stat in labour. • Answer "Yes" if a mother on HAART received the appropriate doses of medication in labour • Answer "Yes" if a mother on dual therapy received both AZT on arrival and 3hourly in labour and NVP stat in labour. • Answer "No" if there is no record of HAART or dual therapy in labour or the regimen was incorrect.
Quality	3	Were the appropriate delivery protocols followed? (That is: no artificial rupture of membranes, episiotomy, instrumentation or prolonged rupture of membranes)	In the delivery record describing each stage of labour under "History of Pregnancy and Labour" OR in "Method of Delivery" in the Labour Ward Record OR under "Method of Delivery" in the Post Partum Record.	Obstetric practices are modified amongst HIV-positive women to reduce mother to child transmission of HIV. This includes avoiding the following practices: artificial rupture of membranes, routine episiotomy, instrumentation, prolonged rupture of membranes and other invasive procedures. • Answer "Yes" if appropriate delivery protocols were followed. • Answer "No" if appropriate delivery protocols were not followed or if there is no record of the delivery in the folder.
Quality	4	Did the baby receive the correct ART regimen at delivery and at discharge?	In general notes in the "Infant Record Card" or in continuation notes.	Post delivery, all babies of HIV-positive women require a stat dose of Nevirapine and AZT (irrespective of the mothers ARV treatment regimen) and a shortcourse (7 days) of AZT either in the facility (for example for clients who may have been hospitalised) or dispensed to the mother as a TTO on discharge. • Answer "Yes" if both Nevirapine and AZT were given to the baby post delivery and the 7 day AZT TTO was dispensed to the mother on discharge or if the baby received 7 days of AZT at the hospital • Answer "No" if either OR both Nevirapine and AZT were not given to the baby post delivery or the AZT shortcourse was not dispensed and or given in hospital.

Domain	PMTCT	Question	Where to find information	Rationale for question and guideline to answering it
Quality	5	Did the mother receive contraception on discharge?	Under “Contraception Method” in the copy of the Early Notification of Birth Form	Dual protection against pregnancy and sexually transmitted diseases is recommended for sexually active women. This is of particular relevance in a post-partum woman, to ensure appropriate family planning. The question assesses contraceptives other than condoms. • Answer "Yes" if contraception was provided. • Answer “No” if there is no record of contraception
Quality	6	Was feeding choice on discharge noted?	Under “Feeding” In the “Infant Record Card” or on the discharge stamp in the continuation notes	About 15-30% of transmission from mother to child occurs through breast-feeding. This is avoided if through formula feeding and the risk substantially reduced through promoting sole breast-feeding. Counselling clients about feeding options is therefore important in reducing mother to child transmission of HIV. Feeding choices need to be reinforced and the choice recorded on discharge. • Answer “Yes” if feeding choice is recorded on discharge. • Answer “No” if feeding choice is not recorded on discharge
Quality	7	Is the information from the client folder correctly entered into the labour ward register?	All components of client folder and labour ward register.	This helps to assess the accuracy of the Labour Ward Register. Data from Labour Ward register is used to monitor programme performance and it is important that all the elements in the Labour Ward register correctly reflect information from the clinical records. Check all the fields in the Labour Ward register against information in the clinical records • Answer “Yes” if all the fields in the Labour Ward Register correctly reflect information in the clinical records. • Answer “No” if one or more fields in the Labour Ward Register do not correctly reflect information in the clinical records.

ANNEX 12 PMTCT AUDIT TOOL

TB/HIV/STI Integrated Audit Tool, Draft PMTCT Component, 20 April 2009

Paper Audit - PMTCT Evaluation of Routine Annual Data

	1	Number of unbooked deliveries	
	2	Total number of delivieries	
	3	Number of bookings at < 20 weeks	
	4	Total number of bookings	
	5	Number of antenatal clients tested for HIV	
	6	Number of first booking visits	
	7	Number of antenatal clients tested HIV-positive	
	8	Number of antenatal clients who requie HAART	
	9	Number of antenatal clients on HAART	
	10	Number of HIV-positive antenatal clients delivered	
	11	Number of antenatal clients who receive adequate AZT (>2 weeks) antenatally	
	12	Number of antenatal clients who receive nevirapine in labour	
	13	Number of PMTCT babies delivered in sub-district	
	14	Number of PMTCT babies registered at baby clinics	
	15	Number of PMTCT babies PCR tested at 6 weeks	
	16	Number of PMTCT babies PCR tested HIV-positive at 6 weeks	

10a PMTCT: VCT and HIV Care in Antenatal Setting - Folder Review

Facility name:_____ Date:_____

Sampling procedure: From the Antenatal HIV Counselling and Testing Register, starting on a date 3 months ago and working backwards, select sequential folders until you have 5 HIV-negative and 5 HIV-positive client-folders. Exclude clients who declined VCT or testing, those having a repeat test at 32 weeks and known positives accessing PMTCT. Use the 10 folders to answer questions 1 to 10. Using a similar method, select an additional 5 HIV+ client folders. Include known HIV+ clients in this selection. The ten folders from HIV+ clients will be used to answer questions 11 to 19. Note any folders that are not possible to locate in the process. Answer Yes (Y), No (N) or Not Applicable (N/A) for each question. Record any relevant other information on the back of the form.

Number of folders retrieved from the folder system _____ Number of folders requested for review but not found in the folder system _____

			HIV NEGATIVE FOLDERS					HIV POSITIVE FOLDERS										SUMMARY RESULTS		
Ref			Folder 1	Folder 2	Folder 3	Folder 4	Folder 5	Folder 6	Folder 7	Folder 8	Folder 9	Folder 10	Folder 11	Folder 12	Folder 13	Folder 14	Folder 15	Total Yes	Total No	Total N/A
V-Q	1	Has a counselling form been used?																		
V-Q	2	Was consent for an HIV test taken?																		
V-Q	3	Is there a record that safer sex was discussed at VCT?																		
V-Q	4	Were condoms issued at VCT?																		
V-Q	5	Is there a record that feeding options were discussed at VCT?																		
V-Int	6	Is there a record of symptomatic screening for TB at VCT and appropriate clinical assessment?																		
V-Int	7	Is there a record of symptomatic screening for STI at VCT and appropriate clinical assessment?																		
Q	8	Has an RPR been done and results recorded?																		
Q	9	Is there a record that weight, BP and urinalysis was done at the last clinical visit?																		
Q	10	Is the expected date of delivery (EDD) recorded?																		
V-Cont	11	Is the information from the client's folder correctly entered into the Antenatal HIV Counselling and Testing register?																		
H-Q	12	Has the standard HIV/ARV stationery been used?																		
H-Cont	13	Is there a record that the client attended for on-going counselling?																		
H-Q	14	Is disclosure discussed at every clinical visit until client has disclosed?																		
H-Q	15	Did client have a CD4 count and WHO staging done?																		
H-Q	16	Client is WHO Stage 4																		
H-Q	17	CD4 count is 200 or below.																		
H-Q	18	If meeting medical criteria for HAART, has client received / been referred for HAART? (Only applicable if answered "Yes" to Q16 and / or Q17)																		
H-Q	19	Were condoms issued at the last clinical visit?																		
H-Cont	20	Was a follow-up appointment and appropriate management plan noted at the last visit?																		

10b PMTCT: HIV Care in Labour Ward Setting - Folder Review Facility name:_____ Date:_____

Sampling procedure: From the Labour Ward Register, starting on a date 1 month ago and working backward, select consecutive HIV positive client folders until you have 10 folders for review. Exclude folders for clients not delivering at the site. Note any folders that are not possible to locate in the process. Answer the following questions in relation to the selected folders. Answer Yes (Y), No (N) or Not Applicable (N/A) for each question.

Number of folders retrieved from the folder system _____ Number of folders requested for review but not found in the folder system _____

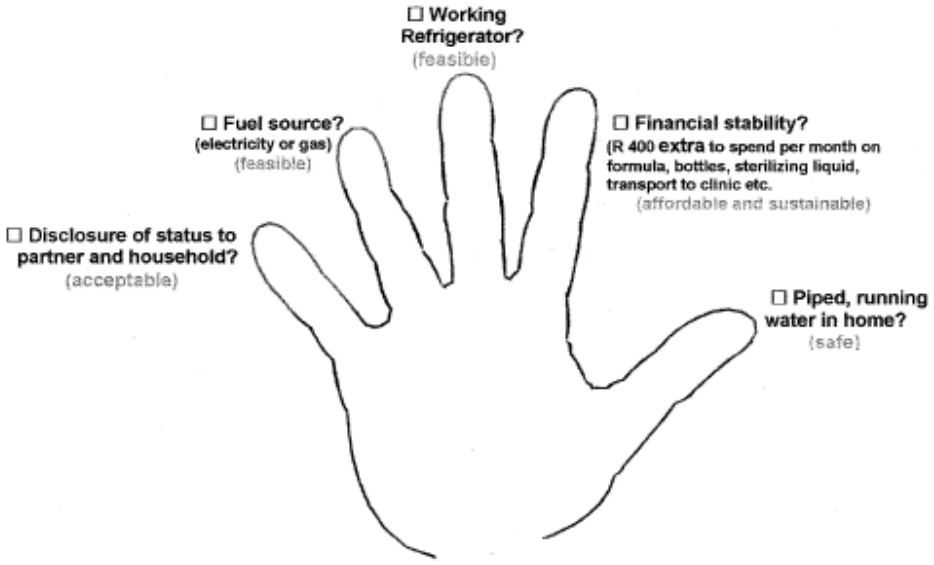
			HIV POSITIVE FOLDERS										SUMMARY RESULTS		
Ref			Folder 1	Folder 2	Folder 3	Folder 4	Folder 5	Folder 6	Folder 7	Folder 8	Folder 9	Folder 10	Total Yes	Total No	Total N/A
H-Q	1	Did the mother receive the correct ART regimen antenally?													
H-Q	2	Did the mother receive the correct ART regimen in labour?													
H-Q	3	Were the appropriate delivery protocols followed? (That is: no artificial rupture of membranes, episiotomy, instrumentation or prolonged rupture of membranes)													
H-Q	4	Did the baby receive the correct ART regimen at delivery and at discharge?													
H-Int	5	Did the mother receive contraception on discharge?													
H-Q	6	Was feeding choice on discharge noted?													
H-Q	7	Is the information from the client folder correctly entred into all the fields of the labour ward register?													

ANNEX 13: COUNSELLING ON INFANT FEEDING OPTIONS – 5 FINGER APPROACH

ANC Training
KEH

Antenatal Infant Feeding Options Counseling

Name: _____
Maternal CD4: _____
On HAART?: _____



If **ALL FIVE** of the boxes are **NOT ticked**, please *do not* recommend replacement feeding and *do* **recommend six months of exclusive breastfeeding** for this mother and her infant.

Feeding recommendation made to mother: _____

Maternal feeding choice: _____

☐ **I have explained the risks and benefits of this feeding choice to my client**

Note: general safety point – modeling exercises have shown that where IMR is > 25/1000 replacement feeding in the first 6 months is not safe.

ANNEX 14: LABOUR WARD (PMTCT) CHECKLIST

Patient Name and folder number

pMTCT RECORD

This is a checklist ONLY and does not replace official patient records.

☐ Patient Status Known

CD4 Count if Known: _____

☐ Patient is on the MTCT program

Dual Therapy	HAART

☐ Patient is unbooked or status unknown

ANTENATAL:

☐ **HAART** & using own medication

Drug Regimen _____

AZT 300mg 12hrly [Issue 14 day supply from 28 weeks gestation]

Date Issued	Gestation	Signature

Date Issued	Gestation	Signature

MOTHER IN LABOUR:

_____ NAME OF SR ADMITTING PATIENT TO M-WARD

_____ DATE

NVP 200mg stat during labour YES ☐ NO ☐

Time given _____

AZT 300mg 3 hourly during labour YES ☐ NO ☐

☐ **HAART** & using own medication

Times of Doses

Drug Regimen _____

1st ___H___ 4th ___H___

List times of doses taken in labour ___H___

2nd ___H___ 5th ___H___

___H___

3rd ___H___ 6th ___H___

☐ Used AZT for at least the last 4 weeks

BABY AFTER BIRTH:

_____ NAME OF SR ADMITTING BABY TO BABY ROOM

_____ DATE

AZT _____ml stat OR after first feed YES ☐ NO ☐

Exclusive breastfeeding commenced YES ☐ NO ☐

NVP 0.6ml stat OR after first feed YES ☐ NO ☐

Formula Feeding commenced YES ☐ NO ☐

AT DISCHARGE:

_____ NAME OF SR DISCHARGING MOTHER & BABY

_____ DATE

AZT 1.2ml bd for 7 days TTO YES ☐ NO ☐

Road to Health Chart completed YES ☐ NO ☐

AZT 1.2ml bd for 28 days TTO YES ☐ NO ☐

Feeding Choice on Discharge Formula ☐ Breast ☐

MTCT REGISTER COMPLETED YES ☐ NO ☐

Antenatal card attached YES ☐ NO ☐

This form must accompany mother if transferred out during labour

Patient Name and folder number

pMTCT RECORD

This is a checklist ONLY and does not replace official patient records.

☐ Patient Status Known

CD4 Count if Known: _____

☐ Patient is on the MTCT program

Dual Therapy	HAART

☐ Patient is unbooked or status unknown

ANTENATAL:

☐ **HAART** & using own medication

Drug Regimen _____

AZT 300mg 12hrly [Issue 14 day supply from 28 weeks gestation]

Date Issued	Gestation	Signature

Date Issued	Gestation	Signature

MOTHER IN LABOUR:

_____ NAME OF SR ADMITTING PATIENT TO M-WARD

_____ DATE

NVP 200mg stat during labour YES ☐ NO ☐

Time given _____

AZT 300mg 3 hourly during labour YES ☐ NO ☐

☐ **HAART** & using own medication

Times of Doses

Drug Regimen _____

1st ___H___ 4th ___H___

List times of doses taken in labour ___H___

2nd ___H___ 5th ___H___

___H___

3rd ___H___ 6th ___H___

☐ Used AZT for at least the last 4 weeks

BABY AFTER BIRTH:

_____ NAME OF SR ADMITTING BABY TO BABY ROOM

_____ DATE

AZT _____ml stat OR after first feed YES ☐ NO ☐

Exclusive breastfeeding commenced YES ☐ NO ☐

NVP 0.6ml stat OR after first feed YES ☐ NO ☐

Formula Feeding commenced YES ☐ NO ☐

AT DISCHARGE:

_____ NAME OF SR DISCHARGING MOTHER & BABY

_____ DATE

AZT 1.2ml bd for 7 days TTO YES ☐ NO ☐

Road to Health Chart completed YES ☐ NO ☐

AZT 1.2ml bd for 28 days TTO YES ☐ NO ☐

Feeding Choice on Discharge Formula ☐ Breast ☐

MTCT REGISTER COMPLETED YES ☐ NO ☐

Antenatal card attached YES ☐ NO ☐

This form must accompany mother if transferred out during labour