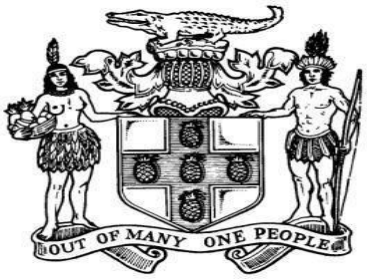

Ministry of Health & Wellness
Jamaica

GUIDELINES FOR THE PREVENTION OF VERTICAL TRANSMISSION OF HIV & SYPHILIS

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Ministry of Health & Wellness
Jamaica

July, 2020

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The 2011 document was entitled Guidelines for the Elimination of Vertical Transmission of HIV and Syphilis during its most recent revision. Its title was changed to Guidelines for the Prevention of Vertical Transmission of HIV and Syphilis.

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GLOSSARY OF TERMS

3TC	Lamivudine
ANC	Antenatal Clinic
ART	Anti-retroviral therapy
ARV	Antiretroviral
BCG	Bacillus of Calmette and Guérin; a vaccine for tuberculosis
BPG	Benzathine Penicillin G
CBC	Complete Blood Count
CD4	Type of White Blood Cell
CI	Contact Investigator
CNS	Central Nervous System
CVS	Cardiovascular System
DBS	Dried Blood Spot
DILS	Unit of measurement of titres demonstrating serologic evidence of
DPT	Diptheria Pertussis Tetanus Vaccine
DT	Diptheria Tetanus Vaccine
EFV	Efavirenz
EGA	Estimated Gestational Age
ELISA	Enzyme-linked Immunosorbent Assay
EMTCT	Elimination of Mother to Child Transmission
ENT	Ear Nose Throat
EPI	Expanded Programme of Immunization
FPC	Family Planning Clinic
GI	Gastrointestinal

GU	Genito-urinary
HAART	Highly Active Antiretroviral Therapy
HBs Ag	Hepatitis B Surface Antigen
HEI	HIV Exposed Infant
HMSR	Hospital Monthly Statistical Report
HRC	High Risk Clinic
IPV	Inactivated Polio Vaccine
IUCD	Intrauterine Contraceptive Device
LMP	Last Menstrual Period
LPV/ r	Lopinavir/ ritonavir
LTA	Laboratory Technical Assistant
MCSR	Monthly Clinic Summary Report
MMR	Mumps Measles Rubella Vaccine
MO(H)	Medical Officer of Health
MTCT	Mother-to-Child Transmission
NNRTI	Non-Nucleoside/ Nucleotide Reverse Transcriptase Inhibitor
NPHL	National Public Health Laboratory
NRTI	Nucleoside/ Nucleotide Reverse Transcriptase Inhibitor
NVP	Nevirapine
OPV	Oral Polio Vaccine
PCR	Polymerase Chain Reaction
PEP	Post Exposure Prophylaxis
PI	Protease Inhibitor
PMTCT	Prevention of Mother-to-Child Transmission
PND	Post-natal Delivery

RPR	Rapid Plasma Reagin (test for syphilis)
RS	Respiratory System
SCI	Syphilis Confirmed Infants
SOB	Shortness of Breath
STI	Sexually Transmitted Infections
STS	Serological Test for Syphilis
TB	Tuberculosis
TRUST	Toluidine Red Unheated Serum Test
VCT	Voluntary Counselling and Testing for HIV
VDRL	Venereal Disease Research Laboratory (test for syphilis)
VL	Viral Load
WBC	White Blood Cell
WHO	World Health Organization
ZDV/ AZT	Zidovudine

FOREWORD

The Elimination of Mother to Child Transmission (EMTCT) of HIV & Syphilis by 2015 in the Americas continues to be the aim of the Prevention of Mother to Child Transmission of HIV & Syphilis (PMTCT) programme in Jamaica. This WHO target has been subsumed into Jamaica's National Integrated Strategic Plan (NISP) for HIV & Sexual and Reproductive Health (SRH), ensuring the efforts of the HIV/STI/TB UNIT (HSTU) are in tandem with those of the Family Health Unit (FHU) and the National Family Board (NFBP); the two main providers of SRH care in the island.

At the national level, confirmation of positive cases of HIV & Syphilis in infants continues with a robust notification process through the National Surveillance Unit (NSU). This serves a dual purpose as it also enables the validation of field reports received directly by the HSTU. At the sub-national level, the PMTCT programme begins with provider initiated testing & counselling (PITC) during the antenatal period at both public and private health care facilities. Documentation of positivity rates for both HIV & Syphilis, appropriate treatment inclusive of drugs and dosing, outcome and final status of delivered infants are all recorded in the monthly PMTCT report submitted to the HSTU via an email reporting account and a recently introduced electronic reporting account.

Challenges specific to Syphilis such as comparatively lower testing rates than HIV and poor documentation of the clinical follow-up and treatment of the mother/infant pair have been countered with the introduction of Maternal Syphilis and Syphilis Exposed Infant Registers in the last quarter of 2017. PMTCT Coordinators, Nurses, Clinicians and relevant support staff such as, Regional HIV Coordinators, Contact Investigators, Social Workers and Adherence Counsellors have been trained in the use of these new and updated data collection tools. The relevant private sector health care workers were also included, with the HSTU being cognizant of their inclusion for an all-encompassing national response.

The EMTCT Oversight Committee inclusive of paediatricians, gynaecologists, past JaPPAIDS committee members, donors and NGO representatives continue to give technical expertise and guidance to the nation's response to the epidemic. The desired

end result of instructions and guidelines reflecting the latest WHO standards embodied in this updated PMTCT manual are:

1. A 2% or less rate of MTCT for HIV in Jamaica as a non-breastfeeding population
2. Less than 50 new paediatric infections per 100,00 live births
3. Less than 50 cases of Congenital Syphilis per 100,000 live births

Thank you to all dedicated staff who continue to work consistently to ensure Jamaica achieves Elimination Status.

I. INTRODUCTION

I. INTRODUCTION

Ensuring universal access to prevention, treatment, care and support services is a priority of the National HIV/STI/TB Programme in Jamaica. This involves promoting the quality delivery of Prevention of Mother-to-Child Transmission 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 2%. 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

Transmission Mode	**Without ARVs**	**With ARVs**
Pregnancy and delivery	15-25%	< 2-10%
Breastfeeding until 18 to 24 months	10-20%	< 5-20%
Overall risk of mother to child transmission	30-45%	< 2-20%

Therefore, an opportunity is missed when a woman of childbearing age is unaware of her risk for 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.

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II. PREVENTION OF VERTICAL TRANSMISSION OF SYPHILIS

I. PREVENTION OF VERTICAL TRANSMISSION OF SYPHILIS

Congenital Syphilis is a preventable cause of stillbirths and perinatal morbidity. Syphilis passes from an infected mother to the foetus via trans placental transmission of Treponema Pallidum at any time during pregnancy and at birth. Infection can be transmitted to the foetus at any stage of the disease with the highest rates of transmission occurring during primary and secondary Syphilis. Left untreated, it is estimated that 66% of pregnant women would have adverse outcomes compared to 14% of women without Syphilis.

As in the case of HIV, prevention of transmission from mother-to-child of other sexually transmitted infections is critical. In its early stages, Syphilis is asymptomatic; so a high index of suspicion, early screening and treatment are necessary to minimize complications in mother and child. Manifestations of Syphilis in pregnancy depend on the stage of disease in the mother, as well as the stage of pregnancy when the disease was acquired (See Maternal Syphilis Algorithm for the management of syphilis in pregnancy).

Table 2: Maternal and Foetal Effects of Congenital Syphillis

Maternal Effects	**Foetal/Infantile Effects**
Genital or cervical ulcers (primary syphilis)	Death of ovum
Classic palmar/plantar rashes, condylomata lata, alopecia, painless mobile inguinal lymphadenopathy (secondary syphilis)	Abortion/miscarriage: common in 18^{th}-20^{th} week when foetus becomes immunocompetent.
Asymptomatic - Diagnosed on routine testing	Still birth

Maternal Effects	**Foetal/Infantile Effects**
	Prematurity/low birth weight: more common in maternal syphilis
	Symptomatic infant (see signs of Congenital Syphilis below). An asymptomatic infant at birth may develop symptoms within 6 months or later in childhood.
	Healthy infant: this may occur in mothers with long-standing untreated disease.

SYPHILIS TESTING IN PREGNANCY

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

- Repeat testing in the 3rd trimester of pregnancy, if mother tested negative initially
- Repeat testing at delivery for mothers who have a risky behaviour profile, even if mother tested negative early in the 3rd trimester. Risky sexual behaviours are characterized by one or a combination of the following:
    - unprotected sex
    - multiple sex partners
    - engaging in commercial/transactional sex
    - drug/alcohol use while engaging in sexual activity
- Provision of Syphilis rapid testing on labour wards for all mothers with undocumented Syphilis status
- Ensuring notification and follow-up of mother-baby pairs to the closure of the case

All sexual contacts reported by the Syphilis infected pregnant woman should be traced and treated accordingly.

For Primary, Secondary and Early Latent Syphilis, treatment is BPG 2.4 million units IM in a single dose, initiated thirty (30) days or more before delivery.

Latent and tertiary Syphilis are treated with BPG 2.4 million units IM stat for three (3) doses at one (1) week apart. The first dose has to be initiated thirty (30) days or more before delivery.

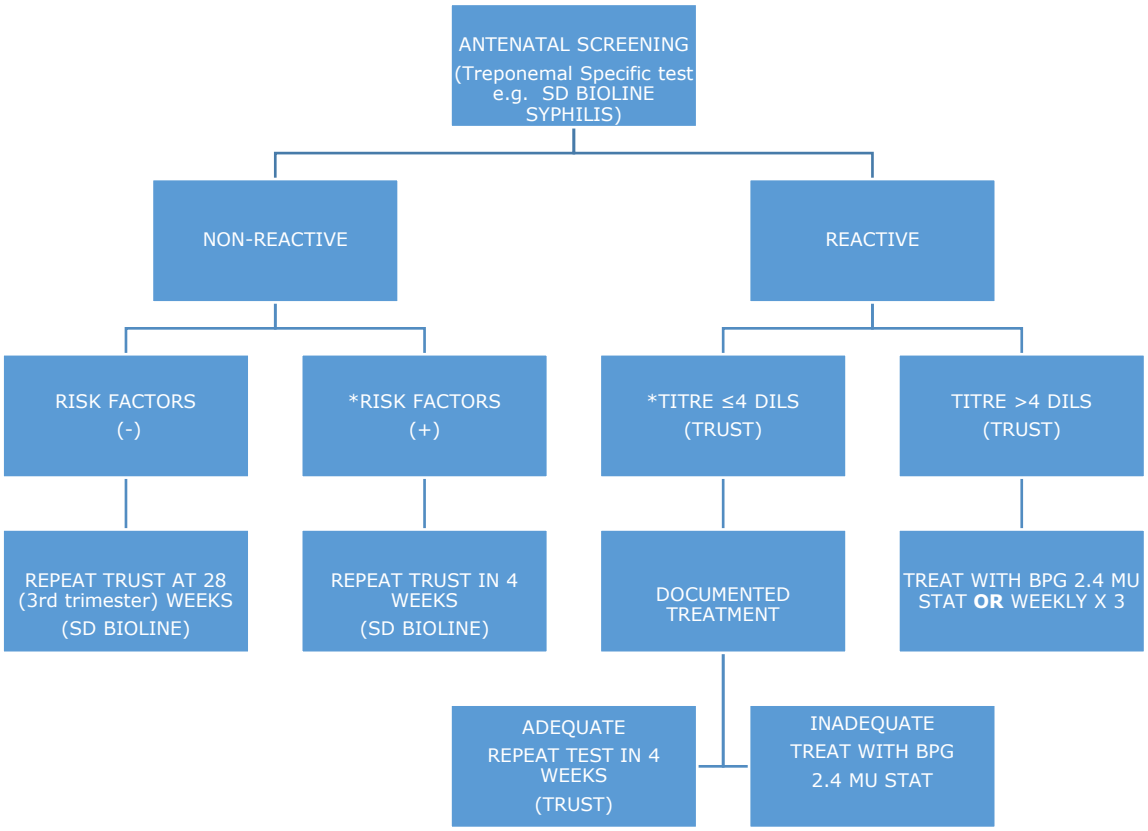
Adequate treatment for PMTCT is BPG 2.4 million units IM in a single dose, initiated thirty (30) days or more before delivery.

Re-infection by an 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.

Maternal Syphilis is a Class 3 Notifiable Disease.

Pregnant women who have known allergies to penicillin are to be referred to hospital for desensitization. **All desensitization is to be done in a hospital setting only.**

MATERNAL SYPHILIS ALGORITHM



***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

All newborns of mothers who were confirmed with Syphilis in that current pregnancy should be investigated. They should also be referred to a paediatrician for evaluation of and treatment for Congenital Syphilis as appropriate. They should all be reported **on suspicion** as a **Class 1 Notifiable disease**, to effect the appropriate evaluation, treatment and formal reporting.

Table 3: Congenital Syphilis Case Definition

Suspected Case	Confirmed Case
1. Live birth, or child less than 2 years with evidence of Congenital Syphilis on physical examination OR Evidence of Congenital Syphilis on radiographs of long bones regardless of the timing or adequacy of treatment	Suspected plus any of the following[1] • Positive non-Treponemal serology (e.g. TRUST/VDRL) fourfold above that of the mother OR • Cerebrospinal Fluid (CSF) that is Venereal Disease Research Laboratory (VDRL) reactive OR • Positive non-Treponemal serology regardless of titre (e.g. TRUST/VDRL) AND positive Treponemal serology (e.g. SD Bioline Syphilis) at 18-24 months of age OR • Positive non-Treponemal serology regardless of titre (e.g. TRUST/VDRL) AND Cerebrospinal Fluid (CSF) that is Venereal Disease Research Laboratory (VDRL) reactive with elevated WBC or protein values without other cause[2]
2. Live birth and the mother has confirmed Syphilis[3] and was untreated or inadequately treated[4] at delivery.	

[1] Other diagnostic tests include demonstration by dark field microscopy or fluorescent antibody detection of *T. pallidum* in the umbilical cord, the placenta, a nasal discharge or skin lesion material; detection of *T. pallidum*-specific IgM (these tests are not currently offered in Jamaica's Public Health Care System)

[2] During the first 30 days of life, a CSF WBC count of >15 WBC/mm3 or a CSF protein >120 mg/dL after the first 30 days of life, a CSF WBC count of >5 WBC/mm3 or a CSF protein >40 mg/dL, regardless of CSF serology (CDC)

[3] Confirmed Maternal Syphilis is defined as a pregnant woman who screens seropositive for Syphilis **AND** has a 1. VDRL reactive with titre > 4 DILS **OR** 2. VDRL reactive with titre < 4 DILS with undocumented treatment or documented inadequate treatment (CDC, WHO)

[4] Adequate treatment for the PMTCT of Syphilis is defined as treatment with IM BPG 2.4 mu stat greater than 30 days prior to delivery. Treatment with Erythromycin due to penicillin allergy is not effective and not considered adequate for the PMTCT of Syphilis (CDC, WHO)

Suspected Case	Confirmed Case
3. Stillbirth (foetus >20 weeks GA or 500 grams) or spontaneous abortion and the mother has screened positive for Syphilis	Stillbirth (foetus >20 weeks GA or 500 grams) or spontaneous abortion and the mother has confirmed Syphilis and was untreated or inadequately treated at delivery.

Inadequate treatment for PMTCT is likely if:

1. delivery occurs within 30 days of the first dose of BPG,
2. a non-penicillin regime was used for the treatment,
3. clinical signs of infection are present in the mother at delivery, or
4. the maternal antibody titre at delivery is fourfold higher than the pre-treatment titre.

If the new-born 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

No newborn should be discharged from hospital without determination of maternal serological status for Syphilis. Serological evaluation of the infant's blood should be done for all cases of positive maternal serological test. Titres should be compared with maternal values from the same serological test (TRUST). If mother has not had her serological titres in the 3rd trimester, one should be done at delivery. Cord blood should NOT be taken for serological evaluation as it often produces false results. Paediatric consultation should also be sought.

Follow up of the syphilis exposed infant

Infants with a reactive non-treponemal antibody test should be followed in the paediatric clinic and have the test repeated at 3 and 6 months. Antibody titres should decrease at 3 months and turn negative at 6 months.

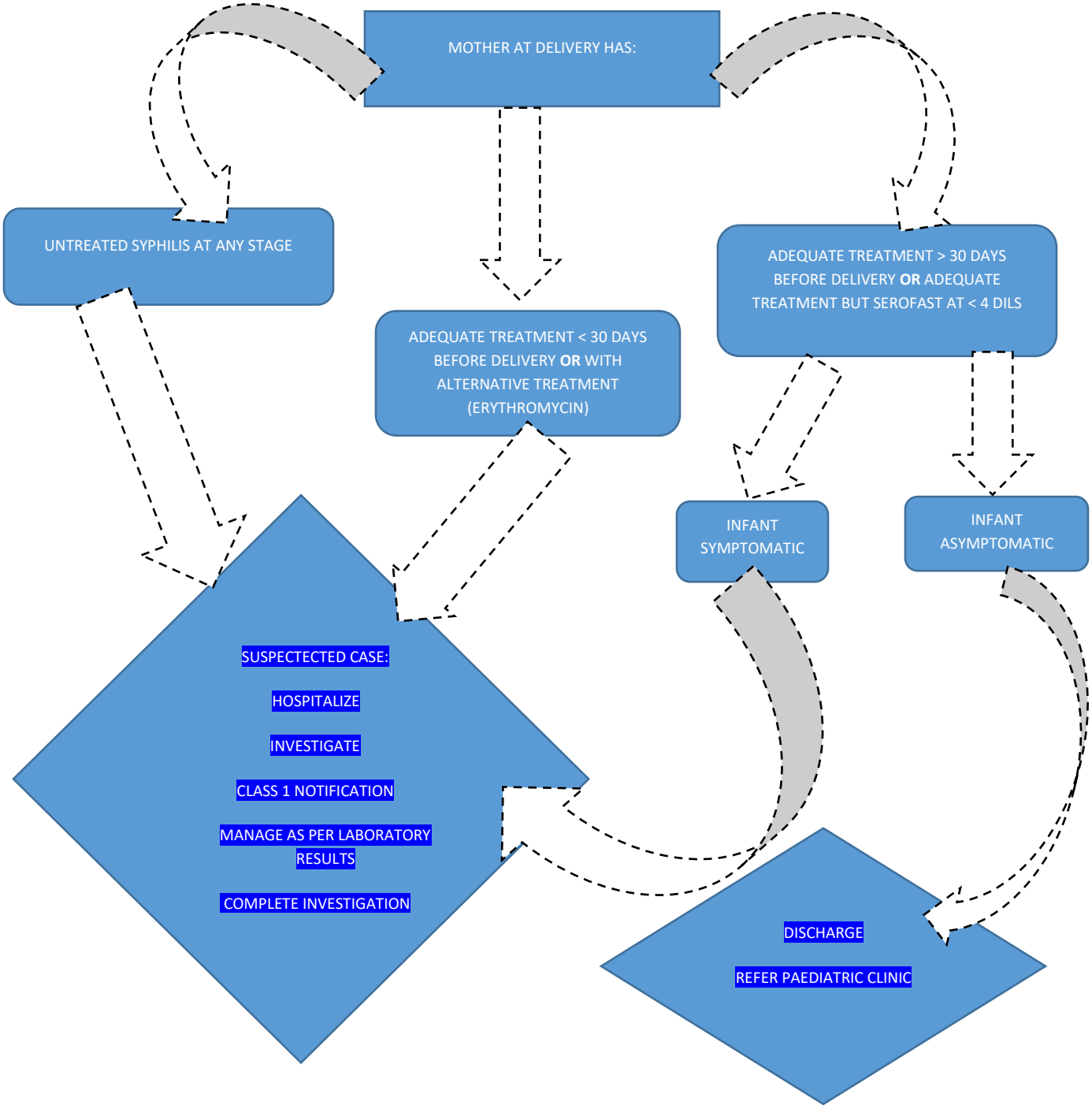
If the titre remains stable or increases the child should be re-evaluated.

Neonates whose initial CSF evaluations are abnormal should undergo a repeat lumbar puncture approximately every 6 months until the results are normal. A reactive CSF VDRL test or abnormal CSF indices that persist and cannot be attributed to another ongoing illness, requires retreatment for possible neurosyphilis and should be managed in consultation with an expert.

While the infant is being followed up in the Paediatric Outpatient Department (POPD), the PMTCT Nurse in parallel should also monitor these infants and record details in the Syphilis Confirmed Infant Register.

(See Congenital Syphilis algorithm for the management of Congenital Syphilis).

CONGENITAL SYPHILIS ALGORITHM



Infants should receive 10 days of treatment with Crystalline Penicillin if they:

- have clinical or radiological evidence of congenital syphilis,
- were born to a mother who did not receive adequate treatment for maternal syphilis at least 4 weeks before delivery,
- are asymptomatic and have an (infant) TRUST titre fourfold higher than the mother's titer (regardless of maternal treatment)

*__If more than a day is missed the entire course should be restarted__

*Infants diagnosed with Congenital Syphilis should have an evaluation of the CSF. CNS Syphilis is treated with Crystalline Penicillin as Benzathine Penicillin (BPG) does not cross the blood brain barrier.

Infants who should receive single dose BPG (50,000 units/kg/dose IM of benzathine penicillin G in a single dose) include:

- those whose mothers were treated more than 4 weeks before delivery, had treatment appropriate for their stage of infection, and had no evidence of re-infection or relapse, AND
- who have a normal physical examination and a serum quantitative non-treponemal serologic titre that is the same as or less than fourfold higher than the mother's titre.

III. TESTING AND COUNSELLING FOR HIV

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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 must be offered an HIV test as a routine part of antenatal care. HIV testing should be offered at the first antenatal visit when the routine antenatal blood screen is being done. 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
- testing is to be done at booking, third trimester and prior to discharge post delivery

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:

- Emphasize that the test is voluntary and confidential even though it is provided at the health facility
- Information as to what HIV/AIDS is
- Explain the benefits of early detection and intervention
- Explain the meaning of a positive and a negative result
- Reassure that treatment and support are available if the result is positive

In spaces more conducive to extensive counselling, the following may also be undertaken:

- 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 treatment, care and support services for HIV positive pregnant women. This is inclusive of ART for prevention of vertical transmission and for her own health
- Options for infant feeding (full formula replacement) in the context of the HIV positive mother and ART
- The benefits to infants of early diagnosis of HIV status
- Availability of testing and counselling

Informed consent should always be given on an individual basis, in private and 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 must be offered another HIV test in the third trimester. An HIV rapid test will be performed on the labour ward/delivery suite for those who do not have a HIV test report in their health chart at the time of delivery.

HIV TESTING

HIV testing is done via:

- HIV Rapid Antibody Test (3rd generation), done at peripheral testing sites (e.g. Public Health Centre Laboratories)
- HIV Antigen - Antibody (4th generation), done at the National Public Health Laboratories. Sero-discordant/inconclusive samples are also sent to the National Public Health Laboratory (NPHL).

- HIV antibody testing is done using six millilitres (6ml) of venous blood that should be taken from the clients at antenatal clinic. The blood samples collected should be tested on site. Where on site testing is not available, samples should be sent to an appropriate laboratory (testing site) in the parish/region.

The Laboratory Technical Assistants (LTAs) using the approved kits, perform HIV rapid tests. The LTAs 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. Blood samples are sent to the regional laboratories and NPHL for quality control purposes and where indicated, for confirmatory HIV testing. All blood samples that are HIV Rapid test positive on screening should undergo confirmatory HIV testing according to approved national algorithms.

All HIV confirmatory test results should be made available to the referring institutions and the clients within one (1) week 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 members of the

treatment care and support team such as the PMTCT Parish Coordinator and the Case Manager in 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 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. This should be notified via the Class 1 form. Additionally, 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.***

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 with the identification of 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.
- Advise that condom use should be continued during breast feeding to reduce the risk of transmitting recently acquired HIV through breastfeeding

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

- Understand 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 the HIV test result clearly and simply and allow the client time to react to the result
- Assist the woman in identifying sources of support
- 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 national policy and the preferred option), replacement feeding options using breast milk substitutes (BMS) such as infant formula and also breast feeding in the context of ART. Discuss with her sustainability of BMS.
- Ensure linkage to care at a treatment site and provide necessary referrals including to a Contact Investigator, PMTCT Nurse and Case Manager.
- 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:

- Understand the meaning and implication of their test result
- React to an HIV-positive result and receive empathy and support from the counsellors

- Understand infant feeding options and choose the most appropriate one.
- Learn about available PMTCT interventions, including ART 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

GUIDELINE: TESTING AND COUNSELLING FOR HIV		
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IV. STRATEGIES TO PREVENT VERTICAL TRANSMISSION OF HIV

IV. 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 Provider Initiated Testing and Counselling (PITC) 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 (STIs)
- Increasing access to condoms (including during pregnancy and breast feeding)
- 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
- Access to anti-retroviral (ARV) drugs: The combination of choice is Tenofovir, Lamivudine and Dolutegravir; or Tenofovir, Lamivudine and Efavirenz. Alternatives are available if contraindications are present.
- Obstetric 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 ART to the mother along with chemoprophylaxis to the child for the mother who chooses to breast feed despite appropriate psycho-social and medical consultant interventions. This practice carries a combined risk of transmission of less than five percent if the mother is virally suppressed. Ensure optimal virologic suppression while on ART therapy.

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 ART regimen. This is the intervention now optimally recommended by the Ministry of Health & Wellness. *See Chapter 6: Antenatal Care at the High Risk Clinic*.
- To all infants of HIV positive mothers, Nevirapine and Zidovudine are administered based on the classification of the mother of the infant as high or low risk. *Please see Chapter 9: Follow-up Care of Infants of HIV Positive Mothers*, for details of ARVs dosing to infants.

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.

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V. CARE OF THE HIV POSITIVE WOMAN

V. CARE OF THE HIV POSITIVE WOMAN

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
- And a 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 is a team approach, which must include nutritional counseling and psychosocial 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 "PMTCT", using the same coloured ink as all other notations, that is, the HIV results, or the term "C13 positive" 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 the patient's information 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
- ✓ Availability of family support and/or friend

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:

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

Table 4: Review of Symptoms

GENERAL: FATIGUE, WEIGHT LOSS, LYMPHADENOPATHY, WASTING				
GASTRO-INTESTINAL	**RESPIRATORY**	**CARDIO-VASCULAR**	**CENTRAL NERVOUS**	**GENITO-URINARY**
Oral lesions	Shortness of breath	Palpitations	Anxiety	Dysuria
Diarrhoea	Chest pain		Depression	Urinary frequency
Dysphagia	Coughs		Headache	Urethral Discharge
Odynophagia	Nasal congestion		Neck pain	Rash
Pruritus	Postnasal drip		Visual disturbance	Sores

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 fundoscopic 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)
- Treponemal specific syphilis test and if positive followed by VDRL, RPR, or TRUST titres
- Urinalysis
- CD4 Count: all new HIV positive patients must have a CD4 count for disease staging
- HIV Viral Load:
    - All HIV positive patients must have a viral load upon pregnancy confirmation. Viral suppression is less than 1000 RNA copies/ml. For any value over this, the patient is considered as not being virally suppressed.
    - A viral load should be documented in each trimester for the virally suppressed patient. For the patient not virally suppressed, a viral load should be done each month until suppression is achieved.
    - The Obstetrician must plan an elective caesarean section at 38 weeks gestational age for women who have not received viral suppression in the third trimester.

Should do:

- HBsAg
- Renal function tests (urea, creatinine, electrolytes and urinalysis)
- LFTs, serum proteins
- Serum lipids

GUIDELINE: CARE OF THE HIV POSITIVE WOMAN		
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VI. ANTENATAL CARE AT THE HIGH RISK OBSTETRIC CLINIC

V. ANTENATAL CARE 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 pre-natal 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 ARVs drugs for PMTCT.
- Remind the patient that she will have to take ARVs 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. 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 breast milk substitutes, including the respective risks. Advise the client that avoidance of all breastfeeding is recommended as replacement feeding is feasible, affordable, sustainable and safe; which is the case in Jamaica.
- Advise the client about the inappropriateness and high risks of HIV transmission associated with mixed feeding.
- If she chooses to breast feed after team intervention (see Chapter 8), demonstrate to the client good breastfeeding techniques to help prevent and treat breast problems that can increase the risk of HIV transmission. Examples of breast problems such as cracked nipples, engorgement and mastitis are also addressed in Chapter 8.
- If she chooses to breast feed, advise her about the duration of ART for her infant throughout the period of breast feeding (see Chapter 9).

- 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, at no cost to her, for at least the first 12 months of life.
- Remind her to ask the maternity ward nurse to give medication to her and her baby before they are discharged for home.
- Encourage client to bring her partner to the clinic. Fully involve the relevant partner in the antenatal management of the client.
- Commence ART as detailed in the following section. Fully advise the patient as necessary and refer her to the relevant member(s) of the psycho-social support team to facilitate full compliance.

GUIDELINES FOR COMMENCING TREATMENT WITH ANTIRETROVIRAL THERAPY (ART) DURING PREGNANCY

Antiretroviral therapy reduces the incidence of opportunistic infections and significantly increases quality of life and life expectancy among people living with HIV (PLHIV). All newly diagnosed PLHIV, including pregnant HIV positive women, should have a CD4 count performed upon presentation for disease staging. With the advent of Test and Start in Jamaica since January 2017; all patients, including pregnant mothers, should commence ARVs regardless of CD4 count.

HIV viral load is to be used to monitor the woman's response to treatment. Viral load should be done every three (3) months after treatment initiation during pregnancy for normal viral load levels (<1,000 RNA copies/ml). If viral load was high (>1,000 RNA copies/ml), the viral load should be repeated every month until normal (Please see Chapter 5). Bactrim (Trimethoprim/Sulphamethoxazole) prophylaxis against Pneumocystis Jiroveci pneumonia should be prescribed for mothers with CD4 counts below 350 cells/mm3.

Scenario A: Known HIV Positive Women 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. Women should continue on their existing regime throughout the course of the pregnancy and beyond provided that her viral load is undetectable.

Women on ART fixed dose combination of TDF + 3TC (or FTC) + DTG or TDF + 3TC (or FTC) + EFV should continue on this regime unless otherwise contraindicated. Women not previously on ART because of appropriate CD4 counts should also be started on this regime, in keeping with the new recommendations of Test and Start, regardless of CD4 levels.

Review of available data from WHO's technical update on treatment optimization reassures that there is no increase in birth defects or other significant toxicities with the

use of Efavirenz (EFV) during pregnancy. Chemoprophylaxis to the infant consists of a stat dose of Nevirapine (NVP) at birth + Zidovudine (AZT) twice daily for 4-6 weeks as outlined in Chapter 8.

Scenario B: Known HIV Positive Women Presenting Late in Pregnancy

For known HIV positive women who present late in pregnancy and are not on meds, the recommendation is to commence ART (TDF+3TC+DTG) and continue for life, with chemoprophylaxis to the infant (NVP once daily for 6 weeks and AZT twice daily for 6 weeks) as outlined in Chapter 8. This period may be extended to twelve weeks if it is known that the mother has started ART less than 4 weeks before delivery.

Scenario C: Newly Diagnosed HIV Women who present Early in Pregnancy

Treatment with ART (TDF+3TC+DTG) ideally should begin in the first trimester; or as soon as possible; to increase the chances of prevention of vertical transmission of HIV to the foetus. CD4 counts are not a determining factor to commence treatment. Chemoprophylaxis to the infant consists of a stat dose of Nevirapine (NVP) at birth + 6weeks of Zidovudine (AZT) twice daily for 6 weeks as outlined in Chapter 8.

Scenario D: Newly Diagnosed HIV Women who present Late in Pregnancy

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 TDF + 3TC + DTG to women testing positive. Provide their infants with 6 weeks of NVP once daily + 6 weeks of AZT twice daily (see further details in Chapter 9).

Scheduled caesarean delivery is recommended for prevention of perinatal transmission in women who have received antepartum ART drugs but who have detectable viremia (HIV RNA >1000 copies/mL) near the time of delivery. However, there may be an increased risk of postpartum fever, endometritis, wound infection, pneumonia, with Caesarian Section.

These women should continue ART post-partum and be referred to the Treatment Centre for a CD4 count, viral load testing and other follow-up post-delivery. ART is now recommended for life regardless of CD4 counts.

Adverse Effects of ART in pregnancy

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. 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 TDF +3TC + DTG: 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.
- For clients on AZT+ 3TC + LPV/ r: all ARV drugs should be stopped simultaneously.
- ARVs should be restarted together to decrease the risk of developing drug resistance and the full regimen should continue during labour.

VII. MODIFICATION OF OBSTETRIC PRACTICE

VII. 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. Scheduled caesarean delivery is recommended for prevention of perinatal transmission in women who have received antepartum ART drugs but who have detectable viremia (HIV RNA >1000 copies/mL) near the time of delivery
- Do not shave pubic area
- Avoid unnecessary invasive procedures.
- Clamp the umbilical cord immediately after birth.
- Do not milk or strip the umbilical cord.
- Use scissors and not a scalpel to cut the umbilical cord under gauze.
- Avoid straight needle suturing to reduce possibility of needle stick injuries.
- 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; which is the case

in Jamaica. Inform her that infant formula is available to those who choose not to breast feed and cannot afford to buy.

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VIII. POST DELIVERY CARE OF THE HIV POSITIVE MOTHER

VIII. POST DELIVERY CARE OF THE HIV POSITIVE MOTHER

Immediate Postpartum Care: No mother should be allowed to breastfeed or be discharged from hospital until her HIV/Syphilis sero-status is known.

For all HIV positive women post-delivery:

- Prior to discharge from hospital, a senior qualified clinician should conduct and document examination of the mother-infant pair.
- Routine postnatal care of the mother and child care education should be provided.
- Care should be taken with the lochia by teaching mother the principles of universal/standard precautions.
- 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 risk of HIV transmission associated with breast feeding up to one year of the infant's life in the presence of ART. 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, it would be easier for the HIV in breast milk to then enter the baby's blood stream and cause an infection, so mixed feeding 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, after being offered all the available psychosocial interventions, then advise her to exclusively breastfeed her infant for the first six months of life; introducing appropriate complementary foods thereafter. Breastfeeding should then be continued until the first 12 months of life. The

breastfed infant should receive chemoprophylaxis as outlined in Chapter 8. Reinforce the disadvantages of mixing breast feeding and formula feeding.

- 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. These non-pharmaceutical methods are the best way of managing the mothers as the routine prescription of Bromocriptine is no longer recommended. Mastitis is the inflammation of the breast (s) which requires a clinical diagnosis and treatment. A physician should be seen for medical care.
- 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 of life. 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: 9 -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.
- Ensure the mother is referred to a HIV Treatment site with notification of the Case Manager prior to discharge from hospital

Six (6) weeks postpartum care

- Advise the mother and infant pair in the routine manner
- Ensure follow-up for HIV care by a clinician by referring her back to care at the nearest Treatment Centre for management
- 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
- Refer the mother for ongoing gynaecological care and follow up as women infected with HIV need to be monitored closely.
- 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.

GUIDELINE: POST DELIVERY CARE OF THE HIV POSITIVE MOTHER		
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IX. 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 Nevirapine (NVP)and Zidovudine (AZT) as follows regardless of the regime the mother receives. Table 4 outlines the management of the HIV exposed infant based on risk.

Table 5: Management of the HIV Exposed Infant

LOW RISK INFANT	HIGH RISK INFANT
Infants born to women with established HIV infection who have received > 4 weeks ART at the time of delivery, are virally suppressed (viral load <1,000 copies/ml) and have not breastfed should receive: A single dose of 2mg/kg of Nevirapine (NVP) suspension immediately at birth or within 24 hours thereof **AND** Zidovudine (AZT), initiated at birth or within 6-12 hours after delivery, at a dose of 4 mg/kg/dose by mouth every 12 hours for 6 weeks: 1. **If the infant is preterm, < 34 weeks gestation**, AZT should be administered at a lower dose of 2 mg/kg/dose every 12 hours for the first 2 weeks, then increased to 3 mg/kg/dose every 12 hours for the next 4 weeks **If the infant is preterm, < 30 weeks gestation**, AZT should be given at a lower of 2mg/kg/dose every 12 hours for the first 4 weeks; then 3mg/kg/dose every 12 hours for the next 2 weeks	Infants born to women with established HIV infection who have received < 4 weeks ART at the time of delivery **OR** born to women with established HIV infection with viral load> 1000 copies/ml in 4 weeks before delivery **OR** born to women with incident HIV infection during breastfeeding **OR** born to women with established HIV infection who choose to breastfeed despite all interventions **(see Chapter 8)** **OR** born to women identified for the first time during the post -partum period, with or without a negative HIV test prenatally. **OR** A mother with an unknown status. If rapid test is positive or indeterminate then manage as high risk **OR** A mother who is poorly adherent or non-adherent to ART prior to, and during pregnancy High risk infants should receive **dual** prophylaxis with Nevirapine (NVP) once daily for six (6) weeks **AND** Zidovudine (AZT) twice daily as soon as possible after delivery, and continuing for six weeks. These drugs should be administered at the following doses: 2mg/kg of Nevirapine (NVP) suspension once daily for 6 weeks AND Zidovudine (AZT) 4 mg/kg/dose by mouth every 12 hours for 6 weeks:

	1. If the infant is preterm, 30-35 weeks gestation, AZT should be administered at a lower dose of 2 mg/kg/ dose every 12 hours for the first 2 weeks, then increased to 3 mg/kg every 12 hours for the next 4 weeks 2. If the infant is preterm, < 30 weeks gestation, AZT should be given at a lower dose of 2mg/kg/dose every 12 hours for the first 4 weeks; then 3mg/kg/dose every 12 hours for the next 2 weeks 3. Breastfed infants who are at high risk of acquiring HIV because they were first identified as exposed to HIV during the postpartum period, should continue NVP once daily and AZT prophylaxis twice daily for an ADDITIONAL 6 weeks (total of 12 weeks of DUAL prophylaxis). 4. Mother should be advised to discontinue breastfeeding as per the National Policy.

Guidelines for the newborn:

After delivery

- At birth thorough maternal history and evaluation of the newborn is done by a member of the paediatric team
- Evaluate for other coinfections that may be transmitted from mother to child such as syphilis, tuberculosis, herpes, hepatitis B and C, CMV and toxoplasmosis
- Immediately after delivery (within 6 hours of birth) commence chemoprophylaxis according to protocol and give a prescription for 6 weeks which must be filled before discharge
- Advise mother on breast milk replacement and refer to dietary for infant formula and counselling before discharge.

- Clinicians caring for a woman with HIV who is considering breastfeeding should consult with an expert
- Give a 2-week appointment to POPD to ensure compliance with infant prophylaxis and identify barriers to care
- HIV negative mothers should be reminded of safe sex practices due to the risk of transmission to her healthy new born through breastfeeding if she becomes infected after delivery

Follow up visits

- Review maternal ART history, compliance and viral load labour and delivery history
- Review child health passport for relevant perinatal, growth parameters and immunization history
- Review infant ART chemoprophylaxis, schedule dose and compliance
- Review feeding: breast milk replacement and/or breast milk exposure
- Ensure partner and other children are tested
- Ensure PCP chemoprophylaxis is commenced at 6 weeks of age with trimethoprim-sulphamethoxazole (Bactrim®) [at trimethoprim 5 mg/kg per dose daily or Mon Wed Fri] and discontinue Bactrim when 2 HIV DNA PCR are negative
- Ensure lab evaluation: 2 HIV DNA PCR tests at six weeks and four months PLUS a rapid diagnostic test at 18 months
- Infants born to high risk mothers should have HIV DNA PCR tests done at 2 weeks and 6 weeks in addition to routine lab evaluation to facilitate earlier diagnosis
- Any infant with an initial positive virological test result (positive HIV DNA PCR), should be commenced on ART without delay while awaiting the second virological test

For the mother who chooses to breastfeed (See Chapter 3)

- Exclusive breastfeeding means that the infant receives only breast milk. No other liquids or solids are given – not even water – except oral rehydration solution, or

drops/syrups of vitamins, minerals or medicines

- Breastfeeding is exclusive for up to 6 months postpartum, followed by breastfeeding in combination with the introduction of complementary foods
- The exclusively breastfed HIV exposed infant should be maintained on Nevirapine prophylaxis throughout breastfeeding
- PCR testing is required every 3 months throughout breastfeeding and 6 weeks, 3 months, and 6 months after breastmilk cessation PLUS a rapid test at 18 to 24 months of age.
- Breast milk replacement is commenced only immediately after cessation of breast milk
- Treat maternal mastitis and infant thrush promptly

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-tochild 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 motherbaby 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. 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 6: Formula Requirements

Age/Months	Weight/KG	Approximate Amount of Formula per 24 hours	Approximate number of Feeds
1	3	450 ml	8 * 60 ml
2	4	600 ml	7 * 90 ml
3	5	750 ml	6 *120 ml
4	5.5	750 ml	6 *120 ml
5	6	900 ml	6 *150 ml
6	6.5	900 ml	6 *150 ml

GUIDELINE: FOLLOW-UP CARE OF INFANTS BORN TO HIV POSITIVE MOTHERS		
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X. CHILDHOOD IMMUNIZATION

X. 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 5 outlines the vaccine schedule and guide for HIV exposed infants, HIV infected children and adolescents.

Table 7: Vaccine Schedule for HIV Exposed Infants, HIV Infected Children & Adolescents

VACCINE	GIVE TO ASYMPTOMATIC HIV EXPOSED	GIVE TO SYMPTOMATIC HIV EXPOSED	OPTIMAL TIMING OF IMMUNIZATION
BCG	Yes	No	Birth to 6 weeks
DPT or Paed. DT	Yes	Yes	6weeks, 3 months, 6 months, Boosters 18 months & 4-6 years
OPV	Yes	No	
IPV	Yes	Yes	
HEPATITIS B	Yes	Yes	6weeks, 3 months, 6 months
HIB	Yes	Yes	
MMR	Yes	Yes	12 months Booster at 18 months
INFLUENZA	Yes	Yes	As for uninfected individuals
PNEUMOCOCCAL CONJUGATE	Yes	Yes	
VARICELLA	Yes	No	
ROTAVIRUS	Yes	Yes	
HPV	Yes	Yes	9-14 years (3-dose vaccination schedule: 2nd dose 1-2 months after 1st; 3rd dose 6 months after 1st)

GUIDELINE: CHILDHOOD IMMUNIZATION		
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XI. SPECIAL CONSIDERATIONS IN HIV

XI. SPECIAL CONSIDERATIONS IN HIV

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) in this instance refers to the use of therapeutic agents to prevent HIV infection when the source of exposure is known to be, or likely to be HIV infected. In Jamaica, PEP for HIV is commonly considered for occupational exposures (as in the case of health care personnel) or sexual exposures following an assault. The regime for the pregnant woman is the same as for the general population who may become exposed to HIV.

The intervention should be initiated as soon as possible, ideally within hours of the exposure, but no later than 72 hours following the potential exposure. PEP should be initiated based on the following:

- It should only be given to HIV negative individuals; hence a baseline HIV test should be done. Preferably a rapid test.
- Ideally, baseline blood work for complete blood count, liver and kidney function. Screening for other blood-borne infections such as Syphilis, Hepatitis B, and Hepatitis C should also be conducted.
- 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.
- The HIV test is repeated after three and six months as the individual is followed-up.
- The case should be reported using the Needlestick/Occupational Injury form and a Class 1 Notification Form. Both forms must be sent to the Surveillance Unit at

the Ministry of Health and Wellness, as well as to the Surveillance Unit at the Parish Health Department.

Table 6 below outlines the PEP guidelines applicable to the pregnant woman.

Table 8: Recommended HIV Post Exposure Prophylaxis Guidelines

Type of Exposure	Risk	Source	Antiretroviral	Suggested Regimen
Percutaneous	High risk	Known HIV positive	May be recommended	**TLD (TDF+3TC+DTG)**
	Low risk	Unknown Serostatus	Should be offered	**TLD (TDF+3TC+DTG)** **(Duration 4 weeks)**
Mucous Membranes, Non-intact Skin	Large volume	Known HIV positive	May be recommended	**TLD (TDF+3TC+DTG)**
	Small volume (few drops)	Unknown Serostatus	Should be offered	**TLD (TDF+3TC+DTG)** **(Duration 4 weeks)**

*Alternatives for ART choices

- TDF/3TC alternative ABC/3TC
- DTG alternative ATV/r

NOTE

- Prophylaxis should be offered ideally within hours of exposure; however clinical benefit remains up to 72 hours.
- Begin prophylaxis if source patient is HIV positive or of unknown HIV Status as recommended - perform HIV serology on source patient and if result is negative

stop prophylaxis. If HIV screening is refused by source patient, consider as unknown HIV status and treat as recommended.

- Recommended dose for TLD (Tenofovir+Lamivudine+Dolutegravir) is 300mg/300mg/50mg one tablet PO once per day for four weeks
- Recommended alternative to TLD for PEP is TDF/3TC (Tenofovir+Lamivudine) 300mg/300mg one tablet PO once per day plus ATV/r (Atazanavir/Ritonavir) 300mg/100mg one tablet PO once per day for four weeks
- Conduct baseline HIV serology on exposed patient and repeat after three months
- Pregnant women should be counselled on the possible side effects of TLD use in pregnancy and provide written consent. If the client does not wish to/or is unable to consent, then the TDF/3TC+ATV/r alternative should be used for PEP.

Once PEP has been offered, there should be:

- Adequate follow-up, as previously outlined
- Ensuring and maintenance of confidentiality
- On-going support as required
- Appropriate referrals where necessary

THE RIGHTS-BASED APPROACH TO FAMILY PLANNING

Since the advent of antiretroviral therapy, fertility and sexual health issues have been an important concern for persons living with HIV (PLHIV). 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. 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:

- Plans to become pregnant should first be discussed with their health care provider to prevent HIV transmission to their partner, and to ensure the optimal conditions for a safe pregnancy and delivery for the patient.
- Pregnancy does not appear to accelerate HIV progression.
- An HIV infected mother can transmit the virus to her child.
- Antiretroviral therapy when taken correctly, will reduce the risk of HIV transmission to the infant during pregnancy and delivery.
- The implications of rearing an infected child.
- The benefits to the child when an HIV-infected mother maintains her own good health
- Breastfeeding is **NOT** recommended for babies born to HIV infected mothers
- Babies born to HIV infected mothers are **EXCLUSIVELY** formula fed to reduce the risk of mother to child HIV transmission
- Infants born to HIV infected mothers will need to take Post Exposure Prophylaxis at and after birth to reduce the risk of mother to child transmission of HIV

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:

- Limiting unprotected intercourse to the most fertile period in the female's cycle
- Fertility options such as In Vitro Fertilization (IVF) that can be accessed through the Hugh Wynter Fertility Management Unit at the University of the West Indies, Mona Campus
- Adoption/ fostering children

SERODISCORDANT COUPLES

Serodiscordant or 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:

- Limiting unprotected intercourse to the most fertile period in the female's cycle for those couples where the infected partner has undetectable viral load
- Fertility options such as sperm washing, and intrauterine insemination (depending on which partner is HIV infected) that can be accessed through the Hugh Wynter Fertility Management Unit at the University of the West Indies, Mona Campus
- Adoption/ fostering children
- PrEP
- Surrogacy

PRIVATE SECTOR PATIENTS

HIV positive pregnant clients who are being treated in the private sector may access antiretroviral therapy free of cost (but may be required to pay a minimal pharmacy administrative cost) at a number of participating pharmacies. In order to access this service, 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 and HIV treatment site. 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 12). Ideally, referrals should be accompanied by a detailed medical history documenting laboratory results.

GUIDELINE: SPECIAL CONSIDERATIONS in HIV		
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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 MOs(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 & Technicians, Pharmacists, Hospital Matrons or Sisters, Social Workers, Peer Navigators, Case Managers, Liaison Officers, Psychologists, Treatment Care & Support Officers and 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/TB 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 Syphilis rapid tests are reactive

- Timely referral to High Risk Clinic (HRC) and Treatment site 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 Penadur and ARVs for mother on Labour Wards
- Adequate stocks of ARVs for 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 HIV/STI/TB Unit and Family Health Services Unit (Ministry of Health and Wellness) are responsible for providing 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, Strategic Information Unit, National HIV/STI/TB Programme (Ministry of Health and Wellness) in keeping with the reporting guidelines **[See Chapter 13; with Annexes 2 to 12 for reporting forms].**

XIII. ANNEXES

XIII. ANNEXES

ANNEX 1: Adverse effects of ARV drugs

NUCLEOSIDE/NUCLEOTIDE REVERSE TRANSCRIPTASE INHIBITORS (NRTIS)

Table 9: Nucleoside/Nucleotide Reverse Transcriptase Inhibitors (NRTIS)

AGENT	ADVERSE EVENT	COMMENTS
Zidovudine	Anemia, neutropenia, fatigue, malaise, headache, nausea, vomiting, myalgia, myopathy and hyperpigmentation of skin and nails	✓ Twice-daily dosing preferred over thrice-daily dosing. ✓ Fatigue, nausea, headache, and myalgia usually resolve 2-4 weeks after initiation. ✓ Adjust dosage for renal insufficiency or failure.
Lamivudine	Headache, dry mouth	✓ Adverse effects occur infrequently. ✓ Adjust dosage for renal insufficiency or failure. ✓ Active against hepatitis B virus. In patients with HIV and hepatitis B coinfection, hepatitis may flare upon discontinuation of Lamivudine.
Tenofovir	✓ Lactic acidosis, osteopenia ✓ New, worsening kidney problems including renal failure ✓ Jaundice ✓ Nausea, dizziness, stomach ache ✓ Fatigue, malaise	✓ May cause an immune reconstitution inflammatory syndrome ✓ If Hepatitis B infection is also present, it may get worse if Tenofovir is discontinued

AGENT	ADVERSE EVENT	COMMENTS
Emtricitabine	✓ Headache, nausea, insomnia ✓ Hyperpigmentation of palms and soles (especially in dark skinned persons, can be mistaken for Secondary Syphilis rash)	✓ Adverse effects occur infrequently ✓ Active against Hepatitis B virus but Hepatitis may flare upon discontinuation of Emtricitabine

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

Non-nucleoside Reverse Transcriptase Inhibitors (NNRTIs)

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

Table 10: Non-nucleoside Reverse Transcriptase Inhibitors (NNRTIs)

AGENT	ADVERSE EVENTS	COMMENTS
Efavirenz	✓ Elevations in liver function tests ✓ Abnormal dreams, drowsiness, dizziness, confusion ✓ Hyperlipidemia ✓ Auditory and visual hallucinations	✓ Central nervous system symptoms are common; severity usually decreases within 2-4 weeks. ✓ Is not recommended for persons with Mental Health Disorders as it may exacerbate their symptoms
Nevirapine	✓ Rash, Stevens-Johnson syndrome, toxic epidermal necrolysis ✓ Elevations in liver function tests, hepatitis, liver failure ✓ Hepatitis, liver failure	✓ Initial dose of 200 mg per day for first 14 days, then 200 mg twice daily, decreases frequency of rash. ✓ Most rash develops within first 6 weeks of therapy; rash is most common in women. ✓ 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.

Protease Inhibitors (PIs)

All PIs are associated with metabolic abnormalities including dyslipidaemia, hyperglycaemia, insulin resistance, and lipodystrophy. There is a 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 11: Protease Inhibitors

AGENT	ADVERSE EVENTS	COMMENTS
Lopinavir/ritonavir	✓ Diarrhea, nausea, vomiting ✓ Dyslipidemia ✓ Elevations in liver function tests ✓ Taste perversion	✓ Capsules are stable at room temperature for up to 60 days. ✓ Oral solution contains 42% alcohol. ✓ Avoid combining oral solution with metronidazole or disulfiram. Alcohol in the oral solution may cause disulfiram-like reaction.
Atazanavir/ritonavir	✓ Mild rash ✓ Headache, nausea ✓ Elevations in liver function tests	✓ May have drug interaction with fluticasone used in respiratory illnesses such as Asthma ✓ May interact with digoxin, insulin and drugs used for erectile dysfunction ✓ May cause changes in the location of deposition of body fat such as the face, arms and legs

Tables adapted with modification from HIV/ INSITE

Integrase Inhibitors (INIs)

Integrase inhibitors such as Dolutegravir have no significant drug to drug interactions, although, antacids, laxatives, calcium and iron supplements greatly decrease their absorption.

ANNEX 2: PARISH PMTCT COORDINATOR DUTIES – SUMMARY

***(some duties may be carried out by the PMTCT Nurse/other team members)**

Daily/ Weekly

- ✓ Review laboratory data to identify:
  - (1) Antenatal clinic attendees (ANCAs)
  - (2) Labour Ward/Post Natal Ward patients and
  - (3) Gynaecological/Surgical Ward patients testing HIV or Syphilis positive
- ✓ Liaise with main Antenatal care providers at the relevant health centres/ hospital to advise of clients' result (if not yet received) and to obtain more specific information about the clients identified from the lab records
- ✓ Log information about HIV and Syphilis positive ANCAs identified in the Parish PMTCT Register
- ✓ Prepare list of newly identified HIV or Syphilis positive ANCAs and submit under confidential cover to Nurses in charge at the high risk Antenatal clinics and Labour ward. The information should also be shared with the Parish Nutritionist/ Nutrition Technician, Contact Investigator(s), Regional PMTCT Nurse, MO(H) and the HIV Treatment Site Coordinator
- ✓ Liaise with Nurses in charge of High Risk Antenatal Clinics (HRANCs) and PMTCT Nurse to get information about HIV or Syphilis positive pregnant women attending these clinics who were not previously identified. Inform the Contact Investigator on these cases

- ✓ Liaise with main postnatal care providers at the relevant health centres advising them of HIV positive or HIV exposed clients to expect and obtain data on family planning (contraceptive) acceptance of HIV positive mothers
- ✓ Prepare line listing of Syphilis positive women for submission through the weekly surveillance system
- ✓ Ensure completion of class 1 notification forms and submission of same under confidential cover to the parish Medical Officer (Health) [MO(H)] - HIV positive pregnant women, HIV exposed infants, Paediatric HIV cases and suspected Congenital Syphilis cases

Monthly

- ✓ Determine HIV and Syphilis testing coverage of the new ANCAs seen across the parish for the month. Where coverage is below the target, identify reasons for this and bring the matter to the attention of the relevant Senior Technical Officers, offering suggestions on corrective actions as deemed appropriate
- ✓ Visit Labour Ward/ Delivery Suite/Gynaecology Ward/Surgical Ward and retrieve data about HIV or Syphilis positive women who delivered by parish of residence (check both main delivery log book, PMTCT register and actual dockets respectively)
- ✓ Visit the Medical Records Department for new cases of HEI and SCIs that may have been missed. Ensure the cases are referred to the Contact Investigator
- ✓ Retrieve clients' medical records to clarify/ substantiate data as necessary
- ✓ Discuss with relevant personnel (e.g. Charge Nurse on duty/ Sister in charge of ward/ Departmental Sister/ Head of Department/ Consultant – Obstetrics) about PMTCT interventions; commend on achievements and highlight gaps where necessary, providing suggestion on corrective actions
- ✓ Document information on antiretroviral therapy (ART) or Syphilis treatment/testing received by women and their babies. The mother's viral load (VL) results or date of results should also be documented.

- ✓ Where HIV positive women and/or their babies did not receive (optimal) ART for PMTCT, reasons should be identified and documented
- ✓ Update parish PMTCT register with data retrieved from Delivery Suite/ Labour Ward
- ✓ Complete PMTCT report and submit on a monthly basis to the Ministry of Health and Wellness and Regional STI/HIV Programme Coordinator through the Medical Officer (Health) (Note that negative reporting is expected). This report should be submitted by the 15th day of the following month
- ✓ Liaise with PMTCT Nurse, Social Workers and Nutrition professionals to ascertain information regarding follow up care of mother-baby pair, with special emphasis on Paediatric clinic attendance
- ✓ Obtain data on HIV exposed babies who have been HIV tested (PCR/ ELISA) and their results; update parish PMTCT register accordingly
- ✓ Provide update on PMTCT programme activities at the monthly Parish STI/HIV programme team meeting and the Parish Epidemiology Committee meeting

Quarterly

- ✓ Prepare PMTCT statistical report in accordance with the performance indicators
- ✓ Submit along with a concise narrative through the Parish STI/HIV Programme Coordinator to the MOs(H) and the Regional STI/HIV Programme Coordinator. The report is expected at the Regional STI/HIV Programme Coordinator's office by the **fifteenth** (**15th) day** of the month following the end of a quarter

Ongoing

- ✓ Identify training and other resource needs relevant to the PMTCT programme; communicate/conduct training as appropriate
- ✓ Provide appropriate feedback to the stakeholders of the PMTCT programme on successes, challenges/ gaps and assist in formulation of solutions/ strategies to overcome the barriers identified

- ✓ Liaise with relevant staff to conduct or facilitate home visits for PMTCT clients as deemed appropriate
- ✓ Monitor implementation of PMTCT programme, using the PMTCT Manual
- ✓ Establish relationships with private practitioners providing antenatal care, in order to collect relevant data on testing of mothers for HIV and Syphilis and provide the linkage for them to be admitted as high risk patients at the time of delivery.
- ✓ Assist with implementing SOPs and monitoring stocks of rapid test kits for HIV/Syphilis, HAART/ Penicillin and the implementation of point of care testing and treatment or prophylaxis for pregnant women on the Labour Ward

ANNEX 3: MONTHLY PMTCT REPORTING FORM FOR HIV & SYPHILIS

GENERAL HOSPITAL AND OBSTETRIC DATA						
		Current Total				**Data source**
1	No. of hospital admissions during the period [excluding obstetric & paediatric admissions]					HMSR
2	No. of hospital admissions [excluding obstetric & paediatric admissions] tested for HIV					Lab data
3	No. of hospital admissions [excluding obstetric & paediatric admissions] tested positive for HIV					Lab data
4	No. of pregnant women who delivered					Delivery book
5 a	No. of pregnant women who delivered with no known history of ANC visits for current pregnancy					Delivery book
5 b	No. of live births					Delivery Book Labour Wards/Medical Records
6	No. of pregnant women who had an abortion, fetal or infant death:	Abortion	SB	PND		Delivery Book/ Gynecology / Surgery Ward Book/ Death Registry
PMTCT OBSTETRIC DATA						
7	No. of pregnant women who had a 1st ANC visit for the current pregnancy	0-15 wks	16-28 wks	29+ wks		MCSR/ANC
8 a	No. of pregnant women who delivered a live birth and required HIV/Syphilis testing (no known ANC visits, no 3rd trimester test result, HIV/STI risk, inadequate documentation of Syphilis cure)	HIV	Syphilis			Labour Ward Delivery Book
8 b	No. of pregnant women who delivered a live birth and required HIV/ Syphilis testing (no known AN visits, no 3rdtrimester test result, STI/STI risk, inadequate documentation of Syphilis cure) **testing positive**	HIV	Syphilis			Labour Ward Delivery Book
9	No. of pregnant women who delivered a SB and were tested for Syphilis	Tested	Confirmed			Labour Ward Delivery Book

SYPHILIS					
10	No. of pregnant women tested for Syphilis	1st visit	Retest	3rd trimester	MCSR
11	No. of pregnant women with screened- positive Syphilis				Maternal Syphilis Register
12	No. of pregnant women with screened- positive Syphilis appropriately treated for PMTCT (One dose Benzathine Penicillin (2.4mU IM) at least 30 days prior to delivery)				Maternal Syphilis Register/ MCSR
13	No. of pregnant women with confirmed Syphilis appropriately treated for her own health	0-15 wks	16-28 wks	29+ wks	Maternal Syphilis Register
14	No. of pregnant women with confirmed Syphilis (in the antenatal period of the current pregnancy) who delivered	Live Birth	Still birth		Maternal Syphilis Register
15	No. of infants with confirmed Congenital Syphilis				**National Surveillance Unit**

HIV					
16	No. of pregnant women tested for HIV (including those previously infected, tested during pregnancy and/or during childbirth/postpartum ≤72 hours after birth	ANC	Intrapartum/ Postpartum		MCSR, Labour/Delivery/ Postnatal ward/ Lab
17	No. of pregnant women tested **POSITIVE** for HIV (including those previously diagnosed, diagnosed during pregnancy and/or during childbirth/ postpartum ≤72 hours after birth)				MCSR
18 a	No. of HIV positive pregnant women who delivered	Live Birth	Still birth		Maternal HIV Register/Labour Ward Register/Delivery Book
18 b	Mode of delivery for HIV positive pregnant women who delivered	SVD	LSCS	Other	Maternal HIV Register/Labour Ward Register/Delivery Book
18 c	No. of HIV positive pregnant women who delivered and had multiple gestation	Twin	Triplet	Other	Maternal HIV Register/Labour Ward Register/Delivery Book
19 a	No. of HIV positive pregnant women who delivered and who received ARVs to reduce the risk of MTCT				Maternal HIV /PMTCT Register

19 b	No. of HIV positive pregnant women who delivered and received HAART to reduce the risk of MTCT (TDF/3TC/EFV or other HAART regime)	≥ 4 weeks	<4 weeks	Maternal HIV /PMTCT Register
19 c	No. of HIV positive pregnant women who delivered and received OTHER ARVs to reduce the risk of MTCT. **Specify here:**_____			Maternal HIV / PMTCT Register/ Docket
20	No. of HIV positive pregnant women who delivered and did not get ARVs			Maternal HIV / PMTCT Register
21 a	No. of HEI born alive			Maternal HIV Register/HEI Reg.
21 b	No. of HEI born alive and got ARVs **[Indicate which]** **Specify here if not listed** _____	AZT	NVP	Other / HEI Register
21 c	No. of HEI born alive **and did not get ARVs**			HEI Register
	Name of Attending Obstetrician (Private hospitals only)			
	Name of Attending Paediatrician (Private hospitals only)			

SYPHILIS CONFIRMED INFANTS (SCIs) Those confirmed by Laboratory							**Data source**
22	Total new SCIs (≤ 18 months)						SCI Register
23 a	Total of SCIs in Care including new and those retained in care						
23 b	Total of SCIs in Care including new and those retained in care who were adequately (receiving ten days of IV Cryspen) treated						
24 a	No. of SCIs who needed repeat titres to monitor expected downward trend/confirm cure	0-3 mths	4-6 mths	7-9 mths	10-12 mths	> 1 year	
24 b	Titre						
24 c	No. of SCIs who needed repeat titres at 1 year/older						
25	No. of confirmed cases of SCIs discharged from care (YTD)						
26	No. of deaths among SCIs – Class 1 notification form to be completed	#			Age(s)		

HIV EXPOSED INFANTS (HEIs)							Data source
27	Total New HEIs (≤18 months)						HEI Register
28	No. of new HEIs whose mothers received ART during pregnancy	≥ 4 weeks	<4 weeks	No ARVs			HEI Register/ Maternal HIV/PMTCT Register
29 a	No. of new HEIs who received ARVs at birth (≤72 hours) to reduce MTCT						HEI Register
29 b	No. of new HEIs who received ARVs in the first 6 weeks of life						HEI Register
30	HEIs started on Bactrim prophylaxis at ≤8 weeks or older	≤8 weeks	>8 weeks				HEI Register
31 a	No. (and %) of HEIs receiving a 1st PCR to determine HIV status						HEI Register
31 b	No. (and %) of HEIs receiving 1st PCR within 8 weeks of birth	#	%				HEI Register
32	Total Newly Diagnosed HIV-positive children – Class 1 notification form to be completed						HEI Register/Paediatric Investigation Report
33	No. of 18-month old HEIs completing 3, 5, 12, **and** 18 months visits						HEI Register
34	No. of HEIs newly discharged from HIV care						HEI Register
35	No. of HEIs lost to follow-up prior to completing assessments of their HIV status	Partially assessed	Not assessed				HEI Register
36	No. of deaths among HEIs (excluding HEI that had already been diagnosed as HIV positive prior to death)	#	Age(s)				HEI Register

		Birth -8 wks	9 wks - 4 mths	5 to 8 mths	9 to 12 mths	>1 year	HEI Register
37 a	No. of HEIs seen						
37 b	No. of HEIS whose feeding practices were assessed and recorded						
37 c	No. of HEIs who were breast fed exclusively						
37 d	No. of HEIs who were formula fed exclusively						
37 e	No. of HEIs who were mixed fed						
37 f	No. of HEIs who had a 1st PCR/VL test to determine their HIV status						
37 g	No. of HEIs who tested positive from a 1st PCR/VL test to determine their HIV status						

37 h	No. of HEIs who tested negative from a 1st PCR/VL test to determine their HIV status						
37 i	No. of HEIS who had a 1st HIV antibody/serological test to determine their HIV status						
37 j	No. of HEIs who tested positive from a 1st HIV antibody/serological test to determine their HIV status						
37 k	No. of HEIs who tested negative from a 1st HIV antibody/serological test to determine their HIV status						

HIV POSITIVE CHILDREN & ADOLESCENTS

38	Grand total of children linked to Programme (HEIs and HIV-positive children) including those who are lost to follow-up	HEI	HIV+	HEI Register
39	Total of children in Care (HEIs and HIV-positive children) including new and those retained in care	HEI	HIV+	HEI Register
40	Total new children in programme (HEIs and HIV-positive children)	HEI	HIV+	HEI /HIV+ Register

41 Current Grand Total of HIV-positive children in care (including those newly diagnosed above)

CDC HIV/AIDS Clinical Categories	0 -4 yrs		5 -9 yrs		10 -12 yrs		13 -14 yrs		15- 19 yrs		>19 yrs		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
N														
A														
B														
C														

HEI Register
HIV Positive Register

42	Current total no. of HIV-positive children/ adolescents on HAART																		
43	Total no. of children/ adolescents newly initiated on HAART																		HIV Positive Register
									Transferred out				Migrated overseas						

44	No. of HIV-positive children transferred to another site/ Migrated overseas				HIV Positive Register
45	No. of HIV-positive children transferred in from another site				HIV Positive Register
46	No. of deaths among HIV-positive children/adolescents – class 1 notification form to be completed		#	Age(s)	HIV Positive Register/Class 1 Notification form

COMMENTS

Appendix for PMTCT Monthly Reporting Form

1. Enter the total # of persons admitted for the reporting month
2. Enter the total # of persons who were tested (this is a subset of #1).
3. Enter the total # of persons who have tested, how many persons were positive (this is a subset of #2).
4. Enter the total # of persons who delivered, including stillbirths (a child born with no signs of life at or after 28 weeks) and babies born alive.
5. a) Enter the total # of persons who delivered and had no documented antenatal care; publicly or privately.
   b) Enter the total # of babies delivered alive (subset of #4).
6. Enter the # of deaths from 28 weeks of life to 7 days.
7. Enter the # of women (by gestational age 0-15 weeks, 16-28 weeks, 29 weeks and greater) visiting the ANC for the first time since the calendar year for the reporting period. Although ANC attendees will have several visits during the course of the pregnancy, the # of first visits is used to indicate the total # of women seen in public and private sectors.
8. a) Enter the # of women who did not have documented ANC visits and therefore required HIV & Syphilis testing (see info in parenthesis).
   b) Enter the # of women testing positive from above.
9. Enter the # of women who delivered stillbirths and were tested for Syphilis (should be a subset of #6 and ideally be equal to # entered under SB)
10. Enter the # of women tested for Syphilis (<20 weeks gestation, >20 weeks gestation) during the month.

11. Enter the # of women **confirmed** for Syphilis (a subset of # 10). Women with prior exposure to Syphilis, even when adequately treated, will remain seropositive for life. Confirming Syphilis in the current pregnancy will require follow-up from a Contact Investigator. Communication efforts should be made to have as precise a number as possible within the reporting month.
12. Enter the total # of women treated with at least one dose of Benzathine Penicillin (2.4mU IM) at least 30 days prior to delivery.
13. Enter the # of women treated with three doses of Benzathine Penicillin (2.4mU IM) at least one week apart.
14. Enter the # of women with confirmed Syphilis for current pregnancy who delivered.
15. Enter the total # of babies with Congenital Syphilis by laboratory confirmation in same month as the reporting period. If reporting on confirmed Congenital Syphilis for another reporting period, please make notes in the "Comments" section of the report.
16. Enter the # of women tested for HIV; whether HIV infected prior to the current pregnancy, during the current pregnancy, during labour, or in the post- partum period up to 72 hours after delivery.
17. Enter the # of women tested **POSITIVE** for HIV; whether HIV positive prior to the current pregnancy, during the current pregnancy, during labour, or in the post-partum period up to 72 hours after delivery.
18. a. Enter the # of HIV positive pregnant women who delivered viable multiple gestations (twins, triplets, quadruplets, etc. where
    b) Subset of 18
    c) Subset of 18
19. a) Enter the # of HIV positive women who delivered and have evidence of receiving ARVs during pregnancy.
    b) Subset of 19a, duration of ARV therapy
    c) Subset of 19a, if ARV therapy was different from the first line regime named in 19b
20. Self-explanatory
21. a) All infants of HIV positive mothers born within the reporting period. This # should be equal to 18a's Live Birth column's number.
    b) All infants of HIV positive mothers born within the reporting period who received ARVs AZT and NVP as indicated in the associated columns, state which ARVs were given and why. (Indicate which – AZT, NVP, other (specify if not listed)
    c) All infants of HIV positive mothers born within the reporting period who did not receive ARVs.
22. Total new Syphilis confirmed infants ≤ 18 months.
23. a) Enter the total # of newly confirmed Syphilis infants linked to the programme for the reporting period and those retained in care, excluding those discharged during the last reporting period.
    b) Enter the total # of current Syphilis confirmed infants linked to the programme, including those new for the reporting period and those retained in care, who were adequately treated.
24. a) Enter the total # of current Syphilis confirmed infants linked to the programme who require follow-up to monitor the down-ward trend of titres post-treatment
    b) Enter their respective titres in the appropriate age-group column.
    c) Enter # of SCIs who need a repeat titre at 1 year old.
25. Enter the total # of SCIs discharged from care (YTD)
26. Enter the total # of deaths among SCIs and complete a Class 1 notification form.
27. Enter the total # of new HEIs for the reporting period (less than or equal to 18 months)

28. Enter the total # of new HEIs whose mothers received ART during pregnancy disaggregated based on the number of weeks mothers received ARVs up to the time of delivery.
29. a) Enter the total # of new HEIs who received ARV prophylaxis within 72 hours of birth.
    b) Enter the total # of new HEIs who received ARV prophylaxis within the first 6 weeks of life.
30. Enter the total # of new HEIs started on Bactrim prophylaxis at ≤ 8 weeks or older disaggregated by age.
31. a) Enter the total # of HEIs receiving a 1st PCR
    b) Enter the total # of HEIs receiving a 1st PCR within 8 weeks of birth
32. Enter the total # of newly diagnosed HEIs who have a **CONFIRMED** HIV positive status
33. Enter the total # of 18-month old HEIs who have completed all required visits
34. Enter the total # of HEIs discharged from care
35. Enter the total # of HEIs who were lost to follow-up prior to completing follow-ups to determine their HIV status
36. Enter the total # of deaths among HEIs, not including those who were classified as being HIV positive prior to death. The cause of death does not have to be HIV related.
37. a) Enter the total # of HEIs seen in their respective age group categories
    b) Enter the total # of HEIs who had their feeding practices assessed.
    c) Enter the total # of HEIs who have been exclusively been breast-fed. The # of HEIs who have been breast-fed ideally should be zero according to the National protocol. A multi-team approach should be followed for resistant mothers (refer to PMTCT Manual). Place comments as per necessary in the "Comments" section.
    d) Enter the total # of HEIs exclusively formula fed.
    e) Enter the total # of HEIs who were mixed fed (both formula fed and breast fed). Ideally, this number should be zero. Mixed feeding is not recommended and increases the risk of vertical transmission (**refer to PMTCT Manual)**. Place comments as per necessary in the "Comments" section.
    f) Enter the total # of HEIs who received a first PCR test disaggregated by age
    g) Subset of (f) disaggregated by age
    h) Subset of (f) disaggregated by age
    i) Enter the total # of HEIs who received a 1st HIV antibody/ serology test as a method of diagnosis.
    j) Subset of (i) disaggregated by age
    k) Subset of (i) disaggregated by age
38. Enter # of children linked to the programme including HEIs and HIV-positive children, including those lost to follow up.
39. Self-explanatory
40. Self-explanatory
41. Enter # of HIV positive children in care including newly diagnosed children disaggregated in age groups and by CDC classification.
42. Self-explanatory
43. Self-explanatory
44. Enter # of HIV-positive children transferred to another treatment/migrated.
45. Self-Explanatory
46. Enter # of deaths among HIV-positive children/adolescents within the reporting period, completing a class 1 notification form.

NB: **National PMTCT of HIV/Syphilis and Paediatric/Adolescent HIV/Syphilis Program Report**
Parish: **Reporting Period (mm/yy):**

The new gold standard for ARV treatment in HIV diagnosed in pregnancy is Tenofovir (TDF) + Lamivudine (3TC) + Dolutegravir (DTG). This adjustment has been circulated prior, this is just a reminder. Alternatives do exist, based on the scenario. These are:

1. **Tenofovir (TDF) + Lamivudine (3TC) + Efavirenz (EFV) OR**
2. **Abacavir (ABC) + Lamivudine (3TC) + Efavirenz (EFV) OR**
3. **Abacavir (ABC) + Lamivudine (3TC) + Dolutegravir (DTG)**

If the patient is a known PLHIV who is already on ARVs they will continue on their current regimen unless contraindicated in pregnancy.

KEY

ABBREVIATION	MEANING
mm/yy	Month/year: 2 digits each
dd/mm/yy	Day/month/year: 2 digits each
SB	Still Birth
IUD	Intra-Uterine Death
PND	Post-Natal Death
ANC	Antenatal Care
AN	Antenatal
STI	Sexually Transmitted Infection
PMTCT	Prevention of Mother to Child Transmission
SVD	Spontaneous Vaginal delivery
LSCS	Lower Section Caesarean Section
AZT	Zidovudine
NVP	Nevirapine
EFV	Efavirenz
TDF	Tenofovir
3TC	Lamivudine
ARV	Antiretroviral
PCR	Polymerase Chain Reaction
CDC	Centres for Disease Control
YTD	Year To Date
HAART	Highly Active Antiretroviral Therapy

ANNEX 4: PAEDIATRIC HIV INVESTIGATION FORM

Parish	**Date on Notification Form**	**Date Investigation assigned**	**Parish Code**

INFANT INFORMATION

Child's Name Last: First:	**Age**	**Date of Birth**	**Gender** **M F**
Name of Mother Last: First:	**Child's Docket #**	**Health Centre / Hospital name**	
Telephone Number / **Mother's Age**	**Home Address**		
Mother's Docket Number / **Site of Delivery (Hosp/RMC/Home)**			

CLINICAL DATA

SYMPTOMS / SIGNS	**Y N**
Pneumonia	
Failure to thrive	
Recurrent bouts of diarrhoea	
Generalized lymphadenopathy	
Multiple or recurrent bacterial infections	
Opportunistic infections	
Neurological dysfunction	

Immediate Post-Partum ARV Treatment *(Drug(s), dosage and duration)*

MOTHER'S INFORMATION

# Children alive	**# Stillbirths**	**# Miscarriages**	**# Lifetime sex partners**
ANC *(this pregnancy)* PRIVATE [ ] PUBLIC [ ] # VISITS ……..	**Date, Type And Result Of Mother's HIV Test** **Status Of Mother**		**Treatment During Pregnancy** ***(Drug(s), Dosage and duration)***

FATHER'S INFORMATION

Name Last: First:	**AGE**	**Telephone Number**
Address	**# Lifetime sex partners**	
Date, Type And Result Of Father's HIV Test	**Status Of Father**	

CHILD'S LABORATORY DATA

TEST	**DATE**	**RESULT**
HIV		
PCR (6 weeks)		
PCR (3 months)		
HIV ELISA (18 months)		

FINAL CLASSIFICATION

RESULTS PENDING [ ]
CONFIRMED CASE [ ]
DISCARDED CASE [ ]

COMMENTS

Signature: **Date:** **MO(H) Signature:**

ANNEX 5: CONGENITAL SYPHILIS INVESTIGATION FORM

Parish	Date on Notification Form	Date Investigation assigned	Parish Code
INFANT INFORMATION			
Infant's Name	Age	Date of Birth	Gender M F
Name of Mother	Infant's Docket #	Health Centre/ Hospital name	
Telephone Number	Mother's Age	Home Address	
Mother's Docket #	Site of Delivery (Hosp/RMC/Home)		
CLINICAL DATA			
SYMPTOMS	Y N	SYMPTOMS	Y N
Generalized lymphadenopathy		Snuffles	
Vesiculo-bulious rash		Jaundice	
Pneumonia		Anaemia	
Neurological symptoms		Hepatosplenomegaly	
Mucous patches		Failure to thrive	
Other rashes		Was this a stillbirth?	
Was the birth premature?		Mother's VDRL Test (Result and Date)	

MOTHER'S INFORMATION				
# Children alive	# Stillbirths	# Miscarriages	# Lifetime sex partners	Interview Record #
ANC (this pregnancy) PRIVATE [ ] PUBLIC [ ] #Visits……			VDRL/TRUST Test (Last pregnancy): [Y] [N] Result:…… Treatment [Y] [N]	
VDRL/TRUST Test (This pregnancy): [Y] [N] Result:…… Treatment [Y] [N]			Number and Date of doses of BPG	

MOTHER'S CONTACTS			
DISPOSITION	RESULTS	TYPE OF TREATMENT	DATE(S) OF TREATMENT
Baby's Father			
Other			

<table>
<tr><td colspan="3">INVESTIGATION DATA</td><td rowspan="6">Treatment Given to Infant (with dates)</td></tr>
<tr><td>TEST</td><td>DATE</td><td>RESULT</td></tr>
<tr><td>VDRL – Mother</td><td></td><td></td></tr>
<tr><td>VDRL – Infant</td><td></td><td></td></tr>
<tr><td>MHA-Tp – Infant</td><td></td><td></td></tr>
<tr><td>CSF-VDRL</td><td></td><td></td></tr>
<tr><td>Bone Xrays</td><td></td><td></td><td rowspan="2">DISPOSITION</td></tr>
<tr><td>Other</td><td></td><td></td></tr>
<tr><td colspan="4">COMMENTS</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="3">FINAL CLASSIFICATION
CONFIRMED CASE
DISCARDED CASE</td><td>Signature:
Date:

Mo(H) Signature:</td></tr>
</table>

ANNEX 6: HIV EXPOSED INFANT REGISTER

Date of entry	Infant name & patient medical record #	Date of birth	Sex	ARV Prophylaxis (AZT)				Date of clinic visits					DNA-PCR and antibody test					Feeding (EFF, EBF, MF)	Nutritional Status Wasted (W) Stunted (S) Not Wasted (NW) Not Stunted (NS) Overweight (OW) Obese (O) At Risk (AR) (use abbreviations for the status separated by a [/] symbol)				
				Date prescribed	Date started	AZT NVP	Date completed	1	2	3	4	5	6	7	Type	Date of sample	Date result received	Result		Status @ 6 wks	Status @ 6 mnths	Status @ 12 mnths	Status @ 18 mnths
															DNA-PCR 1								
															DNA-PCR 2								
															Antibody								
															DNA-PCR 1								
															DNA-PCR 2								
															Antibody								
															DNA-PCR 1								
															DNA-PCR 2								
															Antibody								
															DNA-PCR 2								
															Antibody								
															DNA-PCR 2								
															Antibody								

Death date	Discharge date	ART initiation date	Regimen	Mother's name & patient medical record #	Mother's address	Mother's telephone #	Parity	ARV during pregnancy Regimen: (Tenofovir, Lamivudine, Efavirenz [TLE])			Syphilis		Comments
								Y/N	Date started	Other Regimen	STS (Pos/Neg)	Treated (Y/N)	

ANNEX 7 : PMTCT MATERNAL HIV REGISTER

PMTCT MATERNAL HIV REGISTER

MONTH _____ YEAR _____

DATE OF ENTRY (dd/mm/yy)	REFERRED FROM (eg. PP, H/C, Hospital)	MOTHER'S NAME & PATIENT MEDICAL RECORD #	ADDRESS	TELEPHONE #	AGE & DOB	PARITY	LMP	GA	EDD	CONFIRMED HIV TEST DATE/TYPE		# PREGNANCY POST HIV DX	CD4 COUNT AND DATE		SYPHILIS, Hb, BLOOD GROUP TESTING					SYPHILIS TREATED (Y/N)	ON HAART PRIOR TO PREGNANCY (Y/N)
										DATE (dd/mm/yy)	TYPE		CD4 COUNT cells/ mm^3	DATE (dd/mm/yy)	INITIAL TEST			3rd TRIMESTER REPEAT			
															TYPE	DATE (dd/mm/yy)	RESULT	DATE (dd/mm/yy)	RESULTS		

PMTCT MATERNAL HIV REGISTER

Treatment					Date of Clinic Visits (dd/mm/yy)							Date of Delivery (dd/mm/yy)	Outcome of Delivery (LFI/LMI/SBF/SMI)	Comments
TDF/3TC		3rd Drug (DTG or EFV or LVP/r)												
Date prescribed (dd/mm/yy)	Date started (dd/mm/yy)	Date prescribed (dd/mm/yy)	DTG or EFV or LVP/r	Date started (dd/mm/yy)	1	2	3	4	5	6	7			

ANNEX 8 : SYPHILIS CONFIRMED INFANT REGISTER

SYPHILIS CONFIRMED INFANT (SCI) REGISTER:

PARISH:

SCI Register Number	Facility	Date	Infant Name	Medical Record Number	DOB	Sex	Mother's name & Maternal Syphilis Register Number	Mother's treatment Adequate/ Inadequate		Mother (M) & Baby (B) TRUST Titres at birth		Treatment received at birth (specify in comments section)		Clinic visit date	Clinical status	Serological test				Re-treatment (yes/no)	Treponemal Test (>18 mnths)		Discharge date	Final status	Comments
								A	I	M	B	Y	N			date	result	3 months	6 months		date	result			

ABBREVIATION	MEANING
DOB	Date of Birth (dd/mm/yy)
A	Adequate
I	Inadequate
Y	Yes
N	No

COLUMN HEADING	DATA ENTRY COMMENTS/CLARIFICATION
SCI Register number	Year and Case number e.g. 2017/1 for 1st case
Facility	Health Facility where Paediatric Care is being accessed
Date	Date of entry into register
Clinic visit date	Format for date: (dd/mm/yy)
Age + DOB	DOB recorded as dd/mm/yy
Clinical status	Well; symptomatic, asymptomatic
Final status	Confirmed with no sequelae, confirmed with sequelae
Comments	Any occurrence thought to be clinically relevant to register, as a result of Syphilis, including Death during follow-up

ANNEX 9 : PMTCT MATERNAL SYPHILIS REGISTER

MATERNAL SYPHILIS REGISTER

PARISH:

This register is for women with active Syphilis in their current pregnancy

PMTCT Register number	Facility	Date	Name	Address	Contact #	Medical Record Number	D.O.B	Age	L.M.P	GA	EDD	DATE				Treatment Date & Facility BPG 2.4 MU IM			Post treatment TRUST		Date of delivery	Outcome of delivery	COMMENTS e.g. alternate tests, treatment, additional TRUST test dates and titres
												SD Bioline	TRUST (titres)	Initial Test (tick)	Third Trimester (tick)	1st	2nd	3rd	Date	Result (titres)			

ANNEX 10 : PMTCT MATERNAL SYPHILIS REGISTER COMMENTS AND ABBREVIATION MEANINGS

COLUMN HEADING	DATA ENTRY COMMENTS/CLARIFICATION
PMTCT Register number	Case # to recorded
Age + DOB	DOB recorded as dd/mm/yy
LMP	Last menstrual cycle of client mm/yy
GA	Gestational Age as determined from estimate of LMP and or clinical palpation: expressed in # of weeks/40
EDD	As given by ultrasound or clinical evaluation Using the LMP and GA
Outcome of Delivery	Intra-uterine death, still birth male or female, Live birth male or female, spontaneous abortions Should be noted
Comments	Alternate tests, additional treatment , additional TRUST tests and titres should be noted

ABBREVIATION	MEANING
PMTCT	Prevention of Mother To Child Transmission
DOB	Date of Birth
LMP	Last Menstrual Period
EDD	Expected Due Date
GA	Gestational Age
LFI	Live Female Infant
LMI	Live Male Infant
SBF	Still Born Female
SBM	Still Born Male
IUD	Intra-Uterine Death
Sp.Ab	Spontaneous Abortion

ANNEX 11: EMTCT NATIONAL DATA FLOW

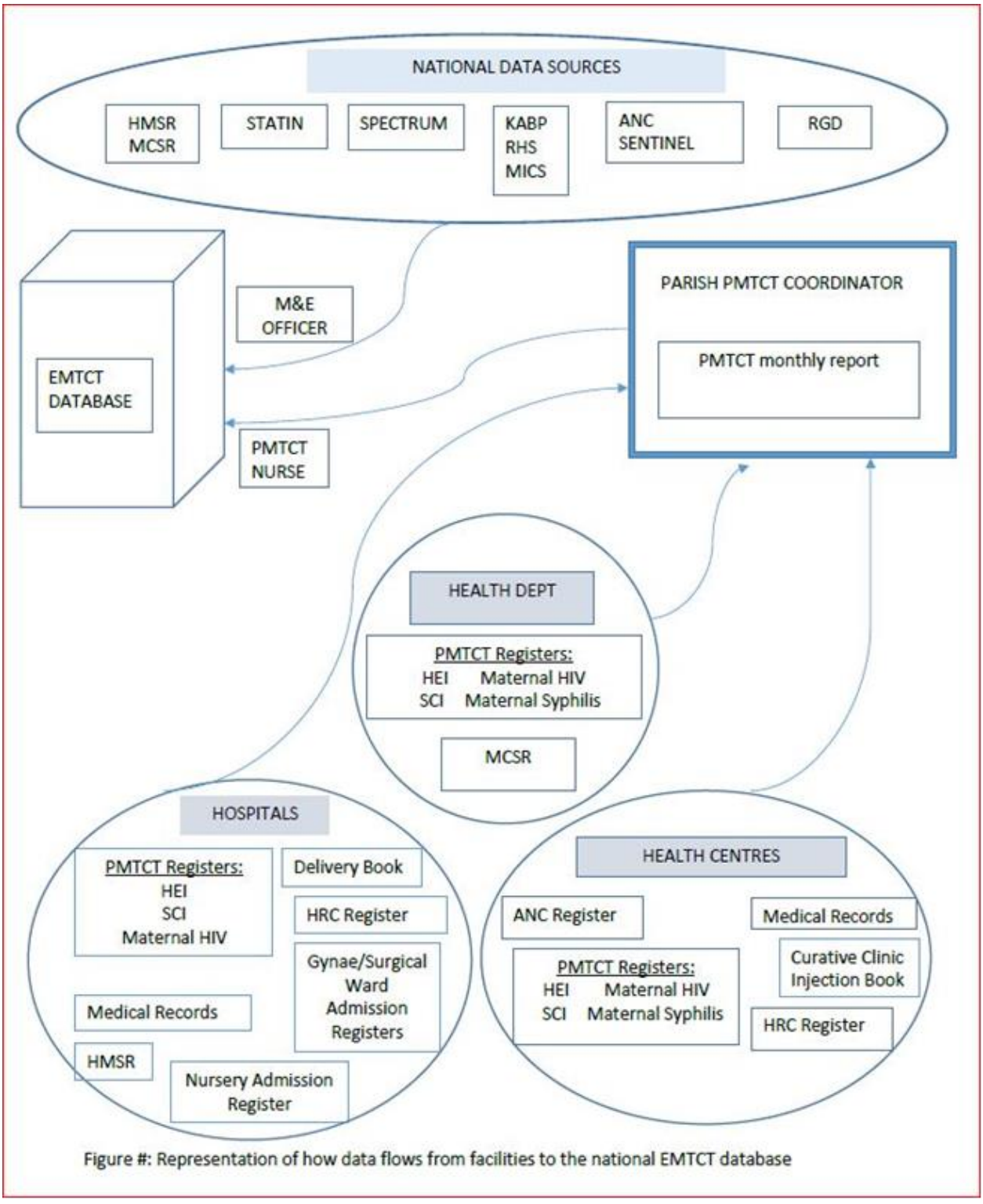

Figure #: Representation of how data flows from facilities to the national EMTCT database

ANNEX 12: LIST OF RESOURCE PERSONS

Senior Medical Officer
HIV/STI/TB Unit
Ministry of Health
10-16 Grenada Crescent
Kingston 10
Tel: 876-633-8214

Director, Treatment Care & Support
HIV/STI/TB Unit
Ministry of Health
10-16 Grenada Crescent
Kingston 10
Tel: 876-633-8218

Programme Development Officer, Treatment Care & Support
HIV/STI/TB Unit
Ministry of Health
10-16 Grenada Crescent
Kingston 10
Tel: 876-633-8177

Director
Family Health Unit
Ministry of Health
10-16 Grenada Crescent
Kingston 10
Tel: 876-633-8245

Director
Jamaica Paediatric, Perinatal and Adolescent HIV/AIDS (JaPPAIDS) Programme
University of the West Indies, Mona
Tel: 876-977-6637 (O)

Regional Technical Director
South-East Regional Health Authority
25 Dominica Drive
Kingston 5
Telephone: 876-754-3440, 3441
Fax: 926-4019

Regional Technical Director
North–East Regional Health Authority
Ocean Village Plaza
Shop # 34-37
Ocho Rios, St. Ann
Telephone: 876-795-3107
Fax: 795-2747

Regional Technical Director
Western Regional Health Authority
Lot 31B Fairview Shopping Centre
Montego Bay, St. James
Telephone: 952-1124
Fax: 876-952-4074

Regional Technical Director
Southern Regional Health Authority
3 Brumalia Road
Mandeville, Manchester
Telephone: 876-625-0612, 0613
Fax: 876-962-8233

XIV. REFERENCES

XIV. REFERENCES

1. World Health Organization- WHO (2017). Consolidated Guidelines on the use of Antiretroviral Drugs for treating & preventing HIV Infection: Recommendations for a Public Health Approach
2. World Health Organization- WHO (2017). Guidelines for the Management of Sexually transmitted Infections
3. Centres for Disease Control & Prevention- CDC 2015 STD Treatment Guidelines
4. Dr. Tracy Evans Gilbert (2016). Management of the HIV Exposed Child
5. Ministry of Health, Jamaica (2001). Practical Case Management of Common STI Syndromes: Specially adapted for use in Primary Health Care Centres.
6. Ministry of Health, Jamaica (2017). Clinical Management of HIV Disease: Guidelines for Medical Practitioners.