GUIDELINES FOR THE ELIMINATION OF VERTICAL TRANSMISSION OF HIV & SYPHILIS
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Ministry of Health
Jamaica

JUNE, 2011

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The 2006 document was entitled PMTCT+: Integrating Treatment Care and Support with Prevention of Mother-to-Child Transmission of HIV Services: Implementation Guidelines for Health Care Workers. Its title was changed to Guidelines for the Elimination of Vertical Transmission of HIV and Syphilis during its most recent revision.
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### GLOSSARY OF TERMS

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ANC</td>
<td>Antenatal Clinic</td>
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<tr>
<td>ARV</td>
<td>Antiretroviral</td>
</tr>
<tr>
<td>BCG</td>
<td>Bacillus of Calmette and Guérin; a vaccine for tuberculosis</td>
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<tr>
<td>BPG</td>
<td>Benzathine Penicillin G</td>
</tr>
<tr>
<td>CBC</td>
<td>Complete Blood Count</td>
</tr>
<tr>
<td>CD4</td>
<td>Type of White Blood Cell</td>
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<tr>
<td>CI</td>
<td>Contact Investigator</td>
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<tr>
<td>CNS</td>
<td>Central Nervous System</td>
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<tr>
<td>CVS</td>
<td>Cardiovascular System</td>
</tr>
<tr>
<td>DBS</td>
<td>Dried Blood Spot</td>
</tr>
<tr>
<td>DPT</td>
<td>Diptheria Pertussis Tetanus Vaccine</td>
</tr>
<tr>
<td>DT</td>
<td>Diptheria Tetanus Vaccine</td>
</tr>
<tr>
<td>EFV</td>
<td>Efavirenz</td>
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<tr>
<td>EGA</td>
<td>Estimated Gestational Age</td>
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<tr>
<td>ELISA</td>
<td>Enzyme-linked Immunosorbent Assay</td>
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<tr>
<td>ENT</td>
<td>Ear Nose Throat</td>
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<tr>
<td>EPI</td>
<td>Expanded Programme of Immunization</td>
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</table>
FPC     Family Planning Clinic
GI      Gastrointestinal
GU      Genito-urinary
HAART   Highly Active Antiretroviral Therapy
HBs Ag  Hepatitis B Surface Antigen
HRC     High Risk Clinic
IPV     Inactivated Polio Vaccine
IUCD    Intrauterine Contraceptive Device
LMP     Last Menstrual Period
LTA     Laboratory Technical Assistant
LPV/ r  Lopinavir/ ritonavir
MMR     Mumps Measles Rubella Vaccine
MO(H)   Medical Officer of Health
MTCT    Mother-to-Child Transmission
NPHL    National Public Health Laboratory
NNRTI   Non-Nucleoside/ Nucleotide Reverse Transcriptase Inhibitor
NRTI    Nucleoside/ Nucleotide Reverse Transcriptase Inhibitor
NVP     Nevirapine
OPV     Oral Polio Vaccine
PCR     Polymerase Chain Reaction
<table>
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<th>Abbreviation</th>
<th>Definition</th>
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<tr>
<td>PEP</td>
<td>Post Exposure Prophylaxis</td>
</tr>
<tr>
<td>PI</td>
<td>Protease Inhibitor</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Mother-to-Child Transmission</td>
</tr>
<tr>
<td>RPR</td>
<td>Rapid Plasma Reagin (test for syphilis)</td>
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<tr>
<td>RS</td>
<td>Respiratory System</td>
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<tr>
<td>SOB</td>
<td>Shortness of Breath</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually Transmitted Infections</td>
</tr>
<tr>
<td>STS</td>
<td>Serological Test for Syphilis</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<td>TRUST</td>
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<tr>
<td>VCT</td>
<td>Voluntary Counselling and Testing for HIV</td>
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<tr>
<td>VDRL</td>
<td>Venereal Disease Research Laboratory (test for syphilis)</td>
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<tr>
<td>WBC</td>
<td>White Blood Cell</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>ZDV/ AZT</td>
<td>Zidovudine</td>
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I. INTRODUCTION
Ensuring universal access to prevention, treatment, care and support services is a priority of the National HIV/STI Programme in Jamaica. This involves promoting the quality delivery of Elimination of Vertical Transmission of HIV and Syphilis (Prevention of Mother-to-Child Transmission, PMTCT+) services island-wide, which is the main purpose of this guiding protocol for health care workers.

Jamaica endorsed the initiative to eliminate vertical transmission of HIV and syphilis in all countries and territories in the Caribbean by the year 2015. The following criteria are proposed to declare elimination status for a country or territory:

- Rate of MTCT for HIV equal to or below 2% OR 0.3 cases per 1000 live births for three years;
- Incidence rates of congenital syphilis (including stillbirths) equal to or below 0.5 cases per 1000 live births for three years.

The PMTCT of HIV programme in Jamaica commenced during July 2000 as a pilot programme/feasibility study conducted in selected sites in four (4) parishes. In April 2003, it was expanded into a comprehensive programme that was introduced into the public health care system across the island.

Approximately 1.5% to 2% of Antenatal Clinic attendees in Jamaica are estimated to be HIV positive. Without PMTCT interventions, transmission may occur:

- During pregnancy (in utero): 20%-25% through maternal-foetal blood exchange
- During labour and delivery (intrapartum): 60%-70% through contact of the infant’s skin and mucous membranes with infected blood or the other maternal secretions
- After delivery (postpartum): 10%-15% through breastfeeding.

Since 2002, with appropriate interventions, vertical transmission of HIV has been reduced nationally from 25% to less than 5%. In Jamaica, these interventions have
included access to antenatal care, HIV counselling and testing in pregnancy, chemoprophylaxis with highly active antiretroviral therapy (HAART) to HIV positive pregnant women and also to their non-breastfed infants until four to six weeks of age. Early infant diagnosis utilizing the dried blood spot (DBS) testing which was implemented across the island commencing in late 2009, has further facilitated diagnosis of the exposed infants’ HIV status by six months of age to ensure early effect of the appropriate interventions. In addition, comprehensive health care including public access to HAART for the HIV infected woman, her children and family has significantly reduced HIV-attributable morbidity and mortality, island-wide.

Table 1: SUMMARY OF VERTICAL TRANSMISSION OF HIV RATES WITH AND WITHOUT ARVs

<table>
<thead>
<tr>
<th>Transmission Mode</th>
<th>Without ARVs</th>
<th>With ARVs</th>
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<tr>
<td>Pregnancy and delivery</td>
<td>15-25%</td>
<td>&lt; 2-10%</td>
</tr>
<tr>
<td>Breastfeeding until 18 to 24 months</td>
<td>10-20%</td>
<td>&lt; 5-20%</td>
</tr>
<tr>
<td>Overall risk of mother to child transmission</td>
<td>30-45%</td>
<td>&lt; 2-20%</td>
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</tbody>
</table>

Therefore, an opportunity is missed when a woman of childbearing age is unaware of her risk for HIV and her HIV status and whenever an HIV infected pregnant woman:

- does not receive or adhere with appropriate antenatal care
- is not offered HIV counselling and testing
- is unable to obtain HIV testing
- does not receive the HIV positive test report in time so she can benefit from ARV chemoprophylaxis during pregnancy
- is not offered or is unable to access appropriate antiretroviral chemoprophylaxis
- does not complete the appropriate ARV prophylaxis regimen, as it relates to her stage of pregnancy
- breast feeds her infant without the benefit of highly active antiretroviral chemoprophylaxis, or
- gives her infant mixed feeds (i.e., both breast milk and breast milk substitutes).
Recognizing that HIV/AIDS affects the whole family, the ultimate goal in HIV/AIDS Treatment and Care is the adaptation of a family-centred model of care. Therefore emphasis should be on the multidisciplinary approach to the management of HIV infected pregnant women, their partners and their children. In addition, the PMTCT programme needs to be seamlessly linked with HIV/AIDS, reproductive health and family health services.

Syphilis has long been managed within the primary health care system in Jamaica. Based on available data regarding confirmed cases of congenital syphilis, the island likely has already achieved elimination status of this condition. However, verification of this may prove difficult due to the lack of completed investigation forms for all notified cases.

As a way forward with this elimination initiative, to ensure that the goals are achieved, the following are imperative:

- Improved documentation for all cases, from the point of notification to the completion of investigation;
- Strengthening of collaboration with the private sector;
- Improved follow-up of all affected mother-infant pairs;
- Implementation of rapid testing (HIV and Syphilis) at all major birthing facilities to improve access to those with suboptimal antenatal care and
- Ongoing training of staff in PMTCT of HIV and syphilis.
II. STRATEGIES TO PREVENT VERTICAL TRANSMISSION OF HIV
II. STRATEGIES TO PREVENT VERTICAL TRANSMISSION OF HIV

PRIMARY PREVENTION

Primary prevention activities in vertical transmission are those that seek to prevent new infections in women of childbearing age and unintended pregnancies in HIV infected women. These interventions include:

- Improving access to Voluntary Counselling and Testing for HIV (VCT) (e.g., in Family Planning clinics, Chronic Disease clinics, Child Health Clinics)
- Educating and empowering women with knowledge and practical skills to prevent HIV or other sexually transmitted infections (STI)
- Increasing access to condoms
- Promoting safer sex behaviour (e.g., abstinence, mutual monogamy, correct and consistent use of condoms and reduction in the number of sexual partners)
- Promoting use of effective Family Planning methods (i.e., dual use of condoms along with Tubal Ligation, Intrauterine Contraceptive Devices, Injectable Methods, Implantable Methods or Oral Contraceptives).
- Early Diagnosis and Complete treatment of STIs
- Universal precautions for healthcare personnel in high risk duties.

SECONDARY PREVENTION

These interventions seek to prevent HIV transmission from infected women to their children and include:

- Ensuring that HIV infected women and their partners make informed reproductive choices
- Early diagnosis of HIV infection in pregnancy to implement the maximum interventions
Guidelines for the Elimination of Vertical Transmission of HIV & Syphilis, Jamaica

- Access to anti-retroviral (ARV) drugs: Highly Active Antiretroviral Therapy (HAART) with Zidovudine, Lamivudine, Lopinavir and Ritonavir; or Zidovudine, Lamivudine and Nevirapine; alternatively, Nevirapine, single dose can be used for women who present during labour.

- Obstetrical interventions such as avoidance of invasive procedures (e.g. episiotomy and artificial rupture of membranes, foetal scalp monitoring), and interventions to prevent prolonged labour.

- Ensuring that all HIV-infected mothers receive counselling about the risks and benefits of various infant feeding options (e.g., breast feeding, full formula replacement feeding, mixed feeding) and specific guidance in selecting the option most likely to be suitable for their situation.

- Avoidance of breastfeeding when replacement feeding (breast milk substitutes/formula) is acceptable, feasible, affordable, sustainable and safe as the preferred intervention.

- Use of HAART to the mother along with chemoprophylaxis to the child for the mother who chooses to breast feed. This practice carries a combined risk of transmission of less than five percent.

The following have been observed to be the major factors that limit compliance of some clients to MTCT intervention:

- Lack of confidence that health care workers will maintain confidentiality.

- The perception that clients will be victimized and discriminated against by health care workers due to the stigma associated with the disease.

Each client must be assessed and a plan developed based on her particular needs and circumstances for continued management. Clients should also be reassured about confidentiality and practices and procedures should be rigorously adhered to by all health care workers to ensure that client confidentiality is strictly maintained.
THERAPEUTIC INTERVENTIONS

Certain antiretroviral regimens have been proven to significantly reduce the risk of vertical transmission of HIV. The regimens selected for use in Jamaica are outlined below and should be utilized as appropriate:

- Triple therapy utilizing a recommended HAART regimen. This is the intervention now optimally recommended by the Ministry of Health. See Chapter 5, Pages 23-28.

- A single dose of Nevirapine 200mg orally at the onset of labour

- To all infants of HIV positive mothers, Zidovudine and Nevirapine administered as follows:
  
  ✓ Zidovudine (AZT) 4 mg/kg by mouth every 12 hours for four to six weeks.

  ✓ A single dose of 2mg/kg of Nevirapine suspension immediately at birth or within 24hrs thereof;

The effect of ARVs in reducing the transmission appears to be partly through the reduction of maternal viral load and also by acting as post exposure prophylaxis to the infant.
III. TESTING AND COUNSELLING FOR HIV AND SYPHILIS
III. TESTING AND COUNSELLING FOR HIV AND SYPHILIS

GOALS OF HIV TESTING AND COUNSELLING

HIV testing and counselling helps men and women to:

- Assess their personal risk of STIs including HIV
- Make informed choices about reducing their risk of acquiring or transmitting HIV
- Make informed choices about contraception and condom use
- Discuss HIV testing and their HIV status with their partner(s).

HIV TESTING AND COUNSELLING IN PREGNANCY

All pregnant women attending a health institution for antenatal care should be offered an HIV test as a routine part of antenatal care. An “opt-out” approach, whereby the test is not done if the client refuses, is the approach recommended. The test should be conducted with informed oral consent.

This provider-initiated approach has the following requirements: clients are supplied with sufficient information to allow them to make an informed and voluntary decision regarding being tested; maintenance of client confidentiality; provision of post-test counselling and making referrals to support services as indicated.

PRE-TEST INFORMATION AND INFORMED CONSENT

Antenatal clients should be provided with essential information about HIV/AIDS and HIV testing prior to having their test done. This may be achieved either in the form of a one-on-one information session or during a group education session. Staff members or volunteers who have been appropriately trained may conduct these education sessions.
At a minimum, these sessions should cover the following topics:

- What is HIV/AIDS?
- National and local statistics about HIV/AIDS
- Local myths and misperceptions
- Routes of HIV transmission
- HIV risk behaviours
- The relationship of other STIs to HIV transmission
- How to prevent HIV infection
- How to reduce risks of HIV for herself, her partners and her children, including talking to partners about HIV testing
- Explain basic principles of the HIV testing procedures
- Mother-to-Child Transmission of HIV
- Interventions to prevent transmission of HIV from mother to infant - including care, treatment and support services for HIV positive pregnant women, including options of HAART for prevention of vertical transmission and for her own health
- Options for infant feeding (breast feeding, or full formula replacement) in the context of the HIV positive mother and HAART
- The benefits to infants of early diagnosis of HIV status
- Availability of testing and counselling
- Emphasize that the test is voluntary and confidential

Informed consent should always be given on an individual basis and in private in the presence of a health care provider. HIV test results, whether positive or negative, should be fed-back to the mother during pregnancy to facilitate the appropriate intervention being made in a timely manner. All HIV-negative women should also be offered another HIV test in the third trimester. An HIV rapid test may be performed on
the labour ward for those who do not have an HIV test report in their health chart at the time of delivery.

**POST-TEST COUNSELLING FOR PREGNANT WOMEN WHO TEST HIV NEGATIVE**

During post-test counselling of a woman with a HIV negative result the counsellor should:

- Provide HIV test result clearly and simply
- Inform the woman of the need to repeat the test in the last trimester of the current pregnancy and/or three months after her last risk of exposure and in subsequent pregnancies (as applicable)
- Assist the woman in the development of her risk reduction plan and identify support for implementing the plan
- Discuss HIV transmission and prevention methods
- Empower the woman to talk with her partner(s) about HIV testing and her HIV test result
- Demonstrate the proper use of male and female condoms.

Counselling provides an opportunity for the women who receive a HIV negative result to:

- Understanding the meaning and implication of their results
- Make plans to reduce their risk of becoming HIV infected in the future (e.g., behaviour change by adopting safer sexual practices and encouraging their partners to also adopt safer sex practices and to get HIV-tested)
- Repeat HIV testing in the third trimester.

**POST-TEST COUNSELLING FOR PREGNANT WOMEN WHO TEST HIV POSITIVE**

During post-test counselling of a woman with a HIV positive result the counsellor should:

- Provide HIV test result clearly and simply and allow the client time to react to the result
- Assist the woman in identifying sources of support and provide necessary referrals including to a Contact Investigator
- Empower the woman to share her HIV status with her partner(s) and refer him/them for testing; also discuss disclosing to significant others
Discuss the various interventions to prevent the vertical transmission of HIV that are available: further medical evaluation, antiretroviral therapy and infant feeding options, including avoidance of breast feeding (as the preferred option), replacement feeding options using breast milk substitutes (BMS) such as infant formula and also breast feeding in the context of HAART. Discuss with her sustainability of BMS

Refer the mother to a Nutrition professional (i.e., Nutritionist, Nutrition Technician, Dietician or Dietetic Assistant), Contact Investigator, Social Worker, and to the High risk antenatal clinic for follow-up

Discuss STI/ HIV risk reduction and assist the woman to review/develop her risk reduction plan

Give emotional support

Make a follow-up appointment to reinforce the above information, if required, as very often it is very difficult for the newly diagnosed person to internalize all the relevant information.

Counselling provides an opportunity for women who have received a HIV positive result to:

- Understanding the meaning and implication of their test results
- React to an HIV-positive results and receive empathy and support from the counsellors
- Understand infant feeding options and choose the most appropriate one.
- Learn about PMTCT interventions available to them, including HAART and replacement feeding
- Learn more about HIV infection and its implications for their health
- Prepare to discuss HIV testing with their partners and talk to partners and significant others about their HIV status
- Learn more about the implications for possible HIV-infection in their older children
- Make plans about adopting safer sexual practices as well as consider their future reproductive choices (contraception)
• Prepare for follow up care during pregnancy, labour, delivery and beyond.

• Assist each woman to assess her risk status and develop a risk reduction plan

• Empower women to make safer sexual choices

**HIV TESTING**

HIV tests should only be done for clients who have given informed oral consent. Testing should be provided with pre-test information and post-test counselling, as described previously. For all pregnant women, HIV testing should be offered at the first antenatal visit when the routine antenatal blood screen is being done.

HIV tests are done using six millilitres (6ml) of venous blood that should be taken from the clients at antenatal clinic. The blood samples collected should be sent to an appropriate laboratory (testing site) in the parish/region. Standard testing procedures for (screening and confirmation) are carried out to determine the client’s HIV status.

The Laboratory Technical Assistants (LTAs) at the peripheral testing sites, using the approved kits, perform HIV rapid tests. These testing sites should perform HIV screening tests and conduct confirmatory HIV testing with multiple rapid test kits using an approved algorithm for those samples which are positive at screening. This facilitates the provision of confirmed HIV positive results minimum turn-around time.

Blood samples are sent from the peripheral testing sites to the regional laboratories and NPHL for quality control purposes and where indicated (e.g. inconclusive test results) for confirmatory HIV testing.

All HIV test results should be made available to the referring institutions and the clients within two (2) weeks of blood sample collection. Priority should be given to HIV positive results, which should be sent immediately to the referring clinician (Doctor/ Midwife/ Public Health Nurse) to facilitate early identification, follow up and management of HIV positive clients as per guidelines.

Notification of HIV positive results should be sent to the Parish Medical Officer of Health, MO(H), while ensuring confidentiality is maintained. The MO(H) should immediately inform the Contact Investigators for follow-up, partner tracing and referral. Information about HIV positive pregnant women should also be promptly provided to the relevant primary and secondary care facilities.
When women present late in pregnancy to the hospitals for delivery and their HIV status is unknown (i.e., not documented), they should be provided with HIV Rapid testing, having given their informed oral consent. This will allow determination of their HIV status at the onset of or during labour, at which time PMTCT interventions can be implemented for the women testing positive and their infants.

**REMEMBER: HIV/AIDS is a Class 1 Notifiable Health Event. A HIV Confidential Reporting Form should therefore be completed and submitted (in a sealed envelope marked “CONFIDENTIAL”) to the parish Medical Officer of Health. This should be done for both preliminary and confirmed HIV positive results.**

**SYPHILIS TESTING IN PREGNANCY**

Syphilis testing is well entrenched in antenatal services offered in the primary health system. The focus is therefore on:

- Repeat testing in the 3rd trimester of pregnancy, if mother tested negative initially
- Provision of Syphilis rapid testing on labour wards
- Ensuring notification and follow-up of mother-baby pairs to the closure of the case.

**GUIDELINE: TESTING AND COUNSELLING FOR HIV AND SYPHILIS**

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<th>Date Revised:</th>
<th>Distribution to hospitals and health centres</th>
<th>Index: III</th>
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Approved by: Director, Treatment, Care & Support
IV. CARE OF THE HIV POSITIVE WOMAN
Guidelines for the Elimination of Vertical Transmission of HIV & Syphilis, Jamaica

IV. CARE OF THE HIV POSITIVE WOMAN

When the diagnosis of HIV infection is made at antenatal screening, the patient should be referred for prompt evaluation by BOTH a:

- Doctor at the HIV Treatment Centre
- Doctor/Obstetrician at the High Risk Antenatal Clinic.

The main aim is disease staging, upon which a comprehensive multidisciplinary management plan, for both pregnancy and beyond, will be developed. Multidisciplinary management must include nutritional counselling and psycho-social support.

Health care providers are reminded to complete the antenatal record card making strict documentation of all procedures inclusive of counselling, antiretroviral drugs and method of testing.

Clients' HIV results must also be documented on the card as “C13 Pos”, using the same coloured ink as all other notations, that is, the HIV results must not be highlighted in red.

GUIDELINES FOR HIV RELEVANT ASSESSMENT

HISTORY TAKING

Attention must be paid to maintaining confidentiality. The doctor or nurse taking the history must ensure that the patient's details are kept private by:

- Discussing them only with those who need to know
- Treating the patient in a non-discriminatory manner
- Ensuring all records are kept in a secure confidential location

General Health

- General well-being
- Constitutional symptoms
- Past Medical History (especially history of previous sexually transmitted infections)
- Immunization status - specifically Hepatitis B, pneumococcus, influenza
Drug History

- Medication and dosage of prescription and non-prescription therapies
- Drug use (cigarettes, crack, cocaine, alcohol, marijuana etc.)

Sexual History

Establish a rapport with the patient and integrate questions to gather information about the following at the appropriate time.

1. **Sexual practices**
   - number and gender of partners,
   - type of sexual contact (genital, oral, anal)
   - any sexual contact with commercial sex workers

2. **Partner Notification**

   Sexual contacts need to be identified and arrangements made for them to be counselled and tested or contact traced (while preserving confidentiality of information source). Refer Patient to Contact Investigator.

3. **Previous STIs**

   - Dates, diagnoses and treatments

4. **Contraceptive use**

   - Condom usage and other forms of family planning being used

Past Obstetric/ Gynecological History

- Number of previous pregnancies, outcomes and complications
- Route of Delivery
- Date of last menstrual period (LMP), menarche, menorrhagia, dysmenorrhea, last Pap Smear.

Family History

- Medical illnesses including tuberculosis (TB), hypertension, diabetes mellitus
- Other HIV positive family members, including HIV-status of older children
Available availability of friend and/or family support

**Occupational History**

It is important to also ask the client about the following occupations or activities as they may present an increased risk for opportunistic infections:

- Travel
- Crowds
- Occupation (e.g. farming, pet shop worker)
- Hobbies
- Pets/ Domestic animals
- Hospitals
- Financial support
- Employment status

**Table 1: Review of Symptoms**

<table>
<thead>
<tr>
<th>GENERAL: FATIGUE, WEIGHT LOSS, LYMPHADENOPATHY, WASTING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GASTRO-INTESTINAL</strong></td>
</tr>
<tr>
<td>Oral lesions</td>
</tr>
<tr>
<td>Diarrhoea</td>
</tr>
<tr>
<td>Dysphagia</td>
</tr>
<tr>
<td>Odynophagia</td>
</tr>
<tr>
<td>Pruritus</td>
</tr>
</tbody>
</table>
COMPREHENSIVE PHYSICAL EXAMINATION

- Change in weight, height, fever, pallor
- Oral cavity assessment for evidence of ulcers, thrush, poor dentition, gingival disease
- Dermatologic examination of the entire skin and mucous membranes. Take particular note of conditions such as herpes zoster, folliculitis, seborrheic eczema, severe tinea corporis, abscesses, straightening and thinning of hair
- Examination of all lymph node areas noting any enlargements and tenderness
- Eyes and fundoscopy assessment
- Ear, nose and throat assessment
- Chest examination: cardiovascular and respiratory
- Abdominal examination, look for hepatosplenomegaly
- Obstetric examination: fundal height, lie presentation, engagement.
- Genital/ Rectal examination noting the presence of peri-anal/ genital herpes or genital warts, pelvic examination with Pap smear
- Cervical assessment, noting vaginal discharge and cervical erosions
- Central nervous system: paralysis, monoparesis, hemiparesis, cranial nerve abnormalities
- Muscular-skeletal assessment: looking for wasting, arthropathy

LABORATORY EVALUATION

Must do:

Routine pregnancy screen including:

- CBC (haemoglobin, white blood cell count, differential, platelet count)
- VDRL, RPR, or TRUST
• Urinalysis

• CD4 Count: all HIV positive patients must have a CD4 count

• HIV Viral Load: all HIV positive patients must have a viral load, preferably in the third trimester at about 36 weeks gestational age. The Obstetrician may wish to consider an elective caesarean section at 38 weeks gestational age for women whose viral load is detectable at this time.

**Should do:**

• HBsAg

• Renal function tests (urea, creatinine, electrolytes and urinalysis)

• LFTs, serum proteins

• Serum lipids
V. ANTENATAL FOLLOW-UP AT THE HIGH RISK OBSTETRIC CLINIC
V. ANTENATAL FOLLOW-UP AT THE HIGH RISK OBSTETRIC CLINIC

The Midwife, Obstetrician or Attending Physician should do the following:

- Advise the client not to miss any of her prenatal appointments.

- Schedule routine appointments once per month until 28 weeks: every two weeks until 36 weeks then every week until the baby is born. However, appointments to the high risk clinic may be determined by the patient’s status and frequency of visits decided by the attending clinicians.

- Advise the client to bring her antenatal card at the time of labour and to indicate her status to the attending Midwife to facilitate administration of antiretroviral drugs for PMTCT.

- Remind the patient that she will have to take antiretrovirals at the scheduled time even during labour and delivery and that she should point this out to the attending Midwife.

- Advise the client about healthy nutrition and meals and refer her to the Nutritionist/ Nutrition Assistant for follow-up nutritional counselling and support for both herself and her infant.

- Reinforce information on the advantages and disadvantages of breastfeeding and BMS including the respective risks. Advise the client that avoidance of all breastfeeding is recommended if replacement feeding is feasible, affordable, sustainable and safe.

- Advise the client about the inappropriateness and high risks of HIV transmission associated with mixed feeding.

- If she chooses to breast feed, demonstrate to the client good breastfeeding techniques to help prevent and treat breast problems that can increase the risk of HIV transmission (e.g. cracked nipples, mastitis).
If she chooses to breast feed, advise her about the options of HAART throughout the period of breast feeding.

If she chooses not to breastfeed, show the client how to safely prepare and feed her infant with breast milk substitute. Advise her that infant formula can be provided by the Ministry of Health for at least the first 6 months of life.

Remind her to ask the maternity ward nurse to give medication to her baby before they are discharged for home.

Fully involve the relevant partner in the antenatal management of the client. Encourage client to bring her partner to the clinic.

Commence HAART as detailed in the following section. Fully advise the patient as necessary and refer her to an adherence counsellor to facilitate full compliance.

GUIDELINES FOR COMMENCING TREATMENT WITH HIGHLY ACTIVE ANTIRETROVIRAL THERAPY DURING PREGNANCY

Antiretroviral therapy reduces the incidence of opportunistic infections and significantly increases quality of life and life expectancy among people living with HIV. Pregnancy is one of the indications for HAART.

All pregnant HIV positive women should have a CD4 count performed upon presentation. The antiretroviral regimen that will be used and the time of initiation will be based on this CD4 value. The standard regimens to be utilized are as follows:

**Hiv Positive Women Who Require HAART For Their Own Health**

In pregnant women with confirmed HIV serostatus, initiation of HAART for their own health is recommended for all HIV-infected pregnant women with **CD4 cell count less than or equal to 350 cells/mm³**, irrespective of World Health Organization (WHO) clinical staging and for all HIV infected women in WHO clinical stage 3 or 4 (ie., symptomatic HIV), irrespective of CD4 count.

HIV-infected pregnant women in need of HAART for their own health should start **immediately**, irrespective of gestational age and continue throughout pregnancy, delivery and thereafter.

In pregnant women in need of HAART for their own health, the preferred first line is:
- **Zidovudine plus Lamivudine plus Nevirapine (AZT + 3TC + NVP).**

  - The dosages are AZT 300 mg + 3TC 150 mg, one tablet every twelve hours plus NVP 200 mg once daily for 14 days then 200 mg every 12 hours.

  - AZT 300 mg + 3TC 150 mg is available in a fixed dose combination as is AZT 300 mg + 3TC 150 mg + NVP 200 mg.

*Benefits of NVP are considered to outweigh risks where CD4 count is 250–350 cells/mm³.*

*Efavirenz (EFV) is a possible alternative to NVP but it should NOT be initiated during the first trimester.*

**HIV Positive Women Who Do Not Require HAART for Their Own Health**

All HIV-infected pregnant women who are not in need of ART for their own health require an effective ARV prophylactic strategy to prevent HIV transmission to the infant. ARV prophylaxis is recommended from as early as 14 weeks gestation (second trimester), or as soon as possible when women present late in pregnancy, in labour, or at delivery.

For all HIV-infected pregnant women who are not in need of HAART, based on a CD4 count greater than 350 cells/mm³ and who are not in WHO clinical stage 3 or 4, ARV prophylaxis to prevent mother-to-child transmission of HIV consists of highly active antiretroviral drugs provided to the pregnant woman starting from as early as 14 weeks of gestation until one week after all exposure to breast milk has ended.

The recommended regimen is:

- **Zidovudine plus Lamivudine plus Lopinavir/ ritonavir (AZT + 3TC + LPV/r).**

  - The dosages are: AZT 300mg + 3TC 150mg, one tablet every twelve hours plus LPV 200mg/ r 50mg two tablets twice daily.

Infants born to HIV-infected women receiving HAART for their own health should receive:

- **A single dose of 2mg/kg of Nevirapine suspension immediately at birth or within 24 hours thereof.**
- Daily Zidovudine 4mg/ kg every 12 hours from birth until four to six weeks of age.

Where the mother has had HAART for more than four weeks, the infant should receive chemoprophylaxis for four weeks. There is high quality evidence to suggest that six weeks of prophylaxis to the infant provides significant protection when the mother has had HAART for less than four weeks.

Mothers should be counselled on how to correctly administer medication to themselves and their infants and encouraged to maintain high levels of adherence.

In breast-feeding infants, the maternal HAART chemoprophylaxis should continue throughout the period of breastfeeding and cease one week after breastfeeding has been discontinued. This option should also be coupled with the daily administration of AZT to the infant from birth until four weeks of age. Maternal chemoprophylaxis is continued till one week post-ceSSION of all breastfeeding to ensure that this feeding method has indeed been discontinued and to minimize the risk of exposure of the infant to breast milk without the benefit of coverage with maternal HAART.

**Known HIV Positive Women Presenting Late in Pregnancy**

For known HIV positive women who present late in pregnancy, the recommendation is to commence HAART (and continue as per guidelines based on CD4 counts), with six weeks of chemoprophylaxis to the infant as outlined in the previous sections.

If commencing HAART is not possible, a single dose of Nevirapine 200mg by mouth should be administered preferably at the onset of labour with the recommended regimen to the infant for six weeks.

**Pregnant Women Presenting Late With Unknown HIV Status**

For pregnant women with unknown HIV status who present at the time of labour without previously accessing HIV testing and counselling, diagnosis at the time of labour and delivery is still an important point of entry to both preventive and treatment services.

- Offer pre-test information and rapid testing during labour
- Administer AZT + 3TC + LPV/r to women testing positive and provide their infants with AZT + NVP doses (as above) for six weeks.
● These women should continue HAART post-partum and be referred to the Treatment Centre for a CD4 count and other follow-up post delivery. The decision regarding the duration of HAART will then be made.

HIV Infected Women Receiving HAART Who Become Pregnant

Although there are concerns relating to potential effects of ARV drugs on the developing foetus, the benefits are considered to outweigh the risks and suspending treatment during the first trimester is not recommended. Efavirenz should not be initiated during the first trimester.

Pregnancy-associated nausea and vomiting may affect a woman’s ability to adhere to ARV and appropriate counselling and symptomatic treatment should be provided.

If treatment has to be discontinued, it is best done as follows:

● For clients on AZT+ 3TC + LPV/ r: all ARV drugs should be stopped simultaneously.

● For clients on AZT + 3TC + NVP: NVP should be discontinued at least one week prior to the discontinuation of AZT + 3TC. NVP has a long half-life and would remain in the blood stream as monotherapy if all ARVs are discontinued at the same time.

● ARVs should be restarted together to decrease the risk of developing drug resistance and the full regimen should continue during labour.

● **Note that stopping treatment is usually NOT recommended.**

Infants born to HIV positive women receiving ARV treatment should receive standard infant doses of Zidovudine and Nevirapine as follows:

● A single dose of 2mg/kg of Nevirapine suspension immediately at birth or within 24hrs thereof.

● Zidovudine 4 mg/kg by mouth every 12 hour for four weeks.

**Adverse Effects**

Adverse effects of ARV drugs vary according to class (see Annex 1). Clients should be counselled on the most common side effects when commencing medication.
Occurrences of adverse events should be immediately reported, documented and appropriate interventions taken.
VI. MODIFICATION OF OBSTETRIC PRACTICE
The following standard precautions should be followed:

- Avoid artificial rupture of membranes and consider shortening labour if possible. Artificial Rupture of Membranes (ARM) should be delayed until the cervix is 6 cm or more dilated if progress of labour is adequate.

- Rupture of membranes of more than four hours should be avoided as much as possible because of the increased risk of HIV transmission to the child.

- Episiotomy should be avoided unless absolutely necessary.

- Caesarean sections should be used primarily for obstetrical indications. However, based on a client's viral load in the third trimester, the obstetrician may opt for an elective caesarean section for women with detectable viral titres.

- Avoid unnecessary invasive procedures.

- Clamp the umbilical cord immediately after birth.

- Use scissors to cut the umbilical cord not a scalpel.

- Cleanse the baby immediately after birth (use soap and water).

- Exercise special care in handling placenta.

- Advise the mother that avoidance of breastfeeding is recommended when replacement feeding is acceptable, feasible, affordable and safe. Inform her that infant formula is available, for the first 12 months, to those who choose not to breast feed and cannot afford to buy.

<table>
<thead>
<tr>
<th>GUIDELINE: MODIFICATION OF OBSTETRIC PRACTICE</th>
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</thead>
<tbody>
<tr>
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<td>Index: VI</td>
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</tbody>
</table>

Approved by: Director, Treatment, Care & Support
VII. POST DELIVERY FOLLOW-UP OF THE HIV POSITIVE MOTHER
VII. POST DELIVERY FOLLOW-UP OF THE HIV POSITIVE MOTHER

IMMEDIATE POSTPARTUM CARE

For all HIV positive women post delivery:

- Prior to discharge from hospital, a senior qualified clinician should examine mother and baby and complete an examination form.

- Routine postnatal care of the mother and child care education should be provided.

- Reinforce nutritional advice particularly with emphasis on a balanced diet and the safe preparation of food.

- Reinforce to the mother that complete avoidance of breastfeeding is the preferred infant feeding option in Jamaica at this time. She should be advised of the benefits and as well as risk of HIV transmission associated with breast feeding up to one year of the infant’s life in the presence of HAART. The heightened risk of transmission associated with mixed feeding should also be discussed. Explain to the mother that because formula feeding can irritate the lining of the baby’s stomach, making it easier for the HIV in breast milk to enter the baby’s blood stream and cause an infection, it should be avoided.

- Help her review if replacement feeding (breast milk substitutes/formula) is acceptable, feasible, affordable, sustainable and safe. For example, does she have running water at home? Will she be stigmatized if she uses replacement feeding? How will she cope?

- If the mother chooses to breastfeed then advise her to exclusively breastfeed her infant for the first six months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life. Maternal HAART is to be taken for the entire period of breast feeding and continued for one week after its cessation; the breastfed infant should receive chemoprophylaxis as stated previously.
Demonstrate to the mother good breastfeeding techniques to help prevent and treat breast problems that could further increase the risk of HIV transmission (e.g. cracked nipples, mastitis). When she decides to stop breastfeeding, she should be advised to do so gradually over a one month period.

- If the mother chooses not to breastfeed, advise her to apply cold compress on the breast and not to express breast milk; instead she should leave the breast un-stimulated and well supported. Demonstrate to the mother how to safely prepare and feed with breast milk substitute (infant formula). Advise her that infant formula can be provided for at least the first 12 months. If not already provided, then ensure that at least 8 weeks supply is provided before discharge from hospital.

- Ensure referral to the Nutrition clinic for follow-up monitoring, counselling and support.

- Instruct about proper perineal care and safe handling of lochia and blood stained sanitary pads, including the need to wrap pads in plastic bags before disposal. She can also be advised to wash her underwear in a diluted bleach solution (1 part bleach: 10 parts water).

- Provide counselling about symptoms and signs of postpartum infections occurring in the chest, urinary tract or that may result from episiotomy or caesarean section incisions.

**SIX-WEEK VISIT POSTPARTUM CARE**

- Advise the mother and infant pair in the routine manner

- Ensure follow-up for HIV care by a clinician by referring her to the nearest Treatment Centre for assessment

- Refer the mother for ongoing gynaecological care and follow up as women infected with HIV need

- Provide counselling and psychological support

- Promote consistent condom use (male and female)

- Advise on family planning, noting that intra-uterine contraceptive devices (IUCDs) can be used with standard cautions and that hormonal contraception with oestrogen may be less effective with ARVs
- Promote dual protection (consistent condom use with another family planning method) to prevent and reduce further HIV infection, STIs and pregnancy

- Screen for cervical neoplasia, which has a higher incidence in HIV positive women and presents at a more advanced stage of disease.

**REMEMBER:** *More aggressive therapy for gynaecological infections may be required because they tend to be more severe in HIV positive women.*

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**GUIDELINE: POST DELIVERY FOLLOW-UP OF THE HIV POSITIVE MOTHER**

<table>
<thead>
<tr>
<th>Date Revised:</th>
<th>Distribution to hospitals and health centres</th>
<th>Index: VII</th>
</tr>
</thead>
<tbody>
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</table>

Approved by: Director, Treatment, Care & Support
VIII. FOLLOW-UP CARE OF INFANTS BORN TO HIV POSITIVE MOTHERS
VIII. FOLLOW-UP CARE OF INFANTS BORN TO HIV POSITIVE MOTHERS

ROUTINE CARE

Maximizing follow-up care of the HIV exposed infant to ensure the best possible outcome is critical. The essential steps are outlined below:

1. All infants of HIV positive mothers should receive Zidovudine and Nevirapine as follows regardless of the regime the mother receives:
   i. A single dose of 2mg/kg of Nevirapine suspension immediately at birth or within 24hrs thereof;
   ii. Zidovudine 4 mg/kg by mouth every 12 hours for four to six weeks

2. All HIV-exposed infants should be referred to the Paediatrician or most senior available clinician for review prior to discharge and a docket started for the child. Ensure follow-up by referring the infant to a specialist Paediatric Clinic at a HIV Treatment Site.

3. Infants should visit the postnatal clinic/hospital at 6 weeks of age, three months and six months for routine medical care including immunizations and growth monitoring.

4. A dried blood spot (DBS) sample should be collected from HIV exposed infants at six weeks and three months of age and sent to the National Public Health Laboratory for PCR testing to determine HIV status for medical management purposes.

5. Ensure that the mother is adequately counselled about the meaning of each PCR result.

6. The HIV exposed child with a HIV positive PCR at 3 months should then be referred for a viral load test.
7. The **non-breastfed** HIV exposed child with two HIV negative PCR results at 3 months can be considered negative for HIV but should still have an ELISA test (HIV antibody test) at 18 months. For **breastfed** children, testing for final diagnosis should be conducted at least 6 weeks after cessation of possible exposure to HIV via breast milk using the testing algorithm appropriate for their age (PCR under 18 months, antibody testing over 18 months).

8. At scheduled visits to the child health clinics, the Doctor or Nurse practitioner must conduct a physical examination and monitor adverse events as well as document infant feeding patterns, neonatal, and infant morbidity and mortality. Infants must be referred to the Paediatrician if symptomatic.

Baseline Follow-up: febrile illness, failure to thrive, diarrhoea, thrush, recurrent or multiple infections, cough, swollen lymph nodes, developmental delays.

Physical Examination: temperature, weight, height, head circumference (use growth chart), skin eruptions, ears, nose and throat infections, lymphadenopathy, abdominal organ enlargement and chest infections.

**INFANT FEEDING**

The consensus is that health services should principally counsel and support mothers known to be HIV-positive to **avoid all breast feeding** as the strategy most likely to give Jamaican infants the greatest chance for HIV-free survival. To continue this policy, Jamaica will ensure an available, affordable, feasible, acceptable, sustainable and safe supply of infant replacement formula. Notwithstanding, mothers who choose, should be facilitated in breastfeeding while receiving ARV interventions.

The non-breastfeeding (full formula replacement) option is the preferred choice because it totally removes the post-natal mother-to-child risk of transmission and also Jamaica already has a policy that is well-entrenched for non-breastfeeding with full formula replacement feeds in HIV-exposed infants. HIV transmission from mother-to-child is less than two percent in non-breast feeding populations compared to less than five percent in breastfeeding populations.

The risk of HIV transmission and HIV exposure through breast milk continues during the complete period of breastfeeding. Breastfed infants therefore must be closely monitored for the entire period of breast feeding, to establish clinical, or lab evidence
of HIV-infection. The recommendation is that testing to determine final HIV status should be conducted six weeks after all exposure to breast feeding has stopped. This requires increased paediatrician contact time and also more support to the mother-baby pair to minimize possibility of loss to follow-up.

**HIV Infant Feeding Guidelines for Jamaica:**

- Mothers known to be HIV-infected should be provided lifelong antiretroviral therapy or antiretroviral prophylaxis interventions to preserve her health and also to reduce HIV transmission.

- Mothers known to be HIV-infected (and whose infants are HIV uninfected or of unknown HIV status) should be advised that the national policy is **avoidance of all breastfeeding to reduce the risk of HIV transmission through breast milk.**

- **Full replacement formula feeds for the first six months,** introducing the appropriate complementary feeds thereafter is recommended. The Ministry of Health provides infant formula to HIV positive mothers for the first twelve months of life.

- It is important to ensure that all mothers with HIV receive counselling about the risks and benefits of various infants feeding options as well as specific guidance in selecting the option most likely to be suitable for their situation.

- The heightened risk of transmission associated with **mixed feeding** should also be discussed. Explain to the mother that because formula feeding can irritate the lining of the baby’s stomach, making it easier for the HIV in breast milk to enter the baby’s blood stream and cause an infection, it should be avoided.

- For women who choose to breast feed, exclusive breast feeding is recommended for their infants for the first six months of life, introducing appropriate complementary foods thereafter with continued breast feeding for the first 12 months of life. The following recommendations apply:

  i. Breast feeding should only stop once a nutritionally adequate and safe diet without breast milk can be provided.

  ii. Breast feeding should be stopped gradually over a period of one month and should not be stopped abruptly.
iii. Breastfeeding alternatives for all infants include commercial infant formula. Animal milk may also be considered for those over six months of age.

iv. Commercial infant formula as a replacement should be available, affordable, feasible, acceptable, sustainable and safe.

- Mothers known to be HIV-infected and whose **infants and young children are confirmed to be HIV infected** are strongly encouraged to exclusively breastfeed for the first six months of life and to continue breast-feeding for up to two years of life.

- As early as possible and every antenatal and postnatal visit, every effort must be made to review infant feeding with the HIV positive mother and provide her with adequate nutritional counselling and support.

- Support for adequate replacement feeding for the infant is needed throughout the first 2 years of life, when breast-milk is normally recommended and the child is at greater risk of malnutrition. From birth to 6 months, some form of milk is generally considered essential; the infant needs about 150 ml of milk per kg of body weight per day (see Table 3 on Page 40). After 6 months additional replacement feeding options may be used; they should include solid foods, preferably still with milk in some form.

- The healthcare team should ensure that complementary feeding is adequate to achieve appropriate nutrition and growth parameters for the child, as this period if managed inappropriately may be associated with failure to thrive.

- The infant should be referred to the nutrition clinic for growth monitoring and follow-up.

- Infants with any medical problems or complaints should be referred to a Paediatrician/ Clinician.

- The woman should be provided with the first portion of the replacement feeding supply (enough to last her eight weeks) on her last antenatal visit.

- The Nutritionists or Nutrition Assistants in the parish need to teach the mother hygienic preparation of replacement feeds prior to and after delivery. The mother needs to know how to feed her infant from a cup.
Table 2: Formula Requirements

<table>
<thead>
<tr>
<th>AGE/MONTHS</th>
<th>WEIGHT/ KG</th>
<th>APPROXIMATE AMOUNT OF FORMULA PER 24 HOURS</th>
<th>APPROXIMATE NUMBER OF FEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>450 ml</td>
<td>8 * 60 ml</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>600 ml</td>
<td>7 * 90 ml</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>750 ml</td>
<td>6 *120 ml</td>
</tr>
<tr>
<td>4</td>
<td>5.5</td>
<td>750 ml</td>
<td>6 *120 ml</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>900 ml</td>
<td>6 *150 ml</td>
</tr>
<tr>
<td>6</td>
<td>6.5</td>
<td>900 ml</td>
<td>6 *150 ml</td>
</tr>
</tbody>
</table>

OTHER PREGNANCY OUTCOMES

A pregnancy, which ended without a live birth, needs to be recorded and reported on the obstetric record form. If the outcome is foetal death, this needs to be recorded. Long-term contraceptive and counselling should be offered to the mother.

GUIDELINE: FOLLOW-UP CARE OF INFANTS BORN TO HIV POSITIVE MOTHERS

Date Revised: Distribution to hospitals and health centres  
Approved by: Director, Treatment, Care & Support
IX. CHILDHOOD IMMUNIZATION
Routine Childhood immunizations are **NOT** hazardous to children born to an HIV positive mother. Immunizations should be administered according to National EPI guidelines. Asymptomatic children should receive the same immunization as all other children. However:

- Infants with HIV infection should be vaccinated with Inactivated Polio Vaccine (IPV) rather than OPV.
- BCG is not recommended for symptomatic HIV infected individuals
- IPV should also be used to immunize household contacts of a child with HIV.

**Table 3: Vaccine Schedule for HIV Exposed Infants**

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>GIVE TO ASYMPTOMATIC HIV EXPOSED</th>
<th>GIVE TO SYMPTOMATIC HIV EXPOSED</th>
<th>OPTIMAL TIMING OF IMMUNIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>Yes</td>
<td>No</td>
<td>Birth to 6 weeks</td>
</tr>
<tr>
<td>DPT or Paed. DT</td>
<td>Yes</td>
<td>Yes</td>
<td>6weeks, 3 months, 6 months, Boosters 18 months &amp; 4-6 years</td>
</tr>
<tr>
<td>OPV</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>IPV</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HEPATITIS B</td>
<td>Yes</td>
<td>Yes</td>
<td>6weeks, 3 months, 6 months</td>
</tr>
<tr>
<td>HIB</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>MMR</td>
<td>Yes</td>
<td>Yes</td>
<td>12 months, Booster at 4-6 years</td>
</tr>
<tr>
<td>INFLUENZA</td>
<td>Yes</td>
<td>Yes</td>
<td>As for uninfected individuals</td>
</tr>
<tr>
<td>PNEUMOCOCCAL CONJUGATE</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>VARICELLA</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>ROTAVIRUS</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**GUIDELINE: CHILDHOOD IMMUNIZATION**

Date Revised: Distribution to hospitals and health centres  Index: IX

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X. SPECIAL CONSIDERATIONS
X. SPECIAL CONSIDERATIONS

POST EXPOSURE PROPHYLAXIS FOR PREGNANT WOMEN

Another important method of prevention of vertical transmission of HIV is making an intervention to minimize the risk of infection in women who have been exposed to HIV during pregnancy. Post exposure prophylaxis (PEP) refers to the use of therapeutic agents to prevent infection following exposure to a pathogen. It is recommended when the source is known to be, or likely to be HIV infected. In Jamaica, with regards to HIV, this intervention is commonly considered for occupational exposure (as in the case of health care personnel) or sexual exposure following an assault.

The intervention should be initiated as soon as possible, within hours and no later than 72 hours following the potential exposure. It should only be given to HIV negative individuals; hence a baseline HIV test should be done preferably with a rapid test. Ideally, baseline blood work for complete blood count, liver and kidney function should also be done. Initiation of PEP should be decided on a case-by-case basis after full discussion with the exposed person. The exposed individual should be counselled on preventing HIV transmission (including safer sex practices) and offered assistance to discuss the matter with their partner as indicated.

Table 4: Recommended HIV Post Exposure Prophylaxis Guidelines

<table>
<thead>
<tr>
<th>Type of Exposure</th>
<th>Source HIV Positive</th>
<th>Source HIV Negative</th>
<th>Source Unknown HIV Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percutaneous</td>
<td>Recommend 3-drug regimen</td>
<td>Not recommended</td>
<td>Consider 2 or 3-drug regimen</td>
</tr>
<tr>
<td>Mucous Membrane/Skin</td>
<td>Recommend 2-drug regimen</td>
<td>Not recommended</td>
<td>Consider 2-drug regimen</td>
</tr>
</tbody>
</table>
### Table 5: Recommended Regimens for Post Exposure Prophylaxis

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Two-Drug Regimen</strong></td>
<td></td>
</tr>
<tr>
<td>Zidovudine/ Lamivudine</td>
<td>Zidovudine 300mg + Lamivudine 150mg (one tablet) every 12 hours</td>
</tr>
<tr>
<td>(Fixed Dose Combination)</td>
<td></td>
</tr>
<tr>
<td><strong>Expanded Three-Drug Regimen</strong></td>
<td></td>
</tr>
<tr>
<td>Zidovudine/ Lamivudine (as above)</td>
<td></td>
</tr>
<tr>
<td><strong>PLUS</strong></td>
<td></td>
</tr>
<tr>
<td>Lopinavir/ ritonavir</td>
<td>Lopinavir 400mg + Ritonavir 100mg (two tablets) every 12 hours</td>
</tr>
<tr>
<td>(Fixed Dose Combination)</td>
<td></td>
</tr>
</tbody>
</table>

**NB.**
- All regimens should be given for four weeks
- Expanded three-drug regimen to be offered for sexual assault

Once PEP has been offered, there should be follow-up of the individual. Provide periodic HIV testing at three (3) and six (6) months. Ensure and maintain confidentiality. On-going support may be required and the individual should receive appropriate referrals.

**THE RIGHTS-BASED APPROACH TO FAMILY PLANNING**

Since the advent of antiretroviral therapy, fertility and sexual health issues have been an important concern for HIV infected persons. Parenthood is a source of self-esteem for many persons and having a child is often considered to provide hope for the future. In adopting a rights-based approach, anyone counselling women known or suspected to be HIV-positive should support the client's family planning decisions, even if one disagrees with the client. Personal beliefs should not influence counselling. A family planning provider should adopt a neutral attitude and provide the client with
information to allow them to make an informed decision. Each HIV-infected client should be informed of the following:

- Pregnancy does not appear to accelerate HIV progression, even among women not receiving HAART.
- An HIV-infected mother can transmit the virus to her child.
- Interventions can reduce the risk of HIV transmission risks during pregnancy and delivery.
- The implications of rearing an infected child.

**HIV-INFECTED COUPLES**

All HIV-infected couples should be encouraged to practice safer sex utilizing condoms. However, when couples wish to conceive it is unlikely that this advice will be adhered to. The options discussed with these persons should include:

- Adoption/ fostering children
- Limiting unprotected intercourse to the most fertile period in the female’s cycle.

**SERO-DISCORDANT COUPLES**

Discordant couples are defined as those in which one partner is HIV infected while the other remains HIV negative. These couples also may wish to have a child or children. They should be counseled on:

- Adoption/ fostering children
- Surrogacy
- Limiting unprotected intercourse to the most fertile period in the female’s cycle when the viral load of the infected partner is undetectable.
PRIVATE SECTOR PATIENTS

HIV positive pregnant clients who are being treated in the private sector may access antiretroviral therapy free of cost (but be required to pay a minimal pharmacy administrative cost) at a number of participating pharmacies. In order to do this, their physicians must be on the list of authorized prescribers. Any physician with the requisite training may make an application via electronic mail or letter to the Director, Treatment, Care and Support of the National HIV/STI Programme (See Annex 4 for contact information). The Director can also organize training for doctors who do not have the training or experience and are interested in treating HIV positive individuals.

Private Doctors who wish to refer patients to the public sector for management may do so by referral to the nearest High Risk Obstetric Clinic. For information on the clinic nearest to the patient’s place of residence the Regional Health Authority in which the parish is located may be contacted (See Annex 4). Ideally, referrals should be accompanied by a detailed medical history documenting laboratory results and the drug regimen if commenced.

<table>
<thead>
<tr>
<th>GUIDELINE: SPECIAL CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Revised:</td>
</tr>
<tr>
<td>Approved by: Director, Treatment, Care &amp; Support</td>
</tr>
</tbody>
</table>
XI. PREVENTION OF VERTICAL TRANSMISSION OF SYPHILIS
XI. PREVENTION OF VERTICAL TRANSMISSION OF SYPHILIS

Prevention and proper management of STIs in pregnancy are important. As in the case of HIV, prevention of transmission from mother-to-child of other sexually transmitted infections is critical. The pregnant woman who receives little or no antenatal care is at increased risk of these diseases and so a high index of suspicion is necessary to minimize complications in mother and child. Maternal infections with STIs contribute significantly to maternal and infant morbidity and so should be managed with some urgency.

Syphilis is an important condition. It is caused by the Treponema pallidum spirochaete and may manifest as genital ulcers (including ulcers on the cervix) if the pregnant woman has primary syphilis, or it may cause rashes, lymphadenopathy and other generalized symptoms if she has secondary syphilis. Most commonly the pregnant woman is asymptomatic and is diagnosed on routine testing for syphilis; latent syphilis. See Maternal Syphilis Algorithm on Page 52 for the management of syphilis in pregnancy.

All sexual contacts reported by the pregnant woman infected with Syphilis should be traced and treated accordingly. Re-infection by the untreated sexual partner is one of the most important causes of Congenital Syphilis. Follow up post treatment, is also essential in assessing the adequacy of treatment and monitoring for re-infection.

If the newborn shows signs of syphilis, the baby should be transferred to the paediatric services. The signs of Congenital Syphilis are:

- Skin rash
- Generalized oedema
- Blisters on genital area, palms and/or soles
• Jaundice
• Pallor
• Rhinitis
• Genital condylomata
• Hepatosplenomegaly
• Limb tenderness or deformities
• Limb paralysis
• Spirochaetes seen on dark field microscopy examination of lesions or body fluids.
• Aseptic Meningitis

Serological evaluation of the infant’s blood should be done for all cases of positive maternal serological test or mother with no syphilis test in third trimester with high risk for STI. Note that the same serological test must be used when comparing titres in mother’s and infant’s blood. Cord blood should NOT be taken for serological evaluation as it often produces false results. Paediatric consultation should also be sought. See Congenital Syphilis algorithm on Page 53 for the management of congenital syphilis.
*If History or Clinical Assessment suggests active infection, give full treatment as for stage and refer to Contact Investigator (CI) for partner management.
CONGENITAL SYPHILIS ALGORITHM

NOTE: Infants diagnosed with Congenital Syphilis should have an evaluation of the CSF done in order to rule out CNS Syphilis; CNS Syphilis is treated with Crystalline Penicillin as Benzathine Penicillin (BPG) does not cross the blood brain barrier.

GUIDELINE: PREVENTION OF VERTICAL TRANSMISSION OF SYPHILIS

<table>
<thead>
<tr>
<th>Date Revised:</th>
<th>Distribution to hospitals and health centres</th>
<th>Index: XI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved by:</td>
<td>Director, Treatment, Care &amp; Support</td>
<td></td>
</tr>
</tbody>
</table>
XII. PROGRAMME IMPLEMENTATION
**XII. PROGRAMME IMPLEMENTATION**

**HEALTH TEAM**

This programme was intended for implementation as an integral part of the existing Family Health Services, utilizing the same structures, procedures and personnel, and guided by the same principles.

The Medical Officers of Health MO(H) of each Parish, as with any other public health programme are the coordinators and supervisors of the programme at the field level. The parish team of health workers include:

**Public Health Nurses, Midwives, Contact Investigators, Nutritionists/ Nutrition Assistants, Obstetricians, Paediatricians, Medical Officers at Hospitals, Medical Officers at Primary Care Facilities, Health Educators, District Medical Officers, Family Nurse Practitioners, Laboratory Technologists and Technicians, Pharmacists, Hospital Matrons or Sisters, Social Workers & Adherence Counsellors.**

All members of the team are critical to the success of the programme and participate in implementation of the programme under the technical guidance of their Medical Officers of Health, Regional HIV Programme Coordinators and the National HIV/STI Programme.

At the parish level, the Parish Medical Officer of Health and the Health Team are responsible for ensuring:

- Confidential testing and counselling of pregnant mothers for HIV and Syphilis.
- Same day HIV and Syphilis tests/results through the use of HIV and Syphilis rapid test kits on site
- Timely management of pregnant mothers whose are Syphilis rapid tests are reactive
- Timely referral to High Risk Clinic (HRC) for HIV positive pregnant mothers
- Adequate management (examinations, investigations, ARVs, counselling) of the HIV positive pregnant mother at the HRC
- Adequate stocks of HIV and Syphilis rapid test kits on Labour Wards
Adequate stocks of ARVs for mother and baby on Labour Wards
Distribution of medication and infant replacement feeding when necessary.
Follow-up of mother-baby pairs to encourage compliance with clinic visits, investigations and adherence to medication as indicated
Confidential testing and counselling of Family Planning Clinic (FPC) attendees for HIV and Syphilis.
Appropriate referral of HIV and/or Syphilis positive FPC attendees for management
Ensuring access to, and promotion of, the dual method of contraception to all FPC attendees
Blood collection, storage and transportation of specimens for HIV and Syphilis testing.
Collection and maintenance of records and documentation as per guidelines.
Selection of health workers (public and private) for training.
Programme Implementation, monitoring & evaluation

The National HIV/STI Programme and Family Health Services Unit (Ministry of Health) are responsible to provide oversight and guidance.

MONITORING INDICATORS

There are several indicators that are required to be reported on a regular basis to facilitate proper monitoring and evaluation of the programme. It is essential that these data be regularly collated and reported to the Regional Health Authority and the Director, M&E Unit, National HIV/STI Programme (Ministry of Health) in a timely fashion. See Annexes 2 and 3 for Reporting Forms.

<table>
<thead>
<tr>
<th>GUIDELINE: PROGRAMME IMPLEMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Revised:</td>
</tr>
<tr>
<td>Approved by: Director, Treatment, Care &amp; Support</td>
</tr>
</tbody>
</table>
XIII. ANNEXES
ANNEX 1

ADVERSE EFFECTS OF ARV DRUGS

NUCLEOSIDE/NUCLEOTIDE REVERSE TRANSCRIPTASE INHIBITORS (NRTIS)

NRTIs are associated with lactic acidosis, hepatic steatosis and body fat redistribution (lipodystrophy).

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ADVERSE EVENT</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zidovudine</td>
<td>✓ Anemia, neutropenia</td>
<td>✓ Twice-daily dosing preferred over thrice-daily dosing.</td>
</tr>
<tr>
<td></td>
<td>✓ Fatigue, malaise, headache</td>
<td>✓ Fatigue, nausea, headache, and myalgia usually resolve 2-4 weeks after initiation.</td>
</tr>
<tr>
<td></td>
<td>✓ Nausea, vomiting</td>
<td>✓ Adjust dosage for renal insufficiency or failure.</td>
</tr>
<tr>
<td></td>
<td>✓ Myalgia, myopathy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Hyperpigmentation of skin and nails</td>
<td></td>
</tr>
<tr>
<td>Lamivudine</td>
<td>✓ Headache, dry mouth</td>
<td>✓ Adverse effects occur infrequently.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓ Adjust dosage for renal insufficiency or failure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓ Active against hepatitis B virus. In patients with HIV and hepatitis B coinfection, hepatitis may flare upon discontinuation of Lamivudine.</td>
</tr>
</tbody>
</table>
NON-NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS (NNRTIs)

All NNRTIs may have significant interactions with other drugs; dosage adjustment of interacting agents may be required.

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ADVERSE EVENTS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efavirenz</td>
<td>✓ Elevations in liver function tests</td>
<td>✓ Central nervous system symptoms are common; severity usually decreases within 2-4 weeks.</td>
</tr>
<tr>
<td></td>
<td>✓ Abnormal dreams, drowsiness, dizziness, confusion</td>
<td>✓ Teratogenic in animal studies; not to be initiated in first trimester of pregnancy.</td>
</tr>
<tr>
<td></td>
<td>✓ Hyperlipidemia</td>
<td></td>
</tr>
<tr>
<td>Nevirapine</td>
<td>✓ Rash, Stevens-Johnson syndrome, toxic epidermal necrolysis</td>
<td>✓ Initial dose of 200 mg per day for first 14 days, then 200 mg twice daily, decreases frequency of rash.</td>
</tr>
<tr>
<td></td>
<td>✓ Elevations in liver function tests, hepatitis, liver failure</td>
<td>✓ Most rash develops within first 6 weeks of therapy; rash is most common in women.</td>
</tr>
<tr>
<td></td>
<td>✓ Hepatitis, liver failure</td>
<td>✓ Hepatotoxicity may be life threatening. It is more common at higher CD4 cell counts, in women, and in patients with hepatitis B or C. The benefits of Nevirapine are thought to outweigh the risks in women with CD4 250-350 cells/µL. Monitor liver tests closely for the first 16 weeks of treatment.</td>
</tr>
</tbody>
</table>

PROTEASE INHIBITORS (PIs)
All PIs are associated with metabolic abnormalities including dyslipidemia, hyperglycaemia, insulin resistance, and lipodystrophy. Need to screen for Gestational Diabetes during pregnancy. They may increase the risk of bleeding in haemophiliacs and may have significant interactions with other drugs; dosage adjustment of interacting agents may be required.

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ADVERSE EVENTS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lopinavir/ritonavir</td>
<td>✓ Diarrhea, nausea, vomiting</td>
<td>✓ Capsules are stable at room temperature for up to 60 days.</td>
</tr>
<tr>
<td></td>
<td>✓ Dyslipidemia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Elevations in liver function tests</td>
<td>✓ Oral solution contains 42% alcohol.</td>
</tr>
<tr>
<td></td>
<td>✓ Taste perversion</td>
<td>✓ Avoid combining oral solution with metronidazole or disulfiram. Alcohol in the oral solution may cause disulfiram-like reaction.</td>
</tr>
</tbody>
</table>

Tables adapted with modification HIV/ INSITE

ANNEX 2

REGIONAL HIV/AIDS MONTHLY REPORT
<table>
<thead>
<tr>
<th>PMTCT</th>
<th>Enter name of Parish</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of ANC clients seen (first visits)</td>
<td></td>
</tr>
<tr>
<td>No. of ANC clients tested for HIV</td>
<td></td>
</tr>
<tr>
<td>No. of ANC clients testing positive for HIV</td>
<td></td>
</tr>
<tr>
<td>No. of HIV infected pregnant women delivered</td>
<td></td>
</tr>
<tr>
<td>*No. of HIV infected pregnant mothers that delivered and received ARV for PMTCT (enter total)</td>
<td></td>
</tr>
<tr>
<td>a) single dose NVP only</td>
<td></td>
</tr>
<tr>
<td>b) AZT + 3TC only</td>
<td></td>
</tr>
<tr>
<td>c) at least 4 weeks of HAART (Triple therapy)</td>
<td></td>
</tr>
<tr>
<td>d) less than 4 weeks HAART</td>
<td></td>
</tr>
<tr>
<td>e) Other ____________</td>
<td></td>
</tr>
<tr>
<td>No. of live infants born to HIV-infected mothers (HIV-exposed infants)</td>
<td></td>
</tr>
<tr>
<td>No. of HIV-exposed infants that received ARV for PMTCT</td>
<td></td>
</tr>
<tr>
<td>No. of HIV-infected infants (confirmed positive) borned to HIV-infected mothers</td>
<td></td>
</tr>
<tr>
<td>No. of HIV-exposed infants exclusively formula fed at 6 months</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HIV Testing</th>
<th>Enter name of Parish</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
</tbody>
</table>

60
<table>
<thead>
<tr>
<th>Total No. of persons tested for HIV</th>
<th>Enter name of Parish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total No. of persons testing HIV positive</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>No. of STI clients seen during this period</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>No. of STI clients tested for HIV</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>No. of STI clients testing HIV positive</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>No. of HIV tests done through outreach testing</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>No. of +ve HIV tests done through outreach testing</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HIV Testing</th>
<th>Enter name of Parish</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Hospital admissions during this period</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>No. of hospital admissions tested for HIV</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>No. of hospital admissions testing HIV positive</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>Total No. of HIV infected adults (≥ 10 years old) currently on ARV treatment</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
<tr>
<td>Total No. of children (&lt; 10 years old) currently on ARV treatment</td>
<td>M  F  M  F  M  F  M  F</td>
</tr>
</tbody>
</table>
## Definitions:

- **No. of HIV infected pregnant mothers receiving ARV for PMTCT** - the number of women who delivered and received antiretroviral prophylaxis to reduce the risk of MTCT.

- **Number of HIV exposed infants** - the number of live births to an HIV infected pregnant woman during the period of reporting.

- **Number of HIV infected infants – confirmed by positive antibody (ELISA and Western Blot) in children older than 18 months of age OR confirmed by HIV RNA PCR.**

---

Completed by: ________________ Date (dd/mm/yyyy): ____________

Please submit to: **Director, M&E Unit**

**National HIV/AIDS Programme**  
2-4 King Street.  
Fax: 967-1280/967-1643  
Email: jarrettsh@moh.gov.jm

---

**Instructions for completion of Regional HIV/AIDS monthly report**
Guidelines for the Elimination of Vertical Transmission of HIV & Syphilis, Jamaica

- **No. of ANC clients seen (first visits)**
Enter the total number of women visiting the ANC for the first time since the calendar year began during the period of reporting. ANC attendees will have several visits during the course of one pregnancy. The number of first visits to ANC clinics in primary and secondary care will indicate the total number of pregnant women seen in the public sector.

- **No. of ANC clients tested for HIV**
Enter the total number of women attending ANC that were tested for HIV during the period of reporting. This information will be used to calculate the percent of women attending ANC that are tested for HIV. This is an indication of access to VCT and PMTCT for young women.

- **No. of ANC clients testing positive for HIV**
Enter the number of women that tested positive for HIV during the period of reporting.

- **No. of HIV infected pregnant women delivered:**
Enter the total number of HIV infected women delivered a live or still birth during the period of reporting. Not all women who test positive during the period of reporting will deliver in that same period. However, it is important to know what proportion of HIV infected women that receive complete PMTCT, which means that they would have had to deliver the baby.

- **No. of HIV infected pregnant mothers receiving ARV for PMTCT**
Enter the number of HIV positive women who delivered and received single dose Nevirapine or any combination therapy. This number should not include HIV infected women who have not delivered yet.

- **No. of live infants born to HIV-infected mothers (HIV-exposed infants)**
Enter the number of live births to HIV infected pregnant woman during the period of reporting.

- **No. of HIV-exposed infants that received ARV for PMTCT**
Enter the number of live births to HIV infected pregnant woman during the period of reporting that received ARV for PMTCT as described by national protocol.

- **No. of HIV-exposed infants that received PCR testing**
Enter the number of infants borned to HIV infected women who received PCR testing, (and results received) to confirm the HIV status of the HIV exposed infant.
- **No. of HIV-infected infants (confirmed positive) borned to HIV-infected mothers**
Enter the number of infants borned to HIV infected women who have been confirmed as HIV infected. Confirmation may occur by either **positive antibody (ELISA and Western Blot)** in a child older than 18 months of age OR confirmed by HIV DNA PCR.

- **No. of HIV-infected infants that receive viral load testing (and received results)**
Enter the number of infants borned to HIV infected women who received viral load testing.

- **No. of HIV-exposed infants exclusively formula fed at 6 months**
Enter the number of infants borned to HIV infected mothers that are fed formula only. This should not include infants receiving both breast milk and formula.

- **Total No. of persons tested for HIV**
Enter total number of HIV tests done in the reporting period. This includes HIV tests done in ANC + STI + Outreach + hospital admissions + Other (VCT sites)

- **Total No. of persons testing HIV positive**
Enter total number of HIV tests done in the reporting period that were confirmed HIV positive. This includes positive HIV tests from ANC + STI + Outreach + hospital admissions.

- **No. of STI clients seen during this period**
Enter number of persons seen for the first time at the STI clinic during the period of reporting. Persons with recurrent STIs during the period of reporting, i.e. more than one visit to the STI clinic during the reporting period, should be considered a new case for each new STI and counted as such.

- **No. of STI clients tested for HIV**
Enter number of persons attending the STI clinics during the reporting period that were tested for HIV.

- **No. of STI clients testing HIV positive**
Enter number of persons attending the STI clinic during the reporting period that tested positive for HIV (confirmed).
- **No. of HIV tests done through outreach testing**
Enter number of persons tested for HIV through special events and programs operating outside of standard VCT sites and health care settings i.e. HIV testing in settings other than health facilities (hospital and health centres).

- **No. of +ve HIV tests done through outreach testing**
Enter number of persons testing positive for HIV through special events and programs operating outside of standard VCT sites and health care settings.

- **Total No. of HIV infected adults (≥ 10 years old) currently on ARV treatment**
The number of adults currently on treatment =

  Number of adults on treatment at the start of the month + Number of adults started on treatment during the period of reporting (since the beginning of the month) - Number of adults whose treatment was terminated during the period of reporting (since the beginning of the month), including those that died, transferred from the clinic, and defaulted.

- **Total No. of children (< 10 years old) currently on ARV treatment**
The number of children currently on treatment = Number of children on treatment at the start of the month + Number of children started on treatment during the period of reporting (since the beginning of the month) - Number of children whose treatment was terminated during the period of reporting (since the beginning of the month), including those that died, transferred from the clinic, and defaulted.
ANNEX 3

REGIONAL PMTCT REPORT

Jamaica Paediatric, Perinatal and Adolescents HIV/AIDS Programme Report

Region:

Reporting Period:

<table>
<thead>
<tr>
<th>GENERAL OBSTETRIC HOSPITAL DATA</th>
<th>PARISH</th>
<th>PARISH</th>
<th>PARISH</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total number of new ANC attendees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Total number of pregnant women tested for HIV and received results (including those with already confirmed HIV infected status)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Percent of pregnant women who were tested for HIV (Indicator 2 ÷ Indicator 1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Total number of pregnant women who tested HIV positive (including those with already confirmed HIV infected status)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Percent of pregnant women tested who were HIV positive (Indicator 4 ÷ Indicator 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Total number of HIV infected pregnant women who delivered a live birth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6b. Total number of live infants delivered to HIV infected women (HIV-exposed infants).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Total number of HIV-infected pregnant women who delivered and also received anti-retrovirals to reduce the risk of mother-to-child-transmission</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. No. of HIV+F who delivered and got HAART for least 4 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>No. of HIV+F who delivered and got HAART for &lt;4 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>No. of HIV+F and Nevirapine only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>No. of HIV+F and other: (AZT, Combivir, AZT/NVP)</td>
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<td>8.</td>
<td>No. of HIV+ F assessed for ART eligibility (CD4 count or clinical staging done)</td>
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<td>9.</td>
<td>No. of HIV+ F on HAART for their own health</td>
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<td>10.</td>
<td>Total number of infants born to HIV-infected women receiving any ARVs for PMTCT</td>
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<tr>
<td>11.</td>
<td>Percentage of infants born to HIV-infected women receiving any ARVs for PMTCT (Indicator 10 ÷ Indicator 6b)</td>
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<tr>
<td>12.</td>
<td>Total number of infants born to HIV-infected women started on cotrimoxazole prophylaxis within two months of birth (reported annually) + &gt;2 months</td>
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<tr>
<td>13.</td>
<td>Total number of infants born to HIV-infected women receiving a virological test (PCR) for HIV diagnosis within two months of birth</td>
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<tr>
<td>14.</td>
<td>Total number of infants born to HIV-infected women tested for HIV (antibody or virological test) by 12 months (reported annually) + &gt; 12 months</td>
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<td>15.</td>
<td>Total number of infants born to HIV-infected women tested for HIV (antibody or virological test) by 18 months (reported annually)+ &gt; 18 months</td>
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**GENERAL OBSTETRIC HOSPITAL DATA**

<p>| PARISH | PARISH | PARISH | TOTAL |</p>
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<tbody>
<tr>
<td><strong>16.</strong> Number of children 0-12 years old receiving ARVs</td>
<td></td>
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<tr>
<td><strong>17.</strong> Number of children 13-15 years old receiving ARVs</td>
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<tr>
<td><strong>18.</strong> Number of children 16-18 years old receiving ARVs</td>
<td></td>
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<tr>
<td><strong>Number /percentage of children with HIV known to be on treatment 12 months after initiation</strong></td>
<td></td>
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<tr>
<td><strong>19.</strong> Number of HIV exposed infants whose feeding practices at three months of age were assessed and recorded</td>
<td></td>
<td></td>
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<tr>
<td><strong>20.</strong> Number of HIV-exposed infants that were exclusively breast fed at three months of age</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>21.</strong> Number of HIV-exposed infants that were exclusively formula fed at three months of age</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>22.</strong> Number of HIV-exposed infants that received mixed feeds at three months of age</td>
<td></td>
<td></td>
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<tr>
<td><strong>23.</strong> Number of HIV exposed infants whose feeding practices at six months of age were assessed and recorded</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>24.</strong> Number of HIV-exposed infants that were exclusively breast fed at six months of age</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>25.</strong> Number of HIV-exposed infants that were exclusively formula fed at six months of age</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>26.</strong> Number of HIV-exposed infants that received mixed feeds at six months of age</td>
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ANNEX 4

LIST OF RESOURCE PERSONS

Dr Kevin Harvey
Director, National HIV/STI Programme
Ministry of Health
2-4 King Street, Kingston
Tel: 9671100
Fax: 967-1280
Email: harveyk@moh.gov.jm

Dr. Nicola Skyers
Director, Treatment, Care and Support for Persons Living with HIV
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Fax: 967-1280
Email: skyersn@moh.gov.jm

Dr. Karen Lewis-Bell
Director, Family Health Services
Ministry of Health
2-4 King Street, Kingston
Tel: 967-1100
Fax: 967-1280

Dr. Nadine Johnson
Consultant and Lecturer
Department of Obstetrics & Gynaecology
University of the West Indies
Mona, Kingston 7
Tel: 927-1145

Prof. Celia DC Christie-Samuels
Director,
Jamaica Paediatric, Perinatal and Adolescent HIV/AIDS (JaPPAAIDS)
Programme
University of the West Indies, Mona
Tel: 977 6637 (O)
Dr. Heather Reid-Jones  
Regional Technical Director  
South-East Regional Health Authority  
25 Dominica Drive, Kingston 5  
Telephone: 754-3440, 3441  
Fax: 926-4019

Dr. Patrick Wheatle  
Regional Technical Director  
North-East Regional Health Authority  
Ocean Village Plaza  
Shop # 34-37, Ocho Rios, St. Ann  
Telephone: 795-3107  
Fax: 795-2747

Dr. Alex. Konstantinov  
Regional Technical Director  
Western Regional Health Authority  
c/ o Cornwall Regional Hospital  
P.O. Box 900  
Montego Bay, St. James  
Telephone: 952-1124  
Fax: 952-4074

Dr. Michael Coombs  
Regional Technical Director  
Eagle Financial Building  
5 Ward Avenue  
Mandeville, Manchester  
Telephone: 625-0612, 0613  
Fax: 962-8233

AIDS/STI HELPLINE  
Telephone: 967-3830, 967-3764  
Toll free: 1-888-991-4444

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XIV. REFERENCES
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