PMTCT Handbook

for Healthcare Providers in Ghana

GHANA HEALTH SERVICE

Your Health–Our Concern

November, 2014

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Acknowledgement

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Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
AZT	Zidovudine
BCG	Bacillus Calmette-Guerin
CD4	Cluster Differentiation 4 Cells – T4 Helper Cells
CTX	Cotrimoxazole
DBS	Dried Blood Spots
DNA	Deoxyribonucleic Acid
EFV	Efavirenz
EID	Early Infant Diagnosis
FTC	Emtricitabine
HAART	Highly Active Anti-Retroviral Therapy
Hb	Hemoglobin
HTC	HIV Testing and Counselling
HIV	Human Immunodeficiency Virus
LPV/r	Lopinavir / Ritonavir
MTCT	Mother-to-Child Transmission of HIV
NACP	National AIDS/STI Control Programme

NGO	Non-governmental Organization
NVP	Nevirapine
OI	Opportunistic Infection
OPV	Oral Polio Vaccine
PCP	*Pneumocystis jiroveci (Carini)* Pneumonia
PCR	Polymerase Chain Reaction
PEP	Post-Exposure Prophylaxis
PLHIV	People Living with HIV
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PNC	Postnatal Care
RCH	Reproductive and Child Health
STD/STI	Sexually Transmitted Disease / Infection
TB	Tuberculosis
TDF	Tenofovir
ZDV	Zidovudine
3TC	Lamivudine

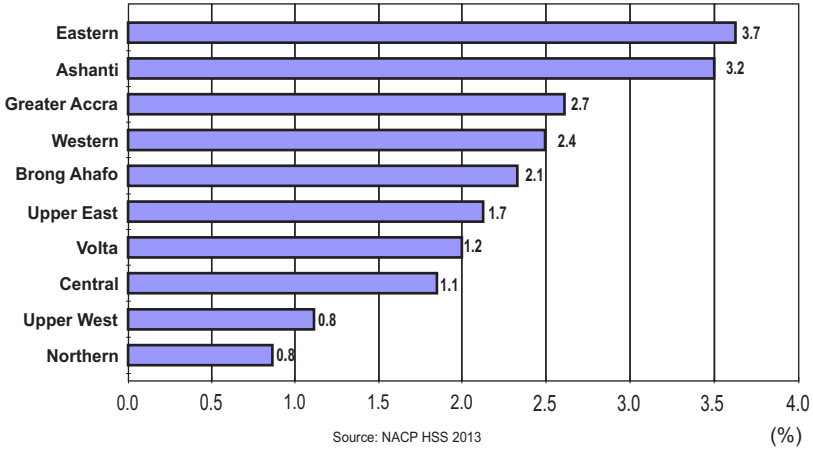
Introduction

Overview of HIV in Ghana

The HIV epidemic in Ghana is generalized but stable with the national prevalence estimated in 2013 to be 1.3% within the general population and 1.9% among pregnant women.

Fig. 1

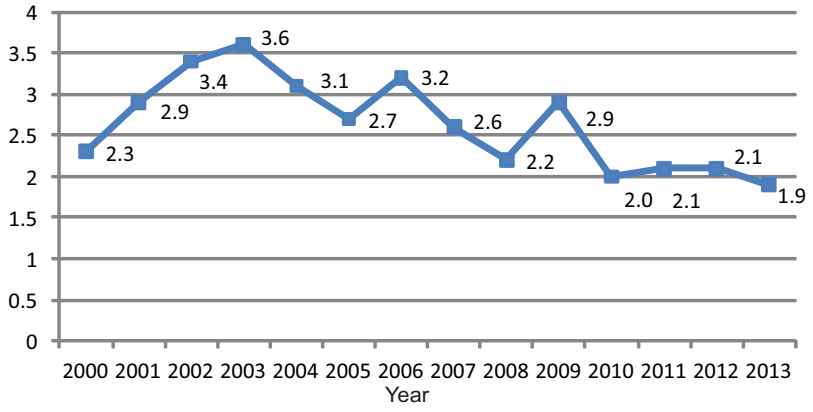
HIV Prevalence by Region - 2013



Source: NACP HSS 2013

Fig. 2

Median HIV Prevalence 2000 - 2013



Source: NACP HSS 2013

PMTCT Concept in Ghana

The Prevention of Mother-to-Child Transmission of HIV (PMTCT) intervention is an integrated health service intervention which is offered to mothers and their children to reduce the risk of HIV transmission from the mother to the infant, protect them from HIV-related risk, enhance early case detection and treatment of those infected and to keep those who are HIV negative uninfected. Mother to child transmission of HIV (MTCT) can occur during pregnancy, labour, delivery and breast feeding. Interventions required for prevention are aimed at dealing with risk factors during these periods.

THE FOUR-PRONGED APPROACH TO PMTCT

1

Primary prevention of HIV infection

2

Prevention of unintended pregnancy among HIV-infected women

3

Prevention of HIV transmission from women infected with HIV to their infants

4

Provision of treatment, care, and support to women infected with HIV, their infants, and their families

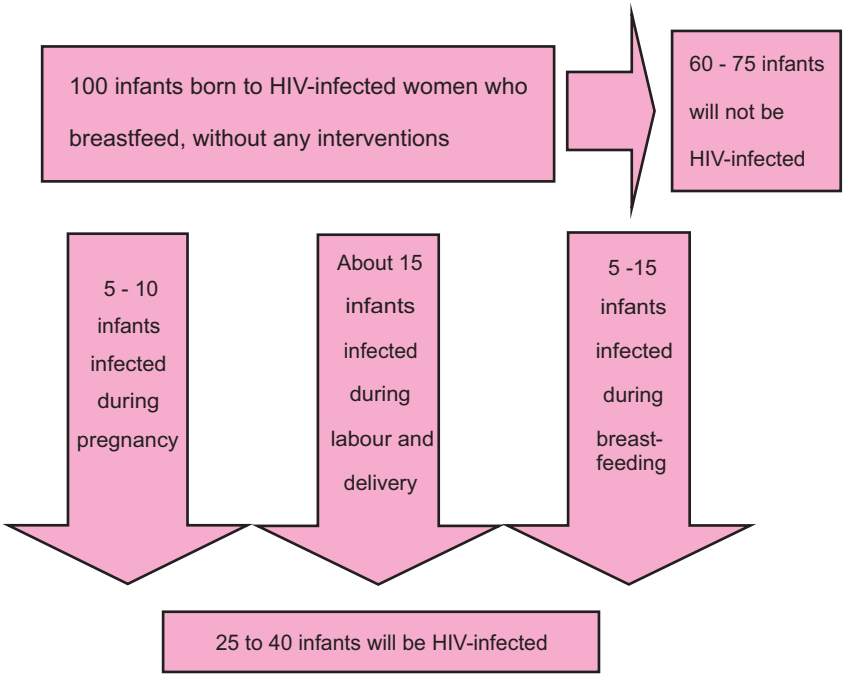
Chapter 1

Mother-To-Child Transmission of HIV

Children under 5 years of age acquire HIV infection mainly through mother to child transmission (MTCT) in Ghana. MTCT of HIV can occur during pregnancy, labour, delivery and breast feeding.

Fig. 3

HIV Outcomes of Infants Born to Women Infected with HIV



Note: This figure gives an overall picture of possible outcomes, and there will be variability among different populations.

Maternal Factors That May Increase the Risk of HIV Transmission

High maternal HIV viral load, new HIV infection of mothers during pregnancy, labour, breastfeeding and other maternal condition may increase the risk of MTCT.

Table 1

Maternal Factors That May Increase the Risk of HIV Transmission

Pregnancy	Labour and Delivery	Breastfeeding
■ High maternal viral load (new infection, re-infection or advanced AIDS)	■ High maternal viral load (new infection, re-infection or advanced AIDS)	■ High maternal viral load (new infection, re-infection or advanced AIDS)
■ Severe immuno-suppression	■ Rupture of membranes more than 4 hours before delivery	■ Duration of breastfeeding
■ Viral, bacterial, or parasitic placental infection (e.g. malaria)	■ Invasive delivery procedures that increase contact with mother's infected blood or body fluids (e.g. episiotomy, foetal scalp monitoring, artificial rupture of membranes)	■ Early mixed feeding (e.g. food or fluids in addition to breast milk)
■ Sexually transmitted infections (STIs)	■ First infant in multiple birth	■ Breast diseases including engorgement, abscesses, sore/cracked nipple, and mastitis
■ Maternal malnutrition (indirect cause)	■ Chorioamnionitis (from untreated STI or other infection)	■ Poor maternal nutritional status
■ Use of illicit drugs, tobacco and alcohol during pregnancy	■ Vaginal delivery as opposed to planned caesarean section	■ Oral disease in the baby (e.g. thrush or sores)

Ways to Reduce Risk of MTCT

- HIV Testing and Counselling
- Antiretroviral treatment
- Elective caesarean section, when indicated and where safe and feasible
- Safer delivery practices
- ARV prophylaxis for HIV-exposed infant
- Infant-feeding counselling and support for safer feeding practice

Partner Involvement in PMTCT

PMTCT efforts should be as comprehensive as possible and make it possible for partners of women assessing the intervention to be involved in efforts and activities aimed at reducing the risk of transmission of HIV to the infant:

- Both partners need to be aware of the importance of safer sex practices throughout pregnancy and breastfeeding
- Both partners should be tested and counselled for HIV
- Both partners should be made aware of and provided with PMTCT and other HIV-related interventions

Chapter 2

Essential Package of Integrated Antenatal Care Service

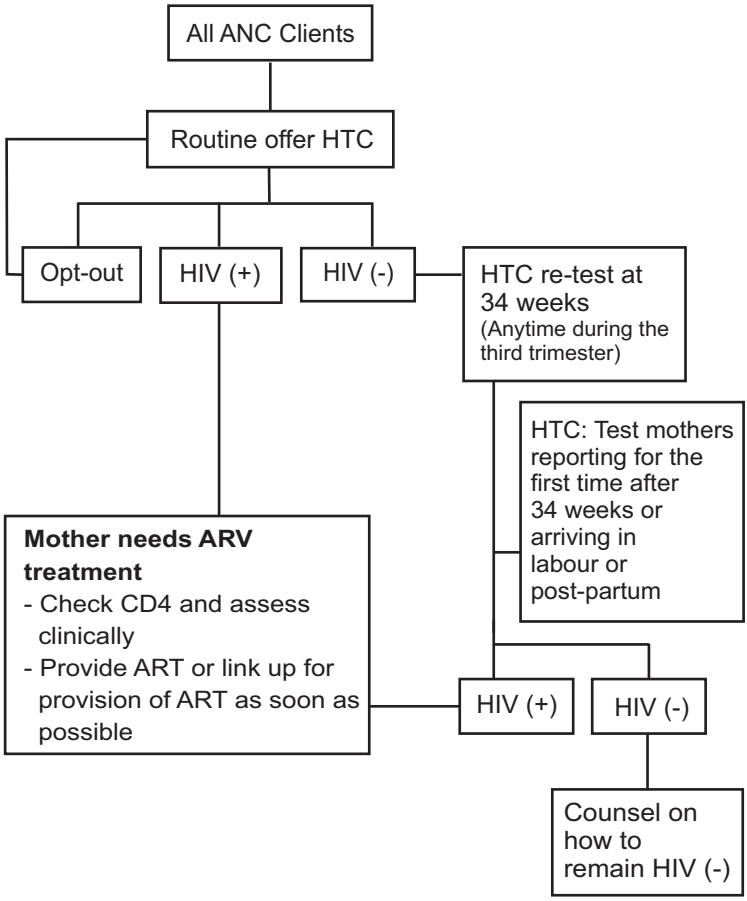
Essential Package of Integrated Antenatal Care Service must include:

- Client history
- Physical examination and vital signs
- Pelvic examination
- Laboratory diagnostics
- Tetanus toxoid
- Nutritional assessment and counselling
- STI screening
- OI prophylaxis and treatment
- Screening and care for other infections including TB
- Antimalarial
- ARV treatment during pregnancy
- Counselling on infant feeding
- Counselling on danger signs of pregnancy
- Counselling on danger signs of HIV and AIDS
- Partners and family support
- Condom use

(For additional information, refer to PMTCT Training Participant Manual Module 3 Session 2)

Fig. 4

PMTCT Flow Chart at ANC



Chapter 3

HIV Testing & Counselling

Pre-Test Information

Pre-test information for pregnant women

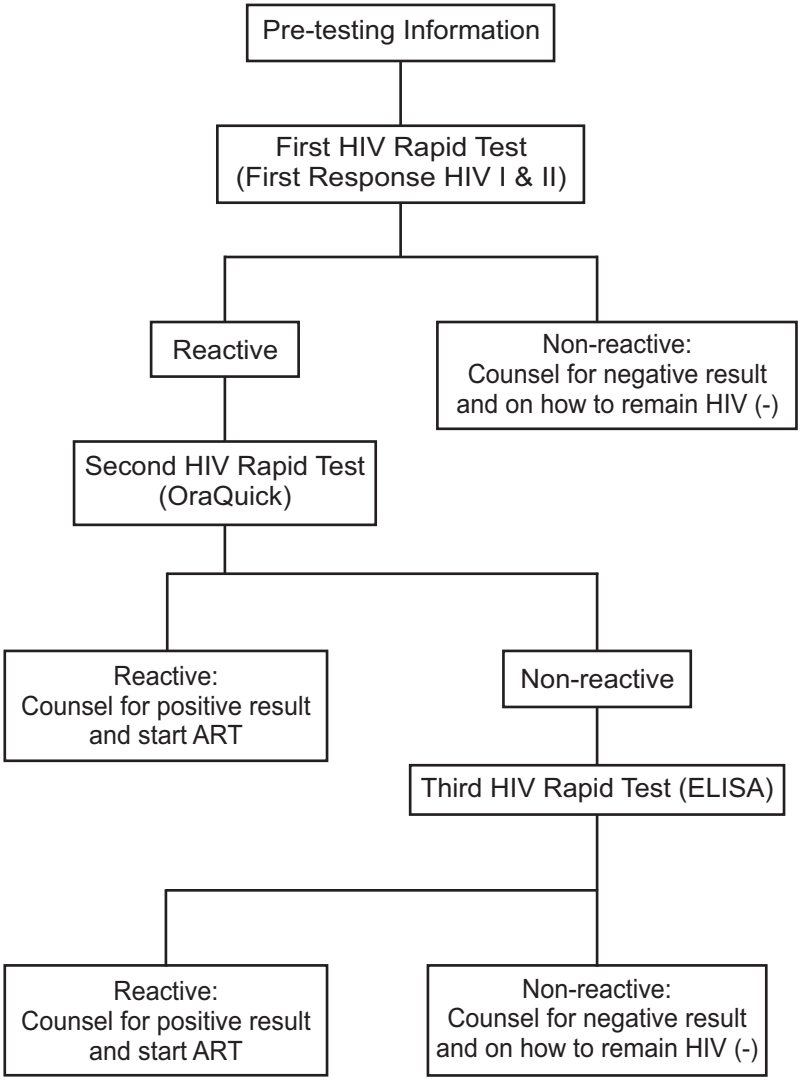
- HIV and AIDS information
- HIV transmission and prevention
- Confidentiality
- STIs and HIV
- MTCT and prevention
- Benefits of testing and counselling services for couples
- HIV testing processes
- Benefits of HIV testing
- Implications of positive and negative results
- Identification of supportive HIV services
- Family planning
- Informed refusal
- Refusal should not affect provision of quality of other services

Consideration in couple counselling

- Establish a relationship with each partner
- Assure them of confidentiality and support
- Assess each person's understanding of HIV and AIDS
- Avoid allowing one person to dominate the conversation
- Explain the testing process
- Discuss post-test counselling
- Ask whether they would prefer to receive the results separately or together
- Mention the possibility of discordant results (where one partner is infected while the other is not) and prepare them for this possibility
- Provide information on available PMTCT interventions: ARV treatment for mother and prophylaxis for infant and infant-feeding practices
- Confirm the benefit of knowing one's HIV status
- Ask who else might be affected by test results
- Confirm the couple's willingness to be tested
- Arrange for further counselling of couple if indicated

Fig. 5

Rapid HIV Testing Algorithm (Serial Testing)



Post-Test Counselling

Components of post-test counselling for women testing HIV-negative

- Discuss the meaning of the result
- Provide information about how to prevent future HIV infection
- Inform her about the high risk of transmitting HIV to the infant if she is newly infected during pregnancy or breastfeeding
- Inform her that counselling is available in the future if needed

Components of post-test counselling for women testing HIV-positive

- Discuss the meaning of the test result
- Determine whether she understands the meaning of the result and let her talk about her feelings
- Talk about her immediate concerns
- Inform her about essential PMTCT issues
- Discuss and support initiation of ART for mother and prophylaxis for infant
- Discuss and suport infant-feeding decisions
- Discuss disclosure and partner testing
- Encourage mother to attend subsequent ANC visits and the importance of delivering in a facility providing PMTCT

Disclosure of HIV status

By disclosing clients' HIV status to her partner and family, the woman may be in a better position to:

- Encourage the partner(s) to test for HIV
- Prevent the transmission of HIV to her partner(s)
- Access PMTCT interventions
- Receive support from her partner(s) and family when accessing PMTCT and HIV treatment, care, and support services

Chapter 4

Infant Feeding

Although breastfeeding possibly transmit HIV from mother to infant, overall benefits of exclusive breastfeeding surpass the risk of HIV transmission especially in the resource constraint settings. Risk of MTCT will be remarkably reduced so long as the mothers are on ART.

Table 2

National Breastfeeding Policy and Guidelines

Mother who is known to be HIV negative or of unknown status	**1.** Counsel mother to exclusively breastfeed for the first 6 months. **2.** Introduce complementary feeds at 6 months whilst continuing breastfeeding for 24 months and beyond. **3.** Counsel and support mother to breastfeed as safely and successfully as possible. **4.** Continue to offer HIV testing to mother of unknown status at every contact. **5.** Counsel on ways to avoid HIV infection including the appropriate use of condoms. **6.** Counsel on family planning.
Mother who is HIV positive and receiving ARV interventions with breastfeeding	**1.** Promote exclusive breastfeeding for 6 months. **2.** Introduce appropriate complimentary feeds at 6 months with continued breastfeeding until baby is 12 months old. **3.** Counsel the mother on how to breastfeed as safely and successfully as possible. **4.** Stop breastfeeding only when nutritionally adequate diet without breast milk can be provided. **5.** Support mother to complete cessation of

	breastfeeding gradually within one month. **6.** Mothers should continue receiving ARVs throughout breastfeding and for the rest of their lives.
Mother who is HIV positive and receiving ARV interventions but decides not to breastfeed	Mother should be counselled to give commercial infant formula* as a replacement feed only when: **1.** Safe water and sanitation are available at household and community level. **2.** Mother or caregiver can reliably provide sufficient infant formula to support normal growth and development of the infant. **3.** Mother or caregiver can prepare the feed cleanly and frequently so that it is safe and carries a low risk of diarrhoea and malnutrition. **4.** Mother or caregiver can exclusively give infant formula during the first 6 months. **5.** The practice of formula feeding is supported by family. **6.** Mother or caregiver can access comprehensive child healthcare services.

* Commercial infant formula is recommended only for mothers who may not be in the position to breastfeed.

Refer to PMTCT Guidelines / PMTCT Training Manual (Module 4 Session 1) for details on infant feeding

Table 3

Infant and Young Child Feeding from 6 to 24 Months

Age	Texture	Frequency	Amount at each meal
6 months	Thick porridge, well-mashed vegetable, meat and fruit	2 times a day plus frequent milk feeds. Give fruits.	2-3 table spoons
7-8 months	Mashed food	3 times a day plus frequent milk feeds. Give fruits.	2/3 cup
9-11 months	Finely chopped or mashed food and food that baby can pick up	3 meals plus 1 snack between meals plus milk feeds. Give fruits.	2/3 cup
12-24 months	Family food, chopped or mashed if necessary	3 meals plus 2 snacks between meals plus milk feeds. Give fruits.	1 full cup

One cup = 250mL

If baby is not breastfed, give in addition:
1-2 cups of milk per day, and 1-2 extra meals per day.

Good Hygiene and Proper Food Handling

- Wash hands with soap and water before food preparation
- Wash hands (mother and baby) before feeding baby
- Store food safely and serve food immediately after preparation
- Use clean cups and bowls to feed children
- Avoid using feeding bottles

Table 4

Common Breast Problems & Their Management

Sore / Cracked Nipples

Prevention

- Initiate breastfeeding within 30 minutes to one hour after delivery.
- The mother should be taught good positioning and attachment at the onset of breastfeeding.
- She must allow baby to release the breast spontaneously at the end of a feed. Where a mother has to remove the baby from the breast, she should put her fore finger gently into the baby's mouth to break the suction first.
- She must avoid washing nipple with soap or rubbing with towel or cloth before every feed. Having her daily bath is enough to keep the breasts clean.

Management

- The mother must be supported to position and attach baby correctly at the breast.
- Apply drops of breast milk onto the nipples and allow to air dry to promote healing.
- Expose the affected breast to air and sunlight between feeds.
- Begin feeds on the breast which hurts less.
- Support mother to continue breastfeeding.

Common Breast Problems & Their Management (cont'd)

Breast Engorgement

Prevention

- Support the mother to start breastfeeding soon after delivery within the first 30 minutes and continue to breastfeed frequently i.e. on demand and for as long as baby wants, both day and night.
- Keep baby and mother together and teach the mother to practice correct positioning and attachment.
- Encourage mother to feed from both breasts alternately.
- Encourage mother whose baby cannot suckle effectively to express the milk and feed by cup and spoon.

Management

- Mother must be supported to breastfeed more frequently and for longer periods.
- Ensure correct positioning and attachment of the infant to the breast.
- If baby cannot suckle effectively help the mother to express the milk and feed by cup and spoon.
- Massage breast to stimulate oxytocin reflex.
- Apply cold compresses to breast(s).

Common Breast Problems & Their Management (cont'd)

Mastitis

Prevention

- Initiate breastfeeding within 30 minutes to one hour after delivery.
- Teach the mother to practice correct positioning and attachment to prevent sores, cracks or fissures in the nipple.
- Breastfeed on demand.
- Prevent or treat blocked duct and engorgement of the breast properly.

Management

- Breastfeed on demand.
- Improve positioning and attachment of baby to the breast.
- Milk from the affected breast should be expressed.
- If both breasts are affected, the breast milk can be expressed, heat-treated and fed by cup to the infant.
- The underlying condition should be treated with antibiotics and analgesic.
- Counsel mother to take as much rest as possible.
- Mother must seek medical treatment.
- Refer mother for further treatment if necessary.

Blocked Ducts

Prevention

- The mother should be taught good positioning and attachment at the onset of breastfeeding.
- Breastfeed on demand.
- The mother should avoid holding the breast in scissor hold, wearing tight brassieres, and sleeping on her stomach.
- A variety of positions for holding the baby to rotate pressure points on the breast must be adopted.

Management

- Breastfeed more frequently and on demand.
- Apply warm compresses before breastfeeding and between feeds.
- Massage the breast gently towards the nipple during breastfeeding.
- Increase maternal fluid intake and encourage rest and wearing of loose clothes.
- If breastfeeding is difficult, help mother to express the milk.
- Mother must seek medical treatment (antibiotics may be necessary).

Chapter 5

Anti-Retroviral Medications in PMTCT

Pregnant women who are HIV-infected should receive ART according to the National treatment guidelines.

ARV treatment during pregnancy will improve the health of the woman and decrease the risk of transmission of HIV to the infant.

For women diagnosed with HIV infection during pregnancy, treatment with ARVs should be initiated as soon as possible. Although baseline CD4 count is necessary it is not a requirement for initiating ART in HIV positive pregnant or breastfeeding mothers.

Infant prophylaxis should also be started immediately after delivery (within 48 hours) and continue for 6 weeks.

Table 5

Antiretroviral Regimens to Prevent MTCT

Regimen for Mother	Dosing	Regimen for Baby	Dosing
Preferred Regimen:		**Preferred Regimen:**	
TDF +3TC (or FTC) +EFV [300mg +300mg(or 200mg) +600mg)] (fixed-dose combination)	One tablet daily	AZT (ZDV)	4mg/kg body weight 12 hourly for 6 week
Alternate Regimen:		**Alternate Regimen:**	
TDF+3TC (or FTC) (fixed-dose combination) PLUS NVP (200mg)	One tablet daily One tablet 12 hourly	NVP (use when AZT is contraindicated e.g. anaemia or bleeding disorder)	200mg/m^2/dose daily for 6 weeks (use appropriate dosing chart)
AZT+3TC (300mg/150mg) PLUS EFV (600mg)	One tablet 12 hourly One tablet every night		
AZT+3TC (300mg/150mg) PLUS NVP (200mg)	One tablet 12 hourly One tablet 12 hourly		

Table 6

WHO Clinical Staging of HIV and AIDS for Adults and Adolescents

Stages	Conditions
Clinical Stage I	• Asymptomatic • Persistent generalized lymphadenopathy
Clinical Stage 2	• Moderate unexplained weight loss (<10% of presumed or measured body weight) • Recurrent respiratory tract infections (sinusitis, tonsillitis, otitis media, pharyngitis) • Herpes zoster • Angular cheilitis • Recurrent oral ulcerations • Papular pruritic eruptions • Seborrhoeic dermatitis • Fungal nail infections of fingers
Clinical Stage 3	• Unexplained severe weight loss (>10% of presumed or measured body weight) • Unexplained chronic diarrhoea for longer than one month • Unexplained persistent fever (intermittent or constant for longer than one month) • Persistent oral candidiasis • Oral hairy leukoplakia • Pulmonary tuberculosis • Severe bacterial infections (e.g. pneumonia, empyema, meningitis, pyomyositis, bone or joint infection, bacteraemia, severe pelvic inflammatory disease) • Acute necrotizing ulcerative stomatitis, gingivitis or perodontitis • Unexplained anaemia (8g/dL), neutropenia (<0.5x10^9/L) and/or chronic thrombocytopenia (<50x10^9/L).

Clinical Stage 4	• HIV wasting syndrome. • *Pneumocystis jiroveci* pneumonia (PCP) • Recurrent severe bacterial pneumonia • Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration or visceral at any site) • Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs) • Extrapulmonary tuberculosis • Kaposi sarcoma • Cytomegalovirus infection(retinitis or infection of other organs) • Central nervous system toxoplasmosis • HIV encephalopathy • Extrapulmonary cryptococosis, including meningitis • Disseminated non - tuberculous mycobacterial infection • Progressive multifocal leukoencephalopathy (PML) • Chronic cryptosporidiosis • Chronic isosporiasis • Disseminated mycosis (extrapulmonary histoplasmosis, coccidiomycosis) • Recurrent septicaemia (Including non-typhoidal *Salmonella*) • Lymphoma (cerebral or B cell non-Hodgkin) • Invasive cervical carcinoma • Atypical disseminated leishmaniasis • Symptomatic HIV-associated nephropathy or HIV-associated cardiomyopathy

Recommended Prophylaxes for HIV-exposed Infants

Table 7

AZT as the Preferred ARV Prophylaxis for the Infants

Recommendation	Dose per time	Interval	Comments
Zidovudine (AZT) Syrup 10mg/mL	4mg/Kg body weight per dose	**12 hourly**	AZT is contraindicated for infants with severe anaemia or haemorrhagic diseases. In such cases NVP 2mg/kg body weight daily should be given.

NB: Infant prophylaxis should be started immediately after delivery (within 48 hours) and continued for 6 weeks.

Table 8

Easy Reference for AZT Infant Prophylaxis

Zidovudine (AZT, ZDV): 12 hourly

Weight of Baby (Kg)	AZT Syrup per dose (10mg/mL)
1.6 – 2.0	0.80 mL
2.1 – 2.5	1.00 mL
2.6 – 3.0	1.20 mL
3.1 – 3.5	1.40 mL
3.6 – 4.0	1.60 mL
4.1 – 4.5	1.80 mL
4.6 – 5.0	2.00 mL
5.1 – 5.5	2.20 mL

Table 9

Easy Reference for NVP Infant Prophylaxis

Nevirapine (NVP): Once Daily (24 hourly)

Weight of Baby (Kg)	NVP Syrup per dose (10mg/mL)
1.6 – 2.0	0.40 mL
2.1 – 2.5	0.50 mL
2.6 – 3.0	0.60 mL
3.1 – 3.5	0.70 mL
3.6 – 4.0	0.80 mL
4.1 – 4.5	0.90 mL
4.6 – 5.0	1.00 mL
5.1 – 5.5	1.10 mL

N.B. Where the strengths of ARVs are different from those indicated in these tables, consult the pharmacist

Table 10

CTX Prophylaxis for HIV Exposed Infants

Cotrimoxazole (CTX): Once Daily

Age	CTX Syrup per dose (40mg/200mg/5mL)
6 weeks – 6 months	2.5mL
6 months – till infant is finally diagnosed as HIV negative after complete cessation of breast feeding	5mL

- Cotrimoxazole is recommended for all HIV exposed children from 6 weeks until HIV infection is excluded and no further HIV-exposure

- HIV exposed children are defined as:
  - ✓ Children born to HIV infected mother
  - ✓ Children of any age breastfed from HIV infected women

Table 11

Side Effects of ARV Drugs

Side effects	Possible medicine responsible	How to deal
Nausea, Gastrointestinal intolerance, Headache, Fatigue, Sleep disturbance	AZT	Monitor and give nutrition counselling If severe, refer to ART clinic
Renal insuficiency	TDF	Replace TDF with AZT Refer to ART clinic
Skin rash	NVP EFV	Monitor If severe, refer to ART clinic
Anaemia	AZT	Monitor If severe, change ARV regimen
Neutropenia, Peripheral neuropathy	AZT 3TC	Monitor If severe, refer to ART clinic

Chapter 6

HIV Diagnosis in Infants and Young Children

Early Infant Diagnosis (EID) is an essential component of the comprehensive PMTCT service package.

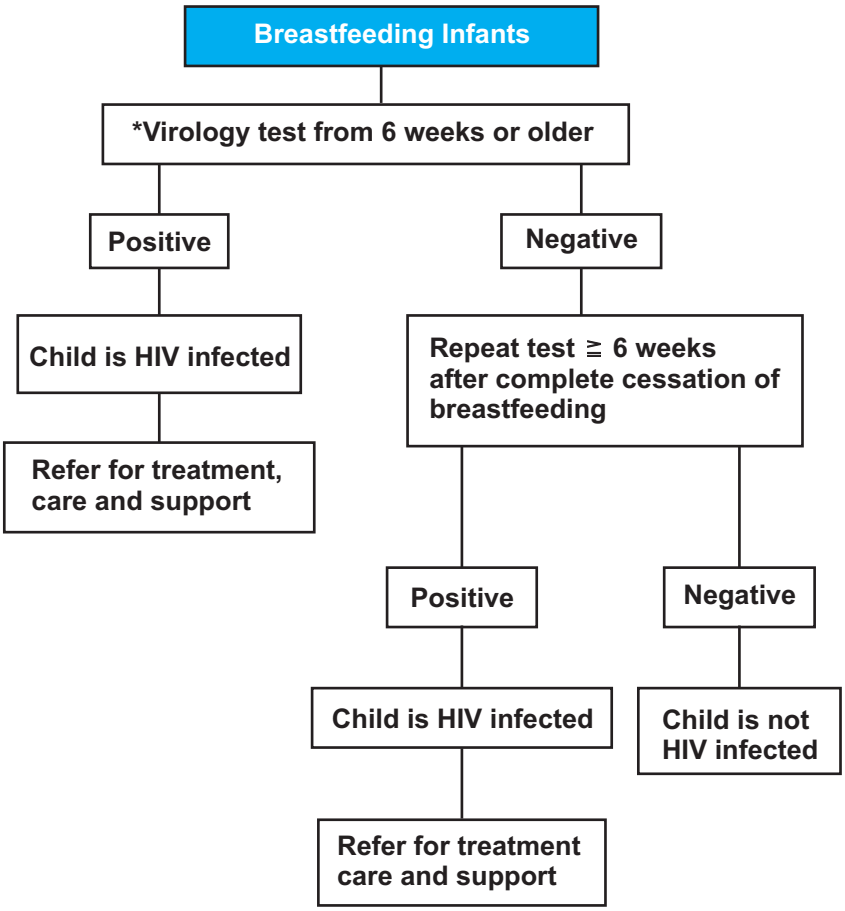
It enables:

- early detection of HIV in infants;
- early enrollment of infants in HIV treatment; and
- reduction of HIV-related infant deaths.

All HIV-exposed infants irrespective of breast-feeding should have DNA-PCR testing done for EID at 6 weeks and repeated 6 weeks after complete cessation of breastfeeding.

Fig. 6

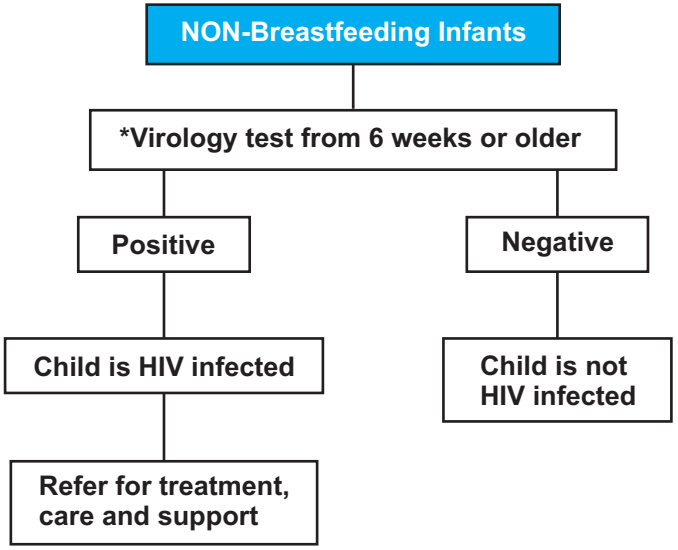
HIV Diagnosis in Infants and Young Children LESS THAN 18 MONTHS with Viral Assay (DNA PCR)



Recommended virology tests include HIV DNA PCR (currently used in Ghana) and HIV RNA PCR assays

Fig. 7

HIV Diagnosis in Infants and Young Children LESS THAN 18 MONTHS with Viral Assay (DNA PCR)



**Recommended virology tests include HIV DNA PCR and HIV RNA PCR assays*

NOTES:

1. For all exposed infants, virological testing (DNA PCR) should be repeated 6 weeks after complete cessation of breastfeeding.
2. Every exposed infant must have HIV anti-body testing at 18 months.

Fig. 8

HIV Diagnosis in Children 18 MONTHS & OLDER with Antibody Tests

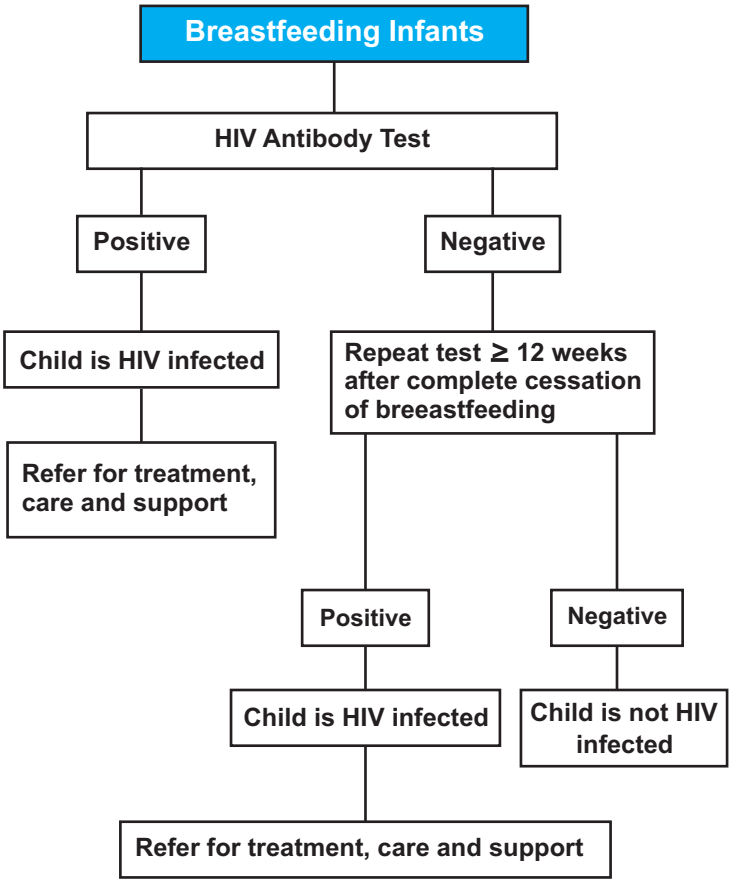
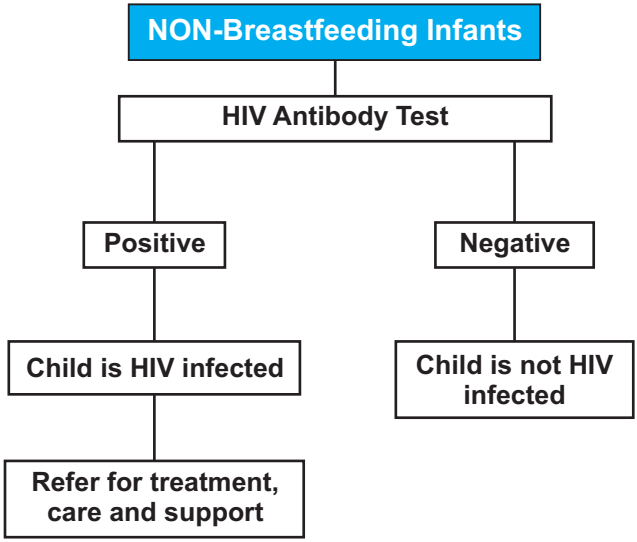


Fig. 9

HIV Diagnosis in Children 18 MONTHS & OLDER with Antibody Tests



WHO Recommendation for the Initiation of ARV Therapy in Children

The criteria for the initiation of ART for children are dependent on the age of the child and a confirmed HIV status (as per DNA PCR Testing or Rapid Antibody Testing depending on the age of the child). A child with an acute opportunistic infection must be stabilized in accordance with good medical practice before the initiation of ART.

Table 12

ART Initiation Criteria in Children

Age	HIV Diagnostic Testing	Treatment Recommendation
<18 months	DNA PCR not available HIV antibody sero-positive	Treat if WHO Paediatric Presumptive Stage 4 disease irrespective of CD4 %. However, repeat HIV antibody test at 18 months or as soon as virologic test becomes available to confirm infection.
	Positive HIV DNA PCR	Treat all children < 5 years irrespective of CD4 % and WHO clinical staging where HIV infection is confirmed.
18 months to <5 years	HIV antibody positive	
5 - 13 years	HIV antibody positive	Treat if: ➢ All WHO Paediatric Stage 3 and 4 irrespective of CD4 count ➢ CD4 count =500 cells/mm^3 irrespective of clinical stage

Table 13

WHO Clinical Staging of HIV and AIDS for Infants and Children under 13 Years with Confirmed HIV Diagnosis

Clinical Stage 1
• Asymptomatic
• Persistent generalised lymphadenopathy
Clinical Stage 2
• Unexplained persistent hepatosplenomegaly
• Papular pruritic eruptions
• Extensive wart virus infection
• Extensive molluscum contagiosum
• Recurrent oral ulcerations
• Unexplained persistent parotid enlargement
• Lineal gingival erythema (LGE)
• Herpes zoster
• Recurrent or chronic URTIs (otitis media, otorrhoea, sinusitis, tonsilitis)
• Fungal nail infections
Clinical Stage 3
• Unexplained moderate malnutrition not adequately responding to standard therapy
• Unexplained persistent diarrhoea (14 days or more)
• Unexplained persistent fever (above 37.5 ^{o}C, intermittent or constant, for longer than one month)
• Persistent oral candidiasis (after first 6 weeks of life)
• Oral hairy leukoplakia
• Acute necrotizing ulcerative gingivitis/periodontitis
• Lymph node TB
• Pulmonary TB
• Severe recurrent bacterial pneumonia
• Symptomatic lymphoid interstitial pneumonitis
• Chronic HIV-associated lung disease, including bronchiectasis
• Unexplained anaemia (<8g/dL), neutropenia (<0.5x10^{9}/L) and/or chronic thrombocytopenia (<50x10^{9}/L)

Clinical Stage 4

- Unexplained severe wasting, stunting or severe malnutrition not adequately responding to standard therapy
- *Pneumocystis jiroveci* pneumonia
- Recurrent severe bacterial infections (e.g. empyema, pyomyositis, bone or joint infection, meningitis, but excluding pneumonia)
- Chronic herpes simplex infection (orolabial or cutaneous of more than one month's duration or visceral at any site)
- Extrapulmonary TB
- Kaposi sarcoma
- Oesophageal candidiasis or candidiasis of trachea, bronchi or lungs
- CNS toxoplasmosis (outside the neonatal period)
- HIV encephalopathy
- Cytomegalovirus (CMV) infection (retinitis or CMV infection affecting another organ with onset at age more than one month)
- Extrapulmonary cryptococcosis, including meningitis
- Disseminated endemic mycosis (e.g. extrapulmonary histoplasmosis, coccidiomycosis, penicilliosis)
- Chronic cryptosporidiosis (with diarrhoea)
- Chronic isosporiasis
- Disseminated non-tuberculous mycobacterial infection
- Cerebral or B-cell non-Hodgkin lymphoma
- Progressive multifocal leukoencephalopathy (PML)
- HIV-associated cardiomyopathy or nephropathy

Chapter 7

Management of Labour and Delivery of Women Infected with HIV and Women with Unknown HIV Status

Routine obstetric services must be applied with standard precautions to all clients in labour irrespective of their HIV status. By following standard precautions in the delivery room, the risk of MTCT of HIV can be reduced. This will also reduce possibility of occupational HIV infection among health service providers.

- Women with unknown HIV status shall be routinely offered HIV testing and counselling any time they access maternity services and be given the necessary care and interventions to reduce the possible risk of MTCT if they are diagnosed to be positive.
- Vaginal delivery is still the safest mode of delivery.

Interventions that can reduce MTCT during labour and delivery include:

- ARV treatment
- Use of good infection prevention practice
- Use pathograph to monitor labour (vaginal examination should not be more frequent than 4 hours interval)
- Avoid prolonged labour
- Avoid artificial rupture of membranes
- Avoid unnecessary trauma during and after delivery (vacuum extraction, forceps delivery, etc.)
- Avoid unnecessary episiotomy
- Minimize the risk of postpartum haemorrhage (active management of the 3rd stage of labour)
- Safe transfusion practices
- Elective caesarean section when indicated and where safe
- Prompt decision for emergency caesarean section when indicated
- Infant feeding counselling and support for safer feeding practices

Fig. 10

PMTCT Service Flow Chart at Labour Room

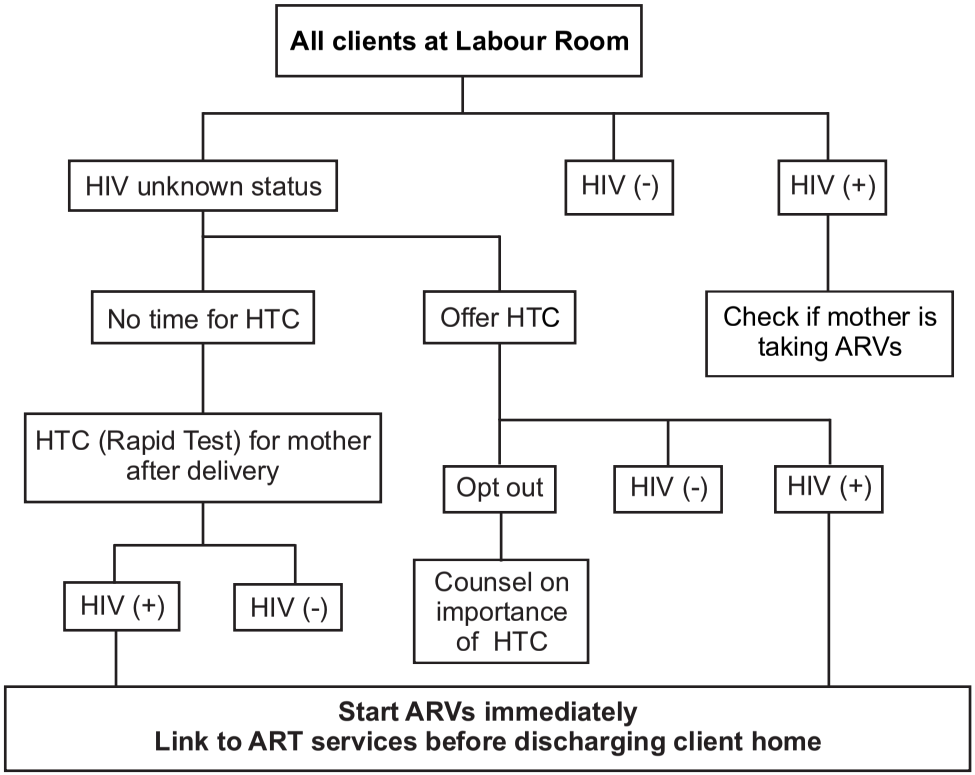
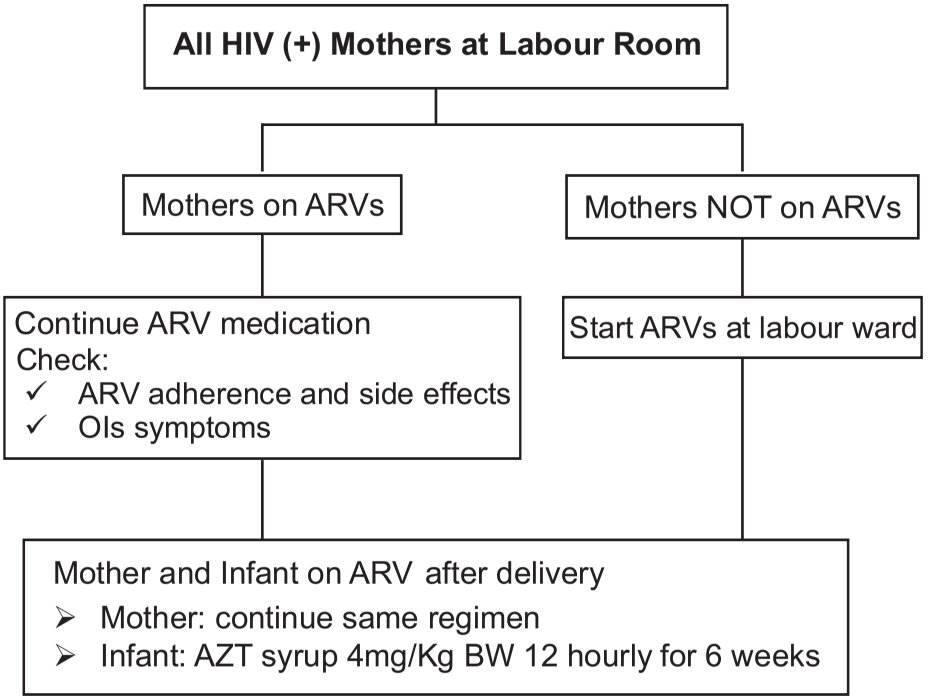


Fig. 11

Flow Chart on ART for HIV (+) Mothers at Labour Room



Immediate Post-Partum Care

Immediate Post-Partum Care is important to all women and new-born babies.

FOR MOTHERS:

- Monitor vital signs
- Monitor uterine contraction
- Observe for abnormal bleeding
- Check for laceration & tears
- Take steps to prevent infection
- Support mothers to initiate breastfeeding

FOR BABIES:

- Check the airways, breathing, and circulation
- Keep baby warm
- Look out for haemorrhage (e.g. from the cord)
- Check for congenital abnormalities
- Initiate breastfeeding
- Vaccination (BCG, OPV0)

Table 14

Checklist for Discharge After Delivery

	Check points
	Give counselling and support on appropriate infant feeding and on maternal nutrition including micronutrient supplementation (exclusive breastfeeding should be emphasized)
	General physical examination of infant to exclude abnormalities
	Supply drugs and explain dosage and duration of ARV medication for baby and mother
	OI prophylaxis for mother
	Educate on recognition of ill health in mother and newborn and appropriate actions to be taken
	Advise and support on preventive measures such as hygienic practices and malaria prevention
	Ensure BCG / OPV immunization for newborn has been given
	Record newborn weight, length and head circumference in Child Health Record Booklet
	Psychosocial / community support
	Give appointments for first post-partum visit within 48 hours and follow-up visit to Postnatal Clinic within 3-7 days

Chapter 8

Post-partum Care and Follow-up of HIV Infected Women, Women of Unknown Status and Newborns

HIV positive mothers and their infants need monitoring on ARV medication and care, monitoring of OIs, referral or linkages to long term ART care, counselling on infant feeding and family planning in order to avoid unintended pregnancy.

- The first post-partum visit shall be made within 48 hours
- Follow-up visits shall be within 3-7 days
- Follow-up visits at 6 weeks postpartum
- HIV (+) mothers and their babies shall be linked to both RCH/Child Welfare and ART clinics
- Women who delivered at home should be encouraged to report to Postnatal Clinic within 48 hours of delivery

Fig. 12

PMTCT Flow Chart at Post-Natal Care for All Mothers

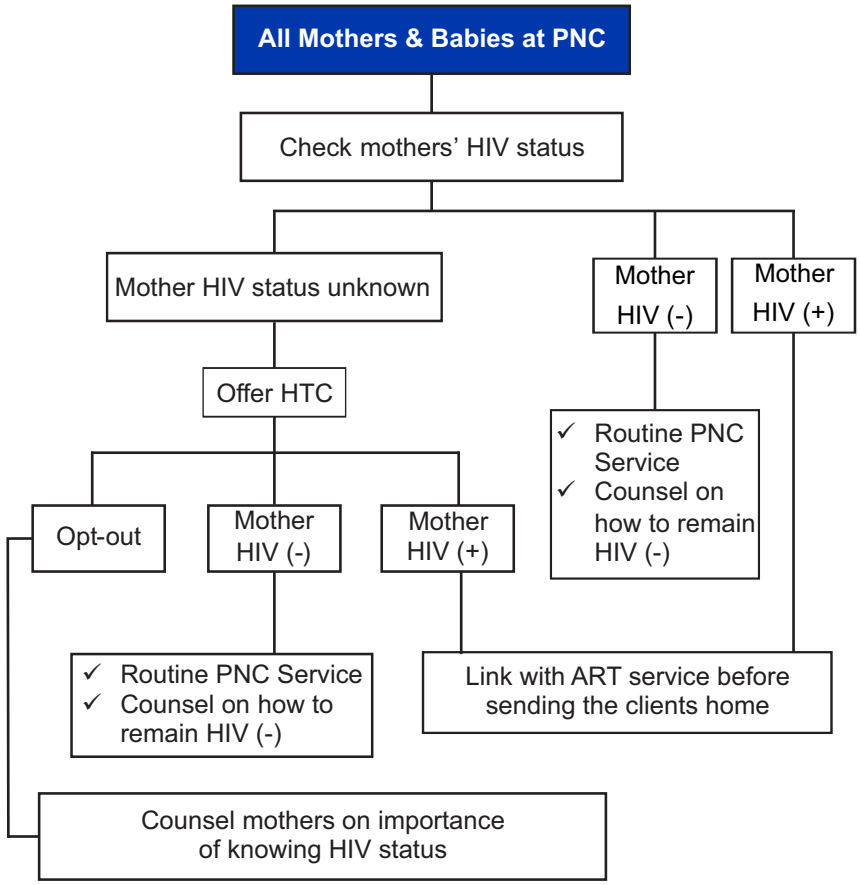


Fig. 13

PMTCT Flow Chart at Post-Natal Care for All HIV (+) Mothers

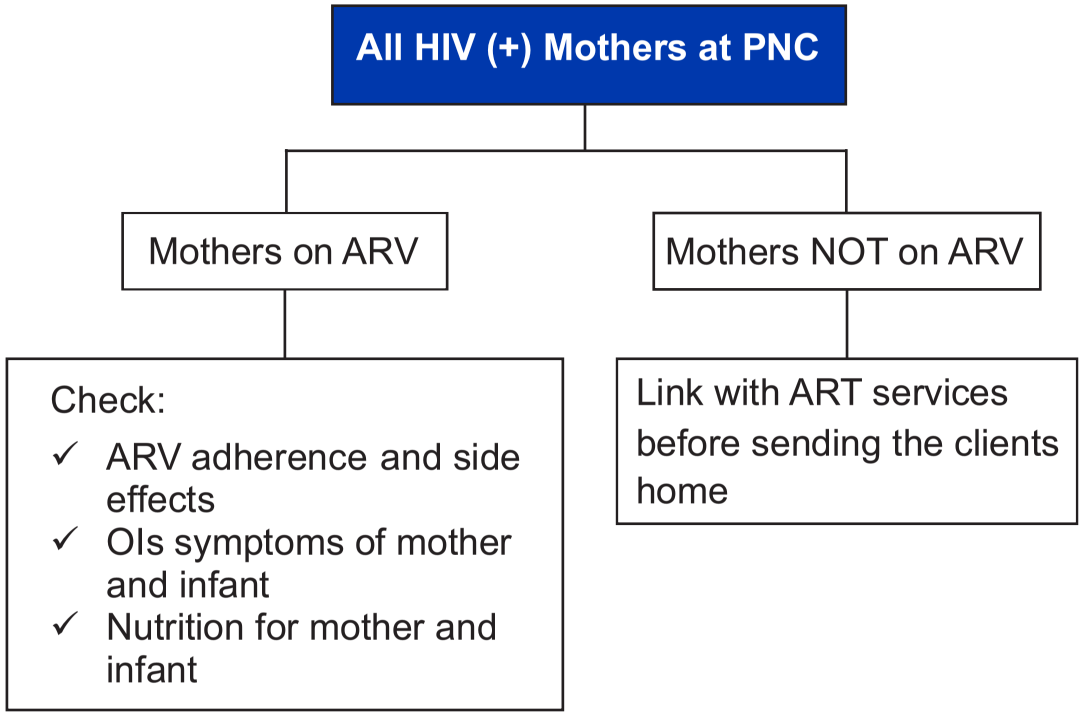


Table 15

Follow-up Care for HIV Exposed Infants

Infant younger than 6 weeks	Infant aged 6 weeks or older
Check: ✓ ARV adherence of infant ✓ ARV side effects ✓ OIs symptoms ✓ Exclusive breastfeeding	Check: ✓ Completion of infant ARV prophylaxis ✓ At 6 weeks start CTX until infant HIV status finally confirmed as negative and has no further exposure to HIV ✓ OIs symptoms ✓ Exclusive breastfeeding for first 6 months ✓ Conduct EID at 6 weeks and at 6 weeks after complete cessation of breastfeeding ✓ Link all HIV+ infants to ART centres for comprehensive HIV care ✓ All HIV exposed infants should have HIV anti-body testing at 18 months ✓ All HIV exposed infants with signs and symptoms suggestive of HIV infection should be referred to ART centre for further assessment and care

Table 16

Checklist for MOTHERS - First Postnatal Clinic Visit

Check points	
	History and physical examination to exclude complications such as pallor, complications related to genito-urinal tract and breasts (engorgement, cracked nipples, infection)
	Discuss infant feeding and challenges
	Discuss safer sex practices and family planning
	OI prophylaxis
	ART adherence
	Assess nutritional / psychosocial / community support
	Provide adequate supply of ARVs until 6 weeks visit
	Give 6 week appointment for Postnatal Clinic visit
	Offer HTC for women of unknown HIV status

Table 17

Checklist for NEWBORN - First Postnatal Clinic Visit

Check points	
	History and physical exam including assessment for pallor, jaundice, weight, length and head circumference. Refer for clinical care in case of any abnormality.
	Assess adherence to exclusive breastfeeding.
	BCG / OPV if not already given.
	Assess adherence to infant ARV prophylaxis and ensure adequate supply until next scheduled visit at 6 weeks.
	Educate mother on recognition of ill health (especially for anaemia) in newborn and appropriate actions to be taken.
	Advise mother to bring baby back at 6 weeks to RCH / Child Welfare clinic.
	If mother is not available to be offered HTC, rapid HIV testing shall be offered to establish whether the baby is HIV exposed or not.
	Give 6 week appointment for Postnatal Clinic visit.

Table 18

Checklist for MOTHERS - 6 Week Postnatal Clinic Visit

Check points	
	Fulfil all relevant actions as at first postnatal visit.
	Refer to ART centre for comprehensive HIV care and treatment (mothers should be asked to visit ART centre with their infants for mother-baby follow-up).
	If indicated, supply ARV drugs until next scheduled follow-up visit at ART centre.
Sexual and Reproductive Care	
	Discuss condom use as dual protection (against STIs/HIV and for family planning).
	Support the mother's choice of contraceptive method bearing in mind any potential interaction with ARV.
	Discuss the importance of safer sex to prevent the spread of HIV and other STIs.
	Provide education regarding early STI treatment, including symptom recognition and where to go for STI assessment and treatment.
	Answer any questions the woman may have about safer sex behaviours.

Table 19

Checklist for INFANTS - 6 Week Postnatal Clinic Visit

Check points	
	Fulfil all relevant actions as at first postnatal visit.
	Pentavalent 1/ Rotavirus 1/ Pneumococcal 1/ OPV 1 immunization.
	Assess adherence to infant ARV prophylaxis and stop ARV prophylaxis at 6 weeks.
	Start Cotrimoxazole prophylaxis once daily for all HIV exposed babies from 6 weeks onwards. (see pages 26 and 46)
	Take Dried Blood Spot (DBS) samples for Early Infant Diagnosis (EID) at 6 weeks. Discuss how to communicate the EID result with the mother. Refer to ART clinic for monthly follow-up.

Child Welfare Clinic and Provision of Immunization

Scheduling monthly follow-up visits for well-baby check-ups and immunizations are very important and all efforts should be made to achieve these.

Table 20

Checklist - Child Welfare Clinic

Check points	
Monitor the following during each visit	
	Adherence to Cotrimoxazole prophylaxis
	Weight gain
	Development and evidence of OIs
Additional sessions may be required during special high-risk periods, such as when:	
	Child is sick
	Mother returns to work
	Nutritional support is required
	ART is indicated

Table 21

Regular Monitoring Schedule for Infant & Young Child

At birth
2 days (PNC)
3 – 7 days (PNC)
At age 6wks,10wks,14wks (PNC & immunization)
Once a month from 14 weeks to 1 year (Growth and Development monitoring)
Every 3 months from the ages of 1 to 2 years

Table 22

National Immunization Schedule

Age of infant	Vaccine
At birth	BCG, OPV-0
6 weeks	Pentavalent-1, OPV-1, Pneumococcal-1, Rotavirus-1
10 weeks	Pentavalent-2, OPV-2, Pneumococcal-2, Rotavirus-2
14 weeks	Pentavalent-3, OPV-3, Pneumococcal-3
9 months	Yellow fever*, Measles-1
18 months	Measles-2

Key:

BCG = Bacillus Calmette-Guerin

OPV = Oral Polio Vaccine

Pentavalent = Diphtheria, Pertussis, Tetanus, Haemophilus Influenza B, Hepatitis B

***Yellow fever:**

Children with known symptomatic HIV infection should not be given yellow fever vaccination

Table 23

Linkage with Treatment, Care & Support Services for HIV (+) Mothers and Their Infants

Linkage between RCH and HIV related services

- ART clinic
- RCH services are entry points for PMTCT
- PMTCT is integrated into RCH
- All HIV-exposed children require close follow-up and appropriate care
- Community RCH workers should be encouraged to integrate PMTCT-related services

Linkage with other health services for special needs

- Family Planning, ART clinic, STI treatment, substance abuse
- TB, malaria and other disease-specific programs
- Nutrition support programs

Linkages to community-based support

Screening & Investigation for TB

Screening and investigation for TB to be done for all HIV+ mothers who cough more than 24 hours or who have any of the following symptoms:

- ✓ Fever
- ✓ Hemoptysis (bloody sputum)
- ✓ Weight loss
- ✓ Chest pain
- ✓ Fatigue
- ✓ Night sweat

Infants of such mothers should also be screened using paediatric screening tools and provided with Isoniazid prophylaxis if they turn out to be TB uninfected but the mothers found to be infected with TB.

For treatment of TB, refer client to ART or TB clinic

Dealing with Stigma and Discrimination in Healthcare Settings

Stigma and discrimination are the major barriers for clients to access HIV related services especially ARV uptake and adherence.

In order to mitigate its impact, it is important that healthcare providers communicate and work together with the community and key influential persons.

Chapter 9

Safety in Work Environment and Post Exposure Prophylaxis

Safety in Work Environment

Standard precaution should be applied in the management of all clients including those who are HIV positive. This should include the following.

- ❖ Proper hand washing
- ❖ Disinfect or sterilize all devices and equipment used during invasive procedures
- ❖ Appropriate handling and disposal of sharps
- ❖ Safe use of sharps containers
- ❖ Proper handling and avoidance of contact with body fluids and blood
- ❖ Safe specimen collection, handling and transportation

For detailed information, refer to PMTCT training participant manual module 8.

◆Post Exposure Prophylaxis (PEP)

✓ Post Exposure Prophylaxis (PEP) is particularly effective **within 1-2 hours** and **not more than 72 hours**

✓ An exposure that would create a risk may be defined as an exposure from infected blood, tissue or other body fluids through:

- A percutaneous injury (e.g. a needle stick or cut with a sharp object)
- A mucocutaneous membranes or non-intact skin (e.g. skin that is chapped, abraded, or affected by dermatitis; or splash of body fluid into the eyes)

Table 24

Steps to Post Exposure Prophylaxis (PEP)

PEP Step 1	**Treatment of Exposed Area** The wound site should be cleaned with soap and water In the case of mucous membrane, exposed area should be flushed with plenty of water Eyes should be flushed with water or saline
PEP Step 2	**Assess the level of risk** **1. Very low risk of exposure:** Exposure of potentially infectious material to intact skin **2. Low risk exposure:** Exposure to a small volume of blood or body fluids contaminated with blood from asymptomatic HIV-positive patients An injury with a solid needle Superficial injury or mucocutaneous exposure **3. High-risk exposure:** Exposure to a large volume of blood or potentially infectious fluids Exposure to blood or body fluids contaminated with blood from a patient with a high viral load (i.e. patients in AIDS phase or early sero-conversion phase of HIV infection) Injury with a hollow bore needle Deep and extensive injury from a contaminated sharp instrument Exposure to blood from an HIV drug resistant patient

PEP Step 3

HIV Testing and Counselling (HTC)

Immediately receive HTC

Where the exposed health worker declines testing after counselling, document that and provide PEP

Where the HIV status of the source patient is unknown, provide HTC for source patient

Where the source of exposure is not known or where the source patient declines HTC, assume risk of infection and provide PEP

Emphasize safer sex and condom use

If ART needed, should start promptly within 1-2 hours of post-exposure, and not later than 72 hours

Regimen for PEP

Risk Level	Recommended Prophylaxis
Very Low	Wash exposed area immediately with soap and water
Low	AZT 300mg 12 hourly (or TDF 300mg daily) x 28 days 3TC 150mg 12 hourly (or 300mg daily) x 28 days
High	AZT 300mg 12 hourly (or TDF 300mg daily) x 28 days 3TC 150mg 12 hourly (or 300mg daily) x 28 days LPV/r 400mg/100mg 12 hourly x 28 days

PEP Step 4

Follow-up

Baseline Tests	Full blood count Liver and renal function tests Hepatitis B surface antigen HIV serology or PCR if available
Two weeks	Full blood count Liver and renal function tests
Six weeks	HIV serology
Three months	HIV serology
Six months	HIV serology

Individuals who sero-convert should have access to comprehensive care and ART service (see "Workplace HIV and AIDS Policy and Technical Guidelines for the Health Sector")

PEP Step 5

Reporting and Documentation

All occupational exposure should be reported immediately to the supervisor

Circumstances of exposure and PEP management should be documented using the PEP reporting form

Chapter 10

Logistics & Supply

For all items, check store and expiry date regularly.

Table 25

Checklist for Logistics & Supply

Items needed	To do
PMTCT Register Book	Refer and consult HIV coordinator
PMTCT Monthly Return Form	Refer and consult HIV coordinator
Patient Folder adult/paediatric	Refer and consult ART clinic staff in the referral facility
HIV test kits: First Response OraQuick	Refer and consult laboratory officer in referral facility
DBS cards and lancet	Refer and consult laboratory officer in referral facility
Test tube for CD4 counts sample collection	Refer and consult laboratory officer in referral facility
ARVs for mothers, infants and PEP	Check store if there is at least a month's supply of each category of ARV Consult pharmacist in the referral facility for restocking

Chapter 11

Recording & Reporting

Recording in the ***PMTCT Register***

- Fill in all the client information
- Record the result for each test appropriately

List the ANC clients in the *PMTCT Register*
Whenever you received an ANC client, list the client in the *PMTCT register.* An example page from a Register of PMTCT client is shown on page 67 - 71.

Review the *PMTCT Register* for completeness
Before completing required monthly reports, review your *PMTCT Register* with a critical eye to see whether it is as complete as possible.

Look for the following:

- Are there gaps (empty areas) in the register where there should be entries? For example:

Are the cells under OraQuick (the confirmation test) and the final test results filled in for those whose results of the First Response are reactive?

Are the cells under "Retesting of Negatives @ 3rd trimester" filled in for those who tested negative for HIV in earlier trimesters during current pregnancy (before 34 weeks) and tested again during the third trimester (around 34 weeks preferably)?

Compile data from the relevant data sources into *PMTCT Monthly Returns Form*

By the **5th day** of **each month**, complete two copies of each Monthly Returns Form: one to be sent to the district HIV coordinator and one to be kept in your files in the facility.

Explanations of how to fill out the *PMTCT Monthly Returns Form:*

The columns from "Receiving Pre-test Information" through "Treated for Syphilis":

In these columns enter the number of the PMTCT registrants referring to the pages of the *PMTCT Register* showing clients registered in the month according to age group.

The column of "Mothers Receiving ART" :

In this column enter the number of mothers receiving ART referring to the pages of the *PMTCT Register* (linelisting) showing the pregnant women or the mothers who started ART in the month according to age group.

Following information may not have been listed in the *PMTCT Register* (linelisting) and you may want to ask staff in charge for related information.

- Mothers on full treatment, Prenatal (Before pregnancy)
- Mothers on full treatment, Postnatal (After delivery)

The columns from the "Babies who have completed the full course of ARVs" through the "Infants Antibody positive (18 months onwards)":

In these columns enter the number of the infants or babies referring to the pages of either the *DBS Register* or the *HIV Antibody Test Register* (currently not available, so you may need to use standard notebook to record relevant information, and ask staff in charge to obtain necessary information) in the month.

In order to complete the Monthly Report on PMTCT, first tally data from the *ANC and PMTCT Registers* on a sheet of paper or an enlarged copy of the *Monthly Returns Form*. See the example tally sheet on page 70. It shows tally marks from the *PMTCT Register* on pages 67 - 69.

It is important to DOUBLE-CHECK the tallied results to ensure the consistency between the numbers registered and the numbers to be reported.

Sample
PMTCT Register
&
Monthly Returns Form

Example for Accra Health Centre

NACP/GHS PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) REGISTER

						HIV TESTING						DETERMINE SYPHILIS TESTING		
NO.	DATE	NAME	Address/Telephone NO.	AGE	MATURITY (wks)	Pretest: Information (Y/N)	First Response (Reactive/ Non reactive)	OraQuick (Reactive/ Non reactive)	Final Test Result (HIVI, HIV II HIV I&II)	Post- test Counseling (Y/N)	Retesting of Negatives @ 3rd trimester (Pos/Neg)	Positive	Negative	Treated if Positive (Y/N)
001	1/2/2012	Sena Tamakloe	Kwashieman 024xxxxxxx	40	20	Y	Non Reactive		Negative	Y			V	
002	1/2/2012	Rejoice Danso	Ofankor 024xxxxxxx	28	10	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	
003	2/2/2012	Elizabeth Mensah	Newtown 054xxxxxxx	28	26	Y	Reactive HIV I&II	Reactive	Positive HIV I&II	Y		V		Y
004	2/2/2012	Nora Dazie	Romanridge 026xxxxxxx	23	17	Y	Non Reactive		Negative	Y			V	
005	3/2/2012	Freda Mensah	Airport Residential 027xxxxxxx	16	14	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	

Rejoice Danso tested positive for HIV I at 10th week of gestation. Regardless of her CD4 count and gestation, she started ART.

HIV Positive mothers Only (Treatment)				
CD4 Count	Started before Current Pregnancy (Prenatal)	Gestation at which ART started during current pregnancy (wks)	When ARVs started if Postnatal (After Delivery)	Counsellor's Comments and name
300		10		
420		27		
—		14		

Example for Accra Health Centre

NACP/GHS PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) REGISTER

						HIV TESTING						DETERMINE SYPHILIS TESTING		
NO.	DATE	NAME	Address/Telephone NO.	AGE	MATURITY (wks)	Pretest: Information (Y/N)	First Response (Reactive/ Non reactive)	OraQuick (Reactive/ Non reactive)	Final Test Result (HIVI, HIV II HIV I&II)	Post- test Counseling (Y/N)	Retesting of Negatives @ 3rd trimester (Pos/Neg)	Positive	Negative	Treated if Positive (Y/N)
001	1/2/2012	Sena Tamakloe	Kwashieman 024xxxxxxx	40	20	Y	Non Reactive		Negative	Y			V	
002	1/2/2012	Rejoice Danso	Ofankor 024xxxxxxx	28	10	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	
003	2/2/2012	Elizabeth Mensah	Newtown 054xxxxxxx	28	26	Y	Reactive HIV I&II	Reactive	Positive HIV I&II	Y		V		Y
004	2/2/2012	Nora Dazie	Romanridge 026xxxxxxx	23	17	Y	Non Reactive		Negative	Y			V	
005	3/2/2012	Freda Mensah	Airport Residential 027xxxxxxx	16	14	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	

Elizabeth Mensah, came to ANC and received HTC, the result is positive for HIV I&II. Regardless of her CD4 count, she started ART from 27 weeks.
Her syphilis test was positive and received treatment.

HIV Positive mothers Only (Treatment)				
CD4 Count	Started before Current Pregnancy (Prenatal)	Gestation at which ART started during current pregnancy (wks)	When ARVs started if Postnatal (After Delivery)	Counsellor's Comments and name
300		10		
420		27		
—		14		

Example for Accra Health Centre

NACP/GHS PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) REGISTER

						HIV TESTING						DETERMINE SYPHILIS TESTING		
NO.	DATE	NAME	Address/Telephone NO.	AGE	MATURITY (wks)	Pretest: Information (Y/N)	First Response (Reactive/ Non reactive)	OraQuick (Reactive/ Non reactive)	Final Test Result (HIVI, HIV II HIV I&II)	Post- test Counseling (Y/N)	Retesting of Negatives @ 3rd trimester (Pos/Neg)	Positive	Negative	Treated if Positive (Y/N)
001	1/2/2012	Sena Tamakloe	Kwashieman 024xxxxxxx	40	20	Y	Non Reactive		Negative	Y			V	
002	1/2/2012	Rejoice Danso	Ofankor 024xxxxxxx	28	10	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	
003	2/2/2012	Elizabeth Mensah	Newtown 054xxxxxxx	28	26	Y	Reactive HIV I&II	Reactive	Positive HIV I&II	Y		V		Y
004	2/2/2012	Nora Dazie	Romanridge 026xxxxxxx	23	17	Y	Non Reactive		Negative	Y			V	
005	3/2/2012	Freda Mensah	Airport Residential 027xxxxxxx	16	14	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	

Freda Mensah came to ANC for the first time at 14 weeks of gestation. She received HTC and the result was positive for HIV I. CD4 count test not available; she started ART after basic laboratory investigation and adherence counselling on the same day.

HIV Positive mothers Only (Treatment)				
CD4 Count	Started before Current Pregnancy (Prenatal)	Gestation at which ART started during current pregnancy (wks)	When ARVs started if Postnatal (After Delivery)	Counsellor's Comments and name
300		10		
420		27		
—		14		

Tally as below using Pages 67 - 69

Example for Accra Health Centre

Tally sheet to complete *Monthly Report on PMTCT*

NATIONAL AIDS / STI CONTROL PROGRAMME PMTCT MONTHLY RETURNS FORM

Name of Site: ***Accra Health Centre***
Name of District: ***Accra Metro***
Region: ***Greater Accra Region***

Month/Year: **Feb/2015**

Indicators – Number (of)	Age groups (years)									
	10–14	15–19	20-24	25–29	30–34	35–39	40–44	45–49	50+	Total
ANC Registrant										
Receiving Pre-test Information		/	/	//			/			
Tested		/		//			/			
Positive		/		//						
Receiving Post-test Counselling		/								
Retested Positive at 34 Weeks										
Tested for Syphilis		/	/	//			/			
Tested Positive for Syphilis				/						
Treated for Syphilis				/						
Mothers Receiving ART		/		//						

This mark is for Freda Mensah PMTCT Register number 005

This mark is for Nora Dadzie whose PMTCT Register number 004

These marks for Rejoice Danso whose PMTCT number 002 and Elizabeth Mensah whose PMTCT Register number 003

This mark is for Sena Tamakloe PMTCT Register number 001

Sena Tamakloe

Elizabeth Mensah

Freda Mensah

Rejoice Danso and Elizabeth Mensah

Example for Patanga Health Centre

NACP/GHS PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) REGISTER

						HIV TESTING						DETERMINE SYPHILIS TESTING		
NO.	DATE	NAME	Address/Telephone NO.	AGE	MATURITY (wks)	Pretest: Information (Y/N)	First Response (Reactive/ Non reactive)	OraQuick (Reactive/ Non reactive)	Final Test Result (HIVI, HIV II HIV I&II)	Post- test Counseling (Y/N)	Retesting of Negatives @ 3rd trimester (Pos/Neg)	Positive	Negative	Treated if Positive (Y/N)
001	2/5/2011	Linda Odoi	Lartebiokorshie 020xxxxxxx	40	20	Y	Non Reactive		Negative	Y			V	
002	2/5/2011	Margaret Setchi	Slaughter Avenue 024xxxxxxx	28	18	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	
003	2/5/2011	Anita Mettle	Tesano 054xxxxxxx	28	23	Y	Reactive HIV I&II	Reactive	Positive HIV I&II	Y			V	
004	3/5/2011	Love Borley	Shiashie 026xxxxxxx	23	25	Y	Non Reactive		Negative	Y			V	
005	3/5/2011	Bridget Kwansah	Circle Caprice 027xxxxxxx	18	17	Y	Reactive HIV I	Reactive	Positive HIV I	Y			V	
006	4/5/2011	Rejoice Boateng	Abelenkpe 020xxxxxxx	36	30	Y	Non Reactive		Negative	Y			V	
007	4/5/2011	Nanayaa Agyemang	Mamprobi 026xxxxxxx	20	18	Y	Non Reactive		Negative	Y			V	

The Health Centre assigns a number to each ANC client.

Client 007 this month, Nanayaa Agyemang came to the health centre with 18 weeks of gestation period without having attended any PMTCT sites before, so she is ANC registrant as well as eligible for PMTCT counseling.

Nanayaa obtained pre-test information and tested non-reactive for HIV. The result should be recorded as "non-reactive" rather than "negative" according to the guideline.

Bridget Kwansah tested reactive (HIV I) with First Response and also tested reactive with OraQuick, resulting in "positive" for HIV I. The final test result should be recorded as positive for "HIV I."

If a client tested negative (i.e. tested non-reactive with First Response) before 34th week of gestation, she should be retested during the third trimester (around 34 weeks preferably). In this case the test result should be recorded as "Positive" after both First Response and OraQuick are reactive and recorded as "Negative" when First Response is non-reactive.


ジャイカ
JICA