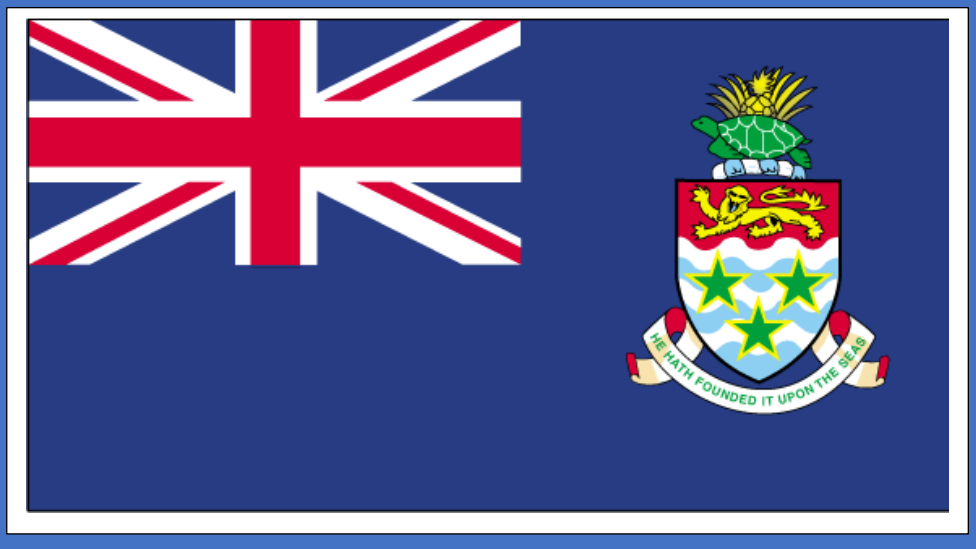
THE CAYMAN ISLANDS

NATIONAL STRATEGIC PLAN ON HIV/STI & HEPATITIS 2019-2023



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Contents

Acronyms and Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Clinic
ARVs	Antiretrovirals
ART	Antiretroviral Therapy
AZT	Azidothymidine
CAF	Cayman AIDS Foundation
CICS	Cayman Islands Cancer Society
CINICO	Cayman Islands National Insurance Company
CDC	Centre of Disease Control
CD4	Cluster of Differentiation 4
EMTCT	Elimination of Mother to Child Transmission
EMTCT Plus	Elimination of Mother to Child Transmission including Hepatitis B and C.
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HEI	HIV Exposed Infant
HSA	Health Services Authority
HTLV	Human T-Cell Lymphotrophic Virus
HPV	Human Papillomavirus
IgM	Immunogloblin M
IRL	Integrated Regional Laboratory
MARPS	Most at Risk Population
MHA-TP	Microhemagglutination test for antibodies to *Treponema. pallidum*
MSM	Men who have Sex with Men
MTCT	Mother to Child Transmission
NHPP	National Health Plan
RNA	Ribonucleic acid

RPR	Rapid Plasma Reagin
PEP	Post Exposure Prophlaxis
PrEP	Pre Exposure Prophlaxis
PCR	Polymerase chain reaction
PAHO	Pan America Health Organisation
PHD	Public Health Department
PLWHIV	Persons Living with HIV
PMTCT	Prevention of Mother to Child Transmission
SDG	Sustainable Development Goals
STI	Sexually transmitted Infections
SRH	Sexual and Reproductive Health
TB	Tuberculosis
TP-EIA	*Treponema pallidum* enzyme immunoassay
TP-PA	*Treponema pallidum* particle agglutination
WHO	World Health Organisation
VDRL	Venereal Disease Research Laboratory

Executive Summary

The Cayman Islands' strategy for the prevention and control of Human Immunodeficiency Virus (HIV) and other sexually transmitted infections, including viral hepatitis and Human Papilloma Virus (HPV) was developed to support the achievements of global commitments and targets.

This five-year plan serves to support the overall global goal of ending Acquired Immunodeficiency Syndrome (AIDS) and priority Sexually Transmitted Infections (STIs) as a public health threat. These goals and targets will be implemented within the context of the local realities and objectives of the Cayman Islands. The successful implementation of the plan will allow for the territory to reduce the incidence of the priority STIs, (Gonorrhea, Syphilis, Congenital Syphilis, Chlamydia, and Herpes) & HPV, with emphasis on pregnant women, their sexual partners, adolescents and key populations with highrisk for HIV and STIs. For viral hepatitis, the focus is on strengthening and integrating the public health response (beyond immunization), including access to HBV and HCV testing and treatment at the primary care level of the health system. The plan will also support the maintenance and gains of the EMTCT status which the country received from the World Health Organisation (WHO) in 2017 and the elimination of Hepatitis B transmission by 2030.

Innovating and expanding high impact HIV/STI combination prevention interventions, including for the elimination of mother-to-child transmission of HIV, syphilis and HBV, is an absolute priority for the achievement and sustainability of the 2020/30 targets and HIV/STI prevention services, especially focusing most affected key populations. The Cayman Islands aims at expanding, sustainable and equitable access to HIV/STI prevention, care and treatment services based on an integrated health services delivery network approach, which is part of the Regional Strategy for Universal Access to Health and Universal Health Coverage (Universal Health) adopted by Pan American Health Organisation (PAHO) Member States in October 2014. Thus, the Cayman Islands require a renewed political commitment, resources, technical and programmatic innovation to end this epidemic.

1 Introduction

The Cayman Islands' strategic plan for the prevention and control of HIV and other sexually transmitted infections, including viral hepatitis and HPV was developed to support the achievements of global commitments and targets. The plan is aligned with the WHO Global Health Sector plan, PAHO Plan of Action for the Prevention and Control of HIV and Sexually Transmitted Infection (includes Tuberculosis (TB)/HIV) 2016-2021 and the prevention and controls of viral hepatitis, all of which are poised to support the achievements of the Sustainable Development Goals (SDGs). Collectively these documents outline priority actions to support the elimination of these infections as public health problems by 2030. In addition, global and regional plans set the foundation for the Cayman Island five-year plan.

The Global Strategy for STIs specifically focuses on the infections caused by Neisseria Gonorrhea, Treponema Pallidium and the HPV, considering their high global burden and the existence of effective interventions. The Regional Plan of Action for HIV and priority STIs supports the implementation of high impact interventions along the continuum of health promotion, prevention, diagnosis, care and treatment tailored to the needs of key populations and vulnerable situations. The plan also expanded the goals of the Elimination of the Mother-to-child transmission (EMTCT) of HIV and syphilis (2010-2015) to include the EIMTCT of Hepatitis B and C, which is called EMTCT Plus. In parallel, the Global Health Sector Strategy for Viral Hepatitis proposes to reduce new Hepatitis B (HBV) and C (HCV) infections by 90% and reduce mortality by 65% through the widespread implementation of highly effective interventions. This includes HBV birth dose and catch-up vaccination, hepatitis testing and highly effective or curative antiviral treatment, which has the added benefit of preventing liver cancer. All these areas are clearly articulated in the strategic plan for the Cayman Islands.

The Strategic Plan also serves to support the overall global goal of ending AIDS and priority STIs as a public health threat and interprets these global goals within the local context and objectives set for the Cayman Islands. The plan will allow for the territory to reduce the incidence of the priority STIs, Gonorrhea, syphilis, congenital syphilis, & HPV, with emphasis on pregnant women, their sexual partners, adolescents and key populations with high-risk for HIV and STIs. For viral hepatitis, the focus is on strengthening and integrating the public health response, including access to HBV and HCV testing and treatment at the primary care level of the health system. The plan will also support the maintenance and gains of the EMTCT status which the country received from WHO in 2017, while advancing toward the elimination of Hepatitis B.

In addition, the strategic plan aims at expanding, sustainable and equitable access to HIV/STI prevention, care and treatment services based on an integrated health services delivery network approach, which is part of the Regional Strategy for Universal Access to Health and Universal Health Coverage (Universal Health) adopted by PAHO Member States in October 2014. Hence, through a renewed political commitment, resources, technical and programmatic innovation, the Cayman Islands aims to reduce the HIV/STI epidemic and advance towards ending HIV/STI as public health problems.

It is anticipated that the Strategic Plan will provide a framework for the territory's annual operational plans, budgeting, policy requirements and the monitoring of key milestones in pursuit of the global commitments, as well as the goals and objectives outlined. It also builds on the achievements of previous

plans and the Cayman Islands experience in addressing the HIV and AIDS epidemic, lessons learned, while utilizing the recommendations from the WHO global guidance documents.

The HIV and AIDS epidemic is not over. Though significant progress has been made in the Cayman Islands and much has been learnt, there is more to be done before the local community can claim full elimination of this epidemic. As a result, innovating and expanding high impact HIV/STI combination prevention interventions and services for the most affected key populations, such as the elimination of mother-to-child transmission of HIV, syphilis and HBV, is an absolute priority for the achievement and sustainability of the 2020/30 targets.

Through the current National Strategic Plan for HIV and STI, the Ministry of Health has taken steps to integrate HIV into the National Health Policy and Strategic Plan (NHPP) (2012-2017). The purpose of the National Health Policy & Strategic Plan is to provide an overarching guiding policy for the Cayman Islands that defines the vision, values, strategic directions and objectives with regards to health and the health system. The NHPP serves as a critical instrument in providing direction and coherence for stakeholders and the public to improve the health status of the population in the Cayman Islands. While the NHPP did not clearly articulate the critical functions of HIV, a work plan for HIV was developed, linking HIV to the wider health systems plan. Areas under the NHPP are:

- Treatment, Care and Support;
- Information, Surveillance and Research;
- Prevention, Reduction and Behaviour Change;
- Advocacy, Legislation, Policy and Partnership; and
- Reduction of Stigma and Discrimination.

2 Country Context

Geography

The Cayman Islands is a British Overseas Territory consisting of three islands—Grand Cayman (76 square miles), Cayman Brac (22 square miles), and Little Cayman (20 square miles). Located in the western Caribbean Sea, the islands are situated about 180 miles northwest of Jamaica. The capital of the Cayman Islands is George Town, which is situated in Grand Cayman and according to the 2016 compendium of statistics, the population was 61,361 with the majority (96.6%) living on Grand Cayman. The population of the Sister Islands (Cayman Brac and Little Cayman) was 2,099.

Demography

Caymanians constitute 56% of the total population, and the remaining 44% consists of immigrants (work permit holders and their dependents) from various countries including the United States, the United Kingdom, Philippines, India, Jamaica, Cuba and other Caribbean countries. Education is compulsory up to age 16 years and English is the official language (*Cayman Economics and Statistics Office. Statistical Compendium 2016).*

Basic Health Indicators

The compendium of Statistics (Compendium of Statistics, 2016) shows that the average life expectancy in the Cayman Islands was 82.3, with men living to 79.8 and 84.7 for women. . The top leading causes of mortality to residents in the Cayman Islands are diseases of the 'Circulatory System'; namely heart/cardiovascular diseases and stroke, followed by malignant neoplasms (cancer). These two alternate for first place over the years by a small margin, but always rank as the top two. Also, the leading causes for hospital admissions for all ages are diseases of the 'circulatory system' (coronary diseases, hypertension); followed by diseases of the 'respiratory system' and 'digestive system' (Statistics Office, Cayman Islands Health Services Authority (HSA)).

Table 1: Basic Indicators for Cayman Islands (2016)

Indicators	Values
Total Population	61,361
Crude Birth Rate	12.2
Annual Birth Average (thousands)	0.7
Annual Population Growth (%)	4.5
Total Fertility Rate (child/women)	1.9
Teenage Pregnancy (15 – 19 years)	35 pregnancies
Total Live Birth	710
Infant Mortality Rate (per 1,000 live births)	4.2
Total Death	153 persons

Crude death rate	2.6
Stillbirth (per 1,000 births)	4.2
Neonatal mortality rate (per 1,000 live births)	4.2
Under 5 mortality reported	3 persons
Births Attended by trained personnel (%)	100
Urban population (%)	100
Dependency Ratio (100 population)	32.0
Total life expectancy (years)	82.3

Source: www.eso.ky Compendium of Statistics 2016 and Economics and Statistics Office and Perinatal Report, Cayman Islands Health Services Authority.

Structure of the Health System

Health care is jointly delivered by the private sector and the Cayman Islands Health Services Authority (HSA), a statutory body of the Government. The HSA is the primary provider of health services on the Island, including those living with HIV, TB and Hepatitis. All HIV and TB services, diagnostic and management are delivered by HSA through the HIV and STI Clinic at no cost to the patient, and it is sold as an output to the Ministry of Health. The HSA also has responsibility for HIV and STI public education as per the service agreement with the Ministry of Health.

Leadership & Governance

The Ministry of Health provides oversight and regulation of health services in the Cayman Islands. Other departments that are part of the public health response under the direction of the Ministry of Health are the Department of Environmental Health, the Mosquito Research and Control Unit, and the Department of Health Regulatory Services.

The HSA is operated by a seven-member Board, with a Chief Executive Officer responsible for the daily running of the Authority. The Board is accountable to the Minister of Health. Health care is provided through a fee for service method of payment. The HSA provides health care services on behalf of the Government through an Annual Service Agreement.

Health Services

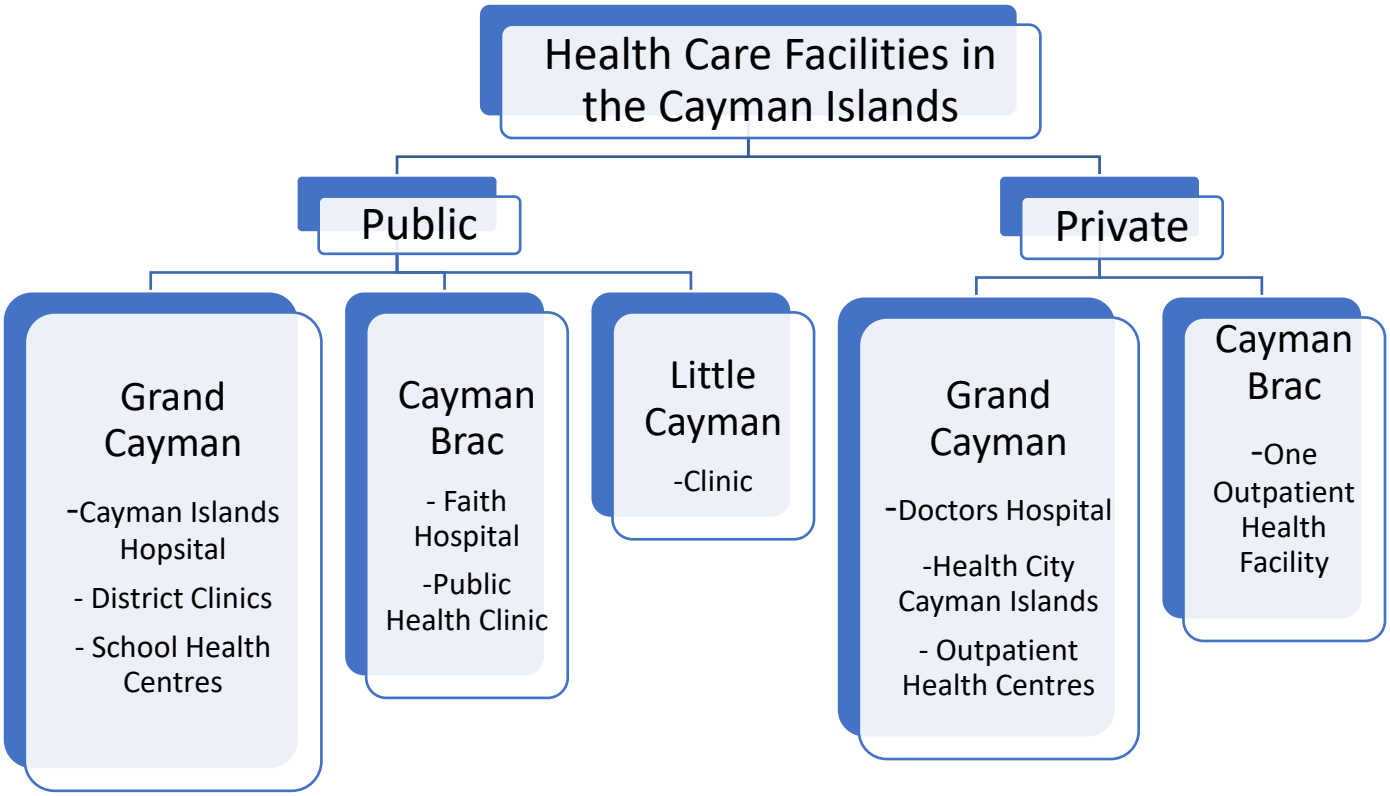
HSA is the primary provider of health care services in the Cayman Islands and offers world-class healthcare services through facilities on Grand Cayman, Cayman Brac and Little Cayman. This includes the nation's principal health care facility - the 124-bed Cayman Islands Hospital on Grand Cayman which provides a comprehensive range of inpatient and outpatient services. There is an 18-bed hospital (Faith Hospital) on Cayman Brac while Little Cayman has a clinic with a full-time nurse and a visiting doctor.

In Grand Cayman, Primary Health Care services are delivered through the Public Health Department and the five district health centres (George Town, West Bay, Bodden Town, East End, and North Side). Primary Health and Public Health Services include primary care; child health clinics including growth and development monitoring; communicable disease screening; disease control programmes including surveillance and immunisation (adults and children); health advice and vaccines for international travellers; school health; nutrition and dietary counselling clinics, and special programmes relating to genetics and sexual health.

The Public Health Department is under the HSA and provides free care to those living with HIV, including antiretroviral therapy. All HIV cases are notifiable under the Public Health Law and are to be reported to the Public Health Department. The HSA is the only treatment and care facility on the island for those PLWHIV. As a result, persons with HIV must travel from Cayman Brac and Little Cayman to attend their care and treatment appointments; however, their medication is delivered to them every two months or as needed to ensure a constant supply of medication at all times.

The Cayman Islands is also served by two private hospitals, the CTMH Doctors Hospital, an 18-bed hospital, and Health City Cayman Islands, a 104-bed tertiary care hospital both on Grand Cayman; there are many General Practitioners and various Specialist Physicians employed in private practice. According to the records of the list of practitioners published by the Department of Health Regulatory Services, as of 2014, there are 294 registered physicians on the islands. The areas of speciality include neurology, gastroenterology, internal medicine, endocrinology, cardiology, and others. Other services provided are ophthalmology, dentistry and audiology. These are supplemented by various private laboratories and diagnostic centres.

Figure 1: Structure of the Health Care Facilities in the Cayman Islands



Health Care Finances

There are currently nine private health insurance providers in the Cayman Islands. The Cayman Islands National Insurance Company (CINICO) is a government-owned insurance company formed to provide health insurance to the following groups; civil servants (employees and pensioners), persons aged 60 or over, health impaired, those who have been rejected by one approved health insurance provider within the past 60 days, and low income persons (those who can provide evidence of an annual family income of CI$30,000/ US$ 36,000 or less).

Under the Health Insurance Law (2013) every resident is required to have health insurance coverage. The HSA's Patient Financial Services Department will assist the uninsured/underinsured patients to get an appointment with the Needs Assessment Unit to get assistance if they meet the criteria or alternatively they may arrange a payment plan with the patient. The Government of Cayman Islands ensures that the inability to pay does not present a barrier to accessing antenatal health services. No pregnant woman has ever been denied care. The Women's Health Clinic staff include Obstetricians, Registered Nurses and Midwives, Practical Nurses, Nursing Assistants, support staff including clerical officers, genetics co-ordinator, housekeeping staff, receptionist, nutritionist, laboratory and radiology staff, parent-craft educators, breastfeeding support group, STI and HIV Programme Coordinator, Pharmacists and Porters.

The Cayman Islands introduced HIV screening of all pregnant women in 1987 and counselling is offered, where appropriate. Syphilis, Hepatitis B and C screening in pregnant women have been routinely provided for many years. The services for maternal and child health are delivered through the Women's Health Clinic and the Pediatric clinic respectively, as well as in the district health centres throughout the island.

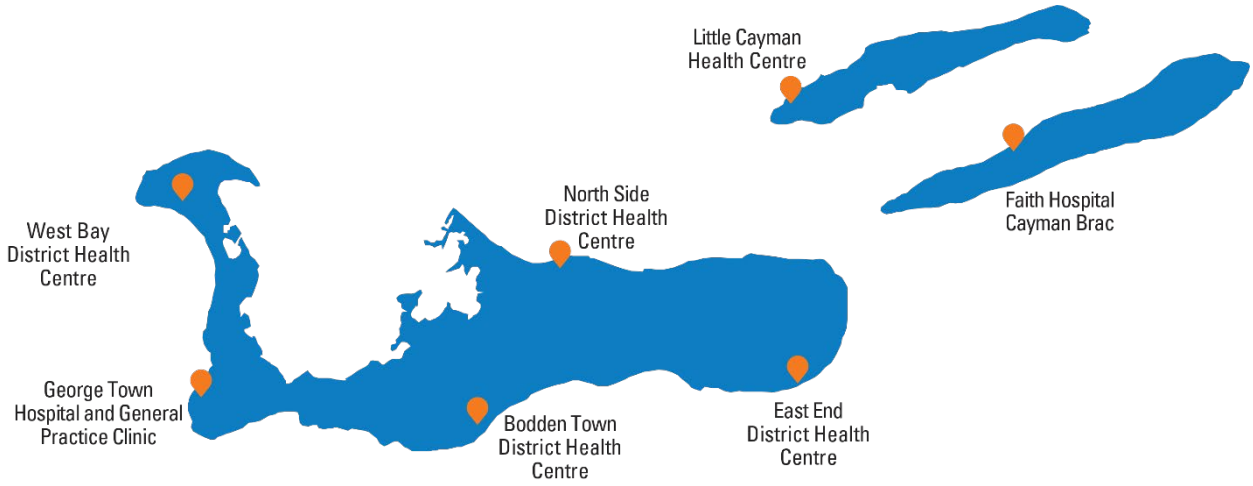
In the event of significant abnormal results for HIV or Syphilis, the Midwife/Obstetrician should be notified by the laboratory as soon as possible. The patient's docket and obstetric notes are reviewed by the midwife/obstetrician and a plan of management is documented in the obstetric notes and signed by the attending practitioner. Each pregnant woman seen at the Women's Health Clinic receives an Antenatal Passport, which is completed by the midwife and doctor.

All HIV services, diagnostic and management, are sold as an output to the Ministry of Health and delivered at no cost to the patient as per the Health Service Fees Law, 2001 Revision (Appendix 2). Free HIV testing is available to all residents of the Cayman Islands through the HSA if the resident is unable to self-pay/afford or insurance does not cover.

Health Regions

The following is a map which shows the Islands that makes up the Cayman Islands. It also illustrates the Islands with primary health facilities, which also provides services for maternal and child health and HIV.

Figure 2: Primary Health Facilities in the Cayman Islands



Legal Framework and Policies to Support the Expansion of the HIV/STI Response

There are national documents which detail the priority of HIV and Syphilis in the Cayman Islands.

1. **National Policy on AIDS** - There is a Government Policy on AIDS dated 1991. The policy document states that the Cayman Islands Government will:
   - Foster a spirit of understanding for Persons Living with HIV (PLWHIV) and those affected, through information, education and support programs.
   - Protect the human rights and dignity of those living with the disease and the population in general and avoid discriminatory action and stigmatization in the provision of services and employment.
   - Ensure confidentiality of HIV testing and promote the availability of confidential counselling and other support services for those affected.
2. **Public Health Policy on Reporting** - The Public Health Law (Revision 2002) includes HIV and AIDS on the list of Notifiable Diseases (notifiable in 1989). Based on this legislation, health care providers are mandated to report HIV cases to the Public Health Department.
3. **There are no laws that criminalize the transmission of HIV.** However, Section 167 of the Penal Code (2007 Revision) states that "whoever unlawfully or negligently does any act which he knows or has reason to believe to be likely to spread the infection of any disease dangerous to health is guilty of an offence." This penal code was never utilized for HIV, even though it can be interpreted for HIV. In addition, the Penal Code was never used to criminalize anyone for the spread of any infectious diseases.
4. **Work permits** - All migrants applying for a work permit must undergo a physical which includes an HIV test. However, there are laws to protect the individual who is requesting a work permit. Section 80 of the Labour Law (2007 Revision) prohibits discrimination with respect to any person's hire, promotion, dismissal, tenure, wages or hours or other conditions of employment by reason of specified bases including "mental and physical disability" (provided the person's ability to perform the job is not impaired). HIV could conceivably be covered under this clause if the person is unable to work due to illness or ailing health. Persons are not discriminated against based on their medical condition, however, if such

discrimination occurs it constitutes an offence rendering the guilty individual liable on summary conviction to a fine of $5000, and imprisonment for twelve months. Health insurance is mandatory for all residents in the Cayman Islands.

5. **HIV and Work permits** - Employers are required to have work permits for any non-Caymanian employees. Health insurance is mandatory for all residents in the Cayman Islands. The granting of work permits require that the employee receives adequate health insurance to ensure that they will have adequate access to health care and that they do not become an unnecessary financial burden to the public purse. Provided that the health insurance meets the minimum standard of benefit approved by the Health Insurance Commission. The health status of the employee does not provide a barrier to the granting of the work permit, this includes an HIV positive status. Indeed work permits have been granted to PLHIV, as the health insurance provided by the employer covered health care for HIV. For women who are receiving antenatal care at HSA and who do not have health insurance, they are provided with services and a payment plan is established. Children are covered under their parent's health insurance; however, all residents can receive childhood immunisations at the Public Health Department, and child health clinics free of charge. If the parent's health insurance does not cover other childhood services, then a payment plan can be set up with the HSA or a referral to the Needs Assessment Unit for assistance (if the individual is Caymanian); however, no child is declined health care services.
6. **Access to care assured** - The Government of the Cayman Islands through the Ministry of Health has ensured that the right to access health care is central to all health policies. Persons are not denied access to health care services regardless of their HIV or financial status, as all efforts are made to refer patients to seek financial assistance or a payment plan to ensure access to service.
7. **Collaboration with other government Ministries and civil society organizations-** Government has in place a mechanism/policy to support the work of civil society organization in the scaling-up of HIV services at the community level, with links to the health services.

3 Situation Analysis

Essential Prevention Services for HIV, and Priority STIs & Viral Hepatitis

HIV prevention is the basis for the response in the Cayman Islands. HIV testing is provided as part of the regular services within the health facilities. In order to expand HIV testing, every Tuesday morning the STI and HIV Programme Coordinator conducts a free HIV and Syphilis testing clinic at the Cayman Islands Red Cross building. In this manner, tests are provided at the community level, encouraging couples to be tested prior to becoming pregnant and encouraging the partners of pregnant women to get tested. HIV tests results are available one day after the sample is received at the laboratory.

Additionally, the STI and HIV Programme Coordinator organises and conducts, at the community level free HIV and Syphilis testing weeks, twice yearly; in June for Regional Testing Week, and December for Worlds AIDS Day. Appointments can be made at the office of the STI and HIV Programme Coordinator for HIV and Syphilis tests. The cost of the HIV test is $60 and the syphilis test is CI$15. For most persons requesting this test, the cost is covered by health insurance. However, those who are unable to pay (regardless of national status), the cost is covered by the Public Health Department. Free condoms are also available at the Women's Health Clinic, Public Health Department, District Health Centres, Cayman Islands Red Cross and the Cayman AIDS Foundation.

Elimination of the Mother to Child Transmission of HIV, Syphilis and Hepatitis B

The Cayman Islands introduced HIV screening of all pregnant women in 1987 to offer appropriate counselling. Zidovudine, also known as Azidothymidine, (AZT), an antiretroviral medication used for prevention and treatment of HIV, was first used in an HIV pregnant woman in 1996 resulting in a negative infant born in 1997. The last case of vertical transmission of HIV in the Cayman Islands was in 2004.

Regular and consistent counselling are utilized to ensure that pregnant women opt to take an HIV and Hepatitis B test, and if positive, seek appropriate health intervention for herself and the exposed baby. All pregnant women are offered a test for HIV, syphilis and Hepatitis B as part of the antenatal care package. Women are informed of the test and consent received prior to taking the test. All pregnant women have the right to opt out for the test if they so desire. However, if this should occur, ongoing counselling will occur to ensure that the woman agrees to the test prior to delivery. There are no policies in place that force or coerce HIV positive women to seek abortion or sterilization. In regards to HIV positive women, there are no regulations or policies which protect informed consent for any medical procedures. Medical policies are that all clients must consent to any medical procedures before it is done; however, under the Mental Health Law treatment may be administered to a person without their consent if that is in his/her best interests.

In 2017 the Cayman Islands was validated by the World Health Organization as eliminating the Mother-to-child transmission of HIV and syphilis. The EMTCT is within the wider framework of ending AIDS as a public health problem, as a result, the achievement of this milestone indicates that Cayman Island is closer to achieving the elimination of AIDS by 2030. Achieving the elimination status for the mother-to-child transmission of HIV and Syphilis is the first step, however, the maintenance and sustainability of the gains as the Island advance to hepatitis B elimination within this population is essential. The primary prevention and treatment services within in the framework of maternal, perinatal and child health services will be

strengthened and mechanisms to support the on-going monitoring and evaluation of the EMTCT strategy, which now includes Hepatitis B will be critical.

There have been no known cases of forced or coerced sterilization of women with HIV, nor forced or coerced abortion of pregnant women with HIV (abortion is currently illegal in the Cayman Islands). No pregnant women would be denied of antenatal care service regardless of their status, as all efforts are made to refer patients to seek financial assistance or a payment plan to ensure access to service. All patients who are diagnosed with HIV, Syphilis or Hepatitis in the Cayman Islands are treated and HIV treatment is provided free of charge for persons who are Caymanian, spouses of Caymanian or Permanent Resident. For persons outside of these categories, their health insurance may cover their healthcare needs. However, if the person's healthcare does not cover their HIV treatment and care, or they do not have health insurance there is an output that the Ministry of Health purchases from the HSA for pregnant women and children who are uninsured or underinsured.

Blood Donors

The Blood Bank has documented guidelines for the selection and education of blood donors and has adopted the Caribbean Regional Standards for Blood Banks. The Blood Bank staff is certified and has mechanisms in place for continuing education. Donations are mostly by recurrent altruistic non-compensated donors. All blood donors are screened for HIV ½ antibody and P24 Antigen, Human T-cell lymphotropic virus (HTLV) ½ antibody, Hepatitis C antibody, Hepatitis B surface antigen, Venereal Disease Research Laboratory (VDRL) and Zika Immunoglobulin M (IgM).

HIV/STI Prevention for Vulnerable and Key Populations

There is currently no specific programme targeting traditional at-risk groups such as sex workers, men who have sex with men (MSMs), and transgender. Despite the lack of adequate data to map MARPs, the Cayman AIDS Foundation has taken the lead on outreach services for MSM, Sex Workers and other vulnerable populations. There is a need for a structured programme targeting key and the most at-risk populations.

Men who have sex with men (MSM)

The MSM population comprises all ages, with the majority being from the 18 to 30 age group. MSM are Caymanians and expatriates, educated, college graduates, employed and unemployed. MSM in the 18 to 30 age group are single or are in a relationship with a female to provide "cover'. Older MSM are likely to be married with children. Sexual relationships between older and younger MSM are more often transactional in nature, e.g. purchase cars, pay rent and buy other expensive gifts for their young partners. For the most part, MSM activities are generally discrete given the small population size and homophobia among the general population. The internet is the main medium through which MSM establish contact with each other. However, many MSM encounter each other in bars and clubs on the weekend.

Sex Workers

The majority become sex workers to support their drug addiction. Their ages range from late teens to over 50 years old. Most sex workers completed school while a few are school dropouts. Some came from sheltered backgrounds and had little knowledge of sexual and reproductive health issues, and were made to believe that the use of condoms was sinful. Almost half of their clients are not likely to use condoms because of the perception that "if she looks good she cannot be infected". Very few of their clients are Caymanian men. The current situation analysis elicited anecdotal stories from health care providers of 'gentleman trips' to Cuba in order to access sex services. The perception is that Cuba is safe from HIV and there is the desirable phenotype of women. Sex workers generally seek treatment for STI and would

request HIV testing primarily during the free promotional campaigns for HIV testing. Sex workers are not likely to seek condoms but would carry them if they are distributed by someone they trust.

Substance Abuse

The majority of drug users are young, however, all age groups are affected. They are predominantly males of all socioeconomic groups and educational level. Some are married with children while some are single. The population interviewed comprised (i) persons newly diagnosed, (ii) those that are experiencing withdrawal and (iii) drug addicted. Caribbean Haven Residential Centre and Half-way Home is a Government run rehabilitation and transitional centre for substance abusers. It has a capacity to house 20 males and 10 females, while its half-way home has a capacity for 9 persons. Anecdotal evidence (interviews with key informants) suggests that there is significant substance abuse among the population in the Cayman Islands. There are three categories of substance users in the Cayman Islands; alcoholics, marijuana and crack users. Many substance abusers (male and females) engage in transactional sex to support their addiction. All persons admitted to Caribbean Haven must undergo mandatory health screening that includes HIV and STI screening. Those found to be infected are referred for treatment and in the case of HIV for ongoing care and treatment. Many substance abusers experience underlying issues that include incestuous relationships, sexual abuse, maladjustment to sexual orientation, or are children of alcoholics and drug addicts.

Pre-Exposure (PreP) and Post Exposure (PEP) Programme

PreP is currently offered free of charge for discordant couples, within the Public Health System. There are no policies or standard operating procedures for the use of PreP as part of the prevention and treatment programmes.

PEP is provided to those who have been exposed to HIV such as occupation (health care providers especially through needle stick injuries) and non-occupational injuries (sexual assault). It is not used for individuals who had a risk of HIV exposure outside sexual assault (rupture of condoms). Medications are provided free to the individual; however, education of the protocol to Doctors, Nurses and Pharmacists are needed.

Human Papilloma Virus (HPV)

HPV Vaccine (Gardasil) was introduced in the Cayman Islands as a pilot project in partnership with the Public Health Department (PHD) and Cayman Islands Cancer Society (CICS) in August 2009. The Pilot Project ran from August 2009 to December 2010 with the vaccine offered only at the public health clinic in George Town and Faith Hospital on Cayman Brac. The target group for the project was girls 11-17 years old. Informed parental consent was obtained for each accepting child and parents were instructed what to do if side effects occurred. During the pilot project period, a total of over 550 doses of HPV vaccine were administered to girls 11 years and over in Grand Cayman and Cayman Brac.

The HPV vaccination project is a joint programme between the Public Health Department and the Cayman Islands Cancer Society with shared cost of 50 percent each. The vaccines for the Pilot Project were procured by the PHD; however, the current school-based HPV vaccination program is funded by the cancer society and target girls 11-12 years of age at John Gray and Clifton Hunter High School. Although the focus of the project is on the stated age group, the possibility exists on extending to other age groups who did not have the benefit of the program when they were 11/12 years of age.

The vaccine will be available to women beyond the school age up to 26 years of age as per Centre of Disease Control (CDC) recommendation at no cost to eligible Cayman Islands National Insurance Company (CINICO) clients.

The goal of the program is to protect females and males against being infected with HPV types 16, 18, 6 and 11 strains of the virus; thus preventing prevent genital warts and the following cancers in later life.

- Cervical cancer
- Vulvar cancer
- Vaginal cancers and pre-cancers

Promotion of the program will be a joint effort between the Ministry of Health, Ministry of Education, Cancer Society and the Public Health Department. It was agreed that the focus should be on promoting the HPV vaccination program, a cancer prevention venture rather than on focusing on HPV infection as a sexually transmitted infection. The HPV vaccination is given as an injection in a series of three (3) doses over a six month period, given by a school nurse. Each dose requires written parental consent to include whether they wish to be present at the time of vaccination or not. The HPV vaccine will also be administered at the Public Health clinic, West Bay Health centre, Bodden Town Health centre and the Faith Hospital, Cayman Brac, by appointment.

Viral Hepatitis

Hepatitis A

Numbers of Hepatitis A are very low in the Cayman Islands, due to safe food and water practices. Since 2002 there have only been a reported total of five cases in the Cayman Islands, 2002 there was one case and in 2003 there were two cases and the last two cases were in 2012.

Hepatitis B

The number of reported Hepatitis B infections in the Cayman Islands is also very low (less than 2 in each year), and no hepatitis have been reported in children. In December 1988 Hepatitis B immunization was initiated for all health care workers, private and government at no cost. Immunization was extended to dialysis patients from March 1991, patients with sickle cell, overseas medical students and international travellers were also immunized. In 1991 Hepatitis B immunizations were started for emergency and rescue personnel, such as fire officers, prison and police officers.

The Cayman Islands Public Health Department added Hepatitis B vaccine, Engerix-B (recombinant) to the National Immunization Schedule in November 1997, four years after the United States of America introduced it into their Childhood and Adolescent Immunization Programme. Like other vaccines, it is offered to all resident children free of cost. It is available from all Health Centres throughout Grand Cayman and Cayman Brac. In the Cayman Islands, all pregnant women are screened for Hepatitis B, and if positive, babies are given immunoglobulin at birth and the vaccine within 24 hours.

A total of three injections are needed. The schedule is as follows:

- At birth — 1st dose HBV (Hepatitis B vaccine) in hospital within 24 hours
- 6 weeks — 2nd dose HBV (along with BCG and 1st dose Rotavirus vaccine)
- 9 months — 3rd dose HBV

Hepatitis C

Low numbers of Hepatitis C have been reported in the Cayman Islands. If persons do not have insurance to cover the expensive treatment, the public health department will cover the cost of treatment and care. During the years of 2002-2017, there have been a total of ten cases reported to the PHD, all patients were treated either through their insurance company or Public Health took on the payment so that the patient could receive treatment.

Sexual and Reproductive Health Services

The Women's Clinic is located at the Cayman Islands Hospital and it provides sexual and reproductive services including family planning for all those who access it publicly. In Cayman Brac and Little Cayman, sexual and reproductive health services can be accessed at the Faith Hospital. The Antenatal Policy outlines the purpose, which is to ensure a healthy pregnancy and safe delivery and puerperium for women and infants in the Cayman Islands by providing high-quality antenatal care. The policy and procedure manual also highlights the types of services to be provided including breastfeeding. While the Islands promote breastfeeding, HIV positive mothers are counselled very early in the pregnancy not to breastfeed after delivery. Sexual and Reproductive services can also be obtained in the private sector with eight Obstetricians on the island and many General Practitioners who also provided sexual health check-ups and family planning services.

Sexual and Reproductive Health services include HIV and STIs in the Cayman Islands, the table below demonstrates the integration and linkages with other services at the primary care level.

Table 2: Integration of HIV and Sexual and Reproductive Health Services

HIV Services Sexual and Reproductive Health (SRH) Services	HIV counselling and testing	Prophylaxis & treatment for PLWHIV (Opportunistic Infections ((OIs) & HIV)	Psycho-social support	Comprehensive primary and secondary prevention for and by PLHIV	HIV prevention information and services for general population	Condom provision	* Element 2, 3 of Prevention of MTCT
Family planning	**X**		**X**	**X**	**X**	**X**	**X** Element 2
Maternal & newborn care	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Prevention & management of Gender Based Violence	**X**	**X**	**X**		X	**X**	
Prevention & management of STIs	**X**		**X**	**X**	**X**	**X**	**X** Element 3

Prevention of unsafe abortion and post-abortion care			**X**			**X**	
Other SRH services (Pap smears)				**X**	**X**		

***Comprehensive prevention of mother-to-child transmission (PMTCT) includes the following four elements (from: "A Framework for Priority Linkages", WHO, UNFPA, IPPF, UNAIDS, 2005): 1. Prevent primary HIV infection among girls and women; 2. Prevent unintended pregnancies among women living with HIV; 3. Reduce mother-to-child transmission through anti-retroviral drug treatment or prophylaxis, safer deliveries and infant feeding counselling; 4. Provide care, treatment and support to women living with HIV and their families**.

The following outlines the key factors leading to the spread of HIV and other STIs in the Cayman Islands.

Access to sexual and reproductive health services by young people

Adolescents in the Cayman Islands have access to sexual and reproductive health services through the following:

1. **HIV education** for adolescents is provided by the Public Health Department, as well as non-governmental organizations such as Cayman AIDS Foundation and Cayman Islands Red Cross through a Purchase Agreement with the government. The HIV/STI education is also provided at point of service at the HIV/STI clinics on clinic days. The HSA has an STI/HIV programme coordinator who is a registered nurse and collaborates with the key governmental, non-governmental and civil society actors to address the national response for HIV. The Cayman Islands has engaged various organisations in the national response to HIV and AIDS with services being delivered on behalf of the Government by the Cayman Islands Health Services Authority, the Cayman Islands Red Cross and the Cayman AIDS Foundation. These organisations place emphasis on preventing primary HIV infection among girls and women, developing and implementing communication strategies for sex workers, men who have sex with men, and youth to reduce their risk and vulnerability to HIV and STIs including hepatitis and HPV.
2. **Gillick Competence** is followed in the Cayman Islands, there is no statute in the Cayman Islands which specifically addresses the age at which individuals can consent to medical treatment. In most instances, this issue has been dealt with by placing reliance on the Age of Majority Law by virtue of which an individual who attains the age of 18 is deemed competent to give consent to this and other matters. With respect to minors under the age of 18, consent to medical treatment is generally provided by the parents or guardians of the minor. However, there are circumstances in which minors can consent to their own medical treatment even if they are under the age of 18. The common law recognises that a minor may have the capacity to consent to medical treatment on his/her own behalf and without his/her parent's knowledge based on the judgement in Gillick v. West Norfolk and Wisbech Area Health Authority [1986] 1 AC 112 (HL). Medical treatment and contraceptives can be provided to a minor with their consent if they are competent to give it or with the consent of a parent, guardian or the court. Before medical treatment or contraceptive is given to a minor without the parents' or guardian's consent the health care practitioner must satisfy him/herself that the minor: has sufficient maturity to understand what is involved, cannot be persuaded to inform their parent or guardian, in respect of contraception – he or she is likely to continue to have sexual intercourse with or without the contraceptive treatment, unless

treatment is received or advice given on the relevant sexual matters his physical or mental health or both are likely to suffer, the best interest of the minor requires that he receives treatment on sexual matters without parent/guardian consent or notification.

Medical practitioners must ensure that all relevant information has been provided and thoroughly discussed including full explanations of the possible consequences of any treatment or procedure being sought before deciding whether or not the minor has the capacity to give informed consent. In the event of a conflict between a Gillick-competent minor and a parent or guardian, the overriding objective should be what is in the best interest of the minor. The expert medical knowledge of the practitioner will be critical in determining whose wishes should be accepted. The medical practitioner can insist that a parent or guardian be informed as to the treatment being sought before administering the treatment. Where the patient refuses to inform the parent or guardian the practitioner may decline to treat and can recommend the services of another practitioner. Where a parent or guardian gives consent to the treatment of a minor they are entitled to any information or records relating to the minor. However, if the consent is given by a Gillick-competent minor, information can only be disclosed with the minor's consent unless otherwise ordered by the court.

In-school Youth

School health nurses and the Red Cross reported that there was a lack of correct knowledge of sexual and reproductive health issues and have misconceptions regarding HIV transmission and prevention among some middle and high school students. Factors that place them at risk include lack of adequate parental guidance, peer pressure to initiate early sex, high use of alcohol, and use of marijuana albeit to a lesser extent. The Global School Health Survey Fact Sheet 2007 shows that 35% of male students aged 13-15 years had sexual intercourse compared with 26.2% among girls of the same age. Further, a higher percentage of boys who ever had sexual intercourse indicated that they had sexual intercourse with more than one partner during their life (28.5% vs. 15.2% for girls). School nurses reported that in-school youth are likely to access health care including HIV and STI care in the public or private sector. These nurses also reported that in-school youth have requested assistance from them in relation to such care and were referred to the health care facility. Those under 16 years old must be accompanied by their parents or guardians, however, school nurses also reported that some of these students have indicated that they were accompanied by their older partners.

Teenage Pregnancy

Between 1995 and 2016, there were 913 births to teenage mothers which accounted for 6.2% percent of all total births in the Cayman Islands. A decline is noted in the proportion of teenage births in 2005 which may be due to the drop in population; possibly migration out of the country post-hurricane Ivan in 2004. In the years following 2006, the population began to increase and stabilize, hence the annual average for the past five years (2012 - 2016) was 5.0% to teens from overall moms, all ages. The year 2015 recorded a total of 35 teenage mothers which represented 5.3% of all moms, all ages, who gave birth. Total teen moms in the year 2016 compared to the year 2015 decreased by 1.8%. Teenage pregnancy rates (<15-19 yrs) in the year 2009 was 37 per 1000 women (1,392 teen fem. population count). Five years later (2013), it declined to 23.3 (1,461 teen fem. pop). USA rate in 2008 was 51 teen mothers per 1,000 teen female populace in comparison. Total teen moms in the year 2016 compared to the year 2015 decreased by 1.8%. The last 3 years (2016, 2015 and 2014) averaged 31.0 births; a significant decrease compared to the years 2011 to 2013, which averaged 42.0 live births. The years with the highest recorded teen mom births were to 1998, 1999 and 1995 with 58, 57 and 55 respectively. Despite the reduction in the rate of teen pregnancies in the more recent years; teen pregnancy remains a concern for the health and well-being of

the teens in question as well as the overall development of the territory. The Cayman Islands has two teenagers who are HIV positive, both females who contracted HIV through mother to child transmission; one on the island and one overseas.

Table 3: Live births to teenage mothers and total live births 2010-2016

	AGE IN YEARS								
Year	<15yrs	15 yrs	16 yrs	17 yrs	18 yrs	19 yrs	Births to Teenage Mothers (<15-19)	% Teenage births of Total Births (all ages)	Total Births (all ages)
2010	1	0	3	5	20	22	51	**6.3%**	813
2011	0	1	4	12	12	16	45	**5.7%**	788
2012	1	1	4	13	14	14	47	**6.2%**	759
2013	0	2	3	8	11	10	34	**4.9%**	697
2014	0	0	0	7	11	17	35	**4.9%**	710
2015	0	0	1	6	11	17	35	**5.3%**	657
2016	0	1	0	3	5	14	23	**3.5%**	662
TOTAL	**10**	**21**	**72**	**178**	**274**	**358**	**913**	**6.2%**	**14,645**
Annual Average (last 5 years 2012-2016)	**0.2**	**0.8**	**1.6**	**7.4**	**10.4**	**14.4**	**34.8**	**5.0%**	**697**

NOTE: The figures given are total births that occurred in the Cayman Islands (C.I.H.S.A, CTMH Doctors Hospital and Faith Hospital, Cayman Brac). The age of mother reflects age on date of delivery. Therefore, a mother giving birth at age 16 may have conceived at age 15, and likewise for other ages that may apply.

Care and Treatment for HIV/STI

Antiretroviral Therapy (ARTs) is available through the HSA for persons living with HIV. The kind of antiretroviral prescribed will depend on the type of resistance pattern of the virus. The resistance test called the HIV genotype test is completed and sent to the Florida reference lab –Integrated Regional Laboratories. The treatment clinic is coordinated by the STI/HIV Coordinator. Patients have blood tests and are reviewed by the doctor every quarter. Treatment is delivered at no cost to the patients.

Surveillance for HIV/STI

The *Public Health Law* (Revision 2002) includes Hepatitis B and C, HIV and AIDS on the list of Notifiable Diseases (notifiable in 1989). Based on this legislation, health care providers are mandated to report HIV cases to the Public Health Department. There are two Public Health Surveillance Officers who receive weekly reports from the public and private sectors on notifiable diseases and follow up for information not reported that should have been reported. This information is recorded in an excel spreadsheet format created by the Surveillance Officer for ease of reporting. In addition, the Surveillance Officer may notice major changes from the usual numbers in certain diseases and bring it to the attention of the Medical Officer of Health/Director of Primary Health Care Services; similarly, they may notice a new disease or condition in the community and decide to track it.

CERNER is the Health Services Authority Electronic Medical Record System, the Surveillance Officer reviews the CERNER system during the week looking for various communicable diseases that were seen. All sentinel sites for surveillance can be monitored via the CERNER system; however, the data from the Sister Islands, Little Cayman's Clinic and Faith Hospital on Cayman Brac are emailed weekly to the Surveillance Officer. Most sexually transmitted diseases are laboratory confirmed and the CERNER system generates a report every Monday morning for the Surveillance Officer. Confirmation of HIV, Hepatitis B and C, Syphilis and any other sexually transmitted diseases from the private sector may also be reported by the physician via the "Notifiable Disease Red Book", if not urgent. Notification of more urgent matters is done via fax, email or telephone to the Surveillance Officer. The Surveillance Officer will liaise with the HIV and STI Programme Coordinator and pass on the relevant information for action, if necessary. In most cases, HIV and AIDS, as well as Hepatitis B and C cases are reported directly to the HIV and STI Programme Coordinator or through the Health Service Authority's Laboratory when a reactive is detected.

During the period 2012-2013, there was an attempt to put together all the electronic data from different systems and formats (including information from the STI and HIV Programme Coordinator who maintains a list of all HIV clients in Microsoft Excel) however the process was not completed as the system was not sustainable. This included linking all HIV and STI information from the various formats into the CERNER system. Currently, all information, including patient encounter dates, the Pharmacy Information System which keeps track of dispensing of antiretroviral treatment, laboratory results, including CD4 and viral load are kept in an Electronic Medical Record system (CERNER). Recently, a specific HIV form was added to the Electronic Medical Record system, to ensure physicians and nurses treating PLWHIV have all relevant ARV information, date of HIV diagnosis, Date of AIDS diagnosis, and immunisation information to assist with treatment.

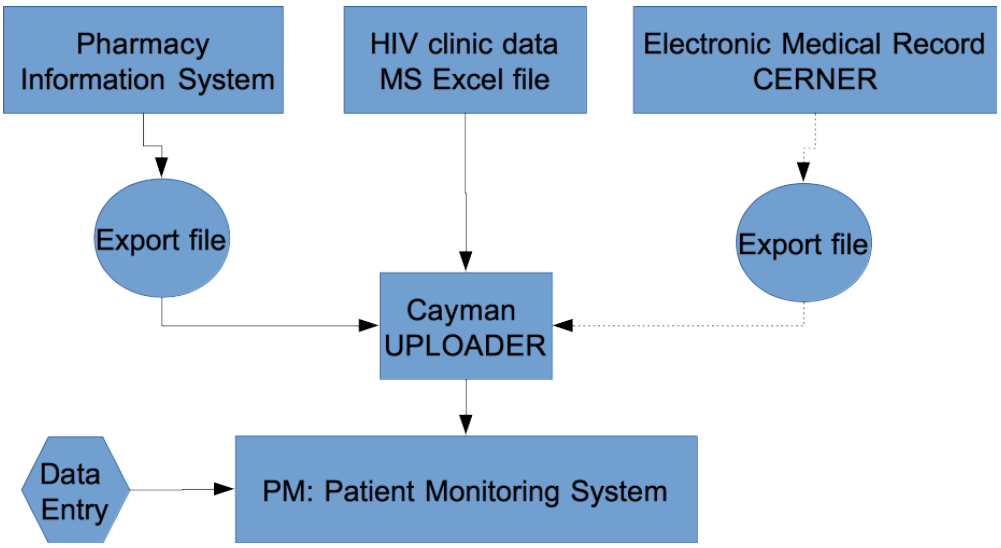


Figure 3: HIV patient monitoring data flow in the Cayman Islands

Data sources and formats

The Surveillance Officer does not collect information on HIV, as this is managed by the HIV and STI Programme Coordinator through completion of an HIV and AIDS reporting form.

There is no formal linkage of the other STIs and HIV in the current surveillance system. Currently, surveillance of HIV and STIs are done separately; therefore, HIV surveillance is maintained by the HIV and STI Programme Coordinator whilst STI surveillance is monitored by the Surveillance Officer. The disease surveillance data collected by the Public Health Department under the auspices of the Surveillance Officer is national data of significance.

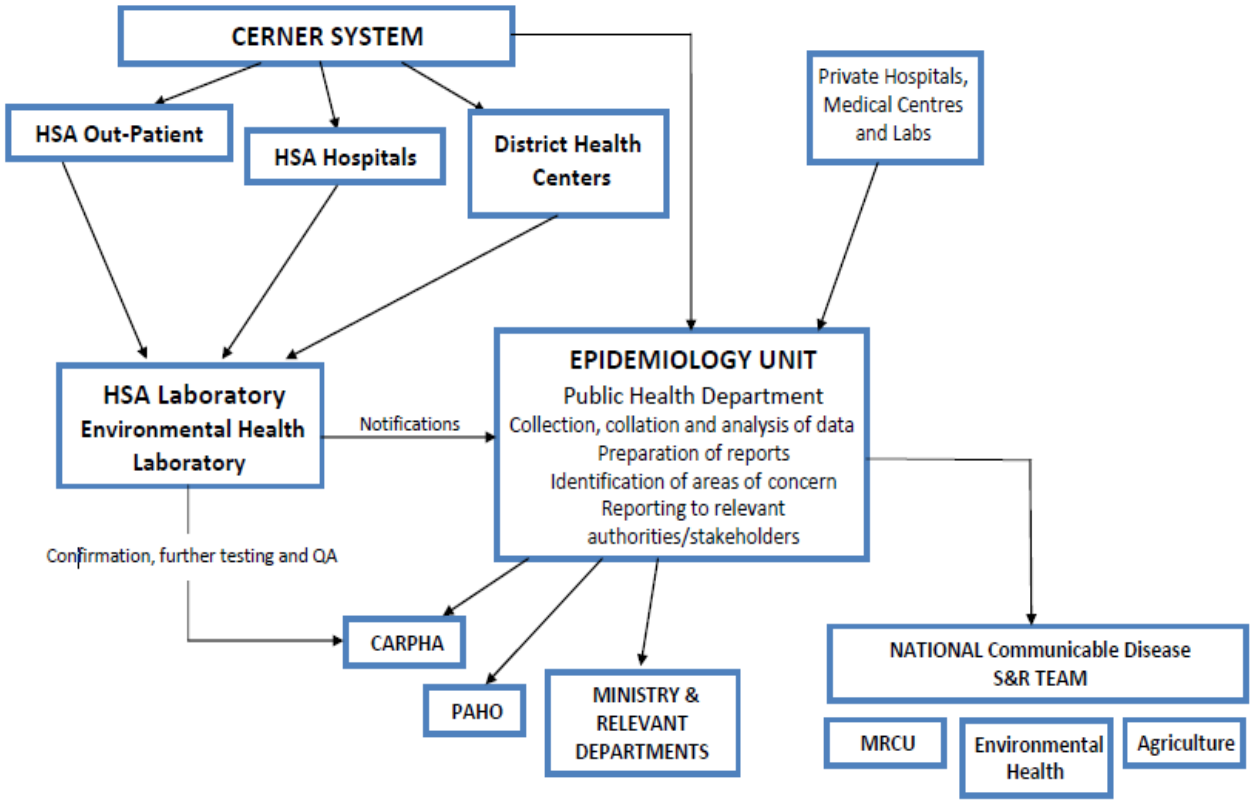


Figure 4: Reporting Chain and Data Collection in the Cayman Islands

4 Epidemiological Profile of HIV and other STIs

Epidemiological Profile of HIV Epidemic and other STIs

Since the first case in 1985, the Cayman Islands Government offers free local medical care to all Caymanians and their spouses (Cayman Islands HIV Policy adopted by the Cabinet in April 1991). This was later included in the Health Services Fees Law (2002 revision) which states that fees are not payable by a *patient who is being investigated or treated for AIDS … if so certified by the Medical Officer of Health.*

HIV prevalence trends in the general population

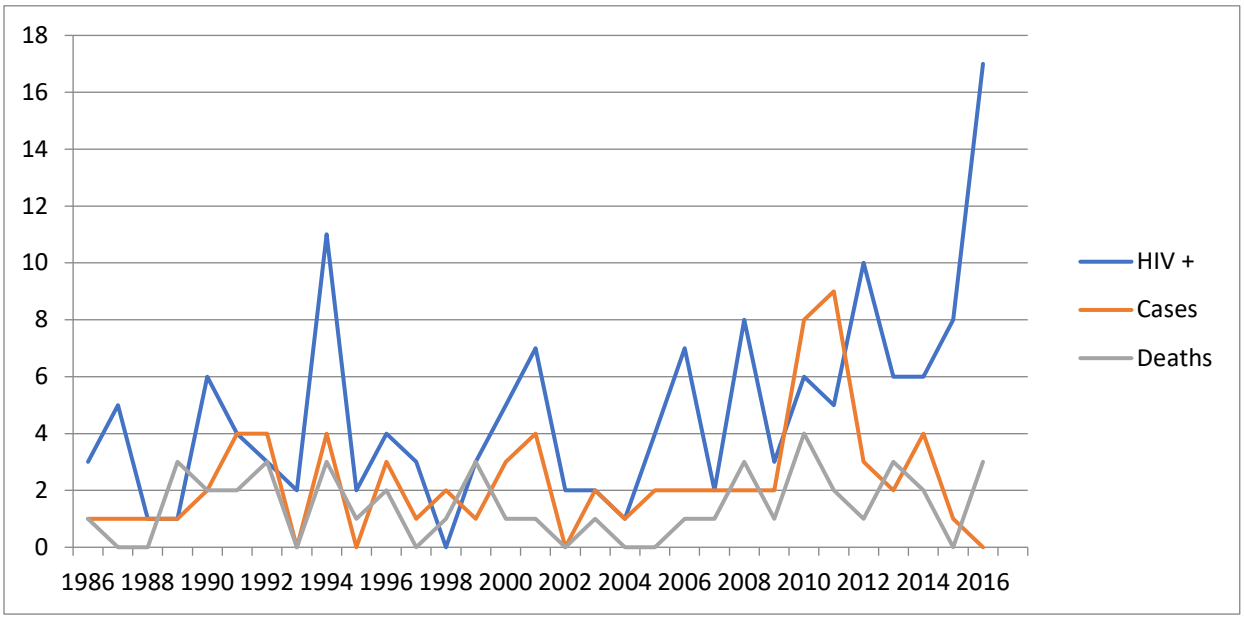
The first reported case of HIV was in 1985 and since then, a cumulative total of 153 cases were diagnosed as of December 31, 2016. In 1998, there were no cases reported and in 2016 there were 17 cases, the most detected for any year so far. Of the 153 HIV positive cases, 75 were diagnosed with AIDS, of these, 47 deceased.

Table 4: Cumulative HIV and AIDS Data 2010-2016

Year	HIV Cases			Cumulative HIV Cases			AIDS Cases			Deaths
	M	F	Total	M	F	Total	M	F	Total	
2010	5	1	6	53	43	96	6	2	8	4
2011	5	0	5	58	43	101	5	4	9	2
2012	8	2	10	66	45	111	2	1	3	1
2013	5	1	6	71	46	117	1	1	2	3
2014	4	2	6	75	48	123	2	2	4	2
2015	4	4	8	79	52	131	1	0	1	0
2016	11	6	17	90	58	148	0	0	0	3
Total	**42**	**16**	**58**	**90**	**58**	**148**	**17**	**10**	**27**	**15**

HIV continues to be transmitted in the Cayman community, and in 2016 there was a large number of new HIV cases in the Cayman Islands due to an influx of Cuban refugees (five). Males continue to outnumber women in the number of HIV and AIDS cases each year. Despite the EMTCT programme specifically targeting pregnant women for testing, men continue to outnumber women for newly diagnosed cases.

Figure 5 : Cumulative HIV and AIDS Data 1985-2016



Source: Public Health Department, Cayman Islands Health Services Authority

1 in every 5 cases (20%) of HIV was diagnosed in the age group 25-29 years, this is the age group with most cases and those with least cases are in the age group 60 years and over. The reproductive age group 25-49 years accounted for 71.7% of cases. See Table 5 below.

Table 5: Age of HIV diagnosis divided into Male and Female 1985-2016

Age at the time of testing positive	MALE	FEMALE	TOTAL	%
0-4	0	3	3	**2.1**
5-9	0	0	0	**0.0**
10-14	0	0	0	**0.0**
15-19	1	2	3	**2.1**
20 – 24	8	5	13	**9.0**
25 – 29	18	12	30	**20.0**
30 – 34	14	6	20	**13.8**
35 – 39	14	10	24	**15.8**
40 -44	9	6	15	**9.7**
45 – 49	13	5	18	**12.4**
50 – 54	7	4	11	**7.5**
55 – 59	4	4	8	**5.5**

60+	2	1	3	**2.1**
TOTAL CASES	**90**	**58**	**148**	**100.0**

Source: Public Health Department, Cayman Islands Health Services Authority

As documented above, of the 148 persons tested HIV positive in the Cayman Islands as of 31st December 2016, 90 were male and 58 female. The age group tested over the years with the highest percentage for diagnosis is between 25-29 years old, inclusive of both males and females.

Table 6: Age at time of death divided into Male and Female 1985-2016

Age at the time of death	MALE	FEMALE	TOTAL	%
0-4	0	1	1	**2.2**
5-9	0	0	0	**0.0**
10-14	0	0	0	**0.0**
15 -19	0	0	0	**0.0**
20 – 24	1	1	2	**4.3**
25 – 29	0	1	1	**2.2**
30 – 34	9	3	12	**26.1**
35 – 39	4	3	7	**15.2**
40 -44	4	2	6	**13.1**
45 – 49	3	2	5	**10.9**
50 – 54	6	1	7	**15.2**
55 – 59	0	3	3	**6.5**
60+	2	0	2	**4.3**
TOTAL CASES	**29**	**17**	**46**	**100.0**

Source: Public Health Department, Cayman Islands Health Services Authority

As of 2016, there were 46 deaths related to AIDS; (17 female and 29 male) Cumulative 1985-2016. More males died than females within the age group 30-34 years, which accounted for 26.1% of deaths.

More males have passed away in the HIV population in the Cayman Islands as there are more infected and also experience late diagnosis. Lack of compliance compared to the female PLWHIV is also a significant factor identified in regards to death rate between genders.

Modes of Transmission

Data collected by the National AIDS Programme indicates that heterosexual contact is the main mode of transmission. The cumulative HIV data by transmission have been segregated into six categories. Heterosexuals account for the majority with 62%, followed by homosexuals – 22.7%, bisexual-6.9%, unknown 3.4%, perinatal 2.8 and finally intravenous drug abuse 2.1%.

STI in the general population

STI treatment is completed in the Cayman Islands utilising both syndromic and etiological within the public laboratories. Data acquired from the HSA for the period of 2014-2016 identified Chlamydia, Gonorrhea, Herpes, Syphilis and Trichomonas as the main STIs on the Island.

Table 7: STI diagnosis data from public and private health sectors (2014- 2016)

Disease	2014			2015			2016			Total
	M	F	Total	M	F	Total	M	F	Total	
Chlamydia	9	54	**63**	7	44	**61**	9	52	**61**	**185**
Gonorrhoea	7	1	**8**	4	1	**5**	6	8	**14**	**27**
Herpes	2	10	**12**	1	13	**14**	2	16	**18**	**44**
Syphilis	6	13	**19**	6	8	**14**	7	7	**14**	**47**
Trichomoniasis	0	15	**15**	0	9	**9**	0	20	**20**	**44**

Source: Public Health Department, Cayman Islands Health Services Authority

Information on STIs have been collected annually and are reported to the Caribbean Epidemiology Centre. Since then, all the major STIs have shown a continuous decline in the annual incidence. Based on Public Health Surveillance data for 2014-2016, the most frequently diagnosed sexually transmitted infection in the Cayman Islands was Chlamydia, followed by Syphilis. Although rates of HIV are higher in men, there are higher rates of STIs reported in women. This can be due to numerous reasons. For one, it could be that women are more prone to seek medical attention at any given point that they see an issue while men tend to wait until they experience severe symptoms. Secondly, women also go for routine checkups such as Papanicolaou (PAP) smears, family planning appointments which can include STI testing. Thirdly, cases related to trichomoniasis are usually investigated/ reported on high vaginal swabs (not done in males), and lastly, physicians will treat the partner of the person who is positive without seeing or testing, and usually, the females are the ones that come in to seek attention first.

Viral Hepatitis

All pregnant women are tested for Hepatitis B and C and birth dose vaccines for Hepatitis B is provided for all newborns. The Hepatitis B birth dose coverage was 82% in 2017, and 79% the previous year. Overall coverage was 86% (JRF 2016 & 2017). During 2002-2017 there were 5 cases of hepatitis A, 7 hepatitis B and 10 hepatitis C. The table below illustrates the number of cases of hepatitis A, B and C for the past five years.

Table 8: Hepatitis A, B and C in the Cayman Islands 2012-2017

	Hepatitis A	Hepatitis B	Hepatitis C
2012	2	2	0
2013	0	1	1
2014	0	1	0
2015	0	0	3
2016	0	0	0
2017	0	2	1

Source: Surveillance Officer, Public Health Department, Health Service Authority

Figure 6: Hepatitis A, B & C cases Reported 2002-2018

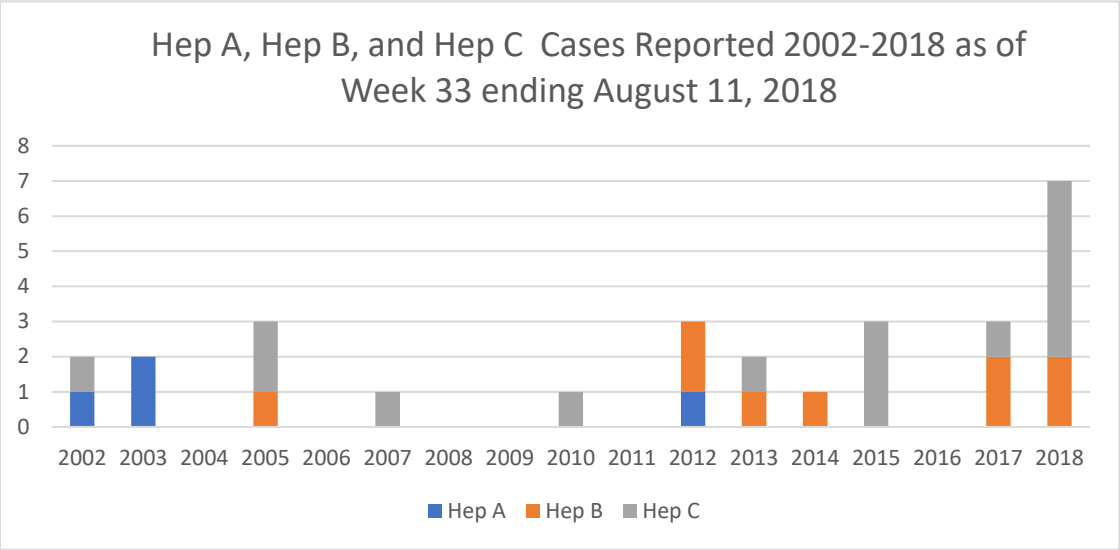


Table 9: HIV, Syphilis & Hepatitis B cases in pregnant women

Infections	Years	Number of Pregnant Women	Perinatal transmission
HIV	2013-2017	2	0
Syphilis	2013-2017	0	0
Hepatitis B	2013-2017	2	0

Individual cases, or cases of Hepatitis B and HIV

In 2013 and 2014, there were two pregnant women whose tested positive when taking a rapid plasma regain (RPR) test. However, it is important to note that their results were repeated positives from previous years and these results showed low titre levels. Therefore, as a result of this being an old infection, these results were not calculated and included in this report.

In 2014, there was a known HIV positive pregnant female who was already on antiretroviral treatment. The pregnancy was not known until 22 weeks gestation and the patient was not fully compliant with HIV

treatment previously. Her HIV Viral Load at 22 weeks was 46,737, however, once pregnancy was confirmed, the patient increased compliance and her HIV Viral Load reduced to 67 (5th January) and 27 (22nd January) prior to delivery. The patient continued on Raltegravir and Truvada throughout pregnancy and had requested a Caesarean section for delivery. IV Zidovudine was given to the mother three hours prior and during the Caesarean section and a baby boy was born on the 29th January 2015. The male infant was formula fed and received Zidovudine from birth. The male infant's first HIV Viral Load and P24 Antigen returned negative at birth (29th January 2015), at 4-months-old (8 May 2015), and at 9 months of age (26 October 2015); in which case it was decided to discontinue ARVs.

In 2014, a 17-year-old female's HIV Antibody result returned reactive during her first trimester of pregnancy; and further testing of the following returned negative, including HIV 1 and 2 through a Western Blot test, HIV 1 Viral Load and P24 Antigen test. During her third trimester of pregnancy, all tests were repeated and HIV antibody results also tested reactive. HIV 2 Viral Load was also negative after delivery. The patient was advised not to breastfeed until HIV 2 Viral Load results had returned; the male infant was also tested for HIV 1 and HIV 2 Viral Load which returned negative at 4 days old (27 April 2015). This case was concluded as a false positive and occurred before the change of testing from Western Blot to Multispot Testing.

In 2014, a pregnant patient was referred from private sector for treatment of Hepatitis B during pregnancy, the infant was also treated.

In 2017, a pregnant patient was started on treatment of Hepatitis B during pregnancy, however, the patient decided to return to her home country before delivery.

5 Programmatic Achievements, Gaps and Challenges

1. ***Policy framework***
    - Formulated and ratified the principles of confidentiality, a rejection of stigma, and the defence of human rights in the context of HIV prevention and control
2. ***Services***
    - Elimination of Mother to Child Transmission of HIV and syphilis
    - Established a national programme to address the HIV epidemic which now also addresses STIs, TB and hepatitis. Leadership is provided by the Ministry of Health and the Health Services Authority.
    - Ensure access to prevention and treatment services for all PLWHIV in the territory**.**
    - Developed staff capacity for programme management, treatment, prevention and health promotion
    - Integration – The Cayman Islands public sector emergency health services have integrated a response plan to HIV, which includes screening victims of violence for HIV and other STIs to ensure early response as well as the offer of PEP for possible exposure to HIV
    - Integration – Collaboration between the HIV programme and the Maternal Health services serve to provide critical prevention of mother to child transmission services to pregnant women resulting in the elimination of mother to child transmission of HIV
    - Cayman Islands Department of Children and Family Services in collaboration with the health authorities and civil society provide a range of care and support service to people with HIV and their families.
3. ***Community Involvement and Private Sector Partnership***
    - Non-government organisations such as Cayman AIDS Foundation (CAF) and Red Cross partner with the state to implement, HIV testing, screening the population to ensure timely access to treatment and prevention services, as well as public education programme.
    - Alliance with the private health sector to monitor and respond to the need for HIV /STI screening, treatment, prevention and behaviour modification.
4. ***Sustainability***
    - Updating the Cayman Islands AIDS policy to a Cayman Islands HIV Policy and to ensure that all persons living in the Cayman Islands have health insurance or have access to the means and mechanisms to pay for their health care are significant strategies for ensuring financial sustainability for the national response to HIV and STIs among other health conditions.
    - The national programme and the Ministry of Health continues to pursue efforts to reduce the cost of treatment of HIV and other conditions by signing onto the PAHO Strategic Fund for reduced cost of ARVs.
    - The HSA uses a tendering system which provides primary and secondary suppliers. In case of outages from suppliers at any of these levels, the requirements of the health system are circulated to alternate distribution partners mainly in the United Kingdom or the

United States, who will then source globally for available stock. The HSA has a tender agreement and document, which outlines the contractual relationship as well as details of expectations. This guidance is applied to all drugs in the procurement process**.**

Gaps and Challenges to be addressed

- **Policy formulation:** Treat all policy, policy implementing PreP, and updating guidelines based on recent global information if necessary.
- **Diverse population:** The Cayman Islands population is made up of persons from many different countries. They are migrant workers, with a range of skills and qualifications. The public and private sectors, and indeed the economy, are dependent on this workforce. The challenge of any health programme that seeks to ensure a high level of awareness and appropriate behaviour modification must factor in the development of strategies of this diverse population to prevent the transmission of HIV has to factor this into their strategies. There is a need to address adults with different belief systems and culture as well as having varying levels of information.
- **Human Resources:** The Cayman Islands has a geographically small population and health system. The staff have multiple responsibilities and this can present challenges when there is a need to have concentrated time and effort to address a particular health issue.
- **Substance Dependency:** Like other societies, Cayman is also challenged by the presence of drug and alcohol addiction and abuse in society. This presents obstacles for the HIV Programme in terms of compliance re HIV treatment and behaviours that facilitate transmission of HIV and other STIs.
- **Health System Challenges** – Procurement, sustainability of free drugs
- **Stigma:** The Cayman Islands is not exempt from stigma, PLWHIV state hesitation to disclose status due to stigma even though the community has received education; further education and awareness programs need to address these issues.

6 Strategic Framework

Assumptions

The framework is built on the belief that:

1. Political leadership and support towards the improvement of services for HIV, priority STIs, HPV, viral hepatitis, and TB will continue so as to ensure the elimination of these public health problems.
2. Policies needed for the strengthening of services and the elimination of these public health conditions will be put in place as a matter of urgency.
3. Strengthening of the health and social systems are critical and will be essential as to support the effective implementation and involves all components of the health system, including private health care providers.
4. Appropriate surveillance for HIV, priority STIs, HPV, viral hepatitis and TB/HIV co-infection will be strengthened or developed within the existing national systems.

Risks

The above assumptions are central to the strategy and underpin the ability of the Ministry of Health to effectively achieve the goal of ending AIDS and other priority STIs including viral hepatitis.

Approaches and Essential Steps to Eliminating the Infections

- Increase leadership and political commitment,
- Strengthening and expanding prevention and testing, such as adding Hepatitis B and C to the free screening programme, care and treatment for HIV and priority STIs,
- Extending the availability of equitable and quality HIV/STI services requires an environment that enables access to health care and that is based on health-related human rights instruments,
- Implement TB/HIV collaborative activities to support ending AIDS and tuberculosis as a public health problem is a target under the SDG that will require a mix of biomedical, socioeconomic interventions coupled with research and innovations,
- A paradigm shift which includes new approaches and innovations for ending AIDS and other STIs,
- Key interventions will be adopted at a country level to support the strengthening of services (including the private sector) to ensure the achievement of the prevention targets,
- Adaptive services delivery based on people and community-centred approaches through integrated health services networks, thus increasing the resolutions capacity of the first level of care,
- Providing care through multidisciplinary teams,
- Improving integrated service delivery to better address maternal and child health, sexual and reproductive health, HIV co-infections (with special emphasis on TB/HIV) and co-morbidities.

Principles to the Implementation of the Strategy

1. Government stewardship and accountability for the implementation of appropriate interventions
2. Strong collaboration with civil society organisation and communities
3. Protection of human rights, ethics and equity.

Vision: Zero New Infections, Zero HIV related deaths, and Zero related stigmas and discrimination

Goal: END of AIDS and other sexually transmitted infections as a public health threat by 2030

2023 Targets:

- *90% of persons estimated to be living in the Cayman Islands with HIV have been tested for HIV*
- *90% of those tested HIV positives have been referred to treatment and care and are retained in treatment and care*
- *90% of those in treatment and care experience HIV viral suppression*
- *25% reduction of new HIV infection*
- *90% of the general population tested for Hepatitis B and C*
- *Hepatitis B and C treatment provided to all persons diagnosed with Hepatitis B and C*
- *No cases of perinatal HIV, syphilis and Hepatitis B*
- *Hepatitis B Vaccine -Birth dose is available to all newborns*

Objectives Targets for the Mother to child transmission of HIV, syphilis and Hepatitis B

Objective

Achieve and sustain the elimination of mother-to-child transmission of HIV, syphilis, and perinatal hepatitis B

Impact Targets

- ❑ **≤2%** MTCT of **HIV**
- ❑ **≤0.5 congenital syphilis** cases per 1,000 LB
- ❑ **≤0.1% HBsAg** prevalence among 4-6 y/old

Interventions

The interventions developed in this strategic plan are in line with the gaps and challenges identified in the situation analysis. The strategic objectives have been reviewed to ensure that they are realistic, feasible, culturally appropriate for the island, and are linked to global and regional plans, strategies and initiatives that are currently being implemented in the region. This will allow for the Cayman Islands to progress in a similar manner as the rest of the Caribbean countries and territories.

Strategic Focus

The Strategic plan focuses on four priority objectives:

Strategic Priority 1. Leadership and Governance for an improved and sustained HIV/STI response

This priority area focuses on critical activities that are important at the level of leadership and governance to support the implementation of the plan, which includes the-scale up of services and interventions to achieve national, regional and global targets. Emphasis will be placed on strengthening the stewardship, governance, strategic planning and information to support the expansion of the services as detailed in the strategic plan.

Key focus under this Priority Area:

- Addressing financial barriers to access, reducing prices and cost and improving efficiencies;
- Improved selection, procurement and supply of affordable medicines, diagnostics and commodities;
- Revision of the national structure and coordinating mechanisms to ensure an effective inter-programmatic and multi-sectoral response to HIV, priority STIs, HPV, viral hepatitis B & C, as well as TB/HIV co-infection;
- Review and implement norms and guidelines to expand hepatitis B beyond immunisation, and to advance toward the timely implementation of birth dose and expand access to the at-risk population;
- Revise, update and standardise national guidelines, norms and protocols to support diagnosis and treatment of the infections within all health sectors, both public and private;
- Implementation of framework which will support the promotion of health throughout the life course, reduction of risk factors and disease prevention with the involvement of civil society organisations;
- Strengthening of a comprehensive information system for HIV and STI case reporting to monitor the continuum of prevention, care and treatment services, especially for key populations;
- Standardize forms to collect data on HIV/STI, Hepatitis (B & C) and TB/HIV from all health facilities and to report to the surveillance unit;
- Identify and develop mechanisms to capture data from private health facilities for HIV/STI, Hepatitis (B & C) and TB/HIV co-infection, forwarded to the surveillance unit to support improved strategic information and programmatic decision making.

Strategic Priority 2. High Impact HIV/STI/Hepatitis prevention interventions implemented

The main objective of this priority objective is to reduce the number of new infections through activities with a greater sustained impact. Well-designed combination prevention programmes will be tailored to local needs, based on epidemiological information. Emphasis will be placed on the implementation of HIV combination prevention approaches.

Key focus under this Priority Area:

- Expand opportunities for integration of routine HIV testing in primary health care. This will ensure the population is aware of their HIV status and thereby, support the achievement of the first 90 targets;
- Integrate interventions for STI into HIV and sexual and reproductive health services in all primary care facilities;
- Strengthen the laboratory diagnosis for the priority STI;
- Scale-up and expand the HPV vaccination for young people;
- Integrate prevention & management of Hepatitis B & C within the health system;
- Scale-up STI diagnosis for key population, while promoting safe sexual practices to increase condom use and reduce multiple sex partners;

- Integrated management – will the health system need training of health care providers to enable implementation of integrated care - TB coinfection - Routine -HIV + persons screened for TB and persons with TB screened for HIV – timely treatment as well as viral Hepatitis B and C – early diagnosis and treatment;
- Optimising HIV prevention with the implementation of HIV combination prevention strategies approach, with emphasis on PrEP, and with a continued focus on serodiscordant couples and key populations;
- Provision of PEP for occupational and non-occupational exposures, including the key populations as a part of the HIV combination prevention program;
- Collaborate with private health facilities and civil society organisations to strengthen HIV prevention services.

Strategic Priority 3: Expand equitable access to comprehensive and Quality HIV/STI/TB Hepatitis services

This strategic objective will focus on the innovation and expansion of services for HIV/STI, viral hepatitis, HPV and TB/HIV co-infection within the existing services. This approach will facilitate the process of integration of HIV services with other relevant services such as Maternal and Child Health , STI, sexual and reproductive health (SRH), mental health and TB, based on the WHO recommended TB/HIV collaborative activities, viral hepatitis as well as other relevant co-infections and co-morbidities.

Key focus under this Priority Area:

- Develop a policy to support the implementation of the “treat all” policy in the private and public health facilities for Hepatitis B as well as HIV;
- Implement guidelines to improve and expand care and treatment of HIV, promoting the “treat all” approach to initiate ARVs to adults regardless of the clinical staging;
- Support the integrated management of opportunistic infections such as TB, viral hepatitis, HPV and co-morbidities;
- Optimising service delivery - This area addressing reorienting services as needed to ensure that different populations are served with a service that is relevant to their needs, that they are retained in treatment and have viral load suppression;
- Invest in the procurement of appropriate technology, facilities and services that are required are made available to improve our delivery of sustainable high-quality healthcare;
- Scale up the implementation of TB/HIV collaborative activities.

Strategic Priority 4: Strong surveillance system to document cases, support the monitoring and evidence-based planning & decision.

Develop a strong surveillance system to collect critical data to support evidence-based planning, the continuum for services for the prevention and care and treatment for HIV/STI, TB and viral hepatitis. This will support the availability of reliable national data while supporting the reporting on key global and regional indicators and targets.

Key focus under this Priority Area:

- Establishing a functional surveillance system for HIV/STI, viral hepatitis & TB/HIV co-infection;
- Standardization of data collection tools HIV/STI, viral hepatitis & TB/HIV co-infection ~~for~~ in all health institutions;
- Training of staff to enhance case notification;

- Implementing a core set of indicators for surveillance and monitoring and evaluation to support the monitoring of the 90-90-90 and prevention targets;
- Linkage and integration with other of private and public surveillance systems;
- Quarterly and annual reporting on key programmatic and impact indicators for HIV, STI, TB/HIV co-infection, viral hepatitis and disseminate the report to the users and producers of health information;
- Explore if there are any information gaps in the current data collection process;
- To improve access to timely and appropriate information on the HIV /STI epidemic;
- Develop a system to monitor HIV drug resistance utilizing WHO Early Warning Indicators;
- Include HIV DR, TB MDR & Gonorrhea resistance in the newly developed AMR plan.

Strategic Priority 5: Maternal and Child Health services strengthen to support the sustainability of EMTCT Plus (HIV, syphilis, Hepatitis B)

Key focus under this Priority Area:

- Address gaps and challenges identified to strengthen primary prevention and treatment services for EMTCT Plus within Maternal and Child Health.
- Utilize existing committee within MCH to provide ongoing monitoring and evaluation of the EMTCT strategy.
- Maintain and sustain the Elimination of Mother to Child Transmission of HIV and Congenital Syphilis, while strengthening the services to advance toward the elimination of hepatitis B.
- Implementation of a perinatal system within MCH services to support effective data collection for EMTCT Plus.
- Establish a strong surveillance system within MCH to support the monitoring and evaluation of HIV, syphilis and hepatitis in pregnant women and the exposed infants. This will support the elimination status of HIV and syphilis while advancing to hepatitis B in pregnant women.
- Collect and analyse data for hepatitis B with the overall aim of applying for validation.

Strategic Priority 6: Maintenance of EMTCT to support the gains and validation status

Key focus under this Priority Area:

- Identify key actions to support the implementation of key recommendations from the Regional Validation Committee (RVC) and the Global Validation Advisor Committee (GVAC).
- Quarterly review of the EMTCT data by established Perinatal Committee.
- Develop a re-certification report for the elimination of HIV and syphilis and submit to the RVC & GVAC for validation.

7 Management and Coordination

Governance

The strategic plan provides a broad framework for the expansion and the strengthening of quality equitable services for HIV/STI (including HIV/TB co-infection) and hepatitis in The Cayman Islands. The activities respond to the gaps and challenges identified and will be implemented annually through an operational plan which will be developed by the Ministry of Health in collaboration with civil society organisations and other relevant and appropriate government agencies.

The Ministry of Health has the responsibility for reviewing and developing an organisational structure that will be able to implement this strategic plan. The Ministry will also address the management of the human resources that will be needed to support the successful implementation of the strategic plan.

Involvement of People Living with HIV and other Vulnerable Groups

People living with HIV and members from other vulnerable groups will be involved in the national response and will be supported in their involvement. The involvement of persons with HIV will be done through the work of civil society organisations and the Ministry of Health.

NGO and Private Sector Involvement

The private sector and non-governmental organisations (NGOs) will be encouraged to become involved in the implementation of the NSP as they play a role in ensuring a multi-sectoral response. Key private sector and Non-Governmental Organisations will be involved in the development of the annual HIV plans and their proposed tasks aligned with the key activities laid out in the overall plan.

Regional Co-ordination and Technical Support

The Ministry of Health of the Cayman Islands will continue to work and collaborate with regional organisations such as PAHO and Pan Caribbean Partnership Against HIV/AIDS to support the overall implementation of the strategic plan. It is anticipated that appropriate technical support and guidance for the implementation of the strategic plan will be provided by PAHO. The implementation of the plan will be collaborative with other partners providing technical support in the Caribbean Region.

Costing and Financial Management of the Strategic Plan

The cost of the annual implementation plan will be outlined and presented to the national authorities to ensure the availability of funds for the yearly plan. The first year costed plan will be developed following the approval of the overall strategic plan by the Government of Cayman Islands.

8 Monitoring and Evaluation of the Strategic Plan

Monitoring and Evaluation

Monitoring and Evaluation (M&E) is a management tool that is necessary to measure the impact of the HIV response. Establishing an effective system will provide timely, quality and accurate evidence that will be used to inform decision-making during the implementation of the Strategic Plan and evaluate the impact of the overall HIV response in The Cayman Islands. The system will focus on training stakeholders to understand the concepts of monitoring and evaluation and to operate a functioning M&E system, ensuring that the data needed to monitor the HIV response are collected in an organised manner and ensuring that the data are analysed and disseminated for use by the decision-makers and implementing agencies.

This plan outlines a Monitoring and Evaluation Framework with key indicators that will be used to monitor the HIV response and the achievements under the plan. During the first year of the implementation of the strategic plan, efforts will be made to collect baseline HIV data that are currently not available. Once the relevant data are collected, the targets set for the indicators will be adjusted to ensure that they measure the impact of the interventions outlined in the strategic plan. The indicators listed for monitoring the strategic indicators are also used to monitor the impact of HIV at the regional and global level at which the territory will need to monitor to demonstrate progress with the rest of the Caribbean region.

Evaluation of the Strategic Plan

A mid-term evaluation of the strategic plan will be conducted following the first two years of implementation. The evaluation will focus on assessing progress towards achieving the strategic objectives of the plan, identifying challenges and making recommendations to address these challenges. The evaluation will also consider new evidence and strategic information that may necessitate a change in the direction of the strategic plan. A final evaluation will be completed in 2023 at the time of expiration of the plan.

9 Strategic Plan

Cayman Islands Plan to Eliminate HIV/STI/Hepatitis as a Public Health Threat (2019-2023)

Strategic Priority	Strategic Objective	Action Areas/Strategy	Timeframe	Responsible Officer / Collaborating Agencies
1. Leadership and Governance for an improved and sustained HIV/STI response	Health Sector Response for HIV, STI, TB and Hepatitis (B and C)	Update Public Health Law	*Ongoing - 2020*	MOH and Public Health Department
		Develop Policy to implement the support of the HIV Treat All Guideline.	*2019*	Public Health Department
		Advocacy and Awareness of the HSA policy on Gillick Competency health care workers	*2019-2020*	Public Health Department
		Review and update all appropriate testing and treatment guidelines (HIV, PEP including HIV, HBV and HCV, PrEP, STI, TB, Hepatitis B and C).	*2019-2020*	Public Health Department
		Advocacy and decision for integration for Hepatitis B and C for prevention, surveillance diagnosis, treatment and care within the wider health system.	*Ongoing*	Public Health Department
		Based on the decision for the integration of Hepatitis B and C develop and disseminate SOPs.		Public Health Department
		Advocate for the continuation of TB/HIV collaborative activities	*Ongoing*	Public Health Department
		Develop cost-effective study for the utilization of innovative technology for Laboratory (GenExpert) to support screening, diagnostic, CD4Count, HIV viral load and resistance for HIV/STI/TB MDR		HSA Laboratory

Strategic Priority	**Strategic Objective**	**Action Areas/Strategy**	**Timeframe**	**Responsible Officer / Collaborating Agencies**
		Revision of the national structure and coordinating mechanisms to ensure an effective inter-programmatic and multi-sectoral response to HIV, STIs, HPV, Hepatitis B and C and TB.	*Ongoing*	MOH and Public Health Department CAF and Red Cross
2. High impact HIV/STI /Hepatitis prevention interventions implemented	Strategies to expand HIV/STI/Hepatitis prevention services, develop and implement	Continue PrEP services in accordance with WHO guidelines		H.S.A
		Expand HIV/STI/Hepatitis testing services for the general population at the community level and support link to treatment and care.		
		Expand HIV and STI testing to women and children, youth who are accessing the Crisis Centre, Estella's place.		School Health, Epi, Mat and Child Health
		Retraining of healthcare providers, EMT etc. on the use of PEP for occupational and sexual exposure for HIV and Hepatitis B and C.	*2019*	Public Health Department and Infection Control Nurse
	Strategies to identify to support greater coordination and collaboration HBV and HPV	Based on the national epidemiology and reality identify specific strategies for the prevention of transmission of Hepatitis B and C in key populations.		
		To continue to implement Hepatitis B Vaccination for key population (healthcare providers and PLWHIV etc)	*ongoing*	Public Health Department and Infection Control Nurse
	Strategies for Health Promotion identified and collaboration	In collaboration with the Health Promotion Officer implement information and campaigns to raise awareness Hepatitis B and C, STIs, congenital syphilis and measures to control the infection.	*ongoing*	Public Health Department and Infection Control Nurse
		Develop health promotion package for STI and HIV, Hepatitis B and C addressed in the context of Sexual and Reproductive health.	*2020*	Public Health and Women's Health

Strategic Priority	Strategic Objective	Action Areas/Strategy	Timeframe	Responsible Officer / Collaborating Agencies
		Commemoration of World AIDS Day and World Hepatitis Day.	*ongoing*	Public Health Department, CAF and Red Cross
		Based on the adaptation of Gillick competency for provision for services for adolescents, identify an appropriate health promotion package	2019-2020	Public Health Department
3.Expand and equitable access to comprehensive and quality HIV/STI/TB/Hepatitis B and C services	Expand HIV, STIs, TB and Hepatitis (B and C) treatment and care services	Revision and finalization to procure ARVs and other commodities through the PAHO Strategic Fund		Ministry of Health
		Implement innovation for laboratory diagnostic testing for monitoring HIV/STI/TB treatment.		HSA Laboratory
		Continue to utilise HIV DR testing for all new patients or those failing treatment.	Ongoing	MOH and Public Health Department
		Monitoring of HIV DR utilizing WHO early warning indicators at treatment sites.	Ongoing	MOH and Public Health Department
		Scale up implementation collaborative activities for TB/HIV.	Ongoing	MOH and Public Health Department
		Continue to refer HIV patients to the appropriate Mental Health Practitioners to address the psychosocial needs of people with HIV, Hepatitis B and C and other key populations.	Ongoing	MOH and Public Health Department
4. Strong surveillance system to document cases supports the monitoring and	Functional surveillance system for collection and analysis of HIV/STI/TB/Hepatitis B and C	Sensitisation and training of the updated Notifiable diseases to all Health Care providers.	Ongoing	MOH and Public Health Department
		Strengthen HIV and TB/HIV coinfection surveillance system	*2019-2020*	Public Health Department

Strategic Priority	Strategic Objective	Action Areas/Strategy	Timeframe	Responsible Officer / Collaborating Agencies
evidence-based planning & decision.		Protocol for data collection Implement a core set of indicators for the monitoring and evaluation of the 90-90-90 and prevention targets.		Public Health Department
		Quarterly and annually reporting on key programmatic and impact indicators for HIV/STI/TB/HIV infection and Hepatitis B and C, and disseminate to users and producers of health data.		Public Health Department
		To review the current AMR plan and to include HIV drug resistance, TB DMR and Gonorrhea resistance.	*2021*	MOH and Public Health Department
5. Maternal and Child Health services strengthen to support the sustainability of EIMTCT plus (HIV, Syphilis, Hepatitis B)	To maintain Cayman's validation status of the Elimination of Mother to child transmission of HIV and Syphilis	Include in the existing Perinatal Committee the monitoring of EMTCT Plus services and indicators to support the ownership of the strategy.	2019	Public Health Department and Perinatal Committee
		To continue to implement and monitor in all MCH facilities and within the public and private health facilities of HIV/Syphilis/Hepatitis B and C testing.	2020	Public Health Department and Perinatal Committee
		Develop strategies to encourage partner testing within ANC services, as well as the treatment and data of the partners of the seropositive HIV and Syphilis pregnant women.	Ongoing	Public Health Department and Perinatal Committee
		Adapting the algorithm and disseminate to healthcare providers regarding testing and treatment on all HIV, syphilis, and the monitoring and follow-up for the HIV and Syphilis exposed	2020	Public Health Department and Perinatal Committee

Strategic Priority	Strategic Objective	Action Areas/Strategy	Timeframe	Responsible Officer / Collaborating Agencies
		babies at all MCH clinics (public and private) as well as labour wards.		
		Training for healthcare providers on the newly updated guidelines for the mother and exposed infants for Syphilis and Hepatitis B and C.	2019	Public Health Department and Perinatal Committee
		In collaboration with Epi, identify key strategies to increase and maintain high and wide Hepatitis B vaccine coverage routine.	2019	Public Health Department and Perinatal Committee
		Implementation of the Perinatal Information systems to support the data collection for EIMTCT within the framework of maternal and child health.	2019	Public Health Department and EIMTCT Committee
		Review and update all MCH protocols and guidelines including Hepatitis B and C testing for implementation in the public and private health facilities.	2020	Public Health Department and Perinatal Committee
		Training of healthcare workers on the newly established EMTCT guidelines.	2020	Public Health Department and EIMTCT Committee
	Address the Global Validation Advisory Committee (GVAC) recommendations for the Cayman Islands	Continue to support progress in the area of human rights, gender equality, and community engagement, particularly in building capacity for community involvement in the HIV/STI national response.	Ongoing	Public Health Department and EIMTCT Committee
		Ensure EMTCT of syphilis will be maintained by including pregnant women who are seroreactive to syphilis as part of data collected for EMTCT with close evaluation for each case (acute vs old infections) and follow up of exposed infants.	Ongoing	Public Health Department and EIMTCT Committee

Strategic Priority	Strategic Objective	Action Areas/Strategy	Timeframe	Responsible Officer / Collaborating Agencies
	Support areas around Human Rights, Gender and Community Engagement.	Develop and implement key interventions to reduce the levels of stigma and to promote HIV prevention.	2020	Public Health Department, CAF and Red Cross
	Strengthen laboratory network.	Implement the newly developed national laboratory policy and strategic plan. This will provide monitoring and oversight to the laboratories in the private facilities that are included in the national network.	2020	HSA Laboratory
		The HSA lab can coordinate the conduct of a Proficiency Testing program for laboratory testing in the Cayman Islands. By brokering in from CAP or Digital PT or other recognised PT provider especially for HIV, syphilis and Hepatitis B testing.	2020-2023	HSA Laboratory

Strategic Priority	Strategic Objective	Action Areas/Strategy	Timeframe	Responsible Officer / Collaborating Agencies
		The Public Health Reference Laboratory to procure panels of sera for proficiency testing and require testing practitioners to demonstrate and document their ability to produce quality results.	2020	HSA Laboratory
	Strengthen quality of data for EMTCT, integrated with MCH data.	Ensure that all seroreactive pregnant women are included as part of data collected for EMTCT, with close evaluation for each case.	ongoing	Public Health Department and EIMTCT Committee

10 Monitoring and Evaluation Framework

Priority Set of Indicators for the Strategic Objectives

Priority Area 1. **Leadership and Governance for an improved and sustained HIV/STI response**			
Strategic Objectives	**Indicators**	**Source of Information**	**Assumptions**
1.1 Strengthen the health sector Response for HIV, STI, TB and Hepatitis (B and C)	**1.** By 2023 availability of updated public health law. **2.** Treat all policy developed and disseminated to all private and public facilities providing HIV treatment by 2021. **3.** Policy on the implementation of the Gillick Competency and its implementation in Cayman Islands by 2021. **4.** Availability of updated guidelines for priority STI, hepatitis and TB/HIV co-infections by December 2020 **5.** Percentage of persons from the vulnerable population (MSM, sex workers, transgender) reached by a prevention program at the community level.	Updated policy Updated policy Policy for the provision of SRH services for adolescents Approved Guidelines utilized in public and private health facilities	Commitment of the MOH to advance with the updating of the Public Health Law and the availability of appropriate personnel to update the legislation. Commitment of senior policymakers to support the development and approval of the policies. Guidelines are approved for utilisation by the national health authority Prevention Programmes to be clarified

Priority Area 1. **Leadership and Governance for an improved and sustained HIV/STI response**			
Strategic Objectives	**Indicators**	**Source of Information**	**Assumptions**
Priority Area 2. **High impact HIV/STI /TB/HIV & Viral Hepatitis prevention interventions implemented**			
Strategic Objectives	**Indicators**	**Source of Information**	**Assumptions**
2.1 Strategies to expand HIV/STI/Hepatitis prevention services developed and implemented	**6.** Number of persons tested for HIV, priority STIs, Hepatitis B & C annually (by age, sex and key population) **7.** Annually percentage of new infections for HIV, priority STIs, TB/HIV co-infection and hepatitis B & C. **8.** Number of persons receiving pre-exposure prophylaxis (by age and sex) annually. **9.** Annual cascade developed based on HIV prevention. **10.** Strategies for the prevention and control of hepatitis in health workers and key populations developed and implemented by 2021. **11.** Annual analysis of annual gonococcal resistance in accordance with WHO recommendations. **12.** Number of condoms distributed to key populations and adolescents annually.	National Surveillance System National Surveillance system Strategies for hepatitis prevention available Immunization records Laboratory data	Data is collected in a manner making it easy for disaggregation Availability of the necessary equipment and tool to monitor gonococcal resistance
2.2 Strategies to support greater coordination and collaboration for HBV & HPV developed and implemented	**14.** By December 2020 National Structure/strategies in place to formalize and support the inter-programmatic and multi-sectoral response for HIV/STI/TB, viral hepatitis and cervical cancers	Establishment of National committee and terms of reference	Commitment of national authorities to approve structure and terms of reference.

Priority Area 1. **Leadership and Governance for an improved and sustained HIV/STI response**			
Strategic Objectives	**Indicators**	**Source of Information**	**Assumptions**
2.3 Strategies for health promotion identified and implemented through collaborative efforts.	**15.** Annual Information Education Communication information and plan developed to raise awareness on hepatitis B, C, (& observation of World AIDS & Hepatitis Days) STIs and congenital syphilis in general population and pregnant women.	Annual health promotion plan implemented	
	16. By 2021 Health promotion package which articulates services for adolescents based on Gillick competencies available and implemented		Media and Awareness

Priority Area 3. **Expand and equitable access to comprehensive and quality HIV/STI/TB/Hepatitis B and C services**			
Strategic Objectives	**Indicators**	**Source of Information**	**Assumptions**
3.1 Expand & Strengthen HIV treatment and care services	**19.** 90% of all patients tested for HIV are linked into care immediately based on the treat all guidelines. **20.** 90% of all patients on ART are retained 12 months after. **21.** 90% of HIV patients who are virally suppressed. **22.** By 2021 utilization of the PAHO Strategic fund to improve access to ARVs and other HIV/STIs/OIs commodities.	Surveillance reports	

Priority Area 3. **Expand and equitable access to comprehensive and quality HIV/STI/TB/Hepatitis B and C services**			
Strategic Objectives	**Indicators**	**Source of Information**	**Assumptions**
3.2 The management of STIs, TB/HIV co-infection and Hepatitis (B&C) strengthen through early detection and treatment	**23.** By 2020 numbers of confirmed STI (herpes, chlamydia, syphilis & congenital syphilis) cases are reported based on WHO guidelines and by age, sex, pregnant women, and key populations.	Surveillance reports	

Priority Area 4. **Strong surveillance systems to document cases support the monitoring and evidence-based planning & decision.**			
Strategic Objectives	**Indicators**	**Source of Information**	
4.1 Functional surveillance system for collection and analysis of HIV/STI/TB/Hepatitis B and C	**26.** Surveillance form for the collection of data for HIV/STI/TB& HIV co-infection/Hepatitis B and C developed and implemented by December 2019		
	27. By December 2020 a functional surveillance system for HIV/STI/TB/Hepatitis B and C, based on WHO recommendations will be available to monitor programmatic advances and to support evidence-based decision	Training report	
	28. WHO Early warning indicators utilized to monitor HIV DR December 2019		
	29. AMR plan which includes HIV DR and TB MDR developed and implemented by December 2020		

Priority Area 5. Maternal and Child Health services strengthen to support the sustainability of EIMTCT plus (HIV, Syphilis, Hepatitis B)			
Strategic Objectives	**Indicators**	**Source of Information**	
5.1 EMTCT Services Strengthened to maintain the gains	**26.** Number of pregnant women tested for syphilis and treated 30 days prior to delivery. **27.** Number of HIV-positive pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission of HIV. **28.** 95% of all new-borns received HBV vaccination within 24 hours.		
5.2 Activities implemented to respond to the recommendations from the RVC and GVAC.	**30.** To identify and implement activities to respond to the recommendations from the RVC & GVAC to ensure EMTCT re-certification by July 2019.		

11 Global Targets and Indicators to be monitored

Annex 1: Data for the Ongoing Monitoring & Evaluation of EMTCT Services and Indicators

Indicator	Frequency (periodicity of data collection)	Officer (s) Responsible	Means of verification
Impact Indicators			
Rate of mother-to-child transmission of HIV is less than or equal to 2%	Annually	National Committee	Booking register (this will capture both public and private clients) & data from Labour and Maternity
Incidence of mother-to-child transmission of HIV is 0.3 cases or less per 1,000 live births	Annually	National Committee	Booking register (this will capture both public and private clients) & data from Labour and Maternity
Incidence of congenital syphilis (including stillbirths) is 0.5 cases or less per 1,000 live births	Annually	National Committee	Booking register (this will capture both public and private clients) & data from Labour and Maternity
Coverage indicator			
Number of pregnant women who access ANC services publicly and privately (at least 1 ANC): Target>=95%	Monthly	Booking & Labour	Report from booking log which will capture all pregnant women who attended ANC public and privately
Number of pregnant women attended by skilled health personnel during the prenatal period: Target >=95%	Monthly	Booking & Labour	MCH and Hospital records
Number of pregnant women who were tested for HIV and received their results during pregnancy, during labour and delivery, and	Monthly	Booking & Labour	Booking register (this will capture both public and private clients) & data from Labour and Maternity

Indicator	Frequency (periodicity of data collection)	Officer (s) Responsible	Means of verification
during the postpartum period, including those with previously known positive HIV status: Target >=95%			
Number of pregnant women tested for syphilis during pregnancy: Target >=95%	Monthly	Booking & Labour	Booking register (this will capture both public and private clients) & data from Labour and Maternity
Number of pregnant women who tested for Hepatitis B	Monthly	MCH , Booking & Labour	Booking register (this will capture both public and private clients) & data from Labour and Maternity
Number of positive pregnant women for Hepatitis B who were treated	Monthly	MCH, Booking & Labour	Booking register (this will capture both public and private clients) & data from Labour and Maternity
Number of exposed babies to hepatitis B babies who received the birth dose within twelve hours of birth	Monthly	Booking & Labour	Booking register (this will capture both public and private clients) & data from Labour and Maternity
Number of syphilis-seropositive pregnant women who are appropriately treated (treated 30 days before delivery): Target >=95%	Monthly	Booking & Labour	Treatment registry from the private doctors & high-risk clinic
Number of syphilis exposed babies who were appropriately tested and treated at birth and 30 days after and follow-up accordingly. Target >=95%	Monthly	Booking & Labour	Registry at Labour and Maternity Ward & Pediatrician and a well-baby clinic
Number of HIV-positive pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission of HIV: Target >95%	Monthly	Surveillance Unit & labour registry	Clinical Care Coordinator

Indicator	Frequency (periodicity of data collection)	Officer (s) Responsible	Means of verification
Number of HIV exposed babies who received a Polymerase chain reactiontest to confirm a diagnosis based on established guidelines. Target >=95%			
Number of infants born to women with HIV receiving a virological test for HIV within two months of birth	Monthly	HIV Program/MCH/Child Health	Clinical Care Coordinator

Annex 2: Data for the Ongoing Monitoring & Evaluation of the 90-90-90 targets and national indicators

Indicator	Frequency (periodicity of data collection)	Officer (s) Responsible	Means of verification
Indicators			
Number of persons tested for HIV in a given year (by age, sex and key population)	Annually	HIV Programme Coordinator	
90% of all people living with HIV who know their HIV status (by age, sex and key population)	Annually	HIV Programme Coordinator	HIV Clinical Care registry
Number of persons who are linked into care (by age, sex and key population)	Annually	HIV Programme Coordinator	HIV Clinical Care registry
90% of all those who are diagnosed with HIV are on ART(by age, sex and key population)	Annually	HID	Pharmacy Records
Number of persons who are on treatment twelve months after(by age, sex and key population)	Annually	HID	PMS
Number of persons who have access to at least one viral load per year (by age, sex and key population)	Annually	HIV Programme Coordinator	Labs Record
90% of those on ART having an undetectable viral load.	Annually	HIV Programme Coordinator	Labs Records
Number of people who died from AIDS- related causes	Annually	HIV Programme Coordinator	Hospitalisation and Death record
Number of people living with HIV with the initial CD4 cell count	Annually	HID	PMS

Indicator	Frequency (periodicity of data collection)	Officer (s) Responsible	Means of verification
<200cells/mm and <350 cells/mm during within 12 months			
Number treatment sites that had a stock-out of one or more required antiretroviral medicines during the past 12 months.	Annually	HIV Programme Coordinator	Pharmacy report
The number of clients who were treated following the implementation of new WHO guidelines (test and start)	Annually	HID	HID
Co-managing TB and HIV treatment	Annually	Nurse Epidemiologist	TB records
Number of deaths as a result of TB	Annually	Nurse Epidemiologist	TB records

Annex 3: Global and national Prevention Indicators for Ongoing Monitoring

Indicator	Frequency (periodicity of data collection)	Officer (s) Responsible	Means of verification
Indicators			
New HIV infections estimated	Annually	Epidemiologist	Private and public lab reports
Reported new HIV infections	Annually	HIV Programme Coordinator	HIV testing log sheets
New estimated infections among 15-24 years	Annually	Epidemiologist	HIV testing log sheets
Number of HIV testing in the general population (age and sex)	Annually	HIV Programme Coordinator	HIV log sheets
Number of HIV test among MSM	Annually	HIV Programme Coordinator	HIV testing surveillance
Number of HIV test among sex workers	Annually	HIV Programme Coordinator	HIV log sheets
Number of HIV test among prisoners	Annually	HIV Programme Coordinator	HIV log sheets
ART coverage among sex workers, MSM & prisoners	Annually	HIV Programme Coordinator	PMS Report/ Pharmacy Reports
Number of HIV programmes in prisons	Annually	HIV Programme Coordinator	Programme reports
Number of persons accessing PEP	Annually	Chief Pharmacist	Pharmacy reports
Number of persons receiving pre-exposure prophylaxis (15-24 years)	Annually	Chief Pharmacist	Pharmacy report
Number of MSM accessing PrEP	Annually	Chief Pharmacist	Pharmacy report
Number of Female Sex workers accessing PrEP	Annually	HIV Programme Coordinator	Pharmacy report
Number of Female Female trans accessing PrEP	Annually	HIV Programme Coordinator	Pharmacy report
Number of Syphilis test in the general population (by age and sex)	Annually	Epidemiologist	Private and public lab records

Number of Syphilis test in the MSM & sex workers (by age and sex)	Annually	Epidemiologist	Private and public lab report
Peer information and education provided for general population	Annually	CSO and other service providers	Programme report
Peer information and education provided for young people 15-24 years	Annually	CSO and other service providers	Programme report
Peer information and education provided for MSM	Annually	CSO and other service providers	Programme report
Peer information and education provided for female sex workers	Annually	CSO and other service providers	Programme report
Peer information and education provided for female trans	Annually	CSO and other service providers	Programme report
Peer education and health provided for general population	Annually	CSO and other service providers	Programme report
Peer education and health provided for young people 15-24 years	Annually	CSO and other service providers	Programme report
Peer education and health provided for MSM	Annually	CSO and other service providers	Programme report
Peer education and health provided for female sex workers	Annually	CSO and other service providers	Programme report
Peer education and health provided for female trans	Annually	CSO and other service providers	Programme report

Annex 4: Universal access to quality and affordable sexual and reproductive health care services including HIV services for women

Indicator	Frequency (periodicity of data collection)	Officer (s) Responsible	Means of verification
Indicators			
Number of HIV positive women who received family planning	Annually	HIV Programme Coordinator	HIV testing surveillance
Prevalence of intimate partner violence	Annually	HIV Programme Coordinator	Programmatic report
Number of HIV test conducted at family planning services/clinics	Annually	Epidemiologist	Programmatic reports
Number of cervical cancer screening for women living with HIV	Annually	HIV Programme Coordinator	Programme records
Number of Hepatitis screening in the general population	Annually	Epidemiologist	Public and Private Lab records
Number of Hepatitis C test conducted	Annually	Epidemiologist	Public and Private Lab records

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