

**National Monitoring
and
Evaluation Plan
of the
National Strategic
Plan**

2016 - 2020



National AIDS Commission

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Executive Summary

This year the Belize government will launch its third HIV National Strategic Plan (NSP) 2016-2020, first NSP with a joint approach to HIV and TB, and its corresponding M&E Plan. This document corresponds to its 2016-2020 national M&E plan. It takes into consideration the structure of the NSP and incorporates the global trends regarding strategic information and Continuum of Care Cascade indicators. Key achievements in the HIV response include testing and treatment scale-up, and reduction of mother to child HIV transmission. Furthermore, resource mobilization has been successful, through PEPFAR and Global Fund, Rounds 3 and 9, as well as the newly approved concept note for an HIV/TB grant for 2016-2018. Main challenges relate to prevailing stigma and discrimination, low testing coverage among men, late diagnosis and higher mortality in this population. Although newly diagnosed cases are readily linked to care, CD4 and viral load testing to monitor disease progression and treatment impact, as well as ART coverage and adherence present critical gaps. Additionally, HIV/TB coinfection has increased from 20.6% in 2010 to 34.7% in 2014.

Both the global and national contexts are in a process of transition. At the global level, the eight Millennium Development Goals are now being evaluated and new roadmaps are being defined in the seventeen Sustainable Development Goals (SDG): HIV is no longer a separate goal, but rather inter-related to these SD goals:

- **SDG 3** “Ensure healthy lives and promote well-being for all at all ages”;
- **SDG 5** “Achieve gender equality and empower all women and girls”;
- **SDG 10** “reduce inequality within and among countries”;
- **SDG 16** “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”;
- and **SDG 17** “strengthen the means of implementation and revitalize the global partnership for sustainable development”¹.

At the national level, MoH is focusing on integration and decentralization of health services. Vertical, disease-specific programs are being revised and alternative organizational structures considered in order to strengthen primary health care and results-based management for increased health impact with domestic funding. Consequently, the National AIDS Programme and the National TB Programme began to merge into the HIV, TB and other STIs Programme in 2013, as part of the Ministry of Health’s organizational development re-structuring process.

¹ The Lancet. *HIV on the fast-track to sustainability*. The Lancet Editorial, Volume 3, January 16, 2016.

Furthermore, the recently approved GFATM Concept Note promotes an integrated approach to HIV and TB through a joint grant to be implemented during 2016-2018. Although this transitional context may represent a threat to maintaining the HIV momentum and to keeping HIV in the political agenda, it is also a valuable opportunity for NAC to play a key role in coordinating, networking advocating and strengthening alliances to achieve a comprehensive and sustainable HIV response. The new National HIV and TB Strategic Plan 2016-2020 and its M&E Plan represent critical managerial tools to ensure achievement of expected results and impact.

I. Introduction

Belize will launch this year its third national HIV strategic plan (NSP) 2016-2020 with a joint approach to HIV and TB and its corresponding M&E Plan, which will be presented in this document. The new NSP entitled the National HIV/TB Strategic Plan 2016-2020 “The benefits of action versus the risks of inaction”² sets ambitious but realistic goals, targets and core interventions to guide the national response to HIV and TB. It represents a blueprint for action and acknowledges this transitional moment in both global and national contexts as a valuable opportunity to focus on results needed to disrupt the HIV epidemic by 2030.

Context analysis reveals a state of transition regarding the HIV epidemic and response. At the global level, implementation of the eight Millennium Development Goals (MDG) was recently evaluated³ and a new global agenda defined with seventeen Sustainable Development Goals (SDG)⁴. In this new development roadmap for 2016-2030, HIV is no longer listed as a goal in itself, but rather a component inter-related to at least six of these SDG: (1) End poverty; (3) Ensure healthy lives and well-being; (5) Achieve gender equality, (8) Promote full and productive employment and decent work for all; (10) Reduce inequalities; and (16) Promote peaceful and inclusive societies.

At the national level, MoH is focusing on sustainability, integration and decentralization of health services. The National HIV/AIDS Program has now been incorporated into a Primary Care Module that continues to be coordinated by the Epidemiology Unit. Similarly, vertical, disease-specific programs are being revised and alternative organizational structures are being explored in order to strengthen primary health care programming, results-based management and sustainability, with efforts focused on reaching and maintaining impact through domestic funding.

Key achievements in the HIV response include an overall drop in HIV prevalence in adults from 2.1% to 1.4%, testing and treatment scale-up and reduction of mother to child HIV transmission. Resource mobilization has been successful, through PEPFAR and Global Fund, Rounds 3 and 9, as well as the newly-approved concept note for an HIV/TB grant for 2016-2018. Main challenges relate to prevailing stigma and discrimination towards people living with HIV (PLHIV), key and vulnerable populations, particularly men who have

² National HIV and TB Strategic Plan 2016-2020, National AIDS Commission, Belmopan, Belize, April 2016.

³ The Millennium Development Goals Report 2015, Inter-Agency and Expert Group led by the Department of Economic and Social Affairs of the United Nations Secretariat; and UN High-Level Meeting on Ending AIDS, New York, USA, June 8-10, 2016.

⁴ Transforming our world: The 2030 Agenda for Sustainable Development, United Nations A/RES/70/1, sustainabledevelopment.un.org, New York, September 25 – 27, 2015.

sex with men (MSM), the key population that presents the highest HIV prevalence (13.9%). Furthermore, the MSM cohort is expected to generate 63.5% of future HIV infections, followed by persons engaged in casual unprotected heterosexual sex (20.3%)⁵.

Health service coverage for men in general is fragile, resulting in low HIV testing, late diagnosis and enrolment in treatment and higher mortality in this population. Although newly-diagnosed cases are readily linked to care, CD4 and viral load testing to monitor disease progression and treatment impact as well as ART coverage and adherence, present critical gaps. Besides, HIV/TB co-infection has doubled from 10.4% in 2001 to 20.7% in 2013⁶. Consequently, the national response will now focus specific populations most affected by the epidemic: MSM, youth, PLHIV and HIV/TB co-infections, structuring the response in four key results areas: Prevention, Testing, Treatment and Removing Barriers.

The strategic information (SI) framework presented in this monitoring and evaluation (M&E) plan will guide and allow stakeholders in the national response to provide oversight and routine performance monitoring of the national response, defined in the NSP. It constitutes the national monitoring tool for the generation and use of strategic information to support timely, evidence-informed decision-making processes for successful policy development, program planning and implementation.

The M&E plan objectives are:

- To facilitate the generation and use of accurate, timely and relevant data and intelligence on results and impact of the planned and implemented national response to HIV and HIV/TB ;
- To guide the generation of strategic information that allows for the adequate provision of oversight and corrective actions to continuously improve the national response to the epidemic;
- To provide strategic guidance in the further capacity development of the national M&E system and its stakeholders

⁵ Modes of Transmission (MoT) Study, National TB, HIV and other STIs Programme, MoH & USAID|PASCA, Belmopan, Belize 2014.

⁶ Belize country context for Tuberculosis, National TB, HIV and other STIs Programme, MoH, Belmopan, Belize, 2015.

II. Methodology

The methodology to elaborate this National HIV and TB Monitoring and Evaluation Plan 2016-2020 builds on previous experience with the NSP and M&E Plan for 2012-2016. Considering the added value of buy-in and active involvement from key stakeholders, participation of national authorities, service providers, civil society representatives, development partners, sectoral representatives and M&E officers was encouraged. It involved the following steps:

- **Desk review** including, but not limited to the following sources of information:

Key national documents

National HIV Strategic Plan 2016-2020
National HIV Strategic Plan 2012-2016
National HIV Monitoring and Evaluation Plan 2012-2016
National Health Sector Plan 2014-2024
Report of Proceedings and Results: Consultation for assessing the National HIV Strategic Plan 2011-2016 and the related gap analysis, June 19, 2015
Annual HIV and TB statistical reports including HIV Surveillance Report 2015, 2014, 2013
Global Fund HIV/TB Concept Note: 2016-2018 grant
Belize Monitoring and evaluation system strengthening Tool (MESST) Report and action plan, April 2011 and MESST 2015 update
Modes of Transmission Model (MOT): New HIV infections expected in Belize 2014
MoH/UNAIDS HIV Estimates and Projections for Belize
National AIDS Spending Assessment: Belize NASA 2013, 2012 and 2009
NAC Belize Global AIDS Response Progress Reports (GARPR) 2015, 2014, 2013

Global guidelines, reports and other publications

United Nations Sustainable Development Goals 2016-2030, New York 2016
United Nations Millennium Development Goals 2000-2015 Report, New York 2015
United Nations 2016 Political Declaration to End AIDS by 2030, New York 2016
UNAIDS Global AIDS Response Progress Report Guidelines, Geneva 2016
UNAIDS Fast-Track Strategy, Geneva, December 2015
WHO Treatment 2.0 and the Continuum of care and treatment cascade
UNAIDS/PAHO Stigma and discrimination indicators regional proposal for LAC: Second Regional Forum on HIV cascade of care, Rio de Janeiro, August 2015
WHO Consolidated SI guidelines for HIV in the health sector, May 2015
WHO M&E guide for collaborative TB/HIV activities, Geneva 2015
WHO 2015 Global TB Report, Geneva 2015
PAHO/WHO HIV continuum of care monitoring framework, Washington, April 2014

- **Questionnaire** focusing on the previous national M&E plan, gathering perceptions from key informants regarding the extent to which the plan was implemented, fulfilment of its purpose, main achievements, drawbacks and recommendations.
- **Consensus-building workshop** with HIV project managers, service providers and M&E officers, to foster participation and engagement in the elaboration of the plan, share experiences and identify expectations and priorities.
- **Elaboration of draft plan** to be presented to NAC for its review and validation
- **Elaboration of final document** to be launched with the NSP, shared and used by stakeholders

III. Context

This chapter presents three components: Belize country profile, the HIV epidemic and the TB and TB/HIV co-infection.

3.1 Belize Country Profile

Belize is the only English-speaking Caribbean country in Central America. It is also the country in the region with the least population density (15.4 per km² in 2014). Its 2015 mid-year estimated population was 368,310 living in 22,966 km². Belize's population is young, 42% less than 18 years old, rural (55%), and diverse: multi-cultural, multi-lingual and multi-ethnic. In 2013, The World Bank classified Belize as an Upper Middle-Income Country⁷. It has a high human development index (7,614 in 2014 -- position 101 of 188 countries) with a life-expectancy at birth of 68 years for males and 73 years in 2015 and a mean of 10 years of schooling⁸.

Since 2007 the main causes of death have been related to non-communicable chronic diseases (NCDs). It is estimated that NCDs account for 65% of total deaths: cardiovascular 25%, Cancer 11%, Diabetes 9% and other NCDs 16%. The probability of dying between ages 30 to 70 years from the four main NCDs is 15%. One third of the population is obese and one fifth suffer from high blood pressure. Total expenditure on health per capita is 489 International \$ (2014), and 5.8% of the GDP⁹. The Ministry of Health, which represents the main provider of health services in the country, has prioritized decentralization, integration and sustainability in its 2014 – 2024 Sectorial Strategic Plan, with the consequent elimination of vertical programs, including the HIV, TB and STI Programme¹⁰.

⁷ The World Bank Data site: <http://beta.data.worldbank.org>, June 2016.

⁸ 2015 Human Development Report, United Nations Development Program, hdr.undp.org/en/composite/HDI, Table 1.

⁹ *Belize health profile*. PAHO www.who.int/nmh/countries/blz June 2016.

¹⁰ 2014-2024 Sectorial Strategic Plan: Improving Quality Health Services: A Safer & Healthier Belize by 2024, Ministry of Health, Belize, April 2014.

3.2 HIV Epidemic

HIV strategic information in Belize is generated from routine sources (MOH statistics, Surveillance reports, PMTCT reports, etc.) and from research, including surveys and special studies. Both enable better knowledge of the epidemic and response as key elements design and implementation successful interventions.

Generation of strategic information to “Know the HIV epidemic”

HIV trends. After the onset of the HIV epidemic in Belize in 1986, the country faced an increasing trend of newly-diagnosed cases, which peaked in 2004 with 457. During that time HIV in Belize reached an average prevalence range of 2.5%-2%, thus considered a generalized epidemic. It became one of the main causes of morbidity and mortality in the country, affecting mainly the economically active adult population and youth. National efforts to reverse the epidemic resulted in a change of the epidemic’s direction, showing a downward trend since 2008, with an HIV positivity rate that has remained consistently below 1% during the last four years.¹¹ HIV estimates for 2014 reveal 2,700 people living with HIV, with less than 100 annual AIDS related deaths.¹² In 2015, there were 110 HIV related deaths reported.¹⁶

HIV prevalence in key populations. A behavioural and biological survey in key populations (MSM, SW and) carried out in 2011 and 2012 revealed traits of a concentrated epidemic with HIV prevalence rates of 13.9% in MSM, 0.9% in SW and 0.6% in pregnant women, respectively.

Behavioural studies. HIV variables were also assessed in 2013 as a component in the Multi Indicator Cluster Survey with UNICEF for women and children. Condom use among key populations was assessed by PASMO and PSI/Caribbean in 2014¹³.

New HIV infections. To update information about HIV incidence, a Modes of Transmission exercise was carried out in 2014. Results established 130 expected new HIV annual infections with the highest risks groups producing most of these: 63.5% in MSM, 20.3% in persons engaged in casual heterosexual sex and 8.4% in stable heterosexual couples¹⁴.

¹¹ *2014 Annual HIV Statistical Report*, Ministry of Health, Belize, March 2015.

¹² NAP/NAC/UNAIDS Estimates and projections 2014.

¹³ TRaCK studies in key populations, PASMO PSI Caribbean, Belize 2014.

¹⁴ “*Modes of transmission Model – MOT*” *New HIV infections expected in Belize for 2014*. Ministry of Public Health of Belize, National Aids Program, USAID/ PASCA/PEPFAR, Belize March 2014.

High-risk sexual behaviours among youth. In 2014, the Statistical institute of Belize (SIB) presented KAP results of a household survey in sexual behaviour and HIV/AIDS in Belize, among persons 15 to 49 years of age. It revealed that 8.9% of youth 15 to 24 years old, reported having their first sexual intercourse before the age of 15 years, rising to 17.2% among those with no education. Of these, 68.4% age 15 to 19 and 57.7% age 20 to 24 years reported condom use during first intercourse. Half of the youth had sex during the last 12 months with just 60.3% using a condom at last sexual intercourse in the Belize District, and as low as one-third in Orange Walk and two-fifths in Corozal. Highest condom use was 65% among youth with tertiary education¹⁵.

Strategic information to “Know the HIV country response”¹⁶

Voluntary HIV counselling and testing. Total HIV cases diagnosed up to December 2015 is 3,275. In 2015, there were 31,346 HIV tests done, more than half, 20,105 (64%) among women although men -- particularly MSM -- present most new infections. HIV screening in pregnant women in 2015 revealed a 0.5% prevalence compared to 13.9% in MSM in the latest sero-prevalence study in that population. The positivity rate was 0.8%, remaining constant (0.8%-0.95) during the last four years.

Prevention of mother-to-child transmission (PMTCT). Prevention of mother-to-child transmission of HIV has been scaled-up, achieving high ARV coverage among HIV positive pregnant women, 95% (53/56) and 93% among exposed infants (53/57), by the end of 2015.

However, 4 infants were infected in 2015 (7% transmission rate compared to <1% established in the elimination of MTCT strategy), after a significant reduction during the previous year.

Early infant diagnosis. Adherence to PCR testing in HIV exposed infants remains a challenge with 100% coverage at first PCR test reduced to 18% by the end of the third PCR.

Newly diagnosed HIV cases. There were 239 newly diagnosed HIV cases during 2015, representing a rate of 6.7 per 10,000 population and a 6% increase compared to 2014

¹⁵ *Knowledge, Attitude and Practices in Sexual Behaviour and HIV/AIDS in Belize 2014 Country Report.* Statistical Institute of Belize, UNDP/CCM /GFATM, Belize October 7, 2014.

¹⁶ Annual HIV Statistical Report 2015, HIV Surveillance Report 2015, Epidemiology Unit, National TB, HIV and other STI Department, Ministry of Health, Belize, March 2016.

when there were 226. In spite of screening more women than men for HIV, more men were diagnosed; 52% (125) compared to 48% (114) women. Geographical distribution of these HIV cases is concentrated in Belize District, which almost doubles the national rate (12.5 rate x 10,000) and Stann Creek district (7.5 rate x 10,000).

Linkage to care. Of the 239 newly diagnosed HIV cases in 2015, all were enrolled in care (100%). This reveals a favourable upward trend compared to 2014, when 84% were enrolled in care (190 of 226).

Late HIV diagnoses. In 2015 only 136 (57%) of 239 newly diagnosed persons received a CD4 count and 50 (37%) of them had less than 200 cells/mm³, which is the threshold for defining a late diagnose. Thus, uptake of testing service is delayed, since more than a third of those who received a CD4 count were diagnosed in late stages of infection. This results in poor outcomes with higher morbidity and mortality rates. Consequently, there are opportunities for achieving CD4 screening for all persons diagnosed and for significantly reducing late diagnosis.

ART coverage. Of 239 newly diagnosed HIV cases in 2015, only 123 (52%) were placed on ART while 107 (45%) did not meet current criteria for ART, since Belize has not endorsed the “Test and Treat” strategy. Compared to 2014, when 135 persons were enrolled in ART of 226 newly diagnosed (60%), there is a downward trend of 8%. The total number of people with HIV in treatment is 1,176 of whom 598 are male, (51%). Most of them, 866 (74%) are on first line ART and 310 (26%) on second line.

Additionally, 3 persons are on third line/salvage therapy provided by external sources. Domestic funding covers all first and second line ARV purchases made directly to international providers of generic ARVs at competitive prices.

Retention/Adherence to ART. The 2014 cohort of 135 PLHIV, who were enrolled in care, shows a 40% retention at 12 months or 55 PLHIV alive and on ART 12 months after initiating treatment.

AIDS-related mortality. Overall HIV related death rate is 3.1/10,000 population, with men dying at twice the rate of women: 4/10,000 versus 2/10,000 and surpassing the total national rate. Average HIV mortality rate over the period 2010-2013 for males was 65% and 35% for females, with an **annual average of 94 deaths**.

Key challenges in the HIV response include prevailing stigma and discrimination towards people living with HIV (PLHIV), key and vulnerable populations, particularly men who have sex with men (MSM), who present the highest HIV prevalence (13.9%). Furthermore, MSM are expected to generate two-thirds of future new HIV infections, followed by

persons engaged in casual unprotected heterosexual sex (20%)¹⁷. Health service coverage for men in general is fragile, resulting in low HIV testing, late diagnosis and enrolment in treatment and higher mortality in this population. Furthermore, HIV/TB coinfection has doubled from 10.4% in 2001 to 20.7% in 2013¹⁸.

To improve tracking national and global HIV responses, new targets and guidelines have been developed with active participation of international partners. Belize has taken into consideration the 90-90-90 UNAIDS global targets: 90% of persons with HIV are diagnosed; 90% of persons with HIV are enrolled and retained on ART and 90% of persons with HIV enrolled on ART present suppressed viral loads.

Furthermore, as agreed in the 2012 Latin American and Caribbean regional meeting in Panama, the HIV treatment cascade indicators were incorporated for the first time in the 2015 national HIV Statistical Report. However, viral load screening was begun during the last semester of 2015 and the country does not have conclusive data as yet. Even though official references to the “Test and Treat” strategy indicate the country understands the importance of this evidence-based recommendation, concrete steps for adopting the strategy have not been made.

3.3 TB and HIV co-infection

In 2014, 9.6 million people developed TB worldwide: 12% (1.2 million) were also HIV-positive. More than half (51%) of all notified TB cases had a documented HIV test result. One of every four TB deaths is an HIV-associated TB death. This rises to one of every three deaths among people with HIV/AIDS. Globally, people living with HIV are 26 times more likely to develop TB disease than those who are HIV-negative. In spite of improvements in testing options (such as rapid molecular tests endorsed by WHO since 2010), less than half of all HIV/TB cases are diagnosed¹⁹. In 2004, WHO recommended the implementation of 12 collaborative TB/HIV activities. As a result of these actions, 5.8 million lives were saved up to 2014 (a 32% reduction in mortality rate). Corresponding guidelines were updated in 2012 and an M&E guide for collaborative TB/HIV activities²⁰ as well as the consolidated strategic information guide for the health sector was published by WHO in 2015.²¹

¹⁷ “Modes of transmission Model – MOT” *New HIV infections expected in Belize for 2014*. Ministry of Public Health of Belize, National Aids Program, USAID/ PASCA/PEPFAR, Belize March 2014.

¹⁸ Belize country context for Tuberculosis, NAC Belize, 2015.

¹⁹ *2015 Global Tuberculosis report*, World Health Organization www.who.int, Geneva, Switzerland, 2016.

²⁰ *M&E guide for collaborative TB/HIV activities*, WHO, Geneva, Switzerland, 2015.

²¹ *Consolidated strategic information guidelines for HIV in the health sector: HIV strategic information for impact*, WHO, May 2015.

In Belize,²² during 2011 and 2013 there were 1,304 TB cases, 224 HIV/TB co-infections and 4,721 HIV positive persons, with the co-infection presenting an upward trend: 10.4% in 2001 20.7% in 2013. PAHO 2014 estimates²³ reveal a **TB incidence of 37 and a TB prevalence of 47 per 100,000 (including TB/HIV). TB/HIV incidence is 6.9 per 100,000.**

TB mortality reaches 1.8 (excluding TB/HIV) **and 2** (including TB/HIV) per 100,000. Epidemic drivers include poverty and HIV/AIDS. Coexisting chronic non-communicable diseases also contribute to poor treatment outcomes with low treatment success rates reported (half of those treated in 2013). TB cases range in 20-25 per 100,000, with an average of 80-100 in total. **Men are more affected than females** -- almost double -- with a male: female ratio of 1.9:1. This is probably because a significant portion of the TB population is foreign born males who migrate to Belize in search of employment opportunities. The Belize, Cayo and Stann Creek districts have a high burden of TB and HIV (75.2% of new cases), representing key affected geographic areas. **Treatment success rate was 50%** in 2013 with 61 TB patients reportedly cured out of 121 registered.

The most important co-infection is HIV, reported as one in five TB cases, followed by type 2 Diabetes Mellitus. The WHO estimates that Belize has an **HIV/TB incidence rate of 6.9 per 100,000**. This may indicate that HIV positive population is serving as both reservoir and active carrier of the disease.

The burden of TB mortality appears to be substantial. At the end of 2013, the TB/HIV registered mortality rate was 28%: there were 17 TB deaths of which 7 resulted from the 25 HIV/TB co-infections. Death as a treatment outcome is as high as 50% in the cohort of HIV/TB patients, dropping to 18% among all TB patients. Three MDR cases were detected in 2013 and none in 2014.

TB/HIV: In Belize approximately 1 in 5 persons diagnosed with TB is also HIV positive. In 2014, 85% of TB cases were offered HIV testing and 24% were HIV+. In 2013, 21% of TB patients had an HIV coinfection (25/121) and 84% (21/25) of TB/HIV coinfection cases were placed on ARV.

HIV/TB: Belize has no reliable data on TB screening, but MoH estimates 20% may not know their TB status. Estimates reveal coinfection rates above 20% with an average of 23.25% for the period 2008 to 2013.

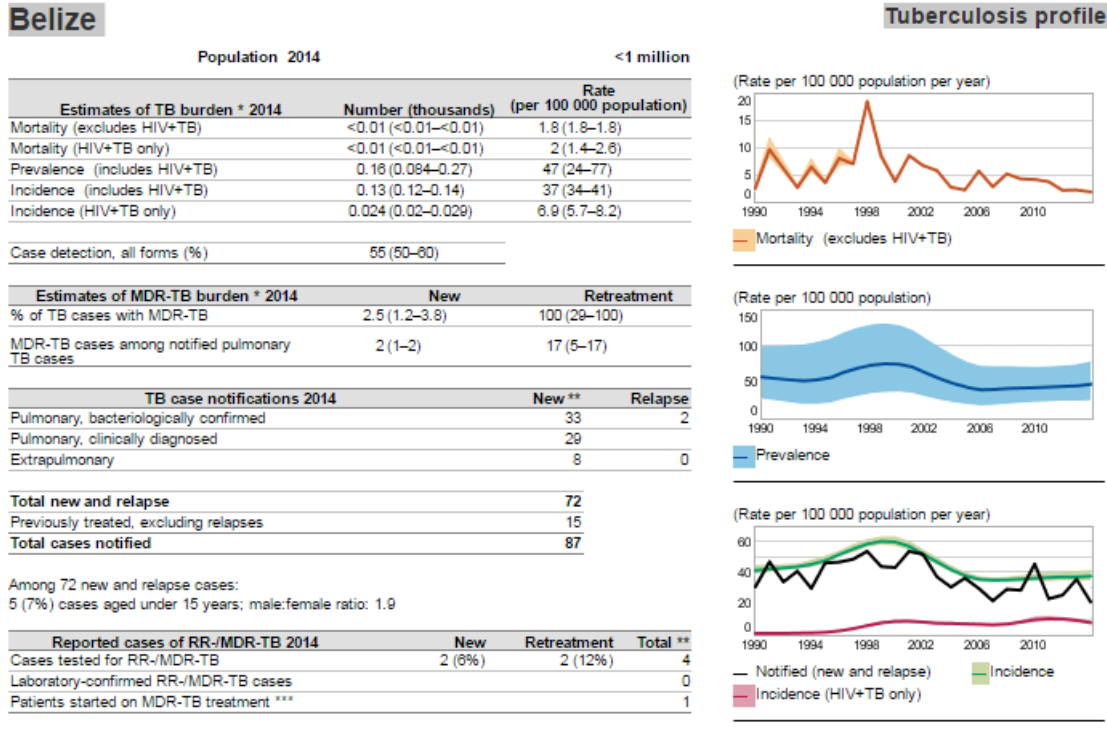
²² *Belize Country Context for Tuberculosis*, NAC, Belize 2015.

²³ *Belize TB profile*, PAHO www.who.int/tb/data/blz 2016.

Belize national HIV and TB monitoring and evaluation plan 2016-2020
Belize City June 2016

Belize TB and TB/HIV profile is summarized in Graph 1 which follows²⁴.

Diagram 1 Belize Tuberculosis and TB/HIV profile (PAHO 2016)



²⁴ *Ibid.*

Belize national HIV and TB monitoring and evaluation plan 2016-2020 Belize City June 2016

TB/HIV 2014	Number	(%)
TB patients with known HIV status	63	(72)
HIV-positive TB patients	25	(40)
HIV-positive TB patients on co-trimoxazole preventive therapy (CPT)	25	(100)
HIV-positive TB patients on antiretroviral therapy (ART)	25	(100)
HIV-positive people screened for TB		
HIV-positive people provided with IPT		

Treatment success rate and cohort size	(%)	Cohort
New and relapse cases registered in 2013	(38)	121
Previously treated cases, excluding relapse, registered in 2013	(67)	3
HIV-positive TB cases, all types, registered in 2013	(12)	25
RR-/MDR-TB cases started on second-line treatment in 2012		0
XDR-TB cases started on second-line treatment in 2012		0

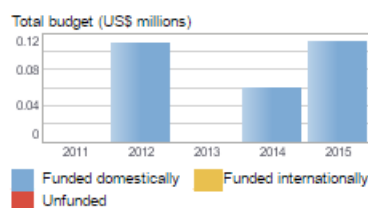
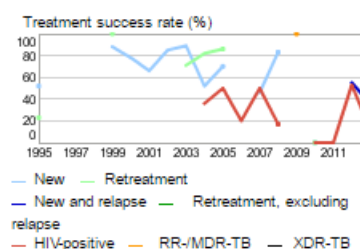
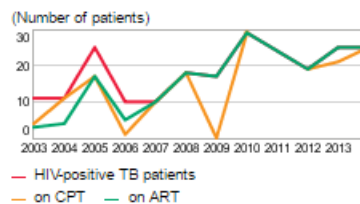
Laboratories 2014	
Smear (per 100 000 population)	2.3
Culture (per 5 million population)	0
Drug susceptibility testing (per 5 million population)	0
Sites performing Xpert MTB/RIF	0
Is second-line drug susceptibility testing available?	Yes, outside country

Financing TB control 2015	
National TB programme budget (US\$ millions)	<1
% Funded domestically	100%
% Funded internationally	
% Unfunded	0%

* Ranges represent uncertainty intervals

** Includes cases with unknown previous TB treatment history

*** Includes patients diagnosed before 2014 and patients who were not laboratory-confirmed as having RR-/MDR-TB



Data are as reported to WHO. Estimates of TB and MDR-TB burden are produced by WHO in consultation with countries.

Generated: 2016-08-10

Data: www.who.int/tb/data

IV. National HIV and TB Strategic Plan²⁵

In 2015 Belize formulated its third HIV National Strategic Plan (NSP) for the period 2016-2020, as a managerial tool to guide the HIV and TB response in Belize. This NSP is the first one in which the HIV national response is linked to the TB response. The National HIV/TB Strategic Plan provides insight into the profile and key determinants of the epidemic, defines priority key populations and articulates a number of core intervention targets, enabling the periodic assessment of progress and success. Its vision for year 2020 is “The national response to HIV and TB in Belize is well poised to reach the 95/95/95 fast-track targets of 2030, while the burden of TB in persons living with HIV will have been eliminated”.

The NSP 2016-2020 has four Key Result Areas (KRA): Prevention, Testing, Treatment and Removing Barriers, eight goals with their corresponding intervention strategy and twenty-one strategic objectives. It also defines two-layers of focus of intervention:

- High-impact interventions and goals for specific key affected populations, forming the core of the NSP
- Peripheral interventions and goals for the general population, complementing the achievement of the core goals

²⁵ National HIV-TB Strategic Plan 2016-2020 “The benefits of action versus the risks of inaction”, National AIDS Commission, Belize April 2016.

Table 1: Overview of the NSP response elements: key results areas, goals, intervention strategy and strategic objectives

<i>KRA Prevention</i>	
Goal & intervention strategy	Strategic objective
<p>Goal 1 (priority level)</p> <p>New HIV infections among persons, 15-24 years, account for a maximum of 8% of all new infections.</p> <p>Intervention strategy</p> <p>Intensified comprehensive HIV prevention services targeting all persons 15-24 years of age</p>	1. A minimum of 80% of persons 15-24 years, in-school and out-of-school, partake in improved HIV prevention activities.
	2. A minimum of 90% of persons 15-24 years, in-school and out-of-school, are annually reached or actively involved in HIV prevention messages on social media channels
	3. The national condom and lubrication distribution plan is operational and has contributed to a minimum level of 80% in reported use of condom among young persons
	4. National social protection schemes offer effective support to girls and young women, highly at risk for transactional or forced sex.
<p>Goal 2 (priority level)</p> <p>New HIV infections among men who have sex with men account for a maximum of 30% of all new infections.</p> <p>Intervention Strategy</p> <p>Scaled-up comprehensive HIV prevention services for men who have sex with men</p>	1. Studies and surveillance data have generated an increased in-depth knowledge of the sub-population of men who have sex with men.
	2. A minimum of 80% of men who have sex with men are annually reached through HIV interventions that focus on increased HIV testing and subsequent engagement in care.
	3. The national HIV prevention plan, including condom and lubricant programming, is operational and has contributed to a minimum level of 80% in reported use of condom among men who have sex with men.
	4. Targeted HIV intervention strategies for men who have sex with men have secured the full involvement of that key population in their design and implementation.

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KRA Testing	
Goal & intervention strategy	Strategic objective
<p align="center">Goal 3 (priority level)</p> <p>90% of persons with HIV (including men who have sex with men and are living with HIV) know their HIV status</p> <p align="center">Intervention strategy</p> <p>Increased targeted HIV testing opportunities for the general and specific key affected populations</p>	1. Adoption of a National HIV Testing Plan, that integrates HIV-testing into general health screening, includes WHO 2015 recommendations for trained lay persons to administer rapid tests and contains projections and implementation plans that are based on the 2020 targets.
	2. The establishment of an adequate number of HIV testing facilities, which are friendly to men who have sex with men.
	3. All medical care providers, including NHI primary care providers, apply standard provider-initiated testing and counselling services.
KRA Treatment	
<p align="center">Goal 4 (priority level)</p> <p>90% of persons living with HIV, who are on ART, remain on ART.</p> <p align="center">Intervention strategy</p> <p>Improved and more comprehensive management of ART in HIV and HIV/TB cases.</p>	1. Belize is integrated into the regional supply chain of HIV-related medical products, while improved Procurement and Supply Management has reduced ARV procurement costs and has contributed to multi-year zero ARV stock outs
	2. The expansion of the continuum of care for children and adolescents living with HIV is enhanced through new partnerships with NHI and the community-health system
	3. The clinical management of all cases of persons on ART includes consistent routine CD4 and Viral Load testing.
	4. The involvement of representatives of all operational organizations of persons living with HIV in the process flows for monitoring and reporting of the quality of care and treatment services.
	5. The expansion of existing social protection schemes from state and civil society actors, covering vital support needs of 90% of eligible persons living with HIV, including 100% of children living with HIV.
<p align="center">Goal 6 (peripheral level)</p> <p>90% of persons living with HIV are linked to and retained in HIV treatment and care.</p> <p align="center">Intervention strategy</p> <p>Improving ARV coverage</p>	1. A minimum of 95% of persons testing positive for HIV are engaged in HIV care within 1 month after knowing their test result.
	2. The health system is using the Resource Needs Model to project the future cost and absorptive capacity of treatment of HIV

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KRA Treatment (Cont.)	
Goal & intervention strategy	Strategic objective
<p align="center">Goal 7 (peripheral level)</p> <p>50% of HIV and HIV/TB services are delivered via community level health services</p> <p>Intervention strategy:</p> <p>Sector-wide program for technical capacity development at all levels of the health system</p>	<p>1. The efficiency and effectiveness of services to persons living with HIV or HIV/TB co-infection have improved dramatically.</p>
	<p>2. All relevant professionals in the health sector are adequately equipped for the management of HIV and TB cases.</p>
<p align="center">Goal 8 (peripheral level)</p> <p>Reach 70% case detection, 85% treatment success and 95% HIV testing of TB patients.</p> <p>Intervention strategy</p> <p>Comprehensive management of HIV and HIV/TB co-infection</p>	<p>1. All patients receive comprehensive management of HIV and HIV/TB co-infection as per WHO recommendations for strengthening of TB/HIV collaborative activities</p>

KRA Removing barriers	
Goal & intervention strategy	Strategic objective
<p align="center">Goal 5 (priority level)</p> <p>Reported discrimination in the provision of HIV-related health care services has moved toward "zero discrimination".</p> <p>Intervention strategy</p> <p>Intensified and well-monitored anti-stigma and discrimination programs in the health and allied health sector</p>	<p>1. The removal of legal barriers in the public domain that oppose the principle of universal access to treatment and services.</p>
	<p>2. The establishment of an independently managed complaints mechanism for the reporting of violations of medical confidentiality and/or denial or unavailability of health-care services.</p>
	<p>3. Sensitization and attitude changing programs on HIV & TB-related anti-stigma & discrimination provided to all health and law enforcement professionals as well as all policy- and opinion makers</p>

V. HIV monitoring and evaluation in Belize

This chapter describes the development of HIV monitoring and evaluation in Belize, main entities involved, partnerships for M&E and information flows and the M&E system. It also provides the key findings, lessons learned and recommendations from the assessment of the National HIV Monitoring and Evaluation Plan 2012-2016.

The government's initial response to the HIV epidemic was guided by UNAIDS "Three Ones Principle", developing:

- ONE national coordinating body with the National AIDS Commission as the overarching national entity responsible for the coordination and oversight of the multi-sectoral HIV response.
- ONE national strategic plan (NSP) with two plans already finalized and the third one to be launched this year for the period 2016-2020 with a joint HIV and TB approach.
- ONE national monitoring and evaluation (M&E) system defined by UNAIDS in 12 components including a national M&E plan.

A national HIV policy was established in 2006 followed by a national Policy for HIV in the workplace. In 2008 the Ministry of Health launched the Belize Health Information System (BHIS) including an HIV module and in 2010 HIV case-based surveillance began. Consequently, Belize was able to track and report on the HIV epidemic and response.

Progress reports. In compliance with national and global commitments to track its epidemic and response, Belize periodically presents reports, such as annual statistical updates by the Ministry of Health and national progress reports by NAC. Global reports which follow international guidelines and response to a set of selected indicators are presented to the United Nations. Originally they were denominated "United Nations General Assembly Special Session on HIV UNGASS Reports" and, subsequently, the Global AIDS Response Progress Report (GARPR).

Reporting initially covered two-years periods and, in 2013, changed into annual reporting. The last one for 2015 was presented in March 2016, closing the 2000-2015 period covered by the Millennium Development Goals.

5.1 Key Monitoring and Evaluation Entities

The following entities play key roles in monitoring and evaluation of the HIV response in Belize: NAC/CCM, MoH Epidemiology Unit, GFATM Principal Recipient UNDP and Statistical Institute of Belize (SIB). The involvement of other ministries, public and private alliances and civil society is also highlighted as a fifth contributing part described in partnerships for M&E.

- **The National AIDS Commission/Country Coordinating Mechanism**
The NAC is the institutional gate-keeper and guardian of the overall National HIV/AIDS Strategic Plan (NSP). It is in charge of its design, implementation, periodic updates, monitoring and evaluation, documenting progress and implementation, reporting and dissemination of strategic HIV information products. The National Monitoring and Evaluation Plan of the NSP 2012-2016 represents the managerial tool, that guides NAC in the generation, dissemination and use of strategic information regarding the HIV epidemic. NAC Secretariat includes professional staff for M&E (one officer) supported by the National HIV M&E Subcommittee with participation of HIV cooperation agencies and implementers. Although the NAC proposed the use of DevInfo software technology, “HIVInfo1.0” to construct and maintain a centralized HIV database, this was not achieved. Nevertheless, the Ministry of Human Development, Social Transformation and Poverty Alleviation, now counts with a multi-sectorial database which NAC should consider for future partnerships.
- **The Ministry of Health Epidemiology Unit**
The MOH is a key player in the provision of health services for HIV and as a primary source of the health response to HIV. The MoH received worldwide attention due to its successful efforts to digitize its medical records (patient records, lab, supplies, etc.) and link its services via a web-based health information system, the Belize Health Information System (BHIS). It was initially developed under the Health Sector Reform Plan and installed in 2004 at the Karl Heusner Memorial Hospital, a national referral hospital.

The BHIS was first financed through a loan from the Inter-American Development Bank and the Caribbean Development Bank, with technical support received from the Pan American Health Organization (PAHO) and Accesstec of New Brunswick, Canada. In 2006, a grant was received from the Health Metrics Network, a Geneva-based partnership hosted by WHO, committed to facilitating better health information at the country, regional and global levels. Support included training of epidemiologic teams at the central and regional levels.

- The BHIS was officially inaugurated on 16 September 2008²⁶, with a flexible, modular structure, including HIV and supplies management modules. Since then, additional modules have been developed including TB and malaria.

- **Principal Recipient of the Global Fund grant (Round 3 BEST 2005-2010; Round 9 UNDP BELIZE 2010-2016, HIV/TB Concept Note 2016-2018)**
The GFATM M&E approach responds to a performance-based management. To ensure the best possible outcomes for the country, GFATM grants highlight the added value and support the development of robust M&E systems, for both the grant itself, and the country²⁷. UNDP is the current Principal Recipient of GFATM and as such, functions within a results-based management approach. Funding is conditioned to performance and reporting. Thus, the project has a comprehensive M&E plan linked to the national M&E system. It generates data on services provided based on the agreed GFATM performance framework, as well as through grant-funded surveys, which contribute to the national indicators. It also uses information from other sources such as MoH and the Statistical Institute of Belize. GFATM grants have also supported HIV M&E strengthening with specific budget lines based on national requirements and resource gaps.

- **Statistical Institute of Belize (SIB)**
The semi-governmental body SIB is predominantly a generator of data, functioning as a service provider. It collects and compiles administrative data from various primary sources, including the health and HIV/AIDS sector. It also carries out, on an auto-initiative- or on a commission basis, specific surveys that deliver data connected to HIV and AIDS.

5.2 M&E partnerships and information flows

NAC coordinates NSP implementation and tracks HIV progress through NAC members. Each involved sector reports HIV interventions by means of its corresponding Ministry, for example:

- **The Ministry of Education**, in collaboration with NGO working with youth, such as Youth Enhancement Services (YES), provides information HIV prevention interventions for in-school and out-of-school youth population.

²⁶ *Belize health information goes digital*. World Health Organization Bulletin VOL.87 n.2 Geneva 2009. <http://dx.doi.org/10.1590/S0042-96862009000200006>

²⁷ *The Global Fund approach to monitoring and evaluation*. GFATM, Geneva, 2016.

- **The Ministry of Human Development, Social Equity and Poverty Alleviation** tracks trends and inclusion of most at need population in national safety networks.
- **The Ministry of Labour** reports on the implementation of HIV workplace policies and programmes.

MoH. In the health sector, passive surveillance data is collected in the BHIS from VCT sites, clinics, pharmacies, the Central Medical Laboratory and four regional labs, blood banks and rural clinics linked to the BHIS. It is also directly provided by collaborating entities such as:

- Hand in Hand Ministries
- Kolb Foundation
- Belize Defence Force
- National Census
- Vital registration system

HIV testing information is also provided from non-BHIS users, including:

- Belize Family Life Association and
- La Loma Luz Hospital

The Maternal Child Health (MCH) Unit at the MoH submits separate MCH data generated by the Prevention of Mother-to-Child Transmission (PMTCT) strategy. Data is aggregated and analysed by the Ministry of Health's Epidemiology Unit, which is responsible for collection, compilation, analysis, interpretation and dissemination of health data.²⁸

Civil society partnerships for M&E have developed in two ways:

a) Directly collaborating in the generation of surveillance data as MoH partners and
b) Tracking national commitments on critical HIV determinants to reduce the epidemic's impact, such as human rights of PLHIV and vulnerable populations and stigma and discrimination with active participation of NGOs such as:

- The United Belize Advocacy Movement (UNIBAM) and
- Collaborative Network for Persons Living With HIV (CNET+).

²⁸ *Annual HIV statistical report 2015*. TB, HIV and other STIs Program, Epidemiology Unit, Ministry of Health, Belmopan, Belize, March 2016.

5.3 National HIV Monitoring and Evaluation System

Functional M&E System. Although the development of a fully functional HIV M&E system remains a challenge, strategic information regarding the HIV epidemic and response has been generated and facilitated mobilization of complementary resources from international sources including the Global Fund to fight AIDS, TB and malaria (GFATM). The national HIV monitoring and evaluation system was evaluated in 2011 using the Monitoring and Evaluation Strengthening Tool (MESST)²⁹, developed by USAID/PASCA based on UNAIDS M&E framework³⁰. The following table presents a summary of 2011 results, based on the 12 components which were evaluated with 62 variables and a scale of “0” for “Not implemented”; “0.5” for “Partial implementation” and “1” for “Implemented”.

**Table 2: Consolidated results, Monitoring and Evaluation Strengthening Tool (MESST) workshop
 Belize, January 2011**

No.	Component	No. of variables	Results		
			0	0.5	1
1	Organizational structures with HIV M&E functions	6	2	4	0
2	Human capacity for HIV M&E	6	4	2	0
3	Partnerships to plan, coordinate & manage the HIV M&E system	4	1	2	1
4	National multi-sectoral HIV M&E plan	5	1	1	3
5	National, costed, annual HIV M&E work plan	5	5	0	0
6	HIV M&E advocacy, communication and culture	5	4	0	1
7	Routine HIV programme monitoring	5	2	1	2
8	Surveys and surveillance	5	3	0	2
9	National and sub-national HIV databases	3	3	0	0
10	Supportive supervision and data auditing	4	1	0	3
11	HIV evaluation and research	7	6	0	1
12	Data dissemination and use	7	7	0	0
	Total	62	39	10	13
	%	100%	63%	16%	21%

Source: Based on MESST exercise, Belize January 24-26, 2011.

²⁹ *Belize Monitoring and Evaluation System Strengthening Workshop Report and Action Plan*. Belize City, January 25 – 26, 2011. UNDP Belize GF Unit, NAC, NAP, USAID/PASCA and UNAIDS Belize, April 18, 2011

³⁰ *12 components of a functional M&E system, UNAIDS Geneva, Switzerland 2008.*

These results show an incipient HIV M&E system, with 9 of the 12 components presenting considerable gaps (63% of variables not implemented and 16% with partial implementation).

Component 1 related to **Organizational structures** and **Component 3** regarding **M&E Partnerships** present partial implementation, related to the existence of the NAC M&E Unit and M&E Sub-Committee as well as the partnerships with the GFATM PR and donor agencies providing technical and financial support to M&E. Only three components have been implemented: **Component 4 Existence of an HIV M&E Plan**, **Component 8 Routine HIV programme monitoring**, which is done through the BHIS, MoH, and **Component 10 Supportive supervision and data auditing**, which takes into account GFATM requirements as well as BHIS data clearance processes. The 2015 MESST update, carried out by NAC, shows limited variations regarding the 2011 findings previously summarized.

The AIDS Program Index (API)³¹ 2013 results also provides an overview of the M&E system in Belize. Although progress was perceived in the Research and M&E component, with a 10% increase from the 2008 assessment (55%) to the 2013 one (61%), this component continues lagging behind. Dedication to M&E and use of research and evaluation were perceived as the least-developed components.³²

³¹ *AIDS Program Index (API)*. USAID/PASCA/PEPFAR, Belize 2013

³² IBID Graph 19, page 10.

Table 3: AIDS Programme Index, Belize 2013
Assessment of the Research and M&E Component

No.	Variables	%
1	Assigned M&E person	58%
1.1	An M&E person has been assigned	87%
1.2	Level of dedication to M&E	29%
2	Surveillance system components	89%
2.1	HIV case-based reporting	100%
2.2	Pregnant women	
2.3	TB cases	94%
2.4	SW	87%
2.5	MSM	81%
2.6	Uniformed population	
2.7	STI cases	
3	Research	59%
3.1	Periodical behavioural surveys in key populations	65%
3.2	Periodical knowledge, attitudes and behavioural surveys in general populations	
3.3	Research and evaluation used to formulate policies and for programme planning	42%

Source: Based on AIDS programme Index, Belize 2013 (graph 17, page 18).

5.4. Lessons Learned & Recommendations from the Assessment of the National HIV M&E Plan 2012-2016

- The design and content of the Belize national monitoring and evaluation plan 2012-2016 was relatively adequate. It was coherent with international guidelines related to the 12 components of a functional M&E system, the national M&E situation and environment. However, it lacked a budgeted, operational plan and implementation was very limited. Only 21 of the 32 indicators in the monitoring framework count had updated progress data available based on revised reports and other documentation (66%).
- Two limitations in the elaboration process must be highlighted: the timing (completed in 2013 while the corresponding NSP period was 2012-2016) and the launch/dissemination process. There was no printed version of the plan and buy-in from key partners was suboptimal. As a result, national ownership and use of the plan as a managerial and accountability tool to ensure successful implementation of the NSP was not achieved.
- Thus, it can be concluded that, although the existence of a national M&E plan is required and necessary, it is not by itself sufficient to achieve a functional M&E system. Proper attention must be given to the design and implementation process, promoting participation, ownership and an M&E culture, that appreciates the added value of strategic information to achieve results and impact.
- Periodical reviews and updates of both the NSP and the M&E plan, which were not carried out during the assessed period, should be considered as key success elements in the future.
- The incorporation of global HIV M&E trends, such as UNAIDS Fast-Track Strategy 2016-2021 and WHO/PAHO HIV treatment cascade in the new M&E framework is fundamental to ensure coherence with global and national commitments on the ways forward.
- The MoH BHIS generates, collates and reports considerable data on the health sector response to HIV. This is not necessarily the case for the HIV response beyond the health sector. Critical drawbacks were identified in data analysis, data sharing and in the use of strategic information to improve service provision, identify bottlenecks in a timely manner and define corrective actions.

- A shift of focus is recommended regarding the development of a national HIV database at NAC, since this has been a pending issue for long and the priority is to provide oversight to data quality assurance, timely reporting, analysis and use.
- Considering the current global and national transition period, there is an urgent need to strengthen NAC's coordinating, advocating and political role to ensure the HIV response remains in the political agenda, focusing on sustainability, integration and effectiveness.
- NAC should also promote and strengthen M&E partnerships particularly with key players, such as the GFATM PR, CCM and MoH, the Ministry of Human Development, Social Transformation and Poverty Alleviation (which counts with a multisectoral database) to define common grounds for joint actions to strengthen a performance-based managerial approach in the HIV response.
- HIV and TB programmatic and managerial integration should be closely tracked and documented. Similar experiences should be developed for HIV and other STIs, HIV and chronic diseases in general and HIV and Hepatitis B and C in particular. Elaboration and implementation of standard operational procedures should be prioritized to facilitate timely and quality integration processes as well as the efficient use of available resources.
- Complementarity of GFATM funding with domestic funding via the HIV and TB grant should be followed up by NAC/CCM/UNDP PR, plus the civil society's oversight, to ensure accountability, impact in key populations and the construction of a sustainable national response.

Key priorities to strengthen M&E culture in Belize

- Strengthen ownership of National M&E Plan
- Elaborate a budgeted plan
- Develop M&E "Champion person or entity" beyond MoH
- Include M&E financial component in UNAIDS strategic investment framework
- Better disaggregation of data
- Data sharing and analysis
- Reporting and dissemination to key stakeholders
- Multiple forms of data dissemination methods
- Key review of reports as a means to improving strategy based on results
- Use of strategic information for evidence-based planning
- Utilization of existing data to inform decision-making (what exists)

Main bottle-necks to achieve full implementation of the Belize National M&E Plan 2012-2016

- Lack of ownership by key stakeholders
- Utilization of M&E Plan – it is not utilized by stakeholders for planning
- Limited use of data for decision-making
- Weak M&E culture and infrastructure in key stakeholder agencies
- Low quality of program data
- Lack of understanding (capacity of M&E)
- High turn-over rate leading to non-implementation
- Limited availability of HHRR in M&E

Recommendations on ways forward to close identified gaps

- Update and align M&E plan with new NSP
- Involvement and ownership of all stakeholders including key populations
- Strengthen role of the M&E committee in the process of identifying gaps and improving
- Program planning linked to budgeting of resources (sound project/program design)
- Robust evidence-based communication campaign
- Consistency in M&E efforts

General comments and recommendations

- NAC and partners need to accept the principle of evidence-based policy and programming from its highest level.
- Investment in development of personnel and programs that are sound if design that can be scaled up
- Manageable and feasible data systems
- This is a very important component that requires a shared vision.
- NAC, as the leading entity should ensure M&E leaderships and a functional M&E committee

VI. Basic M&E Concepts, Global Trends and Targets

Strategic information³³: Information that is interpreted and used for planning and decision-making to improve the direction and focus of a programme. Relevant data may be derived from a wide variety of sources (for example, monitoring systems, evaluations, programme reviews, surveys and case studies) and should be analyzed holistically and strategically to improve the direction of the programme.

Monitoring and evaluation system: A set of mechanisms built into the routine operations of a programme that generates data or information on a periodic and ongoing basis to provide evidence for programme decisions.

Monitoring is a continuous periodic function that uses the systematic collection of data on specified indicators to document the extent of progress towards the realization of intended program or project outcomes; it facilitates an assessment of progress made against the attaining goals. Monitoring consists of:

- Measuring current situation to assess progress towards the achievement of established objectives;
- Setting up systems to collect data;
- Documenting the contextual issues which impact on program implementation;
- Using real-time information to manage a project

Evaluation is the determination of the value of a project, program or policy and should be seen as a process of knowledge production which rests on the use of rigorous empirical inquiry. Evaluation can take place at any point in time during the programming cycle and not necessarily always at the end of the cycle. The evaluator must make a series of interrelated decisions in order to make a judgment of worth. Evaluations come in many types including:

³³ *Consolidated strategic information guidelines for HIV in the health sector*. World Health Organization. Geneva, Switzerland, May 2015.

- **Formative evaluations**, providing feedback to facilitate program improvement;
- **Summative evaluations**, providing feedback in view of adoption, expansion or continuation of a program; and
- **Prospective evaluations**, assessing the likely outcomes of proposed projects, programmes or policies.

Results-Based Management (RBM): a concept under which planning, monitoring and evaluation come together and which refers to a management strategy that aims at achieving improved performance and demonstrable results. Existing programs and projects are regularly modified based on the lessons learned through monitoring and evaluation, and future plans are developed based on these lessons.

A **Strategic framework** represents a guide that consolidates strategic information and indicators in order to:

1. Measure the HIV results chain, from inputs to impacts;
2. Gauge performance along and support decisions on the cascade of health services;
3. Track accountability for global reporting and to meet programme targets along the health sector cascade

Indicators are quantitative or qualitative factors or variables that provide a simple and reliable means to measure achievement, assess performance or reflect changes connected to an intervention, project or program. There are five types of indicators:

- **Input indicators** measure and state the resources in terms of availability or accessibility, required to achieve outputs: persons, equipment, training services, etc. (1 indicator – 2%, included in this M&E plan)
- **Process indicators** measure achievements of putting in place certain activities that will lead to outputs. Sometimes process indicators are referred to as through-puts;

- **Output indicators/Coverage** measure the actual services or tangible goods that were established and/or delivered. They measure the goods and services delivered for which the service provider/ project actor can be held accountable and responsible (13 indicators – 33%, included in this M&E plan)
- **Outcome** measure the level of change of personal or group behavior as well as institutional processes and practices. Service providers cannot be fully held responsible for achieving the expected outcomes as more outputs may be required to effectuate such change (18 indicators – 45%, included in this M&E plan);
- **Impact indicators** measure the manifestations on the highest level of the results-chain. In the case of HIV or TB, these are the disease- and epidemiology-related manifestations and trends, such as mortality and morbidity (8 indicators – 20%, included in this M&E plan).

The last two types are higher-level effect indicators, as achievements of outcomes and impact are detectable only after some time. Furthermore, multiple different efforts and factors contribute to their achievement.

Global trends and targets are moving towards the elimination of AIDS by 2030 and of TB by 2035. To achieve HIV goals, **UNAIDS 2016-2021 Strategy**³⁴ has set the follow targets for 2020:

- Target 1** **90%** of people (children, adolescents and adults) living with HIV **know their status**
90% of people living with HIV who know their status are **receiving treatment**
90% of people on treatment have **suppressed viral loads**

- Target 2** **Zero new HIV infections** among children and mother is alive and well

- Target 3** **90% of young people are empowered** with the skills, knowledge and capability to protect themselves from HIV

- Target 4** **90%** of women and men, especially young people and those in high-prevalence settings, have **access to HIV combination prevention and sexual and reproductive health services**

- Target 5** **27 million** additional men in high-prevalence settings are **voluntarily medically circumcised**, as part of integrated sexual and reproductive health services for men

- Target 6** **90% of key populations**, including sex workers, men who have sex with men, people who inject drugs, transgender people and prisoners, as well as migrants, have **access to HIV combination prevention services**

- Target 7** **90% of women and girls live free from gender inequality and gender-based violence** to mitigate the risk and impact of HIV

- Target 8** **90%** of people living with, at risk of and affected by HIV report **no discrimination**, especially in health, education and workplace settings

- Target 9** Overall financial investments for the AIDS response in low – and middle-income countries reach **at least US\$ 80 billion**, with **continued increase from the current levels of domestic public sources**

- Target 10** **75%** of people living with, at risk of and affected by HIV, who are in need, benefit **from HIV-sensitive social protection**

These targets are tracked using the indicators described in the 2016 Global AIDS Response Progress Reporting Guidelines listed in Table 4 which follows:

³⁴ UNAIDS 2016 – 2021 Strategy: On the Fast-Track to end AIDS, Geneva, Switzerland, 2015.

Table 4: UNAIDS 2016-2021 strategy, GARPR 2016 indicators and Belize selected M&E Plan indicators

Fast Track targets		GARPR 2016 Indicators	
1	90% of people (children, adolescents and adults) living with HIV know their status	1.5	PLWH who know their status *
		1.6	HIV prevalence from antenatal clinics, by age group *
		2.3	Sex workers: HIV testing
		2.4	Sex workers: HIV prevalence
		2.6	MSM: HIV testing
		2.7	MSM: HIV prevalence
		2.11	UDI: HIV testing
		2.12	UDI: HIV prevalence
		2.14	Inmates/detainees: HIV prevalence *
		2.15	Trans people: HIV prevalence *
		3.4	Pregnant women: testing coverage among pregnant women in antenatal clinic
		3.5	Partners: testing coverage of pregnant women's partners
		3.2	Infants: Early infant HIV diagnosis (viral test during first two months)
	4.5	Late HIV diagnosis	
	90% of PLWH who know their status are receiving treatment	3.1	PMTCT: HIV+ pregnant women in antenatal clinics receiving ARV
3.7		Coverage of infant ARV prophylaxis	
3.9		Co-trimoxazole (CTX) prophylaxis coverage	
11.1		Co-management of TB and HIV treatment	
11.2		PLWH newly enrolled in HIV care with active TB disease	
11.3		PLWH newly enrolled in HIV care with active TB disease who started TB preventive therapy (Isoniazid)	
11.4/5		PLHIV: Hepatitis B testing (11.4) and treatment (11.5)	
11.6/7		PLHIV: Hepatitis C testing (11.6) and treatment (11.7)	
4.1		PLHIV: ART coverage	
4.3		PLHIV: HIV care coverage *	
90% of people on treatment have suppressed viral loads	4.2	PLHIV: 12-month retention on ART (23 and 60 months – 4.2a, 4.2b)	
	4.4	ART services reporting ARV stock-outs	
	4.6	Viral load suppression *	
	4.7	AIDS-related deaths *	

***New GARPR 2016 indicators**

Highlighted indicators included in M&E Plan.

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Fast track targets		GARPR 2016 Indicators	
2	Zero new HIV infections among children. Mother with HIV are alive and well	3.3	Estimated mother-to-child transmission of HIV
		3.3 a	Program level mother-to-child transmission of HIV
		3.7	Coverage of infant ARV prophylaxis
		3.9	Co-trimoxazole (CTX) prophylaxis coverage for exposed infants
		11.8	Syphilis testing in pregnant women
		11.9	Syphilis rates among antenatal care attendees
		11.10	Syphilis treatment coverage in antenatal care
		11.11	Number of reported congenital syphilis cases (live births and stillbirth)
3	90% of young people are empowered with the skills, knowledge and capability to protect themselves from HIV	1.1	Young people: knowledge about HIV prevention
		1.2	Young people: sex before the age of 15
4	90% of women and men, especially young people and those in high-prevalence settings, have access to HIV combination prevention and sexual and reproductive health services	1.3	Multiple sexual partnerships
		1.4	Condom use at last sex among people with multiple sexual partnerships
		11.12	Men with urethral discharge
		1.13	Genital ulcer disease in adults
		1.20	HIV incidence rate *
5	27 million additional men in high-prevalence settings are voluntarily medically circumcised as part of the integrated sexual and reproductive health services for men	1.22	Prevalence of voluntary male circumcision
		1.23	Annual number of men voluntarily circumcised
6	90% of key populations, including sex workers, MSM, UDI, transgender people and prisoners, as well as migrants, have access to HIV combination prevention services	2.1	Size estimations for key populations
		2.2	Sex workers: condom use with last client
		2.5	MSM: condom use during last anal intercourse
		2.8	IDU: needles and syringes per person who inject drugs
		2.9	UDI: condom use
		2.10	UDI: safe injecting practices
		2.13	UDI: opioid substitution therapy (OST) coverage

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Fast Track targets		GARPR 2016 Indicators	
7	90% of women and girls live free from gender inequality and gender-based violence to mitigate risk and impact of HIV	7.1	Prevalence of recent intimate partner violence
8	90% of people living with, at risk of and affected by HIV report no discrimination, especially in health, education and workplace settings	8.1	Discriminatory attitudes towards PLWH
9	Overall financial investments for the AIDS response in low- and middle-income countries reach at least US\$30 billion, with continued increase from the current levels of domestic public sources	6.1	AIDS spending (with emphasis on national ownership of HIV response)
10	75% of people living with, at risk of and affected by HIV, who are in need, benefit from HIV-sensitive social protection	10.2	External economic support to the poorest households

Source: Elaborated based on UNAIDS Strategy 2016-2021 and the 2016 Global AIDS Response Progress Reporting Guidelines.

The HIV Treatment Cascade

A major reason for consolidating strategic information is to support the delivery of a cascade of linked services. Health sector services in the cascade encompass prevention, treatment and care interventions. The term “cascade” emphasizes that a sequence of services is needed to achieve desired impacts. This concept also informs tracking of patients from one service to the next and highlights the gradual attrition of coverage of the eligible population over the steps of the sequence. Thus, an M&E system with a unique user identifier as well as the incorporation of cohort analysis focused on achievement of defined national targets is important. This requires a consolidated set of indicators covering the entire sequence³⁵.

³⁵ *HIV continuum of care monitoring framework 2014. Addendum to meeting report: Regional consultation on HIV epidemiologic information in Latin America and the Caribbean.* WHO/PAHO April 2014.

The Continuum of Care or HIV Treatment Cascade establishes the following six columns (stages of health care provision) and its measurements (groups of indicators):

1. **PLHIV**: All persons from the population of a given locality (country, city, etc.) that are infected with HIV at a given time. It is a population-based measurement based on estimates from mathematical models such as EPP/Spectrum.
2. **PLHIV who know their status**: Persons in a population who have been diagnosed with HIV, know their diagnosis and who are still alive at a given time. The fact that a person knows his/her HIV+ diagnosis is the first step in accessing care and treatment of HIV.
3. **PLHIV linked to care**: Diagnosed HIV+ persons that have been linked to HIV care services and are alive. Linking to services can be measured with proxy indicators such as the opening of a clinical history, the performance of a patient monitoring test once the patient is in care (CD4 or viral load), or the issuing or dispensing of a prescription of antiretroviral medication.
4. **PLHIV retained in care**: Retention in care is defined as continuous engagement in appropriate medical care. In addition, treatment of HIV infection can be effective only if patients are maintain care over time. Persons retained in care are those who continuously receive such services or are linked to HIV care. This is measured as a proxy indicator with the time period of generally one year. For example, HIV+ persons linked to care that collect ARV drugs at least three times in the year or have two CD4 or viral load tests performed during the year.
5. **PLHIV on antiretroviral treatment**: These are HIV+ persons who are in care, meet criteria for ARV treatment and receive it. It is usually reported as the number registered at the end of a calendar year. Operationally it is often considered that a patient is in treatment if ARV drugs have been collected within the 3 months prior to the end of the calendar year.
6. **PLHIV with viral suppression**: PLHIV linked to HIV care, with at least one viral load measurement reporting less than 1,000 copies/ml in the period (usually a calendar year)

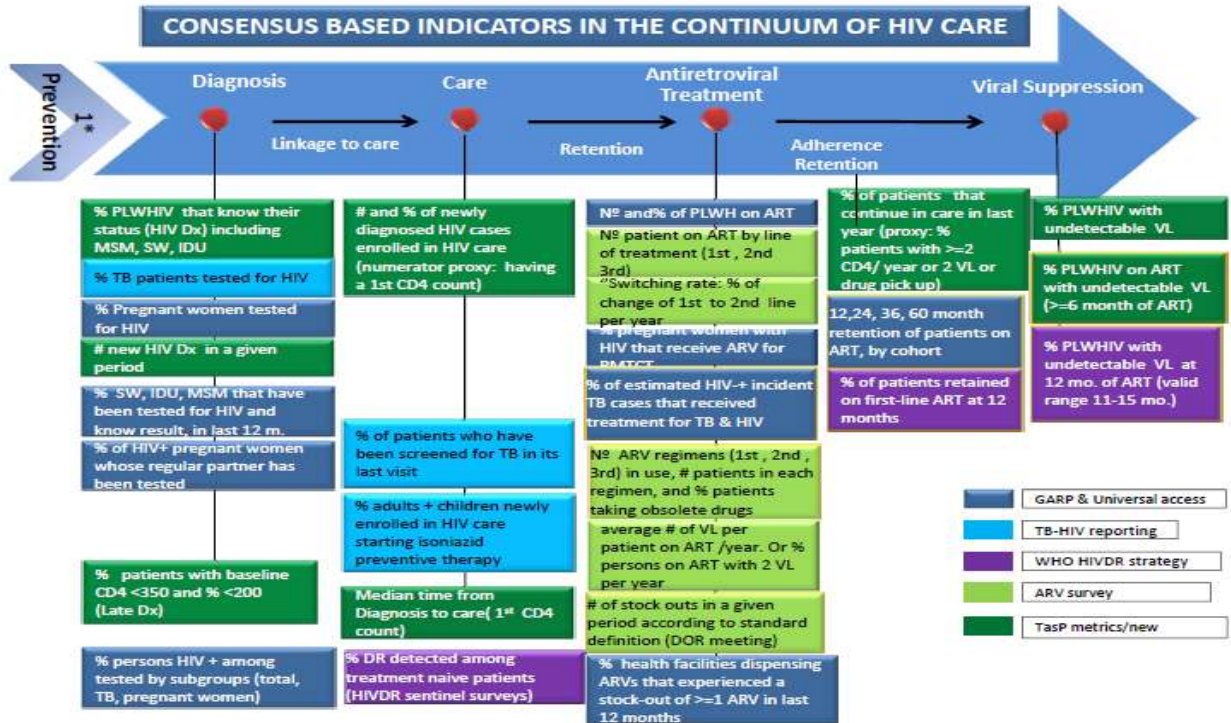
For such purpose, since 2015 WHO recommends the following ten global indicators³⁶:

1. Persons with HIV
2. Domestic finance
3. Prevention by key populations
 - a. **For sex workers**, % reporting condom use with the most recent client
 - b. **For Men who have sex with men**, % reporting condom use at last anal sex with a male partner
 - c. **For general population**, % of women and men who had more than one partner in the past 12 months reporting the use of a condom during their last sexual intercourse
4. People living with HIV diagnosed
5. HIV care coverage (pre-ART and ART)
6. Persons currently on ART
7. ART retention (at 12, 24, 60 months)
8. Viral suppression (<1,000 copies/ml)
9. AIDS-related deaths
10. New HIV infections

All these indicators have been included in the strategic information framework, adapted to the NSP 2016-2020 key strategic areas. **The cascade** below illustrates the indicators agreed in 2012 by key national counterparts and development partners to track the HIV epidemic in Latin America and the Caribbean. Thus, it represented a valuable reference in the design of this M&E Plan for the NSP 2016-2020 which incorporates the HIV Treatment Cascade or HIV Continuum of Care.

³⁶ *Consolidated strategic information guidelines for HIV in the health sector*. WHO Geneva, Switzerland, May 2015.

Diagram 2. Consensus based indicators in the continuum of HIV care, Regional Consensus Meeting, Panama 2012



VII. Strategic information framework

The purpose of the strategic information framework is to outline a concise and manageable set of indicators that can serve as barometers of progress against targets set in the National Strategic Plan. Some indicators have been developed globally for use in monitoring program results at all levels. The globally recommended set of indicators for comprehensive HIV/AIDS programs was used to develop the indicator framework of the M&E Plan. Thus it includes the globally and regionally agreed indicators covering the:

- Continuum of HIV Care, focusing on the achievement of the 90-90-90 targets Global AIDS Response Progress (GARPR) reporting mechanism, particularly those defined in the 2016 Guidelines
- Stigma and Discrimination indicators derived from the Rio 2015 regional meeting
- HIV/TB concept note funded by the GFATM, approved in 2014
- National-level indicators that have been developed to reflect progress at the national-level.

All indicators are aligned with national and international standards for measurement and quality assurance. The indicator overview presents a total of 40 indicators which are distributed in one global area and five key results area as follows: 31 indicators for HIV (75%) and 10 indicators for TB and TB/HIV (25%). Considering prevention and treatment, 18 focus on HIV prevention and screening (45%) and 19 indicators relate to HIV, TB and TB/HIV treatment (48%) (See Table 5). Three indicators (7%) are global: PLHIV, newly diagnosed HIV cases and domestic HIV funding, since they are related to all “Key Results Area” (KRA).

**Table 5: Indicator overview: type of indicators by
NSP Key Results Areas and Goals**

Key Results Area/Goals	Goals	Type of indicator				Total	%
		Impact	Outcome	Coverage /Output	Input		
All	All	1	1	0	1	3	7%
Prevention	G1 Youth	1	4	2	0	7	18%
	G1 MSM	1	1	1	0	3	7%
Testing	G3 Testing	1	1	0	0	2	5%
Treatment	G4 Integration G6 Linkage G7 HR capacity	1	3	5	0	9	23%
	G8 TB-HIV	3	2	5	0	10	25%
Removing barriers	G5 S&D	0	6	0	0	6	15%
Total		8	18	13	1	40	100%
%		20%	45%	33%	2%	100%	

Table 6: Selected indicators and links to NSP

Impact	Outcome	Input*	Link to NSP
<p>1. Total number of people living with HIV (PLHIV) : Total population and key populations (MSM, SWs and IDUs) (PAHO 2014 - 1.1, WHO SI 2015 NEEDS.1)</p> <p>First column of the cascade</p>	<p>2. Newly diagnosed HIV infections Total registered number of newly diagnosed HIV infections in the reporting year disaggregated by age, sex and location (PAHO 2014 1.4))</p>	<p>3. Domestic funding of HIV response Percentage of HIV response financed domestically, disaggregated by disease, key population and programme categories (Indicator 2 of ten global monitoring indicators for HIV) (GARPR 2016 6.1)</p>	<p>Goal 1 SO 1.1</p> <hr/> <p>All goals</p>

*Domestic funding is the only input indicator in this framework.

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Key Results Area 1: Prevention (Goal 1: Youth, Goal 2: MSM)			
Impact	Outcome	Output/Coverage	Link to NSP
4. Youth: estimated new HIV infections # of new estimated HIV infections among persons aged 15-24 , as a percentage of total number of estimated new infections (GARPR 2016 - 1.20) (Part of PAHO Indicator 10 of ten global monitoring indicators for HIV)	5. Youth: knowledge of HIV # and % of young women and men aged 15-24 who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission (GF HIV O-1; GARPR 2016 – 1.1)	9. Youth – BCC/IEC intervention coverage % of young people aged 15-24, reached by BCC/IEC interventions focusing life-skills and HIV prevention (National indicator)	Goal 1 SO 1.1
	6. Youth: sex before the age of 15 # and % of young women and men aged 15-24 who report sexual intercourse before the age of 15 (GARPR 2016 – 1.2)		Goal 1 SO 1.1
	7. Youth: multiple sexual partners # and % of women and men aged 15-24 who report sexual intercourse with >1 partner during the last 12 months (GARPR 2016 – 1.3, specific to youth)	10. Access to safety networks for girls and young women # and % of eligible vulnerable girls & young women receiving benefits from HIV-sensitive social protection schemes (National indicator)	Goal 1 SO 1.4
	8. Youth: multiple sexual partners and condom use # and % of women and men aged 15-24 who report more than one sexual partner in the last 12 months and used of a condom during the last sexual intercourse (GF HIV O-4a; GARPR 2016 – 1.4, specific to youth)		

Key Results Area 1: Prevention (Goal 1: Youth, Goal 2: MSM)...cont.			
Impact	Outcome	Output/Coverage	Link to NSP
11. MSM: estimated new HIV infections # of estimated new HIV infections among MSM, as a percentage of total number of new infections (PAHO 10 of ten global monitoring indicators for HIV)	12. MSM: condom use % of men reporting the use of a condom the last time they had anal sex with a male partner (GARPR 2016 – 2.5)	13. MSM: combined HIV prevention package % of MSM reached by a combined HIV prevention package defined by the country (3 BCC interventions, 1 HIV test, condoms and/or lube) (GARPR 2015)	Goal 2 SO 2.2
Key Results Area 2: Testing (Goal 3)			
14. MSM: HIV prevalence # and % of MSM who are living with HIV (GF HIV-I-9a; GARPR 2016 – 2.7)	15. Persons living with HIV diagnosed # and % of PLHIV diagnosed with HIV infection, who know their serological status (PAHO 2014 - 1.2, WHO SI 2015 – HTS.1, GARPR 2016 – 1.5) <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Second column of the cascade</div> 15.1 MSM with HIV diagnosed # and % of MSM diagnosed with HIV infection, who know their serological status (PAHO 2014 - 1.2, WHO SI 2015 – HTS.1, GARPR 2016 – 2.6)		Goal 3 SO 3.2

Key Results Area 3: Treatment
 (Goal 4: Service integration, ART coverage & retention; Goal 6: Linkage to care, Funding; Goal 7: Capacity-building)

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Impact	Outcome	Output/Coverage	Link to NSP
16. AIDS-related deaths # of AIDS-related deaths per 100,000 population, disaggregated by age, sex and location (GF HIV-I4; WHO SI 2015 – IMP.1, GARPR 2016 – 4.7)	18. Retention in care services # and % of PLHIV retained in HIV health care services (PAHO 2014 - 2.3) Fourth column of the cascade	17. HIV care coverage # of persons with an HIV diagnosis in HIV care and treatment services and % of all PLHIV (PAHO 2014 - 2.1, WHO SI 2015 – LINK 2, GARPR 2016 – 4.3) Third column of the cascade	Goal 6 SO 6.1
	20. ART retention: % of adults and children with HIV known to be on treatment 12, 24, 36 and 60 months after initiation of antiretroviral therapy (PAHO 2014 – 4.1, WHO SI 2015 – ART 5, GARPR 2016 – 4.2, 4.2a, 4.2b)	19. Currently on ART # of adults and children currently receiving antiretroviral therapy and percentage of total estimated PLHIV (PAHO 2014 - 3.1, GF TCS-1; WHO SI 2015 - ART 3, GARPR 2016 – 4.1.) Fifth column of the cascade	Goal 4 SO 4.2 Goal 6 SO 6.1
	21. Viral suppression # and % of PLHIV with suppressed viral load (<1,000 copies/ml) (PAHO 2014- 5.1, WHO SI 2015 – VLS.3, GARPR 2016 – 4.6) Sixth column of the cascade	22. Number of ARV stock-outs # of stock-out episodes per year , (PAHO 2014 – 3.10, GARPR 2016 – 4.4)	Goal 4 SO 4.1
		23. Late diagnosis % of people living with HIV that initiated ART with CD4 counts of <200 cells/mm³ (GARPR 2016 – 4.5)	Goal 4 SO 4.1
		24. Training for HIV and TB health providers # and % of key HIV and TB health providers trained to improve their performance (including Standard Operational Procedures -SOPs) (National indicator)	Goal 7 SO 7.2

Key result area 3: Treatment (Goal 8: HIV/TB co-management)

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Impact	Outcome	Output/Coverage	Link to NSP
<p>25. TB/HIV mortality rate # of TB/HIV estimated deaths per 100,000 population (GF TB/HIV I-1)</p>	<p>28. Case notification rate -# of all forms of TB per 100,000 population – bacteriologically confirmed plus clinically diagnosed, new and relapse cases (GF TB O-1a)</p>	<p>30. PLHIV-TB screening % Percentage of adults and children enrolled in HIV care who had TB status assessed and recorded during their last visit (GF TB/HIV-3; GARPR 2015)</p>	<p>Goal 8 SO 8.1</p>
		<p>31. PLHIV-TB prophylaxis – Isoniazid prevention therapy (IPT) % of PLHIV newly enrolled in HIV care who on TB preventive therapy (PAHO 2014 – 2.4, GARPR 2016 – 11.3)</p>	<p>Goal 8 SO 8.1</p>
<p>26. TB/HIV incidence rate estimated # of new HIV/TB cases per 100,000 population (GF TB I-2)</p>	<p>29. Successful TB treatment # of TB cases, all forms, bacteriologically confirmed plus clinically diagnosed, successfully treated (cured plus treatment completed) among all new TB cases registered for treatment during a specified period (GF O-2a)</p>	<p>32. Co-management of TB and HIV treatment % of estimated HIV-positive incident TB cases that received treatment for both TB and HIV (PAHO 2014 – 3.7GARPR 2016 – 11.1)</p>	<p>Goal 8 SO 8.1</p>
<p>27. TB registered mortality rate # of registered TB deaths per 100,000 population (GF-TB I-3)</p>		<p>33. HIV diagnose on TB patients # and % of registered new and relapse TB patients with documented HIV-positive status (WHO 2015 A.2)</p>	<p>Goal 8 SO 8.1</p>
<p>34. ART coverage on HIV+ TB patients # and % of HIV positive, new and relapse TB patients on ART during TB treatment (WHO 2015 A-4)</p>		<p>Goal 8 SO 8.1</p>	

Key Results Area 4: Removing barriers (Goal 5)

KEY RESULTS AREA: REMOVAL OF BARRIERS			
GOAL 5: Reported discrimination towards key and vulnerable populations to HIV has moved toward "zero discrimination".			
Strategy: Intensified and well-monitored anti-stigma and discrimination programs that address violation of the rights of key and vulnerable populations and the legal and social spheres.			
IMPACT	OUTCOME	OUTPUT/COVERAGE	LINK TO NSP
Persons that hold discriminatory attitudes towards LGBTi, persons living with HIV and sex workers has moved towards 0%	35. Discriminatory attitudes towards PLHIV: Reduction of women and men aged 15-49 expressing discriminatory attitudes towards people living with HIV (GARPR 2016 – 81.)	75% of men and women reached with sensitization training; 75% increase in media campaigns; 75% increase in research and studies focused on identifying and addressing drivers of stigma and discrimination among women and men towards vulnerable and key populations	Goal 5 SO 5.1
	36. Accepting attitudes towards key populations- LGBT and SWs: Reduction of women and men aged 15-49 expressing discriminatory attitudes towards LGBTi and SWs (Stigma and Discrimination regional indicator)		Goal 5 SO 5.1
Discriminatory laws that pose barriers to access to services for key and vulnerable populations has moved towards 0%	37. Elimination of legal barriers: # of discriminatory laws and policies affecting PLHIV, key and vulnerable populations that have been repealed or reformed, as a percentage of the total repealed and reformed laws during the reporting period disaggregated by population and type of legal barrier (Stigma and discrimination regional indicator)	Review of number of laws and policies that are legal barriers and can be challenged at the court level; increase in protective laws introduced to safeguards rights of key and vulnerable populations; 100% increase in sensitization and capacity-building sessions for parliamentarians, judiciary and other policy-makers	Goal 5 SO 5.1
	38. Protective laws: #of protective laws or other normative instruments approved that safeguard the human rights of PLHIV, key and/or vulnerable populations as a percentage of all approved laws during the reporting period (Stigma and discrimination regional indicator)		Goal 5 SO 5.1

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Reported cases of discrimination in the provision of HIV-related services and violence towards LGBTi and sex workers has moved towards 0%	39. Discrimination in health services: documentation of persons who report discrimination in health services, including denial of services and institutional violence, disaggregated by PLHIV, key and vulnerable populations (Stigma and discrimination regional indicator)	increase in persons utilizing services of the lawyers posted at the Human Rights Observatories; increase # of persons who have been discriminated receiving redress; Hold sensitization training sessions for the Police and other uniformed services on the rights of LGBTi, sex worker and persons living with HIV to protection and security;	Goal 5 SO 5.1
	40. Acts of violence: #of acts of violence, including murder, against LGBTi and sex workers, as a percentage of all acts of violence against registered, disaggregated by population and type of act of violence (Stigma and discrimination regional indicators)		Goal 5 SO 5.1

Table 7: Strategic Information Framework

Overall indicators											
No.	Indicator	Baseline		Targets					Source	Reporting	
		Value	Year	2016	2017	2018	2019	2020			
Impact											
1	Total number of people living with HIV (PLHIV) Total population and key populations (MSM, SWs and IDUs) (PAHO 2014 1.1, WHO SI 2015 – NEEDS.1) First column of the cascade	2,897	2014	3,191	3,332	3,474			HIV estimates and projections	MOH	
Outcome											
2	Newly diagnosed HIV cases Total registered number of newly diagnosed HIV infections in the reporting year, disaggregated by age, sex and location (PAHO 2014 – 1.4)	Number	239	2015	TBD	TBD	TBD	TBD	TBD	BHS Annual HIV/TB Statistical Report	MOH
Input											

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3	Domestic funding of HIV response Percentage of HIV response financed domestically, disaggregated by key population and programme categories (GARPR 2016 6.1 - NASA)	1,717,069 (BZ\$) 33.1%	2013-2014	35%	45%	55%	70%	80%	NASA	NAC
Priority Goal 1 New HIV infections among persons, 15-24 years, account for a maximum of 8% of all new infections										
Priority Intervention Strategy 1 Intensified comprehensive HIV prevention services targeting all persons 15-24 years of age										
No.	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
Impact										
4	Youth: new HIV infections # of new HIV infections among persons aged 15-24, as a percentage of total number of new infections (GARPR 2016 - 1.20, PAHO 2014 - 1.4)	18%	2014	14%	12%	10%	9%	8%	BHIS	MOH
Outcome										
5	Youth: knowledge about HIV prevention % of young women and men aged 15-24 who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission (GARPR 2016- 1.1)	671/1,564 = 42.9% (women)	2011			70%		95%	Sexual Behavior Survey	NAC
6	Youth: sex before the age of 15 % of young women and men aged 15-24 who have had sexual intercourse before the age of 15 (GARPR 2016 - 1.2)	8.9% Male 10.8% Fem 7.3%	2014 SIB			6%		5%	Sexual Behavior Survey	NAC

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7	Youth: multiple sexual partners % of women and men aged 15-24 who have had sexual intercourse with >1 partner in the last 12 months (GARPR 2016 – 1.3 – specific for youth)	15-19	30%	2014 SIB			25%		20%	Sexual Behavior Survey	NAC
		20-24	14.8%				12%		10%		

No.	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
8	Youth: multiple sexual partners and condom use % of women and men aged 15-24 who had more than one sexual partner in the last 12 months and who report the use of a condom during the last sexual intercourse (GARPR 2016 – 1.4 – specific for youth)	59%	2014 SIB			70%		80%	Sexual Behavior Survey	NAC
Coverage/Output										
9	Youth: BCC/IEC intervention coverage % of young people age 15-24, reached with BCC/IEC interventions focusing life-skills and HIV prevention (National indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Special study	NAC
10	Access to safety networks for girls and young women # of eligible vulnerable girls & young women receiving benefits from HIV-sensitive social protection schemes (National indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Special study	NAC

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Priority Goal 2 New HIV infections among men who have sex with men account for a maximum of 30% of all new infections										
Priority Intervention Strategy 2 Scaled-up comprehensive HIV prevention services for men who have sex with men										
No.	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
Impact										
11	MSM: estimated new infections # of new HIV infections among men who have sex with men, as a percentage of total estimated number of new infections (Sub-indicator - PAHO 10)	63.5%	2014	55%	45%	40%	35%	30%	MoT	MOH
Outcome										
12	MSM: condom use % of men reporting the use of a condom the last time they had anal sex with a male partner (GARPR 2016 – 2.5)	55.1%	2013	60%	65%	70%	75%	80%	Sexual Behavior Survey	NAC
Coverage/Output										
13	MSM: combined HIV prevention package % of MSM reached with a combined HIV prevention package defined by the country (3 BCC interventions, 1 HIV test, condoms and/or lube) (GARPR 2015)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Special study	NAC

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Priority Goal 3 70% of persons with HIV know their HIV status, including 80% of men who have sex with men										
Priority Intervention Strategy 3 Increased targeted HIV testing opportunities for the general and specific key affected populations										
No	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
Impact										
14	MSM HIV prevalence: % of MSM living with HIV (GF-G1-2: HIV-I-9a; GARPR 2016 – 2.7)	13.9%	2012	13.9%	13%	13%	12%	12%	BBS	NAC
Outcome										
15	Persons with HIV diagnosed: # and % of PLHIV diagnosed with HIV infection, who know their serological status (PAHO 2014-1.2, GARPR 2016 – 1.5) Second column of the cascade	28.4% (women)	2011	30%	40%	50%	60%	70%	Sexual Behavior Survey	NAC
15.1	MSM with HIV diagnosed: # and % of men who have sex with men diagnosed with HIV (Sub-indicator PAHO 2014 – 1-2, GARPR 2016 – 2.6)	59.6%	2012	60%	65%	70%	75%	80%	Bio-Behavioral Survey	MOH

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<p align="center"> Priority Goal 4 80% of persons living with HIV, who are on ART, remain on ART Peripheral Goal 6 90% of persons living with HIV are connected to HIV care and treatment Peripheral Goal 7 50% of HIV and HIV/TB services are delivered via community level health services </p>											
<p align="center"> Priority Intervention Strategy 4 Intensified and improved comprehensive management of HIV and HIV/TB cases Peripheral Intervention Strategy 6 Improving ARV coverage Peripheral Intervention Strategy 7 Sector-wide program for technical capacity development at all levels of the health system </p>											
Impact											
No	Indicator		Baseline		Targets					Source	Reporting
			Value	Year	2016	2017	2018	2019	2020		
16	AIDS-related death: # of AIDS-related deaths per 100,000 population disaggregated by age, sex and location (GF HIV-I4; WHO SI 2015 – IMP.1, GARPR 2016 – 4.7)	M	30.3	2013	31.9	29.6	27.5	25	23	HIV Estimates and projections	MOH
		F	20.6		17.0	16.2	14.8	12	10		
Outcome											
17	HIV care coverage # of persons with an HIV diagnosis in HIV care and treatment services and % of all PLHIV (PAHO 2014 - 2.1, WHO SI 2015 – LINK.2, GARPR 2016 – 4.3) Third column of the cascade		190/229 = 84%	2014 Cohort	85%	86%	88%	89%	90%	BHIS	MOH

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No	Indicator	Baseline		Targets					Source	Reporting	
		Value	Year	2016	2017	2018	2019	2020			
Coverage/Output											
18	Retention in care services # and % of PLHIV retained in HIV health care services (PAHO 2014 - 2.3) Fourth column of the cascade	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	HIV/TB Annual Statistical Report	MOH
19	Currently on ART # of adults and children currently receiving antiretroviral therapy and percentage of total estimated PLHIV (PAHO 2014 - 3.1, GF TCS-1; WHO SI 2015- ART.3, GARPR 2016 – 4.1) Fifth column of the cascade	1,183/2,897	2014	1,343/3,191	1,509/3,332	1,682/3,474	TBD	TBD	BHS HIV/TB Annual Statistical Report	MOH	
		40.8%		42%	45%	48%	TBD	TBD			
20	Retention on ART % of adults and children with HIV known to be on treatment 12, 24, 36 and 60 months after initiation of antiretroviral therapy (PAHO 2014 – 4.1, WHO SI 2015 – ART.5, GARPR 2016– 4.2, 4.2a, 4.2b)	55/135 =40.7%	2014 cohort	45%	55%	65%	75%	80%	BHS	MOH	
21	Viral suppression # and % of persons with HIV with suppressed viral load (<1,000 copies/ml) (PAHO 2014 - 5.1, WHO SI 2015 – VLS.3, GARPR 2016 – 4.6) Sixth column of the cascade	TBD	TBD	TBD	TBD	TBD	TBD	80%	BHS	MOH	

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No	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
22	Number of ARV stock-outs: # of stock-out episodes per year (PAHO 2014 – 3.10, GARPR 2016 – 4.4)	TBD	TBD	TBD	TBD	TBD	TBD	0	BHIS	MOH
23	Late HIV diagnosis: % of people living with HIV that initiated ART with CD4 count of <200 cells/mm ³ (GARPR 2016 – 4.5)	43.6%	2014	35%	25%	15%	10%	5%	BHIS	MOH
24	HIV and TB health providers training # and % of key HIV and TB health providers trained to improve their performance (including Standard Operational Procedures – SOP) (National indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Training sign-up sheets	MOH

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Peripheral Goal 8 Reach 70% case detection, 85% treatment success and 95% HIV testing of TB patients										
Peripheral Intervention Strategy 8 Comprehensive management of HIV and HIV/TB coinfection										
No	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
Impact										
25	TB/HIV mortality rate: # of estimated TB/HIV deaths per 100,000 population (GF TB/HIV I-1)	2	2013	2	1.7	1	0.7	0.5	Estimates and projections	MOH
26	HIV/TB incidence rate Estimated number of new HIV/TB cases per 100,000 population (GF TB I-2)	6.9	2014	6.7	6.5	6	5.5	5	Estimates and projections	MOH
27	TB mortality rate: # of registered TB deaths per 100,000 population (GF TB I-3)	1.8	2014	1.8	1.7	1.5	1.4	1.30	Vital and disease-specific registry	MOH

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No.	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
Outcome										
28	TB case notification rate # of notified TB cases – bacteriologically confirmed plus clinically diagnosed, new and relapse cases per 100,000 population (GF TB O-1a)	20	2013	23	26	28	24	22	TB patient register	MOH
29	Successful TB treatment % of TB cases, all forms, bacteriologically confirmed plus clinically diagnosed, successfully treated (cured plus treatment completed) among all new TB cases registered for treatment during a specified period (GF TB O-2a)	50%	2014	60%	65%	70%	80%	85%	TB patient register	MOH
Coverage/Output										
30	PLHIV-TB screening % of adults and children enrolled in HIV care who had TB status assessed and recorded during their last visit (GF TB/HIV-3, GARPR 2016)	25/121 =20.7%	2013	40%	55%	75%	85%	95%	BHIS	MOH
31	PLHIV-TB prophylaxis – Isoniazid prevention therapy (IPT) % of in care, who start preventive treatment with Isoniazid (PAHO 2014 – 2.4, GARPR 2016 – 11.3)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	BHIS	MOH

No.	Indicator	Baseline	Targets	Source	Reporting
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		Value	Year	2016	2017	2018	2019	2020		
Coverage/Output										
32	Co-management of TB and HIV treatment % of estimated HIV-positive incident TB cases that received treatment for both TB and HIV (PAHO 2014 – 3.7 GARPR 2016 – 11.1)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	GHIS	MOH
33	HIV diagnose on TB patients # and % of registered new and relapse TB patients with documented HIV-positive status (WHO 2015 A.2)	62 72%	2014		TBD	TBD	TBD	TBD	TB patient register	MOH
34	ART coverage on HIV+ TB patients # and % of HIV positive, new and relapse TB patients on ART during TB treatment (WHO 2015 A-4)	25/25 = 100%	2014	100%	100%	100%	100%	100%	TB patient register	MOH

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Priority Goal 5 Reported discrimination in the provision of HIV-related health care services has moved toward "zero discrimination".										
Priority Intervention Strategy 5 Intensified and well-monitored anti-stigma and discrimination programs in the health and allied health sector.										
No	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
Outcomes										
35	Discriminatory attitudes towards PVIH % of women and men aged 15-49 expressing discriminatory attitudes towards people living with HIV (GARPR 2016 - 8.1, S&D regional indicator)	8.1%	2011			15%		35%	Population-based survey	NAC
36	Discriminatory attitudes towards key populations – LGBTI and SWs % of women and men aged 15-49 expressing discriminatory attitudes towards LGBTI and SWs (S&D regional indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Population-based survey	NAC
37	Elimination of legal barriers # Number of discriminatory laws and policies affecting PLHIV, key and vulnerable populations that have been repealed or reformed , as a percentage of all repealed and reformed laws during the reporting period, disaggregated by population and type of legal barrier (S&D regional indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Special study	NAC

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No	Indicator	Baseline		Targets					Source	Reporting
		Value	Year	2016	2017	2018	2019	2020		
38	Protective laws # of protective laws or other normative instruments approved that safeguard human rights of PLHIV, key and/or vulnerable populations as a percentage of all approved laws during the reporting period. (S&D regional indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Special study	NAC
38	Discrimination in health services -# and % of PLHIV, key and vulnerable populations, who report having experienced discrimination in health services, including denial of services and institutional violence (S&D regional indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Special study	NAC
40	Acts of violence against LGBTI and SW # of reported acts of violence, including murder, against LGBTI and sex workers, as a percentage of all acts of violence registered during the reporting period, disaggregated by population and type of act of violence (S&D regional indicator)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Special study	NAC

VIII. Monitoring and evaluation procedures

8.1 Routine Data Collection

The diagram below outlines how routine HIV and TB data will reach the M&E Unit of the NAC Secretariat: clinical data from testing will be collected from the regular public health facilities (Polyclinics and Hospitals), private clinics and Non-Governmental Organizations (NGOs) and entered into the Belize Health Information System by the Epidemiology Unit of the Ministry of Health. In the case of polyclinics, public hospitals and some NGOs, data will be entered directly into the BHIS by the testing site staff and reviewed by the Epidemiology Unit. Staff of the National AIDS Program will then review the data on a regular basis and produce periodic reports, which will be forwarded to the M&E Unit of the NAC for inclusion in national reports. The same processes will be followed for care and support data for regular public health facilities (Polyclinics and Hospitals) and Non-Governmental Organizations (NGOs).

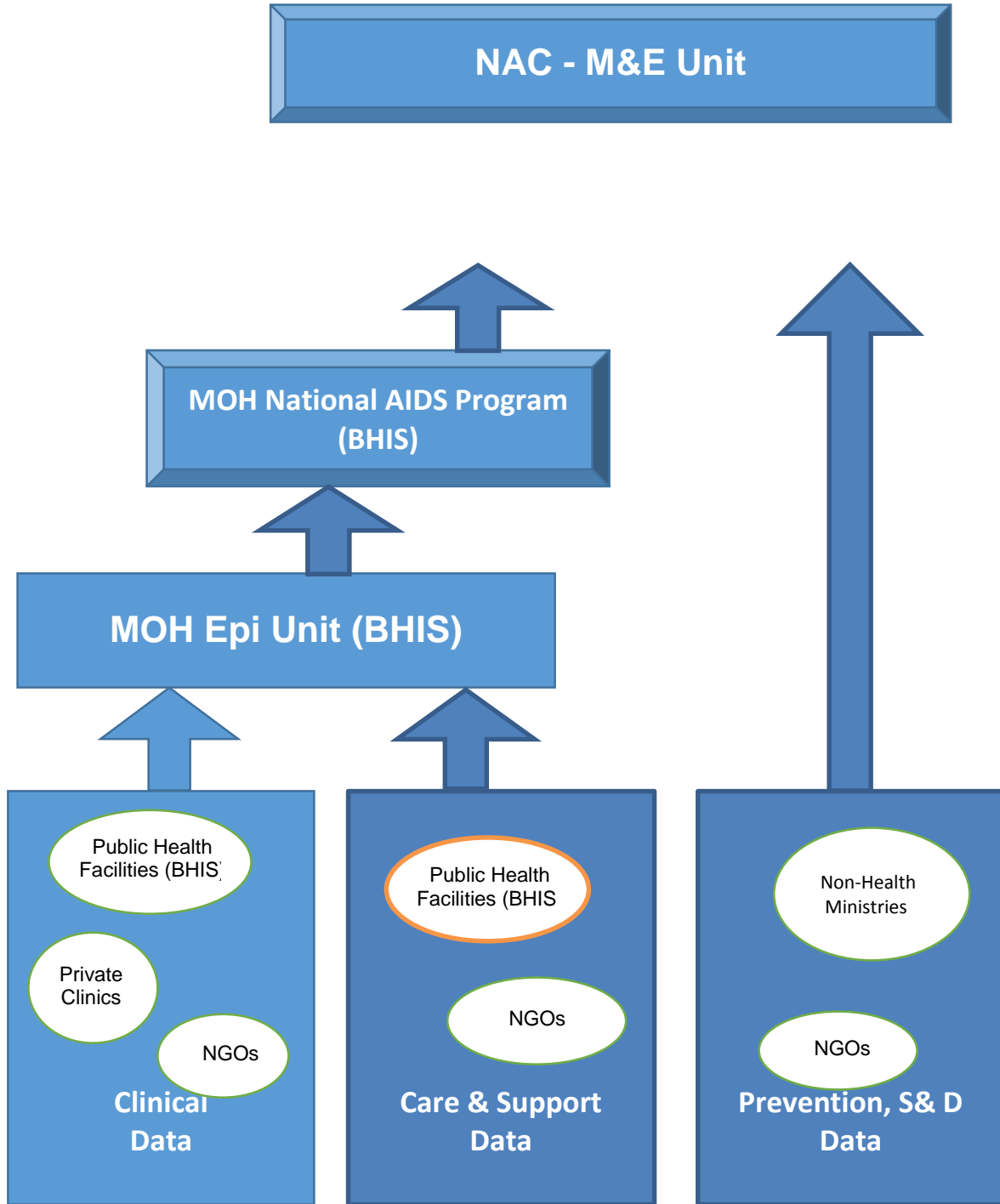
For prevention and stigma and discrimination issues, data will be forwarded directly to the M&E Unit of the NAC by the respective Non-Health Ministries (Education, Youth & Sports; Human Development; Labor) and NGOs.

HIV cases as a measure of quality control, any positive HIV test conducted is sent to the CML for confirmation. Reports on the number of persons testing positive for HIV are routinely entered in the BHIS Lab Module and submitted quarterly to MOH Epidemiology Unit.

AIDS case reports obtained from regional and community hospitals reports are submitted on a quarterly basis to the MOH Epidemiology Unit for further processing and analysis.

The MOH Epidemiology Unit is responsible for the collection, compilation, analysis, interpretation and dissemination of health data and information to support decision making.

Diagram 2: Data Flow



8.2 Programme Reviews, Evaluations, Surveys & Other Special Studies

Programme reviews and evaluations represent a valuable opportunity to assess NSP progress and promote active involvement of key stakeholders in the analysis of generated strategic information focusing on target achievement. The main results of these exercises is to identify those components which present major gaps and to define timely and effective corrective measures, to get back in track. Two programme reviews and evaluations have been set to take place in 2018 – the mid-term review, and 2020 – the final, for both the NSP and the M&E plan. Reviews will be carried out as an internal exercise coordinated by NAC. Evaluations will be organized by NAC as external short-term consultancies.

Population-based surveys are the basis for impact- and outcome evaluations about focusing on changes and cause-effect relations. Through the measuring of performance indicators, knowledge about changes in each desired target population is generated. Evaluations will show whether the change is attributable to the intervention, de facto providing evidence for a causal relationship between the project's activities and the results achieved. Population based surveys usually provide information about general population, while special surveys provide complementary information about key populations, since these are harder to identify. Representativeness as well as availability of resources, can be a challenge.

Population-based HIV prevention surveys, are generally a component of wider-scope exercises such as Multiple Indicator Cluster Surveys (MICS). They will provide results of behaviours, knowledge, attitudes, stigma and discrimination, with breakdown by sex, five-year age groups and geographical area.

Special studies surveys of knowledge, behaviour and attitudes provide valuable information regarding specific key affected populations.

These should be conducted every two or three years to generate updated, reliable and accurate information to strengthen decision-making processes.

Table 8: Timetable for Surveys

Year	Type of Survey
Year 1 (2016)	Multiple Indicator Cluster Survey (MICS)
Year 3 (2018)	<p>Sexual Behavioural Survey</p> <ul style="list-style-type: none"> • correctly identify ways of preventing the sexual transmission of HIV • persons 15-24 who have had sexual intercourse before the age of 15 • persons 15-24 who have had sexual intercourse with >1 partner in the last 12 months • persons aged 15-24 who had more than one sexual partner in the last 12 months and who report the use of a condom during the last sexual intercourse • men reporting the use of a condom the last time they had anal sex with a male partner • persons 15-49 who received an HIV test in the last 12 months and who know their results • persons 15-49 expressing accepting attitudes towards people living with HIV • persons 15-49 expressing accepting attitudes towards men who have sex with men • persons 15-49 expressing experiences of discrimination in health care settings <p>Behavioural Surveillance Survey/ Integrated Bio-Behavioural Survey</p> <ul style="list-style-type: none"> • men who have sex with men, who are living with HIV • men who have sex with men who have received an HIV test in the last 12 months and who know their results
Year 5 (2020)	<p>Multiple Cluster Indicator Survey (MICS) (repeat) Sexual Behavioural Survey (repeat)</p> <ul style="list-style-type: none"> • correctly identify ways of preventing the sexual transmission of HIV • persons 15-24 who have had sexual intercourse before the age of 15 • persons 15-24 who have had sexual intercourse with >1 partner in the last 12 months • persons aged 15-24 who had more than one sexual partner in the last 12 months and who report the use of a condom during the last sexual intercourse • men reporting the use of a condom the last time they had anal sex with a male partner • persons 15-49 who received an HIV test in the last 12 months and who know their results • persons 15-49 expressing accepting attitudes towards people living with HIV • persons 15-49 expressing accepting attitudes towards men who have sex with men • persons 15-49 expressing experiences of discrimination in health care settings <p>Behavioural Surveillance Survey/ Integrated Bio-Behavioural Survey (repeat)</p> <ul style="list-style-type: none"> • men who have sex with men, who are living with HIV • men who have sex with men who have received an HIV test in the last 12 months and who know their results

The NAC maintains an inventory of HIV related research conducted in Belize, which is partially accessible through the NAC website. As a routine practice, the strategic information framework is periodically reviewed in order to identify gaps where data can be collected through special studies and/or research. It is important to manage a calendar that incorporates a mid-term (2018) and end-term reviews (2020) and evaluations of the NSP and the corresponding Operational Framework. Similarly, the M&E component of the NSP 2016-2020 should also be reviewed and evaluated. Findings will be complemented with the periodic application of the M&E System Strengthening Tool (MESST), to ensure improvements in the data quality regarding program implementation. The following initial agenda for research and special studies has been put in place:

Table 9: Initial Research Agenda

Topic	Commissioner	Year
Cost-benefit analysis of treatment as prevention strategy	NAC-CCM	2016
Evaluation of TB and TB/HIV surveillance system	NAC-CCM	2017
National study on the feasibility of HIV self-testing in Belize	NAC-CCM	2016
Profiling and mapping exercise of key target populations in the districts of Belize, Stann Creek and Cayo	NAC-CCM	2016
Situation analysis of prevalence of HIV among community of transgender persons	NAC-CCM	2016
Mid-term review of NSP	NAC	2018
Mid-term review of NSP M&E framework	NAC	2018
Final evaluation of NSP	NAC	2020
Final review of NSP M&E framework	NAC	2020

The specific studies have been included in the NSP Operational Framework.

8.3 Data Management

The Belize Health Information System Health information from the Ministry of Health is managed through the Belize Health Information System (BHIS), which is a web-based customized electronic health record system. It is accessed by health care providers at all levels of the Ministry of Health, inclusive of Laboratories, Pharmacies, the central prison and 3 military bases. As Primary Care Provider, the NGO BFLA is also connected to the BHIS. It consists of a set of mostly interdependent modules surrounding the central Electronic Health Record (EHR) and Admissions-Discharge-Transfer functions. For HIV and TB, there are key modules:

- **Electronic Health Record and Admission Discharge Transfer (HER-ADT)**, capturing key details of each health service encounters;
- **Laboratory and Testing (LAB)**, covering a broad range of typical laboratory tests, vitals and radiology;
- **HIV/AIDS**, recording data collected during pre/post testing counselling and HIV/AIDS clinic visits, contact tracing and utilizing WHO staging criteria for tracking the client's progress

The BHIS³⁷ is a home grown health IT solution that was borne out of the Health Reform initiative as a specific need. It was initially installed in 2004 at the Karl Heusner Memorial Hospital (KMH), the main referral hospital in the Belize. Since then it has been implemented in every public hospital, poly clinic and some health centers across the country. The BHIS functions include:

- Expand coverage of data management capacity to rural and outlying areas
- Strengthen the vital registration system
- Improve data security and privacy of health information
- Integrate data sources electronically to facilitate data analysis and reporting of health information,
- Enhance IT support functions, particularly, at regional and lower levels,
- Strengthen disease surveillance
- Promote health research and strengthen local and international partnerships on health information systems.

³⁷ Belize Health Sector Strategic Plan 2014 – 2024.

The National AIDS Commission will also strengthen alliances with its members to identify and promote the use their institutional databases, incorporating and tracking HIV selected variables, such as those in the:

- Ministry of Education
- Ministry of Human Development
- Ministry of Labour

Particular attention will be provided to the incorporation of stigma and discrimination indicators, based on the ongoing regional process that was launched in Rio de Janeiro, Brazil in August, 2015.

8.4 Data Quality, Quality Assurance and Control Auditing

The quality of data has several dimensions: accuracy; completeness; reliability; timeliness; confidentiality; precision; and integrity. Improvement of the data quality includes a number of actions: data profiling, to understand the quality challenges; data standardization; geo-coding if applicable; and matching or linking to align slightly different data.

Data quality assurance is the process of profiling the data to discover inconsistencies and other anomalies in the data (incompleteness; inaccuracies; precision; missing parts), as well as performing data cleaning activities (e.g. removing outliers, missing data interpolation). Data quality assurance processes provide vital information to the data quality control where decisions are made about the protection of usage of data and the use and dissemination of “safe” information.

As the MOH NAP/ Epi Unit is a core producer of confidential and vital bio-medical HIV/TB related data, the NAC M&E Unit will ensure full technical collaboration with MOH’s TB, HIV and other STI Program in the management of the overall data quality control mechanisms of the M&E System. Other reporting agencies will internally identify key persons to conduct internal checks to ensure the completeness, validity, consistency, timeliness and accuracy of all data prior to submission to the NAC. On sight data verification and follow-up with reporting agencies will be conducted periodically with the full consent of the reporting agencies, and with due notice.

This M&E framework advocates for the introduction of data auditing, which is a higher and external process of ensuring data quality from the beginning of the end of the “HIV intelligence” process in a repeatable and measured way. Data auditing is a process that validates data against a set of data rules to determine which records comply and which do not, thereby ensuring that data comply with the adopted data rules.

8.5 Coordination of Monitoring and Evaluation

The key stakeholders in the management and implementation of the framework and its plan, and their respective roles and responsibilities are:

The Commissioners of the National AIDS Commission

This body is responsible for promoting and facilitating effective coordination and adequate oversight of the national response. This includes the governance and operational management of the standing and ad-hoc committees and assures accountability of stakeholders for performance and progress. The oversight of the implementation of the NSP, and therefore the M&E framework, is ultimately a responsibility of the NAC.

The NAC has delegated specific tasks, including the oversight and implementation of the M&E framework, to one of its standing committees, the M&E Sub-Committee, along with the M&E officer within the NAC Secretariat. The NAC therefore is the body that receives or solicits strategic information about the progress, effectiveness and relevance of the national response and is mandated to transform this information into policy and/or implementation recommendations for corrective action, where and when deemed necessary.

The NAC M&E Committee

The M&E committee is composed of representatives of the National AIDS Commission and technical experts from the wider community of stakeholders. It functions as the technical body of the NAC on all issues related to overseeing, monitoring and evaluating the national response. Its chief responsibility is oversight of the M&E framework, including key data collection and reporting functions. The committee periodically informs and offers recommendations to the National AIDS Commission and its stakeholders or is requested to do so by the Commission- on monitoring and evaluation issue.

Recommendations may include requests for and guidance in the design and implementation of corrective actions to the implementation of the national response. In consultation with the NAC Executive Director, the M&E Committee provides guidance to and oversight of the M&E staff at the NAC Secretariat.

M&E officer at the NAC Secretariat

The M&E officer at the NAC Secretariat, with support from the M&E Sub-committee, is responsible for implementing the M&E Framework. This can consist of the direct implementation and/ or guiding and causing the implementation of the framework. A paramount deliverable is the periodic production and dissemination of specific reports, as indicated in the Reporting Section of the M&E Framework.

MOH Epidemiology Unit

It is responsible for the provision of HIV support services within the MOH. As one of the core implementers of the national response to HIV (and HIV/TB), it manages a vital package of clinical and biomedical treatment and care interventions. Therefore, it carries chief responsibility for strategic information in these areas. It ensures the adequate flow of quality data coming from the Belize Health Information System, which is critical for facilitating efficient data management, calculation and analysis of performance indicators.

8.6 Capacity Building

Several functional components of data and information management systems require to be grounded in solid practices to ensure that standards for data quality are met:

- M&E capabilities
- Training
- Data reporting requirements
- Indicator definitions
- Data collection and reporting tools
- Data management processes
- Data quality mechanisms & controls
- Links with the national M&E and reporting system

This component focuses on the aspects related to the human capacity factor and provides direction to move toward continued capacity development in the HIV M&E practice. Several reviews of the bottlenecks to the further professionalization of the current HIV M&E practice, including an assessment in April 2015 of progress made toward the recommendations of the 2011 MESST Action Plan for human capacity development, have given the following landscape:

- Progress has been made in: the ability of organizations to attract staff with a defined M&E skills set; in the ability to identify and mobilize local or regional M&E training opportunities;
- Some level of progress has been made in: staff accessing M&E training from national training organizations; building M&E human capacity through routine supervision, on-the-job training (OJT) or mentorships;
- Lack of progress occurs in: institutionalized opportunities for M&E career paths; putting in place a mechanism for routine comprehensive management of the national M&E system and structures; the management of an articulated M&E human capacity development plan; the establishment of a standard curriculum for technical capacity building.

The following strategic interventions have been highlighted to make the practice of HIV M&E more efficient, effective, sector –integrated and mainstreamed:

1. Full alignment of the HIV M&E-oriented components of job descriptions at data producing and/or data consuming organizations. Alignment is to occur with a strong reference to data flow and data quality, ensuring that all M&E partners operate and function in a coordinated and compatible manner;
2. Re-configuration, through the NAC M&E Committee, of the community of practice for monitoring and evaluation in the social sector as a means to
 - i) build a platform for exchange of professional information about successes and failures of M&E practices;
 - ii) build a platform for learning in M&E data collection and manipulation practices and techniques;
 - iii) create an institutional stepping stone to a further integration of monitoring and evaluation agendas in the sub-domains of the social sector;
3. Continue and expand opportunities for short-term formal training, nationally or internationally, in M&E, complemented by expanded opportunities for on-the-job M&E training and related mentorships facilities.

8.7 Information Product, Dissemination and Use

Data analysis. The analysis of data is a critical process in increasing the understanding of the HIV/AIDS epidemic and in provision of information needed for the development of evidence-based strategies to combat the disease. The analysis of both quantitative and qualitative data will be conducted at the level of MOH's Epidemiology Unit and National TB, HIV and other STIs Program, and at the NAC on a continuous basis to ensure the availability of pertinent and accurate to inform decision making.

The MOH Epidemiology Unit is responsible for the collection, compilation, analysis, and interpretation of health data, and the dissemination of health information to support decision making on current and emerging health situations at the local, regional and national levels. The BHIS is a dynamic and comprehensive tool used to collect data from various sectors of the Ministry of Health and acts as a repository for critical information that flows in and out of the Ministry of Health. The Epidemiology Unit is also responsible for disease surveillance, outbreak investigation and control of communicable and non-communicable diseases. Services provided by the Epidemiology Unit include but are not limited to, periodic reports on the status of communicable and non-communicable diseases and making data on morbidity and mortality available to health personnel and to the general public.

The NAC M&E Officer has the responsibility of transforming the compiled data into usable knowledge products with the aim of providing strategic information for decision making. The analysis of HIV/AIDS data will be conducted on an annual basis to explore trends by indicator, facilitate reporting and to assess the programmatic performance to determine the level of target achievement.

Reporting and sharing of M&E data, information and knowledge:

Communication of general and specific information on the national response to HIV and TB in Belize is a key function of the NAC platform. Communication activities will be implemented predominantly by the NAC Secretariat on behalf of the Commission.

There are several types of communication contents, audiences, formats and channels through which the NAC will report, communicate and disseminate information.

- Dissemination of aggregated information reports on the progress made in achieving the core outputs and targets of the NSP and the wider national response to HIV and HIV/TB ; in collaboration with data producing stakeholders, the NAC

Secretariat is to facilitate consistent, periodic reporting and communication on program indicators for activities conducted in the NSP service delivery areas.

- Quantitative and qualitative information on technical or normative developments in the global or national response to HIV and HIV/TB . This involves the processing, re-compilation and dissemination of information on related HIV developments that take place outside of the direct parameters of the NSP and M&E frame.
- Information related to the resource needs and financing of the national response to HIV and HIV/TB. Reporting here follows the schedule of the budget cycle of the Government of Belize which provides financial information about the estimates of revenue and expenditure. Additional information will be disseminated via reports of National AIDS Spending Assessments (NASA).
- Specific knowledge or knowledge events that generate new insights in the characteristics of the national epidemic and/or design and implementation of innovative approaches to fight the epidemic. Apart from the dissemination of original or aggregated results from special studies and operational) research, this component can include arrangements for national research conferences.

Dissemination and use of M&E information in quarterly and annual national reports, HIV and AIDS fact sheets, brochures, periodic stakeholder workshops and other related methods is the responsibility of the NAC Secretariat. To facilitate information sharing, the NAC will utilize its website which will serve as a clearinghouse for official HIV/AIDS-related reports and documents. Dissemination of M&E results to policy makers at the Ministry of Health will serve to inform planning of HIV interventions, provide feedback on the resource requirements for HIV and AIDS, and increase public commitment to reducing HIV and AIDS. The data dissemination table below summarizes the recommended dissemination of information for the points of generation to points of utilization.

Table 10: Information Products

Type of product	Audience	Responsible	Frequency	Due dates
Format: bulletin/webpage /social media				
HIV Facts & Figures	General public; Care providers Ministries NGOs/CBOs NAC committees	NAC / MOH-NAP	Biannually	End of quarter
HIV Public Domestic Expenditure Overview	General public; Care providers Ministries NGOs/CBOs NAC committees	NAC	Annually	End April
Format: print, webpage, social media				
Global AIDS Response Progress (GARP) report	UNAIDS/UN Ministries; NGOs/CBOs	NAC	Annually	End March
NAP Annual Report	General public; Care providers Ministries NGOs/CBOs NAC	MOH-NAP	Annually	End April
NAC Annual Report	General public; Care providers Ministries NGOs/CBOs NAC committees	NAC	Annually	End Feb.
NSP M&E Report	NAC stakeholders Care providers NGOs/CBOs	NAC	Annually	End May
STI Report	General public; Care providers Ministries NGOs/CBOs NAC committees	MOH-NAP	Biannually	End of quarter

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Type of product	Audience	Responsible	Frequency	Due dates
NSP Mid-Term Review Report	NAC stakeholders Care providers NGOs/CBOs	NAC		Aug. 2018
NSP Evaluation Report	NAC stakeholders Care providers NGOs/CBOs	NAC		Nov. 2020
NSP M&E Mid-Term Review Report	NAC stakeholders Care providers NGOs/CBOs	NAC		Aug. 2018
Format: Special Events with launches & report dissemination				
NASA Report	General public; Care providers Ministries NGOs/CBOs NAC committees	NAC		Aug 2017 Aug 2019
Presentation Sexual Behaviour Study	General public; Care providers Ministries NGOs/CBOs NAC committees	NAC		Aug 2018 Aug 2020
Presentation Bio-Behavioural /Seroprevalencia Survey	General public; Care providers Ministries NGOs/CBOs NAC committees	MOH		Aug 2018 Aug 2020
HIV Research Conference	Academia NAC stakeholders Ministries NGOs/CBOs	NAC		Spring 2018

IX. Operational plan and budget: 2016-2017

Table 11: Operational plan and budget: 2016-2017

No	Expected Results and Activities	Year								Responsible	Budget BZD (\$)	
		2016				2017						
		1	2	3	4	1	2	3	4			
Expected result 1: Enhanced ownership of NSP and M&E Plan 2016 - 2020 by NAC constituencies, as user-friendly tools to ensure a successful response to HIV-TB												
1.1	Develop a participatory assessment of the previous M&E Plan and identify key lessons learned		x								NAC Secretariat	8,500
1.3	Launch NSP and M&E Plan 2016 - 2020 fostering buy-in from key stakeholders - focus on global and national transitional context, challenges, opportunities and added value of their joint commitment to achieve impact			x								12,000
1.4	Include quarterly updates on NSP and M&E Plans, in NAC's periodic meetings agenda with its membership			x	x	x	x	x	x		M&E Unit and M&E Committee	2,000
1.5	Organize 2 consultation meetings at the district level and one national consultation to review NSP and M&E Plan implementation, elaborate 2016 progress report and define 2017 priorities (1.5 days each)			x	x							36,000
1.6	Present annual progress report and discuss implementation achievements, drawbacks and ways forward, with national counterparts. 1 meeting with 40 key stakeholders, 4 hours				x					x	NAC Secretariat	12,500
1.7	Publish and disseminate progress report, in hard copy and through NAC's website/other social media				x					x	NAC Communications Unit	10,000
Sub-total												84,250

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No	Expected Results and Activities	Year								Responsible	Budget BZD (\$)	
		2016				2017						
		1	2	3	4	1	2	3	4			
Expected result 2: Belize counts with a fully functional M&E system for HIV -TB, facilitating the generation, dissemination and use of strategic information												
2.1	Mobilize technical and financial assistance for M&E strengthening (GFATM-CCM/UNDP, PAHO, USAID/ PASCA/PEPFAR...)			x	x	x	x	x	x	x	NAC Secretariat	No cost
2.2	Establish/review Terms of Reference of the M&E Committee and M&E Unit in NAC with clear definition of roles and responsibilities			x							Short-term consultancy	6,000
2.3	Design, validate and implement Standard Operational Procedures (SOP) for M&E Unit and M&E Committee			x								
2.4	Organize a TWG on data quality and links to quality in the provision of services, generate guidelines on the know how and document field experiences			x							NAC Secretariat	14,000
2.5	Carry out a M&E system strengthening tool (MESST) workshop to define roadmap				x				x		M&E Committee	18,000
2.6	Organize trimestral follow-up meetings with all involved parties in MESSTS exercise - Visits to implementers and meetings						x	x	x	x		3,500
2.7	Identify, report and disseminate success stories on M&E and HIV-TB integration, as pilot experiences for further integration processes						x	x	x	x		7,500
Sub-total											49,000	

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No	Expected Results and Activities	Year								Responsible	Budget BZD (\$)		
		2016				2017							
		1	2	3	4	1	2	3	4				
Expected result 3: NAC's HIV-TB communication strategy developed to ensure timely updates on NSP progress and informed, supportive audiences													
3.1	Strengthen synergies between the NAC's M&E and Communications Units through monthly coordination meetings focusing on the design and implementation of the HIV-TB communication strategy		x	x								NAC Secretariat	2,500
3.2	Develop a mapping exercise to identify current and potential key players involved in the HIV and TB response, including their contact information and areas of interest related to information products			x								Short-term consultancy	8,000
3.3	Update NAC's contact list by categories /audiences - interest groups to guide distribution of strategic information both in content and form				x								
3.4	Establish a network of M&E and Communication officers working in health & social development to promote information sharing and facilitate implementation of the HIV-TB communication strategy - ToR, appointment of focal points and quarterly meetings			x	x	x	x	x	x	x		NAC Secretariat	5,400
3.5	Track generation of HIV-TB information products and dissemination calendar and report to NAC Secretariat			x	x	x	x	x	x	x		M&E Communications network	No cost
3.6	Organize an annual context to promote dissemination and use of information products: in health provision and work settings, schools, out-of-school youth, key populations				x						x		14,000
3.7	Carry out a two-day workshop in coordination with the academic sector to update the research agenda and share new findings				x						x		16,750
Sub-total													44,150

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No	Expected Results and Activities	Year								Responsible	Budget BZD (\$)	
		2016				2017						
		1	2	3	4	1	2	3	4			
Expected result 4: Improve tracking of progress made to eliminate discrimination related to PLHIV and vulnerable populations.												
4.1	Organize a meeting with key population representatives to update on Rio S&D indicators, select national indicators and establish a TWG for their follow-up			x							NAC Secretariat	16,500
4.2	Elaborate a report on key selected S&D indicators (progress, gaps and recommendations)				x						S&D TWG	4,000
4.3	Present report to NAC membership, and define priority actions, roles and responsibilities				x						S&D TWG	4,750
4.4	Organize a capacity building workshop for civil society on oversight/M&E of strategies to eliminate discrimination					x					NAC Secretariat	18,000
4.5	Present annual progress reports on lessons learned regarding the development and implementation of strategies to eliminate discrimination				x					x	S&D TWG	8,500
4.6	Identify best practices in elimination of S&D and provide an annual recognition certificates				x					x	NAC Secretariat	16,000
4.7	Design and implement an information bulletin on national and international events and updates on elimination of discrimination and other key human rights topics				x	x	x	x	x		S&D TWG and NAC Communication Unit	9,500
Sub-total											77,250	

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No	Expected Results and Activities	Year								Responsible	Budget BZD (\$)	
		2016				2017						
		1	2	3	4	1	2	3	4			
Expected result 5: M&E response capacity strengthened through human resource development, supportive supervision and data audit												
5.1	Design an on-line M&E training menu			x							Short-term consultancy	15,000
5.2	Organize an two-day national workshop on the incorporation of Cascade of care and treatment indicators for health services providers and IT staff			x							NAC/MoH Epidemiology Unit	18,000
5.3	Train institutional and community level personnel on generation of strategic information, data quality control and BHIS scale-up (1 workshop in each district, 25 participants x 2 days)				x						Short-term consultancy	85,000
5.4	Update supervision guidelines to incorporate the integrated HIV-TB approach				x							20,000
5.5	Implement trimestral data-auditing exercises with corresponding reports and corrective measures				x	x	x	x	x		NAC/MoH Epidemiology Unit	35,000
5.6	Provide monthly follow-up to data auditing exercises, document lessons learned and disseminate results with involved parties				x	x	x	x	x			20,000
5.7	Strengthen communication mechanisms between managers, M&E teams and implementers to facilitate feedback, in-service learning processes and performance-based management				x	x	x	x	x			24,000
Sub-total											217,000	
TOTAL											471,650	

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XI. Annex

Annex 1: Technical Specifications for the Indicators

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Key Results Area	All KRA
No. and name	1. Persons Living With HIV (PLHIV)
Indicator	Total number of people living with HIV (PLHIV): total population and key populations (MSM, SWs, and IDUs)
Reference	Impact indicator 1 and Indicator 1 of ten global monitoring indicators of the health sector response to HIV; First element of cascade: Know your epidemic, SI Guidelines WHO 2015 - NEEDS 1, PAHO 2014 – 1.1 Indicator group 1: Diagnosis of HIV infection First column of the cascade
Rationale	HIV infection has become a major public health problem and it is crucial to monitor the clinical course of the epidemic and the impact of interventions. Both the Millennium Development Goals (MDGs) and the United Nations General Assembly Special Session (UNGASS) on HIV/AIDS have set targets to reduce the prevalence of HIV.
What it measures	This indicator measures the number of persons with HIV that are alive in the reporting period. Estimated magnitude of the epidemic and the advances made in the reduction of HIV prevalence in the general population and other key populations, including MSM, SWs, and IDUs.
Numerator	Estimated number of persons living with HIV who are still alive at the end of a given year
Source	Estimates and projections (Spectrum)
Denominator	Not applicable
Method	National HIV annual estimates coordinated by the Epidemiology Unit, Ministry of Health Spectrum projection model. In this case , the data can be obtained as follows from Spectrum software: <ul style="list-style-type: none"> • For total population: results > total population > HIV population • For population aged 15-49 : results > adults (15-49) > HIV population (15-49) • For population aged 15-49 , by subgroup (IDUs, SWs, and MSM): results > adults (15-49) > HIV population, by risk group (15-49)
Periodicity	Annual
Disaggregation	Age: <15, 15+; Sex: Women, Men; Key populations: MSM, SWs, IDUs; Location: Districts and site levels; Pregnancy and breast-feeding status
Strengths and weaknesses	Most countries do not conduct studies of HIV prevalence in the general population due to their high cost and complex implementation. Modelling procedures make it possible to obtain data on the number of infected people by sex, age, and population subgroups. Meanwhile, the quality of these estimates is directly related to the quality of programmatic data and the quality and representativeness of the surveillance data used in the modelling process.
Data use	Estimate of the magnitude of the epidemic at the national level, aimed at measuring advances in the diagnosis of people with HIV in the general population and in key populations. The estimated number of PLHIV is reflected in the first column of the continuum of care cascade and is used as the denominator for all indicators in the cascade.

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Key Results Area	All KRA
No. and name	2. Newly-Diagnosed HIV Cases in the reporting Year
Indicator	Number of registered newly diagnosed HIV cases in the reporting year
Reference	Outcome indicator 1 related to Indicator 10 of ten global monitoring indicators of the health sector response to HIV – for incidence, SI guidelines WHO 2015 – IMP.2; PAHO 2014 – 1.4
Rationale	Knowing the number and characteristics of newly diagnosed HIV cases is important in order to monitor the response to the epidemic, to understand HIV transmission patterns, and for interventions to prevent HIV.
What it measures	The number of new HIV cases diagnosed and reported in the reporting period (generally a calendar year).
Numerator	Number of persons living with HIV newly diagnosed during the assessment period
Source	BHIS
Denominator	Not applicable
Method	Surveillance data on new HIV cases diagnosed and reported in the period. Linkage with other information systems (e.g. laboratory, ART) can reduce the underreporting of cases.
Periodicity	Annual
Disaggregation	Age: <15, 15, Sex: Women, Men; Key populations: MSM, SW, migrants, incarcerated population; Location: Districts and site levels; Pregnancy and breast-feeding status
Strengths and weaknesses	The quality of this data is directly related to the quality of the HIV surveillance system. Disaggregation by key populations is not always possible due to unreliable and/or low-quality data in the surveillance information system.
Data use	This indicator is useful when the trend over time is considered for new cases of HIV infection and their distribution by population group, age, and sex. It provides a general perspective of progress made and also serves for programming required resources for service provision. “New diagnosed cases” does not mean they represent “new infections”. However, this indicator is used by the country as a reference.

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Key Results Area	All KRA
No. and name	3. Domestic Funding of HIV Response
Indicator	Percentage of HIV response financed domestically
Reference	Input indicator 1 and Indicator 2 of ten global monitoring indicators of the health sector response to HIV; Second element of results chain: Inputs, RES.31, S.I. Guidelines WHO 2015. Global AIDS Response Progress Reporting GARPR 2016 - 6.1 (sub-component)
Rationale	To end the AIDS epidemic as a public health threat by 2030, countries have to assume ownership of the HIV response. This implies increased domestic funding to cover the resources needed. Belize will use the Resources Need Model to identify requirements and track domestic funding to identify financial coverage trends of resources needed for an effective HIV response, with emphasis in long-term sustainability. . Although external funding is complementary to domestic funding, the extent to which the country is able to finance the national response is crucial to ensure sustainability.
What it measures	It measures the degree to which domestic funds are able to finance the HIV response, thus providing an overview of efforts towards achieving mid and long-term sustainability.
Numerator	Annual HIV domestic public expenditure
Denominator	Total annual HIV expenditure
Source	National AIDS Spending Assessment (NASA) Annual Report
Method	NASA annual estimates exercise based on UNAIDS guidelines, coordinated by the National AIDS Commission.
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Key population and other target population, programme categories such as prevention, treatment and care, funding sources
Strengths and weaknesses	Assesses government commitment and ownership. Identifies funding gaps and provides sound evidence for resource mobilization purposes. All involved stakeholders must provide timely and accurate information on their financial flows, which often becomes a limitation.
Data use	Represents a valuable input for the sustainability of the HIV response. Also serves for planning and cost-effectiveness analysis. This indicator can be expanded to include TB domestic funding and thus, facilitate joint analysis and definitions of ways forward.

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Key Results Area	HIV Prevention: Youth
No. and name	4. Youth: Estimated new Infections
Indicator	Number of estimated new HIV infections among persons aged 15-24, as a percentage of the total estimated number of new infections
Reference	Impact indicator 2. Indicator 10 of ten global monitoring indicators of the health sector response to HIV, IMP.2, SI Guidelines WHO 2015, proxy sub-indicator to GARPR 2016 – 1.20
Rationale	Reflects epidemic impact on this population. Important for monitoring epidemic trends, detecting possible shifting patterns and projecting needs.
What it measures	The contribution of new infections in young women and men aged 15-24 to the total number of estimated new infections during the reporting period.
Numerator	Estimated number of new HIV infections in MSM during the reporting period
Source	Annual HIV Modes of Transmission report (Moot)
Denominator	Total estimated number of new HIV infections during the reporting period
Source	Annual HIV Modes of Transmission report (Moot) coordinated by the Epidemiology Unit in the Ministry of Health
Method	Moot exercise follows global guidelines defined by UNAIDS, to be followed to ensure comparability of results.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Sex and Age: 15-19, 20-24; Location: Districts and main cities
Strengths and weaknesses	Countries have experience in Estimates and Projections exercises which are carried out periodically. However, their accuracy relies on the availability of updated information on the epidemic.
Data use	This indicator is useful when analysing epidemic trends and its distribution. It provides a general perspective of progress made and also serves for programming required resources for service provision. Facilitates gap analysis when considered jointly with Indicator 2 “Newly diagnosed cases”.

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Key Results Area	HIV Prevention: Youth
No. and name	5. Knowledge About HIV Prevention Among Young People
Indicator	Percentage of young women and men aged 15-24 who correctly identify both ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission
Reference	Outcome indicator 2 Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 1.1
Rationale	HIV epidemics are perpetuated primarily through sexual transmission of infection to successive generations of young people. Sound knowledge about HIV and AIDS is an essential prerequisite (yet, often an insufficient condition) for adopting behaviours that reduce the risk of HIV transmission.
What it measures	Measures progress towards universal knowledge of the essential facts about HIV transmission
Numerator	Number of respondents aged 15-24 who gave the correct answer to all five questions
Denominator	Number of all respondents aged 15-24
Source	Population-based survey coordinated by the National AIDS Commission
Method	This indicator is constructed from responses to the following set of questions:
	1. Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?
	2. Can a person reduce the risk of getting HIV by using a condom every time he/she has sex?
	3. Can a healthy-looking person have HIV?
	4. Can a person get HIV from mosquito bites?
	5. Can a person get HIV by sharing food with someone who is infected?
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Every two years; minimum: every 3-5 years
Disaggregation	Sex: Female, Male Age: 15-19, 20-24
Strengths and weaknesses	The belief that a healthy-looking person cannot be infected with HIV is a common misconception that can result in unprotected sexual intercourse with infected partners. Rejecting major misconceptions about modes of HIV transmission is as important as correct knowledge of true modes of transmission. For example, the belief that HIV is transmitted through mosquito bites can weaken motivation to adopt safer sexual behaviour, while belief that HIV can be transmitted through sharing food reinforces the stigma faced by PLHIV.
Data use	This indicator is particularly useful in countries where knowledge about HIV and AIDS is poor because it permits easy measurement of incremental improvements over time. However, it is also important in other countries as it can be used to ensure that pre-existing high levels of knowledge are maintained.

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Key Results Area	HIV Prevention: Youth
No. and name	6. Sex Before the age of 15 Years
Indicator	Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15 years
Reference	Outcome indicator 3 Global AIDS Response Progress Reporting 2016 Guidelines 1.2
Rationale	A major goal in many countries is to delay the age at which young people first have sex and discourage premarital sexual activity because it reduces their potential exposure to HIV. There is also evidence to suggest that first having sex at a later age reduces susceptibility to infection per act of sex, at least for women.
What it measures	Progress in increasing the age at which young women and men aged 15-24 first have sex
Numerator	Number of respondents aged 15-24 who report the age at which they first had sexual intercourse as under 15 years
Denominator	Number of all respondents aged 15-25
Source	Population-based survey coordinated by the National AIDS Commission
Method	Respondents are asked whether or not they have ever had sexual intercourse and, if yes, they are asked: How old were you when you first had sexual intercourse?
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Every 3-5 years
Disaggregation	Sex: Female, Male Age: 15-19, 20-24
Strengths and weaknesses	Countries where few young people have sex before the age of 15 might opt to use an alternative indicator: percentage of young women and men aged 20-24 who report their age at sexual initiation as under 18. The advantage of using the reported age at which young people first have sexual intercourse (as opposed to the median age) is that the calculation is simple and allows easy comparison over time. The denominator is easily defined because all members of the survey sample contribute to this measure. It is difficult to monitor change in this indicator over a short period because only individuals entering the groups (i.e. those aged under 15) at the beginning of the period for which the trends are to be assessed, can influence the numerator.
Data use	Behavioural studies in Belize reveal early sexual onset in specific groups of young persons in Belize, increasing their vulnerability to HIV infection (8.9% in average, rising to 17.2% among those with no education). This indicator tracks changes in such behaviour, assessing effectiveness of prevention interventions in this population.

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Key Results Area	HIV Prevention: Youth
No. and name	7. Youth: Multiple Sexual Partners
Indicator	Percentage of women and men aged 15-49 years who have had sexual intercourse with more than one partner in the past 12 months
Reference	Outcome indicator 4 , Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 1.3 (sub-indicator)
Rationale	The spread of HIV depends largely upon unprotected sex among people with a high number of partnerships. Individuals who have multiple partners have a higher risk of HIV transmission than individuals that do not link into a wider sexual network.
What it measures	Progress in reducing the percentage of people who have multiple sexual partnerships
Numerator	Number of respondents aged 15-24 who have had sexual intercourse with more than one partner in the past 12 months
Denominator	Number of all respondents aged 15-24 years
Source	Population-based survey coordinated by the National AIDS Commission
Method	Respondents' sexual histories are obtained. Analysis of sexual history is used to determine whether the respondent has had more than one partner in the preceding 12-month period
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Every 3-5 years
Disaggregation	Sex: Female, Male Age: 15-19 and 20-24
Data use	Belize 2014 Global AIDS Country Progress Report states that 2.1% (85/4,097) of women aged 15-49 reported having had more than one partners within the last 12 months (MICS 4 2011, data on men not available)

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Key Results Area	HIV Prevention: Youth
No. and name	8. Youth Condom Use at Last sex Among People With Multiple Sexual Partnerships
Indicator	Percentage of women and men aged 15-49 years with more than one partner in the past 12 months who used a condom during their last sexual intercourse
Reference	Outcome indicator 5 Global AIDS Response Progress Reporting Guidelines 2016 - 1.4 (sub-indicator)
Rationale	Condom use is an important measure of protection against HIV, especially among people with multiple partners.
What it measures	Progress towards preventing exposure to HIV through unprotected sexual intercourse among people with multiple sexual partners.
Numerator	Number of respondents aged 15-24 years who have had sexual intercourse with more than one partner in the past 12 months who also reported that a condom was used the last time they had sex
Denominator	Number of all respondents aged 15-24 who reported having had more than one sexual partner in the past 12 months
Source	Population-based survey coordinated by the National AIDS Commission
Method	Respondents' sexual histories are obtained. Analysis of sexual history is used to determine whether the respondent has had more than one partner in the preceding 12-month period, and if so whether a condom was used the last time the respondent had sexual intercourse.
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	3-5 years
Disaggregation	Sex: Female, Male Age: 15-19 and 20-24
Strengths and weaknesses	This indicator shows the extent to which condoms are used by people who are likely to have higher-risk sex (as in the case of multiple sexual partnerships). Levels and trends should be interpreted carefully using the data obtained on the percentages of people who have had more than one sexual partner within the past year.
Data use	Belize 2014 Global AIDS Country Progress Report states that 28.6% (24/84) of women aged 15-49 who reported having had more than one partner within the last 12 months, used a condom during their last sexual intercourse (MICS 4 2011: data on men not available). The indicator tracks changes over time and effectiveness of prevention interventions in this population.

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Key Results Area	HIV Prevention: Youth
No. and name	9. Young Persons Reached by IEC/BCC Interventions
Indicator	Number and percentage of youth reached by IEC/BCC interventions during the assessed period
Reference	Output/coverage indicator 1 , National indicator
Rationale	Access to information about healthy life-styles, skills for life and HIV prevention contribute to scale-up awareness among youth and reduce misconceptions that place them in higher risk of HIV infection.
What it measures	Coverage of Information, Education and Communication (IEC)/Behavioural Change Communication (BCC) interventions among youth.
Numerator	Number of interviewed persons aged 15-24 years, who reply "yes" to the following questions:
	1. Do you know where you can access sexual and reproductive health services?
	2. Do you know where you can get an HIV test?
Denominator	Total number of persons aged 15-24 years interviewed
Source	Population-based survey coordinated by the National AIDS Commission
Method	Interviewed persons are asked each question and scores are presented separately and combined.
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Every 3-5 years
Disaggregation	Age: 15-19, 20-14 Sex: Female, Male Location: Districts and main cities Education status: In-school, Out-of-school
Strengths and weaknesses	Access to information, education and communication/behavioural change communication interventions for youth are defined in the NSP, to increase healthy life-styles among youth.
Data use	42% of Belize population is less than 18 years old. Furthermore, recent behavioural studies report early onset of sexual activity, multiple partners and less than half of the sexually active population report condom use during their last sexual intercourse.

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Key Results Area	HIV Prevention: Girls and Young Women
No. and name	10. Access to Safety Social Networks for Girls and Young Women
Indicator	Number and percentage of eligible vulnerable girls and young women receiving benefits from social protection schemes
Reference	Output/coverage indicator 2 , National indicator
Rationale	HIV vulnerability responds to a series of inter-related conditions, such as limited access to education, income, food, housing, a stable family structure, and an enabling environment, free of alcohol and drugs, among others. Girls and young women suffering one or more of these conditions are more vulnerable to HIV and require mechanisms in place to ensure they are reached by available safety social networks.
What it measures	This indicator measures the extent to which eligible girls and young women vulnerable to HIV have access to safety social networks in the country.
Numerator	Number of eligible vulnerable girls and young women receiving benefits from social protection schemes
Denominator	Total number of eligible vulnerable girls and young women interviewed
Source	Special study
Method	The Ministry of Human Development, Social Equity and Poverty Alleviation will coordinate the design and implementation of the study, in close collaboration with the National AIDS Commission.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Every 3-5 years
Disaggregation	Age: 15-19, 20-24 and 25+ Type of benefits: Financial, food, scholarships, shelter, training, legal, etc.
Strengths and weaknesses	Elements such as lack of income, education, job, home, family structure, and substance abuse increase vulnerability of girls and young women to HIV infection. Unprotected sexual intercourse related to commercial sex, trafficking and/or abusive relationships linked to power imbalances are frequently observed among this population. These increase risk of HIV transmission among girls and young women.
Data use	Eligibility criteria should be clearly defined and existing social networks identified by national authorities and considered in the protocol.

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Key results area	HIV Prevention: Men Who Have Sex With Men
No. and name	11. Estimated New Infections in MSM
Indicator	Number and percentage of new HIV infections in MSM as per total number of new infections
Reference	Impact indicator 3. Indicator 10 of ten global monitoring indicators of the health sector response to HIV, IMP.2, SI Guidelines WHO 2015, proxy sub-indicator to GARPR 2016 – 1.20
Rationale	In concentrated epidemics, men who have sex with men are particularly affected by the epidemic and usually represent one of the key populations in which more new infections occur.
What it measures	The effectiveness of prevention interventions among MSM
Numerator	Estimated number of new HIV infections in MSM during the reporting period
Source	Annual HIV Modes of Transmission report (Moot)
Denominator	Total estimated number of new HIV infections during the reporting period
Source	Annual HIV Modes of Transmission report (Moot) coordinated by the Epidemiology Unit in the Ministry of Health
Method	Moot exercise follows global guidelines defined by UNAIDS, to be followed to ensure comparability of results.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Age: <15, 15+; Location: Districts and main cities
Strengths and weaknesses	Strengths: Globally recognized as a key component to be tracked. Countries have incorporated this indicator in their monitoring frameworks. Weaknesses: Estimates require availability of updated information on sexual practices from surveys and special studies. Resources for HIV research are usually dependent on external funding, which challenges their sustainability.
Data use	Biological and behavioural special surveys (BBSS) on MSM and other key populations should also be carried out at least every 3 years to track changes.

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Key Results Area	HIV Prevention: Men Who Have Sex With Men
No. and name	12. Men Who Have Sex With Men: Condom Use
Indicator	Number and percentage of men reporting the use of a condom the last time they had anal sex with a male partner
Reference	Outcome indicator 6. Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 2.5
Rationale	Condoms can substantially reduce the risk of the sexual transmission of HIV. Consequently, consistent and correct condom use is important for MSM because of the high risk of HIV transmission during unprotected anal sex. In addition, men who have anal sex with other men may also have female partners, who could become infected as well. Condom use with their most recent male partner is considered a reliable indicator of longer-term behaviour.
What it measures	Progress in preventing exposure to HIV among men who have unprotected anal sex with a male partner
Numerator	Number of men who have sex with men who reported the use of a condom the last time they had anal sex with a male partner, during the reporting period
Denominator	Number of interviewed men who have sex with men who reported having had anal sex with a male partner in the past six months
Source	Biological and behavioural survey for key populations coordinated by the National AIDS Commission
Method	In a behavioural survey of a sample of men who have sex with men, respondents are asked about sexual partnerships in the preceding six months, about anal sex within those partnerships and about condom use when they last had anal sex. Data collection through civil society organizations working closely with this population, is recommended.
Disaggregation	Age: <25, 25+ Location: districts and city-specific data
Strengths and weaknesses	Strength: For MSM, condom use at last anal sex with any partner gives a good indication of overall levels and trends of protected and unprotected sex in this population. Weakness: This indicator does not give any idea of risk behaviour in sex with women among men who have sex with both women and men.
Data use	In countries where men in the subpopulation surveyed are likely to have partners of both sexes, condom use with female as well as male partners should be investigated. In these cases, data on condom use should always be presented separately for female and male partners. This indicator asks about male-to-male sex in the past six months. If the data available refers to another time period, such as the past three or 12 months, this should be specified.

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Key Results Area	HIV Prevention: Men Who Have Sex With Men
No. and name	13. Combined HIV Prevention Package for MSM
Indicator	Number and percentage of men who have sex with men reached with HIV combined prevention package during the reporting period
Reference	Coverage indicator 3. Global AIDS Response Progress Reporting Guidelines GARPR 2015 - 1.11
Rationale	MSM are often difficult to reach with HIV prevention programmes. However, in order to prevent the spread of HIV among MSM as well as into the general population, it is important that they access these services.
What it measures	Progress in implementing basic elements of HIV prevention programmes for MSM such as IEC/BCC interventions, condoms and lubricant provision, STI screening and HIV testing (or referral)
Numerator	Number and percentage of men who have sex with men surveyed, who replied "yes" to both questions reached with HIV combined prevention package during the reporting period
Denominator	Total number of men who have sex with men surveyed
Source	Biological and behavioural survey coordinated by the National AIDS Commission
Method	Respondents are asked the following questions:
	1. Do you know where you can go if you wish to receive an HIV test?
	2. In the last twelve months, have you been given condoms? (e.g. through an outreach service, drop-in centre or sexual health clinic)
	Scores for each of the individual questions, based on the same denominator, are required in addition to the score for the composite indicator. Involvement of civil society organizations working closely with this population is recommended for data collection.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Every two years
Disaggregation	Age: < 25, 25+ years
Strengths and weaknesses	The data obtained may not be based on a representative national sample of MSM.
Data use	The definition of an "HIV combined prevention package" generally includes an IEC/BCC component, condoms and referral to STI/testing services. The country should officially define its national standard on this regard.

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Key Results Area	HIV testing: Men Who Have Sex With Men
No. and name	14. HIV Prevalence Among Men Who Have Sex With Men
Indicator	Number and percentage of men who have sex with men who are living with HIV
Reference	Impact indicator 4. Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 2.7
Rationale	MSM typically have the highest HIV prevalence in countries with either concentrated or generalized epidemics. In many cases, prevalence among these populations can be more than double the prevalence among general population. Reducing prevalence among MSM is a critical measure of a national-level response to HIV.
What it measures	Progress in reducing HIV prevalence among MSM
Numerator	Number of men who have sex with men who test positive for HIV
Denominator	Total number of men who have sex with men tested for HIV
Source	Biological and behavioural survey coordinated by the National AIDS Commission
Method	Sexual behaviour history is collected from MSM and voluntary HIV counselling and testing offered to sample group, following national and international research guidelines and protocols. This indicator is calculated using data from HIV tests conducted among respondents in the primary sentinel site or sites. These sites should remain constant to allow for the tracking of changes over time.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Every two years
Disaggregation	Age: <25, 25+ Location: Districts and main cities
Strengths and weaknesses	In theory, assessing progress in reducing the occurrence of new infections is best done through monitoring changes in incidence over time. In practice, however, prevalence data rather than incidence data are available.
Data use	The latest BBS for key populations carried out in 2011-2012 reveals an HIV prevalence of 13.9% among men who have sex with men, while national statistics report an adult HIV prevalence rate consistently < 1% since 2011.

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Key Results Area	HIV Testing: Diagnosis
No. and name	15. People Living With HIV Diagnosed
Indicator	Number and percentage of people living with HIV diagnosed with HIV infection who know their serological status
Reference	Outcome indicator 7. Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 1.5, WHO SI guidelines 2015 - HTS 1, Indicator 4 of 10 global indicators, PAHO 2014 – 1.2 Second column of the cascade
Rationale	Knowledge of serological status is a critical factor in the decision to seek treatment.
What it measures	Progress made in implementing HIV testing and counselling, and in reporting HIV cases in the general population and key population.
Numerator	General population: Number of people diagnosed and reported with HIV infection who are still alive at the end of the reporting period Key populations: disaggregation by subgroups, for example: Number of MSM diagnosed and reported with HIV infection who are still alive Number of SWs diagnosed and reported with HIV infection who are still alive Number of IDUs diagnosed and reported with HIV infection who are still alive
Source	Case-based reporting using BHIS records. Surveillance system for reporting cases of HIV infection. These are the cases diagnosed and reporting in the HIV surveillance information system who are still alive at the reporting period.
Denominator	Total population: Total estimated number of people living with HIV MSM: Estimated number of MSM living with HIV SWs: Estimated number of SWs living with HIV IDUs: Estimated number of IDUs living with HIV
Source	HIV estimates and projections, Spectrum annual report
Method	The number of AIDS-related deaths must be subtracted from the cumulative number of diagnosed persons to obtain the numerator. The result is divided by the estimated number of people living with HIV.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Sex: female, male Age: <15, 15+ Location: Districts and main cities Most at risk key population subgroups
Strengths and weaknesses	For the denominator, the quality of these estimates is directly related to the quality of programmatic data and surveillance data used in the modelling process. Disaggregation by key populations is not always possible due to low-quality data in the surveillance information system, or in the linked systems. Many countries do not know how many reported cases of HIV infections are still alive, especially by population subgroups, since the reporting of risk behaviour is very irregular in quantity. One way of determining this for key populations is through serological surveys.
Data use	Monitor progress made in expanding testing activities in the general population and key populations, estimates the diagnostic gap in PLHIV in the country.

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Key Results Area	HIV Treatment
No. and name	16. AIDS-Related Deaths
Indicator	Total number who have died of AIDS-related illness during the reporting period
Reference	Impact indicator 5. Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 4.7, WHO 2015 SI guidelines – Indicator 9 of 10 global indicators IMP.1
Rationale	The life-span and quality of life for persons with HIV, diagnosed and linked to HIV health care and treatment services, has improved substantially. “Zero AIDS-related deaths” is a global target. The indicator tracks progress towards the achievement of this target.
What it measures	Measures the ultimate negative outcome of past incidence and care and treatment failure.
Numerator	Number of AIDS-related deaths during the reporting period
Source	Vital registration system, Statistics Institute of Belize
Denominator	Not applicable
Method	Official information is collected from the Statistics Institute of Belize and cross-reference made with hospital statistics, to ensure there is no underreporting
Calculation	Not required
Multiplier	Not required
Periodicity	Annual
Disaggregation	Sex: female, male Age: <5, 5-14, 15+ years Location: Districts and main cities
Strengths and weaknesses	It measures the impact of HIV prevention, care and treatment programmes. Recent efforts to scale up access to life-saving antiretroviral therapy, including the 2015 change in WHO guidelines to recommend treatment for all, should significantly reduce the number of AIDS-related deaths, provided these services are accessible and delivered effectively. Thus the importance to monitor trends over time.
Data use	Reduction of AIDS-related deaths still represents a challenge in Belize. NSP interventions focus on improving diagnosis, linkage to care and treatment, and adherence/retention. These efforts are expected to reduce AIDS-related deaths, thus the importance of tracking changes.

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Key Results Area	HIV Treatment
No. and name	17. HIV Care Coverage
Indicator	Number of persons with HIV diagnosis in HIV care and treatment services and percentage of all PLHIV, during the reporting period
Reference	Outcome/coverage indicator 4. Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 4.2, WHO SI guidelines 2015 – LINK 2, PAHO 2014 – 2.1 Third column of the cascade
Rationale	With increased diagnosis and an expanded HIV care network, a constantly increasing number of PLHIV have access to health care and treatment services. It is important to monitor progress in the linkage between diagnosed patients and treatment/care.
What it measures	This indicator offers cross-sectional information on the proportion of people who receive HIV care (measured as those who had a CD4 lymphocyte count or VL, or who picked up ARVs or were seen at least once for HIV infection in the reporting period).
Numerator	Total number of HIV-positive individuals who had a CD4 lymphocyte count or VL, or who picked up ARVs or were seen at least once for HIV infection in the reporting period
Source	BHIS patient and lab records
Denominator	Estimated number of people living with HIV in the reporting period
Source	Estimates and projections (Spectrum)
Method	Numerator: Health facility records of patients in treatment. Number of patients with a CD4 lymphocyte count or VL, or who picked up ARVs or were seen at least once for HIV infection in the reporting period
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Data is collected continuously and reported annually
Disaggregation	Sex: female, male Age: 0-4, 5-14, 15+ Pregnant women
Strengths and weaknesses	This indicator measures progress in increasing survival among HIV-positive adults and children by maintaining them on antiretroviral therapy.
Data use	Retention on ART still remains a key challenge in Belize, with a wide range of improvement opportunities.

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Key Results Area	HIV Treatment
No. and name	18. Retention in Care
Indicator	Number and percentage of PLHIV retained in HIV health care services, during the reporting period
Reference	Outcome indicator 8. PAHO 2014 – 2.3 Fourth column of the cascade
Rationale	Ensuring that PLHIV remain in the treatment process is fundamental in order to obtain optimal health outcomes. For people who do not show signs that they immediately need ART, medical consultations offer the opportunity to detect, prevent and treat other disorders and comorbid conditions, as well as clinical and laboratory monitoring, so that ART can be initiated as soon as there are signs that the time is right to do so.
What it measures	Number and percentage of PLHIV in treatment services who: <ul style="list-style-type: none"> a) Have had two or more consultations in the last 12 months b) Have had a CD4 lymphocyte count two or more times in the last 12 months c) Have had their viral load measured two or more times in the last 12 months, or d) Have picked up ARVs at least three times in the last 12 months.
Numerator	Number of PLHIV with HIV treatment services who: <ul style="list-style-type: none"> a) Have had two or more consultations in the last 12 months b) Have had a CD4 lymphocyte count two or more times in the last 12 months c) Have had their viral load measured two or more times in the last 12 months, or d) Have picked up ARVs at least three times in the last 12 months.
Source	Patient treatment records and laboratory and pharmacy information system
Denominator	Estimated number of PLHIV
Source	HIV estimates and projections (Spectrum/EPP estimate)
Method	The numerator is obtained from patient treatment records and the laboratory and pharmacy information system. The denominator is obtained from Spectrum/EPP estimates
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Data is collected continuously and reported annually
Disaggregation	Sex: female, male Age: 0-14, 15+
Strengths and weaknesses	This indicator makes it possible to monitor trends in linkage and retention in health care services of people diagnosed with HIV. Where there are limitations in the provision of CD4 or VL testing, or stock-out situations, the indicator may underestimate the number of people retained in care.
Data use	Highlights progress made in retaining PLHIV in HIV health care and treatment services.

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Key Results Area	Treatment: HIV
No. and name	19. Currently on Antiretroviral Therapy (ART)
Indicator	Number of adults and children currently receiving antiretroviral therapy and percentage of total estimated PLHIV Fifth column of the cascade
Reference	Output/coverage indicator 5. PAHO 2014 – 3.1, Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 4.1
Rationale	As the HIV epidemic matures, increasing numbers of people are reaching advanced states of HIV infection. Antiretroviral therapy (ART) is a key intervention that has proven to be effective in reducing mortality and morbidity among PLHIV. ART should be provided in conjunction with broader care and support services.
What it measures	Progress towards providing antiretroviral therapy to all people eligible for treatment.
Numerator	Number of eligible adults and children currently receiving antiretroviral therapy at the end of the reporting period
Source	Programme records, BHIS, MoH
Denominator	Estimated number of children and adults living with HIV in the reporting period
Source	HIV estimates and projections annual report (Spectrum)
Method	For the numerator: facility-based antiretroviral therapy records, drug supply management systems. For the denominator: HIV estimation models (Spectrum)
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Data collection continuously, monthly or quarterly aggregation/analysis and annual reporting
Disaggregation	Sex: Female, Male Age: 0-5, >5 – 14, 15+
Strengths and weaknesses	The indicator makes it possible to measure the gap in the HIV continuum of care. It does not consider that, depending on national criteria, not all HIV-positive people are eligible for ART treatment. The indicator does not attempt to distinguish between different forms of antiretroviral therapy or to measure the cost, quality, or effectiveness of the treatment regimen provided.
Data use	This indicator of ART treatment is the most comparable year-to-year since it is independent of variations in eligibility for initiating treatment. Belize began reporting on the HIV treatment cascade indicators in its 2015 annual HIV statistical report from the Epidemiology Unit, Ministry of Health.

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Key Results Area	Treatment: HIV
No. and name	20. ART Retention
Indicator	Percentage of adults and children with HIV known to be on treatment 12, 24, 36 and 60 months after initiation of antiretroviral therapy
Reference	Outcome indicator 9. PAHO 2014 – 4.1, Global AIDS Response Progress Reporting Guidelines 2016 - 4.2a
Rationale	Antiretroviral therapy is a life-long intervention. Measuring retention on ART is critical to determine the effectiveness of programs and to highlight the obstacles to expanding and improving them.
What it measures	This indicator measures the retention on ART related to the increase in survival and adherence to the treatment. This indicator completes program coverage by measuring its effectiveness.
Numerator	Number of adults and children who continue on ART at; a) 12 months, b) 24 months, c) 36 months, and d) 60 months after initiating treatment (among those who initiated are: a) 1 year ago; b) 2 years ago; c) 3 years ago; d) 5 years ago.
Denominator	<p>If the reporting period were 2016:</p> <p>a) At 12 months: Total number of adults and children who initiated ART in 2015, who were expected to achieve 12-month outcomes within the reporting period, including those who have died since starting ART, those who have stopped ART, and those recorded as lost-to-follow-up at 12 months.</p> <p>b) At 24 months: Total number of adults and children who initiated ART in 2014, who were expected to achieve 24-month outcomes within the reporting period, including those who have died since starting ART, those who have stopped ART, and those recorded as lost-to-follow-up at 24 months.</p> <p>c) At 36 months: Total number of adults and children who initiated ART in 2013, who were expected to achieve 36-month outcomes within the reporting period, including those who have died since starting ART, those who have stopped ART, and those recorded as lost-to-follow-up at 36 months.</p> <p>d) At 60 months: Total number of adults and children who initiated ART in 2011, who were expected to achieve 60-month outcomes within the reporting period, including those who have died since starting ART, those who have stopped ART, and those recorded as lost-to-follow-up at 60 months.</p>
Source	Program monitoring tools, ART and HIV case monitoring register, and cohort analysis forms.
Method	In measuring retention, it is important to carefully select patients according to the period in which they initiated ART and to check their outcomes in the scheduled follow-up period. Assessing outcomes at 12 months should include all patients who initiated treatment one year ago; at 24 months, all patients who initiated treatment two years ago; at 36 months, all patients who initiated treatment three years ago; and at 60 months, all patients who initiated treatment five years ago.
Calculation	Numerator/denominator

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No. and name	20. ART Retention (cont.....)
Multiplier	X 100
Periodicity	Data is collected continuously and reported annually
Disaggregation	<p>Sex: female, male Age: 0-14, 15+ Pregnancy women or pregnant in the last 12 months Location: Districts and main cities</p> <p>Among the people who started treatment (denominator), in addition to reporting the number of people alive and on treatment (numerator), it is also important to report the number lost-to-follow-up, who abandoned treatment, and who died. These four results should add up to the number of people who initiated antiretroviral therapy. When generating information at site level, patients transferred in should be included in the statistics and patients transferred out should be excluded. From the compilation of site reports, if the number of patients transferred in and transferred out is added up at the national level, these statistics should be reported for 12-month analysis.</p>
Strengths and weaknesses	Continuation on ART is mostly related to survival (but also willingness to continue treatment). Survival may reflect the services offered, but also depends on the baseline characteristics of the patients who have started treatment. Clinical, immunological and virological staging are independent predictors of survival on ART. Baseline characteristics of the cohort of patients should help in interpreting the results and, in particular, comparing ART sites.
Data use	The numerator does not require patients to have been on antiretroviral therapy continuously for the 12-, 24-, 36-, or 60-month period. For example, patients who may have missed one or two appointments or drug pick-ups, and temporarily stopped treatment but who are recorded as still being in treatment at month 12, 24, 36 and 60, are included in the numerator. On the contrary, the numerator does not include those patients who have died, abandoned treatment, or are considered lost to follow-up at 12, 24, 36 and 60 months after initiating treatment. In countries where this indicator is not produced at all ART sites but only in a sub-set of facilities, the representativeness of the data should be kept in mind when interpreting it, and this should be stated in the "Comments" section. Note any particularly low retention and assess the reasons behind it by analysing the distribution of patients who are not on ART, either because they have died, stopped treatment, or are lost to follow up. If data are available, try to assess the lost-to-follow-up population to see if they are likely to have died, stopped treatment, or transferred out. Compare cohorts.

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Key Results Area	Treatment: HIV
No. and name	21. Suppressed Viral Load
Indicator	Number and percentage of PLHIV with suppressed viral load Six column of the cascade
Reference	Outcome indicator 10. PAHO 2014 – 5.1, Global AIDS Response Progress Reporting Guidelines 2016 - 4.6
Rationale	As the provision of the antiretroviral therapy expands in countries around the world, monitoring viral load offers information on an ART program’s success and give an idea of the amount of virus circulating in the country and the risk of transmission. In addition to serving as a way to assess the status of the epidemic in terms of achieving optimal health outcomes and reducing the risk of HIV transmission, this indicator also provides information on adherence to treatment and the prescription of effective drug regimens.
What it measures	This indicator measures the estimated proportion of patients in care who achieved virological suppression (viral load less than 1,000 copies/ml).
Numerator	Number of patients with a viral load under 1,000 copies/ml in the last test in the reporting period
Source	Patient records, BHIS
Denominator	Number of estimated persons living with HIV
Source	Estimates and projections (Spectrum)
Method	For the numerator, facility records on patients in treatment. The number of patients with a viral load under 1,000 copies is recorded, indicating virological suppression. The denominator is provided by Spectrum.
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Sex: female, male Age: <15, 15+
Strengths and weaknesses	If less than 70 percent (70%) of all patients in HIV care have their viral load measured, this will limit the use and interpretation of the indicator. This is a core indicator of the continuum of care cascade.
Data use	Several tests of HIV-1 viral load are available in the market. The range of detectable level of virus differ with each type of test. A viral load under the “undetectable” level indicates that the test is unable to detect HIV in the plasma, but does not mean that the virus is absent or eliminated from the body.

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Key Results Area	Treatment: HIV
No. and name	22. ARV Stock-Outs
Indicator	Number of ARV stock-outs, during the reporting period
Reference	Output/coverage indicator 6. Related to Global AIDS Response Progress Reporting Guidelines GARPR 2016 - 4.4, PAHO 2014 - 3.10
Rationale	As countries scale up ART services, it is important to ensure that ARVs are available to those who need them. ART is a long-term treatment strategy for people living with advanced HIV infection, and treatment interruptions may lead to treatment failure and HIV drug resistance. Efficient supply management is needed to ensure an uninterrupted supply of ARVs.
What it measures	This indicator measures a key aspect of ARV drug supply management: the number of stock-outs of at least one required ARV in the last 12 months. According to the PAHO-Horizontal Technical Cooperation Group operational definition based on the consensus of the 2010 Dominican Republic meeting: A stock-out is defined as a situation in which a product cannot be dispensed for lack of supplies and that causes the forced interruption of treatment in at least one patient.
Numerator	Number of stock-outs of one or more required ARV drug in the last 12 months
Denominator	Not applicable
Source	Health facility inventory control reports or requisition forms for ARVs
Method	This indicator requires the following tools; 1. Stock inventory control reports from health facilities, indicating the stock level of each reported item 2. Requisition forms for ARVs submitted from facilities during the reporting period 3. List of ARVs that each facility is expected to dispense, if not included in the inventory control reports or requisition forms
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Type of ARV involved, the cause and length of the stock-out, and the number of patients affected
Strengths and weaknesses	This indicator measures performance of the supply chain system. ART is a long-term treatment strategy for people living with HIV and interruptions may lead to treatment failure and HIV drug resistance. Efficient supply management is needed for an uninterrupted supply of ARVs.
Data use	An operational logistics management information system is required to report this indicator.

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Key Results Area	Treatment: HIV
No. and name	23. Late HIV Diagnoses
Indicator	Percentage of HIV-positive people with first CD4 cell count <200 cells/μl out of those who had a first CD4 count during the reporting period
Reference	Output/coverage indicator 7. Global AIDS Response Progress Reporting Guidelines GARPR 2016-4.5
Rationale	As countries scale up HIV services, it is important to monitor whether people are diagnosed at an earlier stage and what percentage is still diagnosed at a late stage.
What it measures	Measures the failure of VCT services to screen and diagnose PLHIV at an early stage of the infection.
Numerator	Number of HIV-positive people with first CD4 cell count <200 cells/μl in the reporting period
Denominator	Total number of HIV-positive people with first CD4 cell count performed during the reporting period
Source	Clinical and laboratory records, BHIS
Method	Data is compiled from clinical and laboratory records stored in the BHIS, MoH.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Continuously registered, aggregated quarterly and reported annually
Disaggregation	Sex: Female, Male Age: <15, 15+ years
Strengths and weaknesses	It measures the proportion of people with a CD4 cell count <200 cells/μl out of those who had a first CD4 count during the reporting period. As countries scale up HIV services, it is important to monitor whether people are diagnosed at an earlier stage and what percentage is still diagnosed at a late stage.
Data use	Analysis should take into consideration that the indicator does not distinguish between people given a late diagnosis and those who were late in seeking treatment. To link these variables, both dates (diagnosis and CD4 first testing) must be taken into consideration.

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Key Results Area	Treatment: HIV
No. and name	24. Training for HIV and TB Service Providers
Indicator	Percentage of HIV service providers and administrative staff who have received training to improve their job-specific performance, during the reporting period
Reference	Outcome/coverage indicator 8. National indicator
Rationale	Quality of HIV services is directly proportionate to the quality of those providing such services. Consequently, service providers and administrative staff require a capacity development plan, focusing on updated standard operational procedures (SOPs)
What it measures	Coverage of capacity-building trainings for key staff.
Numerator	Number of HIV services providers and administrative staff who have received training to improve their job-specific performance
Denominator	Total number of HIV services providers and administrative staff
Source	Human resources records
Method	The new NSP defines as a priority, the development of Standard Operational Procedures (SOP) to facilitate the transition of the health model, both regarding HIV/TB integration as well as integration to primary health services. All technical and administrative personnel should therefore be trained, based on a defined HHRR development plan.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Type of personnel: programme, administrative Programme component: PMTCT, Prevention, Care, Treatment, HIV/TB, Logistics, M&E SOPs developed
Strengths and weaknesses	MoH has defined performance-based management as a key managerial tool to ensure results and impact. This implies development of SOP and training key personnel to implement them.
Data use	The design of the HHRR development plan should include: technical and managerial aspects as well as a people-centred approach considering the respect of patients' human rights and the achievement of a health provision environment free of stigma and discriminations towards key populations.

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Key Results Area	Treatment: TB/HIV
No. and name	25. TB/HIV Mortality Rate
Indicator	Estimated number of HIV/TB deaths during the reporting period
Reference	Impact indicator 7. Global Fund TB/HIV I-1
Rationale	TB/HIV coinfection is one of the most important causes of morbidity and mortality. It is highly influenced by ART coverage. Reaching the goal of Zero Deaths requires effective measures in reducing TB/HIV coinfection.
What it measures	Progress towards the reduction and eventual elimination of deaths among people with HIV with TB as a contributory cause
Numerator	Estimated number of HIV positive people who die of HIV with TB as a contributory cause of death
Denominator	Total population in the specified area
Source	Global TB report
Method	The data on TB/HIV mortality are generated by the Spectrum programme used by HIV and now by TB programmes at country level.
Calculation	Numerator/denominator
Multiplier	X 100,000
Periodicity	Annual
Disaggregation	None
Strengths and weaknesses	This indicator measures the effectiveness of collaborative activities for HIV/TB. Co-management of HIV/TB as defined in the NSP is expected to substantially reduce related mortality. Since it is modelled (not measured directly, particular care is needed when making interpretations as it can change as a result of updates in the underlying model implemented in Spectrum.
Data use	NSP 2016-2020 is the first one of its kind as it presents a joint approach to both diseases. Reducing HIV/TB mortality remains an important challenge for Belize. Thus, information provided by this indicator is important to scale-up timely diagnose and treatment of TB among PLHIV in care.

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Key Results Area	Treatment: HIV/TB
No. and name	26. Estimated TB/HIV Incidence
Indicator	Estimated TB/HIV incidence rate per 100,000 population, during the reporting period
Reference	Impact indicator 6. Global Fund G2-2; TB I-2
Rationale	TB/HIV coinfection is one of the most important causes of morbidity and mortality. This indicator tracks the effectiveness of interventions to reduce TB/HIV coinfection.
What it measures	Epidemic trends in the number of new cases of TB in persons with HIV
Numerator	Estimated number of new TB/HIV cases during the reporting period
Source	Global TB Report
Denominator	Population
Source	Global TB Report
Method	The data on TB/HIV mortality are generated by the Spectrum programme used by HIV and now by TB programmes at country level.
Calculation	Numerator/denominator
Multiplier	X 100,000
Periodicity	Annual
Disaggregation	None
Strengths and weaknesses	This indicator measures the effectiveness of TB prophylaxis among persons with HIV in care, which focuses on reducing new TB/HIV cases. Since it is modelled (not measured directly, particular care is needed when making interpretations as it can change as a result of updates in the underlying model implemented in Spectrum.
Data use	NSP 2016-2020 is the first one of its kind as it presents a joint approach to both diseases. The implementation of the TB/HIV concept note financed by the Global Fund, joint efforts are expected to increase access to timely prevention interventions, therefore reducing new TB/HIV cases.

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Key Results Area	Treatment: HIV/TB
No. and name	28. TB Case Notification Rate
Indicator	Case notification rate of all forms of TB per 100,000 population bacteriologically-confirmed plus clinically diagnosed, new and relapse cases, during the reporting period
Reference	Outcome indicator 11. Global Fund TB O-1a
Rationale	Case notification of all forms of TB is fundamental to develop an effective response and to track improvements in diagnosis, as a first step to access treatment.
What it measures	Number of all forms of TB cases notified including cases bacteriologically confirmed and those clinically diagnosed
Numerator	Number of registered cases of all forms of TB bacteriologically-confirmed plus clinically diagnosed, new and relapse cases, during the reporting period
Source	TB programme records complemented with lab records
Denominator	Population
Source	Statistics Institute of Belize
Method	TB programme records will be cross-checked with lab records to ensure data quality
Calculation	Numerator/denominator
Multiplier	X 100,000
Periodicity	Annual
Disaggregation	Sex: Female, Male Age: <15, 15+ years Type of TB New and relapse cases Location: District and main cities
Strengths and weaknesses	This indicator measures progress made to improve diagnose of all types of tuberculosis
Data use	With the implementation of the TB/HIV concept note financed by the Global Fund, it is expected to increase access to timely diagnose of all forms of TB

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Key Results Area	Treatment: HIV/TB
No. and name	29. Successful TB Treatment
Indicator	Number of TB cases, all forms, bacteriologically confirmed plus clinically diagnosed, successfully treated (cured plus treatment completed) among all new TB cases registered for treatment during the reporting period
Reference	Outcome indicator 12. Global Fund DOTS - 2a
Rationale	The success of TB treatment show the effectiveness of treatment interventions in TB patients. It is the goal to be achieved. Its monitoring identifies gaps and facilitates the identification of corresponding measures to reduce these.
What it measures	Number of all forms of TB cases, bacteriologically confirmed plus clinically diagnosed who were cured and their treatment completed
Numerator	Number of TB cases, all forms, bacteriologically confirmed plus clinically diagnosed, successfully treated (cured plus treatment completed)
Source	TB programme records will be cross-checked with lab records to ensure data quality
Denominator	Number of all new TB cases registered for treatment during the reporting period
Source	TB programme records complemented with lab records
Method	TB programme records will be cross-checked with lab records to ensure data quality
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Sex: Female, Male Age: <15, 15+ years Location: District and main cities
Strengths and weaknesses	This indicator measures success rate of TB treatment interventions.
Data use	Implementation of international TB guidelines is crucial to improve treatment success rates.

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Key Results Area	Treatment: HIV/TB
No. and name	30. TB Screening in People Living With HIV
Indicator	Percentage of adults and children enrolled in HIV care who had TB status assessed and recorded during their last visit , during the reporting period
Reference	Output/coverage indicator 9. Global Fund TB/HIV-3, PAHO 2014 - ??
Rationale	Tuberculosis (TB) is a leading cause of morbidity and mortality in PLHIV, including those on antiretroviral therapy. Intensified TB case-finding and access to quality diagnosis and treatment of TB in accordance with international/national guidelines is essential for improving both quality of life and life expectancy for PLHIV. A measure of the percentage of HIV-positive TB cases that access appropriate treatment for their TB and HIV is important.
What it measures	Progress in ensuring universal access to TB screening among people living with HIV linked to services.
Numerator	Number of HIV-positive patients enrolled in HIV care who were screened for TB during the reporting period
Denominator	Total number of HIV-positive patients enrolled in HIV care
Source	Programme and laboratory records, BHIS
Method	Programme and laboratory records will be cross-checked to define the numerator
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Sex: Female, Male Age: <15, 15+ years Location: District and main cities
Strengths and weaknesses	This indicator measures progress made in improving TB prophylaxis in HIV-positive patients.
Data use	Adults and adolescents living with HIV who do not report any one of the symptoms (current cough, fever, weight loss or night sweats) are unlikely to have active TB and should be offered TB preventive therapy, that is treatment for latent TB infection. Similarly, children who do not have poor weight gain, fever or current cough should be offered this therapy to reduce the risk of developing active TB, both those on antiretroviral therapy and those who are not.

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Key Results Area	Treatment: HIV/TB
No. and name	31. TB Prophylaxis/Isoniazid Preventive Therapy (IPT)
Indicator	Percentage of adults and children in HIV care starting isoniazid preventive therapy (IPT) , during the reporting period
Reference	Output/coverage indicator 10. PAHO 2014 – 2.4, WHO 2015 - A.5, Global AIDS Response Progress Reporting Guidelines GARPR 2016 – 11-3
Rationale	TB prophylaxis in PLHIV linked to care ensure that eligible HIV-positive individuals are given treatment for latent TB infection to reduce the incidence of TB in them. Its measurement strengthens TB screening and initiation of treatment for latent TB infection among PLHIV.
What it measures	Number of adults and children newly enrolled in HIV care who are started on treatment for latent TB infection (isoniazid preventive therapy, also called isoniazid prophylaxis), expressed as a proportion of the total number of adults and children newly enrolled in HIV care during the reporting period.
Numerator	Total number of adults and children newly enrolled in HIV care who start (are given at least one dose of) IPT during the reporting period
Denominator	Total number of adults and children newly enrolled in HIV care during the reporting period
Source	HIV care and treatment records
Method	The data needed for this indicator are collected from patient records at the HIV care service sites where the IPT is to be provided. HIV-positive individuals should be screened for TB. Those who are found not to have evidence of active TB will be offered IPT, in accordance with national guidelines. All those accepting IPT and receiving at least the first dose of treatment should be recorded.
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Sex: female, male Age: <15, 15+
Strengths and weaknesses	Treatment of latent TB infection will reduce the incidence of TB disease developing in PLHIV who are infected with TB but have no active TB disease. This information is the minimum necessary to ensure that IPT is being offered to HIV-positive individuals without clinical signs of active TB.
Data use	Tracks progress in reaching universal coverage of TB prophylaxis among newly enrolled PLHIV, as an effective way to prevent TB infection in this population.

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Key Results Area	Treatment: HIV/TB
No. and name	32. Co-management of Tuberculosis and HIV Treatment
Indicator	Percentage of estimated HIV-positive incident tuberculosis (TB) cases that received treatment for both TB and HIV, during the reporting period
Reference	Output/coverage indicator 11. PAHO 2014 – 3.7, Global AIDS Response Progress Reporting Guidelines GARPR 2016 11.1
Rationale	Tuberculosis (TB) is a leading cause of morbidity and mortality in PLHIV, including those on antiretroviral therapy. Intensified TB case-finding and access to quality diagnosis and treatment of TB in accordance with international and national guidelines is essential for improving both quality of life and life expectancy for PLHIV. A measure of the percentage of HIV-positive TB cases that access appropriate treatment for their TB and HIV is important.
What it measures	Progress in detecting and treating TB in people living with HIV.
Numerator	Number of HIV positive people who received antiretroviral combination therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) and who were started on TB treatment (in accordance with national TB program guidelines) in the reporting period
Source	Programme records, BHIS, MoH
Denominator	Estimated number of incident TB cases in people living with HIV.
Source	WHO annual estimates http://www.who.int/tb/country/data/download/en/
Method	Facility antiretroviral therapy records and reports provide data for the numerator. Data and estimates of incident TB cases in PLHIV for the denominator. Annual estimates of the number of incident TB cases in PLHIV in high TB burden countries are calculated by WHO and are available on the website.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Data is collected continuously at the facility level, aggregated periodically, preferably monthly or quarterly, and reported annually.
Disaggregation	Sex: female, male Age: <15, 15+
Strengths and weaknesses	This indicator measures progress made in detecting and treating TB in people living with HIV.
Data use	TB is a leading cause of morbidity and mortality in people living with HIV, including those on antiretroviral therapy. Intensified TB case-finding and access to quality diagnosis and treatment of TB in accordance with international/national guidelines is essential to improve the quality and quantity of life for people living with HIV.

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Key Results Area	Treatment: HIV/TB
No. and name	33. HIV Diagnosis in TB Patients
Indicator	Number and percentage of registered new and relapse TB patients with documented HIV-positive status, during the reporting period
Reference	Output/coverage indicator 12. WHO 2015 A.2
Rationale	HIV testing offers a gateway for HIV prevention interventions and provision of ART to reduce transmission and mortality. Measurement of the proportion of HIV positive TB patients defines a population group eligible for such specific intervention
What it measures	This indicator tracks coverage of HIV diagnosis in new and relapse TB patients
Numerator	Number of registered new and relapse TB patients who are found to be HIV-positive
Denominator	Number of registered new and relapse TB patients
Source	TB and laboratory records
Method	TB and laboratory records provide data for the numerator and denominator to build this indicator. The numerator represents those new and relapse TB patients who were screened for HIV, that is were tested for HIV, which the denominator represents all registered TB patients during the reporting period.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Data is collected continuously at the facility level, aggregated periodically, preferably monthly or quarterly, and reported annually.
Disaggregation	None
Strengths and weaknesses	This indicator measures progress made in detecting and treating TB in people living with HIV.
Data use	It helps targeting resources, strategic planning and monitoring effectiveness of interventions over time. It may also provide an indication of the burden of HIV among those having TB.

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Key Results Area	Treatment: HIV/TB
No. and name	34. ART Coverage in HIV+ TB Patients
Indicator	Number and percentage of HIV positive, new and relapse TB patients on ART during TB treatment, in the reporting period
Reference	Output/coverage indicator 13. WHO 2015 A.4
Rationale	Undiagnosed HIV-associated TB is nearly always fatal. Prompt detection and treatment of both HIV and TB are critical.
What it measures	This indicator measures progress made in ensuring universal ART coverage on HIV-associated TB cases.
Numerator	Number of HIV-positive new and relapse TB patients who receive ART during TB treatment
Denominator	Number of HIV-positive new and relapse TB patients on TB treatment
Source	TB and lab records
Method	Facility antiretroviral therapy records and reports as well as programme monitoring tools provide required information to build the numerator. For the denominator, the most recent year for which data and estimates are available should be reported here.
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Data is collected continuously at the facility level, aggregated periodically, preferably monthly or quarterly, and reported annually.
Disaggregation	None
Strengths and weaknesses	Strengths: It tracks a life-saving intervention, which improves survival probability and quality of life of HIV+ TB patients in treatment. Weaknesses: Measurement of this indicator requires that HIV and TB programmes work closely and ensure prompt treatment for both HIV and TB.
Data use	HIV is a leading cause of morbidity and mortality among TB patients receiving treatment. Intensified HIV diagnosis and prompt access to ART in accordance with international/national guidelines is essential to improve the quality and quantity of life of TB patients receiving TB treatment.

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Key Results Area	Removing Barriers
No. and name	35. Discriminatory Attitudes Towards PLHIV
Indicator	Number and percentage of women and men aged 15-49 who report discriminatory attitudes towards people living with HIV, during the reporting period
Reference	Outcome indicator 13 Global AIDS Response Progress Reporting Guidelines GARPR 2016 – 8.1
Rationale	Discrimination is a human rights violation prohibited by international human rights law and most national constitutions. Discrimination in the context of HIV refers to unfair or unjust treatment (as an act or an omission) of an individual based on his or her real or perceived HIV status. Discrimination exacerbates risks and deprives people of their rights and entitlements, fuelling the HIV epidemic.
What it measures	This indicator is not a direct measure of discrimination but rather a measure of discriminatory attitude that may result in discriminatory actions (or omissions).
Numerator	Number of interviewed people aged 15-49 who respond “NO” to either of two questions
Denominator	Number of all interviewed people aged 15-49 who have heard of HIV
Source	Population-based survey
Method	This indicator is constructed from responses to the following questions in a general population survey from respondents who have hear of HIV: <ul style="list-style-type: none"> • Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV? (Response options: Yes, no, don’t know, not sure/depends) • Do you think children living with HIV should be able to attend school with children who are HIV negative? (Response options: Yes, no, don’t know, not sure/depends)
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Every three to five years
Disaggregation	Sex: female, male; Age: 15-19, 20-24, 25-49, responses to each of the individual questions
Strengths and weaknesses	Strengths: This indicator directly measures discriminatory attitudes that may result in discriminatory actions (or omissions) One item measures the potential support by respondents for discriminations that takes place at an institution, while the other measures social distancing or behavioural expressions of prejudice. Weaknesses: Respondent bias
Data use	The composite indicator can be monitored as a measure of a key manifestation of HIV-related stigma and the potential for HIV-related discrimination within the general population.

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Key Results Area	Removing Barriers
No. and name	36. Discriminatory Attitudes Towards LGBTI and Sex Workers
Indicator	Percentage of women and men aged 15-49 who report discriminatory attitudes towards LGBTI and sex workers, during the reporting period
Reference	Outcome indicator 14 Based on LAC regional stigma and discrimination indicators
Rationale	Discrimination is a human rights violation prohibited by international human rights law and most national constitutions. Discrimination in this context refers to unfair or unjust treatment (as an act or an omission) of an individual based on his or her real or perceived of sexual orientation and/or sex work. Discrimination exacerbates risks and deprives people of their rights and entitlements, fuelling the HIV epidemic.
What it measures	This indicator is not a direct measure of discrimination but rather a measure of discriminatory attitude that may result in discriminatory actions (or omissions).
Numerator	Number of interviewed people aged 15-49 who respond “NO” to either of two questions
Denominator	Number of all interviewed people aged 15-49 who have heard of sexual orientation and sex work
Source	Population-based survey
Method	This indicator is constructed from responses to the following questions in a general population survey from respondents who have hear of HIV: <ul style="list-style-type: none"> Do LGBTI populations have the right to express their sexual orientation? (Response options: Yes, no, don't know, not sure/depends) Are sex workers entitled to be respected as citizens? (Response options: Yes, no, don't know, not sure/depends)
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Every three to five years
Disaggregation	Sex: female, male; Age: 15-19, 20-24, 25-49, responses to each of the individual questions
Strengths and weaknesses	Strengths: This indicator directly measures discriminatory attitudes that may result in discriminatory actions (or omissions) One item measures the potential support by respondents for discriminations that takes place at an institution due to sexual orientation, while the other measures lack of acceptance of human rights of sex workers as behavioural expressions of prejudice. Weaknesses: Prevailing levels of stigma and discrimination make these topics very sensitive among general population, thus challenging to be highlighted, approached and supported by key decision-makers
Data use	The composite indicator can be monitored as a measure of a key manifestation of HIV-related stigma and the potential for sexual orientation and sexual work discrimination within the general population

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Key Results Area	Removing Barriers
No. and name	37. Elimination of Legal Barriers
Indicator	Number of discriminatory laws and policies affecting PLHIV, key and vulnerable populations that have been repealed or reformed, as a percentage of all repealed and reformed laws during the reporting period, disaggregated by population and type of legal barrier
Reference	Outcome indicator 15. Based on LAC regional stigma and discrimination indicators
Rationale	The legal and regulatory framework must play an important role in removing legal barriers towards PLHIV, key and vulnerable populations. To repeal or reform discriminatory laws or other normative instruments contributes to safeguard human rights of PLHIV, key and vulnerable populations and to create a more inclusive society, respectful of human rights, particularly of these populations.
What it measures	Progress made in the legal and regulatory framework to protect PLHIV, key and vulnerable populations from discriminatory practices by repealing or reforming discriminatory laws and policies affecting PLHIV, key and vulnerable populations
Numerator	Number of discriminatory laws or other normative instruments repealed or reformed , affecting human rights of people living with HIV, key and vulnerable populations during the reporting period
Denominator	Total number of laws or other normative instruments repealed or reformed during the reporting period
Source	Special study
Method	External review of approved laws and other normative instruments during the reporting period, identifying those that protect/safeguard human rights of PLHIV, key and vulnerable populations
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Every two three to five years
Disaggregation	Sex, Age: 15-19, 20-24, 25+, type of population, and type of barrier
Strengths and weaknesses	Strengths: Increasing awareness of the importance of eliminating legal barriers as key to the development of a favourable and inclusive environment, respectful of human rights of all people. Weaknesses: Indicators are yet being piloted and require strong advocacy and political will.
Data use	Advocacy purpose and identification of legal gaps to be closed.

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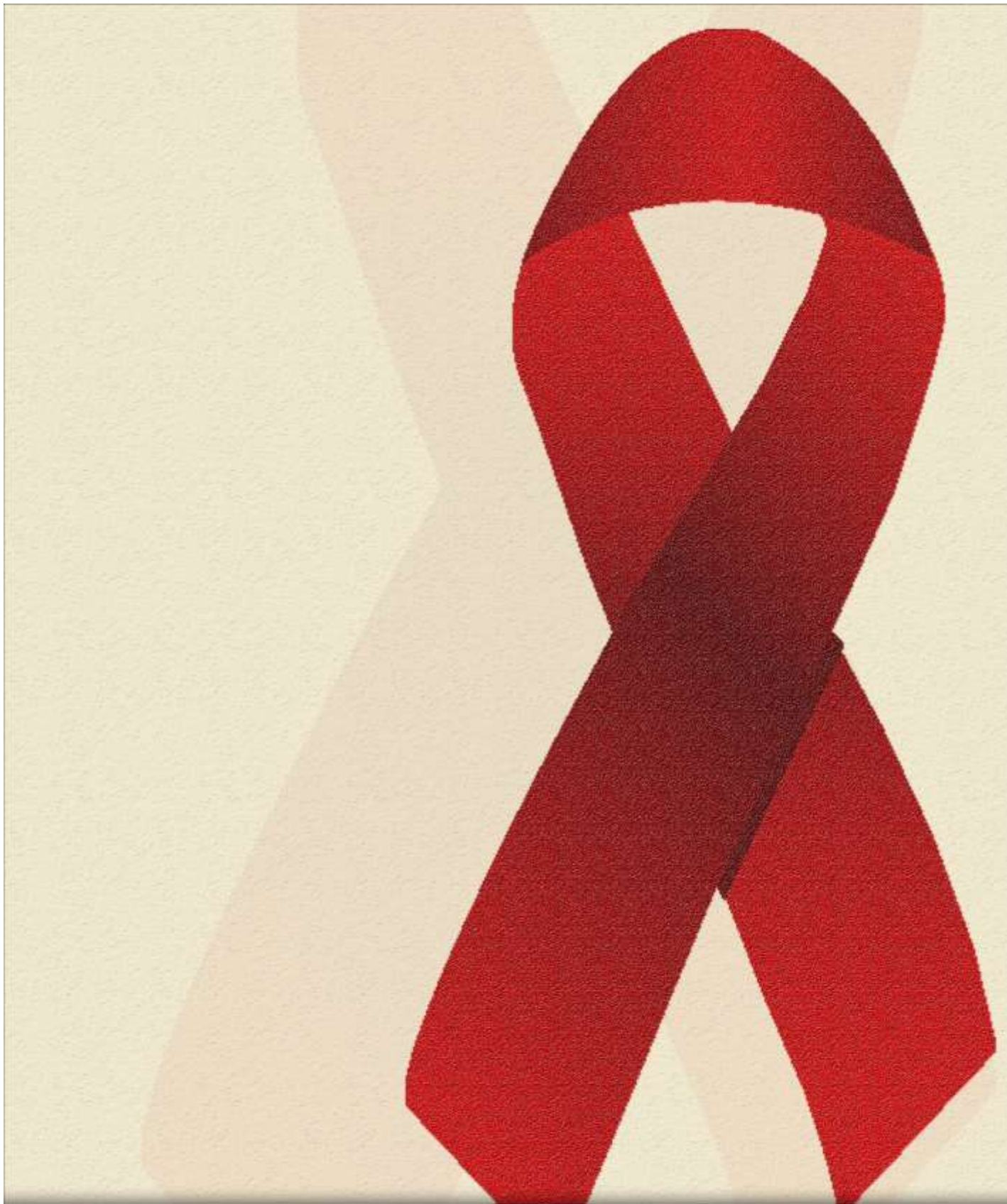
Key Results Area	Removing Barriers
No. and name	38. Endorsement of Protective Laws
Indicator	Number of protective laws or other normative instruments approved, that safeguard human rights of people living with HIV, key and vulnerable populations, as a percentage of all approved laws during the reporting period.
Reference	Outcome indicator 16. Based on LAC regional stigma and discrimination indicators
Rationale	The legal and regulatory framework must play an important role in removing legal barriers towards PLHIV, key and vulnerable populations. The approval of protective laws or other normative instruments that safeguard human rights of PLHIV, key and vulnerable populations contributes to the development of a more inclusive society, respectful of human rights, particularly of these populations.
What it measures	Progress made in the legal and regulatory framework to protect PLHIV, key and vulnerable populations from discriminatory practices
Numerator	Number of protective laws or other normative instruments approved, that safeguard human rights of people living with HIV, key and vulnerable populations during the reporting period
Denominator	Total number of laws or other normative instruments approved during the reporting period
Source	Special study
Method	External review of approved laws and other normative instruments during the reporting period, identifying those that protect/safeguard human rights of PLHIV, key and vulnerable populations
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Every three to five years
Disaggregation	Sex, Age: 15-19, 20-24, 25+, type of population, and type of barrier
Strengths and weaknesses	Strengths: Increasing awareness of the importance of eliminating legal barriers as key to the development of a favourable and inclusive environment, respectful of human rights of all people. Weaknesses: Indicators are yet being piloted and require strong advocacy and political will.

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Key Results Area	Removing Barriers
No. and name	39. Discrimination in Health Services
Indicator	Percentage of PLHIV, key and vulnerable populations, who report having experiences discrimination in health services, including denial of services and institutional violence, during the reporting period
Reference	Outcome indicator 17. Based on LAC regional stigma and discrimination indicators
Rationale	Achieving “Zero discrimination” as a global target, implies tracking discrimination acts, including denial of services and institutional violence, in health services towards PLHIV, key and vulnerable populations. These represent one of the most common complaints presented by such population subgroups.
What it measures	Progress in the elimination of discriminatory practices towards PLHIV, key and vulnerable populations in health services
Numerator	Number of PLHIV, key and vulnerable populations interviewed, who report having experiences discrimination in health services, including denial of services and institutional violence
Denominator	Total number of PLHIV, key and vulnerable populations interviewed
Source	Special study
Method	Acts of discrimination reported by interviewed PLHIV, key and vulnerable populations
Calculation	Numerator/denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Sex: female, male; Age: 15-19, 20-24, 25+, PLHIV, population subgroup, type of health service, type of discrimination, and district
Strengths and weaknesses	Strengths: increased awareness on the importance of developing of indicators to track the elimination of discrimination among PLHIV and key populations. Weakness: these indicators are currently being piloted and still need to become an integral part of HIV monitoring frameworks.
Data use	Track progress towards the development of enabling environments, respectful of human rights, as a key requirement to reduce new HIV infections. Advocacy purposes and programmatic development.

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Key Results Area	Removing Barriers
No. and name	40. Acts of Violence
Indicator	Number of reported acts of violence, including murder, against LGBTI and sex workers as a percentage of all registered acts of violence during the reporting period
Reference	Outcome indicator 18. Based on LAC regional stigma and discrimination indicators
Rationale	Reaching Zero Discrimination, is a global target that requires the development of adequate tracking mechanisms. Acts of violence, including murder, are the worst expression of discriminatory attitudes towards key populations. An inclusive society respects human rights of all its citizens and does not remain unaware of such acts.
What it measures	Reported acts of violence against LGBTI and sex workers.
Numerator	Number of reported acts of violence, including murder, against key populations (LGBTI and SWs)
Denominator	Total number of registered acts of violence that occurred during the reporting period
Source	Police records
Method	Special study
Calculation	Numerator/Denominator
Multiplier	X 100
Periodicity	Annual
Disaggregation	Key population, type of violence, district
Strengths and weaknesses	Strengths: increased awareness on the importance of developing of indicators to track the elimination of discrimination among PLHIV and key populations. Weakness: these indicators are currently being piloted and still need to become an integral part of HIV monitoring frameworks.
Data use	Track progress towards the development of enabling environments, respectful of human rights, as a key requirement to reduce new HIV infections. Advocacy purposes and programmatic development.



National AIDS Commission
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