M&E Plan for the National Strategic Plan for HIV/STIs, TB and Viral Hepatitis

Goal of the National M&E Plan

The National M&E Plan is aligned with the strategic priorities of the NSP 2021 – 2025.

The national M&E Plan is also developed in accordance with the UNAIDS "Three One's" principle of:

- One agreed HIV and AIDS Action framework
- One national AIDS Coordinating authority
- One agreed monitoring and evaluation framework

The third One is important because it promotes:

- Data based on national needs rather than individual donors
- Production of high quality, relevant, accurate and timely data
- Submission of reports to international bodies under a unified global effort
- Efficient and effective use of data and resources
- Synthesis of data from multiple sources
- Greater transparency, coordination and communication among different partners.

The M&E Plan takes into consideration the findings of the Situational Analysis for the National HIV/STI, VH and TB response and the recommendations for improving strategic information. It therefore places more emphasis on results-based monitoring and evaluation with the main purpose of using information for decision making.

The overall goal of the national M&E plan is to provide a systematic approach to tracking activities related to the NSP strategic areas by identifying key indicators that will allow for accurate, reliable and timely reporting towards improving implementation of the national response. The plan spells out details of what information is needed including: indicators, data sources, data flow, analysis, and use, as well as the responsibilities of key stakeholders.

Objectives of the M&E Plan

The objectives of M&E are three-fold and are linked in a continuous process of learning from past experiences, effect better decisions that can lead to improved programming and contribute to greater accountability to stakeholders.[1]

The objectives of the M&E Plan are therefore to:

- To facilitate the generation of accurate, timely and relevant data and intelligence on the results and impact of the national response to HIV/STIs, Viral Hepatitis and TB.
- To guide the use of strategic information that allows for the adequate provision of oversight, decision making and policy and program direction to continuously improve the implementation of the NSP.
- To provide strategic guidance in the further capacity development of the national M&E system
- To facilitate data dissemination among implementing partners and stakeholders.

[1] UNDP Handbook for Monitoring and Evaluating 2002

Through this M&E Plan, data will be triangulated from all sources including surveillance, vital statistics, the BHIS, estimation exercises, research and special studies to generate prevalence and incidence information and to support the development of national prevention and continuum of care cascades for MSM, transgender persons, migrant populations, adolescents, men and for the general population.

M&E Plan Development Process

The Plan was developed through a consultative process with key stakeholders including the NAC/CCM, NAP, other Ministry of Health and Wellness departments such as the Epidemiology Unit, development partners and technical agencies (PAHO/WHO and UNAIDS) and civil society actors. The plan builds upon and complements the NSP as well as implementation experiences of the previous M & E plan. Results from the Situational Analysis also provided a platform for the development of this plan.

Recommendations for the new NSP

The Situational Analysis was conducted for the national HIV/STI, TB and Viral Hepatitis Response in May 2020. The gaps identified in the national program revolved around the following:

- Governance of data processes for surveillance and monitoring
- Availability of data
- Quality control
- Production of dashboards and disaggregated analysis for decision making
- Dissemination and use of information at all levels

The following recommendations were therefore provided as it relates to Strategic information:

- Align impact indicators with global/regional ones included in PAHO/WHO and UNAIDS frameworks.
- Develop and implement strategies to improve reporting, information sharing and communication between national response partners and stakeholders, and with the general public.

This M&E Plan was developed to address the gaps acknowledged above and other areas of priority that have been identified in the national consultation meeting including:

- Clearly defined functional roles for data reporting and analysis
- Connecting all service providers for HIV/STIs, Hepatitis and TB to the BHIS for comprehensive reporting
- Integrating, linking and triangulating surveillance (vital statistics), program data and data from the BHIS for a more comprehensive understanding of the epidemic and drivers of mortality to understand the burden of the diseases and to guide policy and programs. It is important to link, integrate and triangulate data on migrants.
- Making available high-quality data to all stakeholders on HIV/STIs, Hepatitis and TB
- Monitoring and reporting on prevalence data for HIV/STIs, Hepatitis and TB prevalence among pregnant women, MSM, SWs, blood donors and other sub-populations.
- Updating prevention and treatment cascades by age, gender, population and sub-groups, including cascades for Hepatitis B and C.
- Reviewing current data collection and information system to enable monitoring services for key populations and developing and reporting on KPs prevention and treatment cascades.
- Review current data collection and information systems to integrate viral hepatitis core indicators and produce epidemiological and programmatic data for decision making.

- Strengthen STI case reporting and prevalence reporting.
- Conduct anti-microbial surveillance.
- Establishing reporting portal that produces dashboards and disaggregated analysis for stakeholders in a timely manner including data from evaluation of services and interventions, analysis of STI data, cascade data, mortality analysis and testing data.
- Establishing systems, protocols, SOPs and implement routine data quality control measures.
- Jointly defining key data products and implement a dissemination plan for stakeholders.
- Establishing a forum for data sharing.

International and regional commitments as it relates to Monitoring and Evaluation

The Belize Government has signed on to international and regional commitments for HIV, STIs, viral hepatitis and TB. These commitments form the basis for guiding the national response to these disease areas. Key to these commitments are the United Nations (UN) Sustainable Development Goals (SDGs), in particular SDG 3, target 3.3 which provides a mandate for integrated and holistic development efforts, "to end the AIDS epidemic by 2030, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases".2 Also of high importance to the NSP is the UNAIDS Fast Track Strategy which provides guidance on far-reaching, people-centered goals and targets for ending the AIDS epidemic by 2030. These targets are taken into consideration in the identification of priority indicators for the NSP.

Key M&E Concepts and Trends described in the Plan Monitoring

Monitoring is the systematic process of collecting, analyzing and using information to track a program's progress toward reaching its objectives and to guide management decisions. Monitoring usually focuses on processes, such as when and where activities occur, who delivers them and how many people or entities they reach.

Monitoring is conducted after a program has begun and continues throughout the program implementation period. Monitoring is sometimes referred to as *process, performance or formative evaluation*. (Adapted from Gage and Dunn 2009, Frankel and Gage 2007, and PATH Monitoring and Evaluation Initiative)

Evaluation

Evaluation is the systematic assessment of an activity, project, program, strategy, policy, topic, theme, sector, operational area or institution's performance. Evaluation focuses on expected and achieved accomplishments, examining the results chain (inputs, activities, outputs, outcomes and impacts), processes, contextual factors and causality, in order to understand achievements or the lack of achievements. Evaluation aims at determining the relevance, impact, effectiveness, efficiency and sustainability of interventions and the contributions of the intervention to the results achieved. (Adapted from Gage and Dunn 2009, Frankel and Gage 2007)

[2] Sustainable Development Goals , 2015

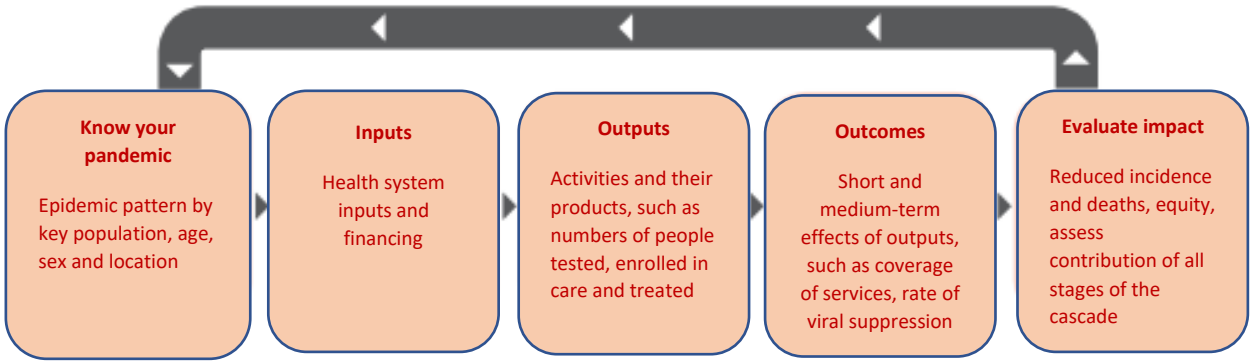
An evaluation should provide evidence-based information that is credible, reliable and useful. The findings, recommendations and lessons of an evaluation should be used to inform the future decision-making processes regarding the program.

The HIV Result Chain- from input to impacts

The Result Chain, as outlined by WHO in its 2015 Consolidated Strategic Information Guidelines for HIV in the Health Sector and shown in Figure 1, is a logical framework that includes input, output, outcome and impact indicators which allow for a comprehensive review to identify gaps that can be addressed to improve the national response.

An indicator is a statement that describes the level of performance achieved in relation to a set of objectives. It provides evidence that a certain condition exists or certain results have or have not been achieved. Indicators can be quantitative or qualitative.

Figure 1: Result Chain for the Health Sector Response to HIV



The M&E Plan focuses on output, outcome and impact indicators:

Input indicators: the resources invested to achieve outputs in terms of their availability or accessibility. They include finance, persons, equipment, training services, etc.

Process indicators: these measure achievements of putting in place certain activities that will lead to outputs. Sometimes process indicators are referred to as through-puts;

Outputs: These are immediate tangible results of the activities conducted. They are usually expressed in quantities, either in absolute numbers or as a proportion of a population.

Outcomes: they are the medium-term results of one or several activities. Outcomes measure the level of change of personal or group behavior as well as institutional processes and practices. They are what the immediate outputs of the activities are expected to lead to. They often require separate surveys to be measured.

Impact: These refer to the highest level of results, to the long-term results expected of the project, program or intervention. They measure the manifestations on the highest level of the results-chain. For instance, with HIV or TB, these are the disease- and epidemiology-related manifestations and trends, such as mortality and morbidity.

Outcome and impact indicators are higher-level effect indicator, as achievements of outcomes and impact are detectable only after some time. Multiple different efforts and factors contribute to their achievement.

The Treatment Cascade

To achieve a reduction in disease transmission, the national program should guarantee a set of effective, high-quality services, including testing, referrals to health care services, determination of eligibility to start treatment, and support for the adherence and retention of patients in care.

The cascade is a monitoring framework that uses cross-sectional indicators to quantify the number of people diagnosed, linked to care, retained in care, on treatment, and with a suppressed viral load, as a proportion of the estimated number of people living with HIV in the country (data generated by EPP/Spectrum models or retroactive calculation) in a given reporting year.

The Treatment Cascade allows for the national response to track patients as they interact with prevention, treatment and care services, identifying coverage of the eligible populations and areas of attrition along the continuum of services. With an integrated NSP, it is important that the cascade is developed across the priority disease areas and among sub populations including MSM, pregnant women and youth. The Continuum of Care or HIV Treatment Cascade establishes the following six stages and measurements:

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)

Developing Cascades for Sub-populations

In addition to a cascade for PLHIV, the NAC will also utilize program data and estimates data to develop cascades for sub-populations including MSM, youth and pregnant women. Dissecting the national data by these groups will allow for more targeted interventions along the continuum of care specific to each group. For key populations (MSM), updated size estimates will need to be developed to determine the estimated members of the MSM population in Belize. This can be an exercise attached to the next bio-behavioral survey or other population-based survey or can also be conducted as a separate exercise by the national program such as the Capture-Recapture method.

Coordination for M&E

For the NSP M&E system to function effectively, a variety of stakeholders need to work together at different levels. The MoHW and NAC has the mandate and authority to coordinate M&E activities for this Strategic Plan in collaboration with relevant partners and stakeholders. Monitoring, evaluation and reporting on biomedical interventions will be led by the MoHW. The NAC will lead on reporting related to advocacy, the enabling environment- stigma and discrimination and human rights and resource mobilization and sustainability. The NAC and MoHW will collaborate and share data across the program areas for a comprehensive understanding of the response.
The following entities play key roles in the monitoring and evaluation of the new NSP in Belize:

The National AIDS Commission (NAC)

Oversight and operationalization of the components of the M&E plan will be facilitated through the M&E Sub Committee and the roles and responsibilities of the M&E Officer within the NAC Secretariat. The NAC therefore coordinates information gathering, processing and dissemination on key aspects of the national response and utilizing this to improve decision- making and advocate for policy development.

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 will continue to function as the technical body of the NAC on all issues related to monitoring and evaluating in relation to advocacy, the enabling environment, stigma and discrimination, human rights, sustainability and resource mobilization. Its chief responsibility is oversight of the M&E in those area, including key routine data collection and reporting functions. It also provides oversight for key studies under the NAC such as the stigma index survey.

The committee also leads the processes for international reporting such as for the Global AIDS Monitoring reports.

The Ministry of Health and Wellness

The MOHW is a key player in the provision of health services for HIV/STIs, TB and Viral Hepatitis. It will deliver the essential package of clinical and biomedical treatment and care interventions for the diseases and therefore carries chief responsibility for strategic information in these areas. It ensures the adequate flow of quality data to and from the Belize Health Information System (BHIS), which is critical for facilitating efficient data management, calculation and analysis of performance indicators and use of this information for policy development and decision making and planning. The MOHW Epidemiology Unit is responsible for management of the BHIS and ensuring the careful generation and dissemination of the Annual Surveillance report as well as dissemination of information vis-a vis the BHIS dashboard.

Civil Society

Civil society plays a key role in the national response and therefore is integral to the M&E Plan. Civil society organizations are well positioned to provide both quantitative and qualitative information as part of a comprehensive approach by the national program to collect and to interpret the data collected. With the decentralization the BHIS, CSOs will be enter client data on prevention, care and support services. CSOs working in the areas of advocacy and human rights will report to the NAC. The MoHW and NAC should seek input from all of civil society including implementing NGOs, the network of people living with HIV, faith-based organizations, women, young people, and any community-based organizations for their reports on the national-level and global indicators. As part of that effort, civil society and community organizations should be invited to participate in any national level forum to determine how they can best support the country's reporting process. They should be given sufficient opportunity to review and provide feedback on any data and information products generated at the national level for public dissemination.

Strategic Information Working Group

As proposed in the NSP, a strategic information (SI) working group will be established and will serve as the governance mechanism for data. This group, comprising the M&E Sub-Committee, will be convened by the NAC to play an active role in the leadership and guidance of all M&E efforts at the national level.

Its membership will include the NAC M&E officer, representatives from the MOHW epidemiology Unit, representatives from each disease area covered under the NSP, at least two civil society/private sector representatives, focal points from the development partners (UNAIDS, PAHO/WHO) as well as a focal point among PLHIV. These individuals should be persons with responsibility for and experience/expertise in monitoring or evaluation/strategic information specific to HIV/STIs, VH and TB. The SI Working Group will provide advice on the operationalization of the M&E Plan. This includes:

- Reviewing the M&E plan, its indicators, data collection tools and procedures.
- Leading the analysis and use of national data for program planning and improvement.
- Using triangulated data to build the investment case to advocate for increased domestic financing and resource mobilization for sustainability of the national response.

- Providing guidance on development of information products including the production of key reports, for instance those in line with the country's international commitments. Reviewing same and providing technical feedback before dissemination.
- Advising on the direction and implementation of the national research agenda for HIV/ STIs, TB and VH.
- Having input into training and capacity building initiatives for M&E staff at the national, local and service delivery level.
- Providing strategic input into the review of the NSP both at the mid-term and end of term.
- Providing technical support for the improvement of reporting systems, including the BHIS.
- Sharing of best practices for the improvement of the national M&E efforts.

The SI Working Group will meet quarterly to review ongoing M&E initiatives and share information and updates to members on the M&E workplan. The intention is to keep M&E on the agenda of the national response and to create and maintain a culture of information generation and dissemination to support Strategic Priority Area 1 of the NSP.

Data Collection and Reporting

a. Data Flow Diagram and process

The data flow chart at Figure 2 outlines how routine HIV/STI, Viral Hepatitis and TB data will reach the M&E Unit of the NAC Secretariat.

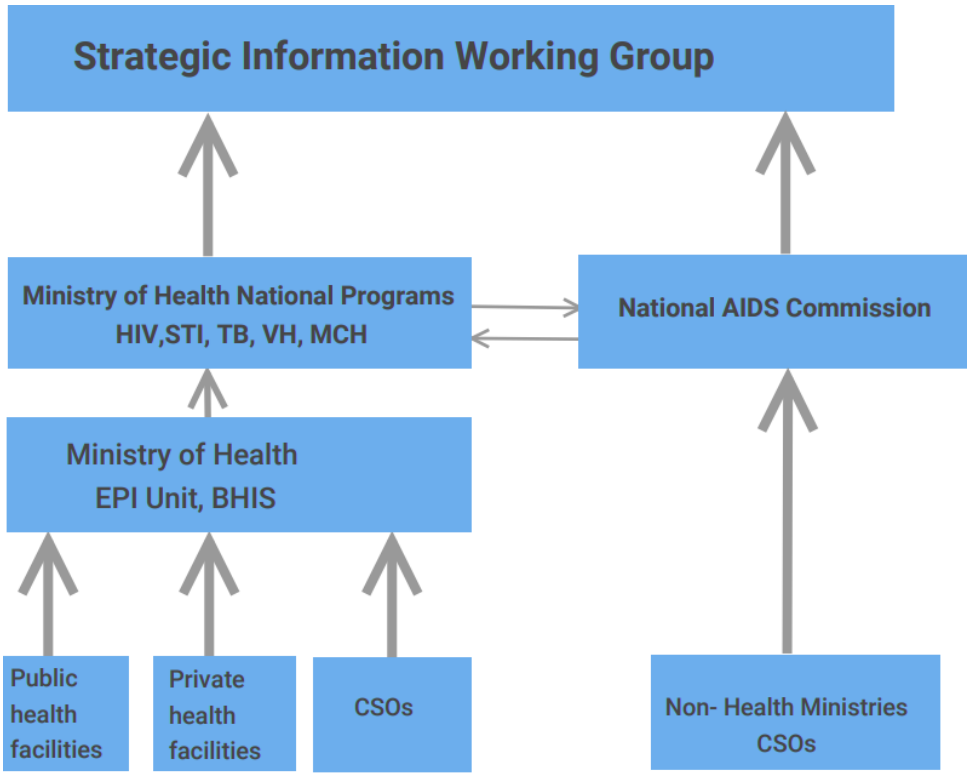
The BHIS will be expanded to ensure that clinical data from testing at polyclinics, public hospitals, private facilities and NGOs will be entered directly into the system by the testing site staff and reviewed by the Epidemiology Unit. Staff of the National AIDS Program will then review the data on a 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, the flow is different. 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 and will also be shared with the national programs. 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 MOHW Epidemiology Unit. AIDS case reports obtained from regional and community hospitals reports are submitted on a quarterly basis to the MOHW Epidemiology Unit for further processing and analysis. The MOHW Epidemiology Unit is responsible for the collection, compilation, analysis, interpretation and dissemination of health data and information to support decision making.

The SI Working Group will serve as a clearing house for all data and information products generated. The group, as outlined above, will review data and reports emanating from the various programs and provide feedback and technical advice for dissemination and use.

Figure 2: Data Flow Chart



b. Data management through the BHIS

The national program intends to expand and maximize the potential of the Belize Health Information System (BHIS) during the life of this NSP. The BHIS is currently integrated in the public health care system and it is also being utilized by some private sector agencies and civil society organizations. The expansion will target greater coverage in the private sector and among civil society organizations including those led by and working for key populations. To make this a reality, structured training will need to be provided to all organizations to ensure reporting in completed in a timely and accurate manner.

The BHIS will serve as the main data generation tool for the national response and will reflect data at the individual/client level, at the facility level as well as aggregated data at the national level. Disaggregated data will also be generated from the BHIS to cover parameters including age, sex, location, gender identity and other data at the individual, facility and national level. It is important that health care workers be trained to collect sensitive data on gender, other risk factors as well as the social determinants of health so that analyses can be done along these lines to provide a holistic view of the epidemics and their underlying factors.

Aggregate data from the BHIS will be used to determine major modes of transmission as well as risk behaviors and factors for HIV/STI/VH and TB acquisition and transmission. Additionally, aggregated data will be used to generate continuum of care cascades (cross-sectional as well as cohort cascades) for different sub-groups including pregnant women and KPs.

Programmatic data will be used to support the size estimation process and will also serve as input to the annual estimates activity for key UNAIDS indicators such as PLHIV population, AIDS mortality and ART coverage.

The MOHW Epidemiology Unit will continue to generate the annual Surveillance Report from the BHIS but this will now be expanded to include more comprehensive data on STIs, VH and TB along with HIV which is already currently being generated. The system will support reports on other areas including the prevalence of common co infections and comorbidities, consequences of the diseases such as prevalence liver cancers, drug resistant TB, cervical cancer and others and will identify the socio-economic and other factors that increase vulnerability to HIV/STI/VH and TB. These data points will be utilized alongside others from special studies and research to form the basis of programmatic and policy decision making processes.

c. Surveillance, Research, Reviews and Evaluations

Surveillance

Surveillance and surveys are essential to determine the drivers and the spread of the HIV epidemic in each country. HIV surveillance and HIV surveys may focus on the general population, most-at-risk populations, or both. The need for surveys, as well as the specific focus and content of each survey are considered within the context of the country's epidemic. For Belize it is important to continue to obtain data on the situation relating to key populations at risk including knowledge, attitudes and practices for the disease areas as well as the status of the epidemic in the general population including among pregnant women and youth. HIV Surveillance data will be generated from the BHIS and will continue to provide information regarding the burden of the epidemic. Other STI surveillance data including Syphilis among pregnant women and KPs, congenital syphilis, and VH will be generated and reported routinely as part of the annual surveillance report.

Special disease surveillance will be done to understand the burden of gonococcal antimicrobial resistance, HIV drug resistance and multidrug TB resistance. Data collection and laboratory staff will be trained, and laboratory policies will be reviewed and updated to ensure quality-assured laboratory results.

Research

A research agenda will be developed to coordinate and guide special studies, national program-based and community program-based operations research. The SI Working Group will lead this initiative.

Protocols and data collection tools will be based on international standards for surveys, such as the Demographic and Health Survey, the Stigma Index Survey, and the Multiple Cluster Indicator Survey. Where appropriate, surveillance and survey protocols will include data collection to support the construction of the standardized national indicators as well as those required for global reporting as defined in the M&E plan. This can help prevent the need for additional data collection efforts and additional costs.

Strategic collaborations will be formed with academic institutions to support research through practicum attachments and other mechanisms.

Capacity will be built to develop research protocols, on the ethics of research and on qualitative and qualitative data analysis. National and local IRBS will be strengthened to facilitate review and approval of research protocols.

Population-based surveys such as the DHS and MICS will be conducted with support from the Belize Statistical Institute and UNICEF to determine outcome and impact and independent evaluations will be carried out to establish cause-effect relations. Population-based surveys usually provide information about general population including behaviors, knowledge, attitudes, stigma and discrimination, with various disaggregation. Research will also focus on understanding the key social determinants of health and their impact on HIV/STI/VH and TB. Research data will be triangulated with surveillance data to guide a comprehensive multi sectoral response to HIV/STI/VH and TB.

Special surveys such as the BSS will provide complementary information about key populations and their risk factors. HIV/STI testing will also be a component of these special studies. These should be conducted every two or three years to generate updated, reliable and accurate information to strengthen decision-making processes.

Review and Evaluations

Program Reviews represent a valuable opportunity to assess progress of the NSP and promote active involvement of key stakeholders in the analysis of generated strategic information through review of the strategic objectives, and target achievements. The focus of the review it to identify those components which present major gaps and to define timely and effective corrective measures, navigate the response back on track. The NAC will undertake to perform a mid-term review of the NSP as well as an end of term review. At the mid-term, achievement of targets will be ascertained and it will be determined whether targets are to be adjusted for the remainder of the NSP. These multi-sectoral reviews will be geared towards strengthening the governance and accountability of the national response. While the NAC will be responsible for carrying out internal reviews, evaluations of specific program elements on the other hand, will be organized by NAC as external independent short-term consultancies.

Belize will conduct regular policy, governance and programmatic assessments applying the WHO multi sectoral accountability frameworks and the HIV National Policy Composite Index. These will be conducted with participation from all stakeholders including affected communities, civil society, the private sector and others.

Data Quality Considerations

The NAC M&E Unit will ensure full technical collaboration with MOHW'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-site data verification and follow-up with reporting agencies will be conducted periodically with the full consent of the reporting agencies, and with due notice.

There is also a role for Supportive Supervision to ensure quality data emanates from the local level.

Supportive Supervision comprises active oversight of data collection systems and the transfer of the knowledge and skills to local level staff so that improvements can be made to the system. It provides a feed-back mechanism which is often lacking from the center to the sub-national level.

The national program will ensure that the following are in place to ensure data quality:

- clear definitions of indicators
- classification of M&E roles and responsibilities at all levels
- Standard Operating Procedures (SOPs) for data collection and reporting
- standard data collection and reporting tools
- established reporting deadlines
- feedback to sub-national level

The NAC will work with Ministry of Health and Wellness to establish a system whereby routine supportive supervision visits are conducted to service delivery locations. As far as possible, measures to assure data quality would be implemented prior to information being disseminated.

Routine data quality assessments (RDQA) will be conducted randomly at the facility and national level. The NAC will facilitate training for its staff along with MOHW and civil society staff in the RDQA methodology to be able to effectively conduct the audits. The NAC will report findings and suggestions from supportive supervision visits and data quality assessments through the M&E sub-committee meetings and the SI Working Group.

Capacity Building

It is necessary to have dedicated, adequate and well-trained M&E staff. Human capacity building should focus on all levels; have measurable performance objectives; include a capacity building plan with clearly defined outputs; and include ways to track progress over time. M&E human capacity building requires a wide range of activities, including formal training, in-service training, mentorship, coaching and internships. M&E capacity building should focus not only on the technical aspects of M&E, but also address skills in leadership, financial management, facilitation, supervision, advocacy and communication. Implementation of the M&E plan requires the establishment of an appropriate staff complement at NAC and across implementers at all levels.

Mechanisms to improve knowledge and skills in M&E:

- Conduct basic M&E training for health sector staff at the national and regional levels including facility level staff
- Coordinate M&E training initiatives to include civil society and private facility staff.
- Conduct specialized M&E training for staff in key competencies including research, data analysis and presentation and data use.
- Advocate with implementing partners to recruit adequate M&E personnel
- Mainstream M&E in the training and duties of health care workers at site level
- Ongoing professional training of M&E personnel in conjunction with development partners.

Data Analysis, Dissemination and Use

It is important to identify how monitoring and evaluation results will be used, translated into program policy language, disseminated to relevant stakeholders and decision-makers, and used for ongoing program refinement.

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. For this integrated NSP, the analysis of both quantitative and qualitative data will be conducted at the level of MOHW'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 data to inform decision making.

Once data are collected and analyzed, they should be used to inform decision-making and increase the efficiency and effectiveness of the programs. The results of the analysis should be disseminated to all relevant stakeholders and shared with implementers through a systematic feedback mechanism.

The most important reason for conducting M&E is to provide the data needed for guiding policy formulation and program operations. A functional M&E system collates and presents the data in a way that facilitates data use at all levels. Data use has remained weak over time. There is also a gap in ensuring a data dissemination plan exists that provides all stakeholders with the information they need, when they need it and in an appropriate format. Information products will therefore be tailored to different audiences and a dissemination schedule will be created. Though there are skills in basic monitoring and evaluation, skills in basic data analysis and use are still limited. This will also be addressed under this NSP.

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, STI, VH and TB 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.

This will allow Belize to not only keep national stakeholders up to date on the status of the response but also to fulfil its global reporting requirements including completion of Estimates, submission of the Global AIDS Monitoring report and reporting to the WHO universal.

The following strategies will be employed to promote data dissemination and use:

- Development and implementation of a data use and dissemination plan which identifies what information should be distributed, the users of the information, the relevant formats for dissemination along with frequency of distribution.
- Capacity building for the NAC and MOHW on data analysis, presentation and use for decision making.
- Dissemination of M&E information in quarterly and annual national reports to stakeholders including through fact sheets and brochures.
- Utilizing the NAC website to provide routine information products on the national response to the general public. This should include all reports generated for national and international purposes.

- Upgrading the MOHW dashboard capacity to include presentation of key data points on a routine timely basis. This will have the capacity to show trends for key NSP indicators including data on prevalence, incidence and prevention and treatment coverage data which will aid the NAC and MOHW in making decisions around services provided and resource allocation.
- Convening an annual national multi-stakeholder multi-sectoral forum for data sharing.

Annex 1: List of Key M&E Indicators

	Indicators	Program Area	Indicator Origin	Disease Area	Indicator Type	SPA
1	1.1 Number of non-public health entities reporting to the BHIS. Disaggregation by private sector and NGO	Strategic Information	National	HIV/STI/VH and TB	Output	SPA 1
2	1.2 Number of persons trained in Strategic Information including M&E competencies, Research and Data Use. Disaggregation by public, private and NGO.	Strategic Information	National	HIV/STI/VH and TB	Output	SPA 1
3	1.3 Number of Care Cascades generated annually disaggregated by MSM, Transgender persons, HIV, STI, VH and TB	Strategic Information	National	HIV/STI/VH and TB	Output	SPA 1
4	2.1 People living with HIV who know their HIV status: Percentage of people living with HIV who know their HIV status at the end of the reporting period	Testing	GAM	HIV	Output	SPA 2_ Prevention
5	2.2 HIV testing volume and positivity: The number of HIV tests conducted (testing volume) and the percentage of HIV-positive results returned to people (positivity) in the calendar year	Testing	GAM	HIV	Output	SPA 2_ Prevention
6	2.3 Preventing mother-to-child transmission of HIV: Percentage of pregnant women tested for HIV/Syphilis and HBV who received treatment to reduce the risk of mother-to-child transmission of HIV.	EMTCT	GAM	HIV	Output	SPA 2_ Prevention
7	2.4 HIV testing in pregnant women: Percentage of pregnant women with known HIV/Syphilis/HBV	EMTCT	GAM	HIV	Output	SPA 2_ Prevention
8	2.5 HIV prevalence among key populations: Disease prevalence among specific key populations (MSM, TG living with HIV/Syphilis/ Hepatitis B/Hepatitis C	Prevention: Key Populations_ Prevalence	GAM & National	HIV	Impact	SPA 2_ Prevention

	Indicators	Program Area	Indicator Origin	Disease Area	Indicator Type	SPA
9	2.6 HIV testing among key populations: Percentage of people of a key population who tested for HIV in the past 12 months and who know their status (MSM and Transgender)	Prevention: Key Populations_ Testing	GAM	HIV	Output	SPA 2_ Prevention
10	2.7 Condom use among men who have sex with men: Percentage of men reporting using a condom the last time they had anal sex with a male partner	Prevention: Key Populations_ Condom Use	GAM	HIV	Outcome	SPA 2_ Prevention
11	2.8 Coverage of HIV prevention programs among key populations: Percentage of people in a key population reporting having received a combined set of HIV prevention interventions	Prevention: Key Populations_ coverage of prevention programs	GAM	HIV	Output	SPA 2_ Prevention
12	2.9 Coverage of timely hepatitis B vaccine birth dose: Proportion of newborns who have benefited from timely birth dose of hepatitis vaccine (within 24 hours) or from other interventions to prevent mother-to-child transmission of HBV (percentage)	Prevention_ HBV	WHO	VH	Outcome	SPA 2_ Prevention
13	2.10 Coverage of third dose of hepatitis B vaccine among infants: Proportion of infants (<18 months of age) who received the third dose of hepatitis B vaccine (HepB3) (percentage)	Prevention_ HBV	National	VH	Outcome	SPA 2_ Prevention
14	2.11 Men and Women with Syphilis: Number of men and women diagnosed with Syphilis in the past 12 months	Prevention STIs: Men and Women		STIs	Output	SPA 2_ Prevention
15	2.12People coinfected with HIV and HCV starting HCV treatment: Proportion of people coinfected with HIV and HCV starting HCV treatment	Prevention_ HCV	GAM	VH	Output	SPA 2_ Prevention

	Indicators	Program Area	Indicator Origin	Disease Area	Indicator Type	SPA
16	2.13 % 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	Prevention: Youth	National	HIV	Outcome	SPA 2_ Prevention
17	2.14 % of young men and women aged 15-24 who had sexual intercourse before the age of 15	Prevention: Youth	National	HIV	Outcome	SPA 2_ Prevention
18	2.15 # of new HIV infections among persons, aged 15-24, as a percentage of total number of new infections	Prevention: Youth	National	HIV	Impact	SPA 2_ Prevention
19	2.16 # of new HIV infections among MSM and TG, as a percentage of total number of new infections	Prevention: Key Populations	National	HIV	Impact	SPA 2_ Prevention
20	2.17 % of PrEP users who continued on oral PrEP for three consecutive months after having initiated PrEP in the last 12 months- disaggregated by age group, MSM, TG	Prevention_PrEP	National	HIV	Outcome	SPA 2_ Prevention
21	2.18 Percentage of people who test HIV-positive among people who received PrEP at least once in the last 12 months and had at least one follow up HIV test.- disaggregated by age-group, MSM, transgender	Prevention_PrEP	National	HIV	Output	SPA 2_ Prevention
22	2.19 Young people: Knowledge about HIV prevention: Percentage of women and men 15–24 years old who correctly identify both ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission	Prevention	GAM	HIV	Outcome	SPA 2_ Prevention
23	2.20 Proportion of women living with HIV who have been screened for cervical cancer using any of the following methods: Visual inspection with acetic acid (VIA), Pap Smear or HPV test (Added)	Prevention: Cervical cancer	GAM	HIV/STI	Output	SPA 2_ Prevention
24	2.21 People living with HIV on antiretroviral therapy: Percentage and number of adults and children on	Treatment	GAM	HIV	Output	SPA 2_ Treatment

	Indicators	Program Area	Indicator Origin	Disease Area	Indicator Type	SPA
	antiretroviral therapy among all adults and children living with HIV at the end of the reporting period					
25	2.22 People living with HIV who have suppressed viral loads: Percentage and number of adults and children living with HIV who have suppressed viral loads (<1000 copies/ml) at the end of the reporting period	Treatment	GAM	HIV	Output	SPA 2_ Treatment
26	2.23 Late HIV diagnosis: Percentage and number of adults and children newly diagnosed with HIV with an the initial CD4 cell count <200 cells/mm3 and <350 cells/mm3 during the reporting period.	Treatment	GAM	HIV	Output	SPA 2_ Treatment
27	2.24 AIDS mortality: Total number of people who have died from AIDS-related causes per 100 000 population	Treatment	GAM	HIV	Impact	SPA 2_ Treatment
28	2.25 Antiretroviral coverage: Percentage of adults and children living with HIV known to be on treatment 12 months after imitation of ARVs	Treatment	GAM	HIV	Impact	SPA 2_ Treatment
29	2.26 Antiretroviral therapy coverage among people living with HIV in key populations: Percentage of the people living with HIV in a key population (MSM and TG) receiving antiretroviral therapy in the past 12 months	Treatment: Key Populations	GAM	HIV	Output	SPA 2_ Treatment
30	2.27 TB Treatment Coverage: Percentage of new and relapse cases that were notified and treated among estimated number of incident TB cases in the same year (all form of bacteriologically confirmed plus clinically diagnosed)	TB	National	TB	Outcome	SPA 2_ Treatment
31	2.28 Number of notified cases of all forms of TB (i.e. bacteriologically confirmed plus clinically diagnosed, includes new and relapse cases)	TB	National	TB	Output	SPA 2_ Treatment

	Indicators	Program Area	Indicator Origin	Disease Area	Indicator Type	SPA
32	2.29 Treatment Success Rate-All Forms: Percentage of TB cases, all forms, bacteriologically confirmed and clinically diagnosed, successfully treated among all TB cases registered (new and relapse) for treatment during a specified period	TB	National	TB	Output	SPA 2_ Treatment
33	2.30 TB/HIV mortality rate (per 100,000)	Treatment TB		TB	Impact	SPA 2_ Treatment
34	2.31 RR-TB or MDR-TB prevalence among new TB patients: Proportion of new TB cases with RR-TB or MDR-TB	TB	National	TB	Impact	SPA 2_ Treatment
35	3.1 Medicine stock-outs: Percentage of health facilities that had a stock-out of one or more required commodities/medicines during a defined period. Disaggregate by type of medicine/commodity- HIV, TB, VH or STIs	Medicines and Commodity Stock-outs	GAM	HIV, STI/VH and TB	Output	SPA 3
36	3.2 Avoidance of health care among key populations because of stigma and discrimination: Avoidance of health care among key populations because of stigma and discrimination: Avoidance of health care by men who have sex with men because of stigma and discrimination.	S&D	GAM	HIV	Outcome	SPA 3
37	3.3 Experience of HIV-related discrimination in health-care settings: Percentage of people living with HIV who report experiences of HIV-related discrimination in healthcare settings	S&D	GAM	HIV	Outcome	SPA 3
38	3.4 % of women and men aged 15-49 expressing accepting attitudes towards people living with HIV	S&D		HIV	Outcome	SPA 3
39	3.5 % of women and men aged 15-49 expressing accepting attitudes towards men who have sex with men	S&D		HIV	Outcome	SPA 3

	Indicators	Program Area	Indicator Origin	Disease Area	Indicator Type	SPA
40	3.6 Number of staff trained in quantification for HIV/STI/VH and TB medicines, supplies and consumables	Medicines availability	National	HIV/STI/VH and TB	Output	SPA 3
41	3.7 Proportion of human rights violations resolved	S&D	National	NA	Output	SPA 3
42	4.1 Expenditure by origin of resources: Domestic and international expenditure by program category and financing source for HIV, STIs, VH and TB	HIV Financing	GAM	HIV	Output	SPA 4
43	4.2 Number of CSOs engaged in social contracting: 1. Have signed agreements for social contracting, 2. Have signed agreements and have received funds 3. Have signed agreements, have received funds and are delivering services to key populations	HIV financing	National	HIV/STI/VH and TB	Output	SPA 4

Annex 2: NSP Indicators and Targets

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
1	1.1 Number of non-health entities reporting to the BHIS. Disaggregation by private sector and NGO	6	2019	8		TBD		TBD	Program data
2	1.2 Number of persons trained in Strategic Information including M&E competencies, Research and Data Use. Disaggregation by public, private and NGO.	NA	NA	15	15	15	15	15	Program data
3	1.3 Number of Care Cascades generated annually-disaggregated by MSM, Transgender persons, HIV,STI, VH and TB	2	2019	5	7	TBD	TBD	TBD	BHIS
4	2.1 People living with HIV who know their HIV status: Percentage of people living with HIV who know their HIV status at the end of the reporting period	56.40%	2019	70%	75%	80%	85%	90%	Estimates /BHIS
5	2.2 HIV testing volume and positivity: The number of HIV tests conducted (testing volume) and the percentage of HIV-positive results returned to people (positivity) in the calendar year	TBD							BHIS
6	2.3 Preventing mother-to-child transmission of HIV: Percentage of pregnant women HIV/Syphilis and HBV who received treatment to reduce the risk of mother-to-child transmission of HIV.								BHIS
7	2.4 HIV testing in pregnant women: Percentage of pregnant women with known HIV/Syphilis/HBV status								BHIS

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
8	2.5 HIV prevalence among key populations: Disease prevalence among specific key populations (MSM, TG) living with HIV/Syphilis/ Hepatitis B/Hepatitis C	13.9% (MSM)				TBD			Population based survey/ Case based surveillance
9	2.6 HIV testing among key populations: Percentage of people of a key populations who tested for HIV in the past 12 months and who know their status (MSM and Transgender)	29%	2019	40%	50%	60%	70%	80%	Population based survey
10	2.7 Condom use among men who have sex with men: Percentage of men reporting using a condom the last time they had anal sex with a male partner	74.40%	2018			80%			Population based survey
11	2.8 Coverage of HIV prevention programs among key populations: (HIV/STI/VH and TB): percentage of people in a key population reporting having received a combined set of HIV prevention interventions	28.70%	2019	33.7%	38.7%	46.7%	56.7%	65.0%	BHIS
12	2.9 Coverage of timely hepatitis B vaccine birth dose: Proportion of newborns who have benefited from timely birth dose of hepatitis vaccine (within 24 hours) or from other interventions to prevent mother-to-child transmission of HBV (percentage)	79%	2019	82%	85%	90%	95%	98%	BHIS
12	2.10 Coverage of third dose of hepatitis B vaccine among infants: Proportion of infants (<18 months of age) who received the third dose of hepatitis B vaccine (HepB3) (percentage)	98%	2019	98%	98%	98%	98%	98%	BHIS

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
14	2.11 Men and Women with Syphilis: Number of men and women diagnosed with Syphilis in the past 12 months	66 females, 66 males-2018, 58 females, 69 males-2019	2018, 2019	115	100	80	60	40	BHIS
15	2.12 People coinfected with HIV and HCV starting HCV treatment: Proportion of people coinfected with HIV and HCV starting HCV treatment	0	2019			50%	55%	60%	BHIS
16	2.13 % 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	56%	2014						MICS/ population-based survey
17	2.14 % of young men and women aged 15-24 who had sexual intercourse before the age of 15	Women 5.8%, men 14.9%	2016/2017 MICS		women 4% men 10%			women 1%, Men 5%	MICS/ population-based survey
18	2.15 # of new HIV infections among persons, aged 15-24, as a percentage of total number of new infections	40	2019	35	30	25	20	15	BHIS
19	2.16 # of new HIV infections among men who have sex with men and TG, as a percentage of total number of new infections	123	2019	110.7	104.5	98.4	86.1	60	BHIS/ Program data
	This is the suggested denominator based on the 2019 incident cases	205	2019	185	174	164	144	100	

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
20	2.17 Percentage of PrEP users who continued on oral PrEP for three consecutive months after having initiated PrEP in the last 12 months- disaggregated by age group, MSM, TG	0	2020			50%	60%	70%	BHIS
21	2.18 Percentage of people who test HIV-positive among people who received PrEP at least once in the last 12 months and had at least one follow-up HIV test- disaggregated by age-group, MSM, transgender	0	2020			2.0%	1.50%	1.00%	BHIS
22	2.19 Young people: Knowledge about HIV prevention: Percentage of women and men 15–24 years old who correctly identify both ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission	women-41.4%, Men-45%	2015/2016		women-60%, Men-60%			women-90%, Men 90%	MICS/ population based survey
23	2.20 Proportion of women living with HIV who have been screened for cervical cancer using any of the following methods: Visual inspection with acetic acid (VIA), Pap Smear or HPV test	TBD							BHIS
24	2.21 People living with HIV on antiretroviral therapy: Percentage and number of adults and children on antiretroviral therapy among all adults and children living with HIV at the end of the reporting period	33%	2019	50%	60%	70%	80%	90%	BHIS
25	2.22 People living with HIV who are on treatment and have viral suppression: Percentage of adults and children living with HIV and on treatment who are virologically suppressed - disaggregated by adults and children, male and female, MSM, TG	39.7%	2019	50%	60%	70%	80%	90%	BHIS

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
26	2.23 Late HIV diagnosis: Percentage and number of adults and children newly diagnosed with HIV with an initial CD4 cell count <200 cells/mm3 and <350 cells/mm3 during the reporting period.	TBD							BHIS.
27	2.24 AIDS mortality: Total number of people who have died from AIDS-related causes per 100 000 population	80 deaths or 19.6/100,000 , 105 deaths in 2018 (25 deaths reduction)	2019	65	45	20	10	5	BHIS
				16/100,000	11/100,000	5/100,000	2.5/100,000	1.2/100,000	
28	2.25 Antiretroviral coverage: Percentage of adults and children living with HIV known to be on treatment 12 months after initiation of ARVs	60.34%	2018	70%	75%	80%	85%	90%	BHIS
29	2.26 Antiretroviral therapy coverage among people living with HIV in key populations: Percentage of the people living with HIV in a key population (MSM and TG) receiving antiretroviral therapy in the past 12 months	TBD							BHIS

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
30	2.27 TB Treatment Coverage: Percentage of new and relapse cases that were notified and treated among estimated number of incident TB cases in the same year (all form of bacteriologically confirmed plus clinically diagnosed)	70.70%	2019	73%	82%	85%	87%	90%	BHIS
31	2.28 Number of notified cases of all forms of TB (i.e. bacteriologically confirmed plus clinically diagnosed, includes new and relapse cases)	92	2019	100	80	60	40	20	BHIS
32	2.29 Treatment Success Rate-All Forms: Percentage of TB cases, all forms, bacteriologically confirmed and clinically diagnosed, successfully treated among all TB cases registered (new and relapse) for treatment during a specified period	63.60%	2019	70%	75%	82%	88%	95%	BHIS
33	2.30 TB/HIV mortality rate (per 100,000)	0.75/100,000	2019	0.5	0.4	0.3	0.2	0	BHIS/ Vital statistics
34	2.31 RR-TB or MDR-TB prevalence among new TB patients: Proportion of new TB cases with RR-TB or MDR-TB	TBD							BHIS
35	3.1 Medicine stock-outs: Percentage of health facilities that had a stock-out of one or more required commodities/medicines during a defined period. Disaggregate by type of medicine/commodity- HIV, TB, VH or STIs	TBD						0	Program Reports and BHIS?
36	3.2 Avoidance of health care among key populations because of stigma and discrimination: Avoidance of health care among key populations because of stigma and discrimination: Avoidance of health care by men	MSM- 1.5%, TG 60%	2019			TG-30% MSM- 1%			Stigma Index Survey

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
	who have sex with men because of stigma and discrimination.								
37	3.3 Experience of HIV-related discrimination in health-care settings: Percentage of people living with HIV who report experiences of HIV-related discrimination in healthcare settings	20%	2019			10%			Stigma Index Survey
38	3.4 % of women and men aged 15-49 expressing accepting attitudes towards people living with HIV	women 16.7%, Men 18.7%	2015/2016		women30 %, men 30%			women 70%, Men 70%	MICS/ Population based survey
39	3.5 % of women and men aged 15-49 expressing accepting attitudes towards men who have sex with men								MICS/ population based survey
40	3.6 Number of staff trained in quantification for HIV/STI/VH and TB medicines, supplies and consumables			10	10	10	10	10	Program Reports
41	3.7 Proportion of human rights violations resolved								Program Reports
42	4.1 Expenditure by origin of resources: Domestic and international expenditure by program category and financing source for HIV, STIs, VH and TB	HIV= , STI= , VH= . TB=							Program Reports

	Indicators	Baseline	Baseline year	2021	2022	2023	2024	2025	Source of data
43	4.2 Number of CSOs engaged in social contracting: 1. Have signed agreements for social contracting, 2. Have signed agreements and have received funds 3. Have signed agreements, have received funds and are delivering services to key populations	TBD	2020						Program Reports