UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH

NATIONAL AIDS, SEXUALLY TRANSMITTED INFECTIONS AND HEPATITIS CONTROL PROGRAMME (NASHCoP)

NASHCoP Strategic Plan I

2022-2026

FOREWORD

HIV, viral hepatitis and other sexually transmitted infections (STIs) are of public health importance in Tanzania. Tanzania has made notable progress towards HIV epidemic control. Based on THIS 2022-23 survey, 83% of People Living with HIV (PLHIV) knew their status; among them, 98% were on Antiretroviral Therapy (ART), and among those on ART, 94% had attained viral suppression. Despite this progress, some populations, such as Key and Vulnerable Populations (KVP), men, children, adolescents, and young people, are being left behind. Thus, in the past 10 years, we have only been able to reduce new HIV infections by 38%, which falls short of the goal of reducing new HIV infections by 85%. On the other hand, despite the long history of viral hepatitis infections, and significant public health efforts to eliminate them, they persist as significant public health threats in Tanzania. The recent national survey data reported a prevalence of 3.5% for HBV and 0.2% for HCV. The prevalence is higher among at risk subpopulations. Moreover, there is a high burden of untreated STIs (7.4%) which can enhance both the risk of acquisition and onward transmission of HIV and viral hepatitis.

By developing this first integrated National HIV, STIs and Hepatitis Control Programme Strategic Plan (NASHCoP SP I 2022 – 2026), Tanzania is heeding the global call to shift focus towards identifying and prioritizing programs and policies that break inequalities and barriers. The strategies and ambitious targets set out in this Strategic Plan provide insights into the direction we are heading towards ending AIDS, STIs and viral hepatitis by 2030. It puts prevention at the forefront of the response, sustaining treatment coverage, ensuring continuity of care, program sustainability, and integrating Non-Communicable Diseases (NCDs) and mental health care for improved health status and outcomes of clients. Building on the lessons of implementing the previous disease specific Strategic plans, the country intends to mount a concrete and integrated momentum towards HIV, STIs and viral hepatitis control.

The Health Sector HIV, Viral Hepatitis and STIs Strategic Plan is aligned with the Third Five-Year National Development Plan (2021 – 2026), the Health Sector Strategic Plan V (2021-2026), the Election Manifesto (2020-2025), the Tanzania Investment Case 2.1, the Global AIDS Strategy (2021-2026), President's Emergency Plan for AIDS Relief (PEPFAR) Strategy 2021 - 2025, and the World Health Organization (WHO) Global Strategy for HIV, and the Viral Hepatitis and Sexually Transmitted Infections (STIs) Strategy (2022-2030).

Recognizing that the HIV, STIs and VH epidemics response is not simply about managing the three diseases but reignite momentum to reach the people who are at most affected and most at risk for each disease and to address inequities. The, NASHCOP SPs people-centred and its implementation requires the participation of all stakeholders in all sectors. As we approach the last mile, this strategy places community response at the heart of its implementation, entrusting that the remaining gaps and sustainable solutions can only be achieved with greater engagement of communities.

I urge all stakeholders to make use of this Strategic Plan as they plan, implement, monitor, and evaluate the Health Sector HIV, STI's and VH response; In this way, we are more likely "*To have a healthy and disease-free society that contributes fully to the well-being of individuals and the national development.*"

Dr. John A.K Jingu
Permanent Secretary

ACKNOWLEDGEMENTS

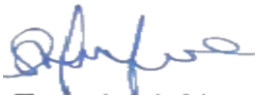
The development of the NASHCoP SP I (2022 – 2026) was successful due to the contributions and active participation of various stakeholders. The plan draws recommendations from evidence-based implementation experiences, epidemic analyses, and global and country guidance on the HIV response.

On behalf of the Ministry, I wish to express my sincere gratitude to all stakeholders, including development and implementing partners, the National Council of People Living with HIV and AIDS (NACOPHA), Non-State Actors (NSAs) including Civil Society Organisations (CSOs) and affected communities, the KVP Forum, and Adolescent Girls and Young Women (AGYM) representatives who made a significant contribution to the development of this plan.

I would also like to thank the Tanzania Commission for AIDS (TACAIDS) and the President's Office Regional Administration and Local Government (PORALG) for their meaningful contribution to the development of this strategy.

Special thanks to the WHO, United Nations Children's Fund (UNICEF,), UNAIDS, PEPFAR, United States Agency for International Development (USAID,), Centre for Disease Prevention and Control (CDC,), Department of Defence (DoD), and all Implementing Partners (IPs) for their financial and technical support. To all the consultants, and technical experts and individuals, including the writing team and peer reviewers (All listed in Annex 1) who contributed to the development of this costed strategic plan, including its Monitoring and Evaluation (M&E) framework, your contribution is greatly appreciated.

Finally, this plan could only be completed because of the efforts of all the staff at the National AIDS, STIs and Hepatitis Control Programme, (NASHCoP), led by the Programme Manager Dr. Anath Rwebembera and Head of Programs, Dr. Catherine Joachim who worked tirelessly to make the NASHCoP SP a reality. For this, I express my deepest gratitude.



Prof. Tumaini J. Nagu
Chief Medical Officer

KEY HIGHLIGHTS

About 1.5 million people are still living with HIV in Tanzania, which makes it among five countries in Africa with the highest HIV burden. Significant progress has been made in addressing the HIV epidemic with a good performance of 90-90-90 UNAIDS Fast Track Target (FTT) by 2020. National survey data indicate a prevalence of 4.3% for HBV and less than 2% for HCV. The prevalence is higher among at risk subpopulations. However, Tanzania is lagging behind in reduction of new HIV and viral hepatitis (VH) infections. Additionally, the impact of the COVID-19 pandemic poses a threat to the progress already made.

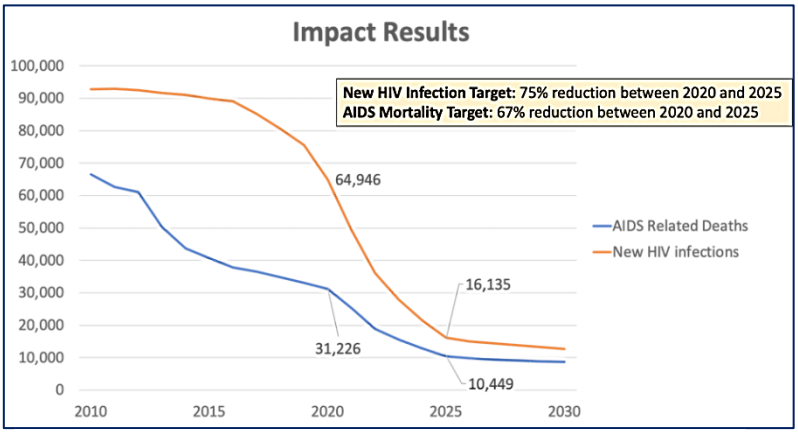


Figure 1: NASHCOP SP HIV Impact Results

The NASHCoP SP provides a strategic framework for the health sector response to HIV and AIDS in Tanzania. The strategy was developed in 2021, following the UN Political Declaration and new Global AIDS Strategy (2021–2026) which seeks to reduce inequalities that drive the HIV epidemic. Accordingly, the Health Sector Strategic Plan V (2021-2026) envisions a healthy, prosperous and disease-free society that contributes fully to the wellbeing of individuals and to national development. This five-year plan aims to accelerate the reduction of new HIV, VH and STIs infections and mortality rates in line with the global and country's ambitious targets to end HIV and AIDS by 2030. The country expects a 85% reduction in new HIV infections by 2025 *(<17,000 new infections per year*) from the 2010 baseline; a reduction in the Mother to Child Transmission (MTCT) rate at the end of breastfeeding to ≤4% by 2025; an 80% reduction in AIDS-related deaths by 2025 from the 2010 baseline (~10,000 deaths); and a reduction in HIV-related stigma to <5% by 2025. In order to achieve these goals, Tanzania intends to build on current progress, increase emphasis in addressing barriers and inequalities in health services, and ensure equal access to health services, especially by those most in need.
Similarly, by 2025 the country intends to reduce annual incidence of hepatitis B and C by 40% (2022 baseline) and reduce hepatitis B and C related deaths by 40%. The mortality rate will translate to < 7 per 100,000, and <3 per 100,000 population for viral hepatitis B and C respectively.

The burden of STIs is Tanzania is high with 5.3% of surveyed adult males aged 15 years and older, reporting abnormal discharge from the penis, and 7.4% had an ulcer or sore on or near the penis in the 12 months preceding the 2016/17 HIV impact survey; Presence of untreated sexually transmitted infections (STIs) can enhance both the risk of acquisition and onward transmission of HIV and viral hepatitis. Building from implementation lessons and experience, the NASHCoP SP will critically appraise the current situation and employ practical evidence-informed approaches to improve STI diagnosis and management across all populations. Deliberate efforts will be put in place to address inequities and target key and vulnerable populations.

One of the key strategies in the NASHCoP SP is to accelerate interventions targeting geographical locations and sub-populations with a higher disease burden, those left behind, and the general population. The country will deliver enhanced HIV interventions disaggregated by risk category, gender, and age while optimising HIV testing, prevention, and care strategies to maximise impact results.

Table 1: NASHCoP SP Prioritised Interventions

STRATEGIC AREA	STRATEGIC FOCUS	INTERVENTIONS
1. Differentiated HIV Testing Services	Biomedical	1. HIV Case Finding 2. Linkage to HIV services
2. eMTCT	Biomedical	3. Prevention of Mother to Child Transmission (PMTCT) of HIV and VH 4. HIV Early Infant Diagnosis (HEID)
3. Reduction of New HIV Infection	Populations	5. Key and Vulnerable groups 6. AGYWs 7. General Population
	Biomedical	8. Voluntary Medical Male Circumcision (VMMC) 9. Pre-Exposure Prophylaxis (PrEP) 10. Post Exposure Prophylaxis (PEP) 11. Blood Safety and Quality
	Behaviours	12. Social Behaviour Change Communication (SBCC)
4. Management of STIs		13. STIs Screening and Treatment
		14. Condom programming
5. Reduction of HIV Mortality	Biomedical	15. HIV Care 16. Quality of HIV Care 17. TB/HIV 18. HIV Integration
	Populations	19. Paediatric HIV Care 20. Adolescent HIV Care
6. Reduction of new VH Infection		21. VH Vaccination 22. Infection Prevention and Control
7. Reduction of VH Mortality		23. VH Screening and Diagnosis 24. VH Care and Treatment
8. Addressing Barriers and Inequalities	Structural	25. Stigma and Discrimination 26. Gender Based Violence/ Violence Against Women and Children (GBV/VAWC)
9. Building Resilient and Sustainable Systems	Systems	27. HIV Supply Chain Management (SCM) 28. Rational use of medicine (RUM) and Pharmacovigilance 29. Governance, Leadership and Accountability in SCM 30. Laboratory Management Systems (LMS) 31. HIV and AIDS Health Information Systems 32. Surveys, Research and Evaluations 33. Surveillance and data use

Meeting the needs of diverse populations and geographical variations requires the use of differentiated service delivery (DSD) models of comprehensive HIV, STIs, and viral hepatitis prevention services, case identification, linkages, retention of clients. As much as possible, these services should be integrated into the health service delivery system – both at facility and community levels.

Through a thorough process that involved biological data review, modelling, stakeholders' consultation, and critical analysis, the NASHCOP SP is structured to focus on **nine priority *strategic* areas** that have prioritized ***33 interventions*** illustrated in Table 1. Each of the 33 interventions will be monitored through at least one outcome indicator with mid-line and end-line targets.

The strategy considers equity-motivated interventions that seek to allocate resources preferentially to people who are most in need. The strategy promotes the implementation of gender transformative and right-based approach in service delivery to overcome barriers resulting from gender norms, different forms of discrimination, power imbalances and persecution; and to ensure that interventions reach the most marginalised population segments.

The NASHCoP SP focuses on primary prevention and on improving the quality of services for people enrolled in care and support services. Differentiated Testing Services (HTS), remain as an important entry point for prevention, care, treatment, and support services. Since different populations require different prevention approaches, differentiated care models will be scaled up to tailor interventions to each person's needs, including the use of proven community-based services. The county priority is to ensure that HIV, STIs and VH prevention, care, and treatment services are holistic, addressing each person's health needs, including co-morbidities.

In line with the country's HSSP V, the plan emphasises on the need to strengthen resilient and sustainable systems for health that are necessary for accelerating progress toward Universal Health Coverage (UHC) and preparing for emerging threats to global health security.

Resources needed to achieve impact from the NASHCoP SP will vary between the US $ 746m invested in 2022/3 and 1014m in 2025/6. A significant proportion of the funds is for the HIV response, which will require 728m in 2022/3 and 967 m in 2025/6.

Furthermore, according to the impact (GOALS) modelling, which was updated during the development of this plan, the most significant cost drivers are HIV testing and treatment services. The number of people on treatment is estimated to increase by 7% from 2020 to 2025, but the unit cost will decline, so the total amount needed for testing and treatment will decline by 10%. The next significant components are primary prevention for adults 25 years and older (13%) and for AGYW (10%). Costs for these components are mostly for condom programs, which increases the cost by 80-88% from 2020 to 2030 and Pre-exposure Prophylaxis (PrEP). The cost of programs for KVP increases by 133% but only constitutes 2% of the total cost. This means, the NASHCoP SP requires the current envelope from committed donors to be sustained, while the country continues to fill the existing gap.

The development of the NASHCoP SP and its eventual implementation will be done through partnerships and the involvement of communities and stakeholders. The strategy prioritises the engagement of affected communities, including KVP, PLHIV and people living with chronic hepatitis who are expected to become more actively involved in programmes that affect their lives. As part of quality improvement, community participation will also include the provision of feedback through community-led monitoring. The strategy also calls for the accountability of Central government and central and local governments, funding partners, and the communities served, in terms of resource utilisation, service provision, and adherence to services in order to achieve the best health outcomes at all levels.

ABBREVIATIONS AND ACRONYMS

ABYM	Adolescent Boys and Young Men
ADR	Adverse Drug Reactions
AE	Adverse Effects
AfSBT	Africa Society for Blood Transfusion
AGYW	Adolescent Girls and Young Women
AHD	Advanced HIV Disease
AIDS	Acquired Immunodeficiency Syndrome
AIM	AIDS Impact Module
ALHIV	Adolescent Living with HIV
ANC	Ante Natal Care
ART	Antiretroviral Therapy
ASM	Age Structured Model
AYFHS	Adolescent and Youth Friendly Health Services
BTS	Blood Transfusion Services
BUQ	Bottom-Up Quantification
CBHS	Community Based HIV Services
CBSM	Case-Based Surveillance and Management
CCHPs	Comprehensive Council Health Plans
CECAP	Cervical Cancer Prevention Programme
CHAC	Council HIV/AIDS Control Coordinator
CHMTS	Council Health Management Team
CHW	Community Health Worker
CLM	Community-led Monitoring
CMAC	Council Multi-sectoral AIDS Committee
CMO	Chief Medical Officer
COVID-19	Coronavirus Disease 2019
CQI	Continuous Quality Improvement
CSE	Comprehensive Sexuality Education
CSF	Cerebral Spinal Fluid
CSOs	Civil Society Organisations
CTC	Care and Treatment Clinic
CTX	Cotrimoxazole
DACC	District AIDS Control Coordinator
DBS	Dried Blood Spot
DHIS	District Health Information System
DMO	District Medical Officer
DNO	Diagnostic Network Optimisation
DoD	Department of Defense
DPs	Development Partners
DQA	Data Quality Assessment
DSD	Differentiated Service Delivery
EAC	East African Community
EAC	Enhanced Adherence Counselling
EID	Early Infant Diagnosis

EIMC	Early Infant Male Circumcision
e-LMIS	Electronic Logistics Management Information System
EMTCT	Elimination of Mother to Child Transmission of HIV
EQA	External Quality Assurance
ESA	East and Southern Africa
Esrs	electronic Sample Referral System
FWR	Female With High Risk
GAS	Global AIDS Strategy
GBV	Gender Based Violence
GDP	Gross Domestic Product
GDS	Genital Discharge Syndrome
GFATM	Global Fund Against AIDS Tuberculosis and Malaria
GHSC	Global Health Supply Chain
GOT	Government of Tanzania
HAPCA	HIV and AIDS Prevention and Control Act
HBF	Health Basket Fund
HCP	Health Care Provider
HCW	Health Care Worker
HEI	HIV Exposed Infants
HEID	HIV Early Infant Diagnosis
HIV	Human Immunodeficiency Virus
HIVST	HIV Self-Testing
HLI	Higher Learning Institute
HPV	Human Papilloma Virus
HRH	Human Resources for Health
HSHSP	Health Sector HIV Strategic Plan
HSPs	Health Service Providers
HTS	HIV Testing Services
HVL	HIV Viral Load
IBBS	Integrated Biological and Behavioural Surveillance
ICT	Information Technology and Communication
IDSR	Integrated Disease Surveillance and Response
IMTC	Inter-Ministerial Technical Committee
IPC	Infection Prevention and Control
IPD	Inpatient Department
IPps	Implementing Partners
IPV	Intimate Partner Violence
JAHSR	Joint Annual Health Sector Review
KVP	Key and Vulnerable Population
LCM	Linkage Case Manager
LMS	Laboratory Management Systems
LFT	Liver Function Test
LMU	Laboratory Management Unit
M&E	Monitoring and Evaluation
MAT	Medication-assisted treatment
MDA	Ministries Departments and Agencies

MDGs	Millennium Development Goals
MER	Monitoring Evaluation and Reporting
MESI	Monitoring, Evaluation and Surveillance Interface
MOFP	Ministry of Finance and Planning
MoH	Ministry of Health
MoHA	Ministry of Home Affairs
MoJCA	Ministry of Justice and Constitutional Affairs
MPT	Multipurpose Prevention Technologies
MSD	Medical Stores Department
MTCT	Mother to Child Transmission (of HIV)
MTR	Mid Term Review
NACCT	National Advisory Committee for Care and Treatment
NACOPHA	National Council of People Living with HIV and AIDS
NACP	National AIDS Control Programme
NAHREA	National HIV Research Agenda
NAIA-AHW	National Accelerated Action and Investment Agenda for Adolescent Health and Wellbeing
NASHCoP	National AIDS, STIs and Hepatitis Control Programme
NBTS	National Blood Transfusion Services
NCDs	Non-Communicable Diseases
NGOs	Non-Governmental Organisations
NHACC	National HIV/AIDS Coordination Committee
NMCS	National Multi-Sectoral Condom Strategy
NMSF	National Multisectoral Strategic Framework
NPA	National Plan of Action
NPHL	National Public Health Laboratory
NSAs	None State Actors
NSP	National Strategic Plan
NTLP	National TB and Leprosy Program
NVP	Nevirapine
OIs	Opportunistic Infections
OPD	Outpatient Department
OVC	Orphans and Vulnerable Children
PBFW	Pregnant and Breastfeeding Women
PCR	Polymerase Chain Reaction
PDR	Pre-treatment Drug Resistance
PE	Peer Educator
PEP	Post Exposure Prophylaxis
PEPFAR	President’s Emergency Plan for AIDS Relief
PrEP	Pre-Exposure Prophylaxis
PID	Pelvic Inflammatory Disease
PITC	Provider Initiated Testing and Counselling
PLHIV	People Living with HIV
PLSU	Pharmaceutical and Laboratory Services Unit
PMO	Prime Minister’s Office
PMTCT	Prevention of Mother to Child Transmission
POC	Point of Care

POCT	Point of Care Testing
PORALG	President's Office Regional Administration and Local Government
POPSM	President's Office Public Service Management
PPE	Personal Protective Equipment
PPM	Planned Preventive Maintenance
PrEP	Pre-Exposure Prophylaxis
PSCM	Procurement and Supply Chain Management
PSU	Pharmaceutical Service Unit
PWID	People Who Inject Drugs
PWUD	People Who Use Drugs
QA	Quality Assurance
QC	Quality Control
QIT	Quality Improvement Team
QMS	Quality Management System
R&Rs	Requisition and Reporting
RCA	Root Cause Analysis
RHMT	Regional Health Management Team
RLA	Research and Learning Agenda
RoC	Recipients of Care
RTI	Reproductive Tract Infections
RTQII	Rapid Testing Quality Improvement Initiative
RUM	Rational use of Medicine
SARA	Service Availability and Readiness Assessment
SBCC	Social Behaviour Change Communication
SDGs	Sustainable Development Goals
SDOH	Social Determinants of Health
SLIPTA	Stepwise Laboratory (Quality) Improvement Process Towards Accreditation
SLMTA	Strengthening Laboratory Management Toward Accreditation
SMLEG	Standard Medical Laboratory Equipment Guideline
SMT	Senior Management team
SNT	Social Network Testing
SOP	Standard Operating Procedures
SRH	Sexual and Reproductive Health
SSA	Sub Saharan Africa
STI	Sexually Transmitted Infections
SWAp	Sector wide Approach
SWO	Social Welfare Officer
SWOT	Strengths Weakness Opportunities Threats
TACAIDS	Tanzania Commission for AIDS
TAT	Turn Around Time
TB	Tuberculosis
TC	Total Cholesterol
TDHS-MIS	Tanzania Demographic Health Survey
THIS	Tanzania HIV Impact Survey
TMA	Total Market Approach
TMDA	Tanzania Medicines and Medical Devices Authority

TNCM	Tanzania National Coordinating Mechanism
TPT	Tuberculosis Preventive Therapy
TOT	Training of Trainers
TTIs	Transfusion Transmitted Infections
TWG	Technical Working Group
UHC	Universal Health Coverage
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNAIDS-FTT	UNAIDS-Fast Track Target
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
U=U	Undetectable=Untransmittable
VAC	Violence Against Children
VAWC	Violence Against Women and Children
VEO	Village Executive Officer
VH	Viral Hepatitis
VMMC	Voluntary Medical Male Circumcision
VNRBD	Voluntary Non-remunerated Blood Donors
WEO	Ward Executive Officer
WHO	World Health Organisation
WLHIV	Women Living with HIV
WRA	Women of Reproductive Age
ZBTC	Zonal designated Blood Transfusion Centres

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1. BACKGROUND AND INTRODUCTION

1.1. Tanzania: The Country Context

The United Republic of Tanzania is an East African country bordering Kenya and Uganda to the North; Rwanda, Burundi, and the Democratic Republic of Congo to the West; Zambia, Malawi, and Mozambique to the South, and the Indian Ocean to the East. It covers an area of 947,300 square kilometres and has a population estimated at 58 million people of whom, 68% live in rural areas. Fifty one percent (51%) of the population are women and 63% are below 25 years old.[1] Mainland Tanzania is divided into 26 geographical regions and 185 administrative Councils. The country also has 7,992 health facilities offering a wide range of health care services, of which, 6,058 (75%) are public and 1,998 (25%) are private.

Tanzania attained a lower-middle-income status in July 2020. The country's Gross Domestic Product (GDP) has continued to rise, reaching 7.1% in 2019. However, it went down to 5.5% in 2020, reflecting the impact of COVID 19 on some economic activities[2]. Major exports from Tanzania are mainly from agriculture, mining, and tourism. Approximately two-thirds (65.5%) of the population are employed in agriculture. In the long-term, Tanzania is expected to generate significant export earnings from her gas reserves. Other important economic sectors include construction, financial services, manufacturing, telecommunications, and utilities.

The most recent figures on poverty levels in Mainland Tanzania indicate a decline to 25.7% (2020) from 26.4% (2018) of the population living below the basic poverty line. Food poverty has also decreased from 8.0% in 2017/18 to 7.3% in 2020[3].

The Tanzanian economy is largely dependent on a labour-intensive sector of service provision in agriculture, manufacturing, mining, and construction industries. Therefore, having a healthy and skilled human capital base is critical. It is anticipated that the Government of Tanzania (GoT) will continue to invest in health and other social sectors by making available the required resources to combat the three major killer diseases in the country, namely HIV and AIDS, TB, Malaria as well as its preparedness to pandemic diseases such as COVID 19. The commitment of the GoT is in line with the Sustainable Development Goals (SDGs), which focus on 'Health-in-all-Policies' and multi-sectoral action for addressing social determinants of health and investments. Other sectors are also likely to benefit from the health sector and the national HIV and AIDS response.

Tanzania has joined and is committed to the health care movement that can be traced back to the 1978 Alma Ata Declaration, which advocated for the strengthening of primary health care. More recently, UHC has been the focus of several UN resolutions to which all African countries are signatories, including the 2030 Agenda for sustainable development. As an initial step, the GoT will review the existing national quality guarantee for health services, specifying the level of competence and user experience that people can expect. In order to ensure that all people will benefit from improved services, expansion should prioritise the poor and their health needs. In the next five years, the GoT, in collaboration with stakeholders, will focus on integrating, sharpening, synergising, and intensifying efforts to improve the quality of care. In addition, GoT will address the level of health systems, including human resources, equipment, supplies, and infrastructure. The GoT is also committed to reducing geographical inequity in terms of regions with poorer health indicators or districts with poorer performance, poverty-related inequities (urban and rural poor), and gender-

[1]National Bureau of Statistics, 'Population Projections for the Period of 2013 to 2035 at National Level', February 2018.
[2]Bank of Tanzania, 'Annual Report', 2020
[3]National Bureau of Statistics, 'Tanzania in Figures',2020

related inequities (GBV), poor access by AGYW and out of school youths. Tanzania is committed to mobilizing citizens to join health insurance schemes such as the improved Community Health Fund (iCHF). By 2025, the country plans to enact a law that makes it compulsory for every citizen to enrol in the iCHF whose benefits package includes critical primary health care interventions.[4,5]

1.2 The HIV situation in Tanzania

Tanzania is one of the highest HIV burdened countries in Africa. Although the prevalence of HIV among people aged 15-49 years has declined progressively from 7% in 2003/2004 to 5.1% in 2011/2012 and 4.7% in 2016/2017[6], about 1.7 million people are living with HIV (PLHIV), which places Tanzania among the top five countries with the highest number of PLHIV in Africa.

1.2.1 HIV Prevalence

HIV prevalence is characterised by significant heterogeneity across age, gender, social-economic status and geographical location, implying differentials in the risk of transmission of HIV infection. The Tanzania HIV Impact Survey (THIS) of 2022/23 shows that HIV prevalence is higher among women than men, with 5.6 % and 3.1% prevalence rates, respectively. The HIV prevalence also varies with age, geographical location, and sub-population, with higher prevalence among KVP. Even though, the number of new HIV infections has been declining steadily over the years, the UNAIDS Spectrum estimates show a decline from 110,000 new HIV infections in 2010 to 30,000 in 2022 which is a 72% reduction against the target of 75% by 2020[4] despite the investments. (**Table 2** refers).

Table 2: HIV prevalence, incidence, and mortality disaggregated by age and gender

Indicators	Reference	Children (0-14)	Young Women(15-24)	Females (15+)	Males (15+)	Adults (15+)
Prevalence	THIS 2022/23	0.40%	0.80%	5.60%	3.10%	4.40%
New HIV Infections	Spectrum 2022	4,621	7,300	20,124	10458	30582
Incidence	THIS 2022/23	No	0.33%	0.24%	0.11%	0.18%
AIDS Related Deaths	Spectrum 2022	2,921	1,300	9,354	9,422	18,776

According to THIS 2022/23 the prevalence of HIV varies geographically from 0.2% in Pemba to 12.7%, in Njombe with regions in the southern highlands having the highest prevalence. Compared to 2016-2017, HIV prevalence in 2022-2023 declined in 13 regions and increased in 5 regions. In ascending order, the absolute increase was by more than 1% (a range of 1 -2.3.0%) in 5 regions, namely Arusha, Njombe, Mara, Kilimanjaro and Lindi. On the other hand, men were aware of their HIV status (76%) in 2022/23 survey compared to (66%) in 2016-17. The number of women who knew their HIV serostatus remained the same between the two surveys (83%)[7,8].

Furthermore, HIV prevalence is higher among KVP, including MHR (8.3%), PWID (8.7%), and FHR (15.3%),[9] and other vulnerable sub-populations such as fisherfolks and people in transport corridors. An Integrated Biological and Behavioural Survey (IBBS) targeting other populations reported higher

[4] MOH, 'Health Sector Strategic Plan V 2020- 2025, Dodoma', 2021
[5] MOHCDEGC, 'National Health Policy: Policy Implementation Strategy, Dodoma' 2021
[6] National Bureau of Statistics, 'Tanzania HIV Impact Survey (THIS) 2016-2017', December 2018.
[7] National Bureau of Statistics, 'Tanzania HIV Impact Survey,' 2022-2023
[8] National Bureau of Statistics, 'Tanzania HIV Impact Survey.' 2016-2017
[9] MUHAS and NASHCOP, 'Integrated Biological and Behavioural Surveillance Survey (IBBSS) Surveys in Dar Es Salaam', 2017

prevalence among fisherfolks 13.5%, people in the transport corridor >12%, and people in the mines >19%.[10]

1.2.2 AIDS-Related Mortality

AIDS-related deaths declined significantly from 64,000 in 2010 to 32,000 in 2020, representing a 50% reduction. In 2020, 22% of all estimated AIDS-related deaths were among children. AIDS-related deaths declined by 50% among adults and 53% among children from 2010 to 2020 (UNAIDS Data 2020). Men have a higher rate/proportion (54%) of AIDS-related deaths compared to women (46%). The success in reducing HIV mortality is attributed to increased ART coverage, early detection of opportunistic infections among PLHIV with advanced HIV disease, and viral suppression.

1.2.3 Progress towards 90-90-90 Fast Track targets

The Tanzania were HIV impact survey conducted in 2022/23 in the country showed that progress towards achieving 90-90-90 UNAIDS targets was at 83-98-94 which is a significant increase from 61-94-87 in 2017 survey.

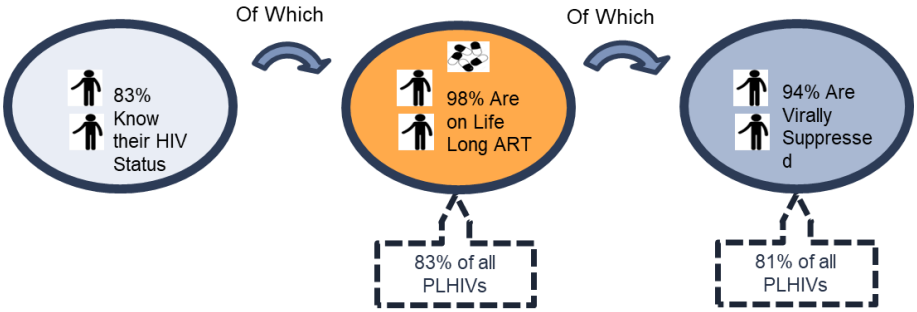


Figure 2: 90-90-90 Cascade by 2022

Despite the significant progress in the 90-90-90 indicators, various studies indicate that some gaps exist in achieving these targets among sub-populations. For example, in the survey conducted among fisherfolks and transport corridors, the proportion of PLHIV who knew their status ranged from 52% to 73%. Among those who knew their status, >95% had started ART and >95% of those on ART had attained viral suppression.[11,12]

1.3 The Epidemiology of Viral Hepatitis

Tanzania, like other sub-Saharan African countries, faces a significant burden of viral hepatitis (VH), which coexists with the HIV epidemic. Viral hepatitis is an inflammation of the liver, caused by five distinct hepatitis viruses (A, B, C, D, and E). The alphabetical naming of these viruses indicates the order in which they were discovered. Hepatitis viruses are either RNA viruses (hepatitis A, C, D and E viruses) or DNA virus (hepatitis B virus). Viral hepatitis infection can be self-limiting, or it could lead to chronic infection (lasting for six months or more). While all of these viruses cause liver disease, they vary significantly in terms of epidemiology, natural history, prevention, diagnosis, treatment and health outcomes.

1.3.1 Natural history of viral hepatitis

Hepatitis A virus (HAV) is usually transmitted through the fecal-oral route, either through person-to-person contact or ingestion of contaminated food or water. Certain sex practices can also spread HAV. Infections are in many cases mild, with most people making a full recovery and remaining

[10]NASHCOP, 'Bio-Behavioural Survey Among Fisherfolk Using Time-Location Sampling in Kagera, Tanzania', 2019.

[11]NASHCOP 'Tanzania Integrated Survey to Identify the (Three) Nineties for Intervention (TISINI) Report', 2020.

[12] MUHAS and NASHCOP, 'HIV and Syphilis Sentinel Surveillance for Pregnant Women Attending ANC in Tanzania Based on Data from Routine PMTCT Services. Seventh Round', 2020.

immune from further HAV infections. However, HAV infections can also be severe and life threatening. Most people in areas with poor sanitation have been infected with this virus. Safe and effective vaccines are available to prevent HAV infection.

Hepatitis B virus (HBV) is transmitted through exposure to infectious blood, semen, and other body fluids. HBV can be transmitted from infected mothers to infants at the time of birth, or from family members to infants in early childhood or from child to child. Transmission may also occur through unsafe sexual intercourse, transfusions of HBV-infected blood and blood products, contaminated injections during medical procedures, and sharing of needles and syringes among injecting drug users. HBV also poses a risk to healthcare workers who sustain accidental needle-stick injuries while caring for HBV-infected people. A safe and effective vaccine is available to prevent HBV infection.

Hepatitis C virus (HCV) is mostly transmitted through exposure to infectious blood. This may happen through transfusions of HCV-infected blood and blood products, contaminated injections during medical procedures, and sharing of needles and syringes among injecting drug users. Sexual or interfamilial transmission is also possible, but is much less common. There is no vaccine against HCV. Both HBV and HCV can cause cancer to humans. Antiviral agents against HBV and HCV exist. Treatment of HBV infection has been shown to reduce the risk of developing liver cancer and death.

Hepatitis D virus (HDV) infections occur exclusively in persons infected with HBV. The dual infection of HDV and HBV can result into serious disease and worse outcomes. Hepatitis B vaccine provides protection from HDV infection.

Hepatitis E virus (HEV), like HAV, is transmitted through consumption of contaminated water or food. HEV is a common cause of hepatitis outbreaks in the developing world and is increasingly recognized as an important cause of disease in developed countries. HEV infection is associated with increased morbidity and mortality in pregnant women and newborns. A safe and effective vaccine against HEV was licensed in January 2012 but is not yet widely available.

1.3.2 Viral hepatitis burden

Globally, viral hepatitis caused 1.34 million deaths in 2015, a number comparable to deaths caused by tuberculosis and higher than those caused by HIV. The number of deaths due to viral hepatitis is increasing over time, while mortality caused by tuberculosis and HIV is declining. All five hepatitis viruses can cause acute disease, but most viral hepatitis deaths in 2015 were due to chronic liver disease (720,000 deaths due to cirrhosis) and primary liver cancer (470,000 deaths due to hepatocellular carcinoma)[13]. Of those deaths, approximately 47% are attributable to hepatitis B virus, 48% to hepatitis C virus and the remainder to hepatitis A virus and hepatitis E virus[14].

Globally, in 2015 an estimated 257 million people were living with chronic HBV infection and 71 million people were living with chronic HCV infection[15]. Furthermore, it is estimated that about 1,400,000 new hepatitis A virus (HAV) infections, 20 million hepatitis E infections, and over 3 million acute cases of hepatitis E virus infections occur globally each year. Hepatitis E virus causes 70,000 deaths[1]. Hepatitis D virus infects only those persons who already have HBV infection, which worsens the outcome of HBV infection than infection with HBV alone. There is a higher rate of liver failure in acute infections and a greater likelihood of developing liver cancer in chronic infections.

In Africa, the exact burden of viral hepatitis is not known but all countries in the region consider viral hepatitis an urgent public health issue. Hepatitis A, B, C and E are the types mostly found in the region. The prevalence of hepatitis B is estimated at 5-7% in Central, Eastern and Southern Africa. Whereas the prevalence of hepatitis C is considered higher in some areas, reaching levels of up to 10%. It is estimated that 19 million adults in the region are chronically infected with viral hepatitis C[2]. Viral hepatitis is also a growing cause of mortality among people living with HIV in Africa. About 2.3

[13] WHO 2016. Global health sector strategy on viral Hepatitis, 2016-2021.
[14] Prevention, Care and Treatment of Viral Hepatitis in the African Region: Framework for Action, 2016–2020; Regional Committee for Africa, Sixty-Sixth Session, Addis Ababa, Federal Democratic Republic of Ethiopia, 19–23 August 2016.
[15] WHO 2017. Global Hepatitis Report 2017. http://www.who.int/hepatitis/publications/global-hepatitis-report2017/en/

million people living with HIV are co-infected with hepatitis C virus and 2.6 million with hepatitis B virus.

1.3.3 Viral hepatitis situation in Tanzania

National data from the 2022/23 Tanzania HIV Impact Survey shows prevalence of 3.5% for hepatitis B and 0.2% for hepatitis C[16]. However, subpopulation studies in different parts of the country show the prevalence of HBV to be 5.5-20% and HCV to be below 5%. Major sources of data in the country include blood donor screening centers, dialysis units, viral hepatitis treatment centers, HIV program, research and surveys.

Hospital-based studies revealed that HBV prevalence ranges from 5-20% in high-risk hospital-based patients[17]. The cumulative prevalence of HCV positive antibody status among PWID receiving opioid replacement therapy was shockingly found to be 75.6%[18].

In the general community, HCV prevalence is estimated between 1.2-2%.[19,20] Literature from Bugando Medical Centre in Mwanza, Tanzania on seroprevalence among health care workers revealed a prevalence of 7% for chronic hepatitis B virus infection.[21] In addition, needle stick injuries were high among health care workers 52.9%.[22] It is estimated that, infection following a needle-stick injury from infected sources is 3% for HCV and 6-30% for HBV.[23] Among adult people living with HIV, rapid screening for HBV seroprevalence showed rate of co-infection to be as high as 9.2% whereas HCV was at 3.7%.[24] Contrary, the prevalence of viral hepatitis co-infection among children according to 2017 data is reported as high as 15%, with HBV and HCV being 1.2% and 13.8% respectively.[25] In 2006, seroprevalence of HBsAg and HCV among blood donors at Muhimbili National Hospital in Dar es Salaam was found to be 8.8% and 1.5% respectively. 10 years data on blood screening from 2007-2016 at the National Blood Transfusion Service revealed the prevalence of HBsAg to range from 4.4-7.0% among blood donors.

[16] National Bureau of Statistics, "Tanzania HIV Impact Survey 2022-23" Dodoma, 2023

[17] Hoffmann, Christopher J., and Chloe L. Thio. "Clinical implications of HIV and hepatitis B co-infection in Asia and Africa." The Lancet infectious diseases 7.6 (2007): 402-409.

[18] Nyandindi, Cassian L. HIV Serostatus, Hepatitis C and Depression Among Injection Drug Users in Kinondoni Municipality, Dar es Salaam, Tanzania. Diss. Muhimbili University of Health and Allied Sciences, 2011.

[19] Tess, Beatriz H., et al. "Seroprevalence of hepatitis C virus in the general population of northwest Tanzania." The American journal of tropical medicine and hygiene 62.1 (2000): 138-141.

[20] Matee, Mecky IN, Pius M. Magesa, and Eligius F. Lyamuya. "Seroprevalence of human immunodeficiency virus, hepatitis B and C viruses and syphilis infections among blood donors at Muhimbili National Hospital in Dar es Salaam, Tanzania." BMC public health 6.1 (2006): 21.

[21] Mueller, A., et al. "Prevalence of hepatitis B virus infection among health care workers in a tertiary hospital in Tanzania." BMC infectious diseases 15.1 (2015): 386.

[22] Manyele, S. V., H. A. M. Ngonyani, and E. Eliakimu. "The status of occupational safety among health service providers in hospitals in Tanzania." Tanzania journal of health research 10.3 (2008): 159-165.

[23] Prüss-Üstün, Annette, Elisabetta Rapiti, and Yvan Hutin. "Estimation of the global burden of disease attributable to contaminated sharps injuries among health care workers." American journal of industrial medicine 48.6 (2005): 482-490.

[24] Franzeck, Fabian C., et al. "Viral hepatitis and rapid diagnostic test-based screening for HBsAg in HIV-infected patients in rural Tanzania." PloS one 8.3 (2013): e58468.

[25] Telatela, Safila P., Mecky I. Matee, and Emmanuel K. Munubhi. "Seroprevalence of hepatitis B and C viral co-infections among children infected with human immunodeficiency virus attending the paediatric HIV care and treatment center at Muhimbili National Hospital in Dar-es-Salaam, Tanzania." BMC Public Health 7.1 (2007): 338.

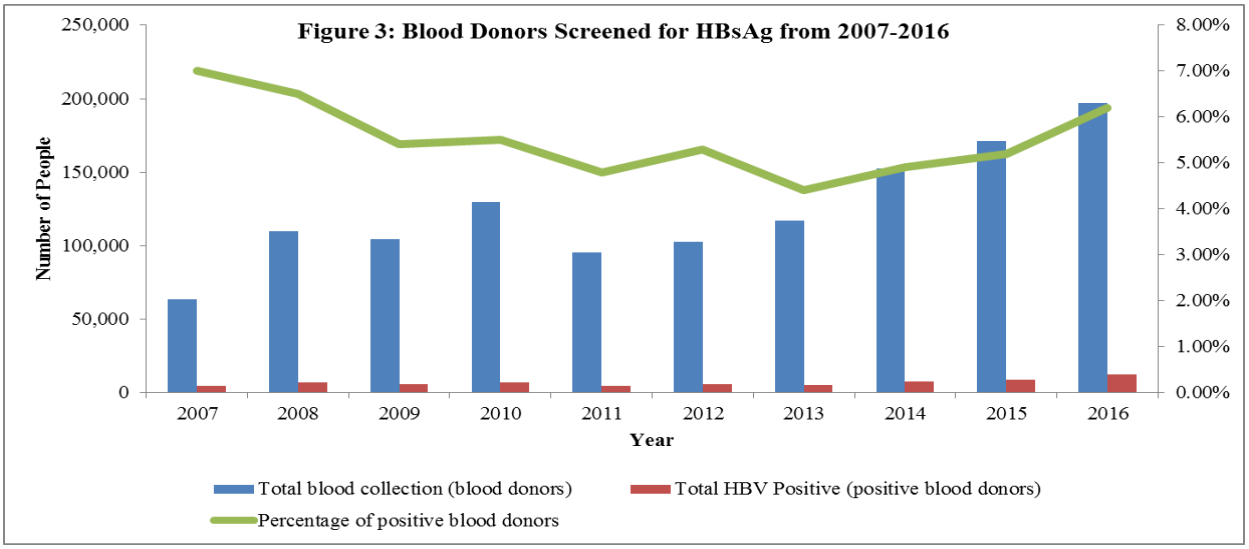


Figure 3: Ten year report of the National blood transfusion services, 2017

In the country, it is estimated that less than 10% of the population receive screening for hepatitis B surface antigen and HCV antibodies. The detection rate for hepatitis B and C viruses countrywide from experts' opinion is estimated to be below 30% with reference to antenatal clinics, other hospital-based clinics and inpatient clients.

Since most of the cases are detected through blood donation screening, HIV management, dialysis, injecting drug users, this sidelines cases who do not fulfill the criteria resulting in patients being detected at terminal stage of illnesses.

The country does not have national care and treatment guidelines for viral hepatitis management albeit ELISA and rapid tests are the mainstay for diagnosis and recently PCR testing has been introduced at high level diagnostic centers. Treatment services are only available at Muhimbili National Hospital since 2016. HBV patients receive life-long ART treatment through project support whereas HCV patients have to pay for treatment with a few covered by health insurers. The drugs are commercially available but it is estimated that only 5% of patients have access to treatment. HCV management cost is estimated at US $ 1,000 per year but clinicians explain that cost may vary depending on complications and disease progression. The situation is further complicated by lack of enough trained human resources to manage chronic viral hepatitis, lack of enough gastroenterology or viral hepatitis centers in the country and lack of clear referral system for chronic hepatitis patients.

Only hepatitis B vaccine is offered in routine immunization program to infants. The vaccine was introduced in 2003 and the coverage has sustainably been high above 90% for the last five years. Despite having policy on vaccinating health care workers and other risk groups, there is no clear guidance on whether one should be screened first or not. On the other hand, lack of data on perinatal transmission of hepatitis B vaccine hinders advocacy on introduction of viral hepatitis birth-dose.

Despite being a global public health problem, expert opinions in the country estimates less than 10% of the general population to be aware of chronic viral hepatitis and its sequel. Furthermore, only 10% of physicians know correct management of chronic viral hepatitis and less than 10% of health care workers are aware of the management in case of accidental exposure.

Prevention strategies for viral hepatitis have usually been embedded in the context of existing health programs (HIV/AIDS, immunization, and blood screening) and activities are quite fragmented even within the programs.

Lack of a well-established coordinated mechanism for control of viral hepatitis results in inadequate control and preventive strategies at subnational levels. Lack of key stakeholders' involvement in the control initiatives and lack of community awareness and resource mobilization initiatives put the entire

population at risk of contracting infection and even dying without accessing necessary interventions for the disease.

1.3.4 Populations most at-risk of viral hepatitis

This Plan recognizes priority populations that experience vulnerabilities or are at-risk of viral hepatitis as a result of social and structural determinants of health including multiple forms of discrimination and conditions of marginalization or exclusion in which they live. Priority populations most at-risk and most affected by viral hepatitis include:

1) People exposed through sexual transmission including adolescents and young people; men with high risk (MHR); sex workers and their clients; people in prisons and closed settings; and people whose sexual behaviour is mediated by drug or alcohol use.
2) People exposed through unsafe blood supplies and unsafe medical injections and procedures.
3) People living with HIV and children of mothers with chronic hepatitis B or hepatitis C infection, especially if living with HIV.
4) People who inject and use drugs (PWUD and PWID).
5) Children exposed through vertical (mother-to-child) transmission or early childhood infection.
6) Pregnant and breastfeeding adolescents and women (PBAW).
7) Women and girls, including adolescent girls and young women (AGYW), who face risks associated with gender inequalities and exposure to violence, in conjunction with increased biological risks on the basis of sex.
8) Young people, including young key populations.
9) People of all ages, including men who are less likely to use health services.
10) Migrants and mobile populations, and people affected by conflict and civil unrest, including people in humanitarian settings.
11) Persons with disabilities.

1.4 An Overview of the Mid-Term Review of the HSHSPV

The MTR[26] conducted in 2020 found that the "*Test and Treat*" strategy is now implemented country-wide. Enrolment of newly identified PLHIV increased from 86.3% in 2017 to 95.9% in 2019. Under PMTCT services, the number of health facilities providing PMTCT services increased from 4,138 in 2017 to 6,327 in 2019. Also, there was improved access to HIV care among exposed infants and pregnant women. The number of clients tested for HIV increased from 7.3 million in 2017 to 7.9 million in 2019. By December 2019, over 98% of pregnant women who were supposed to receive PMTCT services were reported to have tested for HIV.

With the VMMC intervention, more than 2,432,427 males were circumcised between 2017 and 2019, surpassing the national VMMC target of 2,400,000. The programme managed to expand services to 17 regions that are currently implementing the VMMC programme based on set criteria of low male circumcision prevalence rates and high HIV prevalence levels.

As indicated in table 3 below, four programme areas, were noted to make good progress, but more efforts are required to sustain them. For the eight key intervention areas, results were satisfactory but targets were not achieved, these include condom programming, services for KVP, Blood Transfusion and Safety (BTS), SBCC, Stigma and discrimination, STI / Reproductive Tract Infections (RTI), and medicines, equipment, supplies and laboratory services. Most of the hindering factors are system barriers such as monitoring and follow-up mechanisms for SBCC, stock outs and limited budgets for

[26] National AIDS Control Programme, 'Mid Term Review of HSHSPV 2017/18-2022/23" Dodoma 2020

medicines and supplies, technical capacity and shortage of human resources for BTS, and coordination and related support issues involving Development Partners (DPs) and IPs.

Four programme areas are still lagging behind the targets, and they will require extra efforts to bring them back on track towards ending AIDS. These include PrEP, HIV Self-testing services (HIVST), GBV and Violence against Children (VAC).

Table 3: Performance of HSHSPV interventions

S/N	Programme/ Intervention Area	Progress
1	HIV Testing Services (HTS)	Good Progress (*targets achieved*)
2	Care and Treatment	
3	Prevention of Mother to Child Transmission of HIV (PMTCT	
4	VMMC and Early Infant Medical Circumcision (VMMC & EIMC)	
5	Health Information System for HIV and AIDS	More effort needed (*Satisfactory but targets not achieved*)
6	Condom Programming	
7	Services for Key and Vulnerable Populations (KVP	
8	Blood Transfusion and Safety (BTS	
9	Social and Behaviour Change Communication (SBCC	
10	Stigma and Discrimination	
11	STI / Reproductive Tract Infections (RTI	
12	Medicines, Equipment, Supplies and Laboratory Services	
13	Pe-Exposure Prophylaxis (PrEP)	Lagging behind and extra efforts needed
14	HIV Self-testing Services	
15	Gender-Based Violation (GBV	
16	Violence Against Children (VAC	

The MTR recommended that the programme should focus on addressing frequent stock-outs of commodities and supplies; strategizing towards making women come for a second test and retaining PLHIV on ART which was found to be challenging; and improving the coordination of IPs, especially in condom programming. In addition, the programme should improve efficiency in providing feedback on blood screening from zonal blood centres to facilities, and revitalise efforts towards reducing GBV and VACW; at the same time, promoting quality of data and data use.

1.5 The Global Response

1.5.1 Global HIV Response

Globally, HIV remains a serious health problem affecting all regions, with the brunt of the disease affecting Sub-Saharan Africa. At the 2016 UN General Assembly, following an observed sluggish decline in new HIV infections, a political declaration on ending the AIDS epidemic by 2030 was reaffirmed. Regarding HIV prevention, an intermediate goal of 75% reduction of new HIV infections by 2020 and a further drop by 90% by 2030 was developed[27]. At the end of 2020, 12 million PLHIV globally were likely to die of AIDS-related causes if they did not receive treatment. In 2019, almost 700,000 people died of AIDS-related causes despite the existence and availability of effective

[27]UNAIDS, 'Fast-Track Update on Investments Needed in the Aids Response', 2016, https://www.unaids.org/en/resources/documents/2016/unaids_fast-track_update_investments_needed.

treatment; this implies that the HIV response should refocus on extending life-saving services to all PLHIV who need them in every country and every community.

Additionally, the impact of the COVID-19 pandemic is jeopardizing continued efforts in the fight against HIV and AIDS. More efforts are needed to identify and address factors that prevented countries in reaching the 2020 targets. Actions should be taken simultaneously while safeguarding HIV programmes from the impact of COVID-19 and keeping PLHIV safe from COVID-19 and other possible threats. This includes prioritizing population groups and PLHIV in the category of high-risk medical conditions for vaccines against COVID-19.

The 2021 Political Declaration and new Global AIDS Strategy (GAS) 2021–2026 seeks to reduce inequalities that drive the HIV epidemic and put people at the centre to get the world on track to end AIDS as a public health threat by 2030. Inequalities exist not only between countries but also within countries. Even in countries that have achieved the 90–90–90 treatment targets, the averages conceal the reality that some people are still being left behind. The aggregate global and national averages, while reflecting positive trends, mask areas of continued concern, which, unless addressed, will prevent the world from ending AIDS.

This plan has been developed in line with the Fifth Health Sector Strategic Plan (HSSP-V), and the Fourth National Multisectoral Strategic Framework (NMSF-IV) and has adapted strategies recommended by the GAS, WHO Global Health Strategy on HIV, STIs and viral hepatitis; the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM), and the Investment Case which applied epidemiological synthesis, programmatic and economic analyses to develop scenarios for moving Tanzania towards the global goals. The plan is also guided by Tanzania's commitment to the implementation of the UN Political Declaration on HIV and AIDS in 2021[28], SDGs and the African Union Agenda 2063.

1.5.2 Global viral hepatitis response

Global viral hepatitis response gained significant momentum during the 2016-2021 implementation period. However, funding commitments remain inadequate to meet global goals. The global 2020 target of reducing the incidence of hepatitis B virus was met, supported by infant vaccination and prevention. The number of people receiving treatment for chronic hepatitis C virus infection increased almost 10-fold from 2015, reducing hepatitis C-related mortality. Nevertheless, nearly 80% of people with hepatitis B or C virus remain undiagnosed, and affordable treatments are not being accessed. Hepatitis B and C viruses together continue to cause 1.1 million deaths per year as a result of chronic liver disease and cancer. Timely access to birth-dose hepatitis B vaccine remains low in many low- and middle-income countries[29].

The global response to viral hepatitis has witnessed increasing momentum and political commitment during the 2016-2021 strategy implementation period, supported by tremendous advances in public health approaches to prevention and treatment. Although all key interventions for viral hepatitis response have been shown to be highly cost-effective, there is need for marked increase in financial investment to achieve disease elimination goals. Existence of safe and effective vaccines for hepatitis B, and antiviral medicines that can prevent the transmission of hepatitis B and provide an effective cure for hepatitis C, provide great potential for ending viral hepatitis by 2030. Some countries with high burden of viral hepatitis have pioneered action to address these diseases; however huge gaps in diagnosing and treating viral hepatitis infection remain in most countries. To achieve the goals of the global strategy by 2030, new infections from viral hepatitis B and C must be reduced from around 3 million new cases in 2020 to 520,000 by 2030 (82.7% reduction); and deaths from viral hepatitis B and C must be reduced from 1.1 million to less than 500,000 deaths (54.5% reduction). This requires massive expansion in the availability of prevention, diagnostic and treatment services in low- and

[28]UNAIDS, Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030

[29] WHO, Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030

middle-income countries, and universal access to hepatitis B birth-dose vaccine to end infections in children. Integrating viral hepatitis services into UHC packages, simplifying and decentralizing service delivery, reviewing and reforming harmful legislation and policies that create barriers to evidence-based interventions and services, and improving coordination with other health areas such as those addressing cancer and maternal and child health care, supported by greater public and political awareness and adequate funding, will be required to make this happen.[30]

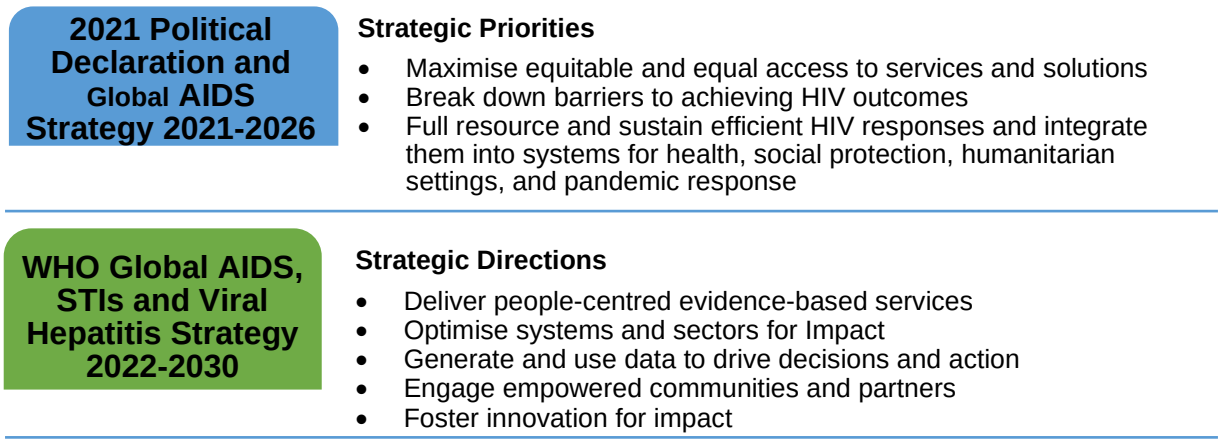


Figure 4: Global Strategic Priorities informing the NASHCOP SP

1.5 National Guiding Policies and Strategies

In alignment with these global goals and strategies, Tanzania adopted the 2016 UN General Assembly Political Declaration on ending the HIV epidemic by 2030. It also added a locally contextualised interim goal to further reduce new infections by 85% by 2023 (All from the 2010 baseline). Currently, Tanzania is implementing the HSSP V 2021 – 2026, the One Plan III (2021-2026), and the National Accelerated Action and Investment Agenda for Adolescent Health and Well Being (NAIA-AHW) 2021-2025. This strategy and the National Multisectoral Strategic Framework IV align with national and global policies.

At the national level, the Tanzania Development Vision 2025 emphasises the importance of "Access to quality primary health care for all". Along with that, the GoT has recently launched key strategic documents to guide HIV control interventions. Moreover, the NASHCoP SP is informed by the five-year developmental plan III (2020-2025), which focuses on building more robust human resources; the CCM Election Manifesto for 2020, which aims at reducing new HIV infections as well as increasing domestic financing; and the HSSP V, which focuses on the implementation of the new health policy, in the context of the SDGs, especially SDG 3: *Ensure healthy lives and promote well-being for all at all ages.*

HSSP V

Vision

To have a healthy and prosperous society that contributes fully to the development of individuals and the nation.

Mission

Providing sustainable health services with standards that are acceptable to all citizens without financial constraints, based on geographical and gender equity.

[30] WHO, Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030

1.6 The process of developing the NASHCoP SP

The development of the NASHCoP SP was done early in a bid to align with country and global strategies and targets. First, Tanzania recently launched high-level strategic guidance; the national development plan 2021/22 – 2025/26, the Fifth Health Sector Strategic Plan (HSSP V) 2021 – 2026, and Tanzania Health Policy 2020. Second, UNAIDS has released the new GAS 2021-2026. The release of these four key documents and the MTR findings necessitated a reflection on the need for a new strategic vision and direction bearing in mind that the HIV epidemic and the response are rapidly changing. New evidence and programmatic shifts signify the need to re-envision national strategies to fast-track efforts to end the HIV epidemic by 2030.

The development of the NASHCoP SP has been informed by epidemic appraisals, implementation lessons, and evidence collected by multiple actors involved in addressing HIV and AIDS in Tanzania. The process engaged PLHIVs, communities, civil society organizations, KVPs, government entities, DPs and IPs. As a result, we are confident that the strategies and actions identified in the plan are most likely to achieve the results we have defined.

The NASHCoP SP builds on the significant progress achieved to date, and responds to gaps identified over the first three years of implementing the HSHSPV. The comprehensive MTR conducted in 2020 and country review processes, including those related to developing the Global Fund funding request for the 2021-2023 grant, and the PEPFAR Country Operational Plan for the year 2021/22, formed the basis for the new strategic direction towards ending AIDS.
The development process was consultative and participatory. The process extensively involved key stakeholders who formed the writing team and a peer review team, while Consultants were engaged to facilitate the strategy development processes. The MoH through the NASHCoP led and coordinated the process through the following steps.

Review of documents: A desk review of secondary data focused on key documents that are relevant to the national HIV and AIDS response. For purposes of alignment with sectoral and national plans, key documents were reviewed, including the HSSP V (2021-2026); the Mid-term review of Health Sector HIV and AIDS Strategic Plan IV; the GAS 2021-2026 and the draft WHO Global Health Sector Strategy on HIV, Viral Hepatitis and STIs (2022-2030), among others. The National HIV Care and Treatment Database and Spectrum files were used to update the MTR report data, develop scenarios, and estimate impact and coverage targets for the NASHCoP SP.

Multi-stakeholder consultation: A multi-stakeholder consultation workshop was conducted at the beginning of the process. The workshop brought together participants from the health sector and beyond, who conducted a Strength, Weakness, Opportunities, and Threat (SWOT) analysis and a Root Cause Analysis (RCA) of the gaps and challenges of the national response. Inputs and proposed solutions have been used to inform key strategies in this document.

The SWOT and RCA analyses informed key gaps and priority strategies defined in each Strategic Outcome in Chapter 4. The SWOT analysis revealed that Tanzania has a matured HIV response with the capacity to deliver quality, evidence-based and comprehensive HIV prevention, care and treatment services. The country has considerable support from donors and partners**,** and programme governance and coordination structures are well placed to sustain the current gains. Progress towards controlling the epidemic looks promising except for the challenges in meeting prevention targets, which are critical to ending AIDS. The main weakness is the sub-optimal implementation of key interventions, such as those targeting KVP and AGYW, HIVST, HIV recency testing, condom programming**,** and PrEP. Tanzania has several great opportunities to explore when reflecting on sustaining gains and increasing efficiencies in HIV programming. These include having supportive policies and strategies, embracing innovations and technologies, a strong civil society community including PLHIV clusters, and a well-structured health system. Key threats identified include over-

dependence on donor support, challenges in calamity mitigation or epidemics such as COVID-19, and cyber security.

In analysing viral hepatitis programming, the country was found to have existing national programmes that already address viral hepatitis prevention such as the HIV/AIDS, immunization and blood safety. There is good opportunity to build on global guidance and call for action with new diagnostics and treatments that can be adopted. It will be important for the country to invest on programmatic management for viral hepatitis, to ensure availability of screening, diagnosis and treatment commodities, build capacity of heath care workers and institute data protocols to collect, analyse report and use data to inform programme improvements.

Design, validation, and finalisation: A writing team was assembled to design the NASHCoP SP. This team comprised key partners from Civil Society Organizations (CSOs), implementing partners, line ministries, higher learning institutions (HLIs) working closely with NASHCoP staff and Consultants. The writing team designed 3 key documents; the National Strategy, an M&E Framework and an Implementation Plan. The team developed the first and second drafts, which were peer-reviewed and validated. The final outputs included a Costed NASHCoP SP Core strategy, accompanied by a 5-year M&E Framework and a 2-year Implementation Plan.

2. THE STRATEGIC FRAMEWORK

2.1 Introduction

The new integrated strategy provides a strategic framework for the health sector response to HIV, Viral Hepatitis and STIs in Tanzania. It outlines the goals, objectives, and strategies that translate Tanzania's vision and mission for July 2022 – June 2026, narrating how to strengthen health and other systems to successfully combat HIV and AIDS. This strategic plan is informed by global, regional and national health sector policies and strategies, and the multisectoral response framework. The Plan will guide all stakeholders by informing their implementation plans at the national and sub-national levels.

2.2 Vision, Mission, Goal

VISION

To have a healthy and disease -free society that contributes fully to the well-being of individuals and to national development

MISSION

Providing sustainable quality HIV, STIs and VH and STIs services that are integrated, people-centred, equitable, and accessible and removing financial constraints.

GOAL

To accelerate the reduction of new HIV and VH infections and improve treatment outcomes.

IMPACT RESULTS

- New HIV infections reduced by 85% in 2025 from the 2010 baseline (110,000);
- Mother to Child Transmission of HIV and Viral Hepatitis reduced to ≤4% by 2025;
- AIDS related deaths reduced by 80% in 2025 from the 2010 baseline (64,000);
- HIV related stigma reduced to <5% by 2025 from 2013 baseline of 28% for external stigma and 20.5% for internal stigma.
- 40% reduction in annual new hepatitis B virus and hepatitis C virus infections by 2025 (from 2023 baseline)
- 40% reduction in annual hepatitis B and C related deaths by 2025 (from 2023 baseline)

2.3 Key Guiding principles

Equity: Equity helps to address avoidable and unfair differences in health status and ensure equal access to health services, especially by those most in need. The strategy considers equity-motivated interventions that seek to allocate resources preferentially to people who are most in need, those who are left behind, or to those with the highest disease burden. This requires an increased understanding and the need to influence the redistribution of resources for health.

Gender: This principle addresses the need to implement strategies and interventions that overcome barriers resulting from gender norms, different forms of discrimination, power imbalances, and persecution and ensure that interventions reach the most marginalised population segments. The ultimate goal is to ensure a gender-transformative national response.

Rights-based approach: A rights-based approach integrates human rights norms and principles in the design, implementation, monitoring, and evaluation of health programmes.

Resilient and sustainable response: Robust health systems are not only essential for ending the HIV, VH and STIs epidemic but also for delivering health services in a sustainable, equitable, and effective way. Resilient and sustainable systems for health are necessary to accelerate progress towards UHC and prepare for emerging threats to global health security. This principle entails building the capacity of health actors, institutions, and populations to prepare for and effectively respond to crises.

Quality, Integration and innovation: The need to deliver people-centred services that meet client expectations and country standards is emphasised. The delivery of appropriate care requires a differentiated model and tools for care delivery and a renewed effort to manage the client under one roof,

taking into consideration a broader range of common comorbidities such as TB, cervical cancer and NCDs. Technology and innovations such as mobile phone tools and applications are instrumental in increasing efficiency, communication and information exchange in the health care cascade.

Efficiency: Lessons and advancements in medicine, interventions, and technology provide an opportunity to deliver HIV, VH and STIs services in the most economic manner. Partnerships and coordination at the national and sub-national levels will facilitate the national programme to deliver interventions and strategies that focus on impact and reduce duplication.

Community-led response: Stakeholder engagement during the designing, planning, and monitoring and evaluation of the response will ensure active participation and involvement of communities. This principle encourages affected communities, including KVP and PLHIV, to become more actively involved in programmes that affect their lives. As part of the quality improvement measure, community participation will also include the provision of feedback through community-led monitoring.

Accountability: Strong, accountable and effective leadership at all levels of the health care delivery system is critical for the efficient implementation of this strategic plan. The strategy provides structures to ensure accountability of central and local governments, funding partners and the communities served, in terms of resource utilisation, service provision, and health outcomes achieved at all levels of the health sector.

2.4 Strategic Direction towards Epidemic Control

The country has made significant gains in responding to the HIV epidemic. While increasing HIV testing, care and treatment interventions have recorded success, long-term and sustainable HIV epidemic control requires strategic and innovative shifts in the country's response. During the 2017 - 2020 period, Tanzania advanced its efforts to address the needs of KVP, including PWID, AGYW, fisherfolks, FHR, MHR, mining communities, migrant workers (construction, agricultural plantation, people living along the transport corridor hotspots including long-distance truckers), and continued to address the social and structural drivers of HIV. However, the pace of impacting the epidemic will need to be accelerated to achieve the country's bold targets by 2025 and stay on course to end the epidemic by 2030.

Similarly the country has established a viral hepatitis response aiming at delivering a comprehensive continuum of viral hepatitis prevention, diagnosis, treatment, and chronic care services to all l priority populations.

2.4.1 A People-Centred Approach

Putting people at the centre of rights-based health system responses – by organizing services around people's needs rather than around diseases, and by promoting integrated patient-centred approaches and linkages with primary health care services – is key to ending HIV, VH and STIs.

The integrated strategy focuses on impact by employing a people-centred approach, epidemiological data, and detailed information and insights. The Strategy will focus on primary prevention and improve the quality of service for people enrolled in ART and VH care. Differentiated HTS, including HIV self-testing and HEID, will remain an important entry point for prevention, care, treatment, and support services for HIV. Recognising that different people require different prevention approaches, differentiated care models will be scaled up to tailor interventions to each person's needs, including enhanced use of proven community-based services. Priority is given to ensuring that treatment programmes are holistic and that they address each person's health needs, including comorbidities. The integration of HIV, VH and STIs prevention services across HIV testing facilities, family planning, antenatal, post-natal services, and other health services will be promoted. On the other hand, Family Planning (FP) will be integrated as a component of care in other services such as HIV, VH, TB and community health services.

Communities, including KVP will receive intensified focus to empower them, improve service access, and reduce barriers to service uptake. A higher priority is placed on the collection and timely use of high-quality service delivery and logistics management data to guide and inform programmes and policies. The NASHCoP SP will continue to emphasise the quality and use of programmatic data to guide implementation. There will also be emphasis on improving the implementation of surveys, surveillance, evaluation, and reviews to measure and monitor progress towards outcomes regularly. The logistic management systems for HIV, VH and STIs commodities will be improved to increase availability and reduce wastage.

This strategic shift represents a transformative approach to reduce new infections, and morbidity and mortality associated with HIV, VH and STIs. The strategic interventions will be layered within a broader development agenda to include UHC. Innovative approaches that may effectively reach specific groups with targeted interventions will be prioritised.

2.4.2 Addressing Barriers and Inequalities

The Legal Environment Assessment conducted in 2016 revealed that the Constitution of the United Republic of Tanzania upholds basic human rights laws to protect access to services. However, stigma and discrimination, gender violence, and social norms continue to serve as barriers to accessing HIV care. The 2021 Stigma Study showed that 5.5% of PLHIV reported to experience internal stigma and 6.4% experienced community stigma[31]

In 2019, Tanzania amended the 2008 HIV & AIDS Prevention and Control Act (HAPCA) and lowered the age of consent for voluntary HIV testing from 18 to 15 years. The country also introduced HIV self-testing as an additional testing approach. The policy and programmatic guidelines reflecting these amendments were updated accordingly in 2020. Working within the multisectoral response, the health sector will reduce barriers and inequalities to access quality prevention and treatment services. The strategy will deploy interventions to address harmful traditional norms, stigma and discrimination, GBV, income poverty, and unethical practices in health care settings. As part of the multisectoral response, the health sector will also intensify efforts to close gaps in the implementation of rights-related legal and policy commitments and gaps in access to legal literacy and legal aid.

Efforts will further be taken to address stigma and discrimination for people living with chronic HBV and HCV infections so as to improve adherence to medications, outcome, and quality of life. To realize these aspects, participation of key actors in and out of the health system is required; including the public sector, private providers, other organizations as well as diverse civil society and affected communities.

2.4.3 Populations and Geographical Targeting

One of the key strategies in the NASHCoP SP is to accelerate interventions targeting geographical locations and sub-populations with a higher disease burden or those left behind, in addition to the general population. The country will deliver enhanced HIV interventions that are disaggregated by risk category, gender, and age while optimising HIV testing, prevention, and care strategies to maximise impact. Among the sub-populations to be prioritised are children, AGYW, men, KVP prioritising MHR and FHR and their sexual partners, PWID, fisherfolks, inmates, miners, and other vulnerable groups. Therefore, it is important to assertively scale-up targeted services tailored to the unique requirements of these groups. Meeting the needs of diverse populations and geographical variations requires DSD models on comprehensive HIV prevention services, case identification, linkages, retention of known PLHIV on life-long ART, adherence to ART, and viral suppression. These services should be integrated into the health service delivery system as much as possible, both at the facility and community levels.

[31] TACAIDS 'National PLHIV Stigma Index 2.0', Dar es Salaam, 2021.

Comprehensive prevention and care will be provided countrywide in addition to the intensified interventions that target geographical location and sub-population. The health sector will prioritise remaining gaps in reaching the sub-population with HTS, VMMC, condom, SBCC, PrEP, and ART. Working within multisectoral response efforts for HIV service provision in workplaces, schools, prisons, GBV, VAWC, inequitable gender norms and stigma, and effective leadership will also be prioritised. The purpose is to saturate targeted locations and populations with high-impact prevention and treatment services and strengthen efforts to reduce barriers and inequalities by addressing social and structural factors that limit access to services and increase vulnerability to infection.

2.4.5 Generate and use data to drive decisions for action.

Monitoring and evaluation of HIV, VH and STIs is necessary for are programme improvement. Data on the burden and service coverage among people affected with the diseases and those at risk of infection should be collected regularly to inform program planning and resource allocation. The programme intends to strengthen surveillance systems to monitor and manage these infectious diseases more effectively, allowing for a more holistic understanding of their impact on populations. The programme working closely with stakeholders will regularly review this data to ensure continuous enhancement and optimization.

2.5 Prioritised Interventions

The UNAIDS's GOALS age-structured Model (ASM) informed the selection of high-impact interventions for HIV response while available data and global recommendations informed the VH interventions. The ASM is a module within the Spectrum model. Tanzania has been using the Spectrum model for many years to produce annual estimates of key HIV indicators. The model uses the Spectrum's cohort component projection method to simulate population dynamics and uses the Spectrum's AIDS Impact Module (AIM) to model HIV disease progression and mortality by age, sex, and CD4 cell count, and to track ART status and simulate MTCT.

The GOALS ASM is designed to model generalized HIV epidemic contexts and represents heterosexual HIV transmission based on age-dependent inputs: rates of partner change, preferential sexual mixing, and the risk of HIV transmission within heterosexual sero-discordant partnerships. The model incorporates general population behaviour change programs, including economic empowerment and school-based prevention and sexuality education programs.

2.5.1 The impact of achieving NASHCoP SP Targets

The fitted model can be used to project into the future by making assumptions about the future coverage of HIV interventions. For this analysis two projections were used:

- Constant coverage. This projection assumes that the coverage of all interventions remains constant at 2020 levels. It serves as the counter-factual scenario for calculating infections and deaths averted.
- Targets achieved. This scenario assumes that the targets of the NASHCoP SP are achieved. The targets reflect the base year coverage.

Figure 5 shows the impact of achieving these targets on the number of new infections through 2030. While new infections are projected to decline under both scenarios, the decline will be much more rapid if the targets are achieved. The reduction in new infections from 2010 to 2025 is estimated at 83%, closely matching the goal of 85% reduction stated in this strategy. By 2025 there should be just 16,000 new infections annually. About half the impact will be due to the increased proportion of PLHIV on ART, and who are virally suppressed. The next largest contributions are from condoms (23%), PMTCT (7%), PrEP (7%) and VMMC (7%), key populations excluding PrEP (2%) and AGYW programs (1%).

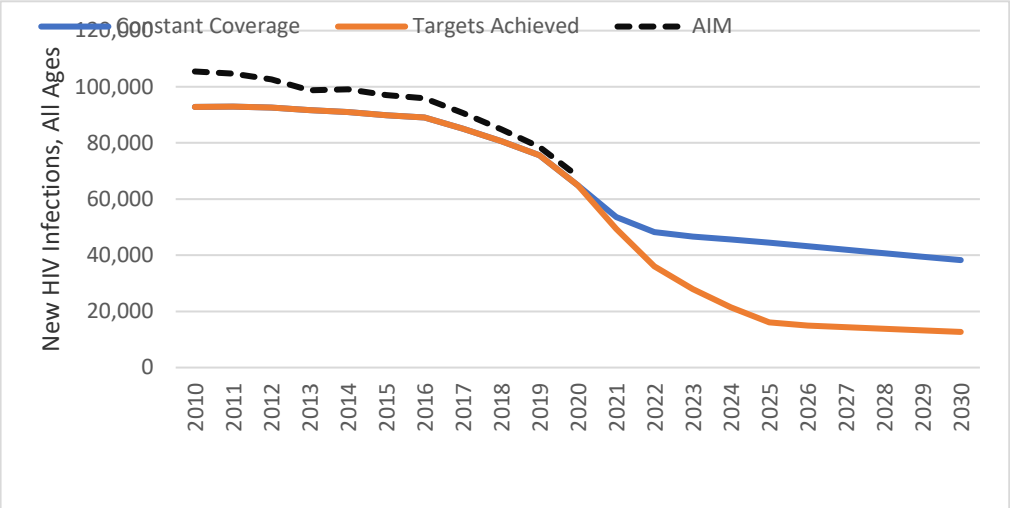


Figure 5: Impact of Achieving NASHCOP SP Targets

2.6 Implementation Framework

The Goal of the NASHCoP SP is to accelerate the reduction of new HIV, STIs and VH infections and mortality. The health sector implementation framework for the strategy will focus on interventions that support service delivery for prevention, care and treatment within the primary health care framework. The plan also builds on the national and global ambitious goal of UHC to ensure everyone has access to quality health services.

2.6.1 Reduction of New HIV Infection Logical Framework

In order to reduce new HIV infections by 85% in 2025 (compared to 2010 baseline) and bring Tanzania closer to epidemic control by 2030, the NASHCoP SP focuses on 'amplifying' evidence-based prevention strategies 'at-scale' by targeting all population segments at risk **'equitably'.** This will include **'effectively reaching'** and **'saturating'** the classical KVP *(FHR, MHR, and PWID)*, other unreached KVP *(fisherfolks, miners, long distance truck drivers, plantation workers and sex partners of KVP, among others)*, and segments of the underserved general population *(for whom there have not been concerted efforts to target them in an impactful manner)* with the **'right mix and dose'** of HIV prevention interventions. The development of the strategic plan has ensured that the gains achieved over the past implementation periods are not lost. This includes putting deliberate efforts into strengthening ancient but highly effective interventions such as PMTCT, VMMC, blood safety, STI screening and management, condom programming and embracing new evidence-based interventions such as PrEP, HIVST, and HIV recency testing. (**Figure 6** refers).

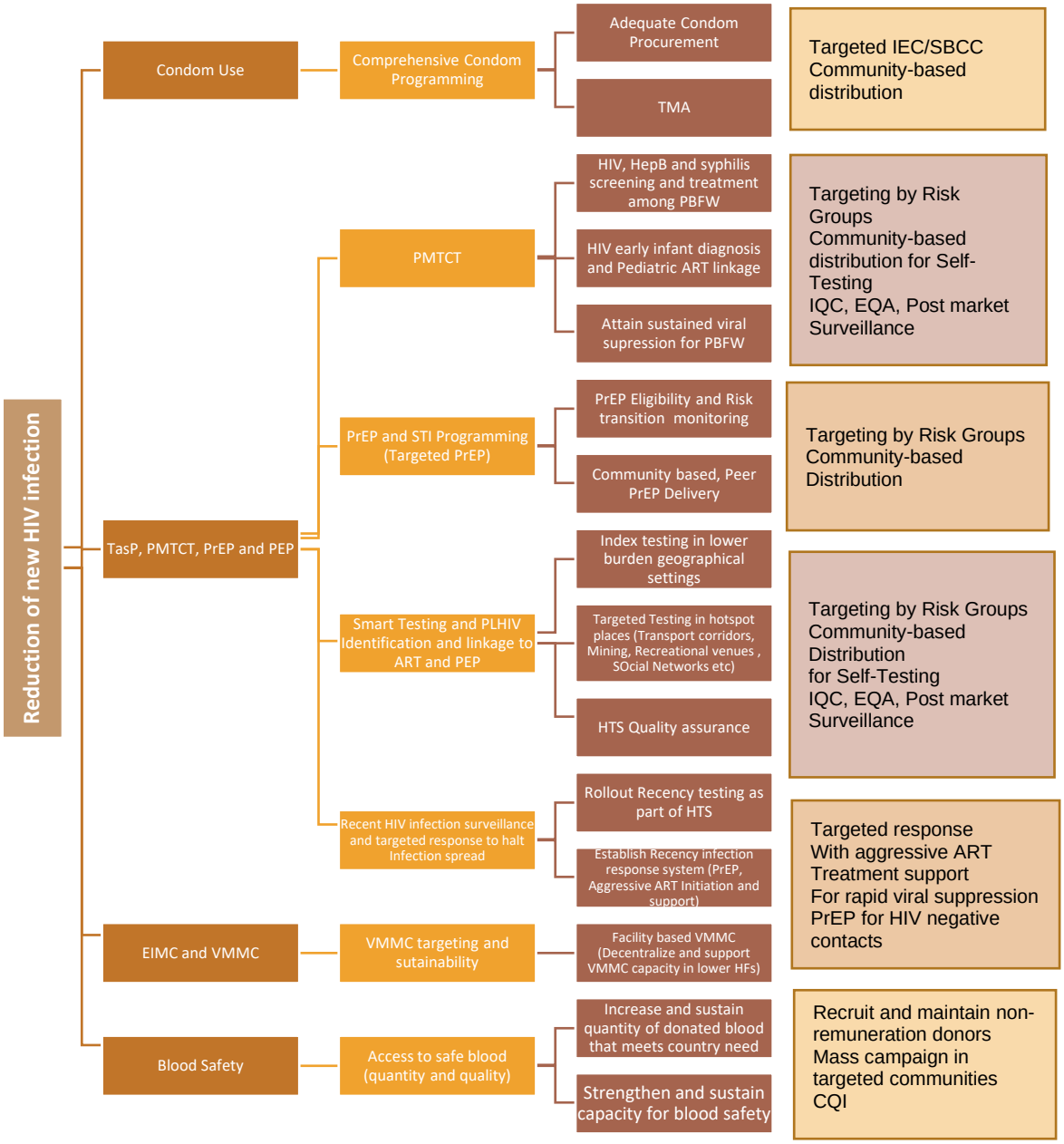


Figure 6: Reduction of New HIV infections

2.6.2 Reduction of HIV Mortality Logical Framework

In a bid to reduce HIV mortality by 85% by 2025 (from 2010 baseline) the progress in achieving 90-90-90 FTT needs to be translated swiftly to 95-95-95 targets before 2025. The country's care and treatment services currently under the DSD model will be sustained while considering emerging priorities such as management of Advanced HIV Disease (AHD) and drug resistance. Community-based services, including PLHIV support groups and social protection services, will also be prioritised.

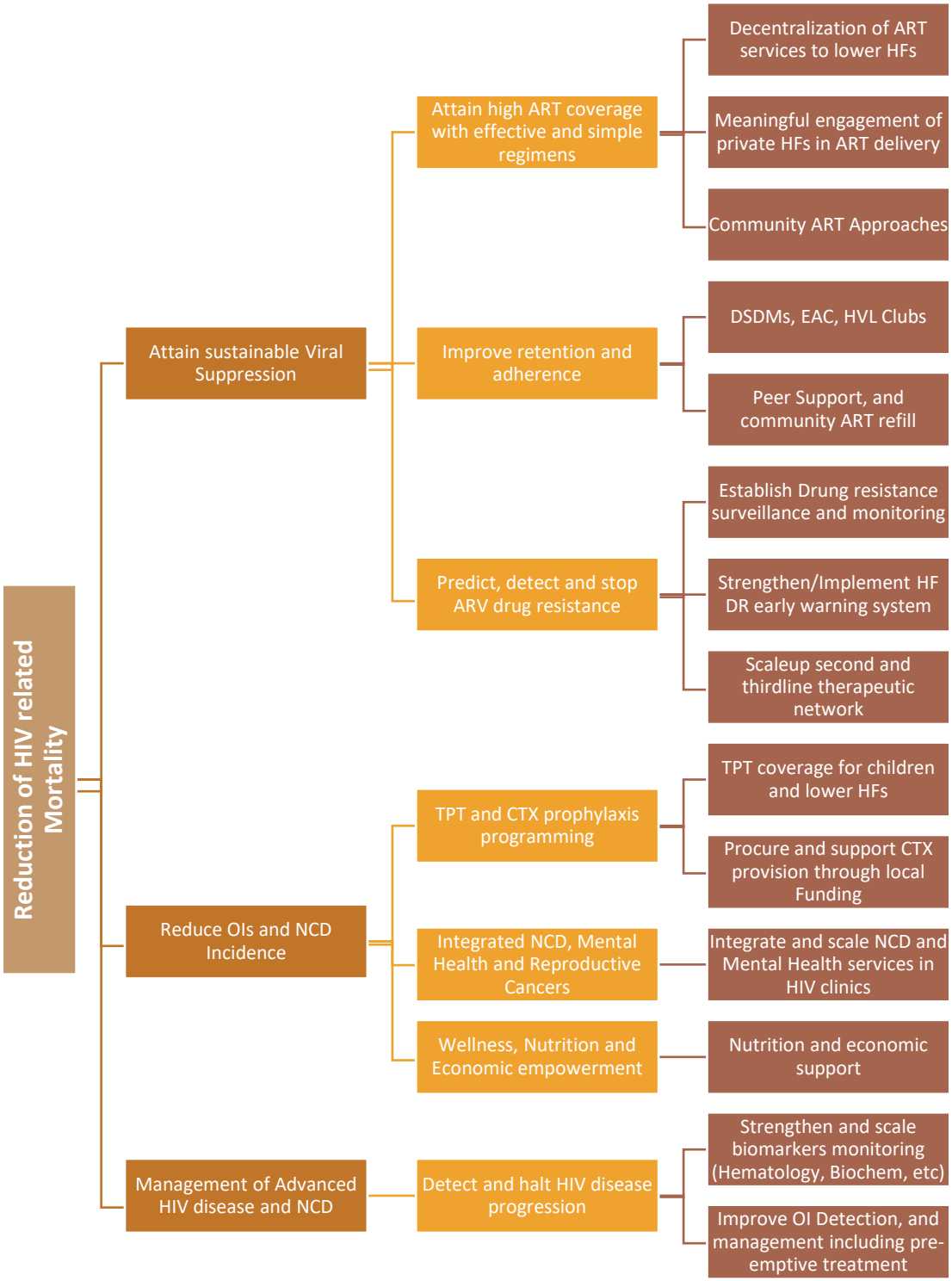


Figure 7: Reduction in HIV related Mortality

3. HEALTH SECTOR HIV AND AIDS PRIORITISED INTERVENTIONS

PRIORITY STRATEGIC AREA 1: DIFFERENTIATED HIV TESTING SERVICES

HIV Testing Services are the gateways to prevention, treatment, care, and support services for HIV and AIDS as they provide an opportunity to link clients to both prevention and treatment services. Therefore, HTS are crucial to the success of the HIV response in Tanzania. In order to fast-track efforts to end AIDS as a public health threat by 2030, this strategy will capitalize on identifying PLHIV with unknown HIV status and initiating them on ART.

Intervention Area 1: HIV Case Finding

Strategic Outcome 1.1: More than ninety-five percent (>95%) of people living with HIV are aware of their HIV status by 2025

Situational Analysis

According to the THIS 2022/23, at the beginning of the implementation of the NASHCOP SP, 83% of PLHIV knew their HIV status, a notable increase from 61% in 2016/17. Based on PLHIV size estimates of that year, this translates to 1,280,000 individuals aware of their status and 268,000 are unaware of their HIV status.[32]

The HSHSPV implementation period witnessed remarkable achievements in HTS that need to be recognized. These include the introduction of an index testing modality and the removal of barriers to HTS access. The latter was accomplished through the amendment of the HIV & AIDS Prevention and Control Act (HAPCA) 2008 (approved in November 2019), which resulted in the lowering of the age of consent for voluntary HIV testing from 18 years to 15 years, and the inclusion of HIV self-testing as an additional testing approach. Furthermore, the national HTS guidelines were revised to accommodate the use of HIV/Syphilis duo-test kits for pregnant women, social network-based testing, optimized HTS screening tools, and a revised schedule for maternal re-testing. These efforts resulted in an increased proportion of PLHIV who know their HIV status from 61% in 2017 to 83% in 2022/23. On the other hand, the HTS yield (positivity) has increased over time from 2.6% in 2018 to 5.5% in 2021 due to targeted HIV testing. Index testing has the highest (more than 20%) yield. This approach significantly reduced the number of people needed to be tested (NNT) to identify one HIV-positive client.

Despite the above accomplishments, gaps were also observed. One of them was the inadequacy of efforts to reach some of the population segments, including children 0-14 years (58%), young people 15-24 years (65%), and adult males 15+ years (76%). **Figure 8** below illustrates trends for the three populations from 2018.

32 National AIDS Control Programme Report, 2021, 'Annual Programme Report', 2020

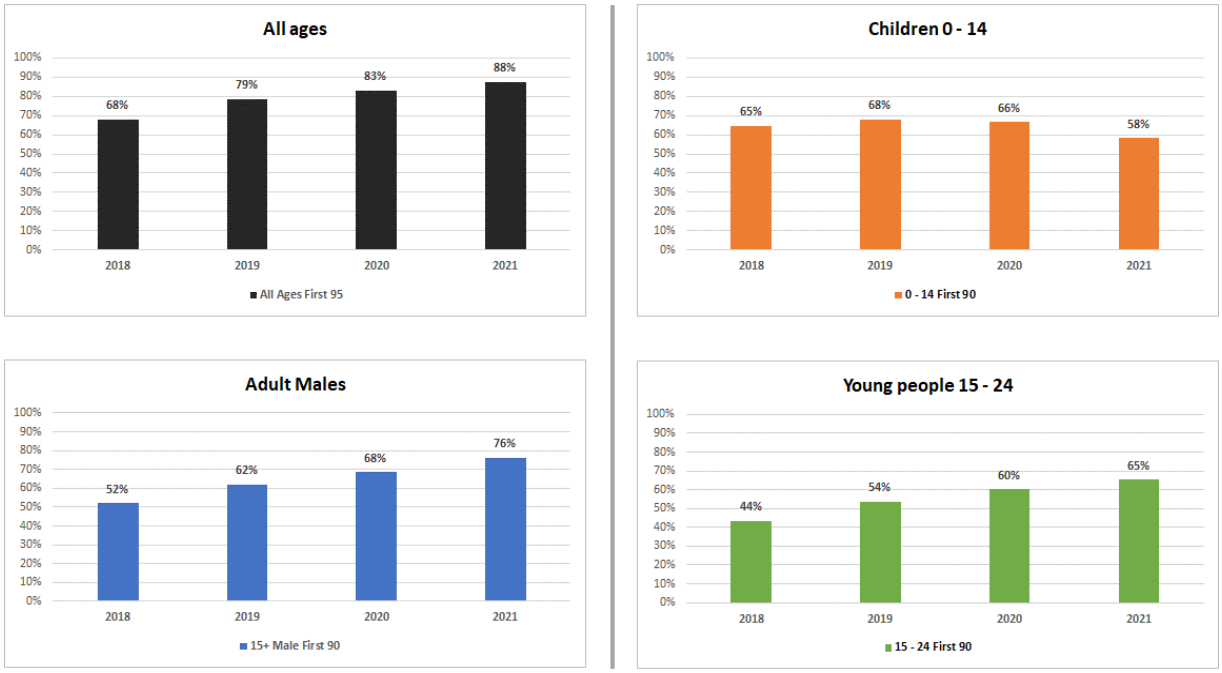


Figure 8: HIV Case Identification Disaggregated by Population Segments

A disproportionately low first 95% achievement was also observed in the fisherfolks study conducted in 2019 in Kagera (overall 65.3%; male: 59.6%; female: 70.2%)[33], as well as the transport corridor population in Geita (overall 57.0%; male: 60.6%; female: 55.2%), Kagera (overall 56.7%; male: 31.4%; female: 70.2%), Mwanza (overall 63.9%; male: 57.6%; female: 66.7%), and Pwani (overall 73.7%; male: 69.9%; female: 76.2%).[34]In terms of geographical burden, the Spectrum 2021 results show a shift of HIV burden between fewer regions compared to the previous year's Spectrum files. Mwanza, Morogoro, Mbeya, Tabora, Iringa and Ruvuma regions had the highest net increase in the estimated number of PLHIV compared to the Spectrum 2020 data. Conversely, Kagera, Dar es Salaam, Kilimanjaro, Kigoma and Mtwara regions showed the most significant decrease in the estimated number of PLHIV compared to Spectrum 2020 outputs.[35] Notable decreases in PLHIV in Dar es Salaam indicate client movement out of densely populated areas, possibly due fear of COVID-19.[36]

One strategy for achieving the HSHSPV objectives was to ensure that both geographical coverage and range of services are expanded to deliver HIV and AIDS-related services close to the people. According to NASHCoP monitoring data, service coverage has continued to expand both geographically and in terms of the range of services. By December 2019, the total number of health facilities that provide HTS had reached 6,821 (76%) of all health facilities in the country.[37]

Misclassification caused by random human errors when conducting HIV rapid diagnostic testing is not uncommon. Following this, in late 2014, WHO released an Information Note reminding the MOH and the national programmes to retest all persons diagnosed as HIV positive at the time of, or before, ART initiation to rule out potential misdiagnosis. Retesting for verification is a quality assurance (QA) activity that tests a new specimen for newly diagnosed individuals and those previously diagnosed but are not yet initiated on ART. The retest is conducted by a different provider using the same testing algorithm. Retesting for verification increases the reliability of diagnosis before initiating a client on

33 Bio-Behavioural Survey Among Fisherfolk Using Time-Location Sampling in Kagera, Tanzania, 2019.
34 Tanzania Integrated Survey to Identify the (three) Nineties for Intervention (TISINI) Report, 2020
35UNAIDS Spectrum estimates, 'United Republic of Tanzania', 2020.
36 PEPFAR, 'Tanzania Country Operational Plan (COP) 2021 Strategic Direction Summary'.
37National AIDS Control Programme, 'Mid Term Review of HSHSPV (2017/18-2022/23" Dodoma 2020)

lifelong ART. In contrast, supplemental testing refers to further testing of the same specimen with additional assay(s) to obtain more information. Tanzania adopted retesting for verification guidance as a strategy for improving the quality of HIV testing. Of interest to note is that, in 2019, 74% of those who tested HIV positive were verified, and 6% of those verified had final discordant results between event one and event two.[38] This implies that without verification of HIV test results, 4,012 people would have been erroneously initiated on ART. Discordance of a similar magnitude was observed in an HIV and Syphilis Sentinel Surveillance for Pregnant Women Attending ANC conducted in Tanzania Mainland in 2020.[39]

As HTS and ART scale-up bridge testing and treatment gaps, fewer people need HIV testing, diagnosis and linkage to treatment and care. Consequently, coverage of national HTS declines. WHO recommends countries to consider moving to a three-test strategy as HIV positivity within national HTS programmes falls below 5%. Tanzania fulfils this criterion; therefore, evaluation and review of the testing algorithm will be implemented during the NASHCoP SP period.

Building on the HSHSPV which focused on accelerating case finding while ensuring reliable and quality results, the NASHCoP SP will ensure that all population segments and geographies with unmet needs are fulfilled. This will include KVP and the general population. HIV testing services will be channelled to clients' preferred sites as informed by program data and other granular analyses, which will require to be done at all levels.

Box 4.1: KVP HTS Uptake vs. Preferred Venues for Service Delivery[40]

- PWID: 66% ever had an HIV test; the main source was health facilities (56%), followed by research projects (27%) and the community (17%)
- FHR: 86% ever had an HIV test, which is an increase from 69% in 2010; most tests took place in health facilities (76%) compared to the community (15%)
- MHR: 60% ever had an HIV test; most tests were obtained from a health facility (62%) followed by the community (25%) and research projects (12%)

The strategic plan will further intensify the quality testing strategy. Lessons learned from the small-scale implementation of HIVST and the recency testing pilot will be used to strengthen case-finding strategies.

Key gaps

- Low HTS uptake in some population groups such as; men, adolescents, youth children, and people who are at risk of HIV infection who do not interact with routine HIV testing (e.g., FHR, MHR, PWID, fisherfolks, miners, mobile population, and clients of KVP);
- Lack of granular data on unreached PLHIV (population segmentation, risk profiling and characterisation); where they are located (geographical/hotspot mapping); when to get them (clients' generated data on preferred days and times for service delivery), and their preferences for HTS delivery (community outreach, workplace testing, etc.);
- Suboptimal coverage in the implementation of new HTS approaches e.g., HIVST and proven effective case finding modalities such as index testing and social network testing;
- Suboptimal quality of HTS, including compliance to testing standards and re-testing for verification;

38 National Aids Control Program, 'Annual Program Report', 2020.
39 MUHAS, NASHCOP, 'HIV and Syphilis Sentinel Surveillance for Pregnant Women Attending ANC in Tanzania Based on Data from Routine PMTCT Services. Seventh Round', 2020.
40 MUHAS and NASHCOP, 'Integrated Biological and Behavioural Surveillance (IBBSS) Surveys in Dar es Salaam.', 2017.

- Inadequately trained and incompetent health workforce for maximum coverage of quality HIV testing services;
- Inadequate involvement of PLHIV in efforts to reach their sexual contacts, needle-sharing partners and biological children;
- Inadequate community participation in the design and implementation of HTS strategies. For instance, even though current guidelines recommend couple/partner testing, there is still low involvement of male partners.
- Commodity management and supply chain challenges (stock-outs and expiries of HIV rapid test kits, including HIVST kits);
- Sub-optimally functioning community M&E systems (not all tested and diagnosed individuals are entered into the District Health Information System – version 2 (DHIS2); double reporting is observed due to weak community-facility testing links).

Priority Strategies

- Develop and implement population-specific case-finding strategies (facility and community-based) to improve diagnosis in children, men, young adults KVP, and other unreached population segments;
- Enhance implementation fidelity of HIV case finding approaches which include but are not limited to optimized provider-initiated testing and counselling (PITC), index testing, HIV self-testing, and social network testing (SNT) approaches/modalities with a focus on geographic hotspots and population segments with high transmission rates;
- Strengthen the use of local epidemiological data and granular program data to inform robust data-driven HTS programming (i.e., modelling, mapping unreached population segments and geographical locations, setting targets, and implementing targeted case findings);
- Adapt and incorporate alternative/new HTS service delivery models and approaches across regions to facilitate the identification of geographic hotspots and population segments with high transmission rates and target them effectively;
- Strengthen HTS quality assurance. This shall be achieved through the following:
    i *Instituting both pre and post marketing surveillance for HIV test kits (including HIVST);*
    ii *Scaling up stepwise improvement and certification for HIV testers and testing points;*
    iii *Expanding HIV rapid testing quality improvement initiative (RTQII), including for HIVST;*
    iv *Strengthening internal quality control, external quality assessment, and proficiency testing;*
    v *Ensuring safe and ethical implementation of index testing services (including employing a system for monitoring intimate partner violence (IPV) and the reporting of any related adverse events);*
    vi *Strengthening the system for monitoring discordant/inconclusive test results;*
    vii *Increase the efficiency and accountability of retesting for verification before ART initiation.*
    viii *Implementing the WHO recommendation of using three testing strategy for countries with positivity that is below 5%*
- Strengthen the engagement of other sectors and platforms to increase the coverage of HTS delivery, including the private sector, informal sector, workplaces, civil society, and other community structures;
- Promote adolescent, youth, male, KVP and PLHIV involvement;
- Remove remaining legal, social and structural barriers blocking testing and treatment uptake and ensure access to other relevant health and social services (including stigma and discrimination training of healthcare workers);
- Strengthen health systems to support HTS: This strategy will entail the following:
    i *Improvement in monitoring the quality of HTS;*

ii *Strengthening HTS commodities and supplies management to eliminate stock-outs of test kits and accountability for test kits at all levels;*
iii *Strengthening the M&E system for HTS and improving data utilisation at all levels;*
iv *Adapting a service delivery model to accommodate shocks caused by disease outbreaks or major calamities;*

- Reduce inequalities in HTS investment and support across the regions. This will include addressing human resource challenges for HTS in facilities with inadequate staff.

Intervention Area 2: Linkage to Prevention, Care and Treatment Services

Strategic Outcome 1.2: By 2022, a hundred percent (100%) of all newly identified PLHIV (irrespective of HTS modality) are successfully linked to HIV care, treatment, and support services and maintained through 2025

Situational Analysis

HIV case identification without a robust strategy for ensuring that the newly identified PLHIV are immediately initiated on ART is a futile investment. Knowing that non-virally suppressed HIV-positive individuals have a higher risk of onward transmission of the virus, the HSHSPV focuses on implementing effective referral and linkage measures. These include escorted referrals, linkage case management (LCM) using expert clients, and the use of post-test club activities. This resulted in a significant increase in enrolment of newly identified PLHIV from 86.3% in 2017 to 97% in 2020 Additionally, subsequent initiation of ART within 7 days of diagnosis also increased from 89% in 2017 to 95% in 2021.32 This level of enrolment has been maintained for the previous two years but the 100% enrolment target was never achieved.

Lessons learned from program implementation suggest that once diagnosed, PLHIV are likely to be linked to ART services. Even among underserved long-distance truckers in hotspots along the high-volume traffic transit corridor (Geita, Kagera, Mwanza and Pwani)[41], fisherfolks (Bukoba DC, Bukoba MC and Muleba DC in Kagera)[42] and their sex partners, more than 95% of PLHIV who were aware of their status were successfully initiated on ART. These findings suggest that surpassing the second 95 goal before 2025 is feasible. The NASHCOP SP will continue to intensify efforts to ensure newly diagnosed PLHIV are successfully linked and initiated on ART by 2022 in line with the national guidelines.

Key gaps

- Long distances from community testing points to nearby CTCs in some geographical locations. This is complicated by financial constraints faced by some of the newly identified PLHIV and stigma (the latter forcing clients to seek care and treatment services at faraway sites);
- Time constraints (inaccessible time-of-the-day health services for some of the populations, e.g., KVP, students, and employed individuals);
- Inconvenient social, cultural, and gender norms affecting women in accessing facility-based services;
- Lack of friendly workplace policies affecting timely linkage of employed PLHIV, particularly those in the private sector;
- Lack of a robust and systemic modality for intra-facility and community-to-facility referrals, including the absence of a reliable data collection and reporting mechanism to link clients who are identified positive from testing centres to those who are enrolled to care;

[41] NASHCOP, 'Bio-Behavioural Survey Among Fisherfolk Using Time-Location Sampling in Kagera, Tanzania, 2019Tanzania'.

42 Tanzania Integrated Survey to Identify the (three) Nineties for Intervention (TISINI) Report, 2020

- Lack of a unique client identification system for newly identified PLHIV at community and facility platforms, and inadequate resources to support referral and linkage to CTCs;
- Insufficient coordination between community and facility led HTS and linkage services.

Priority Strategies

- Improve community awareness of the importance of early treatment among PLHIV once diagnosed;
- Scale-up evidence-based linkage approaches including enhancing post-test counselling, peer-led evidence-based linkage case management (LCM) mode, and strengthening post-testing clubs (including implementation of these strategies using virtual ICT tools);
- Enhance decentralization of facility and community-based HTS, linkage and referral services);
- Improve provider accountability for HTS and linkage (HTS providers who identify HIV positive clients will be encouraged to ensure that their clients are enrolled into care);
- Scale-up SBCC interventions aimed at addressing inappropriate gender norms, GBV, stigma and discrimination;
- Scale-up evidence-based messaging on the benefits of treatment for PLHIV and their sexual partners (e.g., **U**ndetectable = **U**ntransmissible and support re-engagement in care);
- Scale-up community ART initiation for KVP (one-month starter pack after an initial test and re-testing for verification at community level, with linkage to the nearby facility);
- Revitalise workplace HIV programmes to facilitate employers to support PLHIV to timely access care and treatment services;
- Strengthen the M&E system to have the capability to monitor successful linkage and utilisation of services by linked clients. This includes integrating data and linkage between HTS points and CTCs using case-based management and unique identifiers through the national client register;
- Adopt a service delivery model to accommodate disruptions in programs/intervention caused by disease outbreaks or major calamities (low linkages were observed during COVID-19 outbreak).

PRIORITY STRATEGIC AREA 2: ELIMINATION OF MOTHER TO CHILD TRANSMISSION OF NEW HIV AND VIRAL HEPATITIS INFECTIONS

Intervention Area 3:Prevention of Mother to Child Transmission of HIV and Viral Hepatitis

Strategic Outcome 2.1: Over 95% of pregnant and breasting women are enrolled and retained in ART and over 95% are virally suppressed by 2022, onwards

Situational Analysis

Mother to Child Transmission rates of HIV in Tanzania remain a challenge, contributing towards a mother-to-child transmission of HIV infection rate of 7.9% in 2020 against the global and national target of <5%.[43] The timely identification and provision of ARV medication to HIV-infected pregnant and breastfeeding women is the most vital intervention to prevent MTCT of HIV among exposed infants during pregnancy, labour and delivery, and breastfeeding. The proportion of pregnant women enrolled in PMTCT services reached 92% in 2019. However, there are poor retention rates (67% and 83%, respectively) among pregnant and lactating mothers. Generally, in 2020 a total of 75,719 pregnant women were identified with HIV at Ante-natal Care (ANC); about 69% of them were already known to be HIV-infected during their ANC booking and about 31% were newly diagnosed HIV-

43 UNICEF, 'Children and AIDS', accessed 11 November 2021, https://www.unicef.org/tanzania/what-we-do/hiv-aids.

positive. The PMTCT programme provided ART to 97.7% pregnant women living with HIV. Forty-eight per cent of pregnant and lactating women had a viral load test in 2019 and the majority (93%) of those tested attained viral suppression.[44]

Despite the geographical disproportionality, the coverage of HIV testing at the first ANC visit has been consistently high (>95%) in the past 10 years. Most pregnant women receive their first HIV test during this visit, but the HIV re-testing among pregnant women found to be negative during the initial test has remained low. Maternal HIV retesting during the third trimester of pregnancy was only 27.7% in 2020 and has never exceeded 30% in the past three years. Furthermore, a high proportion of PMTCT clients drop out of care, the highest dropout being within the first twelve months (26%, 30% and 33% at 3, 6 and 12 months respectively),[45] a period at which they are transitioning from PMTCT to CTC. This drop may be attributable to stigma and discrimination.

The elimination of Mother to Child Transmission of HIV highly depends on timely ANC attendance and quality care. The utilisation of antenatal care services in Tanzania has been almost universal for many years now. However, early ANC attendance (before 12-weeks of gestational age) has been low due to several factors, which including but are not limited to, cultural perceptions. See **Figure 9** below for illustrative details.

Note: As of December 2020, the uptake of HTS among pregnant women was 97.8% of about 2.3 million eligible pregnant women who attended ANC clinics.

The ANC sentinel surveillance conducted in 2020 revealed that about 6.3% of pregnant women who attended ANC clinic between August and November 2020 were living with HIV.[46] HIV prevalence among pregnant women attending ANC has remained at around 6% for the past three ANC sentinel surveillance surveys. This magnitude is twice as much compared to the census level HIV rate of annual routine data reported in the past five years.

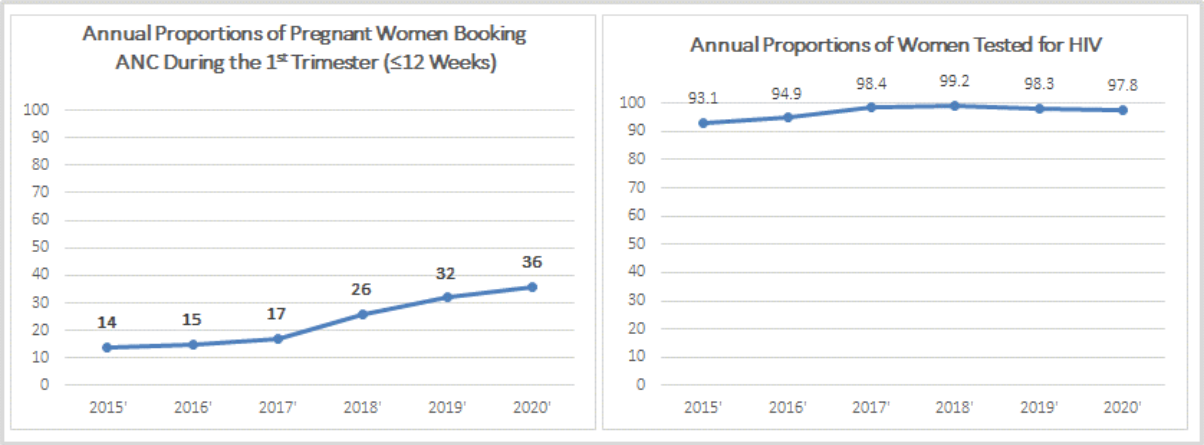


Figure 9: HIV Test among Pregnant Women attending ANC

In Tanzania Mainland, a total of 6,828 HFs provide PMTCT services, but only 33% (2,536 HFs) of these receive technical and financial support from donors/implementing partners since they are categorised as high volume, with an annual average of 25 women living with HIV per site. The remaining non-supported HFs (4,293) have an annual average of 4 to 5 women living with HIV per facility.

44 NASHCOP, 'Mid Term Review of the HSHSPV 2017/18 – 2022/23' Dodoma, 2021.
45 MOH, 'Annual PMTCT Programme Report, 2020'. Dodoma 2020
46 MUHAS and NASHCOP, 'HIV and Syphilis Sentinel Surveillance for Pregnant Women Attending ANC in Tanzania Based on Data from Routine PMTCT Services. Seventh Round', 2020.

About one-third (30%) of newly identified women living with HIV (WLHIV) and one quarter (24%) of all women living with HIV receive ANC services in non-supported HFs. The lack of support to these health facilities has affected the overall performance of the programme. For instance, the 2020 annual PMTCT report showed a disproportionate HIV prevalence between young women <25-years and older women >25 years attending ANC clinics. About 81% of HIV-infected pregnant women at ANC clinics (known and newly diagnosed as HIV positive) in 2020 were aged >25 years and above. The report further shows that despite the decreased trend of HIV incidence among pregnant and breastfeeding women from 2.09% (2015) to 1% (2020), among the newly diagnosed HIV infected pregnant women, young women (<25 years old) contributed the most (60% and 61% in 2019 and 2020, respectively) to this figure.[47] This further justifies the importance of tailoring eMTCT interventions according to specific vulnerabilities of the population segments.

Note: The number of PMTCT sites has increased from 4,138 in 2017 to 6,829 by 2020; this translates to an annual average of 12.2 HIV positive pregnant women per site.

Since the risk of HIV acquisition continues throughout pregnancy and during breastfeeding, it is recommended that expectant and breastfeeding mothers found to be HIV negative be retested for HIV in subsequent ANC visits.[48] However, programme data shows low levels of HIV retesting, and this has remained stagnant for quite some time. This phenomenon poses an increased risk of MTCT due to probable incident maternal HIV infection in those who previously tested HIV negative.

The NASHCOP SP will focus on filling the gaps observed in ART for pregnant and lactating women by ensuring appropriate use of DSD models and the engagement of mentors and male partners in care. A family approach will be prioritised to facilitate families to access care together in facilities nearest to them.

Key gaps

Below is a list of barriers to achieving the elimination of MTCT of HIV and Viral Hepatitis:

- Low coverage of maternal HIV re-testing services during the third trimester of pregnancy and breastfeeding (applies to those who were negative at the initial testing);
- Low coverage of viral hepatitis testing and treatment at ANC;
- Late booking of ANC by pregnant women living with HIV;
- A significant drop in retention of HIV positive pregnant women and mother-baby pairs after delivery;
- Significant difference in PMTCT coverage and performance between donor/implementing partner - supported and non-supported sites;
- Inadequate tailored combination HIV prevention interventions for pregnant women with a substantial risk of HIV infection (e.g., PrEP for WLHIV who belong to KVP groups, and targeted interventions for adolescent and young pregnant and breastfeeding mothers);
- Structural barriers including stigma and non-disclosure among pregnant women;
- Low male involvement;
- Incidence of stock outs of commodities for EID, STI and high viral load (HVL)); high cost of STI test kits and machine breakdowns;
- Low HVL coverage among pregnant and breastfeeding women (PBFW).

Priority Strategies

47 MOH 'Annual PMTCT Report 2020' Dodoma, 2021
48 WHO Consolidated HTS Guidelines for High Prevalence Settings, 2019

- Scale-up couples testing (including for HIV/Syphilis Duo and viral hepatitis) as well as HIV re-testing of negative PBFW at ANC, Postnatal Care (PNC) and immunisation clinics;
- Enhance the utilisation of peer mothers to ensure more effective screening of infants and young children who are eligible for testing by using immunisation cards and following up mother-baby pairs (with a specific focus on mothers who are adolescents and young women);
- Expand and improve quality of HIV and VH PMTCT services (HTS for pregnant women, retesting of previously negative women, EID and HVL);
- Build capacity of HCPs, to improve their skills so that they can offer non-judgmental and supportive services to youth and KVP seeking ANC and PNC services;
- Create community awareness to boost male partner involvement in PMTCT of HIV and VH services (including testing of partners of pregnant women);
- Scale-up mother-to-mother and peer-led mentoring, counselling and other community-based psychosocial support services for pregnant and breastfeeding women;
- Strengthen primary prevention of HIV among HIV negative women identified during antenatal, postnatal and breastfeeding periods (including offering PrEP for pregnant and breastfeeding women who are at a greater risk of acquiring HIV);
- Scale-up routine screening and counselling for all pregnant women and adolescents in antenatal care for chronic viral hepatitis B and C infections and providing antiviral prophylaxis to those who are eligible;
- Ensure prompt and efficacious interventions to treat pregnant women and adolescents who test positive and to prevent transmission of hepatitis B virus infection to their infants;
- Institute mechanisms to identify and follow-up of exposed infants, including hepatitis B birth-dose vaccine and completion of three-dose series of hepatitis B vaccine; and
- Deploy an electronic Case-Based Surveillance and Management (CBSM) response to all facilities offering PMTCT services.

Intervention Area 4: HIV Early Infant Diagnosis

Strategic Outcome 2.2: By 2025, over 95% of HIV exposed infants are tested for HIV within 2 months of age

Situational Analysis

Tanzania has continued to improve service delivery for children, especially through Early Infant Diagnosis (EID) at two months, case identification, and viral suppression for children. HIV early infant diagnosis utilises DNA-PCR to isolate viral nucleic acid in HIV-exposed infants (HEI) within 6 weeks of birth, and up to 18 months of age thus providing a virological basis for entry into lifelong treatment for infected infants.

Although Tanzania is doing well towards eliminating HIV infection among infants and children, the determination of the HIV status at an early age is still hindered by inadequate identification and enrolment of infants into care, relatively low EID service coverage, and long Turn-Around-Time (TAT) of DNA-PCR results. Program data show that the overall EID at two months is currently estimated 68%[49,50]. Noticeably, donor-supported sites have a better EID coverage (73%)[51] than the rest of the sites nationwide. The trend of HIV positivity among tested infants has been decreasing significantly over the past five years. Positivity among infants tested with first DNA-PCR regardless of their age

50 MOH, 'Annual PMTCT Report,' Dodoma, 2020
51 PEPFAR, 'Tanzania Country Operational Plan (COP) 2021 Strategic Direction Summary'. 2020

decreased from 3.8% in 2015 to 2% in 2020 and positivity among exposed infants tested within 2-months of age decreased from 3.5% in 2015 to 1.4% in 2020.[50]

Tanzania started Point of Care for HEID (POC-HEID) testing in late August 2019 in 27 POC EID testing sites. Health facilities providing HVL testing using POC were the focus for the scale-up of POC-HEID. By September 2021, 100 (42%) gene expert machines were optimized for POC-HEID in all zones.[52]

Note: The Oct 2019 – Sept 2020 PMTCT performance in sites with sufficient donor support showed that 41,547 pregnant women tested positive for HIV; 36,006 HEI were tested at 12 months, and of the 36,006 HEI, 538 (1.5%) tested HIV-positive, and 529 (98%) were initiated on ART.

Key gaps

- Low coverage of HEID (68% at 2 months) and testing for outcome status;
- Low performance in sites not supported by donor/IPs;
- Poor retention rates among pregnant women and lactating mothers and their babies;
- Ineffective integration of EID in the immunisation platform especially with the outreach program;
- Missed opportunities for enrolment of eligible HEI in the Orphans and Vulnerable Children (OVC) programme where they would receive support, especially AGYW friendly services;
- Suboptimal use of peer mothers to monitor and track clients lost to follow-up;
- Low distribution of equipment for POC for HEID in all zones (only 42%, MTR 2020);
- Erratic supply of commodities (Dried Blood Spot (DBS) kits, POC for EID and laboratory reagents).

Priority Strategies

- Strengthen the implementation of integrated EID and other HIV testing services for all HEI at all levels (including improving EID at 2-month coverage, renewed focus on quality and TAT of results);
- Optimise and scale up POC platforms for EID services including collection, testing of DBS samples and data use to inform planning;
- Strengthen the integration of EID testing within immunisation clinics and other RCH platforms during outreach services;
- Leverage the OVC programme for effective and timely identification and testing for HIV of children most at risk after being screened for eligibility;
- Promote male involvement in eMTCT services through improved awareness, reduction in stigma, and community engagement;
- Increase access of HIV-exposed new-borns and infants to integrated services for maternal and new-born care, including prevention of the triple vertical transmission of HIV, syphilis, and the hepatitis B virus.

PRIORITY STRATEGIC AREA 3: REDUCTION OF NEW HIV INFECTION

Despite the tremendous efforts to strengthen HIV prevention interventions, the rate of decline in new HIV infections remains significantly low compared to global and national targets. In recognition of the need to fast-track the reduction of new HIV infections to achieve epidemic control, the HSHSPV strategies focused on intensifying primary prevention efforts. As a result, the percent drop in new

52 MOH, 'Mid Term Review of the Health Sector HIV Strategic Plan IV 2017/18 – 2022/23', Dodoma, 2020.

infections attained in the last 3 years (i.e., 2017-2020)[53] of implementation is double what was accomplished in the previous 7 years before launching the HSHSPV (2010-2016).[54,55]

The HIV transmission pathway is complex. A myriad of distal and proximal factors increases the risk of both acquisition and onward transmission of HIV independently and in combination. The NASHCoP SP strategies are anchored on addressing a mix of evidence-based biomedical, behavioural and structural factors which fuel the epidemic. Due to the cross-cutting nature of HIV and AIDS, some of the factors are health-related, but other noteworthy ones are not linked to the health sector. Therefore, by design, the NASHCoP SP strategies put a sole focus on health sector-related strategies. Those requiring a multi-sectoral focus will be addressed in the National Multi-Sector Framework. **Figure 10** illustrates a conceptual framework of HIV combination prevention strategies for reducing new HIV infections in Tanzania.

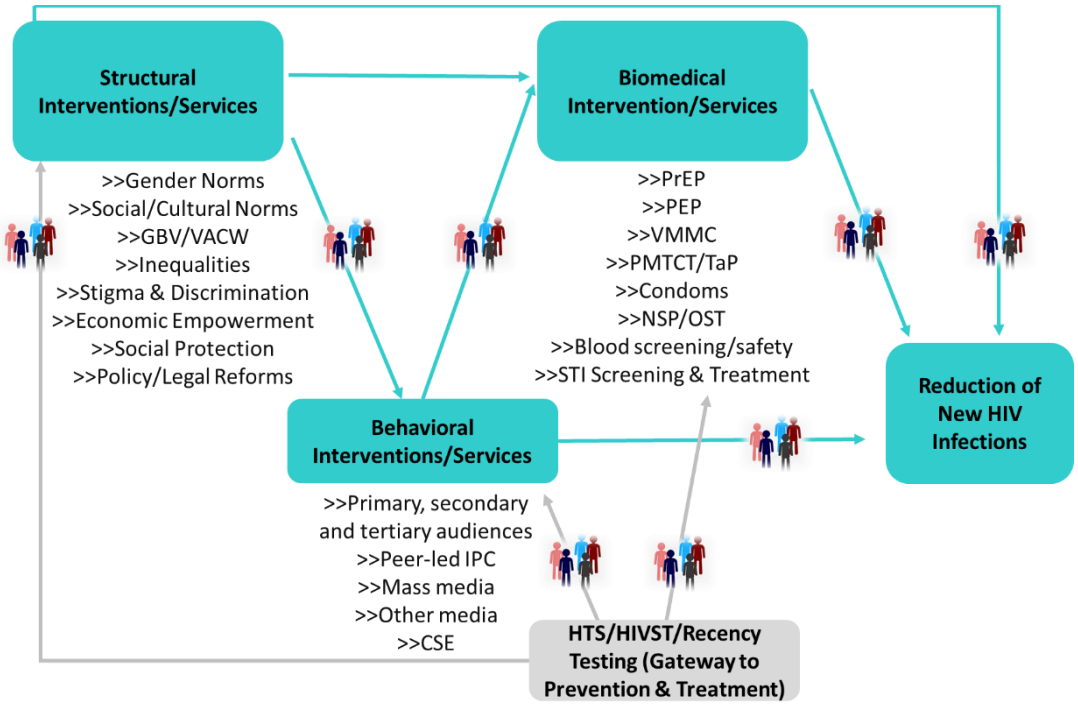


Figure 10: Conceptual Framework for HIV combination prevention strategies aimed at addressing Distal and Proximal risks of HIV transmission

To achieve the anticipated HIV prevention impact result ***(i.e., new HIV infections reduced by 85% in 2025 from the 2010 baseline)***, the NASHCoP SP will mainly dwell on 12 intervention areas described below.

Intervention Area 5:Key and Vulnerable Populations

Strategic Outcome 3.1: Ninety-five percent (95%) of Key & Vulnerable Populations saturated with a minimum package of vulnerability-tailored and client-centred combination prevention interventions by 2025

Situational Analysis

Key and Vulnerable Populations are defined groups that, due to specific high-risk behaviours are at an increased risk of acquiring HIV irrespective of the epidemic type or context. Also, they often face

53 UNAIDS Spectrum Estimates 2020UNAIDS, 'United Republic of Tanzania Spectrum Estimates', 2020.
54 UNAIDS, 'United Republic of Tanzania Spectrum Estimates', 2017.
55 Tanzania HIV Impact Survey (THIS) 2017National Bureau of Statistics, 'Tanzania HIV Impact Survey (THIS) 2016-2017', December 2018.

legal and social issues related to their behaviours that increase their vulnerability to HIV and limit their access to services. The WHO guidelines focus on five key populations: 1) men who have sex with men, 2) people who inject drugs, 3) people in prison and other closed settings, 4) sex workers, and 5) transgender people. On the other hand, vulnerable populations include groups of people who are particularly vulnerable to HIV infection in certain situations or contexts, such as adolescents (particularly adolescent girls and young women in sub-Saharan Africa), orphans, street children, people with disabilities, and migrant and mobile workers. In the Tanzanian context, mobile populations include long distance truckers, fisherfolks, miners specifically small-scale miners, construction workers, and displaced people to mention a few. These populations are not affected by HIV uniformly across all countries and epidemics (WHO Consolidated Guidelines on HIV prevention, diagnosis, treatment and care for key populations 2016).[56] Collectively, KVP are pivotal to the epidemic because of the risk of onward HIV transmission. In recognition of this, in 2014, the MoH developed the first National KVP Guidelines which were updated in 2017 to include additional populations, accommodate new WHO recommendations, and address certain locally contextualised issues linked with the law, culture, norms and traditions.

In the past implementation period, the MoH, in collaboration with the PO-RALG, TACAIDS, Drug Control and Enforcement Authority (DCEA), the Tanzania Medicine and Medical Devices Authority (TMDA), development agencies, implementing partners (international and local), community and KVP beneficiaries, have continued to provide services to this group. Notable achievements were observed during the 2017-2020 period. For instance, by June 2020, routine program data showed 130,481 KVP were reached with KVP-friendly services and 125,533 enrolled in services. In the same time frame, 516 health facilities (62%) in 16 regions of Tanzania were trained and are currently providing KVP friendly services. For efficient programming, the MoH employed the Extension for Community Healthcare Outcomes (ECHO) e-learning platform to build the capacity of frontline practitioners and providers of KVP services. As of 2020, providers from close to 100 facilities were trained using this platform.

Notably, the programme improved the linkage of HIV-positive KVP clients to care and initiation into ART. Currently, the linkage rate ranges from 90% to 100% for all KVP categories.[57] Programme data in the last quarter of 2019 showed that ART initiation rates for newly diagnosed members of key and vulnerable populations were at 94% for FHR, 95% for MHR, and 90% for PWID[58]. This is a remarkable upward trend compared to the previous performance.

Regarding services for PWID, currently, Tanzania has 10 Medication-assisted Treatment (MAT) clinics that have integrated a combination of HIV services in the following hospitals: Muhimbili, Mwananyamala, Mbeya, Itega, Bagamoyo, Tumbi, Sekou Toure, Mount Meru, Bombo and Temeke. There is also one satellite clinic in Tunduma which is operational. In addition, there are ongoing efforts to decongest Dar es Salaam clinics by establishing new satellite clinics in Kigamboni, Mbagala Rangi Tatu in Temeke, Tegeta at Kinondoni Municipal Council, and Segerea Prison in Ilala. Other successful initiatives under implementation include the rollout of the Needle Syringe Program (NSP), Methadone take-home doses, and the construction of recovery homes.

The impact of these investments is well reflected in some of the key outcomes as per the recent epidemiological data. When you use HIV prevalence among KVP as a proxy of incidence, there is a significant decline in HIV infections in the last decade. Also, when you compare HIV prevalence as

56 NASHCOP, 'National Guideline for Comprehensive Package of HIV Interventions for Key and Vulnerable Populations.2017.

57 NASHCOP, 'Mid Term Review of Health Sector HIV Strategic Plan IV' Dodoma 2020.

58 NASHCOP Quarterly Progress Report, Oct-Dec 2019NASHCOP, 'National AIds Control Programme Quarterly Progress Report, Oct-Dec 2019'.

per the 2017 IBBS report *(i.e., PWID: 8.7%, FHR: 15.3% and MHR: 8.3%)*[59] vs. the 2014 consensus report *(i.e., PWID=36%, FHR=26% and MHR=25%),*[60,61,62] HIV prevalence has declined significantly. (**Note:** The IBBS 2017 represents only Dar es Salaam and therefore might not be representative).

A 2019 survey conducted among Lake Victoria fisherfolks in Kagera region found HIV prevalence of 13.5% among female fisherfolks and 6.6% among male fisherfolks, compared to 7.2% and 5.8% among women and men (>15 years) in the whole of Kagera region, as found by THIS 2016-2017. Multiple partners and transactional sex were also found to be prevalent in the fishing community. Nearly two-thirds (61.2%) of women and almost three-quarters (73.8%) of male fisherfolks reported having had multiple partners in the past 12 months and six months, respectively. Just over half had contact with an outreach worker in the past year, and neither HIV prevention information, nor condoms seem to have been systematically provided. In addition, the study revealed that only 40% of persons who were HIV positive reported knowing their status. Furthermore, the IBBS study of female (F) and male (M) attendees (and their partners) in selected hotspots along the high-volume traffic transit corridor in Tanzania Mainland showed high HIV prevalence (i.e., Geita: F=18.3% Vs. M=5.2%; Kagera: F=13.1% Vs. M=4.3%; Mwanza: F=11.9% vs. 4.3%; Pwani: F=14.8% Vs. M=5.7%).

These studies exemplify huge missed opportunities for the programme to map, target and sufficiently reach non-classical KVP. The 5,181 mapped hotspots in the country identified around 516 health facilities and do not include non-classic KVP.[63]

In the NASHCOP SP implementation period, the national programme will review, align and provide special attention to these populations based on emerging evidence. Specifically, the strategic plan will implement locally contextualised evidence-based strategies, leaving no KVP behind. Meaningful engagement of beneficiaries and civil society will be further enriched. While there has been a significant investment in the classical KVP listed above (i.e., FHR, MHR, PWID, and AGYW), quantitative and qualitative data show that there are some KVPs that have not been reached sufficiently. In addition efforts will be made to scale up decentralize viral hepatitis testing and treatment to lower-level health facilities, including primary care, harm reduction sites and prisons, ideally delivering testing and treatment at the same site to promote linkage; integration of viral hepatitis testing and treatment services into existing primary health care.

Key gaps

Despite the above achievements, effective KVP programming is hindered by several challenges, including:

- Outdated KVP population size estimates (2014), hot spot mapping and KVP segmentation data;
- Low KVP service coverage:
  - i Inadequate investments in interventions targeting some of the very critical KVPs fuelling the epidemic, such as fisherfolks, miners/mining communities, long distance truck drivers, sexual partners of sex workers and young KVP (i.e., FHR, MHR and PWID less than 18 years of age);
  - ii Sub-optimal coverage of MAT clinics. Currently, services are limited to only 7 regions;
  - iii Unequal distribution of KVP programming investments between regions and councils.

59 Consensus estimates on Key Populations Size HIV Prevalence in Tanzania, July 2014NASHCOP, 'Consensus Estimates on Key Population Size and HIV Prevalence in Tanzania', July 2014.

60 IBBS Dar es Salaam (PWID) 2017MUHAS and NASHCOP, 'Integrated Biological and Behavioural Surveillance Survey (PWID) Surveys in Dar Es Salaam', 2017.

61 IBBS Dar es Salaam 2017MUHAS and NASHCOP, 'Integrated Biological and Behavioural Surveillance Survey - Surveys in Dar Es Salaam', 2017.

62 IBBS Dar es Salaam (MHR) 2017MUHAS and NASHCOP, 'Integrated Biological and Behavioural Surveillance Survey (MHR) Surveys in Dar Es Salaam', 2017.

63 National Aids Control Program Report, 'Annual Program Report', 2020

- KVP services are not comprehensive enough (there is sub-optimal integration of core HIV and Sexual and Reproductive Health (SRH) services in the minimum package for KVP services, including STI, condom, TB, GBV, and legal support services for KVPs)
- There is an inadequate number of competent health care providers trained in the provision of KVP friendly services. The current coverage is less than 50%. Intra-facility staff transfer also contributes to the shortage;
- Low capacity of CSOs in implementing KVP-focused interventions;
- Inadequate use of granular data for planning and implementation, including informing policy and decision makers, implementers, communities, KVP beneficiaries, and other important stakeholders;
- Limited capability of the current program design and systems to better serve and track highly mobile KVP;
- Inadequate sensitisation of community gatekeepers including religious, traditional and political leaders on HIV and SRH issues affecting KVP and the benefit of intervening;
- KVP guidelines have not been adequately disseminated across all levels;
- Inadequate engagement of KVP in the design, planning and implementation of KVP focused interventions;
- Persistent stigma and discrimination among HCPs, beneficiaries and the community at large negatively impact service uptake;
- Sub-optimal engagement of private health facilities in delivering KVP-centred services;
- Inadequate resilience of current service delivery models to cater for potential service interruptions due to disease outbreaks such as in the COVID-19 pandemic.

Priority Strategies

The NASHCoP SP aims to identify, segment, map, reach and saturate all KVP in all geographical sub-units with vulnerability-tailored and client-centred combination prevention interventions. Outlined below are key strategies to maintain the current gains and further intensify prevention efforts in this group:

- Strengthen the use of local epidemiological data to inform robust data-driven KVP programming (i.e., KVP profiling/characterisation, size estimates, geographical mapping, and granularized target setting). This will include expanding combination prevention services to other unreached KVP (including sexual partners and children of KVP) as described in the earlier section;
- Scale-up the provision of client-centred, quality, safe, comprehensive HIV combination prevention, care and support services tailored to the vulnerability and needs of KVP, including DSD models such as moonlight testing and community ART services;
- Improve resource allocation and accountability of KVP programme implementation at all levels;
- Improve the current KVP M&E system, research and learning agenda (RLA) to be able to cater to programme needs and shifts, inform policy makers and programme implementers, and track interventions for KVP;
- Strengthen community systems and PPP to foster sustainability of KVP interventions (This will include fostering the engagement of KVP and capacity building of CSOs to meaningfully engage in the design, implementation and monitoring of KVP interventions);
- Improve access to viral hepatitis screening, testing, linkage to care and treatment for PWID attending harm reduction services and/or in MAT clinics as part of a comprehensive package for harm reduction
- Enhance access to viral hepatitis preventive services among key and vulnerable groups e.g., people who inject drugs
- Scale-up community-led monitoring (CLM) to improve quality KVP services (use of community scorecard).

Intervention Area 6:Vulnerable Adolescent Girls and Young Women

Strategic Outcome 3.2: Ninety-five percent (95%) of vulnerable AGYW reached with a minimum package evidence-based HIV and AIDS combination prevention interventions by 2025

Situational Analysis

Tanzania is home to about 12 million adolescents aged 10-19 years and 5 million young adults aged 20-24 years. Combined, individuals aged 10-24-years constitute close to one-third of the country's population. With regards to the HIV burden, AGYW in the 15-24 years age band are of high significance. The UNAIDS Spectrum estimates showed that out of the 77,000 people who acquired HIV infection in 2019, close to a third (28%) were young people aged 15-24 years, and among them, 67% were AGYW. The THIS, 2017 showed that AGYW aged 15-24 had an HIV prevalence of 2.1%, which is more than 3-fold higher than their male counterparts with a 0.6% prevalence.

Vulnerable AGYW refers to girls and young women aged 15-24 years who experience a heightened risk of HIV due to exposure to individual, household, community, and structural factors.[64] Vulnerability can be thought of as a transactional relationship between the context in which a girl lives and a set of factors that put her 'at-risk' of negative outcomes.[65] The increased vulnerability of AGYW to HIV risk is linked to persistent gender inequality and several inter-related biological, behavioural, and structural factors. These include biological susceptibility to HIV infection, age-disparate relationships with unequal power dynamics that may hinder safe sex, transactional sex, lack of schooling and economic empowerment, GBV including IPV, harmful traditional practices, and institutional or socio-cultural barriers to providing comprehensive sexuality education and sexual health services for adolescents and young women.

The 2017 THIS showed that comprehensive knowledge of HIV has declined among adolescents and young people. Among women aged 15-19 years and 20-24 years, comprehensive knowledge declined progressively from 39% and 50% in 2003-2004 to 32% and 43%, respectively, in 2016-2017. Similarly, among men aged 15-19 years and 20-24 years, there was a decline from 43% and 57% in 2003-2004 to 33% and 41%, respectively in 2016-2017. While comprehensive knowledge has declined, unsafe sexual behaviour has increased in all age groups for both women and men.[66].

Recognising the importance of AGYW in relation to the HIV burden and other SRH outcomes, the GoT has continued to prioritise investments for this group. This is reflected in the HSSP V (2021-2025), the NMSF 2018/19 to 2022/23, One Plan III (2021-2025), National Accelerated Action and Investment Agenda for Adolescent Health and Wellbeing (NAIA-AHW) 2020/21-2023/4, and the National Adolescent Health and Development Strategy (NAHDS) 2018-2022. Collectively, these strategies address both health sector and multisectoral issues including HIV prevention, the prevention of teenage pregnancy, sexual, physical, and emotional violence, and improving nutrition.

Based on this, AGYW interventions need to be delivered as a comprehensive package. Available evidence from ongoing implementation (DREAMS Initiative, Global Fund-supported TIMIZA Malengo Project, and UNICEF Cash Plus) has shown the benefits of offering combination prevention to reduce new HIV infections in this group. However, program data for 2019 showed that only 10% of estimated AGYW were reached. To ensure that vulnerable AGYW are identified, prioritized and receive the core

[64]Alice Armstrong. Assessing the Vulnerability and Risks of Adolescent Girls and Young Women in Eastern and Southern Africa: A Review of the Tools in Use. https://www.unicef.org/esa/media/9146/file/UNICEF-ESARO-AGYW-RV-Assessment-2021.pdf

[65] Amin S, Austrian K, Chau M, et al. The adolescent girls vulnerability index. Guiding strategic investment in Uganda. New York, USA.: The Population Council, Inc.; 2013

[66]National Bureau of Statistics, 'Tanzania HIV Impact Survey (THIS) 2016-2017', December 2018.

package of evidence-based interventions, the Government developed a National Recommended Minimum Package of Essential HIV and SRH Interventions for AGYW (2021), and a AGYW Vulnerability Index Tool (2021), both of which will continue to be operationalized during the implementation of the NASHCoP SP.

Note: Currently, comprehensive AGYW-focused combination prevention interventions are implemented in the following councils:

- **DREAMS:** Mbeya CC, Ushetu DC, Mbarali DC, Msalala DC, Kyela DC, Shinyanga MC, Kishapu DC, Muleba DC, Kahama TC and Shinyanga DC.
- **GF-TIMIZA Malengo:** Kilombero DC, Tanga CC, Singida MC, Kondoa DC, Dodoma MC, Kongwa DC, Malinyi DC, Singida DC, Mpwapwa DC, Morogoro MC, Iramba DC, Geita DC, Kondoa DC, Ulanga DC, Bahi DC, Ifakara TC and Chato DC.
- **UNICEF Cash Plus:** Rungwe DC, Mufindi DC, Kasulu TC, Songwe DC, Kigoma Ujiji MC, Kibondo DC and Kigoma DC.

Key gaps

Despite the above achievements and strategies for AGYW programming, there are still a few challenges that remain. These include:

- Harmful socio-cultural practices (child marriage and GBV/ IPV);
- Increased high-risk sexual behaviour among AGWY (age-disparate sex, sex with non-cohabiting non-marital partner, and transactional sex);
- Low and declining comprehensive knowledge about HIV and AIDS;
- Suboptimal access and utilization of HIV and AIDS combination prevention services;
- Insufficient dissemination of HAPCA amendment (AGYW between 15-18 years still requested to be accompanied by guardians/parents, even though they are allowed to consent). Reportedly, mature minors (15-18 years) are still not allowed to access HIVST in some places);
- Inadequate adolescent-friendly HIV and SRH services (including HIV testing and prevention, STI and contraception/family planning);
- Sub-optimal quality, including continued bias by HCPs to offer HIV and Sexual Reproductive Health Rights (SRHR) services to adolescents and young women;
- Insufficient integration of SRHR and HIV services in health facilities (including HTS and combination prevention);
- Limited systematic engagement of community-based health cadres, including CHWs into Adolescent SRHR (ASRHR) and HIV prevention;
- Inadequate utilisation of the school platform to reach adolescents (not all schools are implementing Comprehensive Sexuality Education (CSE));
- Inadequate knowledge among parents and teachers of HIV & AIDS/STI prevention content and skills to empower AGYW and ABYM;
- Inadequate focus on ABYM and older men who are potential sexual partners of AGYW (analysis on data for ABYM to determine the trend in performance);
- Inadequate operational research involving AGYW & ABYM to analyse and prioritise their specific needs and problems.

Priority Strategies

- Scale-up evidence-based and innovative AGYW combination prevention program interventions nationwide (prioritising geographical areas with high transmission dynamics);
- Expand adolescent and youth-friendly health services (AYFHS);

- Strengthen the referral system and coordination between health, and multi-sectoral social protection interventions;
- Strengthen the involvement of adolescent boys and young and older men in HIV prevention programming for the elimination of new HIV/STI infections (engaging them in the design, planning, implementation, operational research, monitoring, evaluation of HIV combination prevention interventions);
- Advance gender equality and girl empowerment;
- Strengthen parent/guardian engagement;
- Address HIV-related stigma and discrimination against AGYW and ABYM
- Strengthen the integration of HIV and SRH services to meet AGYW and ABYM needs;
- Create an enabling environment to facilitate access to HIV prevention programs and promote acceptable sexual and health-seeking behaviours among AGYW;
- Strengthen M&E systems and operational research to inform policymakers and program implementers on AGYW and ABYM HIV-related issues. This initiative should include enhancing the capacity on frontline providers to analyse data for AGYW and ABYM.

Intervention Area 7:General Population

Strategic Outcome 3.3: Ninety-five percent (95%) of at-risk general population saturated with a minimum package evidence-informed HIV prevention intervention by 2025

Situational Analysis

Tanzania is experiencing a generalised epidemic, with heterosexual transmission being the main mode of transmission (80%).[67] Based on the Spectrum estimates, there are currently approximately 1.7 million PLHIV in the country. Based on this data, despite the disproportionately high burden of HIV among KVP, the remaining 'general population' still contributes immensely to the disease burden in terms of absolute numbers. Literature suggests that the genesis of the term 'general population' came about during early HIV research, whose goal was to uncover the aetiology of a new and alarming syndrome, HIV and AIDS.

During the early days of the epidemic, this terminology was used to compare seroprevalence between two mutually exclusive groups (i.e., high-risk groups vs. the general population), differentiating special programs designed to meet the needs of the declared PWID and MHR, from material directed to the entire population. The latter was then referred to as the general population.[68] Unlike the high-risk groups among whom the ravages of AIDS were first registered (populations of which are to date referred to as key populations), available data suggests that some segments of the general population are considered to be underserved[69], and therefore they deserved a response.

Despite its long-term usage, this term is ubiquitous, non-specific, and its usage in HIV programming can mask the heterogeneity of those it includes. In Tanzania, women, men, youth, adolescents, and

[67] Mpondo, Bonaventura C T et al. "HIV Epidemic in Tanzania: The Possible Role of the Key Populations." AIDS research and treatment vol. 2017 (2017): 7089150. doi:10.1155/2017/7089150

[68] 4E. D. Acheson E., 'AIDS: A Challenge for the Public Health', The Lancet. 327, no. 8482 (22 March 1986;1 (8482): 662–666, https://doi.org/10.1016/S0140-6736(86)91736-8.

[69] PRichard Parker R, Khan S, Aggleton P. et al., 'Conspicuous by their Absence? Men with high risk (MHR) in Developing Countries: Implications for HIV Prevention', Critical Public Health. 8, no. 4 (1 December 1998;8(4) :): 329–46.

[18] NBS, 'Tanzania HIV Impact Survey (THIS) 2016-2017 2017', December 2018.

children who do not necessarily identify in either KVP groups (be it classical or non-classical) contribute to new HIV infections annually. For instance, currently, 33% of 2020 PLHIV estimates in Tanzania include men aged >15 years; a population group among which ART coverage has remained very low. The THIS conducted in 2017 further revealed significant numbers of males and females in the general population having sex with non-cohabiting and non-marital partners (i.e., Females: 26.1%-61.2% and Males: 33%-96.6%). Amongst those, less than 3 out of 10 males and 4 out of 10 females used condoms in their last sexual encounter. Programs need to strive to identify who these people are and profile their HIV acquisition and transmission risks. For instance, there is an anecdotally reported cultural practice by which AGYW engage in penetrative anal sex to protect their virginity before marriage. There could be several other attributes of this nature that require special attention. Therefore, treating the general population as a homogenous group is epidemiologically improper. **Figure 11** illustrates the age-disaggregated risk sexual practices among males and females.

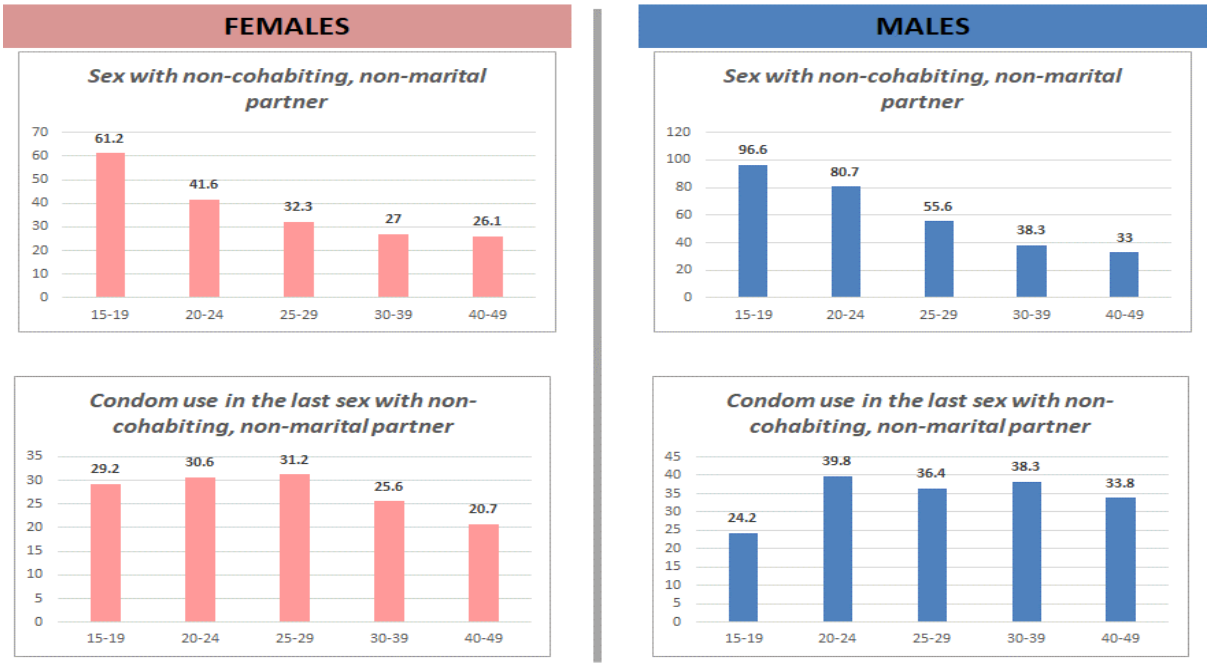


Figure 11: Proportion of males and females in the general populations practicing risky sexual behaviours

It is significantly important to note that evidence suggests a high degree of overlapping sexual networks between KVP and the general population.[70]

Note: In countries with a generalized epidemic, populations at greater risk experience a disproportionately high HIV incidence and thus through their casual or steady sexual partners, facilitate the maintenance or spread of HIV transmission in the general population.

Over the years, due to declining resources, there has not been a strong focus on primary HIV prevention in the general population. The only interventions that were able to effectively penetrate this group include social and behaviour change communication (SBCC) interventions implemented through multiple channels. Successful examples include the rollout of SBCC messages aired through media such as *'Fataki'* (cross-generational sex), and *'Tuko wangapi', 'Tulizana!', 'Baki njia kuu', Michepuko sio dili'* (multiple concurrent partnerships). All of these are among the famous messages widely discussed among youth. However, one of the drawbacks is that these messages did not address all areas of primary HIV prevention.

[70] Yuri A. Amirkhanian Y. A., 'Social networks, sexual Networks, Sexual Networks and HIV Risk in Men Who Have Sex with Men', Current HIV/AIDS Reports. 11, no. 1 (March 2014;11(1) :): 81–92.

A continued low reach and sub-optimal saturation of the general population with HIV prevention interventions poses a potential risk towards Tanzania's ability to end AIDS as a public health threat by 2030. In view of this, the NASHCoP SP will intensify prevention efforts in the general population targeting population segments and hotspots with the right mix of evidence-based interventions.

Key gaps

Based on the summary context narrated above, below are prevailing gaps/challenges:

- Wrongly assuming that a general population is a homogenous group and so failing to differentiate prevention interventions according to risk profiles;
- Inadequate profiling of the general population sub-groups with increased HIV risk;
- Underestimating the risk of HIV acquisition and transmission among the general population (in a way it is assuming that the general population (i.e., non-KVP] is)) is not at risk;
- Inadequate prevention investments for the general population (no budgets, no IPs focusing on this group) resulting in limited reach of this population with HIV prevention interventions;
- Lack of standardized prevention programming tools or packages for the general population.

Priority Strategies

In realisation of the inadequate penetration of this audience, the NASHCoP SP plans to employ evidence-informed and cost-effective high-impact interventions targeting this important population segment for the epidemic, which seems to have had a sub-optimal focus in the past years. Below are the recommended key priority strategies:

- Revitalise general population prevention programming agenda by advocating for donors, private sector, community structures, and implementers to increase HIV prevention focus;
- Employ data-driven approaches to segment and target the general population according to risk profiles;
- Scale-up the provision of cost-effective, evidence-based, and risk-matched HIV prevention interventions to this population, including re-launching of SBCC campaigns that showed evidence of better results;
- Mobilise resources and improve the allocation and accountability of R/CHMTs in planning, budgeting, coordinating, and overseeing interventions targeting the general population;
- Leverage KVP programming investments and tools to enhance reach to the general population;
- Strengthen the current M&E system and the research and learning agenda (RLA) to cater for the needs of the general population.

Intervention Area 8: Voluntary Medical Male Circumcision, including Early Infant Male Circumcision

Strategic Outcome 3.4: Ninety percent (90%) male circumcision prevalence attained in all regions by 2025

Situational Analysis

Voluntary Medical Male circumcision remains one of the most effective biomedical interventions for preventing HIV infection to date. Evidence suggests that medical male circumcision offers a 60% reduction in the risk of HIV infection from female to male[71]. This procedure can be carried out at any age, including in early infancy, henceforth described as Early Infant Male Circumcision. According to the THIS 2022-23, the national male circumcision (MC) prevalence was estimated to be approximately

[71] Bertran Auvert B, et al.., 'Randomized Controlled Intervention Trial of Male Circumcision for Reduction of HIV Infection Risk: The ANRS 1265 Trial. PLoS Med.Trial', PLOS Medicine 2, no. 11 (25 October 2005;2:): e298,

87%.[72] However, variations between regions were observed with some regions having less than half of the boys and men circumcised. As of 2020, it was estimated that more than 6 million adolescent boys and men were circumcised through a combination of health facility-based and campaign activities.[73]

In line with the national guidelines, MC is delivered in combination with other interventions like condom use, safe sex education, HTS, STI screening and management (all together defining the minimum service package) to ensure maximum protection from HIV during sexual intercourse. Tanzania's VMMC program is a mature, best-practice intervention with excellence in reach and quality services. Continuous quality assurance conducted quarterly as part of programming shows that Tanzania has maintained a low level of adverse events (below 2%) as per the WHO-recommended threshold.

The program is close to reaching the sustainability phase, requiring services to be provided more at health facilities and less during outreach or campaign activities. The MoH, through the NACP, developed the National Operational Manual for Sustainable Voluntary Medical Male Circumcision (2020-2024), whose goal is to stimulate various VMMC stakeholders to maintain the established services without compromising quality.[74]

Under this guidance, various initiatives have been proposed to finance VMMC services, including health insurance schemes and cost-sharing. The MoH and its partners are expected to create the required enabling environment to maintain and spearhead these initiatives at all levels. It is envisaged that the continued services are likely going to exhaust eligible adults. Therefore, long-term investments in EIMC will be the best option for sustainable male circumcision services in the country. The NASHCoP SP will need to revitalize EIMC, whose focus declined following the abrupt ending of donor support in the year 2020. The main reason for the decline was the unavailability of EIMC commodities at health facilities (e.g., 1% lignocaine, Vaseline and pampers) resulting from both stock-outs at MSD and ending of direct support from IPs.

As it has been for the entire continuum of HIV services, VMMC services have been negatively impacted by the COVID-19 pandemic despite the progress made to date. In 2020, only 539,896 males were circumcised out of the set target of 722,550 individuals, representing a 75% annual achievement.

The NASHCoP SP will strengthen VMMC and EIMC services towards sustainability in line with the National VMMC sustainability Operational Manual. Additionally, deliberate efforts will be made to increase the resilience of the program to be able to resist service disruptions caused by global health threats such as COVID-19. The Plan will also focus on addressing the challenge of reaching older men and other high-risk groups or locations such as mines, fish landing sites and other hotspots that have been inadequately saturated.

Note: The Shang Ring (SR) pilot study conducted in Tanzania showed this device has high acceptability to older males. In addition, the study suggested that the SR device is safe and acceptable for males aged 13 and older in Tanzania. If made affordable, it could foster the smooth implementation of the sustainability agenda

Key gaps

- Low coverage of VMMC services in some geographical regions and populations:
  - i Only 92 facilities provide EIMC services in 17 priority regions. This is contributed to by the unavailability of EIMC commodities (e.g., 1% lignocaine);

[72] NBS, Tanzania HIV Impact Survey, 2022-23, Dodoma

[73] MOHNASHCOP, 'Mid Term Review of the Health Sector HIV Strategic Plan IV', Dodoma 2020

[74]NASHCOP, 'National Operational Manual for Sustainable Voluntary Medical Male Circumcision 2020-20242024'.

ii Reaching uncircumcised adult males above 20 years;

iii Reaching uncircumcised men in areas with low MC prevalence and geographical regions with high HIV incidence (Shinyanga 46%, Songwe 40.6%, Rukwa 43.7% and Simiyu 46.3%).

- The current VMMC services do not adequately meet age-appropriate approaches, including counselling, communication and client-provider interactions.
- Clients/community disbelief, myths and misconceptions about VMMC still exist;
- Limited ownership of the VMMC Programs by R/CHMTs with low utilisation of the VMMC National operational manual for sustainability;
- Inadequate VMMC/EIMC service integration;
- Donor dependency in the provision of VMMC services;
- Prolonged and non-sustainable training modality;
- Use of disposable VMMC kits, which are expensive to procure and dispose;

Priority Strategies

During the implementation of NASHCoP SP, VMMC will be strengthened to focus on attaining saturation:

- Mobilise domestic resources for VMMC/EIMC services;
- Operationalize the National Operational Manual for Sustainable Voluntary Medical Male Circumcision (2020-2024) at all levels;
- Expand VMMC services to high-risk groups and locations and increase focus on priority regions that have not yet attained 90% prevalence;
- Strengthen VMMC/EIMC service integration;
- Scale-up EIMC services to all hospitals and 50% of Health Centres in 17 priority regions;
- Develop and implement a cost-effective, shortened, modularized on-job training package for the utilisation of the VMMC and EIMC Sustainability Operational Manual;
- Strengthen the involvement of traditional circumcisers in demand generation to mobilize clients, especially adults, to uptake services;
- Strengthen continuous quality improvement of VMMC and EIMC services by ensuring the safety and cultural acceptability of the services, and tracking/surveillance for adverse events resulting from the procedures;
- Strengthen community engagement, structures, and communication channels to promote VMMC among older males.

Intervention Area 9: Pre-Exposure Prophylaxis

Strategic Outcome 3.5: Ninety-nine percent (95%) of people with substantial risk of HIV acquisition accessed HIV PrEP by 2025

Situational Analysis

Recent scientific advances have made it possible to prevent HIV infection through the use of antiretroviral for HIV-negative individuals with a substantial risk of infection. This primary prevention approach is commonly known as Pre-exposure Prophylaxis. Evidence shows that when taken consistently and correctly, PrEP is very effective and reduces the chances of HIV infection to nearly zero. Pre-exposure Prophylaxis normally comes in the form of a daily course of antiretroviral drugs (ARVs) taken during risk times. In 2015, WHO recommended Tenofovir (TDF)-based oral PrEP as an additional prevention option as part of combination prevention. Two years later (2017), Tenofovir/Emtricitabine (Truvada) was included in the WHO Essential Drug List, and in 2019, WHO released guidance on event-driven oral PrEP use for MHR through the use of TDF/FCT.

Recognising the importance of PrEP, the MoH included this intervention in the HSHSPV initially as a demonstration intervention (implemented in 9 regions) integrated into Care and Treatment, PMTCT and KVP-combination prevention services. Subsequently, specific guidance was reflected in the respective guidelines. Target populations for PrEP in Tanzania as per the current National PrEP Implementation Framework include Discordant Couples, Sex Workers, MHR, PWID, and vulnerable AGYW aged 15-24 years. A combination of essential eligibility criteria and population-specific risk defining criteria apply prior to initiating PrEP.

Note:

- Pregnant and breastfeeding women falling in the above groups who fulfil the above criteria should be given PrEP accordingly; or any person who conceives while taking PrEP should continue with services;
- A combination of essential eligibility criteria and population-specific risk defining criteria apply prior to initiating PrEP.

During the demonstration phase, the following was accomplished: development of training packages, standard operating procedures (SOPs), supportive supervision checklists, M&E tools and a database, procurement of TDF/FTC and laboratory reagents for testing, development of SBCC print materials, site selection, and Training of Trainers (TOT) and HCW training. Close to 15,000 beneficiaries were reached during this phase. Based on insights from stakeholders implementing PrEP, FHR showed high (51%) acceptability of PrEP, followed by MHR (26%) and PWID (11%).[75]

Besides these accomplishments, key challenges were encountered and various lessons were learned. The most pertinent one was multiple stakeholder acceptability and safety concerns. To ensure ownership and sustainability of this intervention, before embarking on a robust scale-up, the MoH, in collaboration with multi-sectoral stakeholders developed the PrEP implementation framework (approved in May 2021). Currently, the GoT, in collaboration with IPs, is scaling-up PrEP nationwide. The NASHCoP SP will focus on observing service quality and client safety, and ensuring sustainability.

Note: Besides the currently approved PrEP regimen (Truvada), other PrEP options, including Long-Acting Injectable Cabotegravir (LA-CAB) and Dapivirine Ring (DR) may be recommended by WHO during the implementation period. Their respective adaptations will rely on WHO guidance and the local context.

Key gaps

The following key remaining barriers need to be addressed for a smooth PrEP scale-up:

- Low awareness and uptake of PrEP by targeted groups (MHR, FHR, PWID, vulnerable AGYW and discordant couples);
- Low competency of healthcare providers in PrEP eligibility screening and management as per national guidelines. This is contributed by a low number of providers trained on KVP interventions;
- Low social acceptability and multi-stakeholder concerns about the safety profile;
- Low integration of PrEP services among routine services such as condom programming;
- STI screening and management, and other combination prevention services;
- High PrEP discontinuation rates for individual perceived to be at risk (>50% in each target population);

[75] PEPFAR, 'Tanzania Country Operational Plan (COP) 2021 Strategic Direction Summary'.

- Prevailing myths and misconceptions about PrEP. Some people think PrEP is a vaccine, and others (including KVP) think that PrEP is an ARV for people who are HIV;
- Sub-optimal quality assurance for PrEP service delivery, particularly for laboratory testing (not all clients tested for HbsAg and serum creatinine), including lack of a structured system for monitoring PrEP drug toxicity and seroconversion;
- Interruption of PrEP commodities and related supplies (including Truvada and biochemistry reagents);
- High mobility of KVP compromises current PrEP client monitoring strategies, adherence support, and refills;
- Data quality challenges for PrEP services (cuts across all community services);
- The M&E system does not fully address all the service delivery needs (e.g., lack of an individual-level database for PrEP clients).

Priority Strategies

- Enhance PrEP accessibility, acceptability and effective use among PrEP users;
- Capacity building of healthcare providers nationwide (improve HRH for PrEP);
- Strengthen the quantification, forecasting, and procurement of PrEP commodities (laboratory reagents and medications);
- Scale-up facility-based and facility-led community-based quality PrEP services nationwide in alignment with the approved implementation framework;
- Strengthen pharmacovigilance for PrEP;
- Strengthen PrEP M&E systems (including the capability for registering transfer outs), enhance data used for programming and develop PrEP research and learning agenda to inform programme improvement and quality assurance;
- Establish a proactive mechanism for reviewing evidence, assessing acceptance, approval, registration, transitioning and scale-up of the newer PrEP options;
- Enhance the integration of PrEP into HIV combination prevention services (with special emphasis on comprehensive condom programming);
- Build the capacity of CSOs in PrEP service design, planning, delivery, and monitoring (Community-Led Monitoring)
- Engage multi-stakeholders at the national, regional and council levels to foster ownership and sustainability (including R/CHMT, CSOs, etc.)

Intervention Area 10: Post-Exposure Prophylaxis

Strategic Outcome 3.6: **Ninety percent (90%) occupationally and non-occupationally exposed HIV negative individual's timely received HIV Post-Exposure Prophylaxis (PEP) services by 2025**

Situational Analysis

Occupational and non-occupational accidental exposure to blood and body fluids pose a risk to the transmission of blood-borne pathogens such as HIV and Hepatitis B and C viruses that occurs in healthcare settings. As such, much emphasis has been placed on post-exposure management among health care workers. However, other occupations put people at risk of accidental exposure, such as law enforcement personnel, emergency and rescue workers, fire-fighters, prison guards / correctional officers, and social service staff who work with intravenous drug users. Furthermore, non-occupational exposure, such as that from a sexual assault, needle-sharing among intravenous drug users (IUDs), and accidental exposure through consensual sex (condom breakage or slippage) also pose a significant risk of HIV acquisition, even though they are poorly addressed.

ARV medication has been prescribed for PEP following occupational exposure to HIV by health workers since the early 1990s, and is driven by the compelling evidence on the effectiveness of ARV medication given to HIV-negative individuals who were accidentally exposed to blood and body fluids in reducing new infections. In 2007, WHO issued a guideline that extended HIV PEP to non-occupational exposure.

In recognition of the critical role of PEP in primary HIV prevention, the MoH has engaged in activities to improve the quality of PEP services as an integral component of infection prevention and control (IPC) strategies and HIV prevention since 2004. In 2014, the National Guidelines on Post-Exposure Prophylaxis following occupational and non-occupational exposures to blood and other body fluids was developed; PEP was integrated into the National Guidelines and Trainings for Management of HIV/AIDS and Infection Prevention and Control; and PEP reporting tools, the PEP database, and PEP job aids were developed. Going forward the country intends to introduce PEP for viral hepatitis exposures.

However, despite evidence and the availability of this service, emphasis on PEP has declined over time. Recent studies suggest a high prevalence (50%) of healthcare-related accidental exposure and low awareness (52%) about HIV PEP.[76] This is a missed opportunity considering the likelihood of accidental, occupational and/or non-occupational exposure. The HSHSPV did not have a specific strategy for this intervention. In addition to fast-tracking efforts to reduce new infections by 85% by 2025, the NASHCoP SP will revitalize this intervention and ensure implementational fidelity.

Key gaps

Below are barriers to and challenges in PEP implementation:

- Low levels of awareness of PEP among HCWs and the general population;
- Low compliance with standard precautionary measures (infection prevention and control (IPC), and injection safety);
- Inadequate post-rape services including supportive and well trained and sensitized health, psycho-social, legal, police and related services;
- Low community awareness of the availability and role of HIV PEP (including among GBV and VAWC victims);
- Suboptimal integration of PEP within GBV/VAC prevention programs;
- Under-reporting of accidental occupational exposure (particularly healthcare-related) and non-occupationally related exposure;
- Low PEP awareness among law enforcers and legal personnel resulting in exposed individuals failing to timely access services (preferably within the first 2 hours and not exceeding 72 hours);
- Absence of a structured reporting system and poor documentation and record-keeping;
- Lack of data and other related information on HIV PEP service utilization by non-health workers (general population and other occupations).

Priority Strategies

- Improve community and healthcare worker awareness of HIV and VH PEP, including specific community sensitization on post-violence care for GBV/VAWC and sexually assaulted victims. This strategy will also include dissemination of job aids for providers and SBCC materials for the community;
- Strengthen efforts to prevent accidental exposure in healthcare, community settings and other sectors;

[76]Kimaro L, Adinan J, Damian DJ, Njau B. Prevalence of occupational injuries and knowledge of availability and utilization of post exposure prophylaxis among health care workers in Singida District Council, Singida Region, Tanzania. PLoS One. 2018 Oct 25;13(10):e0201695.

- Build the capacity of HCPs in PEP service provision;
- Build the capacity of law enforcers and legal officers in PEP to enable them to facilitate timely access to PEP (particularly for cases of sexual assault/rape);
- Strengthen the integration of HIV PEP in workplace programming;
- Strengthen oversight of PEP services at the central and local level;
- Improve PEP reporting M&E system and tools.

Intervention Area 11: Blood Safety and Quality

Strategic Outcome 3.7: 100% of the donated blood and blood products screened for HIV, Syphilis and other transfusion-transmitted infections (TTIs) (e.g., hepatitis B & hepatitis C Virus (HBV & HCV)) as per WHO quality assurance procedures by 2025.

Situational Analysis

Earlier in the epidemic, unsafe blood supply contributed to new HIV infections globally. Great progress has been made in improving blood safety in the last few decades, though challenges persist mainly due to resource constraints. This is why the national programme in Tanzania includes blood safety, which is a critical component of HIV and VH primary prevention activities which entails screening donated blood for TTIs. In 2004, the MoH established a National Blood Transfusion Service (NBTS) which is operating in seven decentralised zonal blood banks in Dar es Salaam, Mbeya, Moshi, Mtwara, Mwanza, Dodoma and Tabora. Each region and Council are connected to a Zonal Designated Blood Transfusion Centre (ZBTC), from which they receive technical support, blood testing services and blood supply.

During implementation of the HSHSPV, Tanzania met only 6 whole blood units per 1,000 population, falling below the WHO threshold of 10 whole units per 1,000 population as reported in 2020. This is a result of several strategies implemented by the MoH, including increasing the pool of voluntary blood donors from 30% (2016) to 49% (2020). Initiatives to improve blood safety have contributed to the reduction of new HIV infections by decreasing the risk of exposure to unsafe blood transfusions from 60% (2016) to 40% (2020).

Voluntary blood donations are the cornerstone of a sustainable safe blood supply, as evidenced by a lower prevalence of HIV (1.7%) when compared to voluntary non-remunerated blood donors (VNRBD) to family replacement donations (1.3 % Vs.2.1%). By increasing voluntary donation to 50%, the blood safety programme has contributed to the decreased risk of exposure to unsafe blood obtained from family replacement donations.[77]

The NBTS is one of the well-established programmes in Tanzania equipped with well-trained staff, state-of-the-art equipment, and good blood-bank infrastructure to provide the required services. The NBTS implements a quality management system in carrying out its functions and complies with national and international accreditation standards (Ref. Africa Society for Blood Transfusion (AfSBT) Standards for Stepwise Accreditation). All samples of blood donated through NBTS or NBTS networks are sent to NBTS zonal central laboratories for quality-assured laboratory screening for TTIs. Results are sent back to blood collecting sites to ensure that only safe blood is used for transfusion. In 2019, the NBTS installed fully automated TTI screening platforms which have significantly reduced the TAT for results from up to 10 days in 2015 to up to 5 days in 2020 (Sample transportation assessment report) and therefore increased access to safe blood. Despite this achievement, the blood safety programme experiences some delays in TAT due to delays in receiving samples from collection sites,

77 NBTS, 'Annual Programme Report', 2020

interruptions in the supply chain for reagents and supplies and use of a manual system for dispatching test results to blood collection sites.

The integrated strategy will continue to build on the success of the NBTS programme and ensure that adequate safe blood and blood products are available to those in need, including PLHIV.

Key gaps

Gaps and constraints that continue to affect blood transfusion safety in Tanzania Mainland include:

- An unmet national blood requirement by 40%;
- Limited public awareness on the importance of voluntary blood donation and inadequate community mobilisation of non-remunerated voluntary blood donors;
- Delays in TAT receiving feedback on test results due to interruption of the supply chain system, weak sample referral and transportation system, and unreliable PPM of testing platforms;
- Weak tracking and referral systems and linkage to care and treatment for HIV-positive blood donors;
- Limited knowledge and utilisation of newly incorporated blood safety indicators through the DHIS2;
- Lack of sustainable funding mechanisms and a blood safety legal framework to maintain access and availability of safe blood and blood products;
- Sub-optimal compliance to WHO quality and safety standards by NBTS network collection sites and transfusing facility staff (e.g., use of Rapid Test kits for HIV screening);
- Inadequate engagement of private health facilities in NBTS and blood safety programme initiatives.

Priority Strategies

The NASHCoP SP will focus on strengthening quality programming and fostering the sustainability of the blood safety programme. Proposed strategies include to:

- Increase blood collection to meet the national requirement by strengthening the NBTS and its networks;
- Increase public awareness and community engagement in voluntary blood donation through innovative initiatives;
- Strengthen the sample transportation and supply chain system to reduce TAT on test result feedback;
- Strengthen the electronic information system of blood safety programmes at all levels to enable referral, tracking, and linkage of blood donors who tested HIV positive to care and treatment services;
- Establish and maintain engagement with private health facilities in the NBTS and blood safety program initiatives;
- Establish sustainable funding mechanisms to maintain access to and availability of safe blood and blood products;
- Strengthen clinical evaluation and HBV and HCV risk factors assessment before blood donation including referral for those found to be infected;
- Ensure screening of all blood and blood products for hepatitis B and C viruses to ensure their safety and quality;
- Strengthen existing courier system for blood sample transportation to ensure universal testing in a quality-assured manner;
- Support ZBTCs to implement and maintain quality management systems and participate in external quality assessment (EQA) and accreditation programmes to ensure blood safety and
- Strengthen the DHIS2 system to capture and track blood safety indicators.

Intervention Area 12:Social and Behaviour Change Communication

Strategic Outcome 3.8: Comprehensive knowledge about HIV/AIDS increased to 95% by 2025

Situational Analysis

Heterosexual sex is the main contributor to new HIV infections in Tanzania. In line with this transmission mode, the risk of HIV acquisition or onward transmission is strongly linked to sexual behaviour. Unprotected vaginal and anal sexual intercourse (consensual or coerced) between an uninfected person and a non-virally suppressed sexual partner puts Tanzania's population at risk of HIV infection, even though various proximal and distal factors positively or negatively affect a person's sexual behaviour. This is why multi-pronged approaches need to be employed to address multi-level behavioural determinants that influence a person's sexual behaviour. There is a growing recognition of the fact that although behavioural factors play a significant role in the transmission of HIV, they have limited explanatory utility for inequities in HIV infection. The social determinants of health (SDOH) framework provide a valuable tool for understanding various factors in the environment that contributes to health inequities.[78,79] The SDOH include social, economic, environmental and personal factors that impact an individual's vulnerability and exposure to health-compromising conditions.[80] Given this, the MoH recommends using combination prevention approaches to reduce risky behaviours. Behavioural interventions need to be mixed with structural and biomedical interventions.

Underscoring the importance of behaviour change in controlling the epidemic, the HSHSPV focused on the use of SBCC approaches targeting individuals and other influences surrounding the individual (i.e., peers, families, communities, media, lawmakers, policymakers and other relevant structures) using multiple channels, enhanced with information and communication technology (ICT). The intended behaviour change goals included increased individual and public knowledge, delayed age of sexual debut, preventive sexual behaviour, changes in social norms, and increased uptake of HIV combination prevention services, including treatment as prevention.

Furthermore, in 2021, the GoT started rolling out comprehensive sexuality education (CSE) (HIV and AIDS, SRH and Life Skills) training in public and private primary and secondary schools. On one part, CSE addresses SBCC and hence it is expected to positively contribute to desired behaviour change among students reached by this intervention. Currently, the implementation only covers about 25% of the country. When it is in full scale, this intervention will reach more than 12 million children who are in school and equip them with knowledge and skills that will positively influence their behaviour towards HIV prevention. The strategy will maximise the use of the school platform, from primary school to HLI level (both public and privately owned).

Key gaps

The implementation of the HSHSPV observed several gaps and challenges hindering the successful implementation and achievements of the desired behaviour change goals in relation to HIV prevention, including treatment as prevention. These include:

- Lack of a national standardised comprehensive SBCC package;

78Gregorio A. Millett, GA, Peterson, JL, Flores, SA, et al.., 'Comparisons of Disparities and Risks of HIV Infection in Black and other Men Who Have Sex with Men in Canada, UK, and USA: a meta-analysis. A Meta-Analysis', Lancet. 2012; (London, England) 380(, no. 9839): (28 July 2012): 341–34848, https://doi.org/10.1016/S0140-6736(12)60899-X.

79Chris Beyrer, C, Sullivan, P, Sanchez, J, et al.., 'The Increase in Global HIV Epidemics in MSM.', AIDS. (London, England) 27, no. 17 (13 November 2013;27(17) :): 2665–267878, https://doi.org/10.1097/01.aids.0000432449.30239.fe.

80 Solar, O, Irwin, A. World Health Organization, 'A Conceptual Framework for Action on the Social Determinants of Health. WHO; Health', Discussion Paper Series on Social Determinants of Health, 2, 2010, 76.

- Low awareness regarding new emerging issues for HIV and AIDS prevention (including inadequate knowledge among parents/guardians in regards to sexual education and reproductive health to support their young ones)
- The existence of myths, misconceptions and harmful gender/social norms at the community level that hinder the provision and uptake of health services;
- Inadequate coordination and harmonisation of SBCC interventions at the national, sub-national and community level;
- Limited engagement with religious and community leaders in addressing HIV misconception, social norms and gender equality;
- Conflicting policy and legal issues, especially targeting children and adolescents in and out of school. This also reflects on school platforms not being effective in the promotion of behaviour change among younger people;
- Limited resources for behaviour change interventions from national level to community level.
- Short-lived implementation of SBCC interventions and sometimes frequent changes in the design of SBCC interventions therefore not allowing the desired change of behaviour;
- Lack of a functional M&E system for SBCC at facility and community levels.

Priority Strategies

- Scale-up evidence-based, locally-contextualized, age-appropriate, and client-centred SBCC interventions using multiple channels to facilitate risk reduction, increase uptake of HIV services, and address critical enablers and barriers of behaviour change;
- Enhance the engagement of parents /guardians in promoting acceptable behaviour change moving away from deviant behaviour among adolescents and youth
- Strengthen the engagement of religious and community leaders in behaviour change initiatives;
- Reinforce stakeholder coordination across all levels of implementation, i.e., national, sub-national and community level;
- Advocate for policy and regulatory changes to strengthen the supportive environment for SBCC interventions and service provision, e.g., alcohol and drug abuse prevention and management policies that promote behavioural change;
- Accelerate the scale-up of CSE on HIV/AIDS, SRH, and Life Skills in primary and secondary schools and HLIs;
- Strengthen SBCC M&E to include comprehensive HIV and AIDS behavioural and social science operational research;
- Ensure adequate financing and resources for implementing SBCC strategies at all levels. This strategy includes increasing the engagement of the private sector to support SBCC interventions.

PRIORITY STRATEGIC AREA 4: MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS (STIs)

Intervention Area 13: Sexually Transmitted Infections (STIs)

Strategic Outcome 4.1: Eighty-percent (80%) of at-risk populations screened and treated for STI by 2025

Situational Analysis

The existing body of literature suggests that the presence of untreated sexually transmitted infections (STIs) can enhance both the risk of acquisition and onward transmission of HIV and viral hepatitis up to 10 fold.[81] Based on this tenet, WHO recommends that STI services be integrated with the HIV and

[81]UNAIDS, 'The Public Health Approach to STD Control', Technical Update, May 1998.

Hepatitis B prevention package of services.[82] In realizing this, the HSHSPV provided guidance for the program to conduct a detailed review of STI programming then resources for commodities, capacity building, supplies, and revitalisation of program implementation were mobilised.

The mid-term review of the HSHSPV observed some program improvements towards the right direction, which include; an increment in the number of ANC attendees tested for Syphilis from 878,239 (42%) in 2017 to 1,694,620 (73%) in 2019; a decrease in the number of ANC attendees who tested positive for Syphilis from 16,015 (1.8%) in 2017 to 26,592 (1.6%) in 2019; ANC surveillance for Syphilis among pregnant women attending ANC showed declining rates from 2.5% in 2011 to 1.8% in 2019; and the number of ANC attendees who tested positive and got treatment increased from 10,049 (63%) in 2017 to 18,298 (69%) in 2019.

All facilities offering RCH and HTS (currently 76% of all health facilities in the country) are offering STI services. Also, according to the NACP 2019 report, 584,854 of new STI clients were diagnosed between July 2018 and June 2019, out of whom, 423,540 (72.4%) were females. However, of those diagnosed, only 123,939 (21.1%) were treated. The proportion of treated clients varies between regions, with Dodoma having the lowest. The report shows that genital discharge syndrome GDS and Pelvic Inflammatory Disease (PID) were highly recorded compared to other STI syndromes at 36% and 31% respectively.[83] These data confirm that the STI burden is still high in Tanzania. Syphilis in both women and men is associated with serious complications and remains the leading cause of perinatal mortality and morbidity in many parts of the world despite there being widely available and affordable technology for diagnosing and treating infection in pregnant women. Females living with HIV are at a greater risk of developing cervical cancer because their weakened immune systems cannot clear human papillomavirus (HPV) infections.

Self-Reported Symptoms and Diagnosis of Sexually Transmitted Infections (THIS 2017)[84]

a) Among males aged 15 years and older, 5.3% reported having had abnormal discharge from the penis, and 7.4% had had an ulcer or sore on or near the penis in the 12 months preceding the survey;
b) Among HIV positive males aged 15 years and older, 8.3% reported having had abnormal discharge from the penis, and 14.3% have had an ulcer; while among HIV-negative males, 5.4% reported having had abnormal discharge from the penis, and 7.5% reported having had an ulcer;
c) Among females aged 15 and older, 12% reported having had abnormal vaginal discharge and 7.5% had had an ulcer or sore on or near the vagina in the 12 months preceding the survey;
d) Among HIV-positive females aged 15 and older, 17.1% reported having had abnormal vaginal discharge and 16.1% had had an ulcer, while among HIV-negative females, 12% reported having had abnormal vaginal discharge and 7.1% reported having had an ulcer in the 12 months preceding the survey.

Tanzania's STI guidelines recommend the use of a syndromic approach for the management of STIs. The effectiveness of the syndromic approach requires timely antimicrobial susceptibility studies as per the WHO recommendations. While the milestones realized in the first three years of the HSHSPV period are commendable, a lot remains to be done. The NASHCoP SP will critically appraise the current situation and employ practical evidence-informed approaches to improve STI diagnosis and management across all populations. Deliberate efforts will be put in place to address inequities,

[82]PEPFAR, 'Guidance for the Prevention of Sexually Transmitted HIV Infections (Infections', August 2011) and Hayes, R., Watson-Jones, D., Celum, C., et al. AIDS (2010), Vol. 24 Supp 4, pp. S15-S26.
[83]NASHCOP, 'Mid Term Review of the Health Sector HIV Strategic Plan IV', Dodoma 2020
[84]National Bureau of Statistics, 'Tanzania HIV Impact Survey (THIS) 2016-2017', December 2018.

including the high variability in the regional performance of Syphilis treatment among diagnosed women attending ANC, which was 17.3%, 22.4% and 25% in Tanga, Dodoma and Dar es Salaam regions respectively, and 100% in Kagera, Geita, Mara and Simiyu Regions.

Key gaps

Existing gaps and challenges in the current STI programming include:

- Low community awareness about STIs, including among KVP who are at high risk;
- Poor health-seeking behaviour and self-medication practices for STI management;
- Sub-optimal STI screening, testing, and treatment, the provision of STI services reached 63% (SARA report 2020);
- Low level of healthcare provider competency to effectively manage STIs using the current guidelines;
- Poor mechanism for STI contact tracing;
- Infrequent implementation of the antimicrobial susceptibility study as per WHO recommendations;
- Occasional stock-outs of STI-related commodities and medicines which contributes to creating a gap between testing rates and access to treatment, especially among pregnant women who are diagnosed with Syphilis;
- User fees for STI management;
- Stigma towards STIs hindering high-risk groups (e.g., KVP) to access treatment services;
- A weak STI M&E system that does not cater to the program's needs.
  i M&E tools are unavailable/not printed;
  ii STI indicators/tools are not harmonized and not integrated into MTUHA.
- Inadequate engagement of the private sector (health facilities/pharmacies) in the STI/reproductive tract infections (RTI) syndromic case management approach;
- Inadequate resources for supporting capacity building of health care workers on the management of STIs and procurement of laboratory commodities for STI treatment, research and surveillance services.

Priority Strategies

The NASHCoP SP will maintain the gains achieved in during the previous implementation period and further strengthen program fidelity. Proposed strategies include to:

- Increase community awareness about STIs (including promotion of HPV vaccination for those eligible);
- Strengthen STI management services for PLHIV and KVP as part of the standard package of HIV prevention;
- Strengthen the integration of STI management into combination prevention services, namely; PLHIV care, and treatment services, and other SRH services;
- Improve STI contact tracing;
- Revitalise regular antimicrobial resistance AMR surveillance of STIs to determine if current regimens are still effective and to guide the selection of appropriate treatment regimens;
- Improve the quality of STI services (in all service delivery platforms) as part of the quality assurance and quality improvement strategy;
- Develop an e-learning system and facility-based training package for the management of STI/RTI;
- Improve availability of STI commodities at facility level (including medicines and laboratory reagents);
- Scale-up dual HIV/Syphilis testing for pregnant women attending ANC and appropriately manage those who are infected;

- Strengthen multi-sectoral approach on comprehensive HIV prevention modalities to meet community demand;
- Strengthen the M&E system for the improvement of data collection and reporting from the source of STI management;
- Mobilise resources for supporting capacity building of HCWs on STI diagnosis and management, procurement of STI medicines and laboratory commodities, STI surveillance, and research;
- Enhance engagement of the private sector (health facilities/ pharmacies) in the STI/RTI syndromic case management approach.

Intervention Area 14: Comprehensive Condom Programming

Strategic Outcome 4.2: Ninety-five percent (95%) of females and males engaging in non-cohabiting non-marital sexual relationships reporting condom use at last sexual intercourse by 2025

Situational Analysis

Since the heterosexual route is the most predominant means of acquiring and transmitting HIV, condom programming is among one of the important pillars of primary HIV prevention. Condoms are safe and do not require a prescription. The correct and consistent use of male and female condoms remains to be the only available highly effective multipurpose prevention technologies (MPT) that provide triple protection in preventing HIV, STIs and pregnancy.[85] Based on these facts, the HSHSPV emphasises the strengthening of condom programming using the total market approach (TMA) to expand the provision of condoms in both the public and private sectors. This is in alignment with the National Multi-Sectoral Condom Strategy (NMCS) 2019-2023. However, condom use at last sex with a no marital, non-cohabitating partner remains low (34%).[86]

The HSHSPV implementation period marked significant milestones in Comprehensive Condom Programming (CCP). The National Condom Distribution Guide 2019 was developed to strengthen the distribution of condoms and reduce unmet needs. In line with the implementation of the NMCS, quantification, forecasting, and supply planning of both public sector and subsidised condoms have been carried out annually to ensure continuous availability. From 2018-2020, a total of 352,819,291 condoms were procured. Of these, 297,919,291 were public sector condoms and 54,900,000 were socially marketed condoms. There is also a substantial share of the market currently served by commercial condoms, but specific data is not readily available.

During this same period (i.e., 2018 to 2020), 100,983,737 public sector condoms were distributed through health facilities, out of which 4,194,009 were distributed through community outlets.[87] The implementation of TMA has ultimately increased the market share of public sector condoms from 21% to 50% with the remaining 50% accounted for by the social market and commercial sectors.

Unavailability of condoms at the community level has been a persistent challenge in CCP implementation. To address this, the HSHSPV aimed at extending condom distribution points from health facilities to the community, particularly using the community dispenser model. Therefore, in

[85]Beksinska M, Wong R, Smit J. Male and female condoms: Their key role in pregnancy and STI/HIV prevention. Best Pract Res Clin ObstetGynaecol. 2020 Jul; 66:55-67. doi: 10.1016/j.bpobgyn.2019.12.001. Epub 2019 Dec 14. PMID: 32007451.

[86] National Bureau of Statistics, 'Tanzania HIV Impact Survey 2022-2023,' Dodoma, 2023

[87] National Aids Control Program Report, 'Annual Program Report', Dodoma.2020

line with this goal, in the previous implementation period, 85,000 condom dispensers were procured and installed in hotspots and high-risk areas in the community.

In addition, a National Condom Taskforce, which is an advisory body to the Multisectoral Condom Sub-committee was established to improve stewardship.[88] The task force has been a catalyst in strengthening leadership and coordination to comply with the four pillars of condom programming. The NASHCoP SP will maintain the gains attained in condom programming, explore additional resources to strengthen the programme and improve implementation in alignment with the NMCS.

Key gaps

The following are key barriers to condom programming:

- Unacceptably low (<70% on average) use of male and female condoms. Besides reported myths and misconceptions around condoms and gender imbalances impeding women to negotiate for condoms, there are also prevailing disparities among population subgroups;
- Unmet needs for condoms (shortage of female condoms). There is an insufficient number of public condoms due to limited budgetary allocation (condoms procured meet only 50% of the required needs and the remaining 50% are to be covered by socially marketed and commercial condoms) for public condoms;
- Irregular availability of condoms in hotspots such as bars, guest houses, night clubs and other community settings such as the office of the Village Executive Officer (VEO) and HLIs;
- Poor implementation of the condom distribution model from health facilities to the community including untimely refill of condom dispensers at the community outlets;
- Weak condom monitoring and evaluation framework;
- The current model for socially marketed condom programming is not sustainable because there is still high dependence on donor support, and the prices of condoms are high for some people, especially young people;
- Lack of accountability of the key players in condom programming;
- Lack of a robust M&E system resulting in lack of data and other related information on condom availability and utilisation by different segments of the population;
- Persistent stigma around possessing or using condoms;
- Limited integration of condom programming into other HIV interventions;
- Poor enforcement of education on correct and consistent condom use (the current practice promotes only condom brands).

Priority Strategies

Based on these gaps and some of the threats for which the programme does not have control over, the NASHCoP SP will build on the current programmatic strengths and opportunities to sustainably increase availability and equitable use of male and female condoms for the prevention of HIV, STIs, and unplanned/early pregnancy. In line with this goal, below are the strategies to be implemented.

- Strengthen the promotion of male and female condoms, including correct and consistent use of condoms through multiple channels;
- Empower adolescent girls and women to increase their condom negotiation skills;
- Diversify condom distribution and marketing approaches at different levels including within communities:
    - Improve market stewardship through strong leadership and coordination in support of TMA;

[88] National Aids Control Program Report, 'Mid-term Review of Health Sector HIV Strategic Plan IV', Dodoma.2020

ii Strengthen condom distribution from facility to community level (e.g., bars, guest houses, night clubs) using various community channels and structures (CHACC, WEO, VEO, peers);
iii Scale-up the community dispenser model by installing additional condom dispensers in unreached community venues/hotspots, HLIs and workplaces.

- Maximise market efficiency, equity, and sustainability by coordinating condoms available through the public, social marketing, and commercial sector (including introducing a mechanism to regulate condom prices).
  i Strengthen the integration of condom programming with HIV, SRH and other facility-and community-based interventions (general population and at-risk groups);
  ii Improve availability and consistent supply of male and female condoms;
  iii Improve forecasting, quantification and supply and planning of condoms, according to the NMCS and the newly issued condom distribution guide (this process is supposed to be done in a participatory manner);
  iv Strengthen the condom supply chain and distribution systems to ensure that adequate quantities are available in a timely manner, accessible, and equitably distributed at the facility and community level, including workplaces. (This strategy goes hand in hand with the development of a sustainable, cost-effective condom distribution model/ecosystem that uses local structures).
  v Improve surveillance, evaluation and operational research in condom programming

PRIORITY STRATEGIC AREA 5: REDUCTION OF AIDS RELATED MORTALITY

The strategies to reduce the mortality and morbidity due to HIV/AIDS include: reducing new HIV infections; increasing access to quality care and improving health outcomes for people living with HIV; and reducing HIV-related disparities and health inequities. This priority strategic area presents six interventions that describe facility and community-based approaches for HIV care, treatment and support services. The NASHCoP SP recognises the need to emphasise approaches that will support the delivery of targeted quality comprehensive and integrated services, including the provision of a comprehensive package of care for the identification, diagnosis, and management of AHD and OIs in a continuum of care approach. This section describes population-specific interventions for paediatric and adolescent HIV care, treatment and support services.

Intervention Area 15: Facility and community based HIV care and support services

Strategic Outcome 5.1: By 2025, over 95% of PLHIV who know their HIV status, enrolled and retained into ART

Situational Analysis

The MoH through the NASHCoP has continued to increase the number of health facilities providing ART services in the country, whereby as of September 2021,3,074 health facilities were providing comprehensive CTC services and 3,684 stand-alone PMTCT Option B facilities were providing ART, covering 80% of the 8,446 health facilities in the country. According to 2022/23 THIS report, 98% of PLHIV who knew their HIV status were on ART and 94% of those on ART had attained viral suppression. There are still disparities across regions regarding HIV Care and Treatment clinics based on the case load of PLHIV per region. As of June 2021, Dodoma region had the highest number of ART facilities (350), while Katavi region had few ART facilities (78). On client load, Dar es Salaam

region had the highest (222,759) number of PLHIV compared to Manyara region which had the least (18,411) number of PLHIV.

To increase access to HIV care and treatment services, the GoT started implementing the DSD Model and community-based ART services in 2018. As of June 2021, a total number of 3,074 health facilities were implementing the DSD Model. These models help to facilitate the uptake and continuity of ART services, such as multi monthly prescriptions in which Recipients of Care (ROC) are given a 3 - 6months supply of ARVs. As of September 2021, there were 918,000 PLHIV on 3/6multi month ART dispensing among those eligible (90.92%).

Community-based health services for HIV and AIDS (CBHS) have remained an essential intervention supporting client retention in care. The HSHSPV MTR showed that the number of PLHIV receiving CBHS increased from 739,914 (52.7%) at the end of 2018 to 955,654 (74.3%) in 2019[89]. The target was to reach 80% of all PLHIV who are currently in care to receive CBHS. These services contributed significantly to maintaining retention at 12 months above 80% by tracking and tracing missed appointments and lost follow-up. A total of 42,579 PLHIV were registered for follow-up in the fourth quarter of 2019. Among those traced, 20,738 (54%) were returned and engaged in ART care, while 17,485 (46%) were never traced or contacted again.

Despite good progress and over-achievement of the 2nd and 3rd 90 by 2020, there are still disparities across age groups particularly among children and adolescents as well as men, pregnant and lactating WLHIV on the noted success. ART initiation and retention in care among children and adolescents have been challenging and the rate of viral suppression in this group including among pregnant and lactating WLHIV has not been on track as planned during the HSHSPV; for instance, only 66% of men and 70% of children have been enrolled in care in 2019.[90]

Going forward, enrolment and rapid initiation on ART, defined as within seven days of HIV diagnosis, will be offered to all PLHIV regardless of WHO clinical stage and at any CD4 cell count unless there is a medical or psychosocial contraindication. Working closely with communities and partners, efforts to monitor PLHIV on ART, including the use of POC viral load testing, will be strengthened to ensure successful treatment outcomes and to realise the preventive effect of HIV treatment.

Key gaps

- Inadequate implementation of differentiated HIV services delivery models;
- Low coverage of community outreach and refill services in hard-to-reach areas, which impede ART coverage and adherence, especially among vulnerable population segments e.g., fisherfolks, pastoralists, KVP, small miners, and disabled PLHIV;
- Low viral suppression among children and adolescents living with HIV (C/ALHIV) and pregnant and lactating WLHIV;
- Low pace of upgrading PMTCT option B sites to fully-fledged CTCs;
- Non-partner supported facilities are lagging behind in delivering quality HIV services;
- Low engagement of FBOs and private health facilities in providing HIV services;
- High defaulter rate among PLHIV on ART (27%);
- Low identification of C/ALHIV and their initiation on ART.

[89] NASHCOP, 'Mid Term Review of the Health Sector Strategic Plan IV 2015 - 2020'. Dodoma, 2021

[90] NASHCOP, 'Mid Term Review of the Health Sector Strategic Plan IV 2015 - 2020'. Dodoma, 2021

Priority Strategies

- Scale-up new and strengthen the existing DSD model in CBHS to increase access to ART services in the community e.g., men, fisherfolks, pastoralists, KVP, small miners, and disabled PLHIV;
- Scale-up CTC services by upgrading Option B+ PMTCT sites using epidemiological data and GIS mapping;
- Strengthen the engagement of private/FBO health facilities in the implementation of HIV/AIDS interventions;
- Provide rapid ART initiation to all PLHIV through differentiated service delivery models that provide people-centred care, monitoring and support for adherence, and returning LTFU to care;
- Strengthen mechanisms for referral and linkage from HIV testing services to care for all HIV positive individuals at all entry points;
- Enhance early initiation into ART (including same-day ART initiation) and adherence support services for all PLHIV, focusing on children, adolescents, KVP, and men as per the national guidelines.

Intervention Area 16:Quality of HIV Care and Viral Suppression

Strategic Outcome 5.2: Improved quality of care for PLHIV, including sustaining >95% Viral suppression among PLHIV on ART from 2021 to 2026.

Situational Analysis

Progress towards achieving 95-95-95 targets by 2022 indicates that 83 % of PLHIV already knew their status, which is a significant increase from 64% in 2017; 98% were on ART and 94% of PLHIV on ART had attained viral suppression based on extrapolated data. Community level viral suppression is therefore estimated at 81% with more women (81%) being virally suppressed compared to men (72%)[91]. Viral Load (VL) suppression varies between age groups; with clients aged 0-4 years showing the lowest (79%) viral suppression, followed by the age group 0-14 (84%), 10-19 (86%), 15-24 (90%) and those aged 15 years and above showing the highest (>95%) viral suppression. This calls for innovative and accelerated strategies to address gaps in VL suppression.[92]

Despite significant efforts to ensure all PLHIV know their status and are enrolled in care, global data shows that more than a third of newly diagnosed HIV patients still present to care with AHD, with about 10 percent dying within the first three months.[93] In Tanzania, the number of patients presenting to care with AHD remains high with programmatic data showing that among clients who were initiated on ART in the year 2018, 21% had WHO clinical stage 3 or 4 of the disease and 31% among those with baseline CD4 results had a CD4 count of <200 cells/mm3.

The national programme has adopted a comprehensive package of services for clients with AHD, which includes the screening and diagnosis of OIs, provision of prophylaxis, pre-emptive therapy and rapid ART initiation and adherence support, aiming to reduce subsequent morbidity and prevent

[91] NBS, Tanzania HIV Impact Survey, Dodoma , 2023
[92] NASHCOP, 'Annual Programme Report,' Dodoma, 2021
[93] World Health Organization, 'Guidelines for Managing Advanced HIV Disease and Rapid Initiation of Antiretroviral Therapy', July 2017.

mortality. During the implementation of the NASHCoP SP, the country will continue to scale up the implementation of AHD management protocols and establish a mechanism for continuous monitoring of basic monitoring tests in the context of DTG use e.g., blood sugar levels, LFTs, RFTs etc.

Like other essential health services, HIV services were disrupted by the COVID 19 pandemic over the last two years. The main causes of disruption reported to be decreased utilization of services including mass screening, reallocation of staff from routine services to emergency units lead to closure or underutilization of chronic care clinics, lack of PPEs, inpatient beds occupied with COVID-19 patients and stock out of NCD medicines and supplies. Similarly, services for immunizations, Reproductive and Child health services, HIV care and TB Services were highly compromised[94]. To mitigate the impact of COVID 19, the country strengthened implementation of DSDM including the provision of multi month prescriptions of ARVs, PPEs among frontline providers and clients, massive community awareness on the prevention of COVID 19 (wearing of face masks, hand washing with running water and soap, use of hand sanitizers, social distancing, avoidance of overcrowding, as well as vaccination).

Key gaps

- Uneven VL suppression across age groups, with children showing low rates of VL suppression compared to adults;
    a) Inadequate diagnosis and reporting of ADR among PLHIV
    b) Emerging of Pre-treatment Drug Resistance (PDR) and Emergence of ADR, among PLHIV already on treatment;
- Suboptimal implementation of CQI in the provision of care and treatment services;
- Inadequate/short supply of Biochemistry and monitoring diagnostics (e.g., CD4, electrolytes, Haematology, RLTs, LFTs, CSF analysis) at primary health care facilities and unaffordable prices of laboratory investigations for PLHIV on treatment;
- Lack of preparedness and innovative means to provide HIV services during emerging epidemic/pandemic threats and natural disasters (such as COVID-19, floods, etc);
- Inadequate identification/diagnosis and management of RoC with AHD.

Priority Strategies

- Strengthen continuously integrated QI approaches in data management, care and treatment services across all levels of implementation including monitoring of EWIs at facility level;
- Strengthen and scale-up of biomarkers monitoring in RoC (i.e., HVL, CD4, Haematology, Biochemistry, Cryptococcal antigen testing etc.);
- Scale-up VL services such as sample transportation and management;
- Strengthen use of POC technologies to ensure rapid diagnosis;
- Facilitate quick adaptation of innovative services and create a conducive environment including infrastructure to strengthen the provision of care during epidemics and natural disasters;
- Strengthen ARV toxicity surveillance/pharmacovigilance among PLHIV;

[94] National COVID 19 Response III July 2021-June 2022

- Drug resistance monitoring; strengthen monitoring, surveillance and laboratory capacity to prevent, monitor and respond to HIV drug resistance through coordinated action including the transition to the novel regimen and ensuring uninterrupted drug supplies;
- Ensure early identification and management of clients with AHD, which include the provision of a package of screening, prophylaxis, rapid ART initiation (within seven days of HIV diagnosis or same day ART initiation based on a person's willingness and readiness to start ART immediately) and intensified adherence interventions.
- Scale-up VL services including addressing integrated sample transportation and results management;
- Strengthen use of point of care technologies to ensure rapid diagnosis;
- Facilitate quick adaptation of innovative service and create Drug Resistance monitoring; Strengthen monitoring, surveillance and laboratory capacity to prevent, monitor and respond to HIV drug resistance through coordinated action including the transition to the novel regimen and ensuring uninterrupted drug supplies;

Intervention Area 17:TB/HIV Collaboration

Strategic Outcome 5.3: **Over 90% of PLHIV received TB Preventive Therapy, and 95% of HIV/ TB co-infected clients initiated and maintained on ART, all by 2025**

Situational Analysis

Tuberculosis is a significant cause of ill health and one of the leading causes of death worldwide. Until the COVID-19 pandemic, TB was the leading cause of death from a single infectious agent, ranking above HIV/AIDS[95].

The global End TB Strategy[96] prioritises collaborative activities to jointly address TB and HIV through integrated people-centred care that includes systematic screening for TB symptoms among PLHIV, TPT, HIV testing of all people with diagnosed or presumed TB, timely initiation of ART for TB patients, Co-trimoxazole prophylaxis, and treatment of TB and drug-resistant TB. Opportunities for programme collaboration, such as joint planning, surveillance and financing and common approaches to address the inequalities that drive both HIV and TB, are also essential to prevent and manage HIV-associated TB.

Tanzania has been implementing TB/HIV collaborative activities since 2006. The proportion of TB patients who are co-infected with HIV has decreased over time from 36% in 2015 to 17% in 2022 (among new and relapse cases only)[97]. HIV testing among TB patients has increased from 93% in 2015 to 99% in 2019 and was maintained until 2020. The proportion of HIV positive TB cases started on ART increased from 85% in 2015 to 99% in 2020. However, the estimated mortality of TB/HIV patients is still high (35%) despite high HIV testing and ART coverage.

Among PLHIV, TB screening is universal but in 2019 only 84% of PLHIV on ART were documented to have been screened for TB. This was caused by situations in which recipients of care with multi-

[95] WHO, Global Tuberculosis Report, 2021 (Geneva, 2021: World Health Organization, 2021), https://apps.who.int/iris/handle/10665/346387?
[96] WHO, 'The End TB strategy', Geneva, 2015.
[97] WHO, Global Tuberculosis Report, 2023 (Geneva)

month prescriptions were recorded as having received care when they picked up their drugs with no record of TB screening. At population level, among self-reported HIV-positive adults only 53.5% reported that they were screened for tuberculosis (TB) symptoms during their last HIV clinic visit[98]. As a result, the number of PLHIV diagnosed with TB has been low and NACP programmatic data (April-June/2021) has indicated 15 regions with a low TPT coverage of below 80%.

By May 2021, 72% of PLHIV in care had started or completed TPT, but only 78% of the cohort had completed the treatment. Universal coverage was delayed by an inadequate supply of Isoniazid in 2019. Reduction of TB-related morbidity and mortality through timely diagnosis and treatment of co-infected people, supported by strong collaboration between HIV and TB responses will be addressed through the following strategies:

Key gaps

- Low TPT coverage among PLHIV (Children <50%, 72% of adults);
- Low TPT completion rate (78% programmatic data);
- Inadequate knowledge of the benefit of TPT among PLHIV;
- Inadequate involvement of private health facilities in TB case finding among PLHIV on care;
- Inadequate utilisation of the TB diagnostic algorithm;
- Poor attitude towards TB screening;
- Inadequate TB screening among TB/HIV high-risk groups (prisoners, miners, and fisherfolks).

Priority Strategies

- Scale-up TB case finding and notification among PLHIV;
- Facilitate effective utilisation of the TB diagnostic algorithm including adoption of newer TB diagnostic tests (TB LAM, GeneXpert Ultra);
- Strengthen the implementation of collaborative TB/HIV activities in public and private health facilities including ensuring infection prevention measures;
- Adapt new latent TB Infection Policy including the introduction and scale-up of shorter and improved TB and TPT regimens;
- Scale-up the provision of TPT and CTX to all eligible PLHIV;
- Strengthen cross-border collaboration on HIV and TB epidemic control;
- Improve the quality of management of TB-HIV Co-infection. Establish TPT Service Delivery Models with a family approach to improve TPT coverage and completion rate in PLHIV;
- Consolidate TB infection control measures in congregate settings;
- Strengthen and improve integrated prevention, infection control, screening and management of TB in congregate settings including prisons;
- Scale-up treatment as prevention (Undetectable=Untransmittable – U=U) by engaging PLHIV in care and treatment to achieve and maintain viral suppression to prevent the occurrence of OIs (i.e., TB).

Intervention Area 18: HIV Integration with Other Diseases

Strategic Outcome 5.4: **Ninety percent (90%) of PLHIV at risk linked to other integrated health services (NCDs, Cervical Cancer, Viral Hepatitis, and STIs) by 2025**

[98] National Bureau of Statistics, 'Tanzania HIV Impact Survey 2022-23' Dodoma, 2023.

Situational Analysis

Effective use of ARVs among PLHIV has resulted in improved survival and quality of life. On the other hand, this has led to an increased risk of age-related diseases, including NCDs. Raised blood levels of low-density lipoprotein, total cholesterol (TC) and triglyceride, overweight/obesity and abnormal waist circumference are some of the risk factors of NCDs in PLHIV, also related to the side effects of some of ARVs and HIV itself[11]. The most common NCDs include: hypertension and diabetes mellitus. In addition, WLHIV are at an increased risk of Cervical Cancer where about 5.8% of all cervical cancer patients worldwide in 2018 occurred in this population. The majority of cervical cancer cases occurred in Southern and Eastern Africa[99]. Despite this increased risk, in Tanzania, 66% of WLHIV aged 15-49 years were eligible but not screened for Cervical Cancer in 2019/20, with only 74% of the ones that screened positive for Cervical Cancer receiving treatment[100]. Moreover, only 17.7% of WLHIV aged 30-49 years reported having ever been screened for cervical cancer[101].

Sexually transmitted infections remain a public health problem of major significance in most parts of the world, including Tanzania. National data from the Tanzania HIV Impact Survey (THIS, 2017) is available on the burden of viral hepatitis in Tanzania which is at 4,3% for HBV and less than 2% for HCV. However, subpopulation studies in different parts of the country shows the prevalence of HBV to be 5.5- 20% and HCV to be below 5%. The major sources of data in the country include Blood Donor Screening Centres, Dialysis units, Viral Hepatitis treatment centres, HIV program, research and surveys[102].

Hospital based studies revealed that HBV prevalence ranges from 5-20% in high-risk hospital-based patients[103] . The cumulative prevalence of HCV positive antibody status among PWID receiving Opioid Replacement Therapy was shockingly found to be 75.6%[104] . In the general community, HCV prevalence is estimated between 1.2-2%[105] Literatures from Bugando Medical Centre in Mwanza on the seroprevalence among HCWs revealed a prevalence of 7% for Chronic Hepatitis B Virus Infection[106]. In addition, needle stick injuries were high among HCW 52.9%[107] . It is estimated that, infection following a needle-stick injury from infected sources is 3% for HCV and 6-30% for HBV[108]. Among adults People Living with HIV, the rapid screening for HBV seroprevalence showed rate of co-infection to be as high as 9.2% whereas HCV was at3.7%[109] . Contrary, the prevalence of hepatitis

[99]Tilahun Nigatu, 'Integration of HIV and Noncommunicable Diseases in Health Care Delivery in Low- and Middle-Income Countries', *Preventing Chronic Disease* 9 (3 May 2012): E93, https://doi.org/10.5888/pcd9.110331.

[100]PEPFAR, 'Tanzania Country Operational Plan (COP) 2021 Strategic Direction Summary'.

[101] National Bureau of Statistics, 'Tanzania HIV Impact Survey (THIS) 2016-2017', December 2018

[102] MoH, 'National Strategic Plan for the Control of Viral Hepatitis 2018/19-2022/23'

[103] Hoffmann, Christopher J., and Chloe L. Thio. "Clinical implications of HIV and hepatitis B co-infection in Asia and Africa." The Lancet infectious diseases7.6 (2007): 402-409.

[104] Nyandindi, Cassian L. HIV Serostatus, Hepatitis C and Depression Among Injection Drug Users in Kinondoni Municipality, Dar es Salaam, Tanzania. Diss. Muhimbili University of Health and Allied Sciences, 2011

[105] Tess, Beatriz H., et al. "Seroprevalence of hepatitis C virus in the general population of northwest Tanzania." The American journal of tropical medicine and hygiene 62.1 (2000): 138-141

[106] Mueller, A., et al. "Prevalence of hepatitis B virus infection among health care workers in a tertiary hospital in Tanzania." BMC infectious diseases 15.1 (2015): 386.

[107] Manyele, S. V., H. A. M. Ngonyani, and E. Eliakimu. "The status of occupational safety among health service providers in hospitals in Tanzania." Tanzania journal of health research 10.3 (2008): 159-165.

[108] Prüss-Üstün, Annette, Elisabetta Rapiti, and Yvan Hutin. "Estimation of the global burden of disease attributable to contaminated sharps injuries among health-care workers." American journal of industrial medicine 48.6 (2005): 482-490

[109] Franzeck, Fabian C., et al. "Viral hepatitis and rapid diagnostic test-based screening for HBsAg in HIV-infected patients in rural Tanzania." PloS one 8.3 (2013): e58468

co-infection among children according to 2017 data is reported as high as 15%, with HBV and HCV being 1.2% and 13.8% respectively[110] . In 2006, seroprevalence of HBsAg and HCV among blood donors at MNH in Dar es Salaam was found to be 8.8% and 1.5% respectively. A further 10 years' data on blood screening from 2007-2016 at the National Blood Transfusion Service revealed a prevalence of HBsAg to range from 4.4-7.0% among blood donors.

Key gaps

- Inadequate diagnosis and management of NCDs and co-morbidities among PLHIV;
- Inadequate recording and reporting of risk factors for NCDs (tobacco use, alcohol consumption);
- Weak integration of CTC services with NCD diagnosis and management services;
- Inadequate coverage of Cervical Cancer Screening;
- Inadequate Management of Cervical Cancer among WLHIV as per national guidelines;
- Insufficient data recording and reporting on cervical cancer services (vaccination, screening and management data) in existing recording and reporting tools;
- Lack of adequate national data on the burden of Viral Hepatitis to guide the response;
- Viral hepatitis is not among the reported diseases in Integrated Disease Surveillance and Response (IDSR);
- Inadequate resources to support Viral Hepatitis interventions;
- Inadequate community awareness on Viral Hepatitis;
- Inadequate response for integration of HBV intervention with PMTCT services towards the triple elimination agenda by 2030.
- Weak and late STI diagnosis and management services for PLHIV and KVP as part of the standard package of HIV prevention;
- Weak/poor integration of STI management with HIV care and treatment and KVP programming;
- Weak STI M&E, research and surveillance systems

Priority Strategies

- Strengthen and improve integration of TB, HIV and other services such as Reproductive and Child Health at all levels;
- Increase access to integrated or linked NCDs (cardiovascular diseases, cervical cancer, mental health, diabetes diagnosis and treatment) with HIV services;
- Integrate the CTC2 database with other health data systems to achieve effective integrated health services for PLHIV;
- Adopt newer and safer ARVs, with lesser side effects that lead to the development of co-morbidities (such as PI, lipid and glucose metabolism);
- Improve the identification and management of NCDs among PLHIV (diabetes, obesity);
- Scale-up screening and vaccination for HPV to all eligible AGWLHIV;
- Scale-up cervical cancer prevention (CECAP) screening for eligible WLHIV (30-50 years of age);
- Strengthen the management of WLHIV with pre-cancer or with invasive cancer;

[110] Telatela, Safila P., Mecky I. Matee, and Emmanuel K. Munubhi. "Seroprevalence of hepatitis B and C viral co-infections among children infected with human immunodeficiency virus attending the paediatric HIV care and treatment canter at Muhimbili National Hospital in Dar-esSalaam, Tanzania." BMC Public Health 7.1 (2007): 33

- Expand viral hepatitis services in CTC settings as per the National Strategic Plan for Viral Hepatitis[111]; including enhancing capacities for health care providers on viral hepatitis diagnosis and management
- Strengthen STI management services for PLHIV and KVP as part of the standard package of HIV prevention;
- Strengthen the integration and delivery of STI management into HIV care and treatment and KVP friendly services;
- Improve the quality of STI services in RMNCAH as part of the quality improvement approach;
- Mobilize resources to support STI management services;
- Strengthen STI M&E, research and surveillance services;
- Improve the integration of HBV interventions with PMTCT services.

Intervention Area 19:Paediatric HIV Services

Strategic Outcome 5.5: Over 95% of HIV positive children are enrolled and retained on ART, and over 95% are virally suppressed by 2026

Situational Analysis

National evidence on ART programme outcome analysis shows that HIV identification among children 0 -14 years has increased from 55,829 (59%) in 2017 to (62,122) 70% in 2019 primarily attributed to the collaborative initiative to identify children in health facilities departments and community settings. The set target is to have 95% of all identified children living with HIV (CLHIV) initiated and retained on ART by 2022 as per the HSHSPV. Viral load suppression increased from 58% 2017 to 68% 2019 among children 0-14years[3]. Furthermore, there was a progressive increase of children retained on ART at 12 months from 88.1% in 2017 to 92.9% in 2018[112.] AIDS-related deaths among children aged 0-14 years were 8,300 in 2020[113.]

Despite the increasing proportion of children identified and tested for HIV, children 0-4 years, mainly those missed by the PMTCT programme are lagging behind. While most HIV infection among young children is through MTCT, strategies for systematic identification in the 0–4-year age band continue to be sub-optimal with an EID testing coverage within 2 months of birth continue showing a declining trend observed from 33.8% coverage in 2016 to 21.5% in 2020 which are below the 90% national target for 2021. Confirmatory HIV testing at >18 months of age among HIV-exposed infants is not any better in comparison to DNA-PCR testing at 8 weeks with a decline in testing coverage from 26.5% in 2016 to 17.6% in 2020 against a 2021 national target of 80%. Of note, testing coverage is significantly better in PEPFAR supported regions vs. non-supported districts both at 8-weeks testing (33.9% vs. 16.3%, $p<0.05$) and at 18 months (20.9% vs. 7.4%, $p<0.05$)[114].

The NASHCOP SP intends to close gaps in access to HIV testing and treatment services for infants and young children and support them to stay healthy into adolescence and adulthood. Some lessons gathered during the implementation of the HSHSPV such as the DSDM for both children and guardians, multi-month prescription, provision of ART outside school hours, during weekends and

[111]Tanzania National Strategic Plan for the Control of Viral Hepatitis, 2018/19-2022/23

[112] UNAIDS estimates, 'United Republic of Tanzania', 2020.

[113] UNAIDS estimates, 'United Republic of Tanzania', 2020.

[114] Moh, 'PMTCT Operational plan, Tanzania', 2022

holidays will be scaled. A focus on strengthening systems and integration is also a key consideration in the context of the COVID-19 pandemic that has affected the delivery of services to children. Children and adolescents should also be screened for chronic co-morbidities and disabilities, including developmental delays and neurocognitive impairment, mental health disorders and organ system morbidities, and receive nurturing care that supports their development as they age.

The overall approach for the NASHCOP SP will comprise of strategies offering comprehensive care for CLHIV HIV that include the full spectrum of essential, quality health services from health promotion to prevention, treatment and support while addressing other common causes of child morbidity and mortality. Integrated Management of Childhood Illnesses (IMCI) and Integrated Management of Adult Illnesses (IMAI) approaches will also be implemented to identify infants and children at peripheral sites and refer them for HIV services, while strengthening the use of community health workers to identify possible cases of HIV, refer them for testing and provide follow-up care support for infants and children who have HIV.

Key gaps

- Low (70%) identification and coverage of children living with HIV;
- Inequitable access and low coverage of ART services for children and adolescents;
- Sub-optimal quality services with low rates of VL suppression among children and adolescents;
- Inadequate retention of children and adolescents in care, especially during the COVID-19 pandemic and other disasters;
- Inadequate capacity of health workers and caregivers to offer disclosure support to children and adolescents;
- Inadequate involvement of parents and caregivers in the management and care of children and adolescents on ART services;
- Weak integration of HIV services with other disease programs, including NCD, child health and immunisation platforms;
- Sub-optimal use and compliance to national HIV management guidelines and SOPs for children and adolescents at the facility level.

Priority strategies

- Expand coverage of differentiated HIV testing approaches for children including index testing, and targeted testing at OPD/IPD;
- Integrate community-based approaches into child health and HIV programming strategies;
- Accelerate case-finding through integration into community health programmes;
- Improve case follow-up and essential care for HIV-exposed new-borns and their families;
- Decentralise ART services and strengthen DSDMs, Enhanced Adherence Counselling (EAC) to lower health facilities
- Strengthen the integration of child/adolescent friendly services within RCH and IMCI platforms including monitoring growth and development;
- Strengthen community HIV care including ART approaches for children and guardians such as Paediatric clubs, Mother support groups and engaging peers and community support structures;
- Scale-up school health programs for C/ALHIV;
- Ensure availability and use of paediatric friendly ART formulations in all facilities and sustain use of optimal regimens for children;

- the
- Strengthen/establish drug resistance surveillance and monitoring for children and adolescents and scale-up second and third line therapeutic networks.

Intervention Area 20:Adolescent HIV Services

Strategic Outcome 5.6: Over 95% of adolescents are enrolled and retained on ART, and over 95% are virally suppressed by 2026

Situational Analysis

Adolescents (aged 10-19 years) and youth (aged 15-24 years) living with HIV (A/YLHIV) struggle with continuity of treatment, ART adherence, and viral suppression. These poor outcomes are due to several barriers that adolescents and youth face, including developmental changes occurring during adolescence, lack of adolescent and youth-friendly services, limited scale of peer support, inadequate psychosocial support, and mental health challenges that often arise in adolescence.[115]

National evidence on ART programme outcome analysis shows that enrolment on ART among adolescents (10-19) has increased from 36,713 (36%) in 2017 to 56,917 (59%) in 2019. Retention of adolescents in care is low - 55.2 per 100,000-person day; and attrition is high among 15-19 years old compared to 10-14 years. Disclosure of HIV status continues to be a barrier in care, as 3% of ALHIV on ART did not know why they are taking medicines.[116]

Key gaps

- Low identification of ALHIV;
- Inequitable access and low coverage of ART services for adolescents;
- Low HVL suppression rates in adolescents;
- Inadequate retention of adolescents in care;
- Inadequate knowledge, skills and courage/attitude among HCPs to manage ALHIV (capacity for disclosure support to adolescents);
- Inadequate involvement of parents and caregivers in the management and care of adolescents on ART services;
- Weak integration of HIV services with other disease programs including SRH, STIs, condom, cervical cancer screening, NCDs, Nutrition and mental health;
- High rates of acquired HIVDR among adolescents.

Priority Strategies

- Promptly link A/YLHIV to DSDMs to provide peer support and motivation, build resilience, strengthen problem-solving skills, and overcome adherence challenges;
- Disseminate policies on the age of consent for HIV testing to stakeholders, including scale-up of self-testing;
- Strengthen index testing specifically testing sexual contacts of adolescents;
- Strengthen implementation of an adolescent transition package to provide HCWs with the required experience and tools to prepare ALHIV for transitioning to adult care;
- Strengthen community approaches to reach adolescents in formal and informal sectors;

[115] World Health Organization. Adolescent mental health Geneva, Switzerland: World Health Organization; 2020
[116] MOH, PMTCT & Adolescent ART Cascade Analysis Report 2018', Dodoma 2018

- Intensify follow up of missed appointments before lost to follow up;
- Scale-up and fully utilise community led services (DSDM) in ART delivery;
- Routine screening and treatment of STIs and mental health for adolescents;
- Intensify comprehensive, integrated adolescent-friendly health and social services (NCDs, mental health and psychosocial support services, alcohol and substance abuse);
- Intensify community linkage to social services through CBHSP/CHWs and Community Adolescent cluster leaders for peer support, addressing stigma and discrimination;
- Capacity building for HCWs on addressing the changing needs of ALHIV (psychosocial and medical);
- Monitor early warning signs for drug resistance and conduct routine surveillance, and scale-up second and third line therapeutic network.

PRIORITY STRATEGIC AREA 6: REDUCE NEW VIRAL HEPATITIS B AND C INFECTIONS

While acknowledging the importance of viral hepatitis A and E, both of which cause acute viral hepatitis, this strategy focuses primarily on viral hepatitis B and C. These two infections, which may lead to cirrhosis and hepatocellular cancer, which account for 96% of all viral hepatitis mortality. Hepatitis D co-infection or super infection accelerates progression of chronic liver disease but only among people living with viral hepatitis B[117].

This Plan focuses on reducing transmission of viral hepatitis B and C in the country by prioritizing prevention efforts. Effective prevention efforts will be strategic, targeting evidence-based practices; rationalizing sustainable prevention strategies including vaccination, blood safety, infection prevention and control-injection safety to significantly reduce the risks of infection. Immunization will target children at birth, children under five years of age and high-risk groups such as healthcare workers, people who inject drugs (PWID) and travellers needing special considerations.

Tanzania commits to integrate VH prevention strategies into HIV prevention programs, including awareness-raising campaigns, vaccination, screening and testing, and harm reduction measures for people who inject drugs. Health education on the modes of transmission and risk factors for viral hepatitis will be included in HIV/AIDS education programs. This will include renewed investments in primary prevention interventions and scale up their delivery, including comprehensive education and information about sexual and reproductive health and viral hepatitis prevention, correct and consistent condom use, address harmful use of alcohol and drugs in the context of sexual behaviour, and use evidence-based and differentiated prevention strategies, such as vaccination.

Intervention Area 21: Viral Hepatitis vaccination

Strategic Outcome 6.1: By 2025 98% of children are vaccinated for hepatitis through routine immunization services

Situation Analysis

Available data shows that Tanzania has a relatively high burden of viral hepatitis. WHO recommends timely hepatitis B virus birth-dose vaccination. Modalities will be looked into on how to introduce hepatitis birth dose as part of the immunization schedule. Effective prevention efforts will be strategic, targeting evidence-based practices; and leveraging other ongoing programmes to ensure sustainability.

[117] WHO, Global Health Sector Strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030 (GHSS), 2022

This strategy will scale-up of the hepatitis B virus birth-dose vaccine given within 24 hours of birth and improve routine childhood hepatitis B vaccination to achieve the elimination of hepatitis B virus infection. Sustain universal hepatitis B virus infant vaccination as part of the national immunization program to reduce new hepatitis B infections.

Older unvaccinated children may also be at risk of acquiring chronic hepatitis B infection and require additional prevention and care and children can be at risk of acquiring hepatitis A and B virus horizontally within households and families. Furthermore, the country will consider hepatitis B virus vaccination as a catch-up for unvaccinated adolescents and targeted adult populations, including household contacts of people living with hepatitis B, health care workers, and frequent recipients of blood and blood products.

Key strategies

- Scale up viral hepatitis immunization targeting children at birth, children under five years of age and high-risk groups such as healthcare workers, people who inject drugs (PWID) and travellers needing special considerations;
- Integrate Viral Hepatitis prevention strategies into HIV prevention programs, including awareness-raising campaigns, vaccination, screening and testing, and harm reduction measures for people who inject drugs;
- Expand viral hepatitis vaccination to health care providers and other at risk populations;
- Introduce hepatitis B birth-dose vaccine into routine childhood immunization services;
- Introduce cost sharing mechanisms for hepatitis B vaccination of adults at most risk of infection; and
- Ensure availability of safe and efficacious hepatitis B vaccine and related commodities for all prioritized populations.

Intervention 22: Infection Prevention and Control

Strategic Outcome 6.2: Ensure 100% infection prevention in all facility and community care settings

Situation Analysis

Prevention of disease transmission in formal and informal health care settings and other service settings is key strategy for quality health service delivery. Health systems must be able to guarantee safe medical injections and blood supplies, and must universally follow standard precautions, especially relating to hand hygiene, blood screening, personal protective equipment, and waste management.

In the light of these principles it is important to eliminate unnecessary injections through targeted support and training of health care workers, use safety-engineered syringes for all medical injections, decontaminate medical devices in strict accordance with established protocols, and provide health facilities the infrastructure and equipment required by these protocols country also intends to institute interventions outside of health facilities to prevent unsafe injections and to prevent transmission through contact with bodily fluids in the informal health sector and in services such as tattooing, piercing and beauty care.

Key strategies

- Promote infection prevention and control-injection safety (IPC-IS) in and out of health care settings;
- Strengthen infection prevention and control-injection safety in health facilities, national blood transfusion services, port health centres, and in the community;

- Build capacity of health care workers on IPC including PEP among quality improvement teams (QIT) so that they cascade the training to the rest of HCWs;
- Provide post exposure prophylaxis (PEP) services for prevention of hepatitis B infection among healthcare workers;
- Sensitize HMTs, CHMTs and RHMTs on supply of adequate PPE, appropriate syringes and waste segregation equipment for infection control in all work places;
- Liaise with respective departments for inclusion of needle stick injury, vaccination for health care workers, hepatitis PEP, birth dose, into the existing supportive supervision checklist for improved viral hepatitis prevention in health care settings; and
- Incorporate needle stick injuries and other exposures at workplaces within existing health information systems in order to monitor the burden of exposure to viral hepatitis B and C and other blood borne pathogens.

PRIORITY STRATEGIC AREA 7: REDUCE VIRAL HEPATITIS MORTALITY

People who receive early diagnosis, referral to care, and initiation of effective treatment for viral hepatitis B and C are less likely to develop liver cirrhosis and liver cancer. This Plan places particular attention to addressing challenges that people face in accessing hepatitis B and C care and treatment services. Further, the Plan aims to strengthen linkages of other co-morbidities among chronic HBV and HCV-infected patients for appropriate management of those diseases. Similarly, this will apply to other clinics like HIV care and treatment and PWID clinics. Additionally, integration of services will be highly advocated to improve patients' adherence to medical treatment and retention to care.

Efforts will further be taken to address stigma and discrimination against people living with chronic HBV and HCV infections to improve adherence to medications, outcomes, and quality of life. To realize these aspects, participation of key actors in and out of the health system is required, including the public sector, private providers, other organizations as well as diverse civil society and affected communities.

Intervention 23: Viral Hepatitis Screening and Diagnosis

Strategic Outcome 7.1: At least 80% of pregnant women are tested for viral Hepatitis B at ANC by 2025

Situation Analysis

The integrated strategy will focus on integration of viral hepatitis screening and testing into routine HIV testing and counseling, particularly for populations at higher risk, such as people living with HIV, people who inject drugs, and healthcare workers. Additionally, healthcare providers should be trained to identify and manage co-infections of HIV and viral hepatitis.

Integrated testing for multiple diseases with appropriate linkage to care is a key element of people-centred health services. Provide multiple tests in the same session to increase testing uptake and enable health systems to save costs in relation to outreach, infrastructure and human resources. Intensify public awareness campaigns educating at-risk populations and health care workers about the importance of viral hepatitis testing. Increase awareness of the need for viral hepatitis B and C testing. Expand access to viral hepatitis B and C testing through effective people-centred approaches. Link people who undergo viral hepatitis testing to treatment and care.

Efforts should be made to develop and implement human rights-based and gender-sensitive strategies for voluntary partner and social network notification and other services for sexual partners of people diagnosed with hepatitis B virus hepatitis C virus. Implementation should also be gender-sensitive and stigma and discrimination-free approaches to informing sexual and injecting drug use partners, including partners of key populations, and offering them testing, counselling and treatment.

Going forward, it will be important to optimize laboratory services in ways that identify opportunities to expand the catchment area of specialized or tertiary laboratories through non-specialized health facilities and primary health care platforms to expand geographical coverage. At sub-national level, CHMTs should allocate resources and invest to strengthen infrastructure at primary health care levels, and to provide adequate support and capacity building to health care personnel and formal or informal community health workers providing viral hepatitis services.

Key strategies

- Integrate viral hepatitis B and C testing into routine HIV testing and counselling particularly for populations at higher risk;
- Improve screening and provide quality viral hepatitis testing for early identification of infected persons in the course of the disease;
- Strengthen countrywide laboratory system to provide quality diagnosis of acute and chronic hepatitis;
- Improve quality assurance, and external quality control measures for laboratory testing of viral hepatitis;
- Procure rapid diagnostic tests for hepatitis B and C as well as upgrade existing GeneXpert machines to accommodate VH testing;
- Improve national forecasting quantification, procurement and timely delivery of VH commodities;
- Incorporate VH lab information management system into the existing reporting systems; and
- Promote voluntary partner notification and other partner services and social network approaches.

Intervention Area 24: Viral Hepatitis Care and Treatment

Strategic Outcome 7.2: By 2026, 60% of people living with viral hepatitis B and C are treated.

Situation Analysis

Global elimination of viral hepatitis by 2030 will be achieved through effective treatment and reduction of death from viral hepatitis B and C. This achievement will be realized by putting 80% of people living with these infections on treatment and reducing death from viral hepatitis B and hepatitis C by 65%. According to THIS 2016/2017 the prevalence of viral hepatitis B in Tanzania is around 4.1% and viral hepatitis C is around 1%. The prevalence of viral hepatitis is higher among certain sub-populations: PWID (6.3%), blood donors (6%), pregnant women (8.3%), AGYW 15-19 years old (1.7%), and young women 20-24 years old (7.9%). HBV infection can be treated using antiretroviral already available in the HIV Program, i.e., Tenofovir and Lamivudine.

Based on literature from the Muhimbili study, 10-15% of people with chronic viral hepatitis B infection would require treatment. Moreover, 85-90% would clear out the disease by the immunological response and therefore this population only need follow-up to monitor if the disease would clear itself out. On the other hand, 100% of people with chronic viral hepatitis C infection would require treatment.

However, currently, provision of treatment for viral hepatitis is faced with accessibility challenges. Furthermore, revision of existing guidelines followed by capacity building of health managers and health care providers (HCPs) across all levels of the health system is of paramount importance.

Decentralize viral hepatitis services and provide differentiated care to deliver appropriate services to people with different levels of needs. Identify and optimize opportunities to decentralize delivery of viral hepatitis services by diversifying their provision and simplifying protocols as a means to expand access to comprehensive people-centred services, using task-sharing with non-specialized personnel, community-based services, and other approaches to expand geographical reach.

Access to affordable care and treatment for viral hepatitis should be ensured for people living with viral hepatitis and those at risk of infection. Health care providers should be trained in the management of viral hepatitis, including the use of antiviral therapy. Treatment options for viral hepatitis should be expanded and decentralized to improve access to viral hepatitis B and C care and treatment in underserved areas.

This Plan emphasizes the need for coordinated action to strengthen health and community systems, ensure strong linkages among health and community system actors, and expand collaboration within and across systems and sectors. Health systems[118] must address the needs of individuals, families and communities in a coordinated manner and must leverage synergies in relation to service delivery and other health system domains such as inclusive governance, health financing, health information, commodities, and health workforce. Communities must be empowered and resourced to enhance their indispensable role in delivering people-centred services with strong linkages to health services, and in promoting accountability through community-led monitoring (CLM).

Key gaps

a) Low coverage of viral hepatitis care and treatment services.
b) Inadequate knowledge of HCPs on the management of viral hepatitis.
c) Unavailability of job aids and SOPs for the management of viral hepatitis.

Key strategies

- Expand access to facility and community based viral hepatitis care, treatment and support services;
- Provide equitable access to viral hepatitis services in special settings, including humanitarian settings, and prisons and other closed settings;
- Strengthen integration and linkages with NCDs and other communicable diseases, including tuberculosis;
- Establish and develop guidance for linkage to involve key stakeholders in viral hepatitis care;
- Prepare protocol to guide stakeholders in linking suspected/ confirmed cases from other clinics (PWID, TB and HIV clinics, prisons, correctional centres) to viral hepatitis clinics;
- Promote disability-inclusive programming and ensure that viral hepatitis services are accessible to people with disabilities;
- Provide mental health care for people affected by and living with viral hepatitis;
- Promote integration of viral hepatitis services and their key co-infections and comorbidities into primary health care, including through decentralized and community-based service delivery;
- Engage private health care facilities in delivering viral hepatitis services; and
- Provide differentiated viral hepatitis services through innovative approaches such as task sharing, modifying service delivery hours, and adapting frequency of clinic visits and medicine refills, leveraging technology- and community-based approaches, and to deliver high-quality people-centred services that are free of stigma and discrimination.

PRIORITY STRATEGIC AREA 8: ADDRESSING BARRIERS AND INEQUALITIES

8.1 Addressing Stigma and GBV

Stigma and discrimination, gender violence and social norms continue to pose as a barrier towards access to HIV care. The 2021 stigma study showed that 5.5% of PLHV reported experiencing internal stigma and 6.4% experienced community stigma. Working closely with the multisectoral response,

[118] Health systems encompass the public health sector as well as key non-state actors such as private sector health care providers, civil society and community-based organizations that design and deliver health services. WHO, 2022.

the health sector will address barriers and inequalities related to harmful traditional norms, stigma and discrimination, GBV and gender inequality, discriminative and punitive laws, income poverty, legal illiteracy, and unethical practices among service providers. In collaboration with the multi-sectoral response, the health sector will intensify efforts to close gaps in the implementation of rights-related legal and policy commitments and gaps in access to legal aid.

Intervention Area 25: Addressing HIV Stigma and Discrimination

Strategic Outcome 8.1: External & Internal stigma reduced is less than 5% by 2025

As a result of internalized and institutionalized stigma and discrimination, many PLHIV and other members of the KVP are often subjected to violations or denial of their basic rights, which are important and of paramount necessity for their well-being and survival.[119] In terms of the legal environment, Tanzania has a robust legal framework that protects the rights of PLHIV and those at a high risk of HIV exposure. For instance, the Constitution of the United Republic of Tanzania, 1977 has a comprehensive bill of rights that encompasses rights to be enjoyed by all people without any discrimination under Part III. Apart from the Constitution, Tanzania Mainland has an HIV-specific law that guides all HIV-related interventions in the country. This piece of legislation is the cornerstone of all matters related to the HIV response in the country. The HIV and AIDS Prevention and Control Act[120] complements the National HIV and AIDS policy endorsed in 2001.[121]

Stigma and discrimination have multifaceted effects on HIV-related interventions. Still, one which is significant and surfaces quickly is the creation of the cycle of vulnerability to HIV, which diverges from other efforts in reducing the rate of new infections through scaling up proper HIV and AIDS interventions in the country. As a result of stigma and discrimination, those perceived to be HIV positive, members of the KP groups, and those vulnerable to and at the risk of being infected, have faced violence from family level, at the community, at workplaces, within the justice systems, in media content, and in other social settings when accessing services such as health and education.

The Government of Tanzania, through TACAIDS, in partnership with development agencies, implementing partners, and civil society has put in place initiatives centred on fighting stigma and discrimination among WLHIV, including efforts to enhance, strengthen and establish regional networks of PLHIV; an intervention that should be sustained and scaled country-wide. These networks for individuals who share the same life experience support them with counselling and offers them a means to manage the disease through economic productivity and enhanced uptake of health services. At the same time, they provide a platform for advocacy and participation of PLHIV in the response.[122]

These efforts have yielded good outcomes. Under the recently concluded National Stigma Index 2.0 Survey, findings show that both internalized and enacted stigma have dramatically decreased within the last 8 years. Internal stigma was 20.5% in 2013 compared to 6.4% in 2021. On the other hand,

[119] Legal Environmental Assessment 2016TACAIDS et al., 'Report on the Legal Environment Assessment in Response to HIV and AIDS Within the United Republic of Tanzania', 2020.
[120] HAPCA, 'Tanzania HIV/AIDS Prevention and Control Act No. 28 of 4 April 2008 (Amended in November 2019)'
[121] HIV and AIDSTACAIDS, 'National Policy on HIVAIDS' (Dar es Salaam, Tanzania, September 2001)
[122] TACAIDS, 'Gender Assessment Report of the National HIV response', 2020

external stigma decreased from 28% in 2013 to 5.5% in 2021. [123],[124]. In implementing the NASHCOP SP, the MoH will work with NACOPHA and TACAIDS to continue to engage communities and other sectors in addressing stigma and discrimination.

The health sector has a critical role to play in addressing stigma, discrimination and policy barriers within the health care setting; and an important convening role for multisectoral partnerships to address the broader determinants of health. The NASHCOP SP will scale-up efforts to eliminate stigma and discrimination directed towards PLHIV and other vulnerable groups in the community and in healthcare settings, by building the capacity of providers on stigma reduction, ethics, and human rights. Key health sector interventions include capacity building to R/CHMTs, and health care staff at facilities and in the community on the need to address misconceptions and underlying fears, and raise awareness about the harmful consequences of stigma and discrimination. It will include developing and monitoring standards for HCWs to ensure that all patients are treated with respect, dignity, and compassion. Working with the multisectoral response, the health sector will also strengthen efforts against stigma and discrimination by enhancing the knowledge, attitudes, actions and accountability of various actors — such as community and religious leaders, health workers, PLHIV and family members for a non-discriminatory and inclusive HIV response.
Efforts will further be taken to address stigma and discrimination for people living with chronic HBV and HCV infections so as to improve adherence to medications, outcome, and quality of life. To realize these aspects, participation of key actors in and out of the health system is required; including the public sector, private providers, other organizations as well as diverse civil society and affected communities.

Key gaps

Stigma and discrimination issues that remain as a challenge to date include:

- Untoward social, cultural norms, and practices at family and community levels that discriminate and stigmatise PLHIV, GBV survivors and KVP at a higher risk of contracting HIV;
- Self-stigma contributed to by both intrapersonal and interpersonal causes;
- Existence of legislation that increases the risk of stigma and discrimination for PLHIV and KVP. Similar to GBV, this includes property ownership laws and customary practices that infringe on the rights of PLHIV to own property;
- The limited scale of comprehensive prevention interventions that have integrated stigma and discrimination targeted interventions;
- Inadequate engagement of policymakers, lawmakers, and law enforcers (e.g., the Ministry of Home Affairs (MoHA) and the Ministry of Justice and Constitutional Affairs (MoJCA)) in addressing stigma and discrimination challenges;
- Lack of workplace-HIV policies that address stigma and discrimination;
- Inadequate scale up of trainings on stigma and discrimination for HCWs and media professionals.

Priority Strategies

- Empower networks/support groups for PLHIV, KVP, people living with chronic hepatitis B and C and GBV survivors;
- Increase community awareness on issues related to stigma and discrimination;

[123] NACOPHA, 'National PLHIV Stigma Index 1.0 0', Dar es Salaam 2013

[124] NACOPHA, 'National PLHIV Stigma Index 2.00', Dar es Salaam 2021

- Build the capacity of HCPs, CHWs, and social welfare and media professionals including raising awareness on human rights and ethical issues related to medical records keeping to promote adherence to professional codes of ethics and conduct by HCWs;
- Create an enabling policy environment for prevention, care, and treatment for all PLHIV, people living with chronic hepatitis B and C GBV survivors and KVP that are free of stigma and discrimination. This will include:
    - Scaling-up SBCC interventions and campaigns to address harmful social norms at the community level;
    - Strengthening and enforcing the implementation of workplace HIV, VH and STIs policies and regulations for reducing and eliminating HIV related stigma and discrimination;
    - Capacity building on HIV and VH related Stigma and Discrimination among lawmakers and law enforcers;
    - Advocacy for the improvement of laws, legislations, regulations & policies relating to HIV and AIDS, and KVP HIV Programming. This will also include carrying out a follow-up Legal Environment Assessment;
    - Enhance meaningful engagement of the media (involve high-level Government leaders, Champions, Religious leaders, and PLHIV (testimonies) to address stigma and discrimination, gender, and age-related barriers to access HIV services)
    - Engage religious and community leaders in reducing stigma and discrimination based on HIV and gender-related barriers in accessing HIV services;
    - Enhance the implementation of Monitoring Evaluation and Reporting (MER) to track different forms of stigma.

Intervention Area 26: Gender-Based Violence and Violence against Women and Children

Strategic Outcome 8.2: Gender-Based Violence and Violence against Women and Children reduced to less than 10% by 2025 from 40% in 2015 baseline

Gender inequalities, which include GBV, VAWC, and other intersecting socio-economic, political and environmental factors, inherently characterize and shape the HIV epidemic and the disproportionate burden of disease borne by women and girls. Of particular interest is GBV and VAWC or men because they can be both the cause and consequence of HIV and viral hepatitis.

Gender roles in Tanzania are shaped by the local cultural context, sub-divided into masculine and feminine factors which affect the division of labour and resources within the household, such as women taking care of the family including PLHIV; men making household decisions including regarding women's health needs, marriage, societal justification of women's coercion/punishment by men and traditional initiation rites including FGM and widow cleansing and inheritance.[125]

In accordance with the Tanzania 2015-16 Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS), it is estimated that about 4 in 10 women experienced physical violence since age 15 (2 in 10 experienced physical violence in the past year), almost 1 in 5 have ever experienced sexual violence in their lifetime (1 in 10 experienced sexual violence in the past year), and 4 in 10 of

[125]Tanzania Gender Networking Programme. Gender mainstreaming in development policies and programmes. 2006.

ever-married women have experienced spousal violence, either physical or sexual (3 in 1 experienced spousal violence in the past year).[126]

The report further showed that about one-third (31%) of Tanzanian girls are married before their 18th birthday and that 27% of girls between 15-19 years have begun childbearing. These girls face increased risk and vulnerability to IPV, sexual abuse, poverty, and a reduced opportunity to pursue formal education.[127] Evidence from locations with high HIV prevalence suggests that IPV increases susceptibility to HIV by 50% and that violence (or the fear of violence) is associated with lower access to treatment, treatment adherence, and viral suppression among women and girls.[128]

The HSHSPV strategic objectives were to reduce HIV-associated sexual and GBV and to mitigate the effects of GBV on survivors, especially women and young people. The launch of the HSHSPV coincided with that of the Five-year National Plan of Action to end VAWC (NPA-VAWC 2017/18 – 2021/22). Tanzania's NPA-VAWC seeks to contribute to agenda 2030 Sustainable Development Goals (SDGs) and the African Union Commission's Agenda 2063 and therefore meeting the global partnership targets by promoting the use of evidence-based approaches in supporting those committed to, and charged with, preventing, and responding to VAWC from the government to grassroots level, from civil society to the private sector. The NPA-VAWC emphasizes the importance of efficient and defective police response, gender-sensitive prosecution services, as well as health and social welfare services to address GBV and VAWC.

Those related to the GBV/VAWC health sector response include capacity building of peers, CHWs, and HCPs on GBV screening, counselling, and post-violence care; empowering adolescent girls and young and older women (e.g., using the Stepping Stones Curriculum); integration of GBV screening with facility and community-based HIV, SRH, other services (including offering GBV/IPV screening as an integral component of HTS); and the operationalization of one-stop-centres for the provision of medical, legal and psycho-social services for GBV survivors under one roof; and improved referral (passive and escorted) for post-care services. Additionally, there are interventions geared towards challenging untoward gender norms and creating an enabling environment. Examples of these include community mobilization activities (e.g., SASA!) and mass media campaigns (*Kipepeo*). These interventions are more pronounced in regions and councils implementing AGYW-focused combination prevention interventions (detailed under Intervention 2.2)

Despite these successes, some gaps, particularly at the policy level, still remain. Firstly, the current National Gender Policy and the NPA-VAWC do not draw direct parallels to or address HIV specifically; secondly, while Tanzania has general criminal laws prohibiting violence against any person in the country, no specific legislation exists. Thirdly, the Law of Marriage Act does not recognize rape in marriage as a form of GBV; and fourthly, in line with provisions of the penal code, rape is only recognized when it is perpetrated by a man against a woman. Finally, there are reports of ongoing cultural wife cleansing rituals which constitute SGBV. For a sustainable GBV and VAWC response, these gaps require to be addressed using a multi-sectoral lens. In the meantime, the current NPA-VAWC makes provision for 1) court injunctions for the safety and security of GBV survivors, 2) special

[126] TDHS-MIS 2015-16NBS, MoH, 'Tanzania Demographic and Health Survey and Malaria Indicator Survey 2015-2016'.2016

[127] Girls not Brides. 2018. Tanzania. https://www.girlsnotbrides.org/child-marriage/tanzania/

[128] UNAIDS Communities at the Centre, 2019. Defending Rights. Breaking Barriers. Reaching People with HIV Services. https://www. unaids.org/sites/default/files/media_asset/2019-global-AIDS-update_en.pdf

prosecution units in law enforcement, 3) protection services including the provision of shelter and legal services for survivors, and 4) prosecution and criminal penalties for domestic violence.

In collaboration with the multi-sectoral response, the health sector will promote gender-responsive programming so that the different needs and vulnerabilities of women, girls, men, and boys are identified and addressed in accordance with the National Policy Guidelines for Health Sector Prevention and Response to GBV. Civil society organisations will take the lead in providing gender-responsive patient and human rights literacy to affected populations so that they can know and expect how they should be treated at the health facility. Strategies to address gender inequalities in accessing health services and GBV will include capacity building to CSOs and service providers to identify and address gender determinants of health and manage related GBV cases, deliver integrated youth-friendly HIV and SRH services, and address stigma. The ultimate goal is to ensure the implementation of gender-transformative HIV interventions at all levels.

The NASHCOP SP will intensify efforts to address gender inequalities, including GBV and VACW. Though girls and women are the most affected group, the plan will be robust enough to also address the needs of boys and men.

Key gaps

GBV and VACW related gaps include the following:

- Existence and persistence of untoward social and cultural norms fuelling gender inequities, including GBV and VAWC;
- Lack of gender transformation focus in HIV prevention programming (same applies to care and treatment interventions);
- Existence of legislation barriers that increase the risk of HIV transmission among women and girls, e.g., the Law of Marriage Act;
- Under-reporting and delays in obtaining post-violence care (e.g., PEP, Emergency Contraceptives, and forensic tests). This is contributed by several factors, including:
    - GBV-related stigma and fear of shaming that often prevents children, adolescents and men from accessing HIV services
    - Low community awareness about GBV/VAWC, including the availability of health and non-health services
- Limited implementation of HIV combination prevention interventions that comprehensively integrate GBV/VACW screening and management;
- The limited scale of structural interventions to address GBV and other risks of increasing HIV transmission among women and girls;
- Poor/no integration of HIV in most of the National Gender documents, e.g., NPA -VAWC and the National Gender Policy;
- Neglect of intersectional issues, specifically the drivers of the HIV burden (e.g., GBV, which are not covered by most donors within the current HIV programs. Apart from the focus on SBCC interventions, allocations to address underlying socio-cultural norms is another key gap);
- Poor documentation of GBV and VAWC cases especially rape cases & GBV against men in the community due to stigma and cultural norms;
- Building of any action by men against women at workplaces, academic institutions and other platforms for girls;
- Inadequate awareness of PEP services among rape cases in the community.

Priority Strategies

- Increase community awareness of GBV/VAWC (prevalence, link with HIV and other poor SRH outcomes, importance of reporting, and available services and support);

    - Increase awareness on GBV/VAWC at workplaces and academic institutions
- Strengthen the integration of GBV/VAWC/VAM prevention and response in HIV combination prevention programmes for all populations;
- Mainstream HIV, VH and STIs and specifically GBV/VAWC in inter and cross-sectoral national policies, guidelines and programs;
- Scale-up the implementation of gender-transformative interventions to address root causes of GBV;
- Advocate for the amendment of legislation that increases the risk of HIV, VH and STIs transmission among women and girls;
- Strengthen M&E systems to collect, analyse and produce data that are gender-responsive;
- Advocate for increased investment in comprehensive combination prevention programs that have integrated GBV for all populations.

8.2 Critical Multi-sectoral Enablers

This health sector strategy recognizes the need for mainstreaming a multi-department, multi-sector and gender-responsive approach to addressing the social and structural determinants that increase risk and vulnerability to HIV and also affect treatment outcomes. PLHIV, KVP groups including AGYW, ABYM, miners, fisher folks, FHR, and MHR are the most affected populations. The NASHCOP SP recognizes and places renewed emphasis on gender, equity and human rights as being significantly linked to the HIV and VH care cascade. Interventions to remove barriers to services and inequalities will be integrated into prevention, treatment, retention and key population services, or otherwise linked to them. Over the next five years, in close collaboration with the multi-sectoral response including, mining, fishery, transport, youth, education, social welfare, sports and culture, defence, home and foreign affairs, communication, the following social and structural drivers will be addressed:

8.2.1 Legal and Human Rights

The NASHCOP SP recognizes the need to contextualize and implement human rights, legal, policy, institutional and social interventions to ensure that there is equitable access to HIV services without being stigmatized or discriminated against. In collaboration with other sectors, the health sector will increase efforts to apply a rights-based approach and leverage community and peer-based legal services and support to those discriminated against so that they are supported to continue accessing and staying on health care.

8.2.2 Addressing socio-economic barriers

Income poverty increases the vulnerability of many communities including those already affected by HIV, VH and STIs. There is growing evidence that social enablers are important in supporting HIV prevention and care outcomes. Social support consists of material and psychological and financial resources. Lessons in Tanzania have shown success in implementing targeted cash transfers, keeping girls in school, financial literacy and economic empowerment, as part of the comprehensive package of prevention, care and treatment. The NASHCOP SP in collaboration with other multisectoral actors will expand social protection and other socio-economic interventions to reduce social and economic vulnerability and mainstream psychosocial support for people living with HIV and VH and other vulnerable groups at a higher risk of acquiring the diseases.

8.2.3 Mainstreaming HIV in workplaces

Workplace health programmes focus on occupational health and the safety of workers in the health sector and beyond. The MoH advises on safety measures to prevent injuries and diseases and performs workplace inspections to enforce legislation. The Ministry also prioritizes high-risk sectors where exposure to hazardous situations and substances is high, e.g., in mining. As part of the national

response towards the AIDS epidemic, prevention and control of HIV, TB, and Hepatitis B Virus at workplaces services were initiated to prevent these communicable and other NCDs.

To address the challenges of HIV, VH and STIs in the working population, the Government through the President's Office Public Service Management and Good Governance (POPSM & GG) directs all sectors to develop workplace intervention programmes for HIV and AIDS. In implementing the NASHCOP SP, the MOH will continue to mainstream HIV at workplaces within the health sector and facilitate the adaptation of HIV and AIDS workplace policies and interventions in other sectors, including the formal and informal private sector. The health sector will continue to play a central role in demonstrating an effective workplace intervention program while providing technical guidance to MDAs and LGAs.

8.3 Cross-cutting Enablers

The health sector recognizes the need for embedding cross-cutting interventions and solutions across all priority strategic areas to enhance programming. These cross-cutting issues form the basis for building a new culture that enhances implementation efficiency, improves the quality of services, and facilitates client-centred healthcare delivery. Implementation of cross-cutting interventions will contribute significantly to removing barriers and inequalities and achieving the intended outcomes.

8.3.1 Continuous Quality Improvement

Tanzania is implementing a quality improvement framework that has instituted Quality Improvement Teams (QITs) and Work Improvement Teams (WITs) and runs improvement cycles.[129] The national programme in collaboration with partners has enhanced the HIV and VH Continuous Quality Indicators (CQI) model at the national, sub-national and health facility level, by integrating the CQI approach into service delivery. The CQI model uses the Plan-Do-Study-Act (PDSA) cycle to identify and address key challenges and track CQI efforts using dashboard charts. The NASHCOP SP will advance an effective CQI program and culture, for which leadership and country ownership is instrumental in creating shared learning and sustaining gains.

The NASHCOP in collaboration with partners will continue to conduct operational research to identify and analyse beneficiaries including their specific needs, and arising problems related to HIV and AIDS for the purpose of improving quality of services.

8.3.2 Innovations and technology

In the context of a matured HIV epidemic, the global COVID-19 pandemic and the decline in funding, Tanzania needs to accelerate progress in reducing new HIV and VH infections and maintain current gains by increasing the role of new technologies and innovations in delivering care. The HSPSH V will also promote innovations and lessons in implementing novel interventions such as differentiated HIV testing, male involvement in HIV prevention, and community peer engagement models. The Plan will also embrace improved diagnostics and medicines, including advanced tools such as recency testing and a simplified treatment regimen. Further expansion of simple, affordable and reliable point-of-care technologies will enable patient monitoring in lower-level health facilities. Moreover, mHealth and business solution applications will be used to facilitate patient care and interpretation of service delivery data and the scale-up of eLearning platforms such as the ECHO community of practice will be prioritized. The same experience and efforts will be used to also enhance viral hepatitis programming.

[129] MOH, Community Quality Improvement Framework, 2018

8.3.3 Community-led HIV response

The meaningful involvement and participation of the community from problem identification phase, planning, to the evaluation phase, in particular PLHIV, KVP, AGYW/ABYM and people infected with Hepatitis B and C is essential for the delivery of effective HIV services. As part of evidence-based programming, the NASHCOP SP embraces community engagement in planning, monitoring, and evaluating the HIV response program in Tanzania. The meaningful participation of communities and civil society in national health planning processes and service delivery brings services closer to people in need; improves service acceptability, uptake and retention; empowers individuals with greater autonomy and self-care possibilities, and promotes equity.

Communities and civil society organizations bolster advocacy efforts and strengthen programme design through the full participation in designing, service provision, monitoring and accountability of projects. Empowered communities not only play a key role in reaching their peers but are also able to mobilize and engage in collective action to address the social and structural barriers that affect the risks and vulnerabilities and access to the health of communities. Community-based workers including peers and lay providers play an important role in the national response by providing outreach, prevention, testing, demand creation and mobilisation, and broader support for adherence and navigating the health system. Community organisations also generate strategic information that might not be available through programme information systems, and promote and protect human rights.

Community response includes a monitoring component where community-based organisations are engaged in monitoring the quality of the health care provided and give feedback through community-led monitoring.

8.3.4 Integration and collaboration of services

Integration of programmes ensures consistency, effectiveness and efficiency in implementation. To leverage scarce resources and to deliver value for money and enhance sustainable quality services, health sector HIV, VH and STIs services must be integrated into shared health care delivery infrastructure so that resources (human, financial and material) and facilities are used wisely to gain from economies of scale. PLHIV are also at increased risk of developing a range of communicable and NCDs including TB, cardiovascular disease, diabetes, hypertension, cervical cancer and other cancers. Tuberculosis remains the leading cause of death among PLHIV.

The NASHCOP SP will strengthen linkages, collaboration and integration of HIV services with services for related HIV co-morbidities. Integrated management of HIV and co-morbidities should include early diagnosis and management of both HIV in “one-stop-shop” with TB, STIs, viral hepatitis, cervical cancer, reproductive, maternal, new-born and child health (RMNCH) and NCDs. Integration and collaboration should also involve prevention efforts, including the provision of TB preventive therapy (TPT) and co-trimoxazole and screening and testing for TB, viral hepatitis, cervical cancer, NCDs, and GBV. Infrastructure strengthening and availability of human resources will be considered to ensure effective services integration.

8.3.5 HIV response during COVID-19 pandemic or other emergencies

Like the rest of the world, Tanzania has experienced devastating human economic, social, and health challenges resulting from the COVID-19 pandemic. The MoH through the NASHCOP has instituted several mitigating measures to facilitate the conducive provision of services while taking necessary precautions to prevent the disease. These include SBCC, differentiated service delivery models that

encourage longer prescription, and shorter clinic stay to reduce congestion and use of personal protective equipment (PPE).

The COVID-19 pandemic and other related emergencies have a considerable chance of disrupting essential health services, including HIV prevention and treatment. The setting of a CTC or HIV outreach service is usually affected during the COVID-19 surge or other emergencies. This is mainly because of the need to consider continuation of care while at the same time ensuring infection prevention at facilities. Therefore, concrete efforts are needed to ensure people can access and utilise HIV and AIDS services in an added integrated approach. The NASHCOP SP emphasizes on local approach and considerations to adjust the provision of services for clients continuing with care. This may include better ways to organise clinic and home visits during COVID-19 or any other related emergency. Care and treatment centres may have clients with underlying diseases (co-morbidities) who are prone to severe illness when they contact COVID-19. Strong emphasis should be given to prevention measures at CTCs for both HCPs and PLHIV, including mask wearing, hand hygiene, social distancing, lifestyle adjustments and vaccination. The COVID 19 vaccine will also be prioritised for adults living with HIV. Another intervention will be to strengthen the engagement of community gate keepers in awareness raising and to influence their followers for the process of COVID 19 mitigation.

PRIORITY STRATEGIC AREA 9: RESILIENT AND SUSTAINABLE SYSTEMS

Intervention Area 27: Supply Chain Management

Strategic Outcome 9.1: Improved supply chain system that ensures 100% of HIV, VH and STIs commodities are available in health facilities at all times by 2026

Situational Analysis

A fundamental principle of “No products, no Programme'' guides the national Procurement and Supply Chain Management (PSCM) system for HIV, VH and STIs commodities. It comprises supply chain management (product selection, quantification, procurement, storage and distribution; quality control and assurance, among other key logistics parameters), including the rational use of medicines and pharmacovigilance. The HIV, VH and STIs PSCM system is jointly coordinated by the Pharmaceutical and Laboratory Services Unit (PLSU) at the NASHCOP and LMS under the Pharmaceutical Services Unit (PSU) of the MoH, working in close collaboration with key partners in the commodities supply chain and serving to ensure an uninterrupted supply of medicine and laboratory commodities.

Components of the logistics system must be interconnected and well-coordinated to allow for agility to meet changing customer demands. The MoH in collaboration with partners, coordinates product selection, which is done in alignment with the WHO recommendations adopted in the national guidelines. Orders and specifications are based on the country's requirements and quantification exercises that are used to establish the country’s HIV commodities needs. The MoH takes the lead in mobilising resources for HIV, VH and STIs commodities from the GoT and DPs for procurement, storage, and distribution; supply chain monitoring to ensure sufficient stock levels at all MSD stores, timely delivery of shipments to MSD and onward distribution to health facilities; and timely reporting of quality logistics information by health facilities and MSD.

MSD facilitates the procurement, storage and distribution of commodities. At the same time, the TMDA is responsible for product evaluation, registration and pharmacovigilance monitoring to ensure the quality of medicines and health commodities in the market.

Throughout the implementation of the HSHSPV, the country made significant progress in the scale-up of HIV, VH and STIs services which largely depended on the availability of commodities. Health commodity availability was maintained at above 90% resulting in a 32% increase in patients on ART treatment from 965,081 (Dec 2017) to 1,471,197 (June 2021) among PLHIV[130]. This represents an increase in ART coverage from 64% (965,081/1,500,000) in December 2017 to 86% (1,471,197/1,700,000) in June 2021[131]. The country has also implemented interventions to strengthen supply chain management, leading to improved management of health commodities.

Furthermore, guided by the holistic supply chain review conducted in 2017, the MoH redesigned the health logistics system and integrated the management of health products, including HIV commodities. This stimulated efficiency in the supply system for health commodities through joint ordering, reporting and data visibility for disease programme health products (both for down and upstream logistics/supply systems). In implementing the next Strategic Plan, the national programme has prioritised capacity building of HCWs in logistics management, proper use and continuous enhancement of the health logistic system, including real-time visibility of in-coming shipments and respective schedules through a web-based platform for all relevant stakeholders, something that should improve the quality of quantification data and management of health commodities. Responsible staff (at regional, council, and health facility level) have been directed to ensure proper record keeping to minimize leakage, including conducting monthly stock reconciliation. All these measures will subsequently contribute to improved health commodity availability, effective care, and the well-being of clients.

Key gaps

- The absence of regular medicines and ARV commodity tracking at both regional, district and primary health facilities);
- Inconsistency in the quality of recorded and reported logistics data (paper and electronic-based systems);
- Inadequate storage facilities that compromise inventory management and the quality of HIV, VH and STIs commodities at the health facilities;
- Incidences of expiries and overstocking resulting from challenges in timely data visibility and quality; inadequate adherence to guidelines, circulars and transition plans; and inadequate capacity of health care workers;
- Incidences of stock-outs resulting from challenges in distribution, inventory management, and procurement such as long lead time, late fulfilment of orders, short shelf life of the delivered HIV commodities, and delayed clearance at the borders;
- Inadequate implementation of Bottom-Up Quantification (BUQ) due to use of manual tallying and reporting and low coverage of BUQ capacity building activities;
- Inadequate infrastructure to support e-LMIS at all levels including computers and accessories, internet connectivity, internet bundles, power supply, and maintenance costs;
- Absence of end-to-end visibility of key logistics and supply chain data due to lack of an integrated information system that triangulates clinical, facility-level stocks and global PSM data for better planning and monitoring;
- Lack of real-time consumption and stock in hand data to support accurate quantification and supply chain monitoring of HIV, VH and STIs commodities;
- Inadequate allocation of domestic resources to fund the procurement and distribution of HIV, VH and STIs commodities;
- Unreliable supply of HIV, VH and STIs commodities due to low production and delayed shipments as a result of the COVID-19;
- Data security issues, e.g., overall system control and access to data, may be compromised due to weak internal controls and external hosting;

[130] NACP, 'Annual Program Report', 2020
[131] UNAIDS, 'Spectrum HIV Estimates in Tanzania', 2020

- HIV and VH commodity quantification (particularly for laboratory commodities) is still affected by multiple factors, e.g., lack of stakeholder collaboration which hinders critical inputs to the forecasting process, especially on clinical assumptions and demand creation.

Priority Strategies

- Roll out the redesigned logistics system to all HFs, including reporting of monthly stock in hand and consumption data, as well as improving logistics data quality at the last mile;
- Strengthen the use of electronic data systems (e-LMIS & PMD); integration of E10, e-LMIS, and PMD; analysis and use of data at all levels of the system, including system improvement (dashboard) to enhance end-to-end visibility of key logistics and supply chain data in the context of an integrated information system that links and triangulates facility-level logistic information and global PSM data (order and shipment data) for better planning and monitoring;
- Develop an in-country procurement and shipment tracking system (dashboard) for health commodities procured by MSD and donors (procurement tracking and upstream pipeline monitoring);
- Strengthen national-level capacity in forecasting and supply planning for HIV, VH and STIs commodities (MoH, MSD and PO-RALG);
- Mobilise domestic resources through the AIDS Trust Fund using advocacy for increased government budget allocations, and tap-on other sources such as insurance fund and the private sector funds, to fund the procurement and distribution of HIV, VH and STIs commodities;
- Strengthen collaborative efforts in coordination and monitoring of supply chain management interventions between the MoH, PO-RALG and IPs;
- Improve MSD's storage and distribution capacity to facilitate timely delivery of commodities;
- Improve HIV, VH and STIs commodity availability and reduce wastage through improved inventory and data management at all levels.

Intervention Area 28: Rational Use of Medicines and Pharmacovigilance

Strategic Outcome 9.2: **All (100%) HIV and VH care and treatment facilities prescribe and dispense ARVs and drugs for opportunistic infections (OIs) according to national guidelines, including monitoring and reporting of adverse drug reactions (ADRs) by 2026**

Situational Analysis

Rational use of HIV medicines

In alignment with the HSSP V[132] during the implementation of this strategy, the rational use of medicines is prioritised and mainstreamed as one of the supply chain interventions. The rational use of HIV medicines, like any other medicines, requires that patients receive medications that are appropriate to their clinical needs, in doses that meet their requirements for an adequate period, and at the lowest cost to them and their community.

The ultimate goal of ART is to achieve complete immune restoration and lasting viral suppression in the infected patient. In order to ensure the efficacy, safety and accessibility of ARVs, it is recommended that they should be prescribed according to national guidelines; which are evolving with the various recommendations of the WHO and the arrival of newer, more effective and safer molecules.

[132]MoH, 'Health Sector Strategic Plan 5 2020/21-2024/26',2021

Mistakes can occur in any of these steps resulting in irrational/inadequate use of medicines. Consequently, the promotion of RUM in the context of ART must start on the first day when the patient is enrolled in care. This is critical because HIV and VH treatment is complex. It requires a combination of several ARVs (which are in constant development to find newer and more effective molecules) and OI drugs, and it constitutes life-long treatment.Iirrational use of ARVs often results in poor response to treatment due to non-adherence to treatment; rapid development of drug resistance which leads to treatment failure; increased risk of toxicity and risk of contracting opportunistic infections; it is a waste of resources (money, time, etc.) and a burden to the health system.

There is a dearth of specific literature on RUM of ARVs in Tanzania. The available literature is general; for essential medicines and have covered and evaluated RUM in diagnosis, prescribing patterns and dispensing. Adherence to treatment guidelines is key to minimising inappropriate diagnosis and prescription/treatment issues. Equally important, the proper dispensing of ARVs will minimize dispensing errors and result in the patient's proper and rational use of prescribed ARVs.

Stock-outs of ARVs must be avoided as they result in the cessation of therapy until the drug is available again. Proper drug counselling is also key to ensuring that ARVs are stored and taken properly by the patient and that dates for refill are adhered to by patients. Accurate and complete patient record keeping is vital.

During the period of implementation of this strategy, operational research studies and surveys focusing specifically on the rational use of HIV medicines will be conducted to inform and accordingly improve appropriate and rational use of HIV medicines.

Pharmacovigilance

In Tanzania, pharmacovigilance systems are supported by laws and regulations in line with international standards. A study conducted in 46 sub-Saharan African countries in 2013, graded Tanzania as having an intermediate capacity in pharmacovigilance reporting. Less than 50% of those countries monitor product quality, medication errors, and treatment failure through existing systems[133]. As part of the medicine safety monitoring process, an electronic ADR reporting system was instituted in 2016. The increase in the number of PLHIV on treatment made it necessary to monitor the safety and quality of ARVs used by clients on a routine basis.

In pursuing ADR reporting and monitoring, WHO recommends *200 case reports per million population*.[134] Recent TMDA reports indicate a significant increase in the number of ADR reports (around 10,000 per year, which is equivalent to about 160 reports per million population as per WHO recommendations). Some of the reasons for not attaining WHO targets include; health professionals and the public in general not being sensitized enough to take part in ADR reporting, limited client awareness and knowledge to recognize and report ADR, difficulties in differentiating between ADR and a disease condition, inadequate distribution mechanisms for pharmacovigilance reporting forms,

[133] Mohamed Kiwanuka et al., 'Awareness and Reporting of Antiretroviral Adverse Events Among Clients and Health-Care Providers at a Referral Hospital in Moshi, Northern Tanzania, Kilimanjaro Christian Medical Centre: A Cross-Sectional Study', EA Health Research Journal 3, no. 2 (29 November 2019): 151–57, https://doi.org/10.24248/eahrj.v3i2.612.

[134]Abbie Barry et al., 'Comparative Assessment of the National Pharmacovigilance Systems in East Africa: Ethiopia, Kenya, Rwanda and Tanzania', Drug Safety 43, no. 4 (April 2020): 339–50, https://doi.org/10.1007/s40264-019-00898-z.

and lack of dedicated focal persons for the coordination of monitoring and reporting of ADR in most health facilities.[135]

Key gaps

- Inadequate adherence to guidelines and circulars;
- Inadequate capacity of HCWs to recognize and report ADR;
- Inadequate access and documentation of ADR recording and reporting tools (electronic and paper-based tools);
- Inadequate feedback on the reported ADRs;
- Low awareness by the communities on identification and reporting of ADRs;
- Limited treatment regimen options due to inconsistent supply of medicines and limited availability of optimal formulations especially for paediatrics;
- Low utilisation of ADR information for clinical management;
- Inadequate access and documentation of ADR recording and reporting tools (electronic and paper-based);
- Inadequate capacity of HCWs to recognize and report ADR;
- Inadequate feedback on reported ADR; and
- Low awareness by communities on the identification and reporting of ADR.

Priority Strategies

- Strengthen HCW capacity in implementing RUM;
- Improve use of pharmacovigilance monitoring systems (recording and reporting);
- Increase awareness on ADR among patients and communities to facilitate timely reporting of ADR
- In close collaboration with TMDA, undertake surveillance of ADR monitoring as new ARVs are rolled out, and strengthen the current implementation of active ARV toxicity surveillance.
- Conduct annual RUM assessment and evaluation with particular focus on ARVs and related commodities use

Intervention Area 29: Governance, Leadership and Accountability in SCM

Strategic Outcome 9.3: Minimal (<5%) reported expiries and wastage resulting from improved governance, leadership and accountability in supply chain management at all levels

Situational Analysis

The Health Sector Strategic Plan Five (2021 – 2026)[136] and high-level political will by the ruling party (2021 – 2025)[137] set high targets (>95%) for improving the availability of essential health commodities at all levels and maintaining quality HIV care for PLHIV[138]. During the implementation of the HSHSPV, the national programme had started to catalyse strategic and robust processes for commodity management through good governance, accountability and leadership responses. Initiatives such as the establishment of the IMPACT Teams Approach across the health system[139], roll out of guidelines

[135]Dat Tran et al., 'A Consultative Meeting Report for Pharmacovigilance: | Tanzania and Beyond', October 2006.

[136]MoH, 'Health Sector Strategic Plan VV', (2021 – 2026)', 2021

[137] 'CCM Election Manifesto (2021 – 2025)2020-2025', August 2020.

[138]PEPFAR, 'PEPFAR 2021 Country and Regional Operational Plan (COP/ROP) Guidance for All PEPFAR Countries'.

[139]MoH, 'Data Management and Usage for Health Commodities Supply Chain Improvement (IMPACT Approach Manual),)', 2020

for health supply chain roles and responsibilities[140], scaling up of health commodity management, monitoring and control interventions[141], and Bottom-Up Quantification[142] (BUQ), are expected to transform the supply chain system in the country. In spite of these achievements, the overall management and governance around the two major funding agencies supporting the country with HIV commodities (USG and GF) continue to be parallel in nature. There is a need to streamline the funding mechanisms and establish a unified approach to planning, reporting and monitoring.

Key gaps

- Unnecessary wastage and unaccountable losses across all levels of the public supply chain system. Incidences of expiries and overstocking resulting from inadequate adherence to the guidelines, circulars and transition plans;
- Inadequate implementation of the IMPACT Teams Approach;
- Challenges in data management, logistics, and data quality and use for decision making;
- Insufficient numbers of qualified pharmaceutical and laboratory professionals deployed to support supply chain management at all level of the system;
- Inadequate implementation of the guidelines for health supply chain roles and responsibilities leading to a lack of accountability and fragmented implementation of supply chain interventions;
- Inconsistent approaches to planning, reporting and monitoring by funding agencies and development partners in relation to budgeting and procurement of HIV, VH and STIs commodities.

Priority Strategies

- Intensify health commodity management, monitoring and control to enforce accountability;
- Strengthen the use of the IMPACT Teams Approach to facilitate evidence-based decision-making;
- Employ and deploy pharmaceutical and laboratory personnel at all level of the supply chain;
- Establish a dedicated Health Commodities Supply Chain Officer position (similar to LMS) at the regional and district level to support capacity building and monitoring of the supply chain at HFs;
- Institutionalise national supply chain Key Performance Indicators (KPIs) especially the indicator on wastage that aims at improving efficiency in health supply chains.

Intervention Area 30: Laboratory Management Systems

Strategic Outcome 9.4: Improved and resilient quality management systems implemented at all Point of Care Testing (POCT) and laboratories to support HIV, VH and STIs services at all health care levels by 2026

Situational analysis

Medical laboratories in Tanzania have continued to play an essential role in determining clinical decisions and providing clinicians with information that assists in preventing, diagnosing, treating, and managing diseases. This has been made possible by the MoH implementing Laboratory Management Systems (LMS) to strengthen Laboratory Information Systems (LIS), Planned Preventive Maintenance

[140] MoH, 'Guideline for Health Supply Chain Roles and Responsibilities', 2019

[141] MoH, 'Public Health Commodities Supply Chain Indicators Reference Manual', 2019

[142] MoH, 'Essential Health Commodities Quantification Guideline', 2018

(PPM), Quality Management Systems (QMS) and Sample transportation systems. In line with the broader concept of Diagnostic Network Optimisation (DNO) a network analytics approach will continue to be used to improve and implement a patient-centred and cost-efficient diagnostic system that offers equitable diagnostic services to all.

Laboratories with LIS will strengthen public health through data sharing between and among laboratories, clinicians and public health networks. Most LIS can be integrated with a hospital information system (HIS) for better patient management, and outcome and improved quality health care. By 2021, various LIS were used at national and sub-national level laboratories to manage data flow, utilisation, sample processing, reporting, data management, and decision-making. Among those in use at national and sub-national levels include the AfyaCare, TilleLab, JEEVA, LabMate, EVLMIS, GxAlert, SKYLIMS, electronic Sample Referral System (eSRS) and OpenLDR, LabNet and eLMIS. The GoT - Hospital Management Information System (GoT-HoMIS) is mainly used to monitor revenue collection at the facility level and EMR for patient records management and AfyaSS are linked to the respective LIS in health facilities[143]. Basic LIS, mainly paper-based, is used at the lower health facility laboratory levels, however, they pose challenges in data management.

Since 2018, Tanzania started implementing the Standard Medical Laboratory Equipment Guideline (SMLEG)[144], hence, a standardized and harmonized analytical equipment policy, equipment specifications' lists, and PPM guidelines are in place with placement contracts for HVL, HEID and FACSPRESTO. A functional QMS has been established to ensure the maintenance of accreditation of national, zonal, specialized, RRH, District Hospital (DH) and some private facilities. The QMS is implemented through External Quality Assessment (EQA)/Proficiency Testing (PT) schemes for TB, HIV RDT, CD4, malaria microscopy, Blood Transfusion Services (BTS) and haematology with in-country production of some of the PT schemes. Tanzania has also established a network of accredited laboratories under the National Public Health Laboratory (NPHL) with the capacity and systems to process HVL, HEID, CD4 count, chemistry and haematology. The MoH has established a functionally integrated sample referral system for routine, research, and forensics investigation samples supported by a Government agency, as the main courier[145,146]. Utilising the DNO approach, laboratory services in the country are implementing an efficient and responsive sample referral network that reduces TAT and promotes better time lap for effective management of patients, including the decentralisation of laboratory services to promote multiplexing and use of nearby POCT to improve delivery laboratory services that are responsive to patient safety, quality of service, performance and productivity.

All the 28 accredited medical laboratories have an Active Accreditation Status (AAS), while 1 zonal hospital laboratory had 5 active statuses in the scopes of accreditation (accredited tests). The accredited test profiles included: Clinical Chemistry. Molecular Biology, Parasitology, Microbiology, Serology, Haematology, Immunoassay, Microscopy, Blood Grouping and Rapid Tests, among others.

[143]MoH, 'National Medical Laboratory Services, Handover Report, April 2019-April 2021

[144]MoH, 'Standard Medical Laboratory Equipment Guideline', 2018

[145]MoH, 'National Guideline for Laboratory Sample Referral System', 2019

[146]MoH, 'National Procedure Manual for Comprehensive Sample Referral System,2020

In the implementation of the Strengthening Laboratory Management towards Accreditation (SLMTA) and accreditation programmes, Tanzania has made significant achievements towards ensuring client safety, process quality and increased productivity by ensuring that public and private medical laboratories attain international levels of recognition through accreditation in specific tests as illustrated in **Figure 12** below.

The number of accreditation cycles ranges from 1 – 2 (1 Cycle = 5 Years, 2 Cycles = 10 Years). Nine (9) laboratories are accredited under 2 Cycles, while twenty-two (22) are accredited under 1 Cycle. Notably, 13 (50%) out the 26 Regional Referral Hospital Laboratories (RRHL) were internationally accredited; 3 under Southern African Development Community Accreditation Services (SADCAS) and 10 under Kenya Accreditation Services (KENAS), while the remaining RRHLs are under assessment. Despite all these impressive gains towards guaranteeing the quality and integrity of laboratory test results, efforts are needed to ensure the sustainability of these accreditations during the accreditation cycles, suffice it to say, that one facility laboratory was suspended due to non-conformance. The accreditation process through international schemes is expensive but desirable to ensure the quality of testing processes for both facility management and technical requirements for Regional Referral Hospitals to National Level Laboratories, while district to lower-level facility laboratories will be accredited using the National Standard for Medical Laboratories (2017). In another notable development towards sustained accreditation, Tanzania is in the process of developing the Tanzania Accreditation Service (TANAS).

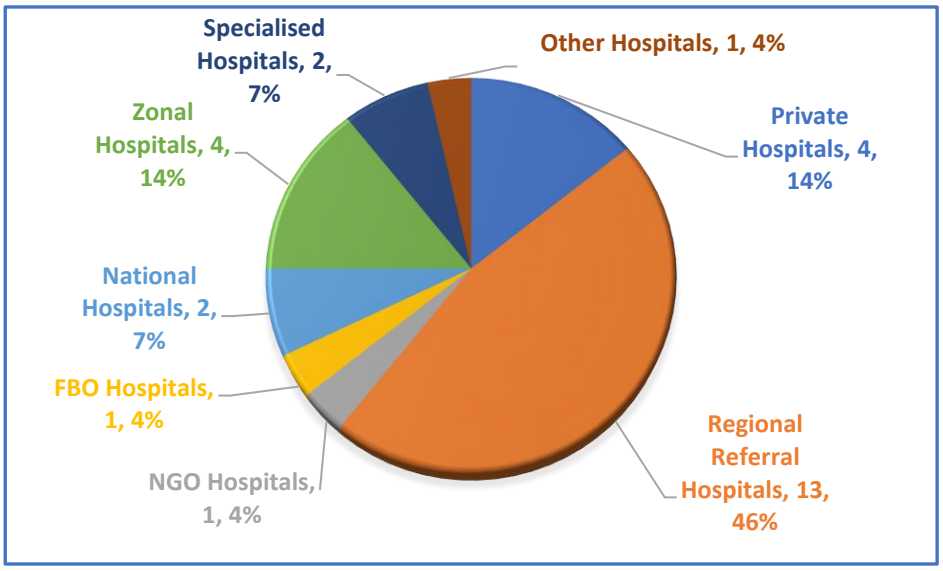


Figure 12: Status of Medical Laboratory accreditation by 2020

In addition, the NASHCOP SP will take advantage of existing opportunities to address and strengthen LIS gaps, these include but are limited to: the existence of technological solutions for linking programme-based LIS, support monitoring of production and reduction of redundancies or human errors; availability of development partners willing to support PPM and SMLEG; validation of consumption through NPHL on actual usage against the reagents calculator provided by the vendor; more frequent review of pathways to accommodate changes, and appropriate laboratory designs available at the Planning Unit of the MoH. Medical laboratories in Tanzania are assessed by an internationally certified team of auditors and assessors using WHO AFRO Stepwise Laboratory (Quality) Improvement Process Towards Accreditation (SLIPTA) Checklist[147],[148]. Currently, Tanzania has 21 local African Society for Laboratory Medicine (ASLM) certified assessors, 24 local ASLM trainee assessors pending

[147] MoH (2021), National Medical Laboratory Services, Handover Report, April 2019-April 2021

[148] WHO AFRO, 'WHO Guide for the Stepwise Laboratory Improvement Process Towards Accreditation in the African Region', 2021

certification, 2 local SADCAS certified assessors and 20 local SADCAS trainees' assessors pending certification, who are used to assess medical laboratories vying for accreditation.

Key gaps

a) Data quality, storage, security and use is compromised by too many discrete LIS that lack integration (silos);
b) Equipment standardisation is not at full scale, and there is no PPM for some equipment e.g., PIMA, GeneXpert;
c) QMS and EQA are not implemented at full scale. The number of accredited laboratories is still low, and EQA performance is challenged by operational issues, including unavailability of panels, delays in shipment, and result feedback delays;
d) Inadequate number of competent testers due to low retention and lack of motivation, and possibly the use of non-medical laboratory professionals to conduct tests;
e) Inadequate use of existing testing infrastructure for laboratory services that promote costly sample referrals that may result in a compromised quality of service;
f) Unsustainable sample referral systems hinged on the centralization of testing, and cost implications.
g) Inadequate partners coordination resulting to less streamlined support

Priority Strategies

a) Improve utilisation of LIS for CT management and decision-making at all levels (Information systems);
b) Strengthen the equipment PPM plans at POCT sites and testing laboratories (Equipment maintenance) through scaling up of the equipment placement model;
c) Expand the implementation of the QMS for laboratory networks;
d) Strengthen sample referral systems at POCT sites and testing laboratories (Sample management).
e) Improve access to HVL, HEID, Hepatis B and C testing and shorten TAT by scaling up geographical coverage of testing laboratories
f) Strengthen certification of non-laboratory testers to facilitate quality HTS at HF level
g) Strengthen stakeholder coordination and collaboration through regular joint meetings to enhance the sharing of critical inputs to laboratory commodities quantification.
h) Regularly improve optimization of laboratory services and networks

Intervention Area 31: HIV and AIDS Health Information Systems

Strategic Outcome 9.5: 95% of data used for program monitoring, are individual, uniquely identified, and complete by 2026,

- 90% of PMTCT and CTC sites have functional electronic data systems and reports electronically
- 100% health facilities providing HIV and VH services reports on time
- 95% of HIV interventions delivered in community settings are reported electronically from service delivery points

Situation analysis

HIV and, specifically ART services, monitoring and evaluation has been efficient largely due to the availability of patient-level data through the CTC systems. Of the current 6,827 health facilities that offer ART, 3,196 sites have submitted CTC data at least once between 2019 and 2021, among them, 3,018 are actively reporting monthly. These sites represent 95% of current patients on ART. Availability of data enables structured and ad-hoc analyses for monitoring and evaluating important policies and practices, for example, the program can monitor monthly and multi-month dispensing

(3&6 MMDs), regimen optimization and other policies. Furthermore, the availability of individual patient data increases the versatility of the monitoring system to report new-age bands and other reporting requirements as long as those variables are collected. While this has been possible for treatment interventions, monitoring prevention interventions has continued to rely on aggregated data collection and paper-based tools. This has impacted data quality, limited the program's ability to robustly monitor prevention interventions, the program's capacity to monitor prevention efforts, and its ability to respond to stakeholder needs on new indicators and new ways of reporting and/or carrying out analyses. Although there has been significant improvement in data use at the national level, data use in lower levels is limited by a lack of tools, capacity and inherent system limitations. For example, despite advancements in electronic systems, only a few HCWs can use data to improve onsite services. Investment by IPs for developing a digital system for community interventions is uncoordinated; as a result, there is duplication and use of technologies that limits integration or interoperability, crippling implementation at scale or adaptation of the technologies nationally. The investments are thus not sustainable and often go to waste when the projects end.

In the next five years, the program plans to continue improving and maintaining CTC systems, enhancing system data analysis capacity, uniquely identifying clients, and enabling longitudinal follow-up. The program will contribute to the digitalisation of community systems to make available individual-level longitudinal data for community interventions. Additional variables and indicators will be added as the program evolves to include and integrate HIV services with NCDs, mental health and other interventions. Furthermore, the program will continue to prime itself by contributing towards the development of a comprehensive electronic medical records system. When implemented at scale, HIV programs can efficiently transition to Electronic Medical Records (EMRs) and continue to make available robust data. These investments are in line with the health sector monitoring and evaluation strategy (the Monitoring, Evaluation and Surveillance Interface - MESI) and the health sector digital strategy[149].

Individual-level longitudinal data will enable longitudinal case-based monitoring, granular disaggregation by age, risk group and geographical categorisation, and the production of information that can inform programming targeting marginalised and populations left behind. Lessons and experience gained in HIV programme will be used to establish a robust VH monitoring and surveillance system.

Key Gaps

a) Existence of parallel recording and reporting systems resulting in inconsistent reporting.
b) The slow pace of transition from a paper-based to an electronic system.

Priority Strategies

a) Strengthen capacity of Human Resources for Health (HRH) on data management and use
b) Improve data quality and use including continuous quality improvement at all levels
c) Strengthen the use of electronic individual observation data by scaling up EMR and mobile based EMR applications and other digital solutions (including centralized client registry, unique identification standards, and accommodation of new data requirements)
d) Strengthen coordination and leadership to attain a single national data system
e) Strengthen the use of data security policies, guidelines and software

[149] MOH, Digital Health Strategy 2019-2024

Intervention Area 32: Surveys and Research

Strategic Outcome 9.6: **Up to date (<3 years old) nationally representative data on HIV and VH epidemics is available by population type, location, and size (including KVPs) by 2026**

- Rounds of THIS are conducted
- IBBS for KVPs (FHR, MHR, PWIG, and others) are conducted
- Nationally representative KVP size estimates disaggregated by regions is available

Situation analysis

The recent THIS 202-23 indicate that Tanzania is in good trajectory towards epidemic control, among those on treatment, 94% have attained viral suppression, halting the risk of onward HIV transmission to others. However, there remain gaps on populations left behind by geographical location, demographics, risk behaviour and other vulnerabilities.

Targeting vulnerable and marginalised populations, and monitoring and evaluation to measure if the set goals were met, continued to be a challenge during the implementation of the HSHSPV. Part of the challenge is related to the unavailability of reliable data to estimate the size and location of vulnerable populations. In the NASHCOP SP, Tanzania plans to implement integrated biomedical and behavioural studies, targeting KVP (FHR, MHR, PWID and other vulnerable populations, such as mining communities, fisher folks and long-haul transportation corridors).

In the next five years the program will focus on the completion of the remaining IBBS, KVP size estimation by geographical location, and carrying out another round of the HIV Impact survey and other relevant surveys. Furthermore, operational research will be conducted in priority areas based on the National HIV Research Agenda (NAHREA). These studies will inform on progress of the national response and the targeting of hotspots that continue to propagate new HIV infections.

Key Gaps

a) Lack of recent population data to inform epidemic response progress and planning
b) Lack of robust KVP data to inform population size estimates and program targeting
c) Limited data on burden of VH and service coverage

Priority Strategies

a) Conduct Tanzania HIV Impact Survey, to provide population level estimates of HIV epidemic status and progress towards 95 – 95 – 95
b) Conduct Integrated Biological and Behaviour surveys targeting key and vulnerable populations to understand epidemic drivers, and their access and utilization of HIV interventions
c) Conduct size estimates and geographical mapping of KVPs to inform programming and monitoring of KVP services

Intervention Area 33: Surveillance and data use

Strategic Outcome 9.7: **100% of surveillance (Recency, Drug resistance, HIV and VH interventions outcomes) reports are available on annual basis to inform programming and response by 2026**

- Drug resistance surveillance report available annually
- HIV recent infections surveillance report available annually
- HIV and VH intervention outcomes report available annually

The national ART program has matured over time, and as a result, Tanzania has made significant progress in the reduction of AIDS-related deaths. The program focus is thus transitioning from scale up to quality improvement. On top of generating and using individual-level data to monitor client-centred differentiated care, the program also plans to implement strategies to detect, respond and halt the development of ARV drug resistance, AIDS-related deaths, and routine ARV adverse reaction surveillance.

Building on the recently completed drug resistance survey and investing to institutionalise the drug resistance sentinel surveillance system, in the next five years the program will focus on strengthening drug resistance surveillance, facilitating the completion of national scale of HIV recency surveillance, and use of linked program data for case-based surveillance to monitor HIV interventions outcomes. Furthermore, operational research will be conducted in priority areas based on the National HIV Research Agenda (NAHREA).

Key Gaps

a) Non existing drug resistance surveillance system despite strong and robust viral load monitoring network
b) Fragmented surveillance of HIV interventions, for example, while HIV recency surveillance is scaled, it is not linked to HIV treatment outcomes surveillance.
c) Limited use of existing individual longitudinal ART data to answer key programmatic questions that can bridge gaps and improve ART treatment outcomes

Priority Strategies

a) Establish and rollout ARV drug resistance surveillance and response system
b) Scale and link HIV recency surveillance with ART monitoring system
c) Build capacity for and conduct structured analyses of patient level data to answer key programmatic gaps
d) Implement HIV, VH and STIs research agenda including mid- and end-term evaluation and scheduled surveillances to inform program implementation

4. GOVERNANCE, COORDINATION, AND IMPLEMENTATION

4.1 Governance structures

4.1.1 National level Governance Structures

a) The Prime Minister's Office

The Prime Minister's Office (PMO) plays a pivotal role in the national response to HIV and AIDS through the Inter-Ministerial Technical Committee (IMTC) on HIV and AIDS and TACAIDS. The IMTC coordinates the multisectoral response; it is chaired by the PMO and involves permanent secretaries from all sector ministries involved in the HIV response. TACAIDS on the other hand is a Presidential Commission established under an Act of Parliament No. 22 of 2001 and is mandated to coordinate the national response to HIV, STIs and viral hepatitis. It is also responsible for the development, review and coordination of the implementation of the National HIV and viral hepatitis Policy by translating it into a National Multisectoral HIV and AIDS Framework that guides all stakeholders involved in the national response, including the MoH. Other mandates include:

a) Developing a strategic framework for planning all HIV, STIs and hepatitis control programmes and activities within the overall national strategy;
b) Fostering national and international linkages among all stakeholders through proper coordination of all HIV, STIs and hepatitis control programmes and activities within the overall national strategy;
c) Mobilising, allocating and monitoring resources for HIV, STIs and hepatitis ensuring their equitable distribution;
d) Promoting high level advocacy and education on HIV, STIs and hepatitis prevention and control;
e) Formulating national policy guidelines for the response to HIV, STIs and hepatitis epidemic and the management of its consequences; and
f) Providing oversight on the multisectoral response.

The PMO' office is also responsible for coordinating the response to HIV by Ministries, Departments and Agencies (MDAs), a function that is performed through the IMTC. The PMO also chairs the National HIV and AIDS Joint Thematic Technical Working Group that coordinates the Government and other players including DPs and IPs of HIV and AIDS programmes. The PMO provides oversight, guidance and financial support to TACAIDS.

In relation to Global Fund resources, the Tanzania Country Coordinating Mechanism (TCCM) for the GF was established in 2002 and in 2005 it was restructured and the name was changed to the present Tanzania National Coordinating Mechanism (TNCM), with a plan to enable the coordination of other funding sources beyond the GF. The TNCM is a governance mechanism mandated to provide coordination and oversight to GF resource mobilisation through proposal writing, grant implementation and reporting. It is chaired by the Permanent Secretary Policy, Coordination & Investment in the Prime Minister's Office.

(b) The Ministry of Finance and Planning

The MoFP is responsible for ensuring the availability of financial resources for implementing the NASHCoP SP through resource mobilisation. This includes both domestic and external resources. Currently, a significant portion of external resources to support HIV and AIDS, Malaria and TB programmes is provided through the GFATM, PEPFAR, the UN System, bilateral development partners, internal NGOs and private foundations. Health basket partners provide critical financial resources to strengthen both the health system and service delivery at the council level. While not

specifically directed towards HIV, STIs and viral hepatitis, the Health Basket Fund (HBF) provides the base where HIV services at the facility and community level are implemented.

(c) The Ministry of Health

The MoH is mandated to formulate health and social welfare policies as well as coordinate, monitor, and evaluate their implementation. It also ensures that all Tanzanians access quality health and social welfare services. With regard to HIV, VH and STIs, the MoH leads the health sector response through the NASHCoP by providing technical leadership and coordination of the health sector response and mobilize resources for implementation. It coordinates and supervises different partners implementing the HIV Strategic Plan V and ensures the availability of harmonised and integrated HMIS and adherence to guidelines, standards, and regulations. In addition, it promotes and oversees operational research on health sector HIV prevention, care, treatment, and support services. The MoH is also responsible for developing and disseminating national guidelines and policies governing HIV, STIs and viral hepatitis interventions.

Governance structures under the MoH include:

(i) The Senior Management Team

The *Senior Management Team* (SMT) is chaired by the Permanent Secretary of the MoH. Other members of the SMT include the Chief Medical Officer (CMO), all Directors of MDAs and units under the MoH. It is responsible for oversight and management guidance to all health programmes and activities, including HIV, STIs and viral hepatitis plans (including strategic plans) and budgets.

(ii) The Sector Wide Planning Approach Technical Committee

The SWAp provides an opportunity for all key stakeholders, including development partners and civil society, to participate in health sector reforms and interventions. The SWAp Technical Committee (*TC-SWAp),* under the chairmanship of the PS-MoH and PS-PORALG provides governance support to the SMT and a structure for coordination between the PO-RALG, MOFP, and MoH. The MoH has also established a dialogue structure to guide implementation of the *SWAp*. At the top of the dialogue structure is the Joint Annual Health Sector Review (JAHSR), which brings together all key stakeholders to review progress made in the health sector and set/approve priorities for the following year. It is an important tool for resource mobilisation and accountability. In between the JAHSR, the SWAp and Health Basket Financing (HBF) Committees bring together the top Ministry leadership and all partners who have signed SWAp or HBF funding agreements with the Government.

(d) The President's Office-Regional Administration and Local Government

The PO-RALG is responsible for managing, coordinating, and facilitating the implementation of this strategic plan through three levels of governance structures; national, regional and local government authorities (LGAs) at the council, ward, village, and community levels. - Through the recently formed health department, PO-RALG oversees the office of the RMO which is responsible for empowering LGAs to deliver health interventions, including the HIV, VH and STIs response, and ensuring the quality of services provided. The LGAs, through Council Health Management Teams (CHMTs), manage all government health facilities as well as the provision of health services through the preparation and implementation of Comprehensive Council Health Plans (CCHPs), plans for PHC facilities, and community-level health plans for each ward and village. The Council Multisectoral AIDS Committee (CMAC) is coordinated and facilitated by the CHMT. PO-RALG is also responsible for facilitating effective recruitment and deployment of skilled health workers in collaboration with the

MoH and related ministries and for designing and developing planning guidelines under the Medium-Term Expenditure Framework (MTEF).

4.1.2 Governance bodies at the regional level

The Regional Consultative Committee (RCC) is the highest governance body at the regional level. It is chaired by the Regional Commissioner (RC) and the Regional Administrative Secretary (RAS), who serves as Secretary to the RCC. It is composed of all departmental heads at the regional level.

The functions of the RCC are to:

a) Convene and coordinate stakeholder meetings on HIV, STIs and hepatitis prevention, care, treatment, and support services;
b) Provide leadership and guidance in the dissemination of policies, guidelines, standards, and regulations for HIV, STIs and hepatitis prevention care, treatment, and support services to respective councils;
c) Conduct advocacy to regional and district decision-makers on HIV, STIs and hepatitis prevention, care, treatment, and support services.

In addition, the RCC is responsible for:

a) Advising on political, economic, defence and security issues;
b) Reviewing and approving regional plans and budgets;
c) Discussing and advising on regional development issues.

The Regional Multisectoral AIDS Focal Person is a member of the RCC and represents all issues regarding HIV and AIDS and the regional TACAIDS Coordinator and Regional AIDS Control Coordinator (RACC) provide inputs with regard to multisectoral and health sector HIV and AIDS interventions. Within the Regional Health Management Team (RHMT), the RACC is responsible for all health sector HIV and AIDS activities and works closely with the Regional Multisectoral AIDS Focal Person and Regional TACAIDS Coordinator.

Roles and responsibilities of the RHMT/RACC:

- Provide technical support for CCHP implementation of health sector HIV, STIs and hepatitis prevention, care and treatment, and support services;
- Ensure quality training of health care providers on health sector HIV, STIs and hepatitis -related interventions;
- Coordinate, supervise, monitor, and evaluate health sector HIV, STIs and hepatitis -related interventions in the region;
- Mobilise and coordinate partners and resources in the region for the implementation of health sector HIV prevention, care and treatment, and support services;
- Provide technical assistance to the districts on data management.

Roles and responsibilities of Regional Multisectoral AIDS Focal Person:

- Mobilise, disburse and monitor resources to ensure equitable distribution;
- Provide oversight of the multisectoral response to HIV and AIDS;
- Research, information sharing and documentation on HIV and AIDS;
- Promote advocacy and education on HIV and AIDS prevention and control;
- Develop strategic framework for planning the HIV and AIDS response within the overall National Multisectoral Strategic Framework (NMSF) for HIV and AIDS

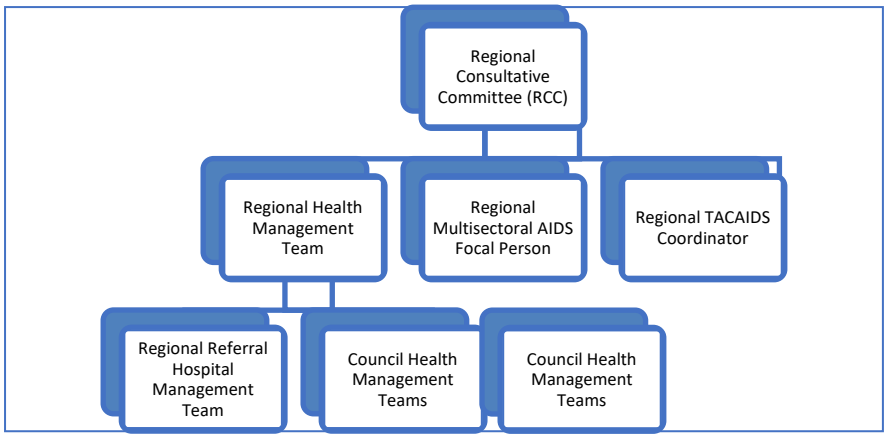


Figure 13: Governance structure at the regional level

4.1.3. Governance structure at Council level

The governance structure at the local government level has three levels of coordination (council, ward and village) as shown in the illustration below:

Figure 14: Governance structure at council level

4.2 Programme Management and Linkages at Regional and Local Government level

a) The National AIDS, STIs and Hepatitis Control Programme (NASHCoP)

At the MoH, the NASHCoP is responsible for technical leadership and coordination of stakeholders at all levels for the planning and implementation of the strategy. The NASHCoP facilitates the integration of health sector HIV prevention, care and treatment and support services with other health services and promotes quality improvement of these services at all levels. It is also responsible for the design, development and implementation of SBCC to promote the uptake of health sector HIV, STIs and hepatitis interventions countrywide. In collaboration with the procurement unit, the NASHCoP facilitates the procurement, distribution, monitoring and evaluation of HIV and AIDS commodities. Other responsibilities of the NASHCoP include designing, developing a monitoring and evaluation framework, and ensuring the availability of recording and reporting tools for HIV and AIDS interventions at all levels. It also facilitates the integration of HIV information system within the national M&E framework and strengthens initiatives to promote effective and efficient data collection, analysis

and utilisation of HIV, STIs and viral hepatitis information at all levels. Overall, the NASHCoP organises and coordinates the promotion of health sector HIV prevention, care and treatment services, best practices as well as operational research in collaboration with research institutions.

i. *Organizational Structure of the NASHCoP*
The organization structure of the NASHCoP involves a central level office under the Department of Preventive Services of the Ministry of Health, and Regional and Council Coordinators under the Department of Health in the PORALG. This is the organizational structure that will be used when implementing the HSSP V.

ii. *Regional level*
At the regional level, the RHMT reports to the Regional Secretariat and within the RHMT, the RACC is responsible for all health sector HIV and AIDS activities and works closely with the Regional HIV Focal Person and Regional TACAIDS Coordinator.

iii. *Council level*
The CHMT is responsible for health sector HIV and AIDS activities at the council and community level. There are two coordination points; the District HIV/AIDS Control Coordinator (DACC) and the Council HIV/AIDS Control Coordinator (CHACC). The DACC oversees the health sector response as the focal point for CHMT HIV and AIDS activities and works closely with the CHACC who is responsible for multi-sectoral activities. The CHACC is the Secretary of the CMAC. The Council Social Welfare Officer (SWO) has dual responsibility; they fall under the health sector but also work in collaboration with the DACC and CHACC to support community-based interventions and PLHIV groups. These council-level structures will need to be revised to consider the new structure of the health sector where health, community development, gender and services for the elderly and children fall under one ministry.

4.3 Partnerships

To foster integration within the health sector, coordination of the NASHCoP SP will continue to be entrusted to existing structures within the SWAp dialogue structure agreed upon by the Government, DPs and NSAs. The NASHCoP will actively participate in disease-specific programmes Technical Working Groups (TWGs) and in the M&E TWG both of which report to the TC-SWAp which enhances its participation in the TACAIDS TWG and Joint Thematic Working Group (JTWG).

During HSHSPI, the NASHCOP established a National Advisory Committee for Care and Treatment (NACCT) to guide the implementation of the National Care and Treatment Plan (NCTP). This committee was chaired by the Chief Medical Officer (CMO). The NACCT had sub-committees for Clinical Care, Laboratory, Information, Education and Communication, Training, Pharmacy and Drug Procurement, PMTCT, VCT, Social Support, and Monitoring and Evaluation. During the development of HSHSPII, it was proposed that the NACCT be transformed into a National HIV/AIDS Steering Committee to oversee all HIV and AIDS services. Unfortunately, this was not implemented and both the NACCT and its sub-committees did not meet in the entire period of the HSHSPII implementation. This has led to gaps in the response, such as weak follow-up on annual operational plans and lack of periodic update reports on the health sector HIV response. With the ongoing discussions to harmonise the roles of TACAIDS and NASHCOP, and the new structure of the PO-RALG that has a new Health Department, there is a critical need for a stronger mechanism to ensure effective partnerships through collaboration, dialogue and coordination.

To effectively oversee the implementation of the NASHCoP SP, a National HIV, STIs and Hepatitis Coordination Committee will be established to play a stewardship role and provide leadership and

technical guidance. This committee will be chaired by the CMO and the Director of Preventive Services (DPS) or Programme Manager. The NASHCoP will serve as Secretary and members will be drawn from MoH Directorates, the PMO-RALG Health Department, TACAIDS, DPs, the UN family, PLHIV groups, NGOs, CSOs and from among chairpersons of NASHCoP sub-committees.

4.4 Leadership and Shared Accountability

Leadership, mutual accountability and commitment remain key ingredients for a successful response. The next phase of the national response will continue to implement a decentralised approach that places regions and districts at the hub of quality health care services. Efforts at strengthening governing structures and accountability mechanisms will continue to emphasise the removal of barriers to accessing care, especially among underserved communities, and ensuring rational use of commodities.

Through the revised inter-governmental relations framework, cooperation among Government departments will be improved, and AIDS committees at regional and district levels will be empowered, and leadership at the ward level will be mobilised. The health sector response will embrace the vision of leadership reflected in the HSSP V which requires transparent sharing of essential information on the epidemic and the response, and inclusive dialogue on performance nationally and locally.

4.5 Human Resource Management

The 2020 Service Availability and Readiness Assessment (SARA)[150] report showed that 63% of health facilities had at least 1 staff trained on the clinical management of HIV/AIDS, 54% of facilities had at least one trained staff on HIV counselling and testing, and 60% of facilities had at least 1 trained staff on PMTCT. The shortage of human resources for HIV and AIDS along the care cascade continues to be a key challenge contributing to low quality of care and compromised data quality.

Several initiatives to improve human resources for HIV and AIDS including evidence-based allocation and deployment, improved retention schemes, and the engagement of community and lay volunteers to support service delivery are prioritised.

The NASHCoP SP will embrace human resource planning and innovative retention schemes that are also recommended in the HRH Strategic Plan 2021-2026. This will entail evidence-based and innovative production, recruitment, distribution, retention and management to address the existing health workforce policy dilemma of mismatches between need, supply and demand.

Working in close collaboration with the PO-RALG and IPs the HIV programme will explore innovative strategies such as the use of local arrangements or mechanisms that will enable the hiring of professional staff as volunteers or allowing interns to serve for longer periods. Efforts will also be made to ensure the competence of Health Care Providers (HCPs) in HIV and AIDS management through in-service capacity building activities and engagement with relevant authorities to update pre-service curricula.

[150] MoH et al., 'Service Availability and Readiness Assessment (SARA) Report 2020', Dodoma, Tanzania, 2020

4.5 Community Systems Strengthening

The MoH and PO-RALG have invested in community systems to support community HIV services including HIV prevention, care, treatment and support services. Since the beginning of the HIV programme, the country has implemented Community Based HIV Services (CBHS), led by a community workforce that supports HIV case finding, treatment adherence and tracking lost to follow up. There has been significant progress in community engagement through the utilisation of CSOs, Faith-Based Organizations (FBOs), Community Based Organizations (CBOs), PLHIV groups and PLHIV umbrella organizations. Community based health services have contributed to increased enrolment and retention in HIV care. Community-based Peer Educators (PEs) and CHWs have also been instrumental in supporting KVP and youth HIV programming.

The NASHCOP SP will continue to invest in community system strengthening by working closely with community health volunteers, Expert patients and PEs. The community workforce will also deliver differentiated HIV services using a family approach, and facilitate the identification of illnesses and referrals to health services for all family members.

4.6 Private Sector Partnership

The engagement of the private sector will be two-fold. First, the national response will engage the private sector in providing health services to support the delivery of HIV and AIDS services. Secondly, the national response will continue to engage the private sector to support resource mobilisation to mainstream HIV in their businesses and countrywide.

The country has engaged private for-profit and private faith-based facilities in the delivery of HIV services including HTS, PMTCT, condom distribution and CTC services. Experience has shown that partnerships with the private sector work when the national response takes leadership in building the capacity of HCPs, and in strengthening infrastructure and the provision of data collection and reporting tools, supplies and equipment to private health facilities. In implementing the NASHCoP SP, the national response will continue to engage existing and new private facilities to deliver quality HIV prevention, care and treatment services to clients receiving care from private facilities.

Furthermore, the Government has approved the Public-Private Partnership (PPP) strategy to mobilise additional resources from the private sector to complement public funding. In the operationalization of the NASHCoP SP, efforts will be made to tap into resources in the private sector (corporate, businesses and individuals) to support HIV and AIDS interventions at different levels. The involvement of the private sector and organised labour will be extended and civil society sectors and community networks will be capacitated.

Priority Strategies

- Ensure a well-coordinated HIV health sector response through technical meetings and revitalised and functioning National HIV and AIDS Steering Committee and HIV and AIDS Technical Working Committees (TWCs) and TWGs;
- Contribute to improved health sector financing through intra-governmental consultations and advocacy, and facilitate the diversification of funding sources including through the participation of the private sector;

- Contribute to the development of needs-based, evidence-based Human Resources for Health (HRH) planning, for improved quality service delivery through intra-governmental consultations/advocacy;
- Put in place an efficient, well-equipped institution with skilled and motivated staff to coordinate the health sector HIV and AIDS response.

Roles and responsibilities of IPs

- Assist regions and districts to identify gaps for the strengthening, expansion and improvement of the quality of health sector HIV prevention, care, treatment and support services;
- Assist regions and districts to translate the NASHCoP SP into regional actionable, effective comprehensive plans;
- Work with districts to ensure that health sector HIV prevention, care, treatment and support services are prioritised in CCHPs;
- Develop innovations that can be tested and shared with regions and districts (RHMTs/CHMTs);
- Assist the MoH in capacity building for R/CHMTs, NGOs and FBOs to effectively plan, manage, implement and monitor the programme;
- Provide technical support to R/CHMTs on mentoring, training and supportive services;
- Collaborate with R/CHMTs to ensure the availability of HIV commodities at all levels;
- Strengthen M&E in collaboration with all levels of implementation to ensure timely and accurate reporting;
- In collaboration with the MoH and R/CHMTs, facilitate sample management.

5. FINANCING

5.1 Introduction

This chapter presents an analysis of the estimated resource needs, projected future funding, and resource gaps. It highlights key financing strategies for achieving the NASHCoP SP 2020/21-2025/26 targets, and its operationalization and implementation. The costing analysis was done and presented in line with eight strategic priority areas identified for the NASHCoP SP 2020/21–2025/26 including: differentiated HIV testing services, elimination of mother-to-child transmission of HIV and VH (eMTCT), reduction of new HIV infections, reduction of AIDS-related mortality, reducing VH new infections, reducing VH related mortality, addressing barriers and inequalities and building resilient and sustainable systems. The chapter further explains the sources of data used and how much data and analysis were validated with stakeholders.

5.2 Costing the HIV Health Sector Response

5.2.1 Methodology

Data collection and assumptions

Data collection and costing assumptions as inputs for the costing were collected from national documents, literature, published and unpublished reports and through consultative workshops and meetings with NASHCoP staff, development partners, HIV/AIDS IPs, health managers, clinicians, and other stakeholders working in the health sector and HIV/AIDS. Data sources to inform costing of the Strategy included costing files, costed sub-sector strategic plans, commodity quantifications, GFATM application, Country Spectrum file, Investment case 2.0 and PEPFAR COP 21. Expert opinion was used in case of missing or incomplete data. Costing of program activities was done during the strategy writing workshops. Reference to Government circular and group consensus were used to standardise prices for common costing inputs such as conference packages, periderm rates, transport costs, etc. Costs were collected in both Tanzania Shillings (TZS) and U.S. Dollars (USD) using an exchange rate of TZS 2298[151] to 1 USD.

Data entry

The team used an Excel spreadsheet to collate and store data for different components. Data entries were quality checked by other NASHCOP SP consultants and writing team members. After the quality check, data were transferred to the One Health Tool (OHT) for processing and cost estimation.

5.2.3 The costing tool (The OneHealth Tool)

The OHT was used to estimate the cost of implementing the NASHCoP SP 2020/21-2025/26. This tool is a medium to long-term (3 to 10 years) strategic planning model in the health sector, created by an international consortium comprised of the WHO, several United Nations agencies, and Avenir Health. The tool was chosen for the costing of the NASHCoP SP in order to align with similar work done in costing the HSSP V (2021-2026). The OHT estimates the costs of an entire health system, including service delivery and cross-cutting health system requirements. Further, the tool facilitates the assessment of costs related to specific programs including HIV/AIDS and other areas of maternal, new-born, and reproductive health, child health, vaccination, Malaria, Tuberculosis, nutrition, and water, sanitation and hygiene. It is a dynamic model integrated within the Spectrum suite of models,

[151] BOT.2021. Monthly Economic Review Nov 2021

which allows for the linking of cost assumptions with health outcome models[152,153,154]. The OHT uses an ingredients-based cost approach where the costs are based on unit prices and the quantity of inputs required to carry out the activities. Also, it allows the use of unit cost where the total commodity costs are estimated by multiplying the average unit cost per intervention by the number of cases per year. The average unit cost per intervention is determined on the basis of the cost, quantity, and frequency of use of each commodity and the percentage of cases that require each commodity. The number of cases per year is calculated using the population size of those targeted to receive the intervention, the percentage of the target population in need of the intervention, and the percentage of people in need who receive the service (service coverage). For consistency, unit costs from existing studies and other recent cost estimations done in various HIV/AIDS applications such as GF application, COP 16-21 and the ABC/M study were adopted[155] .

5.2.3 Scenario Development

Three scenarios were assumed in to estimate resource needs for the implementation of the NASHCOP SP; the status quo/baseline scenario, the moderate or prioritized/accelerated scenario, and the ambitious scenario.

- Status quo/Baseline scenario: This scenario implies maintenance of current coverage of services. The baseline scenario extends current targets and coverage of specific interventions for the baseline year (2021) through 2025, without any changes. It serves both as a useful counter factual to examine additional costs and health gains, as well as an understanding of how much resources would be required to maintain current coverage as the population grows and inflation is applied.
- NASHCoP SP Scenario (Moderate): - The NASHCoP SP scenario reflects the new costed strategic plan 2021-2026. Interventions are scaled up to attain the coverage level set in the NASHCoP SP targets as per prioritized strategies.
- Ambitious scenario: The ambitious scenario represents the full expansion of interventions contemplated in the various impact areas right from the first year of the strategic plan.

For each scenario the health impact in terms of reduction of new HIV infections and AIDS deaths were estimated using the AIDS Impact Model (AIM), which is part of the Spectrum System.

5.2.4 Validation and Prioritization Process

Once cost inputs were collected, data validation was done during writing workshops that involved HIV experts, IPs, and NASHCOP staff. Validation ensured that the costing assumptions and calculations were logical, consistent, and accurate and that the overall costs were aligned with the prioritized interventions. During validation, the costing team reiterated all assumptions, identified cost drivers, and asked stakeholders if they would like to make any additions or revisions to the costing. Cost validation meetings also informed the planning and prioritization process.

The validation and prioritization workshop primarily consisted of two parts:

- Validating costing assumptions whereby workshop participants reviewed assumptions and targets to make sure they were accurate and reasonable
- Understanding resource requirements through presentations and discussion sessions, where participants gained a deep understanding of what is required to deliver the NASHCoP

[152] Cantelmo, Catherine & Takeuchi, Momoe & Stenberg, Karin & Veasnakiry, Lo & Eang, Ros & Mai, Mo & Murakoshi, Eijiro. (2018). Estimating health plan costs with the One Health tool, Cambodia. Bulletin of the World Health Organization. 96. 462-470. 10.2471/BLT.17.203737

[153] Perales N, Dutta A, Maina T. Resource needs for the Kenya health sector strategic and investment plan: analysis using the OneHealth tool. Washington, DC: Health Policy Project; 2015.

[154] Stenberg K, Rajan D. Estimating cost implications of a national health policy, strategy or plan. In: Strategizing national health in the 21st century: a handbook. Geneva: World Health Organization; 2016.

[155] Lee, B., H. Pan, G. Ruhago, M. Mizinduko, D. Peter, C. Mann, and S. Forsythe. 2021. Applying Activity-based Costing and Management (ABC/M) to HIV Services in Tanzania. Washington, DC: Palladium, Health Policy Plus

SP interventions. Further discussions were held with the NASHCoP senior leadership regarding financial commitments and sources of funds over the NASHCoP SP period.

5.2.5 Total Fund Needs for implementing the HIV Response

The NASHCoP SP Scenario (Moderate)

As reported in **Table 4** below, the costing for the entire planning timeframe of the activities reported in the NASHCoP SP is approximately US$ 3,736,863,814.34. The estimated total cost under the SP/Moderate scenario will be 14% higher than the estimated implementation cost under the status quo (US$ 3,215,525,098.31) scenario but lower by 33% of the total cost of the ambitious scenario (US$ 5,582,103886.53). The cost for implementing the NASHCoP SP will continue to grow in the next five years from US$ 600.7 Million in 2021 to US$ 967.06 million by 2026. There is a sharp increase in resource needs for year five (a 25.6% increase from year four) to match the ambitious end line targets in the final year of the strategic plan.

Table 4: Summary of Total Fund Needs: The NASHCoP SP (Moderate) scenario

	2021	2022	2023	2024	2025	Total (US$)
Intervention cost	594,677,024	650,435,646	708,012,593	763,675,208	960,663,891	3,677,464,363
Program cost	1,625,954	1,487,501	1,374,332	1,487,501	1,239,563	7,214,850
Supply chain and Lab	4,409,049	19,436,668	18,486,959	4,691,393	5,160,532	52,184,601
Total Costs (US$)	**600,712,027**	**671,359,816**	**727,873,884**	**769,854,102**	**967,063,986**	**3,736,863,814**

Table 5 presents the funds needed by strategic priority areas considered in the NASHCoP SP. The reduction of AIDS-related mortality accounts for 58.58% of the total fund over the whole period of implementation of the NASHCoP SP, followed by the reduction of new HIV infections (34.95%). A similar resource allocation pattern is reflected in each year (i.e., 2021-2026) where the reduction of AIDS-related mortality consumes a bigger share of funding.

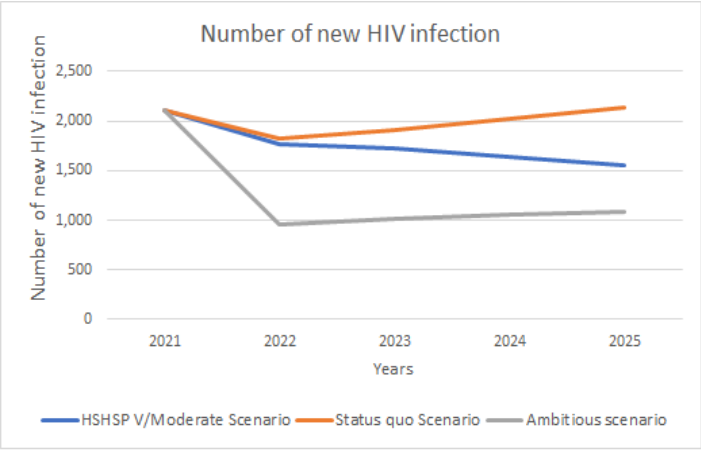
Table 5: Total Fund needs by Strategic Priority Area

PRIORITY STRATEGIC AREA	2021	2022	2023	2024	2025	Total cost (US$)	Total %
1: Differentiated HIV Testing Services	3,110,415	3,188,460	3,269,236	3,351,261	3,432,776	**16,352,148**	**0.44**
2: Elimination of Mother to Child Transmission (eMTCT) of New HIV Infection	16,982,381	18,836,498	18,513,493	18,125,716	17,709,921	**90,168,009**	**2.41**
3: Reduction of New HIV Infection	130,402,991	177,908,567	231,836,861	284,768,120	480,319,163	**1,305,235,702**	**34.93**
4: Reduction of AIDS Related Mortality	414,551,017	427,507,250	438,520,627	449,191,558	459,130,804	**2,188,901,255**	**58.58**
5: Addressing Barriers and Inequalities	29,630,220	22,994,872	15,872,377	8,238,552	71,228	**76,807,249**	**2.06**

6: Resilient and Sustainable Systems	6,035,003	20,924,169	19,861,290	6,178,894	6,400,095	**59,399,451**	**1.59**
Total cost (US$)	**600,712,027**	**671,359,816**	**727,873,884**	**769,854,102**	**967,063,986**	**3,736,863,814**	**100**

The NASHCoP SP Scenario (Moderate) health impact compared with other health impact scenarios

Figure 18 presents a comparison between the health impact of implementing an NASHCOP SP Scenario (Moderate) versus the status quo and the ambitious scenario. The comparison measures the health impact in terms of the number of new HIV infections and AIDS-related deaths during the implementation of each scenario. The SP/moderate scenario shows the number of new HIV infections per year will be decreasing throughout the whole implementation period (2107 new HIV infections in 2021 to 1551 new HIV infections in 2025). In contrast, for the status quo and ambitious scenarios, new HIV infections will decrease in the first year of implementation and thereafter start to rise gradually for the remaining period of implementation (Status quo: 2107 to 2141 new HIV infections). For the number of AIDS-related deaths, the SP/Moderate scenario shows a fewer number of AIDS-related deaths compared to the Status quo and higher number of AIDS-related deaths compared to the ambitious scenario. Considering all the indicators (number of new HIV infections and AIDS-related deaths) altogether, the SP/Moderate scenario provides a better option than the status quo and the ambitious scenarios.



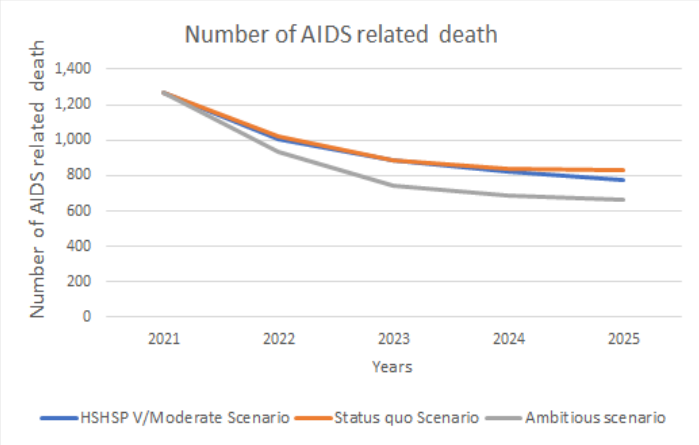


Figure 15: Implementation Health Impact Scenarios *(Source: AIM projections, 2021a)*

5.2.6 Funding Gap Analysis

Available Funding

Four funding sources for HIV programming were considered in the forecast calculations: The GoT, Global Fund (GF), PEPFAR and External Funding (Non-GF and PEPFAR) including UNAIDS, UNICEF, WHO, the International Labour Organisation (ILO), the United Nations Development Fund for Women (UNIFEM), United Kingdom, Sweden, Norway, German, Switzerland. Historical data from therefore mentioned funding sources were collected for the funding projection covering the entire period of the NASHCOP SP implementation.

- Government funding is based on the Global Fund 2021–2023 request information provided for the funding gap analysis in the Funding Request Application for 2021–2023. Based on the past Government funding, polynomial regression was applied to project funding for years 2024–2025.
- GFATM funding is based on recent allocations covering year 2016-2023. The polynomial regression was applied to the past GFATM funding to project funding for years 2024–2025.
- PEPFAR's funding is based on its funding allocation for FY 2016-2021. Polynomial regression was applied to past PEPFAR funding to project funding for years 2022–2025.

- Historical data from other external sources[156] for HIV/AIDS funding were not available. Hence, they were not included in the funding projections.

Projected future funding of the HIV response from the Government, Global Fund, and PEPFAR is presented in **Table 6.**

Table 6: Projected future funding for the HIV response in Tanzania year 2021-2025

	2021	2022	2023	2024	2025
Domestic: Government of Tanzania	73,071,700.00	80,379,090.00	88,416,999.00	95,822,692.01	103,288,650.09
Global Fund	139,116,336.79	124,520,604.92	116,103,481.30	118,617,598.64	86,088,810.04
PEPFAR	450,500,000.00	310,457,974.91	277,598,018.50	281,380,620.68	248,520,664.27
Total (USS) (EXPECTED)	**662,688,036.79**	**515,357,669.83**	**482,118,498.80**	**495,820,911.33**	**437,898,124.40**

Funding Gap

Comparing the estimated total fund needs for the implementation of the NASHCOP SP 2021–2026 under a moderate scenario (US$3,736.7 million), which the country has selected and the projected funding (US$ 2,593.8 million) for this period reveals a potential total resource gap of US $ 1,142.9 million (**Table 7**). The funding gap is estimated to increase from US$156,002,146.04 in 2022 to US$ 529,165,861.48 in 2025. This funding gap offers the opportunity for resource mobilization in order to achieve the impact results of the NASHCOP SP.

Table 7: Funding Gap Analysis

	2021	2022	2023	2024	2025	Total
Projected Funding (US$)	662,688,038	515,357,6702	482,118,499	495,820,911	437,898,124	2,593,883,241
Total Resource need (US$)	600,712,027	671,359,816	727,873,884	769,854,102	967,063,986	3,736,863,814
Funding gap (US$)	**(61,976,009)**	**(156,002,144)**	**(245,755,385)**	**(274,033,191)**	**(529,165,862)**	**(1,142,980,573)**

Therefore, it is important to conclude that resource mobilisation will be crucial for the success of NASHCOP SP and sustenance of progress achieved in implementing the HSHSPV. The targets set for this cost estimation period (2021-2025) are in connection with progress made in recent years in addressing HIV and AIDS: continue the reduction of new HIV infections and in AIDS related deaths. The NASHCOP SP moderate scenario costs are slightly higher than the status quo scenario but lower than the ambitious scenario. However, the NASHCOP SP/moderate scenario produces the most desired outcomes for new HIV infections and AIDS related deaths averted compared to the status quo and ambitious scenarios. Therefore, the NASHCOP SP/moderate scenario offers the best HIV/AIDS response option in Tanzania. Achieving the targets set in the NASHCOP SP 2021-2026 will largely depend on the level of funding that will be disbursed to the HIV response.

[156] Other sources of external funding included: United Kingdom, Sweden, Norway, Denmark, Switzerland, German, UNAIDS, ILO, UNIFEM, UNICEF and WHO

5.3 Costing Viral Hepatitis Plan

5.3.1 Programme cost based on different scenarios

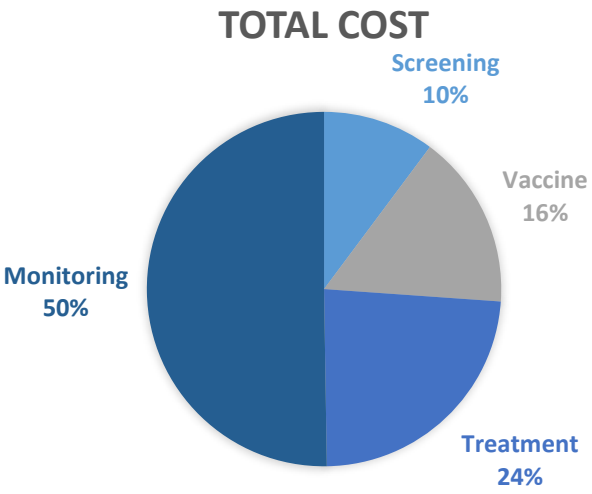
We determined the program cost by factoring biomedical intervention's cost, note that, cost for other interventions such as promotion, health education and capacity building for clinical care is not included at this stage. These will be included in the operational plan development stage

Total funded program

The total funded program cost ranges from $46 million in 2023 to $102 million in 2026.

Intervention	2023	2024	2025	2026
Screening	$6,465,482	$7,702,309	$9,319,679	$7,663,834
Vaccine	$11,733,935	$12,009,891	$12,292,875	$12,579,916
Treatment	$12,467,053	$12,493,533	$23,867,162	$23,350,421
Lab Monitoring	$15,273,890	$31,433,666	$48,517,863	$58,245,695
Total	**$45,940,361**	**$63,639,399**	**$93,997,579**	**$101,839,866**

Under this scenario, the total program cost from 2023 – 2026 is $305 Million. Treatment and lab monitoring (50%) being main cost drivers (24%)



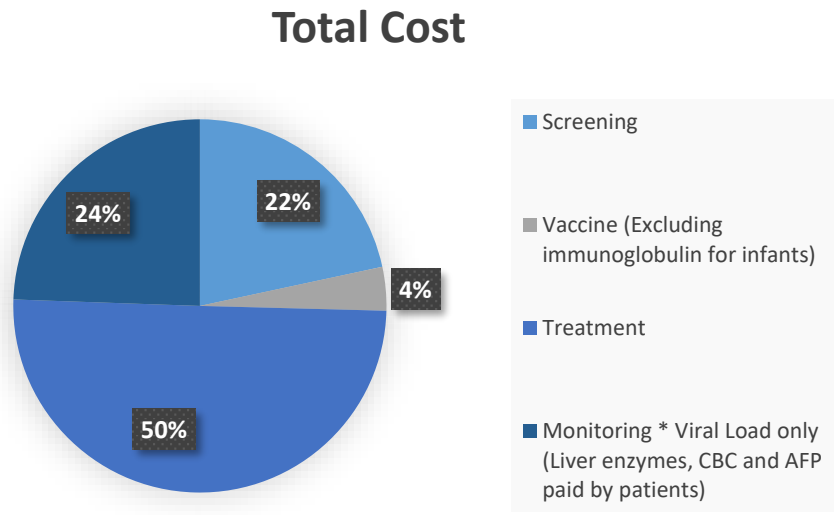
5.3.2 Public health approach with cost sharing

The proposed public health approach considers that patients will contribute some cost towards lab monitoring for other tests apart from Hepatitis B viral load. This assumption is based on strong correlation between Hepatitis Viral Load and hepatic disease progression, thus precluding the need to prepay for other lab tests in the context of public health approach. Also, we are assuming that birth immunoglobulin dose for exposed infants is not going to be implemented, only additional birth dose for infant and vaccine for populations at high risk is considered.

Intervention	2023	2024	2025	2026
Screening	$862,473	$6,465,482	$7,702,309	$9,319,679

Vaccine (Excluding immunoglobulin for infants)	$1,359,473	$1,359,473	$1,359,473	$1,359,473
Treatment	$12,467,053	$12,493,533	$23,867,162	$23,350,421
Monitoring* Viral Load only (Liver enzymes, CBC and AFP)	$3,503,186	$7,209,556	$11,127,950	$13,359,104
Total	**$18,192,185**	**$27,528,045**	**$44,056,894**	**$47,388,678**

Under this scenario, the total program cost from 2023 – 2026 is $137 Million. Total program cost ranges from $18 million in 2023 to $48 million in 2026. Treatment (50%) being main cost driver.



6. MONITORING, EVALUATION, RESEARCH AND LEARNING

A strong and robust M&E system is required to guide, monitor, and evaluate implementation of the NASHCOP SP. This section outlines the basic concepts of monitoring, evaluation, and research in the context of HIV, VH and STIs and provides an overview of the M&E Framework for the Strategy. The NASHCOP SP, is a results-based strategy, as such, each Strategic Outcome in the 31 Interventions described in chapter 5 are results based. This section highlights a set of **core outcome and impact indicators** that will be used to measure progress of the national HIV and AIDS response against set targets (**Table 8**). The M&E Framework for the NASHCOP SP which is a separate document, accompanied by the NSP, contains the M&E Plan that will include **all indicators** that will be used to monitor the NASHCOP SP. Monitoring and evaluation generate information needed for decision-making at different levels of the management of HIV, VH and STIs services.

6.1. Monitoring

Monitoring is a routine tracking of programme interventions done through the collection, analysis, and reporting of data to assess progress against set plans. Monitoring aims at establishing trends, patterns, adaptation of strategies and informed decisions for programme management. Key components of M&E include:

a) Data Recording: Collection of data on HIV, VH and STIs interventions is done by HCWs and Community Health Workers (CHWs) at the HF and community levels, using standardized tools and coordinated by DACCs and RACCs. Reporting is done monthly and for some data every quarter from the community and HF levels to the Council level where it is posted to the DHIS2. From the DHIS2, data can then be accessed by different authorities without necessarily contacting the national level. HF and Council data are compiled at the national level, through the NASHCOP, and then disseminated to other stakeholders within and outside the country.

b) Data Storage: Data collected from clients receiving HIV, VH and STIs care and treatment services are stored either electronically through the CTC2 (HF-based database), pharmacy module and the CTC3 (macro database) or on hard copies of the tools used for data collecting purposes. Electronic data storage must be secured by passwords and hard copies must be kept in rooms where confidentiality will be ensured.

c) Data Analysis: Analysis of data on HIV, VH and STIs services is done from the HF to national level. In high volume HFs, data are entered into the CTC2, which aggregates automatically and links them directly to the DHIS2 database at the Council level. Small volume HFs aggregate data manually and send reports to the office of the District Medical Officer (DMO) for entry into the DHIS2. Two forms of data analyses are done; indicator-based and cascade analyses.

d) Data Reporting: Reporting of data for services is done either on a monthly or quarterly basis. For HFs that use an electronic system, reports are generated automatically and thereafter directly linked to the District Health Information System (DHIS). HFs that use a paper-based system aggregate data and submit it to the office of the DMO by the 7^{th} day of the following month. Data is reported from HFs and submitted to the council, then to region, and finally to the national level.

e) Data Presentation: Depending on the needs of the intended audiences, the presentation of the analysed outputs is done in the form of notes, tables, graphs, maps and charts. Data should be presented in a simple, interpretable and actionable form to facilitate understanding and utilisation.

f) Data Dissemination: After the data are presented in the different forms, as stated above, they need to be disseminated to reach a greater audience for them to be used. Dissemination of data is done by posting them on notice boards that are placed in public places as well as through conferences.

g) Data Use: It is expected that data will be reported and presented/ disseminated on a monthly and/or quarterly basis. Data will be used by stakeholders at different levels for planning and for the improvement of services delivery.

6.2. Evaluation

Evaluation is an assessment of an ongoing or completed project, programme or policy, its design, implementation and results. The aim of evaluating the programmes is to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability. Key evaluations to be covered under the NASHCOP SP include the mid-term and end-term evaluations to be carried out in 2023 and 2026 respectively.

6.3. Research

Programme research includes all medical research that attempts to prevent, treat, or cure as well as fundamental research on the nature of HIV and VH as an infectious agent and the disease caused by infections. Research provides the tools and knowledge that can change the trajectory of the HIV response, improve efficiency and quality, achieve equity and maximise impact. It is unlikely that the HIV, VH and STIs targets set for 2025 and 2030 will be achieved if countries rely only on existing HIV knowledge, technologies and service delivery approaches.

The highest overarching priorities for research as the world fast-track its commitment to end AIDS, VH and STIs by 2030 include the following:

a) Reducing the incidence of HIV/AIDS and VH, including by developing safe, effective, practical, and affordable vaccines, microbicides and pre-exposure prophylaxis candidates and methods of delivery, especially those that improve adherence; and develop, test, and implement strategies to improve HIV testing and entry into prevention services.
b) Research focused on fundamental scientific questions with a clear or credible link to understand the mechanisms of disease transmission and acquisition, virus/host cell interactions and pathogenesis, and the structure and dynamics of drug resistance; immune dysfunction and persistent inflammation; host-micro biome and genetic determinants; and other fundamental issues that underpin the development of high priority prevention, cure, co-morbidities, and treatment strategies.
c) Next-generation HIV and VH therapies with better safety and ease of use, including the development and testing of treatments that are less toxic with fewer side effects and complications, longer-acting, and easier to take and adhere to than current regimens.
d) Long-term treatment or prevention strategies for co-infections and comorbid conditions across the lifespan.
e) Effective socio-behavioural interventions to achieve uptake of HIV and VH prevention and treatment strategies and reduce health disparities.
f) Implementation research designed to ensure that biomedical and other prevention and treatment strategies are initiated as soon as possible, increased retention and engagement in treatment services, and maintenance of optimal prevention and treatment responses are achieved.

g) Research towards a cure includes developing novel approaches and strategies to study viral persistence, latency, reactivation, and eradication; and identifying and eliminating viral reservoirs that could lead to a cure or long-term remission.
h) Research training of the multidisciplinary workforce to conduct high priority HIV/AIDS or HIV/AIDS-related research.
i) Research that includes people (or biological specimens from people) with HIV, HIV exposed, and at elevated risk of HIV infection as part of a broader sample or as a comparative cohort.
j) Research that examines health and social issues, such as other infectious or non-infectious conditions and substance use or mental health disorders, is linked with HIV (transmission/acquisition, pathogenesis, morbidity and mortality, stigma) in populations or settings with high HIV prevalence or incidence.
k) Research that meaningfully includes HIV/AIDS and VH outcomes/endpoints.
l) Development of innovative technologies, such as sensitive assays, biomarkers, and imaging methods, coupled with cutting-edge studies of biology, virology, pharmacology, and immunology to advance durable and scalable prevention, treatment and cure in people with HIV and VH.

6.5. Monitoring and Evaluation Framework

The NASHCOP SP builds on existing or planned infrastructure for data management systems from the facility level through local government authorities all the way to the national level. The importance of effective monitoring, evaluation and research systems for reporting on and guiding the national response to HIV and AIDS cannot be overemphasized.

During the implementation of this plan, the M&E system will be strengthened to be able to measure progress towards timely attainment of the set objectives. The M&E system will track the attainment of planned programme inputs, processes, outputs, outcomes and impact. Ideally, a comprehensive national M&E system will include numerous types of data collection and reporting tools and mechanisms to equitably distribute attention to both data production and utilisation.

6.5.1. Core Programme Indicators

Both impact and outcome indicators measure the extent to which the programme has achieved its objectives. Explicitly, impact indicators relate to programme objectives, whereas outcome indicators relate to the programme goal. **Table 8**, highlights a few selected impact and outcome indicators for the NASHCOP SP.

Table 8: Core NASHCOP SP Indicators

	Indicator Description	Baseline		End Term Targets	
		%	Year	Target %	Year
	IMPACT INDICATORS				
	HIV Incidence	15-24 years – 0.07% 15-49 years - 0.24% 15-64 years - 0.25%	2020	15-24 years – 0.00% 15-49 years – 0.12% 15-64 years – 0.12%	2025
	Proportion of PLHIVs who know their HIV status	General Population Men - 88% Women - 76% KVP groups <70% (Tisini) 0 – 14- 58%	2020	95%	2025
	Proportion of infants born to HIV infected mothers who are HIV infected after 18 months from birth or three months after cessation of breastfeeding.	7.9%	2018	<4%	2025
	Estimated number of AIDS related deaths	32,000 (2020 spectrum estimates)	2020	<12, 000	2025
Intervention Area	**OUTCOME INDICATORS**				
1: DIFFERENTIATED HIV TESTING SERVICES					
1.1: HIV Case Finding	1.3. Proportion of women and men ages 15+ years who have ever tested for HIV and know their results (disaggregated by age, sex, and population segments)	31.3%	2020	50%	2025
1.2: Linkage to HIV prevention, care,	1.6. Proportion of newly identified PLHIV (all ages, including children) successfully linked to care and treatment services	95%	2020	98%	2025

	Indicator Description	Baseline		End Term Targets	
		%	Year	Target %	Year
treatment, and support services					
2.ELIMINATION OF MOTHER TO CHILD TRANSMISSION (MTCT) OF NEW HIV AND VIRAL HEPATITIS INFECTION					
2.1: Elimination of Mother To Child Transmission (MTCT) of HIV and Viral Hepatitis	2.2. Proportional of exposed infants surviving and HIV free at 18 months of age.	90%	2020	98%	2025
	2.3. Proportion of pregnant women tested for HIV and who know their status	98%	2020	100%	2025
	2.4. Proportion of pregnant women tested for HIV and who know their status		2020	70%	2025
	2.5. Percentage of HIV-infected pregnant women receiving ARVs to reduce the risk of MTCT of HIV	98.6%	2020	100%	2025
	2.6. Proportion of Pregnant and Breastfeeding women with HIV virally suppressed	Not available	2020	95% at 12 months, >90% at 24 months	2025
2.2: HIV Early Infant Diagnosis	2.7. Proportion of HIV- exposed infants tested with DNA-PCR within 2 months of birth	68%	2020	95%	2025
3. REDUCTION OF NEW HIV INFECTIONS					
	3.1. Number of NEW HIV infections	68,000	2020	16,000	2025
	3.2. Percentage of PLHIV who experienced or perceived stigma when accessing health services	5%	2020	0%	2025
3.1: Key and vulnerable populations (KVP)	3.4. Prevalence of HIV among KVP	17% FHR 8.3% MHR 8.6% PWID 6.3% among Miners 9.1% among fisher folks	2020	Not applicable	2025
	3.5. Percentage of members of KVP who are reached with a minimum package of prevention interventions		2020	95%	2025
3.2: Vulnerable Adolescent Girls and Young Women (vAGYWs)	3.6. Percentage of vulnerable AGYW who have tested for HIV in the last 12 months and know their results	27.8%	2020	50%	2025
	3.7. Percentage of vulnerable AGYW who are HIV-positive	2.1%	2020	Not applicable	2025

	Indicator Description	Baseline		End Term Targets	
		%	Year	Target %	Year
3.4: Comprehensive Condom Programming	3.9. Percent of females and males aged 15–49 who were in non-marital non-cohabiting sexual relationships in the past 12 months who used a condom during their last sexual intercourse.	31.7%	2020	85%	2025
	3.10 Percentage of members of KVPs who reported using a condom during their last high-risk sexual encounter in the last 3 months	67% - Mining men 50% -people in transport corridor 20% - fisher folks 71% - FHR 20% - MHR 35.8% - PWID	2020	95%	2025
3.5. Pre-Exposure Prophylaxis (PrEP)	3.11. a. Percentage of PrEP users who continued oral PrEP for three consecutive months after having initiated PrEP in the last 12 months.	82%	2020	85%	2025
	3.11. b. PrEP Continuation (PrEP_CT)	FHR 60% MHR 50%	2020	70%	2025
	3.12. Percentage of people who received PrEP who have discontinued or interrupted PrEP due to a serious ARV-associated toxicity or adverse reaction in the last 12 months.	No data	2020	Not applicable	2025
	3.13. Percentage of people who test HIV-positive among people who received PrEP in the reporting quarter.	No data	2020	Not applicable	2025
	3.14. Proportion of targeted audience with comprehensive knowledge about PrEP	67% - Mining men 50% - People in transport corridor 20% - fisher folks 71% - FHR 20% - MHR	2020	95%	2025

	Indicator Description	Baseline		End Term Targets	
		%	Year	Target %	Year
		35.8% - PWID			
3.6: Post-Exposure Prophylaxis (PEP)	3.15. Percentage of PEP users who seroconvert 3 months after completing the course.		2020		2025
3.7: Voluntary male medical circumcision (VMMC) Services	3.16. Proportion of circumcised males (disaggregated by regions)	75% (2020 programme data) 80% in THIS 2016	2020	95%	2025
	3.17. Proportional of circumcised clients experiencing at least one moderate or severe adverse event (AE) during or following surgery within the reporting period	0.18%	2020	0.00%	2025
3.8: Blood safety and Quality	3.18. Proportion of donated blood units screened for HIV and other TTIs in quality assured procedures per WHO standards	100%	2020	100%	2025
3.9: Social and behaviour change communication (SBCC)	3.19. Percentage of young women and men ages 15–24 who have had sexual intercourse before the age of 15.	9.1% Females 14.3% Males	2020	5%	2025
4: MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS					
4.1: Sexually Transmitted Infections (STIs)	4.1. Prevalence of syphilis amongst pregnant women	1.5%	2020	NA	2025
4.2: Condom Programming	4.2. Percentage who reported having sex with a nonmarital, noncohabitating partner in the 12 months before the survey	34%	2022	60%	2025
5: REDUCTION OF AIDS RELATED MORTALITY					
5.1: Facility and Community Based HIV Care	5.1. Percentage of PLHIV on second & third-line regimen during reporting period	2.5%	2020	**3-5%**	2025
	5.2. Percentage of adults and children with HIV known to be on treatment 12 months after initiation of ART (retention at 12 months)	0 – 14 86.8% 15 – 24 79.2% 15 – 49 81.2%	2020	95%	2025
	5.3. Percentage of missed appointment/lost to follow-up (LTFU) clients followed up and linked back to health facility services by community-based HIV and AIDS service providers.	54%	2020	80%	2025

	Indicator Description	Baseline		End Term Targets	
		%	Year	Target %	Year
5.2: Quality of HIV care and viral suppression	5.4. Number and percentage of people living with HIV and on ART who are virologically suppressed (amongst all those currently on treatment)	95%	2020	95%	2025
	5.5. Proportion of PLHIV dying from AHD within the first 3 months after ART initiation	Not available	2020	<5%	2025
5.3: TB/HIV Collaboration	5.6. Percentage of HIV-positive patients completed TB preventive therapy (TPT) during the reporting period	70%	2020	95%	2025
5.4: HIV Integration with Other Diseases	5.7. Proportion of WLHIV with VIA positive screening results	4%	2020	1%	2025
	5.8. Proportion of PWID diagnosed with Hepatitis	N/A	2020	< 5%	2025
	5.9. Proportion of PLHIV on ART (DTG) with increase BMI	N/A	2020	95%	2025
	5.10. Proportion of PLHIV on ART diagnosed with Diabetes	N/A	2020	< 5%	2025
6: REDUCTION OF NEW VIRAL HEPATITIS B AND C					
6.1: Viral Hepatitis Vaccination	6.1. Proportional of targeted individuals who receive hepatitis B vaccination	TBD		95%	2025
6.2: Infection Prevention and Control	6.2. Number of new cases of viral hepatitis	TBD			2025
	6.3. Percentage of blood donations that are screened for hepatitis B and C			100%	2025
7: REDUCE VIRTAL HEPATITIS MORTALITY					
7.1: Viral Hepatitis Screening and Diagnosis	7.1. Percentage of people who are aware of their hepatitis B and C status	TBD		80%	2025
7.2: Viral Hepatitis Care and Treatment	7.2. Percentage of people receive appropriate care and treatment for viral hepatitis	TBD		95%	2025
	7.3.Percentage of individuals on treatment for viral hepatitis who achieve viral suppression	TBD		95%	2025

	Indicator Description	Baseline		End Term Targets	
		%	Year	Target %	Year
	7.4. Percentage of individuals who are lost to follow-up during viral hepatitis care and treatment	TBD		<5%	2025
	7.5. Percentage of individuals who develop liver cirrhosis or liver cancer due to viral hepatitis.	TBD		<10%	2025
8: ADDRESSING BARRIERS AND INEQUALITIES					
8.1: Addressing HIV Stigma and Discrimination	8.1. Percentage of reported cases of HIV-related stigma and discrimination as documented through official reports, surveys, and community feedback mechanism	5.5%	2021	<5%	2025
	8.2. Community perception and awareness of HIV-related stigma and discrimination measured through targeted surveys and focus group discussions	TBD		95%	2025
	8.3. Percentage of utilization of HIV prevention, treatment, and care services among key populations and vulnerable groups	TBD		95%	2025
8.2: Gender-based violence (GBV) and Violence Against Women and Children (VAWC)	8.4. Proportion of men and women ages 15–49 who experienced physical or sexual violence in the past 12 months	40%	2015	<10%	2025
	8.5. Proportion of sexually abused clients receiving HIV post-exposure prophylaxis	TBD		90%	2025
	8.6. Proportion of sexually and physically abused clients tested for HIV	TBD		95%	2025

PART II

MONITORING AND EVALUATION (M&E) PLAN

Terms and definitions

For the purposes of this NASHCOP SP 2022-2026, the following terms and definitions will apply:

Activity	Actions taken or work performed through which inputs such as funds, technical assistance, and other types of resources are mobilized to produce specific outputs.
Assumptions	Hypotheses about factors or risks which could affect the progress or success of an intervention. Intervention results depend on whether or not the assumptions made, prove to be correct.
Baseline	The status of services and outcome-related measures such as knowledge, attitudes, norms, behaviours, and conditions before an intervention, against which progress can be assessed or comparisons made.
Coverage	The extent to which a program/intervention is being implemented in the right places (geographic coverage) and is reaching its intended target population (individual coverage).
Data	Specific quantitative and qualitative information or facts that are collected and analysed.
Evaluation	The rigorous, scientifically based collection of information about program/intervention activities, characteristics, and outcomes that determine the merit or worth of the program/intervention. Evaluation studies provide credible information for use in improving programs/interventions, identifying lessons learned, and informing decisions about future resource allocation.
Goal	A broad statement of a desired, usually longer-term, outcome of a program/intervention. Goals express general program/intervention intentions and help guide the development of a program/intervention. Each goal has a set of related, specific objectives that, if met, will collectively permit the achievement of the stated goal.
Health information system (HIS)	A data system, usually computerized, that routinely collects and reports information about the delivery and cost of health services, and patient demographics and health status.
Impact	The long-term, cumulative effect of programs/interventions over time on what they ultimately aim to change, such as a change in HIV infection, AIDS-related morbidity, and mortality. Note: Impacts at a population-level are rarely attributable to a single program/intervention, but a specific program/intervention may, together with other programs/interventions, contribute to impacts on a population.
Incidence	The number of new cases of a disease that occur in a specified population during a specified time period.
Indicator	A quantitative or qualitative variable that provides a valid and reliable way to measure achievement, assess performance, or reflect changes connected to an intervention. Note: Single indicators are limited in their utility for understanding program effects (i.e., what is working or is not working, and why?). Indicator data should be collected and interpreted as part of a set of indicators. Indicator sets alone cannot determine the effectiveness of a program or collection of programs; for this, good evaluation designs are necessary

Intervention	A specific activity or set of activities intended to bring about change in some aspect(s) of the status of the target population (e.g., HIV risk reduction, improving the quality-of-service delivery).
Logical framework	Management tool used to improve the design of interventions. It involves identifying strategic elements (inputs, outputs, activities, outcomes, impact) and their causal relationships, indicators, and the assumptions of risks that may influence success and failure. It thus facilitates planning, execution, and monitoring and evaluation of an intervention.
Monitoring	Routine tracking and reporting of priority information about a program / project, its inputs and intended outputs, outcomes, and impacts.
M&E plan	A multi-year implementation strategy for the collection, analysis and use of data needed for program / project management and accountability purposes. The plan describes the data needs linked to a specific program / project; the M&E activities that need to be undertaken to satisfy the data needs and the specific data collection procedures and tools; the standardised indicators that need to be collected for routine monitoring and regular reporting; the components of the M&E system that need to be implemented and the roles and responsibilities of different organisations / individuals in their implementation; how data will used for program / project management and accountability purposes. The plan indicates resource requirement estimates and outlines a strategy for resource mobilization.
Objective	A statement of a desired program/intervention result that meets the criteria of being Specific, Measurable, Achievable, Realistic, and Time-phased (SMART).
Outcome	Short-term and medium-term effect of an intervention's outputs, such as change in knowledge, attitudes, beliefs, behaviours.
Outputs	The results of program/intervention activities; the direct products or deliverables of program/intervention activities, such as the number of HIV counselling sessions completed, the number of people served, the number of condoms distributed.
Prevalence	The total number of persons living with a specific disease or condition at a given time.

1. OVERVIEW OF the NASHCOP SP M&E Plan

1.1. Introduction

The NASHCOP is mandated to coordinate the national health sector response to the HIV, VH and STIs epidemics within the national multisectoral HIV coordination structure led by the Tanzania Commission for AIDS (TACAIDS). Ensuring a functional M&E system is in keeping with the internationally accepted “Three Ones” principles to better coordinate the national HIV/AIDS response. The “Three Ones” principles are as follows:

1) One agreed national coordinating authority to steer the multisectoral response
2) One agreed-upon national strategic framework
3) One agreed-upon national M&E framework

In line with these principles, this M&E plan advocates for a harmonised M&E framework, system, and reporting process.

1.2. Organisation of the M&E Plan

The M&E Plan examines the status of monitoring and evaluation in the national response; presents the results framework of all the core programme areas and other strategic interventions; the results corresponding indicators; the needed data sources; the data collection, management, and reporting; the institutional and management arrangements; and the costed implementation plan.

The M&E Plan is structured into the following EIGHT sections:

1) Goal and objectives of the M&E plan
2) The health sector HIV and AIDS M&E framework
3) The health sector M&E system capacity
4) Health sector M&E data collection strategy
5) Stakeholder roles and responsibilities
6) Data dissemination and use
7) Monitoring and Evaluation of the Health Sector HIV M&E plan implementation

The M&E plan also has an annexure of costing of the M&E plan & Implementation Plan and assumptions for national, regional and district target setting; Indicator reference table and NASHCOP SP (2022-2026) with indicator definitions, baselines, and targets.

1.3. Purpose of the M&E Plan

To determine the extent to which NASHCOP SP results are being achieved, there is need for systematic collection of data on the various strategies being applied and services provided. The purpose of this M&E plan is to provide guidance for tracking health sector HIV, VH and STIs programmes and outcomes as per the NASHCOP SP. This M&E plan guides stakeholders on how to monitor and evaluate implementation of the NASHCOP SP and determine whether its goals and objectives are being met. The guidance includes definition of indicators for the measurement of expected results (impact, outcomes, and outputs), sources of data, frequency of data collection, baseline level and targets for each indicator, and institutions responsible for collecting and reporting the data.

1.4. Goal

The goal of the health sector HIV/AIDS M&E plan is to facilitate the collection of essential data of high quality and promote an environment of data sharing and use for improved outcomes within the health sector’s HIV/AIDS response.

1.5. Objectives

The specific objectives of the M&E plan are as follows:

1. Provide guidance on gathering and reporting data essential for monitoring and evaluating the implementation of the HSHSPV
2. Strengthen the national HIV/AIDS health sector M&E system
3. Improve the availability and use of routine HIV/AIDS data in decision-making processes
4. Strengthen partnerships and coordination for M&E at national and sub national levels

1.6. Guiding Principles and Considerations

The M&E plan revision/ development process and provisions have been guided by a number of key principles, factors and considerations below:

a. Anchorage to the National HIV and AIDS Strategic Plan, overall, M&E and Strategic Information Systems and Development Frameworks
b. Responsive to key national, regional, and global reporting requirements (including Annual Joint Reviews, AU Roadmap, UN (HLM) Global Commitments, Global AIDS Response Progress Reports (GARPR), 95-95-95 targets and Universal Access Reports
c. Promotion of the “three ones” principle to have a” one M&E System” for HIV & AIDS Response.
d. Coverage of entire results chain/measurement levels:
e. Responsiveness to all programme levels:
f. Responsive to entire length Comprehensive but specific enough coverage to the Information on HIV epidemic, response status and access for all “populations groups” including the “Most at Risk or (MARPs) or “key and vulnerable populations”
g. Compliance with contemporary and technically acclaimed approaches and requirements such as the 12 features of a good Strategic Information, WHO new treatment guidelines, GFATM top indicators and New Funding Model eligibility
h. Effectiveness and Efficiency of strategies
i. Mainstreaming and in-built synergies
j. Evidence based, experiential learning and “best practice” promotion and transfers
k. Contextual relevancy and technological appropriateness
l. Partnerships and Networks promotion and development
m. User-friendliness for ease of application by all categories of stakeholders
n. Standardisation and respect to innovation and peculiar contexts
o. In-built resource mobilisation and human resource capacity development for Sustainability
p. Promotion of national leadership and ownership of the Programming Cycle

1.7. Process for the Development of the M&E Plan

The NASHCoP SP M&E plan development was led by the National AIDS, STIs and Hepatitis Control Programme (NASHCoP) under the MoH and Tanzania Commission for AIDS (TACAIDS) under Prime Minister’s Office, through a stakeholder participatory process. A cross section of partners involved in the national HIV and AIDS multi-sectoral response were engaged. The M&E Plan development team included representatives from universities, research institutions, health care providers, Implementing Partners, civil society organisations (CSOs) including People Living with HIV, faith-based organisations (FBOs), Private Sector,

and Development Partners including the United Nations System (UN), PEPFAR and USG agencies (USAID, DoD, CDC, and Peace Corps.

The specific processes involved were as follows:

Step 1: The NASHCoP M&E team, conducted a desk review of key documents that included HSHSPV, draft NASHCOP SP, Mid-term review report of the HSHSPV, and global HIV M&E reference documents, such as PEPFAR MER 3.0, United Nations General Assembly Special Session (UNGASS) on HIV/AIDS indicators, UNAIDS Global AIDS monitoring indicators, Global Fund (GF) M&E guidelines, and WHO strategic information guidelines for HIV in the health sector. This desk review assisted in the identification of appropriate indicators for monitoring and evaluating NASHCOP SP's performance, which were written up in the first draft of the M&E plan.

Step 2: Three five-day workshops were conducted with NASHCOP and other stakeholders to develop the NASHCOP SP and the M&E plan, whereby the team conducted gap analysis of the M&E system and developed strategies and activities for strengthening the M&E system. Furthermore, the team reviewed the identified indicators (impact, outcome, output, and targets) provided in the draft M&E framework and aligned the gaps in indicators for any of the identified programme strategies/areas. The team also reviewed definitions for all the indicators, ensuring their alignment with definitions in key national and global M&E reference documents; reviewed of all data sources and availability of appropriate data collection tools; and finally setting of baseline levels and targets for all agreed indicators.

Step 3: The NASHCoP SP M&E writing team worked with a small taskforce comprising staff from NASHCoP and other implementing partners (IPs) to incorporate inputs from the review workshop into advanced drafts and the final version of the M&E plan.

1.8. Target Audience

The target audience for this M&E plan includes the following:

a. National AIDS programme officers
b. Government officials responsible for planning and implementation of HIV prevention programmes
c. Regional health management teams (RHMTs), council health management teams (CHMTs), and health facilities implementing the HIV/AIDS interventions
d. Development partners
e. Other key stakeholders from nongovernmental organisations (NGOs) and academic institutions
f. Healthcare providers
g. Other organisations responsible for planning and implementation of HIV prevention and treatment services

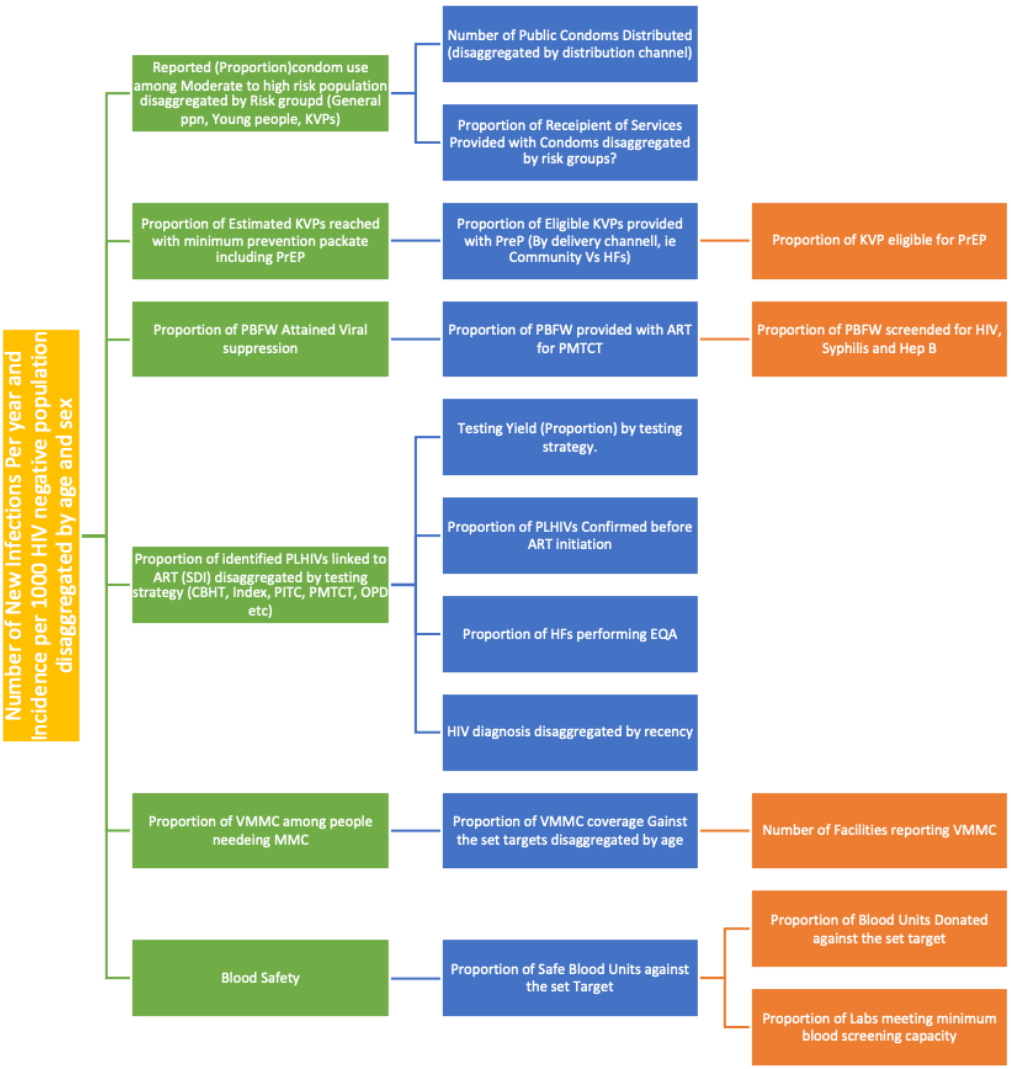
2. The Health Sector HIV and AIDS M&E Framework

This chapter describes the M&E results pathway and presents the NASHCoP SP results framework and a summary of impact and outcome performance indicators for the NASHCoP SP.

2.1. M&E Results Pathway

M&E is connected with the efficiency, effectiveness, and impact of interventions.

a. **Efficiency** focuses on the application of resources (people, money, skills, and time) to achieve programme goals and objectives.
b. **Effectiveness** is concerned with the extent to which programme activities bring about desired changes in the lives of the people and communities targeted.
c. **Impact** relates to the long-term programme results from a concerted response to a problem.



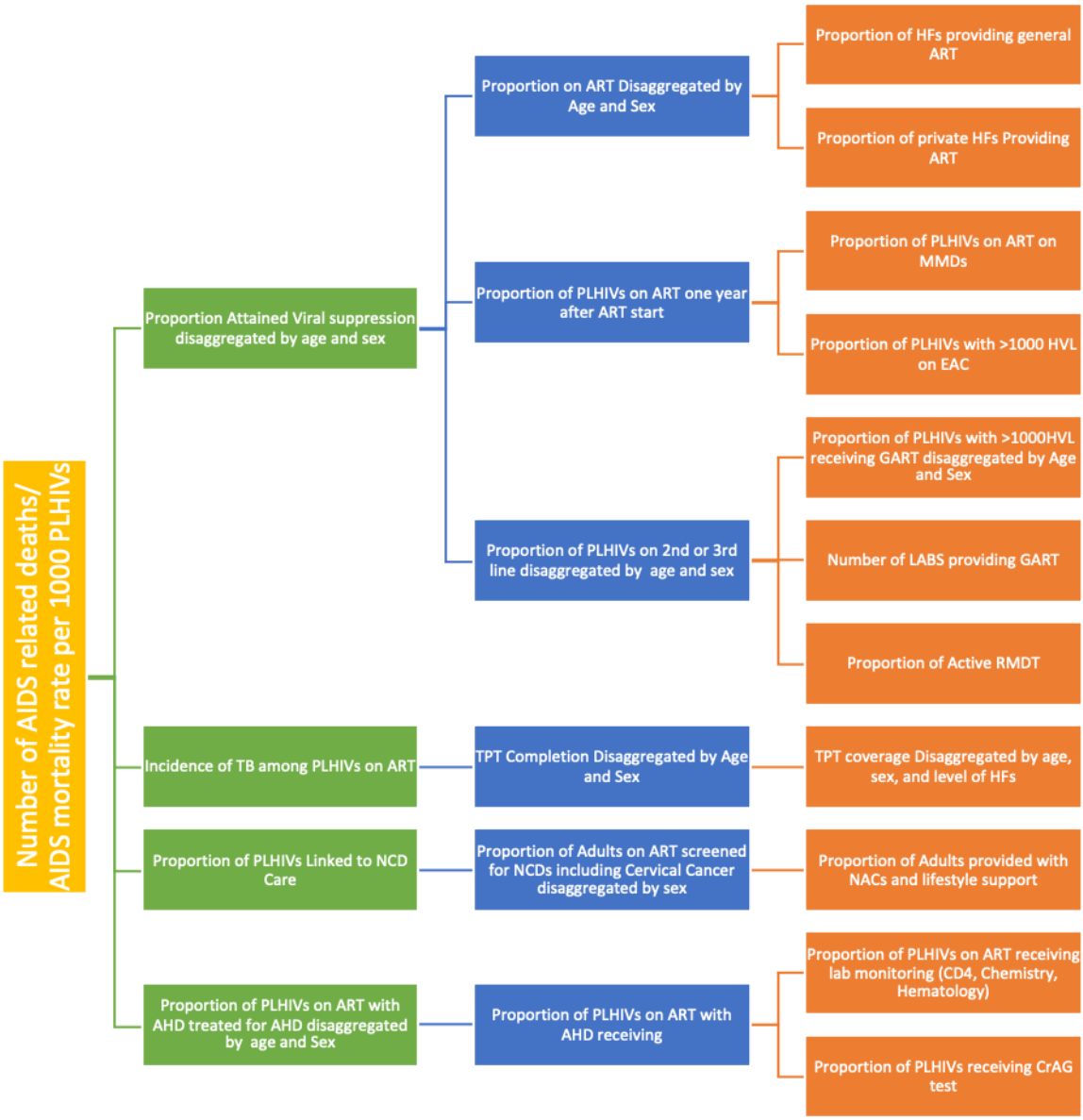


Figure 3: Monitoring and evaluation results pathway for HIV prevention

2.2. NASHCoP SP M&E Framework

Table 1 below presents the NASHCoP SP Results Framework, with an overall description of the goal, strategic areas, and strategic outcomes. The interventions are organised into five Strategic Areas (SAs), each with a range of 2 to 10 Strategic Outcomes (SOs). The implementation of activities under each of the four Focus Areas will result in increased coverage of HIV/AIDS services in the general population and subpopulations for the realisation of the 95-95-95 targets by end of 2025.

Table 9. NASHCOP SP results framework

Goal: To accelerate the reduction of new HIV infections and improve HIV treatment outcomes:

IMPACT RESULTS

1. New HIV infections reduced by 85% in 2025 from the 2010 baseline
2. Mother to Child Transmission by the end of breastfeeding reduced to ≤ 4% by 2025
3. AIDS related deaths reduced by 80% in 2025 from the 2010 baseline
4. HIV related stigma reduced to <5% by 2025 from 2013 baseline of 28% external stigma, 20.5% internal stigma.

Priority Strategic Area (PSA) 1: HIV CASE FINDING	PSA 2: ELIMINATION OF MOTHER TO CHILD TRANSMISSION (MTCT) OF NEW HIV INFECTION	PSA 3: REDUCTION OF NEW HIV INFECTION	PSA 4: HIV CARE AND TREATMENT SERVICES	PSA 5: ADDRESSING BARRIERS AND INEQUALITIES	PSA 6: RESILIENT AND SUSTAINABLE SYSTEMS
Strategic Outcome (SO) 1.1: More than Ninety-five percent (>95%) of people living with HIV are aware of their HIV status by 2025	SO 2.1: Mother to Child HIV Transmission reduced to Less than 4% by 2025	SO3.1: Ninety-Five Percent (95%) of Key & Vulnerable Population Saturated with A Minimum Package of Vulnerability-Tailored and Client-Cantered Combination Prevention Interventions by 2025	SO4.1: By 2025, over 95% of PLHIV who know their HIV status, enrolled, and retained into ART	SO 5.1: External & Internal Stigma Reduced to Less than 5% by 2025	SO6.1: Improved supply chain system that ensures 100% of HIV commodities are available in health facilities at all times by 2026.
SO 1.2: By 2022, Hundred Percent (100%) of All Newly Identified PLHIV (Irrespective of HTS Modality) are successfully Linked to HIV Care, Treatment, and Support Services and Maintained through 2025	SO 2.2: By 2025, over 95% of HIV exposed are tested for HIV within 2 months of age	SO3.2: Ninety-Five Percent (95%) of Vulnerable AGYW Saturated with a Minimum Package Evidence-Informed HIV Prevention Interventions by 2025	SO4.2: Improved Quality of Care for PLHIV, including sustaining >95% Viral suppression among PLHIVs on ART from 2021 to 2026.	SO5.2: Gender-Based Violence & Violence Against Women and Children Reduced to Less than 10% by 2025 from 40% in 2015 baseline	SO6.2: All (100%) of HIV care and treatment facilities prescribed and dispensed ARVs and OIs according to national guidelines by 2026

		SO3.3: Ninety-Five Percent (95%) of At-Risk General Population Saturated with a Minimum Package Evidence-Informed HIV Prevention Interventions by 2025	SO4.3: Over 90% of PLHIV received TB Preventive Therapy (TPT), and 95% of HIV/ TB co infected clients initiated and maintained on ART, all by 2025		SO6.3: Minimal (<5%) report of expiries and wastage resulting from improved governance, leadership, and accountability in supply chain management at all levels.
		SO3.4: Ninety per cent (90%) Male Circumcision rate attained in all regions by 2025	SO4.4: Ninety percent (90%) of PLHIV at risk linked to other integrated health services (NCDs, Cervical Cancer, Hepatitis, and STIs) by 2025		SO6.4: Improved and resilient Quality Management System implemented at all POCT and laboratories to support HIV services at all health care levels by 2026.
		SO3.5: 95% of People with Substantial Risk of HIV Acquisition Accessed HIV Pre-Exposure Prophylaxis (PrEP) by 2025	SO4.3: Over 95% of HIV positive children are enrolled and retained on ART, and over 95% are virally suppressed by 2026		SO6.5: 95% of data used for program monitoring, are individual, uniquely identified, and complete by 2026.
		SO3.6: Ninety Percent (90%) Occupationally and Non-Occupationally Exposed HIV Negative Individuals Timely Received HIV Post-Exposure Prophylaxis (PEP) Services to by 2025.	SO4.6: Over 95% of adolescents are enrolled and retained on ART and over 95% are virally suppressed by 2025		SO6.6: Up to date (<3 years old) nationally representative data on HIV epidemic is available by population type, location, and size (including KVPs) by 2026.
		SO3.7: Hundred Percent (100%) of the donated blood and blood products screened for HIV, Syphilis, and other transfusion-transmitted			SO6.7: 100% of surveillance (Recency, Drug resistance, and HIV interventions

		infections TTIs (e.g., HBV & HCV) as per WHO quality assurance procedures 2025			outcomes) reports are available on annual basis to inform programming and response by 2026
		SO3.8: Eighty (80%) of At-Risk Population Screened and Treated for STI by 2025			
		SO3.9: Ninety-Five Percent (95%) of Females and Males Engaging in Non-Cohabiting Non-Marital Sexual Relationship Reporting Condom Use at Last Sexual Intercourse by 2025			
		SO3.10: Comprehensive Knowledge about HIV/AIDS Increased to 95% by 2025			

2.3. HSHSP Performance Indicators

The development of a results-based M&E plan entails six essential actions:

1. Formulating outcomes and goals
2. Selecting outcome indicators to monitor
3. Gathering baseline information for each indicator
4. Setting specific targets to reach and the timeline for their realisation
5. Regularly collecting data to assess whether the targets set are being reached
6. Analysing, reporting, and using results for ongoing decision-making (Kusek and Rist, 2004)

The formulation of outcomes and goals, and selection of outcome indicators were achieved partly during the NASHCOP SP development process and were refined in this M&E plan. Gathering baseline data and setting targets are part of the M&E plan development process. Regularly collecting data to assess whether targets are being met requires clear procedures for data collection, management, analysis, and use in both routine data collection systems and periodic surveys. This M&E plan addresses all of these dimensions.

2.4. NASHCOP SPM&E Indicator Matrix

An indicator is a quantitative or qualitative variable that provides a valid and reliable way to measure achievement, assess performance, or reflect changes connected to an intervention. An indicator should reveal whether progress has been made towards expected or planned results in quantity, quality, and timeliness. Unlike performance objectives, an indicator does not specify a level of achievement.

The NASHCOP SP identifies seven priority indicators. In addition, there are indicators for measuring performance against each of the strategic outcomes. The identification of indicators for the NASHCOP SP has been done carefully to ensure alignment with global M&E reference documents. The indicator prioritisation process was guided by the six criteria identified by the UNAIDS Monitoring and Evaluation Reference Group, as highlighted below in Table 2.

Table 10. Indicator standards

Indicator standards: Operational guidelines for selecting indicators for the HIV response

Standard 1: The indicator is needed and useful
An indicator must provide data that are required and will be used by stakeholders in planning and decision-making.

Standard 2: The indicator has technical merit
An indicator must have substantive merit by measuring something of significance and importance within a particular field and be sufficiently sensitive to detect changes in performance. In addition, an indicator must have a monitoring merit or reliability. The indicator must be able to produce the same or very similar results, even if measured by different instruments, procedures, or observers.

Standard 3: The indicator is fully defined
The purpose and rationale of an indicator must be clear, as well as the methods for its measurement, including any disaggregation. The numerators and denominators of the indicator must be specified as appropriate, and the frequency of data collection defined. Equally important is the clarity of the interpretation of the indicator.

Standard 4: It is feasible to collect and analyse data for this indicator
The systems and mechanisms for collecting, interpreting, and using data for the indicator, such as surveys, need to be in place. It is also important to consider the financial and human resources required for collecting data for the indicator.

Standard 5: The indicator has been field-tested or used in practice
An indicator should have been field-tested and reviewed for data availability.

Standard 6: The indicator set is coherent and balanced overall
A good set of indicators should give an overall picture of the adequacy or otherwise of the response being measured. Indicator sets should cover all key elements of the response being assessed, ensuring an appropriate mix of indicators to assess inputs, outputs, outcomes, and impacts.

A summary of all the indicators is provided in Appendix 1. A comprehensive indicator matrix with indicator definitions is included in Appendix 2. The indicator matrix is intended to facilitate the tracking of progress towards the impact, outcomes, and realisation of outputs. The matrix provides the following information:

a. Strategic area and corresponding interventions
b. Indicators for measuring impacts, outcomes, and outputs
c. Definition for each indicator regarding the required numerator and denominator
d. Factors of interest for disaggregating data on each indicator (for example, sex, age, region, etc.)
e. The source of the indicator, including both national (such as NASHCOP SP, HSHSPV, etc.) and global (e.g., PEPFAR MER 2.0, WHO, etc.)
f. The data sources: this information defines existing initiatives for collection of data that respond to each indicator, including routine data sources, such as the health management information system (HMIS) and special or periodic studies (e.g., Demographic and Health Surveys, AIDS Indicator Surveys, etc.)
g. Frequency of data collection
h. Baseline level of each indicator (where available) and targeted level of the indicator by 2022 (where defined)
i. Stakeholders who are responsible for collecting or ensuring access to data for measuring each indicator.

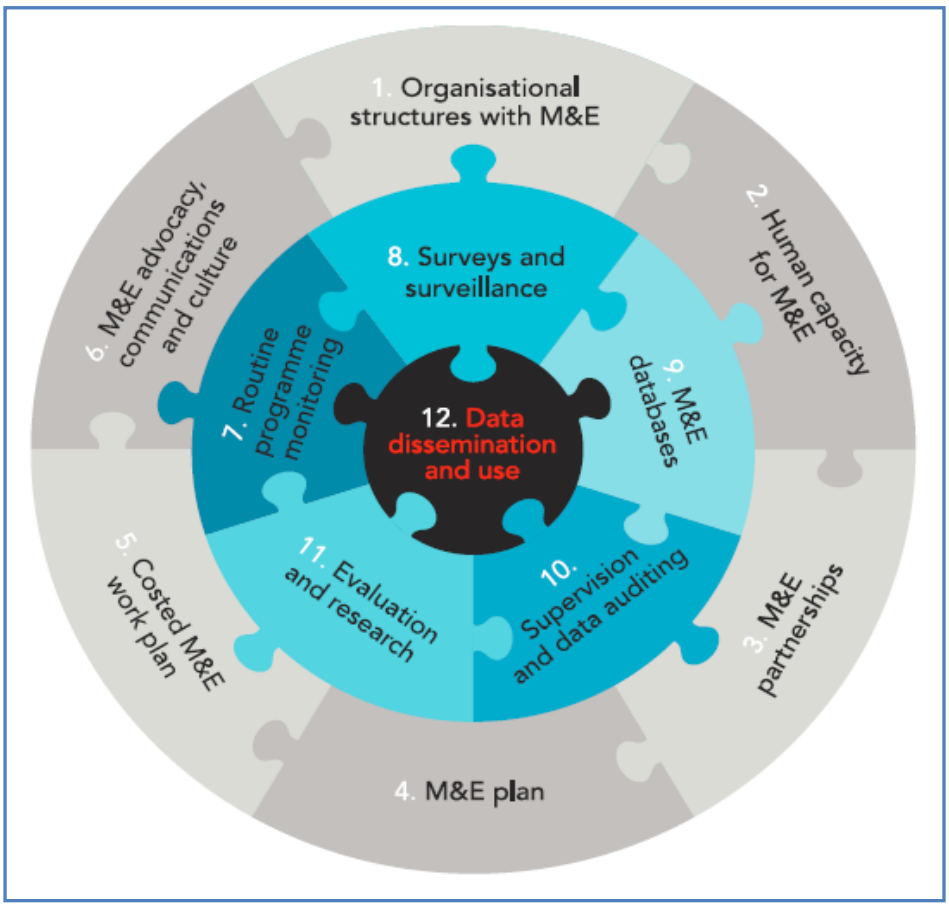
3. The Health Sector M&E System Capacity

3.1. Introduction

The UNAIDS (2008) *Organising Framework for a Functional National HIV Monitoring and Evaluation System* identifies 12 components of an operational M&E system. The M&E plan is but one of the essential components of a good M&E system. The 12 components of a functional M&E system are the following: (1) organisational structure; (2) human capacity; (3) partnerships and coordination; (4) M&E plan; (5) a costed M&E workplan; (6) advocacy, communications, and culture; (7) routine programme monitoring; (8) surveys and surveillance; (9) databases; (10) supportive supervision and auditing; (11) evaluation and research; and (12) data dissemination and use.

The 12 components can be organised operationally into three categories. The first category, comprising components 1–6, relates to people, partnerships, and planning that support data production and use, which constitute the enabling environment for M&E to function. The second category is concerned with systems for collecting, capturing, and verifying data, and transforming data into useful information (components 7–11), whereas the last component addresses the central purpose of M&E, which is analysis of data to create information that in turn is disseminated to inform and empower decision making at all levels. Figure 4 presents the 12 components framework.

Figure 16. Organizing framework for a functional national HIV M&E system—12 components



Source: Adapted from UNAIDS (2008), Organising Framework for a Functional National HIV Monitoring and Evaluation System. Geneva: UNAIDS. Page 6.

The middle and centre rings in the framework above are interlinked and relate specifically to the purpose of an M&E plan, which is to support tracking of programme implementation and facilitate decision making. The enabling environment, although critical, is not limited to the M&E function and requires interventions at multiple levels and amongst several institutions. The implementation of this M&E plan requires attention to all 12 components, even though some of them are prioritised as described below.

3.2. Gaps in the M&E System

The following gaps has been identified in relation to the key components of the M&E system for HIV and AIDS in Tanzania.

a) Data recording and reporting
   - Existence of parallel recording and reporting systems by IPs
   - Inconsistence of data recording and reporting tools
   - Slow pace of transition from Paper to electronic system

b) Data Quality
   - Inadequate of supportive supervision to facility levels for routine data quality activities (associated with limited funding, human resources, skills transfer).
   - Limited accountability on data quality among RHMT, CHMTS and facility staff (lack of DQA reports, feedback, and recommendations for data quality improvement)
   - Limited knowledge for data quality validation rules in electronic systems/database
   - Limited feedback and orientation of CHMTs and facilities on conducted DQA by both NASHCOP and IPs

c) Data use and Dissemination
   - Limited funding arrangement
   - Lack of enforcement of data use and dissemination of policy guidelines at sub national level.
   - Inadequate engagement of stakeholders in publication for HIV data

d) Surveillance, Surveys and Research
   - Limited funding arrangement
   - Inadequate engagement of researcher (Higher learning and research institution) to analyse available HIV data for publication

Other include limited funding for conducting evaluations, for adequate human resource and for facilitating M&E partnerships. Furthermore, the M&E organizational structure does not cascade to the sub-national level.

3.4. Health Sector M&E System Strengthening Activities

In the development of this M&E framework, stakeholders assessed HIV M&E system using the 12 components framework. This assessment provided specific recommendations on activities for strengthening the National HIVM&E system. This section presents recommended activities for selected components that will be implemented during the term of the NASHCOP SP. These activities have been updated to reflect current needs. Activities related to data collection, management, and dissemination and use are discussed in a later chapter.

Focus Area	Priority Strategy	Specific Activities
1. Availability of Quality Data	1.1. Strengthen Human Resource for health (HRH) on data management	1.1.1. Train human resources for health on Data management. 1.1.2. Supportive supervision and mentorship on Data management.
	1.2. Improvement of Data Quality	1.2.1. Conduct refresher training on DQA at all levels 1.2.2. Conduct routine DQA at all levels and follow-up for course correction 1.2.3. Conduct onsite Data verification at facility level, provide actionable recommendations and follow-up of

Focus Area	Priority Strategy	Specific Activities
		implementation of those recommendations 1.2.4. Supportive supervision and mentorship on data quality. 1.2.5. Review/Update Data Quality Management guidelines. 1.2.6. Conduct data review meetings at all levels.
	1.3. Strengthen the use of electronic Individual Observation data by scaling up EMR and digital solutions (including accommodation of new data requirements).	1.3.1. Training of health care workforce on the use of EMR, and digital solutions 1.3.2. Conduct supportive supervision and mentorship on EMR at all levels. 1.3.3. Conduct technical workshop to review and update EMRs and Digital solutions per emerging requirements. 1.3.4. Conduct system analysis to identify the system performance and need for updates. 1.3.5. Procure and install EMR equipment.
	1.4. Strengthen coordination and leadership to attain single national data system	1.4.1. Conduct high level stakeholders' data systems review meeting 1.4.2. Conduct high level orientation on harmonised national data system to leaders and policy makers.
	1.5. Strengthen use of data security policies, Guidelines, and software	1.5.1. Conduct training on data security processes at all levels 1.5.2. Conduct site assessment to verify data security policies and guidelines use.
2. Data Use and Dissemination	2.1. Strengthen data driven Continuous Quality Improvement (CQI)	2.1.1. Train health care providers on the use of CQI. 2.1.2. Conduct coordination meetings for harmonising CQI indicators. 2.1.3. Conduct meeting for development of CQI indicators into the system. 2.1.4. Conduct mentorship visits to health facilities for CQI.
	2.2. Improve mHealth platforms	2.2.1. Review guideline, Training materials and standards for mHealth platforms 2.2.2. Conduct training to health care workforce on mHealth Platforms 2.2.3. Develop/Revise mHealth Platforms for HIV and AIDS programme.
	2.3. Strengthen Data use knowledge and	2.3.1. Train health workforce on data analysis and use

Focus Area	Priority Strategy	Specific Activities
	skills among health workforces	2.3.2. Review/update existing data visualisation platforms to be used at the lower levels 2.3.3. Review/update data management guidelines to incorporate data use.
	1.6. Introduce the use of business intelligence applications for data visualisations	2.4.1. Assess BI applications to be used for the national systems 2.4.2. Train national, regional and district teams in the use of BI applications.
3. M&E coordination	1.1. Introduce Strengthening M&E coordination at all levels	1.1.1. Develop ToRs for M&E TWGs 1.1.2. Conduct M&E TWG Meetings at all levels 1.1.3. Support National and sub-national staff to attend M&E Meetings at National and International level. 1.1.4. Develop joint M&E workplans at all levels 1.1.5. Document best practices for M&E in the country.
4. Surveillance, Surveys and Research	4.1. Support mid-and end-term evaluation to inform strategic direction for Programme implementation.	4.1.1. Conduct mid-and end-term Evaluations. 4.1.2. Conduct priority surveys/surveillances and research based on national research agenda 4.1.3. Conduct dissemination meetings for surveys/surveillances and research 4.1.4. Engage higher learning and research institutions to conduct surveys and research.

Note: Implementation plan for strengthening M&E system is appendix 3

4. Health Sector M&E Data Collection Strategy

4.1. Introduction

A functional monitoring and evaluation system requires standard monitoring indicators and standards for collecting, analysing, and reporting data. This chapter includes information on how data for tracking the implementation of NASHCOP SP will be collected, reported, and shared to facilitate decision making.

Two broad types of data sources will be used: routine data sources (for monitoring data) and nonroutine data sources (for evaluation data). Monitoring data will be collected on inputs and outputs, using standard programme-based data collection tools. Evaluation data, on the other hand, will be collected on outcomes and impacts, primarily through population-based biological, behavioural, and social surveys and surveillance.

4.2. Routine Data Sources

Routine data sources will facilitate tracking of activities as they are implemented. Routine monitoring data will be collected at health facilities by healthcare providers with the support of implementing partners, using standardised tools. Table 4 summarises different standard tools for collecting monitoring data, and the responsibility for and frequency of their reporting.

Table 11. Standard tools for monitoring and responsibility for and frequency of their reporting

	Data collection standard tools	Stakeholder to complete	Reporting frequency
1.	HIV testing and counselling tools	Healthcare providers	Monthly
2.	HIV care and treatment tools	Healthcare providers	Monthly and Quarterly
3.	HIV home-based care tools	HBC providers and coordinators	Monthly
4.	Sexually transmitted infections tools	Healthcare providers	Monthly
5.	Prevention of mother-to-child transmission of HIV tools	Healthcare providers	Quarterly/monthly
7.	Voluntary male medical circumcision (VMMC)	Healthcare providers	Monthly reports
8.	Key and Vulnerable Populations	Healthcare providers	Monthly reports

Examples of routine data sources are as follows:

a. **Care and treatment reports**: The care and treatment programme unit within NASHCOP produces monthly programme data that will be used to respond to some of the indicators in the M&E plan. The data will include cohort analysis of clients on ART. These data will enable reporting on clients that are on treatment 12 months after its initiating. Even though the reports are prepared on a routine basis, NASHCOP will conduct the analysis quarterly and periodically provide results required for purposes of the M&E plan. The analysis will also assess adherence to and provide proxy data on drug resistance.

b. **Health Management Information System (HMIS) reports:** The HMIS is the main source of health facility (public and private) service delivery data under the health sector. It generates routine integrated reports for the health sector and provides the bulk of data for monitoring the HSHSPV. The DHIS 2 is now the primary national health service data electronic reporting platform. Data collected on health facility- and community-based services are compiled at the facility level and entered into the DHIS 2 on a monthly basis. The DHIS 2 allows the aggregation of national and subnational level data. It will be the

primary source of data for the HSHSPV M&E plan. All data submitted through this system will be verified and approved by NASHCOP before publication.

c. **National Blood Transfusion Services (NBTS) Reports:** These reports are produced by the NBTS annually.
d. **Programmatic reports**: These reports include, for example, the PMTCT, ART, and National TB and Leprosy Programme reports, produced on a quarterly basis by the respective programmes, which provide additional data not captured under the HMIS/DHIS 2.

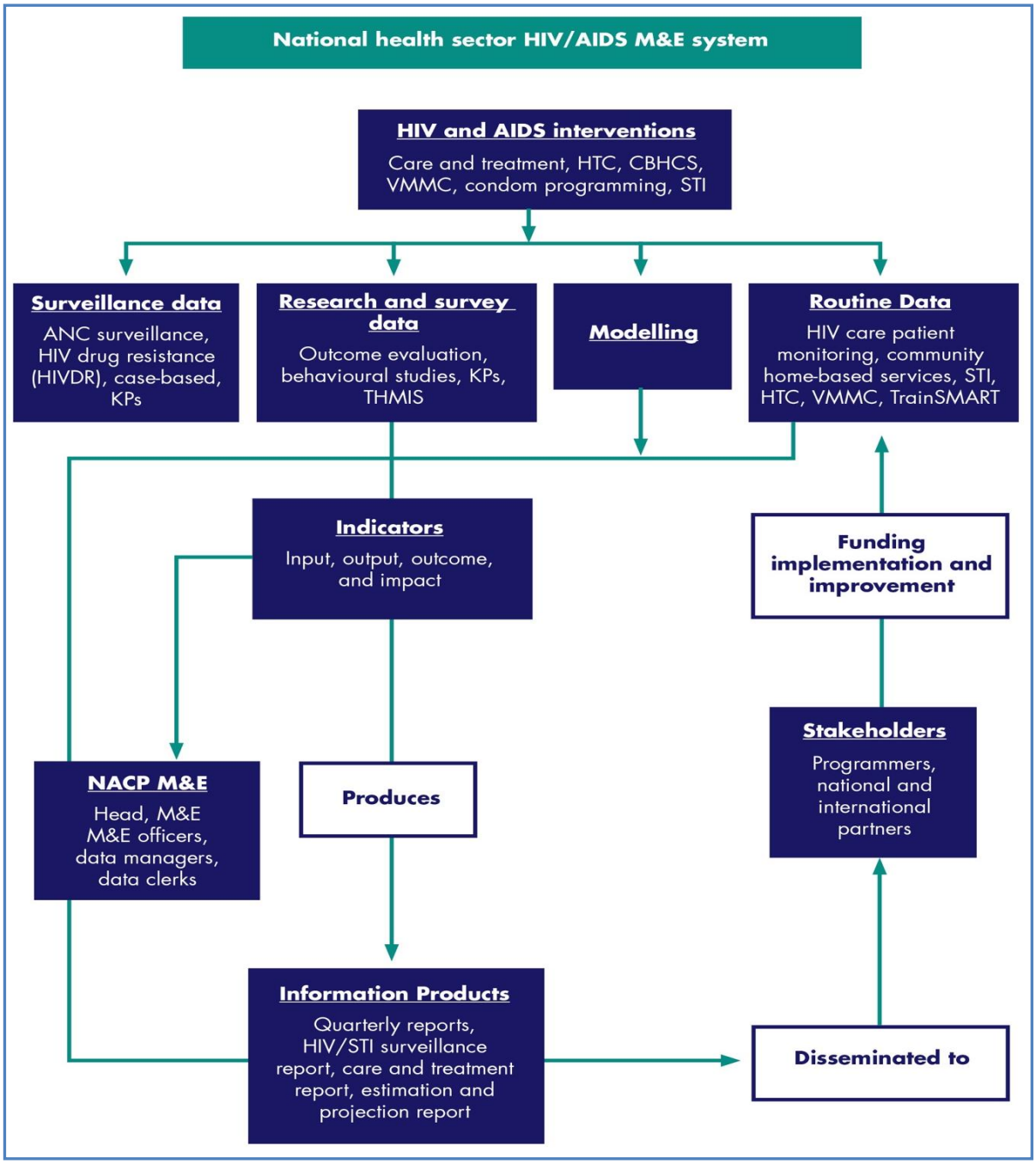
4.3. Non-routine Data Sources (Evaluation Data)

NASHCOP will collect evaluation data in collaboration with other stakeholders. The major data collection initiatives for measuring the impact of the health sector HIV response include THIS and TDHS.

a. **Tanzania HIV Impact Surveys (THIS)**: The THIS survey collects data related to HIV knowledge and behaviour, and HIV prevalence amongst women and men ages<15 to ≥49. The latest THIS survey, conducted in Tanzania in 2016–2017, provides data on HIV viral load and incidence. It is anticipated that a follow-up THIS study will be conducted by the beginning of the NASHCOP SP (2021/22).
b. **Tanzania Demographic and Health Survey (TDHS)**: The TDHS is conducted every five years as part of a worldwide Demographic Health Surveys (DHS) programme funded by the U.S. Agency for International Development (USAID). The DHS programme assists countries in the collection of data to monitor and evaluate population, health, and nutrition programmes. The last DHS was conducted in 2015–2016. A follow-on survey is anticipated within the timeframe of the NASHCOP SP.
c. **Tanzania Service Provision Assessment/Service availability and readiness survey (TSPA/SARA):** The TSPA/SARA survey is a health facility assessment that provides a comprehensive overview of the status of health service delivery. It collects information on the overall availability of different facility-based health services. Two rounds of TSPA have been conducted in Tanzania—the first one in 2006 and the second in 2014–2015, while SARA has been recently completed in 2020. Like the THIS and TDHS, the TSPA is conducted through the leadership of the NBS. It is expected that the next round of the TSPA/SARA will occur within the term of the NASHCOP SP.
d. **Epidemic modelling**: NASHCOP will also continue to use the Estimation and Projection Package and Spectrum AIDS Impact Model developed by WHO and UNAIDS to monitor changes in HIV outcomes. Spectrum modelling is based on routinely collected data, such as adult and child treatment coverage, PMTCT, and sentinel surveillance data.
e. **ANC-PMTCT data utility surveys:** These surveys are conducted biannually at ANC sentinel surveillance sites.
f. **HIV Drug Resistance Survey and Surveillance;** These surveys are conducted biannually at HIVDR sentinel surveillance sites
g. **Key and Vulnerable Populations surveys**: These surveys are conducted for identified KVPs as relevant to the Tanzanian context. There has been a general paucity of studies on KVPs in Tanzania, but it is expected that new studies will occur during the life of the NASHCOP SP.
h. **Special studies:** Other special studies will be commissioned as deemed necessary to respond to specific indicators not adequately addressed by the other surveys.

Figure 5 highlights the interface between monitoring and evaluation data within the health sector M&E system.

Figure 17. Health sector HIV and AIDS M&E system



4.4. Reporting and Data Flow

Reporting and data flow are described in the data management guidelines

5. Stakeholder Roles and Responsibilities

Implementation of the health sector HIV and AIDS M&E plan is under the management and supervision of the Directorate of Preventive Services and Director of M&E at the Directorate of Policy and Planning in the MoH. However, the involvement of other stakeholders from both the public and private sectors is critical to the successful implementation of the M&E plan.

M&E functions will be implemented at three main levels: national, regional, and council/district. The NASHCOP will be directly responsible for the implementation of the plan at the national level. The RHMT and CHMT will be responsible for implementation at the regional and council/district levels, respectively. The roles and responsibilities of different stakeholders in the implementation of the M&E plan are specified below.

5.1. Ministry of Health, Community Development, Gender, Elderly and Children

1) Provides overall technical leadership guidance, advice, and M&E on the implementation of HSHSPV
2) Facilitates effective development, recruitment, and deployment of skilled health workers at health facilities in collaboration with the PO-RALG, PO-PSM, and Ministry of Finance
3) Ensures availability of a harmonised and integrated HMIS
4) Ensures adherence to guidelines, standards, and regulations
5) Promotes and oversees operational research on health sector HIV prevention, care and treatment, and support services
6) Ensures timely submission of reports, as well as proper storage and documentation of records
7) Provides relevant feedback and dissemination of data and strategic information to all stakeholders involved in HIV/AIDS interventions
8) Ensures integration of data quality activities into routine supervision at all levels
9) Conducts a data quality assessment at least once a year to assess the status of the data collected and reported at different levels
10) Ensures that regional and district levels conduct DQAs at least twice per year.

5.2. National AIDS Control Programme

1) Coordinates and oversees the implementation and monitoring and evaluation of health sector HIV prevention, care, treatment, and support services
2) Designs and develops an M&E framework, and ensures the availability of recording and reporting tools for the HSHSPV
3) Facilitates the integration of an HIV information system within the national M&E strengthening initiative and strengthens and promotes effective and efficient data collection, analysis, and use of HIV/AIDS information at all levels
4) Organises and coordinates health sector HIV prevention, care, treatment, and supports operational research in collaboration with research institutions
5) Leads the implementation of operational research on health sector HIV prevention, care, treatment, and support services.

6.3. Research and Academic Institutions

1) Plan and conduct research studies and disseminate findings to key stakeholders in the country as part of improving the health sector HIV prevention, care, treatment, and support services
2) Jointly coordinate synthesis of new knowledge from research and support the MoH/NASHCOP in translating research findings into policy and practice
3) Support the MoH/NASHCOP scale-up of proven interventions and best practices through the development of appropriate tools and methodologies
4) Establish, maintain, use, or make available research and surveillance platforms for the evaluation of national HIV/AIDS interventions to the MoH/NASHCOP.

5.4. President's Office-Regional Administration and Local Government

- Facilitates effective recruitment and deployment of skilled health workers at health facilities in collaboration with the MoH and PO-PSM; collaborates with various stakeholders for planning and implementation of health sector HIV prevention, care, treatment, and support services
- Designs and develops planning guidelines to facilitate the implementation of health sector HIV prevention, care, treatment, and support services, such as the Medium-Term Expenditure Framework.

5.5. Regional Health Management Teams

1) Provide technical support to CHMTs to incorporate and implement health sector interventions for HIV prevention, care, and treatment in their annual comprehensive council health plans (CCHPs)
2) Coordinate, supervise, monitor, and evaluate health sector HIV prevention, care, treatment, and support services provided by both governmental and nongovernmental institutions in the region
3) Ensure availability and adherence to national guidelines and standards for health sector HIV prevention, care, treatment, and support services
4) Support CHMTs to collect, compile, analyse, interpret, and disseminate data on health sector HIV/AIDS services
5) Receive, compile, analyse, use, and disseminate health sector HIV prevention, care, treatment, and support services data from the councils and send them to the national level
6) Ensure coordinated implementation of and compliance with national M&E guidelines, standard operating procedures (SOPs), and protocols
7) Provide technical assistance to districts in implementing data quality initiatives
8) Collect reports from all districts in all programme areas and verify reported numbers before aggregating them to produce a regional report
9) Provide feedback to districts according to the guidelines
10) Aggregate district-level data (paper or electronic) into regional reports on a monthly or quarterly basis, depending on the agreed-upon timeline
11) Ensure timely submission of reports to the MoH and NASHCOP
12) Ensure linkage between implementing partners, districts, health facilities, and other stakeholders
13) Plan and implement capacity-building activities at the district and facility levels to ensure sustainable training of healthcare providers on data quality activities
14) Integrate data quality assessments into quarterly supervision visits to districts and facilities
15) Conduct at least two data quality assessments per year, covering the regional, district, facility, and community levels
16) Support districts to conduct DQAs in accordance with national guidelines.

5.6. Council Health Management Teams

1) Plan and incorporate HSHSPV activities into the CCHP
2) Strengthen the HMIS by compiling, disseminating, and using health sector HIV prevention, care, treatment, and support data for service improvement
3) Ensure that reports are received from all facilities in all programme areas and verify reported numbers before aggregating them to produce a district report
4) Stamp all reports to show when they were received and ensure that the data are entered into the appropriate database
5) Aggregate facility-level data (paper or electronic) to produce district reports (monthly/quarterly) according to the agreed-upon timeline; the reports must be signed by the designated CHMT member
6) Provide relevant feedback to health facilities on the findings of DQAs and ways to improve in weak areas
7) Ensure that training and mentorship for service providers are routinely conducted

8) Ensure that facilities have cabinets for storage of data collection and reporting tools, including patient files
9) Develop an annual data quality plan for the district
10) Enforce the implementation of data quality activities in the health facilities
11) Ensure that healthcare providers involved in data collection and reporting are trained on data quality
12) Integrate data quality assessments into routine supportive supervision
13) Ensure that DQAs are conducted at least twice per year for each facility.

5.7. Health Facilities (Hospitals, Health Centres and Dispensaries)

1) Ensure the collection, analysis, use, and dissemination of data for improved service delivery
2) Ensure the availability of data collection and reporting tools
3) Ensure the completeness of all variables in the data collection and reporting tools
4) Verify the accuracy and reliability of the recorded and reported data
5) Ensure the availability of all SOPs and guidelines on how to fill out data collection, as well as reporting tools, and that they are used accordingly
6) Produce facility (monthly and quarterly) reports and ensure their timely submission to the district
7) Ensure that analysis and summarisation of data and reports are done properly
8) Ensure the availability of cabinets for storage of files, reports, and all data related to HIV/AIDS, as well as a proper filing system that uses appropriate registration numbers to simplify storage and retrieval of documents
9) Ensure that staff involved in data recording and reporting are trained on the data quality guidelines
10) Implement data quality activities in all sections of the health facility where data are being collected and reported.

5.8. Communities

1) Collect data on community-based HIV services, such as HBC
2) Maintain records of all services provided, using standard reporting tools
3) Submit activity reports regularly (monthly and quarterly) to the nearest health facility as guided.

5.9. Implementing Partners

1) Support the MoH in formulating national guidelines and SOPs related to M&E activities
2) Collaborate with the MoH in ensuring the sustainable availability of recording and reporting tools
3) Collaborate with the MoH in conducting supportive supervision visits to the RHMTs and CHMTs
4) Provide support to the regions and councils covered to conduct DQAs and improve systems for data collection and reporting
5) Collaborate with regional and district teams in training, supportive supervision, and mentoring of healthcare workers on data quality activities
6) Support the CHMTs to ensure proper verification and completeness of the data recorded at the facility level
7) Support the CHMTs/RHMTs in submitting all reports in a timely manner
8) Assist in capacity building for data analysis, use, and dissemination at the regional, district, facility, and community levels.

6. Data Dissemination and Use

Data collected through this M&E plan will need to be analysed and packaged appropriately for different audiences to facilitate their use in planning, resources allocation, programme decision making, and assessment of progress against targets set for the health sector HIV and AIDS response. This chapter describes some key barriers to data use and activities to be undertaken to facilitate data analysis, dissemination, and use at different levels.

6.1. Barriers to Data Use

There are several barriers to data use, including a lack of motivation to review and use data because of excessive workload and a lack of feedback on performance; lack of staff commitment also is a key barrier, especially at the service delivery point. There is a perception amongst healthcare workers that data use initiatives create an additional burden rather than help improve job performance. However, recognition of data use as an important task and dissemination of success stories on data use by national, regional, and district health management authorities can help alleviate such motivational barriers.

Limited capacity to analyse, interpret, and communicate data, not only at the health facility level, but even at the national, regional, and district levels, is also practical barrier to data use. Continuous capacity building on the use of the DHIS 2's capabilities for data analysis, augmented with skills in data synthesis and packaging for different audiences, is needed to improve data use.

Finally, data use may be hindered by infrastructural factors, such as a shortage of data reporting tools, parallel data collection systems that are not always accessible, lack of Internet connectivity, and data storage systems that do not ensure consistent data quality. The integration of data collection and reporting processes would help improve the infrastructure for data use.

6.2. Data Analysis

Since 2020, the reporting of HIV/AIDS programmes has been integrated into the DHIS 2 and the national HIV data repository CTC3. This integration is expected to improve access to data and promote data analysis from the health facility to district, regional, and national levels. Health facilities that can now input data directly into the DHIS 2 and CTC2 will conduct weekly, monthly, and quarterly analysis of their data under the guidance of the HFMT, CHMTs. The CHMTs will organise and coordinate quarterly data analysis and validation meetings, during which they will look at overall reporting rates, data quality, data driven quality improvement and performance against key indicators. The RHMTs will organise similar meetings to review the performance of all districts and optimize programming within the region. At the national level, NASHCOP will organise monthly, analysis workshops that draw together subnational health management teams and implementing partners to analyse data and develop reports on the status of the health sector HIV/AIDS response.

The data analysis activities will be organised to coincide with key decision-making moments at different levels. Key decision-making fora include the following:

a) Health Sector M&E subcommittee (National Level)
b) NASHCOP strategic review meetings (national level)
c) NASHCOP quarterly M&E, Research and HIS Technical Working Group meetings (national level)
d) NASHCOP biannual RMO/RACCS performance review meetings
e) RHMTs', CHMTs', and implementing partners' quarterly meetings (regional/council level)

f) Weekly performance review meetings (health facility level)
g) Quarterly multisectoral AIDS committee meetings (council level)

The information products from the data analysis will include the following:
Health facility level

- Monthly and quarterly reports

District level

- Monthly and Quarterly reports

National level
a) Quarterly programme monitoring reports
b) Annual HIV/AIDS reports
c) Quarterly bulletins
d) International reports: biennial UNGASS Report, PEPFAR annual reports, UNAIDS Global AIDS Monitoring Report (GAM)report, Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) annual reports
e) Domestic reports: HIV/AIDS and STI surveillance reports, ANC report, care and treatment report, annual national HIV drug resistance report, PMTCT annual report, and Spectrum estimation and projection report

6.3. Data Dissemination and Use

NASHCOP will develop data analysis tools that will enable standardised analyses, interpretation and evaluation across facilities, councils, and regions. NASHCOP will support M&E results dissemination meetings at the national, regional, and district levels with implementing partners, communities, and health facilities on a monthly, quarterly, and biannual basis. The dissemination of the M&E results will serve the following purposes:
a) Review and optimize programming based on data.
b) Foster data drive continuous quality improvement, through promotion of standard CQI tools and reports
c) Provide feedback to various implementers on the efforts being made and achievements
d) Share and use the data and information for better targeting and planning of HIV/AIDS interventions at the district level
e) Provide feedback on efforts and resource use in the health sector HIV/AIDS response, and articulate lessons learned, gaps, and challenges faced at the subnational and national levels
f) Enhance networking and harmonisation of data use efforts

The types of feedback approaches to promote data use will include the following:
a) Making performance comparisons amongst regions, districts, and facilities
b) Disseminating exemplary best practices
c) Recognising good performance
d) Focusing on resources or helping to find resources
e) Directing feedback to those with authority to make decisions
f) Linking routine to nonroutine data for a comprehensive view of performance
g) Identifying, strengthening, and promoting data use champions at all levels

Table 13 summarises the dissemination plan for different information products arising from the M&E plan.

Table 12. Dissemination plan for informational products from the NASHCOP SP M&E plan

Product	Frequency/ timeline	Responsible	Contents	Audience	Dissemination format
Monthly Data review meeting report	Monthly	NASHCOP	Progress on programme monitoring, CQI indicators, and implementation of minimum program policies	Development partners, Leaders, Implementing partners, Managers at Regional level	Structured monthly data review presentation and reports
Programme monitoring report	Quarterly	NASHCOP	Progress on programme monitoring indicators	Programme manager	Summary, reports
				Politicians and government officials	Policy briefs, brochures
				Implementing partners	Fact sheets, visual presentations, dissemination workshops
				Regions and districts	Fact sheets, visual presentations, dissemination workshops
HIV and AIDS report	Annual	NASHCOP	Progress on programme monitoring indicators	Programme manager	Summary, reports
				Politicians and government officials	Policy briefs, brochures
				Implementing partners	Fact sheets, visual presentations, dissemination workshops
				Regions and districts	Fact sheets, visual presentations, dissemination workshops
Bulletin	Quarterly	NASHCOP	Service provision data update	Public	NASHCOP website
UNGASS report	Biennial	NASHCOP		Donors/funders	Full reports

Product	Frequency/ timeline	Responsible	Contents	Audience	Dissemination format
PEPFAR reports	Annual	NASHCOP		Donors/funders	Full reports
GFATM reports	Annual	NASHCOP		Donors/funders	Full reports
HIV/AIDS and STI surveillance reports		NASHCOP	Survey results	Donors/funders	Full reports, NASHCOP website
				Politicians and government officials	policy briefs, brochures, NASHCOP website
				Regions and districts	Fact sheets, visual presentations,
ANC report		NASHCOP	Survey results	Donors/funders	Full reports, NASHCOP website
				Politicians and government officials	policy briefs, brochures, NASHCOP website
				Regions and districts	Fact sheets, visual presentations, NASHCOP website
Care and treatment report	Annual	NASHCOP		Government and implementing partners	Full reports, NASHCOP website
National HIV drug resistance report	Annual	NASHCOP		Government and implementing partners	Full reports, NASHCOP website
PMTCT report	Annual	NASHCOP		Government and implementing partners	Full reports, NASHCOP website
SPECTRUM estimation and projection report		NASHCOP		Government and implementing partners	Full reports, NASHCOP website
District-level reports	Quarterly	CHMT	Service provision data update	District implementing partners, health workers	Fact sheets, visual presentation
Health facility-level reports	Monthly and quarterly	Healthcare providers	Service provision data update	Health facility staff, community	Fact sheets, visual presentation

7. Monitoring and Evaluation of the Health Sector HIV M&E Plan Implementation

The NASHCOP SP M&E plan identifies indicators (Appendix 1) against which programme performance will be assessed. These indicators will be tracked regularly to ensure that programme targets are met, and the implementation of the strategic plan is on course.

7.1. Annual M&E Operational Plans

To ensure effective implementation of the M&E plan, NASHCOP will develop annual M&E operational plans with active stakeholder involvement, based on M&E system strengthening and other data quality and data use interventions. The operational plans will be more detailed to provide the expected number of participants in different activities, timelines, and associated costs. The implementation status of the operational plans will be reviewed at the end of every year at the Joint Annual Programme Review (JAPR) meetings, along with data collected on the different indicators identified in the M&E plan. The JAPR will bring together the NASHCOP, MoH, PO-RALG, RHMTs/CHMTs, implementing partners, and other stakeholders.

In addition to the JAPR, the health sector HIV M&E subcommittee and the MoH MESI and TWG meetings will provide a critical forum for reviewing progress of the implementation of the NASHCOP SP and promptly instituting any necessary corrective measures.

7.2. Mid- and End-Term Evaluation

Two evaluations will also be conducted to determine the success of the NASHCOP SP. NASHCOP will organise a joint mid-term review (MTR)before the end of the third year of the NASHCOP SP. This assessment will focus on progress made in implementing the plan and the appropriateness of the overall strategic direction. The evaluation will be designed to inform the remaining period of the plan and recommend adjustments where needed.

The NASHCOP will facilitate an independent external evaluation in the final year of the NASHCOP SP (end-term evaluation), focusing on achievements (impacts and outcomes) of the NASHCOP SP. The end-term evaluation will also provide contextual information for the subsequent planning period.

Both evaluations will be conducted with significant involvement of stakeholders. The costs for the evaluations will be included in the health sector budget. When appropriate, the MTR and the end-of-term evaluation will be combined with the JAPR for that year.

7.3. Assumptions for the Successful Implementation of the NASHCoP M&E Plan

The successful implementation of this M&E plan hinges on the assumption that the NASHCoP will rally all key stakeholders to implement the strategic activities identified in the NASHCoP SP. Stakeholders will commit to an annual work planning process whereby programme performance target will be set and responsibility for their attainment defined, including financial contributions. Another assumption is that implementing partners will harmonise their support for M&E-related activities based on NASHCoP's annual M&E operational plan. A budgetary provision of 7–10 percent of the total cost of implementing the strategic activities in the NASHCoP SP will be set aside for M&E-related activities.

8. APPENDICIES

Appendix 1: Summary of NASHCOP SP Indicators, by level, in the M&E Results Pathway (Impact, Outcome, and Output)[157]

Indicator reference number	Indicator	Level
GOAL: To accelerate the reduction of new HIV infections and improve HIV treatment outcomes.		
1.1*.	HIV Incidence	Impact
PRIORITY STRATEGIC AREA 1: HIV CASE FINDING		
1.2*	Proportion of PLHIVs who know their HIV status	Impact
Intervention Area 1.1: Differentiated HIV testing services		
Strategic outcome 1: Strategic Outcome (SO) 1.1: More than Ninety-five percent (>95%) of people living with HIV are aware of their HIV status by 2025		
1.3	Proportion of women and men ages 15+ years who have ever tested for HIV and know their results (disaggregated by age, sex, and population segments)	Outcome
1.4	Percentage of newly identified HIV positive individuals who retested for verification prior to ART initiation	Output
1.5	Proportion of individuals who test for HIV as couples	Output
Intervention Area 1.2: Linkage to HIV prevention, care, treatment, and support services		
Strategic Outcome 1.2: By 2022, Hundred Percent (100%) of All Newly Identified PLHIV (Irrespective of HTS Modality) are successfully Linked to HIV Care, Treatment, and Support Services		
1.6*	Proportion of newly identified PLHIV (all ages, including children) successfully linked to care and treatment services	Outcome
PRIORITY STRATEGIC AREA 2: ELIMINATION OF MOTHER TO CHILD TRANSMISSION (MTCT) OF NEW HIV INFECTION		
2.1*	Proportion of infants born to HIV infected mothers who are HIV infected after 18 months from birth or three months after cessation of breastfeeding.	Impact
Intervention Area 2.1: Elimination of Mother to Child Transmission (MTCT)		
Strategic Outcome 2.1: Over 95% of pregnant and breasting women are enrolled and retained in ART and over 95% are virally suppressed by 2022, onwards		
2.2	Proportional of exposed infants surviving and HIV free at 18 months of age.	Outcome
2.3	Proportion of pregnant women tested for HIV and who know their status	Outcome
2.4	Proportion of pregnant women tested for HIV and who know their status	Outcome
2.5*	Percentage of HIV-infected pregnant women receiving ARVs to reduce the risk of MTCT of HIV	Outcome
2.6	Proportion of Pregnant and Breastfeeding women with HIV virally suppressed	Outcome
Intervention Area 2.2: HIV Early Infant Diagnosis		

[157]Core NASHCOP SP indicators are marked with an asterisk (11.1, 1.2,1.6, 2.1, 2.5, 3.2, 3.10, 3.11, 3.18, 4.1, 4.4, 4.8, 4.19, 5.1)

Indicator reference number	Indicator	Level
Strategic Outcome 2.2: By 2025, over 95% of HIV exposed are tested for HIV within 2 months of age.		
2.7	Proportion of HIV- exposed infants tested with DNA-PCR within 2 months of birth	Outcome
2.8	Proportional of HIV exposed babies receive prophylaxis.	Output
2.9	Percentage of HIV exposed Infants initiated CTX.	Output
PRIORITY STRATEGIC AREA 3: REDUCTION OF NEW HIV INFECTIONS		
3.1	Number of NEW HIV infections	Outcome
3.2*	Percentage of PLHIV who experienced or perceived stigma when accessing health services	Outcome
Intervention Area 3.1: Key and vulnerable populations (KVP)		
Strategic Outcome 3.1: Ninety-Five Percent (95%) of Key & Vulnerable Population Saturated with A Minimum Package of Vulnerability-Tailored and Client-Cantered Combination Prevention Interventions by 2026		
3.3	Percentage of members of KVPs who have been tested for HIV in the last 12 months and know their results	Output
3.4	Prevalence of HIV among KVP	Outcome
3.5	Percentage of members of KVP who are reached with a minimum package of prevention interventions	Outcome
Intervention Area 3.2: Vulnerable Adolescent Girls and Young Women (vAGYWs)		
Strategic Outcome 3.2: Ninety-Five Percent (95%) of Vulnerable AGYW Saturated with a Minimum Package Evidence-Informed HIV Prevention Interventions by 2025		
3.6	Percentage of vulnerable AGYW who have tested for HIV in the last 12 months and know their results	Outcome
3.7	Percentage of vulnerable AGYW who are HIV-positive	Outcome
Intervention Area 3.3: General Population		
Strategic Outcome 3.3: Ninety-Five Percent (95%) of At-Risk General Population Saturated with a Minimum Package Evidence-Informed HIV Prevention Interventions by 2025		
3.8	Percentage of young population 15 – 24 with comprehensive correct knowledge of HIV prevention.	Output
Intervention Area 3.4: Voluntary male medical circumcision (VMMC) Services		
Strategic Outcome 3.4: Ninety per cent (90%) Male Circumcision rate attained in all regions by 2025		
3.9*	Proportion of circumcised males (disaggregated by regions)	Outcome
3.10	Proportional of circumcised clients experiencing at least one moderate or severe adverse event (AE) during or following surgery within the reporting period	Outcome
Intervention Area 3.5: Pre-Exposure Prophylaxis (PrEP)		
Strategic Outcome 3.5: 95% of Eligible HIV Negative Populations Receiving HIV Pre-Exposure Prophylaxis (PrEP) by 2025		
3.11*	a. Percentage of PrEP users who continued oral PrEP for three consecutive months after having initiated PrEP in the last 12 months.	Outcome
	b. PrEP Continuation (PrEP_CT)	Outcome

Indicator reference number	Indicator	Level
3.12	Percentage of people who received PrEP who have discontinued or interrupted PrEP due to a serious ARV-associated toxicity or adverse reaction in the last 12 months.	Outcome
3.13	Percentage of people who test HIV-positive among people who received PrEP in the reporting quarter.	Outcome
3.14	Proportion of targeted audience with comprehensive knowledge about PrEP	Outcome
Intervention Area 3.6: Post-Exposure Prophylaxis (PEP)		
Strategic Outcome 3.6: Ninety-Five Percent (95%) Occupationally and Non-Occupationally Exposed HIV Negative Individuals Timely Received HIV Post-Exposure Prophylaxis (PEP) Services to by 2025		
3.15	Percent of eligible exposed individuals who received PEP within 72 hours of accidental exposure to blood and body fluids (disaggregated by exposure type)	Output
3.16	Percentage of PEP users successfully completed the 28 days course of PEP (disaggregated by exposure type)	Output
3.17	Percentage of PEP users who seroconvert 3 months after completing the course.	Outcome
Intervention Area 3.7: Blood safety and Quality		
Strategic Outcome 3.9: Hundred Percent (100%) of the donated blood and blood products screened for HIV, Syphilis, and other transfusion-transmitted infections TTIs (e.g., HBV & HCV) as per WHO quality assurance procedures 2025.		
3.18	Proportion of donated blood units screened for HIV and other TTIs in quality assured procedures per WHO standards	Outcome
3.19	Percentage of national blood requirement for safe blood met through collection from VNRBD	Output
3.20	Percentage of HIV and Syphilis positive blood donors that are linked with support services for prevention, treatment, care, and support	Output
3.24	Percent of females and males aged 15–49 who were in non-marital non-cohabiting sexual relationships in the past 12 months who used a condom during their last sexual intercourse.	Outcome
3.25*	Percentage of members of KVPs who reported using a condom during their last high-risk sexual encounter in the last 3 months	Outcome
Intervention Area 3.8: Social and behaviour change communication (SBCC)		
Strategic Outcome 3.10: Comprehensive Knowledge about HIV/AIDS Increased to 95% and Behaviour, Social and Cultural Norms Linked to High Risk of HIV Transmission Improved by 2025		
3.26	Percentage of young women and men ages 15–24 who have had sexual intercourse before the age of 15.	Outcome
PRIORITY STRATEGIC AREA 4: SEXUALLY TRANSIMITTED INFECTIONS (STIs)		
Intervention Area 4.1: Screening, Diagnosis and Treatment of STIs		
Strategic Outcome 4.1: Ninety-five (95%) of Syndromically At-Risk Population Syndromically Screened and Treated for STI by 2025		
4.1	Prevalence of syphilis amongst pregnant women	Outcome
4.2	Percentage of women accessing antenatal care (ANC) services who were tested for syphilis	Output

Indicator reference number	Indicator	Level
4.3	Percentage of antenatal care attendees positive for syphilis who received treatment	Output
Intervention Area 4.2: Comprehensive Condom Programming		
Strategic Outcome 4.1: Ninety-Five Percent (95%) of Females and Males Engaging in Non-Cohabiting Non-Marital Sexual Relationship Reporting Condom Use at Last Sexual Intercourse by 2025		
4.1	Percent of females and males aged 15–49 who were in non-marital non-cohabiting sexual relationships in the past 12 months who used a condom during their last sexual intercourse.	Outcome
4.2*	Percentage of members of KVPs who reported using a condom during their last high-risk sexual encounter in the last 3 months	Outcome
PRIORITY STRATEGIC AREA 5: HIV CARE AND TREATMENT SERVICES		
5.1*	Estimated number of AIDS related deaths	Impact
Intervention Area 5.1: Facility and Community Based HIV Care		
Strategic Outcome 5.1: By 2025, over 95% of PLHIV who know their HIV status, enrolled, and retained into ART		
5.2	Proportion of PLHIVs on ART	Output
5.3	Percentage of PLHIV on second & third-line regimen during reporting period	Outcome
5.4*	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of ART (retention at 12 months)	Outcome
5.5	Proportion of PLHIV starting ART within seven days of HIV diagnosis	Output
5.6	Percentage of missed appointment/lost to follow-up (LTFU) clients followed up and linked back to health facility services by community-based HIV and AIDS service providers.	Outcome
Intervention Area 5.2: Quality of HIV care and viral suppression		
Strategic Outcome 5.2: Improved Quality of Care for PLHIV, including sustaining >95% Viral suppression among PLHIVs on ART from 2021 onwards		
5.7	Percentage PLHIV on ART monitored using viral load as a standard of care (HVL Coverage)	Output
5.8*	Number and percentage of people living with HIV and on ART who are virologically suppressed (amongst all those currently on treatment)	Outcome
5.9	Proportion of PLHIV on ART tested CD4 count according to algorithm	Output
5.10	Proportion of PLHIV with AHD who received appropriate treatment, prophylaxis, and pre-emptive therapy (CTX, CPET, TPT)	Output
5.11	Proportion of PLHIV dying from AHD within the first 3 months after ART initiation	Outcome
5.12	Proportion of people living with HIV and on ART who are tested for LFT	Output
5.13	Proportion of people living with HIV and on ART (Tenofovir Combined) who are tested for RFT.	Output
Intervention Area 5.3: TB/HIV Collaboration		

Indicator reference number	Indicator	Level
Strategic Outcome 5.3: Over 90% of PLHIV received TB Preventive Therapy (TPT), and 95% of HIV/ TB co infected clients initiated and maintained on ART, all by 2025		
5.14	Proportion of PLHIV on ART who were diagnosed with active TB disease.	Output
5.15*	Percentage of HIV-positive patients completed TB preventive therapy (TPT) during the reporting period	Outcome
Intervention Area 5.4: HIV Integration with Other Diseases		
Strategic Outcome 5.4: Ninety percent (90%) of PLHIV at risk linked to other integrated health services (NCDs, Cervical Cancer, Hepatitis, and STIs) by 2025		
5.16	Proportion of WLHIV (30-50yrs) who report being ever screened for cervical cancer using any of the following methods: visual inspection with acetic acid (VIA), Pap smear or human papillomavirus (HPV) test	Output
5.17	Proportion of Adolescent Girls Living with HIV fully vaccinated for HPV before the age of 15yrs	Output
5.18	Percentage of CTCs with integrated HIV and CECAP services	Output
5.19	Proportions of PLHIV on ART screened for Cervical Cancer during the reporting period	Output
5.20	Proportion of WLHIV with VIA positive screening results	Outcome
5.21	Proportions of PWID on ART who screened for Hepatitis during the reporting period	Output
5.22	Proportion of PWID diagnosed with Hepatitis	Outcome
5.23	Proportions of Adult PLHIV on ART diagnosed with Hypertension during the reporting period	Output
5.24	Proportion of PLHIV on ART (DTG) with increase BMI	Outcome
5.25	Proportions of PLHIV on ART screened for Diabetes	Output
5.26	Proportion of PLHIV on ART diagnosed with Diabetes	Outcome
Intervention Area 5.5: Paediatric HIV services		
Strategic Outcome 5.5: Over 95% of HIV positive children are enrolled and retained on ART, and over 95% are virally suppressed by 2025		
5.27	Percentage of dried blood spot (DBS) samples rejected at DNA-PCR testing laboratories	Output
5.28	Proportion of DBS tests with a turnaround time of less than 4 weeks (for DBS tests that have a turnaround time) from when the sample was collected to results given back to client	Output
Intervention Area 5.6: Adolescents HIV Services		
Strategic Outcome 5.6: Over 95% of adolescents are enrolled and retained on ART, and over 95% are virally suppressed by 2025		
5.29	Proportion of HFs providing integrated adolescents' friendly HIV services	Output
PRIORITY STRATEGIC AREA 6: REDUCE NEW VIRAL HEPATITIS INFECTION		
Intervention Area 6.1: Viral Hepatitis Vaccination		
Strategic Outcome 6.1: By 2025 98% of children are vaccinated for hepatitis through routine immunization services		
6.1	Proportional of individuals who receive hepatitis B vaccination	Outcome
Intervention Area 6.2: Infection Prevention and Control		

Indicator reference number	Indicator	Level
Strategic Outcome 6.2: Ensure 100% infection prevention in all facility and community care settings		
6.2	Number of new cases of viral hepatitis	Output
6.3	Percentage of blood donations that are screened for hepatitis B and C	Outcome
PRIORITY STRATEGIC AREA 7: REDUCE VIRAL HEPATITIS MORTALITY		
Intervention Area 7.1: Viral Hepatitis Screening and Diagnosis		
Strategic Outcome 7.1: At least 80% of pregnant women are tested for viral hepatitis B at ANC by 2025		
7.1	Percentage of people who are aware of their hepatitis B and C status	Outcome
Intervention Area 7.2: Viral Hepatitis Screening and Diagnosis		
Strategic Outcome 7.2: By 2026, 60% of people living with viral hepatitis B and C are treated		
7.2	Percentage of people receive appropriate care and treatment for viral hepatitis	Outcome
7.3	Percentage of individuals on treatment for viral hepatitis who achieve viral suppression	Outcome
7.4	Percentage of individuals who are lost to follow-up during viral hepatitis care and treatment	Output
7.5	Percentage of individuals who develop liver cirrhosis or liver cancer due to viral hepatitis	Output
PRIORITY STRATEGIC AREA 8: ADDRESSING BARRIERS AND INEQUALITIES		
Intervention Area 8.1: Addressing HIV Stigma and Discrimination		
Strategic Outcome 8.1: HIV Stigma and Discrimination reduced to Less than 10% by 2025		
8.1	Percentage of reported cases of HIV-related stigma and discrimination as documented through official reports, surveys, and community feedback mechanism	Impact
8.2	Community perception and awareness of HIV-related stigma and discrimination measured through targeted surveys and focus group discussions	Output
8.3	Percentage of utilization of HIV prevention, treatment, and care services among key populations and vulnerable groups	Output
Intervention Area 8.2: Gender-based violence (GBV) and Violence Against Women and Children (VAWC)		
Strategic Outcome 5.2: Gender-Based Violence & Violence Against Women and Children Reduced to Less than 10% by 2025		
8.1	Proportion of men and women ages 15–49 who experienced physical or sexual violence in the past 12 months	Outcome
8.2	Proportion of sexually abused clients receiving HIV post-exposure prophylaxis	Outcome
8.3	Proportion of sexually and physically abused clients tested for HIV	Outcome
PRIORITY STRATEGIC AREA 9: RESILIENT AND SUSTAINABLE SYSTEMS		
Intervention Area 9.1: Supply Chain Management		

Indicator reference number	Indicator	Level
Strategic Outcome 9.1: Improved supply chain system that ensures 100% of HIV commodities are available in health facilities at all times		
9.1*	Percentage of tracer HIV commodities that were available in the HF at a particular period out of items in use (Commodity availability)	Outcome
9.2	Timeliness of reporting (Number of R&Rs submitted on time at MSD in a particular reporting period out of total number R&Rs submitted)	Output
9.3	Proportion of Care and Treatment facilities implementing an electronic logistics data management system (eLMIS/PMD)	Output
9.4	Percentage of Care and Treatment HF using redesigned logistics management system (Coverage)	Outcome
9.5	Forecasting accuracy (100%-Percentage difference between Forecasted and of Actual consumption Vs Forecasted Consumption over a given period of time)	Output
9.6	Order fulfilment (Percentage of HIV commodities delivered to MSD according to the Supply plan – Completeness of orders)	Output
9.7	On time delivery (Percentage of HIV commodities that are delivered on time t MSD as per supply plan/order)	Output
9.8	Order/Item/product fill rate (Between MSD central and Zonal store; between MSD zonal stores and HFs) within a specified reporting period	Output
9.9	Proportion of the contribution of the Government of Tanzania (GOT) expenditure from its own funds on procurement, storage and distribution of ARVs, OIs, HIV rapid test kits, and diagnostics	Output
Intervention Area 9.2: Rational Use of Medicines		
Strategic Outcome 9.2: All (100%) of HIV care and treatment facilities prescribed and dispensed ARVs and OIs according to national guidelines by 2025		
9.10	Percentage of HIV care and treatment facilities prescribing and dispensing ARV/opportunistic infections (OIs) medicines according to national guidelines	Output
9.11	Proportion of Care and treatment health facilities recording and reporting ADRs, and use the information for clinical management	Output
9.12	Percentage of PLHIV on ART experiencing and reporting adverse drug events and adverse drug reactions from use of ARVs and OIs	Output
9.13	Proportion of health facilities with at least one clinical staff trained on rational use of HIV medicines and pharmacovigilance	Output
Intervention Area 9.3: Governance, Leadership and Accountability in SCM		
Strategic Outcome 9.3: Minimal (<5%) report of expiries and wastage resulting from improved governance, leadership and accountability in supply chain management at all levels.		
9.14	Proportion of value of HIV tracer commodities expiring at the Warehouse/HFs within a specified period time	Output
9.15	Percentage of Care and Treatment facilities implementing IMPACT Teams approach to facilitate evidence-based decision making (filed reports and minutes)	Output

Indicator reference number	Indicator	Level
9.16	Percentage of Regions and Districts that have a dedicated Health Commodities Supply Chain officer (similar to LMS) to support capacity building and monitoring the supply chain at HFs	Output
Intervention Area 9.4: Laboratory Management Systems		
Strategic Outcome 9.4: Improved and resilient Quality Management System implemented at all POCT and laboratories to support HIV services at all health care levels by 2026		
9.17	Percentage of average time the laboratory equipment at care and treatment facilities functioning in a quarter against minimal requirements	Output
9.18	Proportion of HFs providing HIV care and treatment services using electronic logistics data management system	Output
9.19	Percentage of samples rejection rate against standard (<2%) reported from testing laboratories	Output
9.20	Percentage of sample results reported within TAT to support HIV and AIDS care and treatment;	Output
9.21	Percentage of referred samples using the e-SRS from CT sites.	Output
9.22	Percentage of samples processed with internal QC at the POCT sites	Output
9.23	Percentage of Referral Hospital laboratories with capacity to conduct conventional HVL/HEID testing	Output
Intervention Area 9.5: Strengthening Strategic Information Systems		
Strategic Outcome 9.5: By 2022, 100% of health facilities complete and submit monthly reports on time.		
9.25	Percentage of facilities providing HIV services with timely submission of reports into the DHIS 2	Output
9.26	Percentage of PMTCT/CTC facilities which record and submit data using the electronic information system.	Output

Appendix 2. Comprehensive NASHCOP SP Indicators Matrix

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
GOAL: TO ACCELERATE THE REDUCTION OF NEW HIV INFECTIONS AND IMPROVE HIV TREATMENT OUTCOMES.									
1.1*.	HIV Incidence rate	**Numerator**: Number of new HIV infections**.** **Denominator:** Uninfected population (which is the total population minus people living with HIV).	Age, sex Geographic location, KVP groups)	UNGASS, GARP	Tanzania HIV/AIDS and Indicator Survey (THIS)	Every Five years	15-24 years –0.07% 15-49 years - 0.24% 15-64 years - 0.25% (THIS 2016-2017)	15-24 years – 0.00% 15-49 years – 0.12% 15-64 years – 0.12%	TACAIDS, NBS, MoH, PO-RALG
PRIORITY STRATEGIC AREA 1: DIFFERENTIATED HIV TESTING SERVICES									
1.2*	Proportion of PLHIVs who know their HIV status	**Numerator:** Number of live people diagnosed with HIV infection (new and known) in a year **Denominator:** Estimated number of PLHIVs in a year	Age, Sex, KVP groups and Geographic location	NASHCOP SP 2022–2026	Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) BBS HIV Program data	Every Five years	General Population Men - 88% Women - 76% KVP groups <70% (Tisini) 0 – 14- 58%	95%	TACAIDS, NBS, MoH PO-RALG

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
Intervention Area 1.1: HIV Case Finding									
Strategic Outcome 1.1: More than Ninety-five percent (>95%) of people living with HIV are aware of their HIV status by 2025 disaggregated by age and sex (Should be inserted in the matrix with clear definitions)									
1.3	Proportion of women and men ages 15+ years who reported having had an HIV test in the twelvemonths preceding the survey (disaggregated by age, sex, and population segments)	**Numerator:** Number of people ages 15+ years who reported having had an HIV test in the twelvemonths preceding the survey **Denominator:** Population aged 15+ participated in the survey	Age, sex, residence, marital status, wealth quantile, education	UNGASS, GARP	THIS 2016/17	Every 5 yrs.	31.3%	50%	TACAIDS, NBS, MoH, PO-RALG
1.4	Percentage of newly identified HIV positive individuals who retested for verification prior to ART initiation	**Numerator:** Number of people starting ART in a year **Denominator:** Number of people received HIV verification test prior to ART initiation	none	HSHSP	NASHCOP Annual Surveillance Report	Annually	74%	100%	NASHCOP, PO-RALG, IPs
1.5	Proportion of individuals who test for HIV as couples	**Numerator:** Number of individuals who received testing and counselling services for HIV, and received their results as couples **Denominator:** Total number of individuals who received testing and counselling services during the same period	Age, sex	PEPFAR Next Generation Indicator	NASHCOP Annual Surveillance Report	Annually	75%	90%	PMTCT - RCHS
Intervention Area 1.2: Linkage to HIV prevention, care, treatment, and support services									
Strategic Outcome 1.2: By 2022, Hundred Percent (100%) of All Newly Identified PLHIV (Irrespective of HTS Modality) are successfully Linked to HIV Care, Treatment, and Support Services									

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
1.6*	Proportion of newly identified PLHIV successfully linked to care and treatment services	**Numerator:** Number of Individuals (adults and children) who were tested for HIV, given results, and linked to appropriate services within 7 days of diagnosis **Denominator:** Number of Individuals (adults and children) who tested positive for HIV	Ages, sex, KVP group and Geographic location	HSHSPV	NASHCOP, THIS	5 yrs. and annually	95%	98%	NASHCOP, NBS
STRATEGIC PRIORITY AREA 2: ELIMINATION OF MOTHER TO CHILD TRANSMISSION (MTCT) OF NEW HIV AND VIRAL HEPATITIS INFECTION									
2.1*	Proportion of infants born to HIV infected mothers who are HIV infected after 18 months from birth or three months after cessation of breastfeeding.	**Numerator:** Number of infants born to HIV infected mothers who are HIV infected after 18 months from birth or three months after cessation of breastfeeding. **Denominator:** Number of Infants born to HIV infected mothers at 18 months from birth or three months after cessation of breastfeeding.	Age, Geographical location	NASHCOP SP	PMTCT Programme data	Annually	7.9% (UNAIDS, 2020) (Final transmission spectrum 2020)	<4%	MoH/ PMTCT
Intervention Area 2.1: Elimination of Mother to Child Transmission (MTCT) of HIV and Viral Hepatitis									
Strategic Outcome 2.1: Over 95% of pregnant and breasting women are enrolled and retained in ART and over 95% are virally suppressed by 2022, onwards									
2.2	Proportional of exposed infants surviving and HIV free at 18 months of age.	**Numerator:** Number of exposed infants surviving and HIV free at 18 months of age **Denominator:** Number of Infants born to HIV infected mothers	Age, Geographical location	NASHCOP SP	PMTCT Programme data	Annually	90%	98%	MoH/ PMTCT

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
2.3	Proportion of pregnant women tested for HIV and who know their status	**Numerator:** Number of pregnant women tested for HIV and who know their status **Denominator:** Number of pregnant women who attended ANC	Age, Geographical location	NASHCOP SP	PMTCT Programme data	Annually	98% 2020	100%	MoH/ PMTCT
2.4	Proportion of male partners of pregnant mothers tested for HIV and who know their HIV status	**Numerator:** Number of male partners of pregnant mothers tested for HIV and who know their HIV status **Denominator:** Number of pregnant mothers who attended ANC	Age, Geographical location	NASHCOP SP	PMTCT Programme data	Annually		70%	MoH/ PMTCT
2.5*	Percentage of HIV-infected pregnant women receiving ARVs to reduce the risk of MTCT of HIV	**Numerator:** Number of HIV-positive pregnant women who received ARVs during the past 12 months to reduce risk of MTCT **Denominator:** Estimated number of HIV-positive pregnant women identified in the last 12 months	Age, Geographical location	NASHCOP SP	PMTCT Programme data	Annually	98.6%	100%	MoH/ PMTCT
2.6	Proportion of Pregnant and Breastfeeding women with HIV virally suppressed	**Numerator:** Number of mothers alive and on ART while in PMTCT care of Pregnant and Breastfeeding women with HIV virally suppressed **Denominator:** All mothers tested as HIV positive (known and new) in a specified time	12 months, 24 months	NASHCOP SP	Routine PMTCT cohort data	Annually	Not available	95% at 12 months, >90% at 24 months	MoH PMTCT
Intervention Area 2.2: HIV Early Infant Diagnosis									

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
Strategic Outcome 2.2: By 2025, over 95% of HIV exposed are tested for HIV within 2 months of age									
2.7	Proportion of HIV-exposed infants tested with DNA-PCR within 2 months of birth	**Numerator:** Number of HIV-exposed infants who are tested with DNA-PCR within 2 months of birth **Denominator:** Number of all infants born to HIV-infected mothers	Infants who received DNA-PCR test in first 2 months after birth and 2–12 months; infants tested should be counted only once	NASHCOP SP	PMTCT programme data	Annually	68% (2020)	95% (2025)	MoH PMTCT
2.8	Proportion of HIV exposed babies receive prophylaxis.	**Numerator:** Number of HIV-exposed babies who received Prophylaxis **Denominator:** Number of HIV exposed babies in a specified period	Geographical location	NASHCOP SP	PMTCT programme data	Annually	95.8%	100%	MoH PMTCT
2.9	Percentage of HIV exposed Infants initiated CTX.	**Numerator:** Number of HIV-exposed infants initiated CTX **Denominator:** Number of HIV exposed infants in a specified period	Geographical location	NASHCOP SP	PMTCT programme data	Annually	95.4%	100%	MoH PMTCT
STRATEGIC PRIORITY AREA 3: REDUCTION OF NEW HIV INFECTIONS									
3.1	Number of NEW HIV infections	**Not applicable**	Age and Sex	NASHCOP SP	Spectrum (UNAIDS)	Annually	68,000	16,000	TACAIDS, MoH
3.2*	Percentage of PLHIV who experienced or perceived stigma when accessing health services	**Numerator:** Number of PLHIV who experienced or perceived stigma when accessing health services **Denominator:** Number of PLHIV respondents	Age, sex Geographic location	Stigma Index		Every 5 years	5% (Stigma Index 2.0 of 2020)	0%	TACAIDS, MoH
Intervention Area 3.1: Key and vulnerable populations (KVP)									

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
Strategic Outcome 3.1: Ninety-Five Percent (95%) of Key & Vulnerable Population Saturated with A Minimum Package of Vulnerability-Tailored and Client-Cantered Combination Prevention Interventions by 2026									
3.3	Percentage of members of KVPs who have been tested for HIV in the last 12 months and know their results	**Numerator:** Number of KVP who have been tested for HIV during the last 12 months and know their results **Denominator:** Number of KVP respondents	By KVP age range, type: SWs, PWID, PWUD, AGYW, MHR	UNGASS; GARP, NASHCOP SP 2022–2026	IBBS	Periodic, every 2 yrs.	76% FHR 78.3% MHR 66% PWID 55% in mining areas 85% in the fishing community 59% in the transport corridor	95%	MoH/ NASHCOP, IPs, PO-RALG-AFYA
3.4	Prevalence of HIV among KVP	**Numerator:** Number of KVP who are HIV-positive **Denominator:** Number of KVP who tested for HIV	Age, Sex KVP type: sex worker, PWID, PWUD, AGYW, MHR	GARP 2013; GF M&E toolkit	2017, and 2019 BBS for KVP, and Fisher Folks	3–5 yrs.	17% FHR 8.3% MHR 8.6% PWID 6.3% among Miners 9.1% among fisher folks	Not applicable	MoH/ NASHCOP, IPs, PO-RALG-AFYA
3.5	Percentage of members of KVP who are reached with a minimum package of prevention interventions	**Numerator:** Number of KVP who are tested for HIV (Proxy marker of minimum package) **Denominator:** Estimated number of KVP	Age, Sex KVP type: sex worker, PWID, PWUD, AGYW, MHR		NASHCOP annual surveillance report	Annually		95%	MoH/ NASHCOP, IPs, PO-RALG-AFYA
Intervention Area 3.2: Vulnerable Adolescent Girls and Young Women (vAGYWs)									
Strategic Outcome 3.2: Ninety-Five Percent (95%) of Vulnerable AGYW Saturated with a Minimum Package Evidence-Informed HIV Prevention Interventions by 2025									
3.6	Percentage of vulnerable AGYW who have tested for HIV in the last 12	**Numerator:** vAGYWs who received HIV test in the last 12 months	Age	THIS	THIS	3 – 5 years	27.8%* Survey results did	50%	TACAIDS, MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
	months and know their results	**Denominator;** Estimated population of vAGYWs					not specify Vulnerable		
3.7	Percentage of vulnerable AGYW who are HIV-positive	**Numerator:** vAGYWs who test HIV positive **Denominator:** vAGYWs who received HIV test	Age	THIS	THIS	3 – 5 years	2.1%	Not applicable	TACAIDS, MoH
Intervention Area 3.3: General Population									
Strategic Outcome 3.3: Ninety-Five Percent (95%) of At-Risk General Population Saturated with a Minimum Package Evidence-Informed HIV Prevention Interventions by 2025									
3.8	Percentage of young population 15 – 24 with comprehensive correct knowledge of HIV prevention.	**Numerator:** Number of Number of respondents' knowledge of HIV prevention **Denominator**: Number of respondents	Sex, age Geographic location	THIS	NBS	Every 3 - 5 yrs.	36.9%	80%	TACAIDS/ NCP, IPs, PO-RALG-AFYA
Intervention Area 3.4: Voluntary male medical circumcision (VMMC) Services									
Strategic Outcome 3.4: Ninety per cent (90%) Male Circumcision rate attained in all regions by 2025									
3.9*	Proportion of circumcised males	**Numerator**: Number of males circumcised in the last 12 months **Denominator**: Total males targeted for VMMC	Age Geographic location (Regions)	PEPFAR MER 2.0	DHIS 2	Monthly, quarterly, annually	75% (2020 programme data) 80% in THIS 2016	95%	NASHCOP, IPs, PO-RALG-AFYA, DPs
3.10	Proportion of circumcised clients experiencing at least one moderate or severe adverse event (AE) during or following surgery within the reporting period	**Numerator:** Number of clients circumcised that experience one or more moderate or severe AE(s) during the reporting period **Denominator:** Number of clients circumcised	By AE: (moderate or severe)	PEPFAR MER 2.0,	DHIS 2	Monthly, quarterly, annually	0.18%	< 2%	NASHCOP, IPs, PO-RALG-AFYA
Intervention Area 3.5: Pre-Exposure Prophylaxis (PrEP)									
Strategic Outcome 3.5: 95% of Eligible HIV Negative Populations Receiving HIV Pre-Exposure Prophylaxis (PrEP) by 2025									

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
3.11*	A. Percentage of PrEP users who continued oral PrEP for three consecutive months after having initiated PrEP in the last 12 months. B. PrEP Continuation (PrEP_CT)	**Numerator:** Number of PrEP users who continued oral PrEP for three consecutive months after having initiated PrEP in the last 6 months. **Denominator**: Number of PrEP users-initiated PrEP in the last 6 months. **Numerator**: Number of individuals that returned for a follow-up or re-initiation visit to receive PrEP during the reporting period **Denominator**: Not Applicable	Age, sex Geographic location	PrEP Framework and Standard WHO PrEP indicators MER 2.6	NASHCOP annual report	Annual Quarterly	82% FHR 60% MHR 50%	85% 70%	NASHCOP NASHCOP PEPFAR
3.12	Percentage of people who received PrEP who have discontinued or interrupted PrEP due to a serious ARV-associated toxicity or adverse reaction in the last 12 months.	**Numerator:** Number of people who received PrEP who have discontinued or interrupted PrEP due to a serious ARV-associated toxicity or adverse reaction in the last 12 months. **Denominator**: Number of people who received PrEP in the last 12 months.	Age, sex Geographic location	PrEP Framework and Standard WHO PrEP indicators	NASHCOP annual report	Annual	NO data	Not applicable	NASHCOP
3.13	Percentage of people who test HIV-positive among people who received PrEP in the reporting quarter.	**Numerator:** Number of people who test HIV-positive among people who received PrEP in the reporting quarter. **Denominator**: Number of people who received PrEP in the reporting quarter.	Age, sex Geographic location	PrEP Framework and Standard WHO PrEP indicators	NASHCOP annual report	Annual	NO data	Not applicable	NASHCOP
3.14	Proportion of targeted audience with	**Numerator:** Number of respondents with	Age, sex	UNGASS GARP	IBBS	Every 2–3 yrs.	67% - Mining men	95%	NASHCOP

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
	comprehensive knowledge about PrEP	comprehensive knowledge about PrEP **Denominator**: Number of respondents		2013 NASHCOP			50% - People in transport corridor 20% - fisher folks 71% - FHR 20% - MHR 35.8% - PWID		
Intervention Area 3.6: Post-Exposure Prophylaxis (PEP)									
Strategic Outcome 3.6: Ninety-Five Percent (95%) Occupationally and Non-Occupationally Exposed HIV Negative Individuals Timely Received HIV Post-Exposure Prophylaxis (PEP) Services to by 2025									
3.15	Percent of eligible exposed individuals who received PEP within 72 hours of accidental exposure to blood and body fluids (disaggregated by exposure type)	**Numerator:** Number of eligible exposed individuals who received PEP within 72 hours of accidental exposure to blood and body fluids **Denominator**: Number of individuals who were accidental exposure to blood and body fluids	Age, sex exposure type (Occupational and non-occupational)						NASHCOP, PO-RALG-AFYA
3.16	Percentage of PEP users successfully completed the 28 days course of PEP (disaggregated by exposure type)	**Numerator:** Number of PEP users successfully completed the 28 days course of PEP **Denominator**: Number of individuals who were started on PEP in a reporting period.	Age, sex exposure type (Occupational and non-occupational)						NASHCOP, PO-RALG-AFYA
3.17	Percentage of PEP users who seroconvert 3 months after completing the course.	**Numerator:** Number of PEP users who seroconvert 3 months after completing the course.	Age, sex exposure type						NASHCOP, PO-RALG-AFYA

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
		Denominator: Number of individuals who completed the 28 days of PEP course.	(Occupational and non-occupational)						
Intervention Area 3.7: Blood safety and Quality									
Strategic Outcome 3.7: Hundred Percent (100%) of the donated blood and blood products screened for HIV, Syphilis, and other transfusion-transmitted infections TTIs (e.g., HBV & HCV) as per WHO quality assurance procedures 2025.									
3.18	Proportion of donated blood units screened for HIV and other TTIs in quality assured procedures per WHO standards	**Numerator:** Number of units of donated blood screened for HIV and other TTIs in quality assured procedures per WHO standards **Denominator:** Number of all blood units donated	None	NMSF HSHSPV	NBTS	Quarterly, annually	100% (2021 NBTS report)	100%	MoH/ NBTS
3.19	Percentage of national blood requirement for safe blood met through collection from VNRBD	**Numerator:** Number of national blood requirement for safe blood met through collection from VNRBD **Denominator:** Number of national blood requirements for safe blood	None	NMSF HSHSPV	NBTS	Quarterly, annually	60% (2021 NBTS data0	100%	MoH/ NBTS
3.20	Percentage of HIV and Syphilis positive blood donors that are linked with support services for prevention, treatment, care, and support	**Numerator:** Number of HIV and Syphilis positive blood donors that are linked with support services for prevention, treatment, care, and support **Denominator:** Number of identified HIV and Syphilis positive blood donors during the reporting period.	None	NMSF HSHSPV	NBTS	Quarterly, annually	5% (2019/2020 NBTS data)	50%	MoH/ NBTS
Intervention Area 3.8: Social and behaviour change communication (SBCC)									
Strategic Outcome 3.8: Comprehensive Knowledge about HIV/AIDS Increased to 95% and Behaviour, Social and Cultural Norms Linked to High Risk of HIV Transmission Improved by 2025									

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
3.21	Percentage of young women and men ages 15–24 who have had sexual intercourse before the age of 15.	**Numerator:** Number of respondents ages 15-24 who had sexual intercourse before age 15 **Denominator:** Number of respondents ages 15–24	Age, sex, residence	THIS, UNGASS	THIS 2016–2017	Every 3–5 yrs.	9.1% Females 14.3% Males	5%	NBS, TACAIDS, MoH,
3.22	Proportion of sexually abused clients receiving HIV post-exposure prophylaxis	**Numerator:** Number of sexually abused clients who received HIV post-exposure prophylaxis. **Denominator:** Total number of sexually abused clients.	Age, sex, Geographic location	NASHCoP SP	NASHCoP programme data	Annually			MoH/ NASHCOP, IPs, PO-RALG-AFYA
3.23	Proportion of sexually and physically abused clients tested for HIV	**Numerator:** Number of sexually and physically abused clients who were tested for HIV. **Denominator:** Total number of sexually and physically abused clients.	Age, sex, Geographic location	NASHCoP SP	NASHCoP programme data	Annually			MoH/ NASHCOP, IPs, PO-RALG-AFYA
STRATEGIC PRIORITY AREA 4: SEXUALLY TRANSMITTED INFECTIONS (STIs)									
Intervention Area 4.1: Sexually Transmitted Infections (STIs)									
Strategic Outcome 3.8: Ninety-five (95%) of Syndromically At-Risk Population Syndromically Screened and Treated for STI by 2025									
4.1	Prevalence of syphilis amongst pregnant women	**Numerator:** Number of ANC attendees tested positive for syphilis **Denominator**: Number of ANC attendees tested for syphilis	Age	GARP; NASHCOP SP	Sentinel surveillance	Every 2 yrs.	1.5% (2020 survey)	NA	MoH/ NASHCOP, IPs, PO-RALG-AFYA
4.2	Percentage of women accessing antenatal care	**Numerator:** Number of women accessing antenatal	Age	GARP; NASHCOP SP	Sentinel surveillance	Every 2 yrs.	61.2% (2020 PMTCT	95%	MoH/

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
	(ANC) services who were tested for syphilis	care (ANC) services who were tested for syphilis **Denominator:** Number of women accessing antenatal care (ANC) services at a first visit					programme data)		NASHCOP, IPs, PO-RALG-AFYA
4.3	Percentage of antenatal care attendees positive for syphilis who received treatment	**Numerator:** Number of antenatal care attendees positive for syphilis who received treatment **Denominator:** Number of antenatal care attendees who tested positive for syphilis	Age	GARP; NASHCoP SP	Sentinel surveillanc e	Every 2 yrs.	63.5% (2020 PMTCT programme data)	95%	MoH/ NASHCOP, IPs, PO-RALG-AFYA
Intervention Area 4.2: Comprehensive Condom Programming									
Strategic Outcome 4.2: Ninety-Five Percent (95%) of Females and Males Engaging in Non-Cohabiting Non-Marital Sexual Relationship Reporting Condom Use at Last Sexual Intercourse by 2025									
4.4	Percent of females and males aged 15–49 who were in non-marital non-cohabiting sexual relationships in the past 12 months who used a condom during their last sexual intercourse.	**Numerator:** Number of females and males aged 15–49 who were in non-marital non-cohabiting sexual relationships in the past 12 months who used a condom during their last sexual intercourse. **Denominator:** Number of all respondents ages 15–49 who were in non-marital non-cohabiting sexual relationships in the past 12 months.	Age, sex	GARP; GF M&E toolkit	THIS (adolescen t/youth secondary analysis)	Every 4–5 yrs	31.7%	85%	TACAIDS/ NASHCOP, IPs, PO-RALG-AFYA
4.3*	Percentage of members of KVPs who reported using a condom during their last high-risk sexual	**Numerator:** Number of members of KVPs who reported using a condom during their last high-risk	Sex, Age KVP type**:** sex worker; PWID; people who use	UNGASS GARP 2013 NASHCOP	IBBS	Every 2–3 yrs.	67% - Mining men	95%	TACAIDS/ NASHCOP, IPs, PO-RALG-AFYA

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
	encounter in the last 3 months	sexual encounter in the last 3 months **Denominator**: Number of KPs having high-risk sexual encounter in the last 3 months	drugs (PWUD), MHR, AGYW				50% -people in transport corridor 20% - fisher folks 71% - FHR 20% - MHR 35.8% - PWID		
STRATEGIC PRIORITY AREA 5: REDUCTION OF AIDS RELATED MORTALITY									
6.1*	Estimated number of AIDS related deaths	Number of AIDS-related deaths per 100,000 population	Sex, age, Geographical location	NASHCoP SP	Spectrum estimates	Annually	56.19 deaths per 100,000 PLHIVs 32,000 (2020 spectrum estimates)	<12, 000 AIDS related deaths per year	UNAIDS, TACAIDS, NASHCOP
Intervention Area 6.1: Facility and Community Based HIV Care and Support Services									
Strategic Outcome 6.1: By 2025, over 95% of PLHIV who know their HIV status, enrolled, and retained into ART									
6.2	Proportion of PLHIVs on ART	**Numerator:** Number of PLHIV currently on ART **Denominator**: Estimated number of PLHIV	Sex, age, pregnancy status, breastfeeding, Geographical location	NASHCOP SP	DHIS 2	Quarterly, annually	1,419,464 (2020) 82%	95%	MoH/ NASHCOP, IPs, DPs
6.3	Percentage of PLHIVs on second & third-line regimen during reporting period	**Numerator:** Number of persons who are on second and third-line regimen during reporting period	Age, sex, regimen line, Geographical location	NASHCOP SP	DHIS 2	Quarterly, annually	2.5% (2020)	3 – 5 % (2025) based on proportion unsuppressed	MoH/ NASHCOP, IPs, DPs

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
		Denominator: Total number of persons currently on ART during reporting period							
5.4*	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of ART (retention at 12 months)	**Numerator:** Number of adults and children who are still alive and on ART at 12 months after initiating treatment **Denominator:** Total number of adults and children who initiated ART 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 LTFU at month 12	Sex, age range: 15–19, 20–24, and 25+ years, geographical location	NASHCOP SP	Care and treatment report cohort analysis	Annually	0 – 14 86.8% 15 – 24 79.2% 15 – 49 81.2%	95%	MoH/ NASHCOP, IPs, DPs
5.5	Proportion of PLHIV starting ART within seven days of HIV diagnosis	**Numerator:** Number of PLHIV starting ART within seven days of HIV diagnosis **Denominator:** Total number of PLHIV enrolled into care within a specified period	Age, sex, subpopulations, and ART delivery model	NASHCOP SP	NASHCOP programme data	Quarterly, annually	95% (Programme data, 2020)	98%	MoH/ NASHCOP, IPs, DPs
5.6	Percentage of missed appointment/lost to follow-up (LTFU) clients followed up and linked back to health facility services by community-based HIV and AIDS service providers.	**Numerator:** Number of missed appointments/LTFU clients linked back to health facility services by CBHS providers **Denominator:** Number of missed appointments and LTFU clients reported in the reporting period	Sex, Age, Type of clinic, i.e., RCH, CTC	NASHCOP SP	NASHCOP programme data	Quarterly	54% (2020 report)	80%	LGA, NASHCOP, IPs, DPs
Intervention Area 5.2: Quality of HIV care and viral suppression									
Strategic Outcome 5.2: Improved Quality of Care for PLHIV, including sustaining >95% Viral suppression among PLHIVs on ART from 2021 onwards									

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
5.7	Percentage PLHIV on ART monitored using viral load as a standard of care (HVL Coverage)	**Numerator:** Number of PLHIV on ART who received HVL test at least once in the past 12 months **Denominator:** Number of PLHIV current on ART	Age, Sex, PBFW. Facility level and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly and annually	90%	95%	MoH/ NASHCOP
5.8*	Number and percentage of people living with HIV and on ART who are virologically suppressed (amongst all those currently on treatment)	**Numerator:** Number of people living with HIV and on ART who have a suppressed VL (<1,000 copies/ml) **Denominator:** Number of people living with HIV who are currently receiving ARTand received a viral load measurement regardless of when they started ART)	Age, sex, KVP group, PBFW Geographical location	NASHCOP SP	NASHCOP programme data, HIV Impact Survey	Quarterly, Annually and after every 5 years	95%	95%	MoH/ NASHCOP, IPs, DPs
5.9	Proportion of PLHIV on ART tested CD4 count according to algorithm	**Numerator:** Number of PLHIV on ART tested CD4 count according to algorithm **Denominator:** Number of people living with HIV who are currently receiving ART	Age, sex and ART delivery model.	NASHCOP SP	NASHCOP programme data ART cohort analysis	Quarterly and annually	10.5%	50%	MoH/ NASHCOP
5.10	Proportion of PLHIV with AHD who received appropriate treatment, prophylaxis and pre-emptive therapy (CTX, CPET, TPT)	**Numerator:** Number of PLHIV with AHD who received appropriate treatment, prophylaxis and pre-emptive therapy (CTX, CPET, TPT) **Denominator:** Number of people living with HIV who are currently receiving ART	Age and Sex	NASHCOP SP	NASHCOP programme data	Quarterly and annually	Not available	50%	MoH/ NASHCOP

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
5.11	Proportion of PLHIV dying from AHD within the first 3 months after ART initiation	**Numerator:** Number of PLHIV dying from AHD within the first 3 months after ART initiation **Denominator:** Number of people living with HIV who were initiated on ART in the cohort that completed 3 months.	Age and Sex	NASHCOP SP	NASHCOP programme data	Quarterly and annually	Not available	<5%	MoH/ NASHCOP
5.12	Proportion of people living with HIV and on ART who are tested for LFT	**Numerator:** Number of people living with HIV and on ART who tested for LFT at least once in a year **Denominator:** Number of people living with HIV who are on ART	Age and Sex	NASHCOP SP	NASHCOP programme data	Quarterly and annually	Not available	50%	MoH/ NASHCOP
5.13	Proportion of people living with HIV and on ART (Tenofovir Combined) who are tested for RFT.	**Numerator:** Number of people living with HIV and on ART (Tenofovir Combined) who are tested for RFT **Denominator:** Number of people living with HIV who are on ART(Tenofovir Combined)	Age and Sex	NASHCOP SP	NASHCOP programme data	Quarterly and annually	Not available	50%	MoH/ NASHCOP
Intervention Area 5.3: TB/HIV Collaboration									
Strategic Outcome 5.3: Over 90% of PLHIV received TB Preventive Therapy (TPT), and 95% of HIV/ TB co infected clients initiated and maintained on ART, all by 2025									
5.14	Proportion of PLHIV on ART who were diagnosed with active TB disease.	**Numerator**: Number of PLHIV on ART who were diagnosed with active TB disease. **Denominator**: Number of PLHIV current on ART during a reporting/specified period	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	2.5%	<1%	MoH (NASHCOP and NTLP)

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
5.15*	Percentage of HIV-positive patients completed TB preventive therapy (TPT) during the reporting period	**Numerator**: Number of HIV-positive patients completed TB Preventive Therapy during the reporting period **Denominator**: Number of HIV-positive patients who were eligible to receive TPT during the reporting period	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	70%	95%	MoH
Intervention Area 5.4: HIV Integration with Other Diseases									
Strategic Outcome 5.4: Ninety percent (90%) of PLHIV at risk linked to other integrated health services (NCDs, Cervical Cancer, Hepatitis, and STIs) by 2025									
5.16	Proportion of WLHIV screened for cervical cancer using any methods: (visual inspection with acetic acid (VIA, Pap smear or human papillomavirus HPV test)	**Numerator**: Number of WLHIV screened for cervical cancer using any methods (visual inspection with acetic acid (VIA), Pap smear or human papillomavirus (HPV) test) **Denominator**: Total number of women screened for cervical cancer	Age, Facility level, and geographical location	NASHCOP SP	NASHCOP programme data DHSI-2	Quarterly, Annually	53%	70%	MoH
5.17	Proportion of Adolescent Girls Living with HIV fully vaccinated for HPV before the age of 15yrs	**Numerator:** Number of Adolescent Girls Living with HIV who are fully vaccinated for HPV before the age of 15yrs **Denominator:** Estimated number of adolescents girls aged 15 and above living with HIV	Geographical location	NASHCOP SP	Numerator: NASHCOP programme data Denominator: Spectrum estimate	Annually	xx%	xx%	MoH
5.18	Percentage of CTCs with integrated HIV and CECAP services	**Numerator:** Number of CTCs with integrated HIV and CECAP services **Denominator:** Number of CTCs	Geographical location, Facility level,	NASHCOP SP	NASHCOP programme data	Annually	NA	60%	MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
5.19	Proportions of WLHIV on ART screened for Cervical Cancer during the reporting period	**Numerator:** Number of WLHIV screened for Cervical Cancer **Denominator:** Estimated number of WLHIV	Age, Geographical location, Facility level,	NASHCOP SP	Numerator: Programme data Denominator: Spectrum estimates	Annually	NA	80%	MoH
5.20	Proportion of WLHIV with VIA positive screening results	**Numerator:** Number of WLHIV with VIA+ results **Denominator:** Number of WLHIV screened for cervical cancer	Age, Geographical location, Facility level,	NASHCOP SP	DHIS 2	Quarterly	4%	1%	MoH
5.21	Proportions of PWID on ART who screened for Hepatitis during the reporting period	**Numerator:** Number of PWID screened for Hepatitis **Denominator:** Number of PWID enrolled in care and treatment centres	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	NA	100	NASHCOP
5.22	Proportion of PWID diagnosed with Hepatitis	**Numerator:** Number of PWID diagnosed with Hepatitis **Denominator:** Number of PWID enrolled in care and treatment centres	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	NA	< 5%	MoH
5.23	Proportions of Adult PLHIV on ART diagnosed with Hypertension during the reporting period	**Numerator:** Number of Adult PLHIV on ART diagnosed with Hypertension **Denominator:** Number of Adult PLHIV on ART in CTCs	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	NA	80%	NASHCOP

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
5.24	Proportion of PLHIV on ART (DTG) with increase BMI	**Numerator:** Number of PLHIV on ART(DTG) with increased BMI **Denominator:** Number of PLHIV on ART (DTG) in CTCs.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	NA	95%	MoH
5.25	Proportions of PLHIV on ART screened for Diabetes	**Numerator:** Number of PLHIV on ART screened for Diabetes **Denominator:** Number of PLHIV on ART in CTCs.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	NA		MoH
5.26	Proportion of PLHIV on ART diagnosed with Diabetes	**Numerator:** Number of PLHIV on ART with Diabetes **Denominator:** Number of PLHIV on ART in CTCs	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP programme data	Quarterly, Annually	NA	< 5%	MoH
Intervention Area 5.5: Paediatric HIV services									
Strategic Outcome 5.5: Over 95% of HIV positive children are enrolled and retained on ART, and over 95% are virally suppressed by 2025									
5.27	Percentage of dried blood spot (DBS) samples rejected at DNA-PCR testing laboratories	**Numerator:** Number of DBS samples rejected at DNA-PCR testing laboratories **Denominator:** Number of all DBS samples received at DNA-PCR testing laboratories	Facility level, Geographical location	NASHCOP SP	Laboratory data (NASHCOP Programme Data)	Annually	3% National Public Health Laboratory (NPHL)	<1%	MoH NPHL
5.28	Proportion of DBS tests with a turnaround time of less than 4 weeks (for DBS tests that have a turnaround time) from	**Numerator:** Number of DBS tests with a turnaround time of less than 4 weeks (for DBS tests that have a turnaround time) from when the sample	Facility level, Geographical location	NASHCOP SP	NASHCOP Programme Data	Annually	60 days	28 days (2025)	MoH PMTCT

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
	when the sample was collected to results given back to client	was collected to results given back to client **Denominator:** Number of all DBS tests that have a turnaround time							
Intervention Area 5.6: Adolescents HIV Services									
Strategic Outcome 5.6: Over 95% of adolescents are enrolled and retained on ART, and over 95% are virally suppressed by 2025									
5.29	Proportion of HFs providing integrated adolescents' friendly HIV services	**Numerator:** Number of HFs providing integrated adolescent friendly HIV services **Denominator:** Number of HFs providing HIV services	Facility level, Geographical location	NASHCOP SP	NASHCOP Programme data, SARA, TSPA	Annually, Biennially, After five years	70% (2020 SARA report)	80% (2025)	MoH
PRIORITY STRATEGIC AREA 6: REDUCTION OF NEW VIRAL HEPATITIS B AND C									
Intervention Area 6.1: Viral Hepatitis Vaccination									
Strategic Outcome 6.1: By 2025 98% of children are vaccinated for hepatitis through routine immunization services									
6.1	Proportional of individuals who receive hepatitis B vaccination	**Numerator:** The number of individuals who have received the hepatitis B vaccination. **Denominator:** The total population eligible for hepatitis B vaccination.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP Programme data	Quarterly, Annually			MoH
Intervention Area 6.2: Infection Prevention and Control									
Strategic Outcome 6.2: Ensure 100% infection prevention in all facility and community care settings									
6.2	Number of new cases of viral hepatitis	**Numerator:** The total number of newly diagnosed cases of viral hepatitis. **Denominator:** The total population at risk of acquiring viral hepatitis.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP Programme data	Quarterly, Annually			MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
6.3	Percentage of blood donations that are screened for hepatitis B and C	**Numerator:** The number of blood donations screened for hepatitis B and C. **Denominator:** The total number of blood donations	Geographical location	NASHCOP SP	NASHCOP Programme data				MoH
PRIORITY STRATEGIC AREA 7: REDUCE VIRTAL HEPATITIS MORTALITY									
Intervention Area 7.1: Viral Hepatitis Screening and Diagnosis									
Strategic Outcome 7.1: At least 80% of pregnant women are tested for viral hepatitis B at ANC by 2025									
7.1	Percentage of people who are aware of their hepatitis B and C status	**Numerator:** The number of individuals who are aware of their hepatitis B and C status. **Denominator:** The total number of individuals in the target population.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP Programme data	Quarterly, Annually			MoH
Intervention Area 7.2: Viral Hepatitis Care and Treatment									
Strategic Outcome 7.2: By 2026, 60% of people living with viral hepatitis B and C are treated.									
7.2	Percentage of people receive appropriate care and treatment for viral hepatitis	**Numerator:** The number of individuals receiving appropriate care and treatment for viral hepatitis. **Denominator:** The total number of individuals diagnosed with viral hepatitis.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP Programme data	Quarterly, Annually			MoH
7.3	Percentage of individuals on treatment for viral hepatitis who achieve viral suppression	**Numerator:** The number of individuals on treatment for viral hepatitis who achieve viral suppression. **Denominator:** The total number of individuals on treatment for viral hepatitis.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP Programme data	Quarterly, Annually			MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
7.4	Percentage of individuals who are lost to follow-up during viral hepatitis care and treatment	**Numerator:** The number of individuals lost to follow-up during viral hepatitis care and treatment. **Denominator:** The total number of individuals who initiated viral hepatitis care and treatment.	Age, Sex, Facility level, and Geographical location	NASHCOP SP	NASHCOP Programme data	Quarterly, Annually			MoH
7.5	Percentage of individuals who develop liver cirrhosis or liver cancer due to viral hepatitis	**Numerator:** The number of individuals who develop liver cirrhosis or liver cancer due to viral hepatitis. **Denominator:** The total number of individuals diagnosed with viral hepatitis.	Age, Sex, Facility level, and Geographical location	NASHCoP SP	NASHCoP Programme data	Quarterly, Annually			MoH
STRATEGIC PRIORITY AREA 8: ADDRESSING BARRIERS AND INEQUALITIES									
Intervention Area 8.1: Addressing HIV Stigma and Discrimination									
Strategic Outcome 8.1: HIV Stigma and Discrimination reduced to Less than 10% by 2025									
8.1	Percentage of reported cases of HIV-related stigma and discrimination as documented through official reports, surveys, and community feedback mechanism	**Numerator:** Number of reported cases of HIV-related stigma and discrimination documented through official reports, surveys, and community feedback mechanisms. **Denominator:** Total number of cases of HIV-related stigma and discrimination captured through monitoring and reporting systems, including official reports, surveys, and community feedback mechanisms.	Sex and Geographical location	NASHCoP SP	NASHCoP Programme Data	Annually			MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
8.2	Community perception and awareness of HIV-related stigma and discrimination measured through targeted surveys and focus group discussions	**Numerator:** Number of individuals with increased awareness and improved perception of HIV-related stigma and discrimination based on survey responses and focus group discussions. **Denominator:** Total number of individuals surveyed or participating in focus group discussions to assess community perception and awareness of HIV-related stigma and discrimination.	Age, Sex and Geographical location	NASHCOP SP	NASHCOP Programme Data	Annually			MoH
8.3	Percentage of utilization of HIV prevention, treatment, and care services among key populations and vulnerable groups	**Numerator:** Number of key populations and vulnerable groups accessing HIV prevention, treatment, and care services. **Denominator:** Total number of key populations and vulnerable groups in the target population.	Age, Sex and Geographical location	NASHCOP SP	NASHCOP Programme Data	Annually			MoH
Intervention 8.2 Addressing GBV and VAC									
Strategic Outcome 8.2: Gender-Based Violence & Violence Against Women and Children Reduced to Less than 10% by 2025									
8.4	Proportion of men and women ages 15–49 who experienced physical or sexual violence in the past 12 months	**Numerator:** Number of ever-married or partnered men and women ages 15–49 who experienced physical or sexual violence from a male intimate partner in the past 12 months **Denominator:** Total number of women ages 15–49 surveyed	Age, sex, residence	GARP	DHIS 2	Annual	40% (TDHS 2016)	0%	TACAIDS, MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
8.5	Proportion of sexually abused clients receiving HIV post-exposure prophylaxis	**Numerator:** Number of sexually abused clients receiving HIV PEP **Denominator:** Number of all clients reported sexually abused	Age, sex, residence	NASHCoP SP	DHIS 2	Monthly	No data	100%	TACAIDS, MoH
8.6	Proportion of sexually and physically abused clients tested for HIV	**Numerator:** Number of sexually abused clients tested for HIV **Denominator:** Number of all clients reported sexually abused	Age, sex, residence	NASHCoP SP	DHIS 2	Monthly	No data	100%	TACAIDS, MoH
STRATEGIC PRIORITY AREA 9: RESILIENT AND SUSTAINABLE SYSTEMS									
Intervention Area 9.1: Supply Chain Management									
Strategic Outcome 9.1: Improved supply chain system that ensures 100% of HIV commodities are available in health facilities at all times									
9.1*	Percentage of tracer HIV commodities that were available in the HF at a particular period out of items in use (Commodity availability)	**Numerator:** Number of tracer HIV commodities (items) that were available in the HF at a particular period out of items in use **Denominator:** Number of tracer HIV commodities (items) that are supposed to be available (in use) in the HF at a particular period	Facility level, District, Region, MSD Zones, and Geographical location	NASHCoP SP; Supply chain KPIs	LMIS (eLMIS, PMD)	Monthly, Quarterly, Annually, specified period	TBD	100% for ARVs; 90% for other HIV commodities	MoH, PORALG, MSD
9.2	Timeliness of reporting (Number of R&Rs submitted on time at MSD in a particular reporting period out of total number R&Rs submitted)	**Numerator:** Number of R&Rs submitted on time at MSD in a particular reporting period **Denominator:** Total number of R&Rs submitted at MSD in a particular reporting period	Facility level and Geographical location	NASHCoP SP and Supply chain KPIs	LMIS (eLMIS, PMD)	Bi-Monthly, Quarterly, Annually, specified period	TBD	95%	MoH, PORALG, MSD

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
9.3	Proportion of Care and Treatment facilities implementing an electronic logistics data management system (eLMIS/PMD)	**Numerator: Number of** Care and Treatment facilities implementing an electronic logistics data management system (eLMIS/PMD) **Denominator:** Total n**umber of** Care and Treatment facilities	Facility level, District, Region, and Geographical location	NASHCoP SP and Supply chain KPIs	LMIS (eLMIS, PMD)	Bi-Monthly, Quarterly, Annually, specified period	TBD	98% for eLMIS and 90% for PMD	MoH, PORALG
9.4	Percentage of Care and Treatment HF using redesigned logistics management system (Coverage)	**Numerator:** Number of Care and TreatmentHF using redesigned logistics management system **Denominator:** Total number of Care and Treatment HFs providing HIV services	Facility level, District, Region, and Geographical location	NASHCoP SP and Supply chain KPIs	LMIS (eLMIS)	Bi-mothly, Quarterly, Annually	TBD	100%	MoH, PORALG
9.5	Forecasting accuracy (100%-Percentage difference between Forecasted and of Actual consumption Vs Forecasted Consumption over a given period of time)	**Numerator:** Average 6 months Forecasted Consumption minus Average 6 months Actual Consumption of ARVs in a specified period **Denominator:** Average 6 months Actual Consumption of ARVs in a specified period NB: Forecast accuracy = 100%-(% difference btn Forecasted and Actual consumption)	Facility level, National	NASHCoP SP and Supply chain KPIs	LMIS (eLMIS, PMD)	Six monthly, , Annually	TBD	95%	MoH, PORALG
9.6	Order fulfilment (Percentage of HIV commodities delivered to MSD according to the Supply plan – Completeness of orders)	**Numerator:** Number of HIV commodities shipments delivered to MSD according to the supply plan/order (Completeness of orders). **Denominator:** Total number of HIV commodities shipments	Procurement agent, Donor	NASHCoP SP and Supply chain KPIs	MSD ERP (E10)	Monthly, Quarterly, Annually	TBD	90%	MoH, MSD

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
		ordered by MSD during a specified period							
9.7	On time delivery (Percentage of HIV commodities that are delivered on time to MSD as per supply plan/order)	**Numerator: Number of** HIV commodities shipments that are delivered on time at MSD as per supply plan/order **Denominator: Number of** HIV commodities shipments that are delivered at MSD as per supply plan/order in a specific period of time	Procurement agent, Donor	NASHCoP SP and Supply chain KPIs	MSD ERP (E10)	Monthly, Quarterly, Annually	TBD	90%	MoH, MSD
9.8	Order/Item/product fill rate (Between MSD central and Zonal store; between MSD zonal stores and HFs) within a specified reporting period	**Order fill rate:** **Numerator:** Number of HIV commodities orders processed and delivered to MSD zonal store from MSD central or from MSD zonal stores to HFs **Denominator:** Total number of HIV commodities orders submitted to MSD central by zonal stores or submitted to MSD zonal stores by HFs during a specific reporting period	Facility level; MSD central to zones; MSD zones to HFs	NASHCoP SP Supply chain KPIs	LMIS (E10, eLMIS)	Bi-monthly, Quarterly, Annually	TBD	90%	MoH, MSD
		Item fill rate: **Numerator:** Number of HIV commodities line items in an order that are processed and delivered to MSD zonal store from MSD central or from MSD zonal stores to HFs **Denominator:** Total number of HIV commodities line items in	Facility level; MSD central to zones; MSD zones to HFs	NASHCoP SP Supply chain KPIs	LMIS (E10, eLMIS)	Bi-monthly, Quarterly, Annually	TBD	90%	MoH, MSD

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
		an order that were submitted to MSD central by zonal stores or submitted to MSD zonal stores by HFs during a specific reporting period							
		Product fill rate: **Numerator:** Number of line items with 100% fill rate (Quantity of HIV commodities for each line item within an order that were processed and delivered to MSD zonal store from MSD central or from MSD zonal stores to HFs) **Denominator:** Total number of line items of HIV commodities within the orders that were submitted to MSD central by zonal stores or submitted to MSD zonal stores by HFs during a specific reporting period	Facility level; MSD central to zones; MSD zones to HFs	NASHCoP SP Supply chain KPIs	LMIS (E10, eLMIS)	Bi-monthly, Quarterly, Annually	TBD	90%	MoH, MSD
9.9	Proportion of the contribution of the Government of Tanzania (GOT) expenditure from its own funds on procurement, storage and distribution of ARVs, OIs, HIV rapid test kits, and diagnostics	**Numerator:** Funds contributed by the Government of Tanzania (GOT) from its own sources for procurement, storage and distribution of ARVs, OIs, HIV rapid test kits, and diagnostics **Denominator:** Total **expenditure** for procurement, storage and distribution of ARVs, OIs, HIV rapid test kits, and diagnostics **from all sources**	By source of funds	NASHCoP SP	Program records	Annually	TBD	15% by 2026	MoH, MoFP
Intervention Area 9.2: Rational Use of Medicines									

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
Strategic Outcome 9.2: All (100%) of HIV care and treatment facilities prescribed and dispensed ARVs and OIs according to national guidelines by 2026									
9.10	Percentage of HIV care and treatment facilities prescribing and dispensing ARV/opportunistic infections (OIs) medicines according to national guidelines	**Numerator:** Number of HIV care and treatment facilities prescribing and dispensing ARV/OIs according to national guidelines **Denominator:** Total number of health facilities providing HIV care and treatment services	By facility level; Geographical	NASHCoP SP	Rational use of medicine assessment report	Quarterly, Annually	TBD	ARV/ OIs: 90%	MoH; PORALG
9.11	Proportion of Care and treatment health facilities recording and reporting ADRs, and use the information for clinical management	**Numerator:** Number of care and treatment health facilities recording and reporting ADRs, and use the information for clinical management **Denominator:** Total number of health facilities providing HIV care and treatment services	By facility level; Geographical	NASHCoP SP	SARA; Rational use of medicine and pharmacovigilance assessment report	Quarterly, Annually	0%	90%	MoH; PORALG
9.12	Percentage of PLHIV on ART experiencing and reporting adverse drug events and adverse drug reactions from use of ARVs and OIs	**Numerator:** Number of PLHIV on ART experiencing and reporting adverse drug events and adverse drug reactions from use of ARVs and OIs **Denominator:** Number of PLHIV on ART and OIs in care and treatment facilities.	Age, Sex, Facility level, and Geographical location	NASHCoP SP	NASHCOP Programme data, HMIS; Pharmacovigilance assessment reports	Quarterly, Annually	NA	<10%	MoH
9.13	Proportion of health facilities with at least one clinical staff trained on rational use of HIV medicines and pharmacovigilance	**Numerator:** Number of health facilities with at least one clinical staff trained on rational use of HIV medicines and pharmacovigilance	By facility level; Geographical	NASHCoP SP	Programme report; Rational use of medicine and pharmacovi	Quarterly, annually	NA	95%	MoH; PORALG

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
		Denominator: Total number of health facilities providing HIV care and treatment services			gilance assessmen t report				
Intervention Area 9.3: Governance, Leadership and Accountability in SCM									
Strategic Outcome 9.3: Minimal (<5%) reported expiries and wastage resulting from improved governance, leadership and accountability in supply chain management at all levels.									
9.14	Proportion of value of HIV tracer commodities expiring at the Warehouse/HFs within a specified period time	**Numerator:** Value of HIV tracer commodities expiring at the Warehouse/HFs within a given year **Denominator:** Total value of HIV tracer commodities received at the Warehouse/HFs within the same year that the expired items were received.	Facility level, MSD central/zones, Geographical location	NASHCoP SP; National Logistics KPIs	MSD reports; HF logistics system assessmen t reports	Annually	NA	<5%	MoH; PORALG; MSD
9.15	Percentage of Care and Treatment facilities implementing IMPACT Teams approach to facilitate evidence-based decision making (filed reports and minutes)	**Numerator:** Number of Care and Treatment HFs implementing IMPACT Teams approach to facilitate evidence-based decision making (filed reports and minutes) **Denominator:** Total number of Care and Treatment HFs enrolled in the IMPACT Teams Initiative	Facility level, Geographical location	NASHCoP SP; National Logistics KPIs	IMPACT teams' assessmen t reports;	Biannual; Annually	NA	90%	MoH; PORALG
9.16	Percentage of Regions and Districts that have a dedicated Health Commodities Supply Chain officer (similar to LMS) to support capacity building and	**Numerator:** Number of Regions and Districts that have a dedicated Health Commodities Supply Chain officer (similar to LMS) to support capacity	District; Regions, Geographical location	NASHCoP SP	NASHCOP Programme reports	Biannual; Annually	NA	80% Regions; 50% Districts	MoH; PORALG

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
	monitoring the supply chain at HFs	building and monitoring the supply chain at HFs **Denominator:** Total number of Regions and Districts in the country							
Intervention Area 5.4: Laboratory Management Systems									
Strategic Outcome 5.4: Improved and resilient Quality Management System implemented at all POCT and laboratories to support HIV services at all health care levels by 2026									
9.17	Percentage of average time the laboratory equipment at care and treatment facilities functioning in a quarter against minimal requirements	**Numerator:** Average time the laboratory equipment at care and treatment facilities are functioning **Denominator:** Standard functioning time of equipment at care and treatment hospital and health centre laboratories	Disaggregate by type of test and level of facility (HVL/EID; CD4; haematology; chemistry), Geographical location	NASHCoP SP	Open LDR, LEMM, LMIS	Quarterly	4 Days*	<5%	ADDS, MoH
9.18	Proportion of HFs providing HIV care and treatment services using electronic logistics data management system	**Numerator:** Number of HFs providing HIV care and treatment services using electronic logistics data management system **Denominator:** Number of HFs providing HIV care and treatment services	Facility level, Geographic location	NASHCoP SP	LMIS	Quarterly	23%*	100%	ADDS, MoH
9.19	Percentage of samples rejection rate against standard (<2%) reported from testing laboratories	**Numerator:** Number of samples rejected at testing laboratories **Denominator:** Number of samples received at testing laboratories in a specific period	Facility level, Geographic location	NASHCoP SP	LIS	Quarterly	12.5%*	<2% (2025)	ADDS, MoH
9.20	Percentage of sample results reported within TAT to support HIV and	**Numerator:** Number of sample results reported within TAT to	Age, Facility level,	NASHCoP SP	LIS	Quarterly	12.5%*	100%	ADDS, MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
	AIDS care and treatment;	support HIV and AIDS care and treatment **Denominator:** Number of sample results reported to support HIV and AIDS care and treatment in a specified period	Geographical location						
9.21	Percentage of referred samples using the e-SRS from CT sites.	**Numerator:** Number of referred samples using the e-SRS from CT sites. **Denominator:** Number of referred samples from CT sites.	Facility level, Geographical location	NASHCoP SP	eSRS, LIS	Quarterly	12.5%*	100%	ADDS, MoH
9.22	Percentage of samples processed with internal QC at the POCT sites	**Numerator:** Number of samples processed with internal QC at the POCT sites. **Denominator:** Number of samples processed at the POCT sites.	Facility level, Geographical location	NASHCoP SP	LIS, Registers	Quarterly	12.5%*	100%	ADDS, MoH
9.23	Percentage of Referral Hospital laboratories with capacity to conduct conventional HVL/HEID testing	**Numerator:** Number of Referral Hospital laboratories with capacity to conduct conventional HVL/HEID **Denominator:** Total number of Referral Hospital laboratories in the country.	HVL; HEID; Facility level, Geographical location	HSHSPV	LIS; eSRS; Open LDR	Bi-annually; Annually	50%	100%	MoH
Intervention Area 9.5: Strengthening Strategic Information Systems									
Strategic Outcome 9.5: By 2022, 100% of health facilities complete and submit monthly reports on time.									
9.24	Percentage of facilities providing HIV services with timely submission of reports into the DHIS 2	**Numerator:** Number of facilities providing HIV services with timely submission of reports into the DHIS 2:	By HIV interventions (HTS, ART, PMTCT CBHS, VMMC, STI), Facility level,	NASHCoP SP	DHIS 2	Monthly, Quarterly	CTC/ART: 94%	100% (2025)	MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
		Denominator: Total number of facilities providing HIV services	Geographical location						
9.25	Percentage of PMTCT/CTC facilities which record and submit data using the electronic information system	**Numerator:** Number of PMTCT/CTC facilities which record and submit data using the electronic information system **Denominator:** Total number of facilities providing HIV services	Facility level, Geographical location	NASHCoP SP	DHIS 2	Monthly, Quarterly	3,200/6,858 (46%)	90% 6,172/6,858	MoH
Intervention Area 9.6: Surveys and Research									
Strategic Outcome 9.6: Enhanced evidence base for informed decision-making and strategic planning in the Tanzanian health sector by conducting comprehensive surveys and research by 2025									
9.26	Nationally representative KVP size estimates disaggregated by regions	**Numerator:** Nationally representative KVP size estimates **Denominator: N/A**	Age, Sex and Geographical location	NASHCoP SP	IBBS	Once in 5 years			MoH
9.27	Midterm evaluation report of NASHCOP SP	**Numerator:** Midterm evaluation report of NASHCOP SP **Denominator: N/A**	N/A	NASHCoP SP	Evaluation Report	At Mid-term			MoH
Intervention Area 9.7: Surveillance and Data Use									
Strategic Outcome 9.7: Strengthened national surveillance and data utilization mechanisms in Tanzania to effectively monitor and respond to HIV and Hepatitis, ensuring evidence-based decision-making and improved public health outcomes by 2025									
9.28	Annual Drug resistance surveillance reports 2023/24 - 2027/28	**Numerator:** Annual Drug resistance surveillance reports **Denominator: N/A**	N/A	NASHCoP SP	Drug resistance surveillance reports	Annually			MoH

No	Indicator	Indicator definition (numerator and denominator)	Disaggregation	Indicator source	Data source	Frequency	Baseline (2020/21)	Target (2025/26)	Stakeholder
9.29	Annual HIV recent infections surveillance report 2023/24 - 2027/28	**Numerator:** Annual HIV recent infections surveillance report **Denominator: N/A**	N/A	NASHCOP SP	HIV recent infections surveillanc e report	Annually			MoH
9.30	Annual HIV and Hepatitis intervention outcomes report 2023/24 - 2027/28	**Numerator:** Annual HIV and Hepatitis intervention outcomes report **Denominator: N/A**	N/A	NASHCOP SP	HIV and Hepatitis interventio n outcomes report	Annually			MoH

NOTE: * Source, HVL Monthly Reports (Oct. 2020-May 2021), MoH 2021 for SO 4.4 Laboratory Management Systems
^ Anecdotal

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