

Papua New Guinea
**National STI and
HIV Strategy**
2018 - 2022



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Acronyms

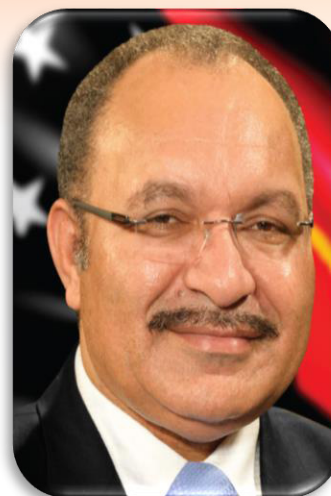
AMR	Antimicrobial Resistance
ANC	Antenatal care
ASHM	Australasian Society for HIV Medicine
ART	Anti-retroviral therapy
BCC	Behaviour change communication
BSS	Bio-behavioural Survey
CBO	Community-based organisation
CD4 count	A test of immune system strength
CHAI	Clinton Health Access Initiative
CHASI	Catholic HIV and AIDS Services Inc.
CPHL	Central Public Health Laboratory
DBS	Dried blood spot
ESP	Enhanced Service Package
eNHIS	Electronic National Health Information System
GAM	Global AIDS Monitoring
GBV	Gender-based violence
GFATM	Global Fund to Fight AIDS, Tuberculosis & Malaria
HHISP	Health & HIV Implementation Services Provider
HIV	Human Immunodeficiency Virus
HPDB	HIV Patient Database
HPV	Human Papilloma Virus
IBBS	Integrated Bio-Behavioral Surveillance
IPT	Isoniazid preventive therapy
JSS4D	Justice Services and Stability for Development Project
KP	Key population
KPMIS	Key Population Management Information System
MCH	Maternal and child health
MSD	Men with diverse sexualities
MSM	Men who Have sex with men
NAC	National AIDS Council
NACS	National AIDS Council Secretariat

NCD	National Capital District
NDoH	National Department of Health
NGO	Non-government organisation
NHATU	National HIV and AIDS Training Unit
NNRTIs	Non-nucleoside reverses transcriptase inhibitors
NUIC	National Unique Identifier Code
OI	Opportunistic infection
PACS	Provincial AIDS Council Secretariat
PALJP	PNG/Australia Law and Justice Partnership
PHA	Provincial Health Authority
PHO	Provincial Health Office
PITC	Provider initiated HIV testing and counselling
PLHIV	Person living with HIV
PMTCT	Prevention of mother to child (HIV) transmission
PNG IMR	PNG Institute for Medical Research
POC	Point of care
PPP	Public/private partnership
PrEP	Pre (HIV) exposure prophylaxis
RH	Reproductive health
SDG	Sustainable Development Goal
STI	Sexually transmissible infection
TB	Tuberculosis
TWG	Technical Working Group
UNAIDS	Joint United Nations Program on HIV/AIDS
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
VCT	Voluntary counselling & testing
VL	Viral load
WHO	World Health Organization

Prime Minister's Foreword

HIV & AIDS is simultaneously a health and development issue, which cuts across all sectors of the society. The HIV epidemic deepens poverty, reverses human development achievements, worsens gender inequalities, erodes abilities of governments to maintain essential services, reduces labour productivity and supply and impairs economic growth.

HIV affects the most productive age group, those between 15 to 49 years of age, the labour force of any one nation. The impact that this loss of talent and productivity to the development and growth of Papua New Guinea could be devastating and thus critical actions is needed to ensure HIV is addressed. Through several policy measures and legislation, the government of Papua New Guinea is committed to eradicating transmission of HIV and assist those who live with the disease. The government has demonstrated its commitment through the PNG Vision 2050, Medium Term Development Strategy, National Population Plan 2016–2025 and the PNG Sustainable Development Goals (SDGs).



This government also gives special attention to HIV & AIDS, which is highlighted in the Alotau Accord 1 Priority Areas 17–23(2012) and Alotau Accord 2 Priority Area 63(2017). Our government is a party to the United Nations High Level Meeting Declaration 2016 to eliminate HIV by 2030. We must continue to honour these commitments and work towards reaching the set targets by 2020 with the vision that PNG will be HIV free and the country's social and economic development will prosper.

The National STI & HIV Strategy is a dynamic document that must change as needs in the population change and we have done well as a country to address HIV with prior strategies. However, we realise that a new approach is required, a harmonious integrated approach with coherent national and sub-national leadership, empowerment and ownership is critical for a sustainable and effective national STI and HIV response in the country.

This new STI & HIV Strategy 2018–2022 will improve on lessons learnt from successive national HIV strategies. The successive strategies in the past have been supported by donor funding (76%) while the national government has contributed 24% towards their implementation costs. This government acknowledges the generous support from donor and aid partners.

The national government is also aware that the climate for donor support is changing and that funding for the new strategy must be sustainable to reach both the national and global goals and targets. This government ensures that adequate funding is provided in the Annual Budget Allocations to NACS and NDoH to implement the STI & HIV 2018–2022 Strategy.

Finally, the lessons learned from previous strategies must be used to guide future HIV programs. The government is committed to addressing the main drivers of HIV epidemic as indicated in the Alotau Accord 2, Priority Area 84. The government will be addressing main drivers such as gender inequalities, gender based violence and cultural norms.

This government is also committed to lead the HIV program related needs of the new STI & HIV strategy. I take this opportunity to call upon all government agencies and partners to join this government in our common fight against STIs and HIV.

This government again acknowledges the enormous contribution of development aid and donor partners in the implementation of previous strategies that has helped stabilize HIV from being generalize to now a concentrated epidemic surrounding key population groups and certain geographical locations. We invite our partners to join us again to implement this new strategy so that we may greatly reduce the impact of STIs and HIV epidemics by 2022.

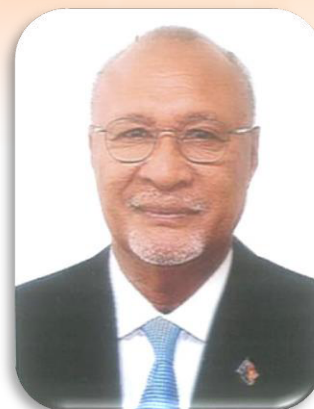
May God bless our collective efforts.



Hon. Peter O'Neill, CMG MP
Prime Minister of Papua New Guinea

Executive Summary

Papua New Guinea has had successive national HIV strategies since 2006. Many lessons have been learnt along the way, adapting models and ideas from global best practices adaptable to Papua New Guinea's particular context. Papua New Guinea is a vast country with a diverse range of cultures and contexts. It is also going through rapid developmental growth and change. Interventions and solutions developed in other parts of the world can help guide the response in Papua New Guinea but they need to be adapted to local context, tested for effectiveness and responsive to changing circumstances.



There are still many challenges ahead but there is already a firm foundation in place to build on. Significant progress has been made in assisting individuals, families and communities respond to the challenges HIV and STIs present. Although HIV affects many families and communities across all of Papua New Guinea, we know that there are particular provinces and populations that have a higher burden of HIV and STIs that require particular attention.

The government is committed to Universal Healthcare Coverage and have been successful in reaching some of the populations most affected by HIV and STIs and alienated from healthcare such as sex workers and their clients, men who have sex with men and transgender people. We have worked closely in partnership with groups that represent and work with these populations to connect them to STI and HIV prevention, counselling and testing, treatment, care and support services and we will continue to strengthen these partnerships.

Outside of the health sector, this will be supported by attention to human rights, supportive laws and policies and attention to the drivers of the STI and HIV epidemic like discrimination, gender norms, violence, poverty, drug and alcohol use. As a government, we are committed in finding ways to integrate STI, HIV and TB services into our public health system with continued support from churches, non-government and private health services. Increasingly, more sustainable funding for HIV response will need to come from provincial and local level health services planning.

We will therefore continue to increase our efforts in assisting local authorities to effectively plan and budget for the STI and HIV response as required. Strong partnership between our international development partners, GoPNG, NGOs, Churches, CSOs and the private sector will continue to play a big role in supporting the deployment of the new national STI & HIV strategy across the country through sustainable resource investment and support.

We acknowledge the support of our development partners and civil society in the development of this new STI & HIV Strategy 2018–2022 and we look forward to this continued partnership in its implementation over the following five years.

A handwritten signature in blue ink, appearing to read 'Puka I Temu'.

Hon. Sir Dr. Puka I Temu, KBE CMG MP
Minister for Health & HIV/AIDS

Acknowledgements

The Papua New Guinea HIV Technical Working Group (TWG), chaired by Dr. Nick Dala, National Department of Health, Ministry of Health and HIV & AIDS in close collaboration with the National AIDS Council Secretariat oversaw the production of this National STI & HIV Strategy 2018–2022.

Staff of various departments within the National Department of Health, local officials, bilateral and multi-lateral donors and agencies, development partners, non-governmental organizations and civil society organizations, made valuable contributions. PLHIV and key population networks participated in the development process including numerous consultations held to discuss each strategic direction of the new strategy.

The HIV Technical Working Group extends grateful appreciation to the partners of the National AIDS Programme who participated in the national strategy consultations and reviewed and commented on drafts of the national strategy from the following organizations:

The Ministry of Health & HIV acknowledges the financial and technical support given by DFAT, USAID, Oil Search Foundation, Global Fund for AIDS, TB & Malaria, UNAIDS, US CDC, WHO and FHI360 for the development of this National STI & HIV Strategy 2018–2022. Without this support, this strategy would not have been completed on time. We are thankful for this continual support from our development partners.

Finally, a special word of thanks to the consultants and the dedicated members of the PNG HIV TWG for developing the first draft of the strategy from which this final document is produced upon.

PART 1: NSHS 2018 - 2022

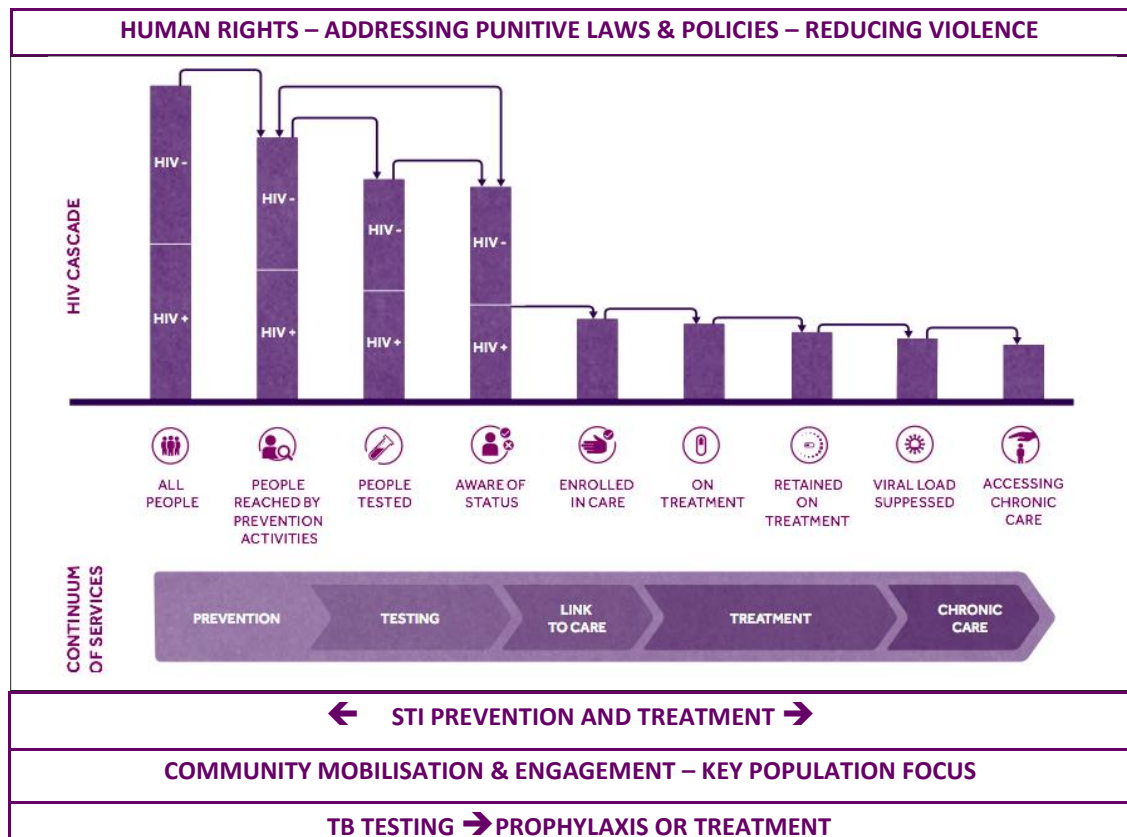
1. Our Approach

The Papua New Guinea National STI & HIV Strategy 2018–2022, is the strategic guide for the country’s response to STI and HIV at both national, provincial and district levels. The strategy addresses the drivers of the STI and HIV epidemic and builds on achievements of the previous country strategic plans to achieve its goal of contributing to the country’s Vision 2050 through universal access to comprehensive STI and HIV prevention, treatment, care and support.

The strategy also adheres to the Government’s commitment to the Sustainable Development Goals (SDGs) through a fast-track approach to ending AIDS as a public health threat by 2030. The new National STI & HIV Strategy 2018–2022 calls on all partners to front-load investments to close testing gaps and reach 90–90–90 prevention and treatment targets to protect health for all to keep up with the WHO Global Health Sector Strategy on STIs and HIV 2016–2021.

The PNG approach to responding to STIs and HIV requires focussed and concentrated effort on a number of fronts. In the health sector, we will provide services and programs across a continuum of prevention, treatment, care and support (CoPTCS). This will involve regular HIV testing for people at risk, STI treatment and prevention outreach to support safer behaviours for people who test negative for STI and HIV treatment, TB prophylaxis (or treatment if living with TB) and HIV treatment care and support for PLHIV. This will be supported by attention to human rights, supportive laws and policies and attention to drivers of the STI and HIV epidemic like discrimination, gender norms, violence, poverty and drug and alcohol use. This approach is summarised in the diagram below.

Figure 1: The PNG Continuum of STI & HIV prevention, treatment, cares and support.



2. Our Epidemiology and progress at a glance

Epidemiology at glance

Figure 2: The Epidemiology at a glance.

STIs	<ul style="list-style-type: none"> ▪ Highest prevalence in the region ▪ Syphilis 5.3% among women attending antenatal care ▪ Higher among key populations - sex workers, MSM, transgender people
HIV prevalence	<ul style="list-style-type: none"> ▪ Geographically concentrated - higher in NCD, Highlands ▪ 15 times higher among female sex workers than general population ▪ 10 times higher among MSM and transgender people
Knowledge of HIV status	<ul style="list-style-type: none"> ▪ Despite outreach, efforts, many key population members still don't know their HIV status - 41% of HIV positive sex workers in the 2016 IBBS did not know they were positive
PMTCT	<ul style="list-style-type: none"> ▪ HIV testing rate in ANC is low - anticipating 400 newly-infected babies in 2017 ▪ Need to extend testing for pregnant women into community ▪ Reproductive health counseling & support for women with HIV
PLHIV on treatment	<ul style="list-style-type: none"> ▪ 52% of PLHIV on antiretroviral therapy ▪ Resistance rates high
TB/HIV	<ul style="list-style-type: none"> ▪ HIV testing rates of people with TB are low - only 35% of people diagnosed with TB are tested for HIV ▪ TB prophylaxis rates low
Violence	<ul style="list-style-type: none"> • Sexual violence a key driver of HIV and STI transmission • Higher among key populations
Stigma and discrimination	<ul style="list-style-type: none"> • A major barrier to health service access for people from key populations

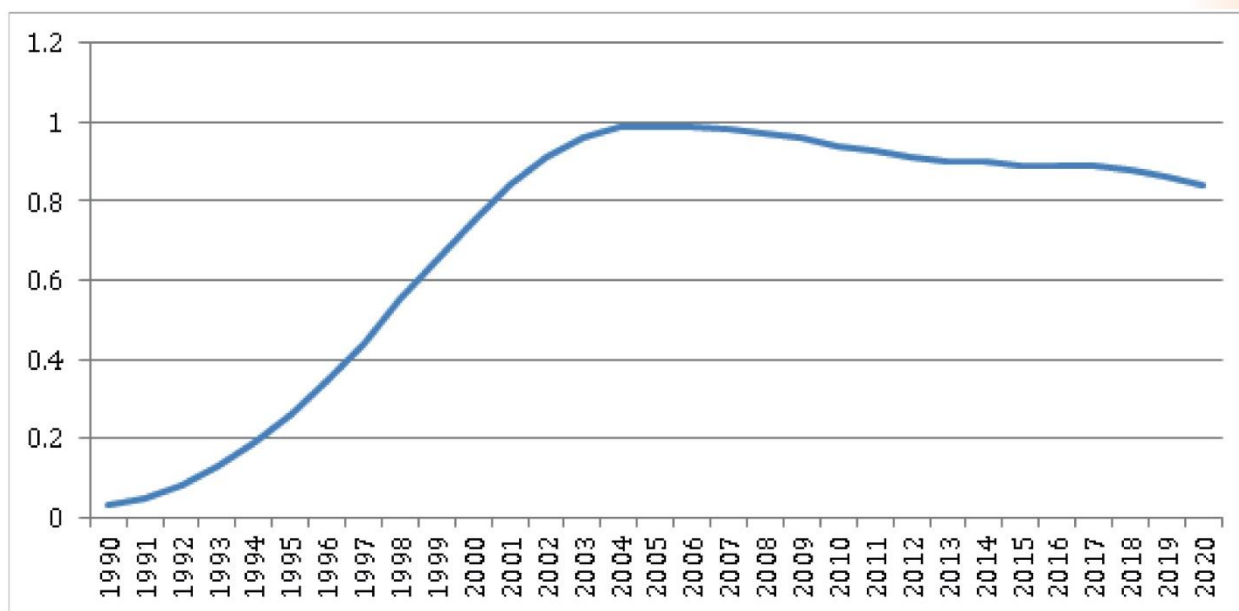
Detailed information, data and references in Appendix 2

Epidemiology

In recent years, the HIV epidemic in PNG has been referred to as 'mixed' to indicate that whilst prevalence is significantly higher in a set of key populations, there are many people at risk of and affected by HIV who do not fit neatly into these populations, and there are environments of higher risk that have an impact on broader populations.

HIV prevalence is higher than the national average in a number of provinces, particularly in the Highlands region and in the National Capital District. Sexual transmission is by far the leading transmission route. National HIV prevalence is estimated at 0.89%. It is estimated that there are 47,177 people living with HIV in PNG in 2017. Of these, around 2,471 are estimated to be new infections that year.¹ HIV prevalence projections are set out in the graph below. The 2020 national HIV prevalence is estimated to be at 0.84%.

Figure 3: HIV Prevalence in Papua New Guinea, 1990–2020.



Source: Spectrum data 2016 not yet published

HIV prevalence is not uniform across PNG regions. The highest prevalence is in the Highlands Region and in the National Capital District, though low HIV testing coverage in some regions needs to be taken into account when relying on these figures.

Table 1: HIV Prevalence by Regions in PNG.

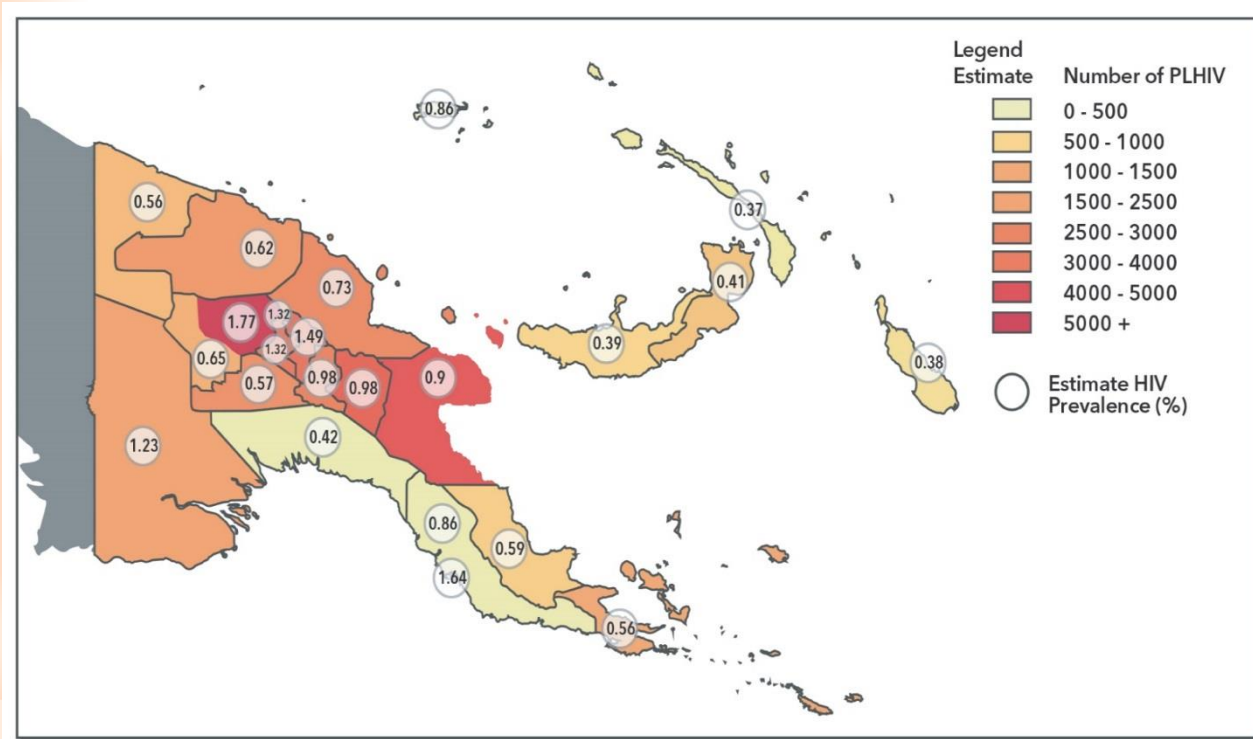
Regions	HIV Prevalence (%)	Remarks
National Capital District	1.64	NCD remains the province the highest HIV prevalence; caution should be taken with this estimate as a large number of people from neighbouring provinces (and from other provinces) access services in NCD
Highlands	1.10	The Highlands regions continue to remain the centre of epidemic with a number of provinces showing HIV prevalence at greater than 1 percent (Enga, Jiwaka, Western Highland)
Momase	0.74	Within Momase region two provinces have considerable epidemic showing higher prevalence (Morobe and Madang)
Southern	0.74	The Southern region epidemic is largely concentrated in Western and Central provinces
Islands	0.42	This may be an under-estimate as limited data is available from some of the region

¹2016 Spectrum data, not yet published

The data should be interpreted with caution. There are likely to be pockets of higher prevalence in work enclaves, settings or among populations in provinces that report a lower overall prevalence that require an enhanced response.

The distribution of provincial prevalence is displayed in the map below:

Figure 4: HIV Prevalence by Province; distribution of PLHIV by province.



Source: Spectrum Data 2016, not yet published.

In addition to this geographical variation, HIV prevalence is also much higher than the national average for specific key populations. The recent integrated bio-behavioural surveillance (IBBS) study revealed a prevalence of 14.9% among female sex workers² and 8.5% among MSM and transgender people in NCD.³

The *Askim Na Save* study, also conducted in NCD, estimated a HIV prevalence of 19.0% among female sex workers, 8.8% among male sex workers and 23.7% among transgender sex workers in 2011.⁴ In the *Tingim Laip* Project Period Survey in 2014, carried out in Mt Hagen, Goroka, Madang and Popondetta, 8.4% of the women engaged in transactional sex who had an HIV test reported that they were living with HIV.⁵

²When the term 'female sex worker' is used in this Strategy (and in many of the PNG studies it quotes) it is a short-hand term for women regularly involved in transactional sex (with a number of men for money, security or goods)– it is not an 'identity' term used by the most of the women themselves to describe themselves

³2016 IBBS, preliminary data NCD

⁴Kelly, A., Kupul, M., Man, W.Y.N., Nosi, S., Lote, N., Rawstorne, P., Halim, G., Ryan, C. & Worth, H. *Askim Na Save* (Ask and understand): People who sell and/or exchange sex in Port Moresby, 2011.

⁵Amos, A., Kelly-Hanku, A., Miller, J., McCallum, L., Worth, W., and Rawstorne, P. *Tingim Laip* Periodic Survey, Round 2, 2015

3. Our Vision and Guiding Principles

Vision

All Papua New Guineans are protected, and able to protect themselves, from STIs and HIV, and all people with STIs and HIV are able to access the treatment, care and support they need to maximise their health and the health of their families.

Guiding Principles

- This National STI and HIV Strategy is based on the following principles:
- Universal healthcare coverage (in line with SDG 3).
- A public health approach.
- A respect for human rights and gender equality (in line with SDG 5).
- The meaningful involvement of civil society, particularly people living with HIV and the populations most affected by HIV (in line with SDG 17).
- Respectful partnerships between national and provincial governments, non-government organisations and churches (in line with SDG 17).
- Use of the best available scientific evidence to drive program design.
- Respect for the wide range of cultural traditions and beliefs across PNG.
- No discrimination on the basis of gender, sexuality, age, faith, clan or disability (in line with SDG 17).
- Development of services and programmes that are scalable, sustainability and able to be embedded long-term into PNG's existing systems.

4. Our Strategic Directions

Strategic Direction 01: Leadership, coordination and sustainability

The right structures and the people with the right skills and technical and financial support, functioning in a well-coordinated manner to implement the strategy.

Goal: An efficiently managed, capable and well-resourced national, provincial and district response to STIs and HIV

Strategic Results:

- 1.1 Efficient and effective structures and mechanisms in place to manage the STI and HIV response.
- 1.2 A workforce that is sufficient, skilled, properly remunerated, accountable, managed and supported.
- 1.2 Medical supplies, medicines, equipment, test kits and reagents are fit for purpose and available in the right place at the right time.
- 1.4 An STI and HIV response that is adequately funded at all levels and is sustainable.

Strategic Direction 02: Strategic Information

The right information to ensure effective interventions, to track progress and to focus resources and efforts on established needs and evidence of effectiveness

Goal: A successful response to STIs and HIV that is driven by accurate and up-to-date strategic information and research

Strategic Results:

- 2.1 A harmonised, efficient and effective strategic information system is in place.
- 2.2 The range and quality of data collected is sufficient to guide the key priority areas of the strategy.
- 2.3 Accurate and timely strategic information is used to drive changes in program and service design at all levels.

- 2.4 Planners and implementers have an accurate picture of the changing context of HIV risk and impact and of the effectiveness of the intervention models being used.

Strategic Direction 03: Prevention, Continuum of care

The right services in the right places, accessed by the right people

Goal: Decreased STI and HIV transmission and improved health and well-being of PLHI

Strategic Results:

- 3.1 The elements of the Standard Service Package are available across every province (with the Enhanced Package in higher-burden provinces), integrated into existing services wherever possible.
- 3.2 Reduction in transmission of STIs (including HIV) in the general population.
- 3.3 Equitable access for people in key populations to services across the continuum of STI and HIV prevention, treatment, care and support.
- 3.4 Increased level of knowledge of HIV status among PLHIV.
- 3.5 Improved health and wellbeing of PLHIV, (with a priority focus on TB-HIV).

Strategic Direction 04: Advocacy and Enabling Environment

The right environment to reduce people's vulnerability to STIs and HIV and support their efforts to maximise their health.

Goal: An environment that is safe and supportive of people's efforts to remain healthy.

Strategic Results:

- 4.1 Healthcare, police, justice, welfare and other services that can be accessed by the people who need them without stigma and discrimination.
- 4.2 People from key populations have greater autonomy over their health and well-being.
- 4.3 A supportive legal and policy environment for the STI and HIV program.

5. Our Strategic Directions, Goals, Strategies, Key Indicators, Strategic Results and Priority Actions

Strategic Direction 01: Leadership, coordination and sustainability

The right structures and the people with the right skills and technical and financial support, functioning in a coordinated manner to implement the Strategy.

Goal: An efficiently managed, capable and well-resourced national, provincial and district response to STIs and HIV.

A successful National STI and HIV Strategy will require leadership and competent and accountable management at all levels. The decentralisation of health planning and funding to provinces presents a series of opportunities and challenges that will require concentrated attention in the early years of this Strategy.

Budget shortages across all sectors in recent years have resulted in significant workforce shortages. This places additional pressure on people in existing positions, particularly in the health sector, where it is anticipated that there will be significant staff shortages until 2020. This makes integration of STI and HIV initiatives into existing health services challenging until additional resources are available. Despite this challenge, workforce development will need to take place to ensure a workforce that is motivated and capable to carry out the intervention models set out, and supported to do so.

The donor environment has also been relatively unstable in the last twelve months of the previous strategy, with significant changes in donor policy and funding priorities. These changes present an opportunity for greater coordination of the STI and HIV response, allowing for a transition from donors funding less sustainable stand-alone projects to donors contributing directly to the government's coordinated national, provincial and district STI and HIV effort. It also presents an opportunity to integrate the essential and significant HIV testing, treatment, care and support effort carried out by church health services across the country into the mainstream arrangements between NDoH and the church health sector. This will also strengthen sustainability.

Enterprises like mining, palm oil and others also have a role to play in supporting STI and HIV outcomes, and mitigating any additional risk and health impact caused by their presence in an area. To date this has also been stand-alone and independent of the national effort. There will be scope under this Strategy to bring those resources into a more coordinated approach.

Strategic Results:

Strategic Result 1.1: Efficient and effective structures and mechanisms in place to manage the STI and HIV response

The mid-term review of the previous strategy made a series of recommendations for changes in the role of the National AIDS Council Secretariat (NACS) to take account in the decentralisation of health planning and financing to provinces. These have not yet been implemented, but will be a priority for Year 1 of this strategy. The Provincial AIDS Committees have been decommissioned in almost all provinces, leaving a gap in coordination.

In order to ensure the rollout of the Standard or Enhanced Service Package in each province, tools and assistance will be needed in provinces to map needs and available resources and develop annual plans and budgets. They will also need timely access to data to assist them in this process. Given the absence of the coordinating role of the PAC, a suitable coordination mechanism will be required at province level—preferably under the PHA in provinces with a PHA in place.

Whilst much of the implementation of this Strategy falls within the direct responsibility of the NDoH and Provincial Health Authority or Provincial Health Office (depending on the provinces progress in the PHA process), there are still contributions to be made by other sectors, particularly the Church and NGO sectors, police and justice, education and welfare. Coordination of the work of health and these other sectors needs to occur at national provincial and district levels.

The National HIV Technical Working Group (TWG) has played an essential part in recent years in updating policy and guidelines, and identifying and addressing obstacles to the smooth running of the HIV response. An equivalent TWG steers the national TB strategy. These two TWGs will have combined meetings every two months to help identify and monitor strategies for greater HIV and TB collaboration.

A strong and effective laboratory network is also essential to the response. The Central Public Health Laboratory (CPHL) will be assisted to strengthen its strategic, technical and coordination role.

The effective participation of civil society, particularly people with HIV and the populations most affected by HIV, is a core value of this strategy. A temporary hold on operations funding to the NACS in 2015 resulted in cessation funding for the national PLHIV organisation and the individual key population networks. This also affected the provincial networks, as they were also funded through the NACS and the PACs. In late 2016, donor funding for the core activities of these civil society organisations was also withdrawn due to changes in donor policy.

The PLHIV Expert Patient program was continued under the Global Fund grant and temporary funding to support a coalition of civil society organisations was put in place. The role of this coalition was further explored in 2017. The existing civil society organisations have all expressed a willingness to work under this umbrella organisation, whilst preserving their independence.

Under this strategy, these civil society organisations will be supported to provide their individual inputs as appropriate, at the same time as further exploring the advocacy and participation gains that might come from working under a coalition. Successful coalitions in countries in the region and regional organisations will be approached to provide useful guidance in establishing this coalition.

Priority Actions for Strategic Results 1:1

Review the governance/management system for HIV (including the appropriateness of a stand-alone NAC and NACS) in the light of integration of management of TB/HIV/STIs Restructure the NACS to operate for Years 1–3 of the strategy, aligned with NDoH and the provincial health system and with a more focussed set of tasks that include:

Coordination:-

- Provincial support for planning and coordination.
- Standard setting and monitoring.
- Support for national key population networks.
- Monitoring and evaluation.
- Reporting (externally and internally).
- Develop a set of mapping and budgeting tools to assist provinces in establishing and coordinating the Standard or Enhanced Service Packages.
- Assist provinces to establish a provincial-level STI and HIV coordinating mechanism.
- Hold combined National HIV and TB TWG meetings every two months for the first year of the strategy to increase collaboration and knowledge and cross-fertilisation.
- Support the national networks of PLHIV, sex workers and MSM and transgender people financially and through capacity development and technical support to play a key role in the implementation and oversight of the strategy, as individual organisations and in coalition.
- Explore the development of community organisations at district level to create demand for HIV and TB testing and services and to assist in HIV and TB treatment adherence.

Laboratory Support:

- Participate in the development of a national strategic plan for Central Public Health Laboratory (CPHL).
- Strengthen laboratory service delivery and external quality assurance (EQA) for national and provincial laboratories, identifying appropriate functions for decentralization.
- Assist CPHL to strengthen the capacity regional/provincial laboratories.
- Strengthen early Infant Diagnosis by DBS and/or POC (GeneXpert).
- STI diagnosis (Syphilis, Gonorrhoea, Chlamydia) by lab and/or POC (Syphilis screening is already available. GeneXpert for Gonorrhoea and Chlamydia will be prequalified).
- Identify mechanism for STIs and HIV resistance diagnosis.

Strategic Result 1.2: A workforce that is sufficient, skilled, properly remunerated, accountable, managed and supported

PNG's STI and HIV response will be as good as the people working in it. PNG has been responding to HIV for many years and there is considerable capacity and experience in the workforce at all levels. There are also excellent training curricula and guidance documents in place to steer their practice.

Challenges in the funding environment have put additional pressure on the health workforce in particular in recent years, and these must be addressed to build the commitment and motivation of health workers. This raises the need for task-shifting so that people's skills are being applied as efficiently as possible to priority tasks. Pilots of the PLHIV Expert Patient model in ART clinics (under the Global Fund project) and paid key population peer educators and case managers working between clinics and communities (under the Tingim Laip Project) have shown great promise and have freed up nurses, health extension officers and doctors up for tasks more appropriate to their training.

There is work to be done in standardising incentives and remuneration in the outreach workforce. This is an essential workforce as these people reach into harder-to-reach populations and engage people with HIV testing, prevention and ongoing treatment care and support. They need to be properly trained, valued and managed and they need career pathways in place to reduce turnover. Management systems need to be strengthened in all services to ensure accountability and consistent application of policies and procedures.

Priority Actions for Strategic Results 1:2

- Expand task-shifting initiatives including PLHIV Expert Patients and key population peer educators and case managers.
- Identify an appropriate designation for these workers in the public service gazette to legitimise their positions.
- Standardise outreach worker incentives and remuneration and identify career paths for outreach workers to encourage retention and development.
- Integrate the training resources developed by the National HIV and AIDS Training Unit (NHATU) into the National Training Council.

Strategic Result 1.3: Medical supplies, medicines, equipment, test kits and reagents are fit for purpose and available in the right place at the time

Table 2: Shows the list of indicators for Strategic Results 1.3

Indicators	Baseline 2017	Milestone 2020	Target 2022
Stock outs of essential medicines	0	0	0
Stock outs of essential test kits	0	0	0
Stock outs of essential condoms	1	0	0

Having the right commodities in the right place in PNG presents significant challenges, given the terrain, difficulties in the flow of funds and the cost of transport. There have been significant stock-outs of OIs and STI medications, condoms and test kits in recent years and the causes of these will be addressed in this strategy.

In the recent World Bank Assessment of the PNG Health System, health workers identified not having the facilities and equipment they needed to do their jobs as the primary cause of job dissatisfaction. Interruptions in supply also threaten STI and HIV health gains, and some cases are life threatening. The national HIV Technical Working Group (HIV TWG) has played a significant role in tracking the availability of essential commodities in central supply and implementation sites and this will continue.

Priority Actions for Strategic Results 1:3

- Ensure that there is a buffer of at least three months' supply of essential commodities in central stores and in all implementation sites.
- Strengthen the role of the HIV Technical Working Group in monitoring essential commodity levels.
- Integrate HIV and TB procurement, supply and distribution into national program.
- Develop improved communication strategies and systems and accountability measures between NDoH and provinces in relation to consistent availability of essential commodities.
- Put in place early warning mechanisms so that provinces, implementation sites and PLHIV, key population and community organisations can signal impending shortages.
- Ensure representation of key populations organisations on provincial and national HIV TWG so that feedback on interruptions to service and commodity availability can be addressed quickly.
- Establish and monitor written standards on commodity availability.

Strategic Result 1.4 An STI and HIV response that is adequately funded at all levels and is sustainable

A mix of government, donor, NGO and private funds the STI and HIV response. This makes for a complex funding environment and presents significant challenges in relation to management and coordination.

Decentralisation of health service planning and financial management to the provinces place considerable responsibility on provinces to include funding for HIV services in their provincial planning cycles. Although the NACS has played a role in resource mobilisation and donor coordination in the past, this role has diminished in recent years. External donors all have their own planning and funding cycles and priorities and this impact on the government's ability to plan effectively, to avoid duplication and to fill service and technical assistance gaps.

The elements of this Strategy have been costed and this information will be used, along with the findings of an Investment Case exercise conducted in 2017, to engage with government, local stakeholders and donors to mobilise the financial and other resources necessary for the effective implementation of the strategy. These goals and Strategic Results of this Strategy have also guided the 2017 Global Fund Proposal.

Given that donor funding is likely to decrease over time, it will be important for PNG to look for innovative ways to bring new partners into the STI and HIV response. Given the growth in mining and agriculture in PNG, enterprises like mining and palm oil companies are likely partners for innovative PPP.

Priority Actions for Strategic Results 1:4

- Use the findings of the HIV Investment case to engage with current and potential new donors and financial partners.
- Ensure no interruptions in supply—stable resource allocation for essential medicines, test kits, commodities.
- Strengthen the proactive role of the NAC and NACS in donor harmonisation and coordination.
- Explore innovative public private partnerships improve the sustainability of the response.
- Simplify the funding landscape by exploring strategies for integrating direct donor-funded services into mainstream funding arrangements.

Strategic Direction 02: Strategic Information

The right information to ensure effective interventions, to track progress and to focus resources and effort on established need and evidence of effectiveness.

Goal: A successful response to STIs and HIV and that is driven by accurate and up to date strategic information and research.

Table 3: Shows the indicators that will measure Strategic Direction 2.

Indicators	Baseline 2017	Milestone 2020	Target 2022
National HIV surveillance system is harmonised into eNHIS system	No harmonisation	Harmonisation process is underway	Harmonisation is completed
Establish STI surveillance system (WHO Global STI strategy goal 2020)	No STI surveillance system	STIs surveillance system in development	STIs surveillance system is established
National HIV surveillance report submission rate	50%	70%	90%
National STI & HIV data quality audits conducted	None at present	Quarterly	Quarterly
High Priority Provinces STI & HIV data quality audits conducted	None at present	Annually	Annually

Strategic information is usually the last section of a national STI and HIV strategy. It has been placed here as the second goal for this strategy because it was highlighted in the mid-term review of the previous National HIV strategy as a particular vulnerability in the response.

PNG is a vast country with a diverse range of cultures and contexts. It is also going through rapid growth and change. Interventions and solutions developed in other places can help guide the response in PNG, but they need to be adapted to local needs and tested for effectiveness and responsive to changing circumstances.

There is a large amount of data collected in PNG in relation to STIs and HIV—quantitative and qualitative—but data flows and the timely availability of data to shape service review and delivery have presented particular problems. Strategic information has two key roles, one is for reporting progress but the other more important role is to allow for feedback, review, reflection and modification of approaches to ensure maximum health benefits from interventions. Data evaluation needs to happen at all level in the response.

Currently, most data are collected at service provider level. Service providers are reluctant to collect data without the feedback that will help them to improve health care delivery. Under the decentralisation model, provincial and district authorities bear the main responsibility for service planning and delivery. They require timely access to strategic information to assist in decision-making, and develop programs and services specific to local changes and priorities. The Strategic Results and Priority Actions below are consistent with the *National STI & HIV Strategy 2018–2022 M&E Framework*.

Strategic Results:

Strategic Result 2.1: A harmonised, efficient and effective strategic information system is in place

Under the previous Strategy, health service data from public facilities was reported to the National Department of Health (NDoH) whilst prevention data from outreach and other activities was reported to the National AIDS Council Secretariat (NACS). Donor-funded programs reported data first to their funders and sometimes then to the national systems. In some provinces, the Provincial AIDS Committees (PACs) played a role in assembling and disseminating provincial data from this range of sources.

Within these data silos, delays in data submission, entry and analysis meant that feedback to provincial authorities, implementing partners and services was rarely timely enough to allow for a meaningful review of successes and gaps.

Priority Actions for Strategic Results 2:1

- Bring the range of existing STI and HIV databases and HIV/TB co-infection data into the harmonised eNHIS system, through a transition process that involves further improving the quality and comprehensiveness of these databases before integrating them.
- Increase availability of the case-based reporting to high volume ART facilities to monitor and evaluate patient care.
- Include outreach data and data from other prevention initiatives in the harmonised system that makes use of the National Unique Identifier Code (NUIC).
- Evaluate human resource needs of the national surveillance program as a matter of urgency; fill positions recommended by this evaluation and increase support for staff development for the program team.
- Establish agreements and mechanisms between NACS, NDoH and donors and other external providers to ensure that all data from donor or externally funded initiatives feeds into provincial and national systems (this includes data from private-sector health initiatives such as mining or agriculture company health services).
- Establish and maintain standards for the timely submission and entry of data into the system and for reporting back to decision-makers and implementers in provinces and services.

Strategic Result 2.2: The range and quality of data collected is sufficient to guide the key priority areas of the Strategy

Recent reviews have indicated that there are gaps in national data systems at present that result in insufficient information about risk behaviours, the context of risk and the post HIV-exposure prophylaxis (PEP) impact of the STI and HIV response. This is particularly relevant to key populations and to those affected by TB. More information is required about key populations, particularly in relation to risk behaviours, the context of risk for specific populations and access to STI, TB and HIV treatment and care services.

The work done under the previous strategy to introduce the National Unique Identifier Code (NUIC) for key populations has assisted greatly in tracking patterns of prevention service use for particular populations, but this needs to be expanded to include health service access. The electronic National Health Information System (eNHIS) pilot in five provinces also provides an opportunity to increase the use of the NUIC and improve access to information about STI, HIV and TB service access and outcomes. There are also inconsistencies in data quality that need to be addressed.

Priority Actions Strategic Results 2:2

Standardised data collection tools and definitions across all programs, irrespective of funding source:-

- Implement the NUIC system for key populations and PLHIV in clinics providing HIV testing and counselling and HIV and STI treatment.
- Engage with the eNHIS development program to integrate attention to HIV and STIs (including automatically-generated NUIC) in the system.
- Ensure that key population information is included in data collection under these systems (with appropriate attention to confidentiality) to improve availability of data on key populations.
- Progress the development of robust population size estimates for key populations
- Introduce and maintain a data management and quality assurance protocol for the national HIV and STI data system.
- Conduct selective bio-behavioural surveys to complement the information provided by the surveillance system.

Strategic Result 2.3: Accurate and timely strategic information is used to drive changes in program and service design at all levels

Once collected, data needs to be regularly analysed and returned to planners and service providers to help them to shape programs and services that respond to changing needs. Gaps in access to and availability of services need to be identified and filled.

Priority Actions for Strategic Results 2:3

- Establish a provincial level STI, TB and HIV Data Officer in high HIV burden provinces.
- Establish data feedback mechanisms at a national level and in provinces and districts, to bring planners, managers and service providers together to look at data across their jurisdiction to track progress and identify and address challenges and gaps.
- Produce and widely disseminate a consolidated annual report on STI, HIV and TB/HIV data.

Strategic Result 2.4: Planners and implementers have an accurate picture of the changing context of HIV risk and impact and of the effectiveness of the intervention models being used

Quantitative data only tells part of the story. Social research plays an important role in providing information on what is behind the quantitative data—what forces are at play in people’s lives, who has access to services and who does not and how issues of culture, gender and power impact on individual and community health.

In the previous Strategy the NAC Research Committee played a leading role in ensuring that HIV research in PNG was conducted in an ethical manner was consistent with the information needs of the national program. Operations research is also important in testing the intervention models that are adapted for use in PNG.

Advances in technologies to improve HIV prevention and care need to be tested and adapted to PNG context. Pre-HIV exposure prophylaxis (PrEP) is being used successfully in populations at continued risk—specific sub-populations of sex workers, MSM and transgender people and for some sero-discordant couples. New social media apps are also being used to support or replace physical outreach for particular populations. Exploration of the relevance of these to PNG will be included in the research agenda.

There have been several studies examining the HIV risk (or protection) associated with penile cutting in PNG. These will be used as a basis for determining any likely HIV prevention opportunities that might arise from this data.^{6,7}

Priority Actions for Strategic Results 2:4

- Identify a set of national STI and HIV research priorities to ensure that research efforts are coordinated and directed towards the information needs of the national response.
- Fund appropriate social and operations research, coordinated by a mechanism based on the learnings of the NAC Research Committee.
- Research the appropriateness of innovations like PrEP and e-outreach to the PNG context.
- Establish mechanisms for the quick dissemination of research findings to program and service planners, managers and implementers, incorporated into regular strategic information briefings.

Strategic Direction 03: Prevention, Continuum of care

The right services in the right places, accessed by the right people.

Goal: Minimised STI and HIV transmission and optimised health and well-being of PLHIV

The STI and HIV continuum of prevention, treatment, care and support (CoPTCS) calls for a range of programmes and services that ensure that people can access the condoms and lubricant, information, counselling, testing and clinical services they need in order to maximise their health.

⁶Hill, P., Tynan, A., Law G., Millan, J., Browne, K., Sauk, J., Kupul, M., Kelly, A., Siba, P., Kaldor, J. & Vallely, A. A typology of penile cutting in Papua New Guinea: results of a modified Delphi study among sexual health specialists, *AIDS Care* 2011, 110, iFirst

⁷MacLaren, D., McBride, W., Kelly, G., Muller, R., Tommbe, R., Kaldor, J. & Vallely, A. HIV prevalence is strongly associated with geographical variations in male circumcision and foreskin cutting in Papua New Guinea: an ecological study, *Sexually Transmissible Infections* 2015; 91:502–505.

On the prevention side, combination prevention for the general population involves providing consistent, easy and affordable access to condoms and lubricant, behaviour change communication materials supported by community campaigns, STI treatment and HIV testing. For key populations, it also involves overcoming barriers to service access (like stigma and discrimination), providing peer outreach that links populations with the condoms, information, testing and services they need, providing PEP for sexual assault and condom breakage and providing assistance to reduce and respond to violence.⁸

Under this Strategy this outreach effort will be better coordinated to ensure that it regularly reaches the most appropriate populations and sites, is provided by peers and is focussed particularly on HIV testing to ensure that more people with HIV from key populations know their status and reach treatment, care and support.

The CoPTCS will be achieved by ensuring that the elements of a Standard Service Package are made available in all provinces, with an Enhanced Service Package in particular provinces with higher HIV prevalence. These service elements will be integrated as much as possible into existing public, church, NGO and private health services across provinces and districts.

This will involve ensuring that these service elements are included at appropriate levels in PNG's Essential Health Services Package so that they can be delivered through the existing health system, reducing wherever possible the need for parallel programming. This is in line with the guiding principles of universal health access and sustainability.

The current mixed funding model often results in a lack of coordination of services across provinces. Provinces will be supported to play a stronger role in coordination, bringing together the full range of service providers to plan and evaluate service reach and quality and ensure that all elements of the service package are consistently available.

The Standard Service Package:

- Condoms promoted and widely available in community.
- Condoms, lubricant, STI and HIV social and behavioural change information available at district and local level through existing health services and community organisations.
- HIV and TB awareness raising in community, integrated into NGO, church and community programmes, with a focus on connecting people with testing and treatment services.
- HIV testing and STI treatment to be available at district and local level through existing health services.
- HIV testing, emergency contraception, STI treatment and PEP available in all gender-based violence clinical care settings, with support for PEP adherence.
- HIV counselling and testing and STI treatment integrated into existing rural 'patrols' that take services into isolated populations.
- Early ART treatment for pregnant women with HIV or HIV testing and initiating ART in labour or post-partum for mothers who have missed pre-natal testing.
- HIV testing provided in ANC, STI and TB clinics and in paediatric inpatient clinics.

⁸Fast-tracking Combination Prevention, UNAIDS 2015

- HIV treatment, care and support for PLHIV available in provincial capital (with point of care HIV viral load testing) and in selected district-level hospitals and clinics.
- PLHIV peer counsellors in services providing ART, with case management and adherence support reaching into community.
- Coordinated HIV and TB services, including provider-initiated HIV and TB testing and treatments support.
- Active case management and tracking of clients initiated on HIV and linking with TB programs to track clients and increase TB treatment success rates among clients with co-infections.
- Advocacy at provincial and local level to strengthen the supportive environment for service access—with a particular focus on ensuring people from key populations have access to services and attention to police and justice issues.

The Enhanced Service Package: *(includes all elements of the Standard Service package above plus the following).*

- Peer-based outreach to key populations in urban areas and sites of particular risk and at times when populations can be best accessed, with a direct connection between outreach to clinical services.
- PLHIV case management (with adherence support) incorporated into outreach-combined HIV and TB treatment support.
- Mobile clinical services (including rapid HIV testing) operating in key environments of risk, at times when people from key populations can be accessed—STI and HIV testing, STI treatment, TB testing, peer counselling, condom access, with a direct connection back to clinics.
- Decentralisation of STI and HIV testing and HIV adherence support as far into rural health service levels as possible.
- Decentralising ART to district level and using community/outreach ART delivery approaches to increase access in remote districts with no road access to the provincial capital.

Strategic Results:

Strategic Result 3.1: The elements of the Standard Service Package are available across every province (with the Enhanced Package in higher burden provinces), integrated into existing services wherever possible

Table 4: Showing the indicator for strategic result 3.1.

Indicators	Baseline 2017	Milestone 2020	Target 2022
All elements of the Standard & Enhanced Service Package in place in all provinces (WHO Global HIV/STI Strategy 2020 milestones)	No data	50% of provinces	All provinces

All provinces already have the elements of these STI and HIV prevention service packages in place. Some are in stand-alone services and others are integrated into existing services. The thrust of this strategic result area is to support provinces to take a leading role in understanding the particular context of STI and HIV risk and impact in their provinces, map the existing service elements they have in place and identify the resources they need to establish the elements of the package more consistently across the province and a plan to assist health and other services to integrate elements of the package into their service.

Priority Actions for Strategic Result 3:1

- Develop and pilot tools for coordinated STI, HIV and TB integrated service planning at provincial level.
- Provide technical assistance to provinces to support regular stakeholder, service and program coordination.
- Assist provinces to convene an annual mapping, data review and service planning exercise to identify the right mix and location of services to match identified needs.
- Convene quarterly stakeholder meetings at provincial level (including PLHIV) to monitor service use and quality and address gaps.
- Ensure attention to environments of risk—including new environments such as prisons, settlements, temporary worker compounds.

The 2016 Spectrum data indicates that the provinces that most urgently require the Enhanced Service Package are: National Capital District, Enga, Jiwaka, Simbu, Western Highlands, Southern Highlands, Morobe and Madang. Other provinces may decide to implement the Enhanced Service Package, but all will at least implement the Standard Service Package.

Strategic Result 3.2: Reduction in transmission of STIs (including HIV) in the general population

Table 5: Shows the indicators for measuring Strategic Results 3.2.

Indicators	Baseline 2017	Milestone 2020	Target 2022
HIV incidence GAM 3.1	2,765	<1500	<500
Syphilis screening among pregnant women (WHO Global STI Strategy 2020 milestones) GAM 2.4a	3.6%	50%	95%
Syphilis-seropositive pregnant women treated with effective regimen (WHO Global STI Strategy 2020 milestones) GAM 2.4c	79%	85%	95%
Men with urethral discharge GAM 10.4	5.2%	4.5%	3.5%
A country report on antimicrobial resistance in N. gonorrhoea is published every two years (WHO Global STI Strategy 2020 milestones)	No report	Report published	Report published

This Strategic Result builds on and is consistent with the strategies identified in the PNG National Sexual and Reproductive Health Policy (October 2013) and the Global Health Sector Strategy on Sexually Transmitted Infections 2016–2021. Condom and lubricant availability and promotion is a central element of this prevention effort, combined with access to STI treatment.

A consistent supply of condoms will be provided through clinics, NGOs and through expanded public/private partnerships (PPPs) that bring free condoms and BCC information into local shops in all communities.

The establishment of White House STI clinics across PNG in the last five years has seen a significant increase in access to STI diagnosis and treatment. However, STI rates remain high in many provinces in the general population and also in key populations. Gonorrhoea in PNG has been a significant public health concern for more than a decade.

In PNG, gonococcal resistance remains high for a number of antibiotics including penicillin and tetracyclines but remains low or non-existent for others (e.g. azithromycin, spectinomycin, quinolones and cephalosporins). Under this Strategy surveillance for gonococcal resistance will be strengthened and the antibiotic regimen will be updated in line with the 2016 WHO STI guidelines on Gonococci.⁹

Strategic information on other STIs and cervical cancer will also be strengthened and provided to provinces and districts to help shape service design and improve service access. The sexual health needs of adolescents and young adults require specific attention, particularly the out-of-school and unemployed.

Social research data shows a movement of young under-educated and unemployed people from rural areas to the outskirts of towns. Their vulnerability to poverty, homelessness, unemployment and violence increases their risks for STI, HIV and unintended pregnancy.

Priority Actions for Strategic Results 3:2

- Expand piloted Public/Private partnerships that provide free male and female condoms and BCC information through local shops, beginning in higher HIV prevalence provinces.
- Provide free male and female condoms, lubricant and up to date BCC information in STI, HIV and MCH/RH clinics.
- Develop and implement a national condom promotion campaign every two years.
- Include up-to-date evidence-based HIV and sexual and reproductive health education content in the national school curriculum and teacher training and support to teach this content.
- Develop policies and protocols to ensure that children living away from parents can provide consent to testing and medical treatment.
- Incorporate attention to HIV, STIs and sexual health in youth programs and services.
- Incorporate STI treatment and HIV testing in rural patrols conducted by town-based clinics.

⁹Available at <http://www.who.int/reproductivehealth/publications/rtis/gonorrhoea-treatment-guidelines/en/>

- Strengthen surveillance for gonococcal resistance.
- Update the antibiotic regimen in line with the WHO STI guidelines on gonococci.
- Ensure attention to cervical cancer and HPV vaccination in sexual health services.
- Prepare and circulate annual STI prevalence reports.
- Hold a national stakeholder workshop and develop a provincial and district dissemination and familiarisation strategy to embed new protocols in practice.

Strategic Result 3.3: Equitable access for people in key populations to services across the continuum of STI and HIV prevention, treatment, care and support

Table 6: Shows the indicators for measuring Strategic Results 3.3.

Indicators	Baseline 2017	Milestone 2020	Target 2022
HIV prevalence among key populations (by population) GAM 3.3	FSW 14.9% MSM/TG 8.9	FSW 14.9% MSM/TG 8.9	FSW 14.9% MSM/TG 8.9
Condom use among key populations (by population) (WHO/UNAIDS Global indicator) GAM 3.6	SW 49.5% MSM/TG 30.4%	SW 60% MSM/TG 50%	SW 80% MSM/TG 80%
Coverage of HIV prevention programmes among key populations (by population) (WHO Global HIV/STI Strategy 2020 milestones) GAM 3.7	SW 48.2% MSM 12% TG 18.8%	SW 60% MSM 25% TG 30%	SW 80% MSM 50% TG 60%
Knowledge of HIV status among key populations (by population) GAM 3.4	SW 38.9% MSM/TG 24.4%	SW 70% MSM/TG 70%	SW 85% MSM/TG 85%
Active syphilis among sex workers GAM 3.11	7.2%	5%	3%
Active syphilis among men who have sex with men GAM 3.12	4.0%	3.5%	3%
Viral hepatitis among key populations (by population) GAM 3.14	SW 9.3% MSM 11.7%	SW 7% MSM 9%	SW 5% MSM 7%
Knowledge of HIV status among key populations (by population) GAM 3.4	SW 38.9% MSM/TG 24.4%	SW 70% MSM/TG 70%	SW 85% MSM/TG 85%

Outreach to key populations to assist them to access the services they need, accompanied by assistance to health services to make them more friendly and accessible to key populations will remain an essential element of PNG's STI and HIV response.

The coverage achieved by outreach programs has fluctuated over recent years as funding levels have shifted. Whilst 2016 coverage figures for female sex workers were reasonable at around 50%, rates among MSM and transgender people were unacceptably low. HIV testing rates were also low (at around 20%) and will be dramatically improved under this Strategy.

Given the scale of outreach required to maintain high coverage levels and the current funding challenges that exist, outreach will be focussed on selected environments of high risk—main towns and transport/commercial hubs where the combination of transactional sex and alcohol se ensure access to people from key populations.

The new outreach model will draw on the lessons learned in PNG over the last ten years and focus on:-

- Ensuring that outreach is conducted and coordinated by paid peers (female sex workers, male clients, MSM, transgender people).
- Paid peers managing a group of other peers who are provided with incentives and who reach into populations—following sexual networks and using techniques similar to respondent driven sampling.
- A weekly review of HIV testing targets for outreach workers.
- Monitoring the focus on people at most risk (prevalence of people tested through outreach should match target population prevalence to ensure appropriate targeting).
- Using accompanied referral to confirmatory testing and HIV treatment and support for PLHIV.
- Conducting preliminary HIV testing on site where possible.
- Following up PLHIV in community using case management models.

Outreach models will be standardised and outreach programs will coordinate with each other to minimise duplication and fill gaps. Outreach will be delivered by NGOs closely associated with clinics, and also by the provincial and district key population groups, coordinated through the NACS and managed by the national PLHIV, sex worker and MSM organisations.

Taking a sexual and reproductive health approach in outreach to female sex workers will make the outreach connection more relevant to their daily lives. In the 2011 BSS NCD study female sex workers reported 70% of the women at risk of pregnancy did not want to be pregnant in the next twelve months and only 41% were using a contraceptive other than condoms. Thirteen percent had reported having had a voluntary abortion, with 83% reporting that this had been carried out without access to trained medical staff.¹⁰ These results demonstrate that there is a large unmet contraceptive need in this population.

Priority Actions for Strategic Results 3:3

- Develop and rollout a standard model for key population outreach that focuses sharply on connecting key populations with regular HIV testing (see Strategic Result 3.3) and ongoing treatment and care for PLHIV.
- Assist NACS and provincial HIV/TB coordinating committees to regularly map the province identifying the main environments of HIV risk and impact and to mobilise key population peer outreach to these sites.
- Ensure targeted male and female condom and lubricant distribution to key populations through outreach, with a variety of condoms to suit preference and need.
- Include young people in outreach and in the development and implementation of specific strategies to increase access for young people to STI prevention and treatment and primary health care.
- Ensure attention to reproductive health assistance in outreach to female sex workers, particularly assistance to accessing dual-method contraception to meet unmet contraception needs and family planning advice for women with HIV and their partners.

¹⁰Behaviors, knowledge, and exposure to interventions, FHI360 2011 (Already quoted)

Strategic Result 3.4: Increased level of knowledge of HIV status among PLHIV

Table.7: Shows the indicators for measuring strategic result 3.4.

Indicators	Baseline 2017	Milestone 2020	Target 2022
Percentage of people living with HIV who know their HIV status GAM 1.1.	75%	85%	90%
Mother-to-child transmission of HIV GAM 2.3.	28.3%	20%	15%
Preventing mother-to-child transmission of HIV GAM 2.3 (ART coverage among pregnant women).	32.5%	50%	80%

There are still some gaps in knowledge of HIV status among PLHIV. In the 2016 IBBS NCD study 61% of the female sex workers and 75% of the MSM and transgender people diagnosed with HIV through the study were previously unaware that they had HIV.

This points to a need for increased reach into key populations and a stronger focus in outreach on regular HIV testing. The gap in PMTCT access (33.1% coverage of the estimated number of pregnant women with HIV) also indicates the urgent need to increase HIV knowledge of status among pregnant women.

There are gaps in access to HIV testing in public Level 2 health facilities in districts, caused by delays in accreditation of staff to carry out HIV testing and counselling. Under this strategy, methods of normalising HIV testing within the health system (without jeopardising the need to information, counselling and effective referral for PLHIV) will be implemented to ensure that HIV testing is more widely available.

Innovations in HIV testing technology, the use of smartphones and social media and new models of key population outreach are being used across Asia and the Pacific and have been piloted in PNG to close the knowledge of HIV status gap. These will be incorporated into standardised outreach practice across provinces implementing the Enhanced Service Package.

Priority Actions for Strategic Results 3:4

- Review the HIV testing algorithm using latest data and evidence for effectiveness.
- Increase levels of provider-initiated HIV testing and counselling (PITC) in antenatal care and improved access to ANC services for pregnant women from key populations to increase ART access and PMTCT for pregnant women with HIV.
- Improve the accuracy of early infant HIV diagnosis and the timeliness of providing results.
- Review of PITC policy to allow PITC in Level 2 and 3 health facilities without delays caused by individual training and accreditation.
- Improve HIV PITC rates associated with TB diagnosis and TB screening for newly-diagnosed PLHIV through in-service training, practice monitoring and regularly review and feedback of data.

- Ensure HIV testing, presumptive STI treatment and PEP in all gender-based violence clinical care services.
- Roll-out rapid HIV testing through outreach and mobile clinics for harder-to-reach populations.
- Explore innovation in communication with key populations, particularly using smartphone and social networking strategies.
- Identify sub-populations within key populations that have not yet been reached and develop strategies to reach them.

Strategic Result 3.5: Improved health and wellbeing of PLHIV

Table.8: Shows the indicators for Strategic Results 3.5.

Indicators	Baseline 2017	Milestone 2020	Target 2022
People living with HIV on antiretroviral therapy (WHO/UNAIDS Global indicator) GAM 1.2.	53.2%	70%	90%
Retention on antiretroviral therapy at 12 months (WHO/UNAIDS Global indicator) GAM 1.3.	86.5%	90%	90%
People living with HIV who have suppressed viral loads (WHO/UNAIDS Global indicator) GAM 1.4.	87.4%	90%	90%
AIDS-related deaths (WHO/UNAIDS Global indicator) GAM 1.7.	1,062	750	<500
Antiretroviral therapy coverage among people with HIV from key populations (by population) GAM 3.5.	Not available	To be assigned	To be assigned
Percentage of PLHIV in care who are screened for TB in HIV care or treatment settings.	87%	100%	100%
Co-managing TB and HIV treatment GAM 10.1.	65%	80%	90%
Proportion of people living with HIV newly enrolled in HIV care with active TB disease GAM 10.2.	10%	10%	10%
Proportion of people living with HIV newly enrolled in HIV care started on TB preventive therapy (IPT) GAM 10.3.	10%	30%	60%
Hepatitis B screening among PLHIV GAM 3.12.	11%	50%	80%

There has been significant progress in connecting PLHIV with treatment, care and support in PNG and by the end of 2015, 53% of the estimated number of eligible PLHIV were on ART. This has been achieved partly through increased HIV testing levels (particularly among key populations) and by the decentralisation of access to ART from provincial capitals deeper into provinces and districts, bringing ART access and clinical follow-up closer to where PLHIV live.

Some of this decentralisation of access to ART and clinical monitoring was interrupted in 2017 due to changes in donor commitments and will be re-established early in the time of this strategy. It is essential to closing the ART access gap and improving life-expectancy and quality of life for PLHIV.

The ART treatment guidelines have been reviewed in line with Global Standards and a dissemination and familiarisation took place in 2017. The implementation of these new guidelines will be monitored to ensure that they are embedded into practice, and updated as new global and regional guidance becomes available. The accreditation of ART prescribers and the coaching and academic detailing support provided through the Collaboration for Health and NDoH has ensured that ART prescribers are kept abreast of changes in treatment and clinical monitoring.

The employment of paid PLHIV Expert Patients in ART treatments centres has contributed significantly to PLHIV treatments literacy, adherence to ART, diagnosis and treatment of opportunistic infections, reduction in loss to follow-up and a sustained connection to clinical care. This task-shifting provides other health workers with more time for clinical care. Provincial and local PLHIV and key population groups also provide essential support to PLHIV and their families.

Maintaining the health of PLHIV (and their contribution to HIV prevention through undetectable viral load) is crucial to the success of this Strategy. Patient feedback is a key component of quality healthcare. Patients are often in a good position to identify interruptions in services, or issues with the quality of care that could result in a break in their connection to services. Having PLHIV feedback mechanisms at service, provincial and national levels assists in the early warning of problems such as stock-outs of ART and OI medicines and test kits or inconsistent application of treatment guidelines.

To date, CD4 testing has been the mainstay of clinical monitoring for PLHIV in PNG. Improvements in the technology for point-of-care HIV Viral Load testing mean that this can now be rolled out to improve clinical care. This will assist in identification of PLHIV who are developing resistance to first-line ART and assist in a smooth transition to second-line treatment. Feasibility work was already underway in 2017 and a staged roll-out plan will be developed with implementation commencing in 2018.

Priority Actions for Strategic Results 3:5

- Expand decentralised access to ART and clinical monitoring of PLHIV in high-burden provinces.
- Expand coaching and academic detailing for ART prescribers.
- Develop and implement a plan for point-of-care HIV Viral Load testing, beginning in high burden regions and provinces.
- Expand the PLHIV Expert Patient model to ensure that PLHIV are employed in all ART treatment sites to improve treatments literacy and reduce loss to follow-up
- Include follow-up of PLHIV in outreach programs and rural patrols.
- Establish PLHIV feedback mechanisms at service, provincial and national level as an 'early warning' mechanism for interruption in service access or quality.
- Strengthen participation of PLHIV in provincial and national coordination committees to ensure that early warning information can drive better service provision.

Specific Attention to TB/HIV Integration:

Coordination between HIV and TB services will receive significant attention under the Strategy. TB is the leading cause of death for PLHIV in PNG. Coverage of HIV testing among newly-registered TB patients was at 33% in 2016.¹¹ This Strategy will work in collaboration with efforts under the PNG National TB Strategy. TB and HIV treatment will be integrated and delivered through existing TB and HIV treatment sites.

TB/HIV Priority Actions:

- Update the *PNG National TB/HIV Collaborative Activities Guideline 2012*.
- Integrate HIV and TB treatment: -
 - Ensure that all HIV treatment clinics are able to treat TB and selected TB treatment centres are able to treat HIV.
 - Wherever possible, have TB and HIV treatment available at the same site to avoid ineffective referrals and loss to follow-up.
 - Map the distribution of these 'one-stop shops' across provinces and locate services to reduce duplication and increase geographical reach.
- Ensure appropriate infection control in all integrated TB/HIV facilities including 'cough desk' and attention to adequate light and ventilation.
- Combine HIV and TB case management, training PLHIV Expert Patients in TB treatment support.
- Develop and support TB/HIV/STI CBOs to improve reach of information and supported service access into communities.
- Incorporate TB/HIV messaging into existing community organisations.
- Increase training and support to TB treatment sites to ensure 100% HIV testing of people diagnosed with TB.
- Increase coverage of Isoniazid Prevention Therapy (IPT) for PLHIV—ensuring that coverage for children is also increased.

Strategic Direction 04: Advocacy and Enabling Environment

The right environment to reduce people's vulnerability to STI and HIV and support their efforts to maximise their health.

Goal: An environment that is safe and supportive of people's efforts to remain healthy

Table 9: Shows the indicators for measuring Strategic Direction 4.

Indicators	Baseline 2017	Milestone 2020	Target 2022
Discriminatory attitudes towards people living with HIV GAM 4.1.	No Data	No Data	Baseline Established
Avoidance of HIV services because of stigma and discrimination among key populations GAM 4.2.	No Data	No Data	Baseline Established
Prevalence of recent intimate partner violence GAM 4.3.	No Data	No Data	Baseline Established
Annual assessment of legal and policy environment using UNAIDS–NCPI (National Commitment and Policy Instruments).	No Assessment	Completion of Two Assessments	Completion of Two Assessments

¹¹World Vision PNG, 2016

People's ability to avoid STI and HIV or to seek and maintain treatment and clinical management is not just a simple matter of knowledge and choice—it is shaped by a range of factors like gender, culture, power, education, socio-economic status, mental health, drug and alcohol addiction and so on.

The populations most affected by HIV in PNG face particular issues in relation to criminalisation, social and cultural rejection, stigma, discrimination and violence. These directly affect their ability to maintain safer behaviours, seek and maintain connections with health services, minimise and obtain justice for the violence they regularly experience and generally improve their health and wellbeing. These issues are exacerbated for young people from key populations.

Health, police, justice and welfare services in particular need to operate in a manner that supports all people, including people from key populations. This requires a set of policies and standards that are widely disseminated and monitored and regular training and capacity development. It also requires feedback mechanisms that allow service users to make complaints and have them dealt with.

Strategic Results:

Strategic Result 4.1: A set of health, police, justice, welfare and other services that can be accessed by the people who need them without stigma and discrimination

Access to STI and HIV prevention, treatment, care and support services for the people who most need them is central to improving health outcomes and reducing the impact of HIV and STIs. Almost half the sex workers interviewed in the *Askim Na Save* study in NCD in 2011 reported that in the previous twelve months health workers had refused them service once they had revealed that they were sex workers.¹²

A HIV and stigma study conducted in Western Highlands and Simbu in 2015 revealed that more than 70% of PLHIV respondents had been physically assaulted in the previous twelve months because of their HIV status. Many felt reluctant to approach health services.¹³

Health worker discrimination is a particular issue for people from key populations as health facilities are often crowded places lacking privacy. Health workers live in community and often know or make assumptions about people's behaviour and background. This leads to self-stigma on the part of people from key populations who fear exposure to stigma and discrimination, and judgement on the part of some health workers who refuse to treat or embarrass and ridicule people from key populations.

In several studies, people from key populations have reported physical and sexual violence by police. Pre- and in-service training for police on HIV, human rights and the rights of people from key populations has been conducted by several organisations and projects (PALJP, Tingim Laip, UNFPA). This needs to be continued, along with training to assist police to gain skills to intervene when colleagues breach laws and standards in this area.

¹²Kelly, A., Kupul, M., et al, *Askim Na Save*(Already quoted)

¹³Rule, J. & Liriope, D., *HIV-related Stigma and Discrimination and Human Rights in Papua New Guinea*, Igat Hope, 2016

Priority Actions for Strategic Results 4:1

- Assist health services to develop and implement key population friendly and youth–friendly policies and practices.
- Develop, promote and monitor a set of standards of care for health workers to reduce stigma and discrimination experienced by people from key populations.
- Develop local community participation and complaint mechanisms in health services.
- Develop initiatives for ongoing pre–and in–service training of police to reduce violence against people from key populations and increase support.
- Strengthen complaints mechanisms in the police service and systems for referral of people at risk to safe houses and protection services.

Strategic Result 4.2: People from key populations have greater autonomy over their health and well–being

Levels of gender based violence (GBV) are endemic in PNG with studies showing that two–thirds of women in a 2010 study reporting that they had been forced to have sex or had submitted in the real fear of violence. Prevalence rates are also high among people from key populations, with half of the sex workers in the *Askim Na Save* study reporting forced sex in the previous six months.¹⁴ In the 2011 BSS, 78% of sex workers and 58% of MSM reported being sexually assaulted in the previous year.¹⁵

Sexual violence generally involves traumatic and unprotected sex and in addition to the general harm it causes, puts people at high risk for HIV, STIs and unintended pregnancy. In PNG, as in many places, violence has a disproportionate impact on women and girls.

The response to gender–based violence in PNG is guided primarily by the *PNG National Strategy to Prevent and Respond to Gender Based Violence 2016–2025*. It is important that those working in STI and HIV work closely with people implementing gender–based violence services to ensure that these services are accessible to key populations and that they consistently provide STI and HIV testing, presumptive STI treatment and PEP. This cycle of violence, harassment, isolation and discrimination may erode mental health and self–esteem, resulting in depression and other mental health conditions and a lack of motivation for self–care and access to mental health services is difficult for most.

Alcohol and other drug use is also a significant problem in PNG. It affects people’s ability to maintain safer behaviours and can increase their vulnerability to sexual violence. There are few services in PNG to assist people to deal with problems associated with their use of alcohol and other drugs.

¹⁴ Kelly, A., Kupul, M. et al, *Askim Na Save*, (Already quoted)

¹⁵Behaviors, knowledge, and exposure to interventions FHI 360 (Already quoted)

Priority Actions for Strategic Results 4:2

- Establish a liaison position in NDoH/NACS to work between the STI and HIV Section, the NDoH Gender Based Violence team and the Justice Services and Stability for Development (JSS4D) Project.
- Ensure availability of PEP, emergency contraception and STI treatment in all GBV services.
- Develop guidance materials to ensure key population access to GBV services.
- Support legal aid services to assist people from key populations to pursue complaints, obtain apprehended violence orders.
- Advocate within the NDoH for progress in the establishment of a set of alcohol treatment services in PNG.

Strategic Result 4.3: A supportive legal and policy environment for STI and HIV program

Punitive laws, policies and practices affect people from key populations and sometimes work against the goals of the HIV Strategy and the HAMP Act. These laws and policy conflicts require attention. Sex workers report being harassed, are regularly fined and experience violence from police when they are found carrying condoms or working on the street. MSM and transgender people also experience high levels of harassment and violence from police and others.

Priority Actions for Strategic Results 4:3

- Develop MoUs between Health and Police Departments to minimise police practice conflicts that work against the health of people from key populations.
- Assist the Royal PNG Constabulary to develop and issue circulars on police behaviour towards people from key populations (particularly female sex workers and transgender people) and monitoring of compliance.
- Conduct independent studies to determine the impact of criminalisation of sex workers and MSM on public health and health outcomes.
- Develop short evidence-based briefing materials to promote the approaches being taken under this strategy—the focus on key populations; new outreach models; the need for voluntary rather than compulsory HIV testing; the need for youth-friendly and key population friendly services.

6. Overall Implementation Budget for the PNG NSHS 2018 - 2022

The costing is a financial and not an economic costing. It doesn't consider "externalities" only the costs directly and solely attributable to the STI/HIV programs. Available data was collected and analysed from key government agencies, development partners and other stakeholders. Where insufficient data were unavailable, estimates and projections were made based on global best practices, with a view to keeping costing straight forward and transparent.

The costings include both the clinical and non-clinical components, which are categorized under the strategic directions and strategic tables results (Table 10), breakdown by cost category (Table 11) and strategic directions vs. cost category (table 12).

In summary it would require a total estimated budget of US\$250 million for the entire 5-year activity implementation plan.

Table 10: Costings of the Strategic Directions and Strategic Results for the 5 years of the Papua New Guinea National STI & HIV Strategy 2018 – 2022.

COSTINGS OF THE STRATEGIC DIRECTION AND STRATEGIC RESULTS							TOTAL USD
STRATEGIC DIRECTIONS AND RESULTS	Y1	Y2	Y3	Y4	Y5		
Strategic Direction 01: Leadership, Coordination and sustainability.	3,666,090	3,826,714	4,012,569	4,194,958	4,364,388		20,064,719
Strategic Result 1.1: Efficient and effective structures and mechanism in place to manage the STI & HIV response	3,616,990	3,797,839	3,978,689	4,159,538	4,340,388		19,893,444
Strategic Result 1.2: A workforce that is sufficient, skilled, properly remunerated, accountable, managed and supported.	0	0	0	0	0		0
Strategic Result 1.3: Medical supplies, medicines, equipment, test kits and reagents are fit for purpose and available in the right place at the right time.	49,100	28,875	22,000	23,000	24,000		146,975
Strategic Result 1.4: A STI and HIV response that is adequately funded at all levels and is sustainable.	0	0	11,880	12,420	0		24,300
							0
Strategic Direction 02: Strategic Information	478,700	695,100	394,350	588,800	430,200		2,587,150
Strategic Result 2.1: A harmonised, efficient and effective strategic information system is in place.	0	0	0	0	0		0
Strategic Result 2.2: The range and quality of data collected is sufficient to guide the key priority areas of the strategy.	70,000	290,850	0	146,050	0		506,900
Strategic Result 2.3: Accurate and timely strategic information is used to drive changes in program and service design at all levels.	58,500	61,425	64,350	67,275	70,200		321,750
Strategic Result 2.4: Planners and implementers have an accurate picture of the changing context of HIV risk and impact and of the reactivity of the intervention models.	350,200	342,825	330,000	375,475	360,000		1,758,500
							0

Strategic Direction 03: Prevention, Continuum of care.	40,130,709	43,396,347	45,462,839	47,655,832	49,511,825	226,157,552
Strategic Result 3.1: The elements of the standard service package are available across every province.	29,404,145	30,828,147	32,296,154	33,764,161	35,232,168	161,524,775
Strategic Result 3.2: Reduction in Transmission of STIs (including HIV) in the general population	8,232,314	9,842,400	10,201,085	10,779,771	11,128,457	50,184,027
Strategic Result 3.3: Equitable access for people in key populations to services across the continuum of STI & HIV prevention, treatment, care and support	1,524,250	1,612,800	1,634,600	1,708,900	1,783,200	8,263,750
Strategic Result 3.4: Increased level of knowledge of HIV status among PLHIV	130,000	105,000	143,000	115,000	120,000	613,000
Strategic Result 3.5: Improved Health well being of PLHIV.	840,000	1,008,000	1,188,000	1,288,000	1,248,000	5,572,000
						0
Strategic Direction 04: Advocacy and enabling environment	119,361	125,329	131,297	137,265	143,233	656,485
Strategic Result 4.1: A set of health, police, justice, welfare and other services that can be accessed by the people who need them without stigma and discrimination	0	0	0	0	0	0
Strategic Result 4.2: People from key populations have greater autonomy over their health and well being	69,361	72,829	76,297	79,765	83,233	381,485
Strategic Result 4.3: A supportive legal and policy environment for STI and HIV program	50,000	52,500	55,000	57,500	60,000	275,000
TOTAL	44,394,860	48,043,490	50,001,055	52,576,855	54,449,646	249,465,906

Table 11: Breakdown by Cost Category

BREAK DOWN BY COST CATEGORY						
	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL USD
Communication Material and Publication (CMP)	0	105,000	0	115,000	0	220,000
External Professional Services (EPS)	615,450	637,555	499,065	698,274	544,434	2,994,778
External Professional Services (EPS)/Travel related cost TRC)	0	157,500	0	0	0	157,500
Health Products - Equipment's (HPE)	120,000	252,000	396,000	506,000	528,000	1,802,000
Health Products - Non-Pharmaceuticals (NPHP)	120,000	126,000	132,000	92,000	0	470,000
Health Products - Pharmaceutical Products (HPPP)	38,260,759	41,340,767	43,309,375	45,277,983	47,246,591	215,435,475
Human Resources (HR)	4,525,706	4,709,257	4,911,507	5,112,677	5,322,008	24,581,155
Human Resources (HR)/Communication materials and publications (CMP)	0	0	0	0	0	0
Human Resource (HR)/External proposal services (EPS)	36,600	15,750	28,380	17,250	18,000	115,980
Human Resource (HR)/Travel related cost (TRC)	7,500	7,875	0	0	0	15,375
Procurement and Supply Chain Management cost (PSM)	0	0	0	0	0	0
Results bases financing	708,844	691,786	724,728	757,671	790,613	3,673,642
TOTAL	44,394,859	48,043,490	50,001,055	52,576,855	54,449,646	249,465,905

Table 12: Strategic Directions vs. Cost Categories (USD)

Strategic Direction vs. Cost Categories (USD)		Strategic Direction 01: Leadership, Coordination and Sustainability	Strategic Direction 02: Strategic Information	Strategic Direction 03: Prevention, Continuum of Care	Strategic Direction 04: Advocacy and enabling environment	TOTAL
COST CATEGORIES						
Human Resource (HR)		412,450	4,177,500	85,342	19,905,863	24,581,155
Travel Related Cost (TRC)		0	0	0	15,375	15,375
External Professional Services (EPS)		2,174,700	702,578	275,000	115,980	3,268,258
Health Products (HPPP)		0	215,435,475	0	0	215,435,475
Health Products - Non Pharmaceuticals (HPNP)		0	470,000	0	0	470,000
Health Products - Equipment's (HPE)		0	1,802,000	0	0	1,802,000
Procurement and supply chain Management cost (PSM)		0	0	0	0	0
Infrastructure (INF)		0	0	0	0	0
Non- Health equipment (NHP)		0	0	0	0	0
Communication Materials and publications (CMP)		0	220,000	0	0	220000
Program Administration (PA)		0	0	0	0	0
Living Support to client (LSCTP)		0	0	0	0	0
Result Based Financing (RBF)		0	3,350,000	296,142	27,500	3673642
TOTAL		2,587,150	226,157,553	656,484	20,064,718	249,465,905

Papua New Guinea
National STI & HIV Strategy
2018 - 2022
Monitoring and
Evaluation Framework



PART 2: MONITORING AND EVALUATION FRAMEWORK

1. Background

PNG's National STI & HIV Strategy NSHS 2018–2022 has its overarching vision for all Papua New Guineans to be protected, and be able to protect themselves from STIs and HIV, and that all people with STIs and HIV are able to access diagnosis, treatment, care and support services they need to maximise their health and the health of their families.

The strategy calls on all partners to front-load their investments to close the testing gap and reach the 90–90–90 prevention and treatment and in keeping up with the WHO Global Health Sector Strategy on STIs and HIV 2016–2021. The NSHS 2018–2022 has four major strategic directives as follows;-

- (1) Leadership, coordination and sustainability,
- (2) Strategic information,
- (3) Prevention and continuum of care and
- (4) Advocacy and enabling environment.

We believe that the successful implementation of activities listed around these four strategic directives will have the greatest impact on achieving the strategy's overarching vision, and that to effectively achieve the goals of each of these four strategic directives, the strategy also needs to address a range of other key cross-cutting issues which include; human rights, supportive laws and policies plus drivers of the STI and HIV epidemic such as discrimination, gender norms, violence, poverty, drug and alcohol use. The table below illustrates key elements of the NSHS 2018-2022.

2. NSHS 2018 – 2022 OVERARCHING VISION

For all Papua New Guineans to be protected and be able to protect themselves from STI and HIV, and that all people with STIs and HIV are able to access diagnosis, treatment and support services they need to maximize their health and the health of their families.

Table 13: NSHS 2018–2022 Overarching Vision.

NHS 2018–2022 Overarching Vision			
Strategic Directive 1: Leadership, coordination and sustainability	Strategic Directive 2: Strategic information.	Strategic Directive 3: Prevention and continuum of care.	Strategic Directive 4: Advocacy and enabling environment.
<p>Goal: An efficiently managed, capable and well-resourced national, provincial and district response to STIs and HIV.</p> <p>Strategic Results 1.1. Efficient and effective structures and mechanisms in place to manage the STI and HIV response. 1.2. A workforce that is sufficient, skilled, properly remunerated, accountable, managed and supported. 1.3. Medical supplies, medicines, equipment, test kits and reagents are fit for purpose and available in the right place at the right time. 1.4. An STI and HIV response that is adequately funded at all levels and is sustainable.</p>	<p>Goal: A successful response to STIs and HIV that is driven by accurate and up-to-date strategic information and research.</p> <p>Strategic Results 2.1 A harmonised, efficient and effective strategic information system is in place. 2.2 The range and quality of data collected is sufficient to guide the key priority areas of the Strategy. 2.3 Accurate and timely strategic information are used to drive changes in program and service design at all levels. 2.4 Planners and implementers have an accurate picture of the changing context of HIV risk and impact and of the effectiveness of the intervention models being used.</p>	<p>Goal: Decreased STI and HIV transmission and improved health and well-being of PLHIV.</p> <p>Strategic Results 3.1 The elements of the Standard Service Package are available across every province (with the Enhanced Package in higher-burden provinces), integrated into existing services wherever possible. 3.2 Reduction in transmission of STIs (including HIV) in the general population. 3.3 Equitable access for people in key populations to services across the continuum of STI and HIV prevention, treatment, care and support. 3.4 Increased level of knowledge of HIV status among PLHIV. 3.5 Improved health and wellbeing of PLHIV, (with a priority focus on TB-HIV).</p>	<p>Goal: An environment that is safe and supportive of people's efforts to remain healthy.</p> <p>Strategic Results 4.1 Healthcare, police, justice, welfare and other services that can be accessed by the people who need them without stigma and discrimination. 4.2 People from key populations have greater autonomy over their health and well-being. 4.3 A supportive legal and policy environment for the STI and HIV program.</p>

3. STI and HIV Monitoring and Evaluation Framework

A key component of the NSHS 2018–2022 is an overarching M&E framework that goes along with it. The framework is designed to measure the totality of the national STI and HIV response and not to measure any one individual program. The goals of the framework are to:

- 1) Direct and guide the monitoring and evaluation of the NSHS 2018–2022.
- 2) Guide the development of M&E plans for programs under the strategy.
- 3) Harmonise the implementation of strategic directives, their goals and strategic result areas related to strategic information.

The national STI and HIV M&E system in PNG should be guided by the ‘third one’ of the ‘three ones principles’ of having one national STI and HIV M&E system which should be linked to the NSHS 2018–2022. Like any fully functioning national STI and HIV M&E system, it should comprise of the following 12 components;

- 1) Organisational structures with STI and HIV M&E functions.
- 2) Human resources capacity for STI and HIV M&E.
- 3) Partnerships to plan coordinate and manage the STI and HIV M&E system.
- 4) National multi–sectoral STI and HIV plan.
- 5) Annual costed national STI and HIV M&E work plan.
- 6) Advocacy and communications culture for STI and HIV M&E.
- 7) Routine STI and HIV programs monitoring.
- 8) Surveys and surveillance.
- 9) National and sub–national STI and HIV databases.
- 10) Supportive supervision and data auditing.
- 11) STI and HIV evaluation and research.
- 12) Data dissemination and use.

This strategy must ensure these 12 components are in place and implemented during the life of the strategy.

The NSHS 2018–2022 will be in part, financially supported by donor and aid funds together with the GoPNG funds. In light of this shared funding scenario, performance–based and strategic directive goals results are the core guiding principles of donor and aid partner funds thus; a detailed and comprehensive M&E framework provides the platform to demonstrate that finance can be converted into results, enabling further funds to be committed to successful intervention programs reaching people in need.

The focus of performance by linking ongoing allocation of funds to the achievement of clear and measurable strategic directive goals and programmatic results require sound measurement systems. Monitoring and evaluation (M&E) is therefore, an important and integral part of the NSHS 2018–2022 and its implementation. M&E is specifically addressed in strategic directive 02 of the strategy.

The M&E framework outlined herein supports the implementation of the PNG NHS 2018–2022 and also addresses some of the strengthening M&E measures identified earlier. The framework sets out interventions to ensure a functional M&E system, and details procedures that will be implemented to determine whether or not the NSHS 2018–2022 strategic directive goals are met.

The framework provides (a) an overview of M&E concepts (b) STI and HIV and their related associated data systems in PNG; (c) STI and HIV and their related associated data management and dissemination coordination mechanism; (d) processes, protocols, procedures for STI and HIV and their related associated data management and dissemination; (e) capacity building in STI and HIV M&E (f) budget for STI and HIV M&E (g) a list of indicators to measure the NSHS 2018–2022 and details of how these are measured (h) Priority Actions for STI and HIV M&E.

(a) An overview of M&E concepts

The M&E framework is a measurement tool to measure strategic directive goals of the strategy, in that it will tracking formation related to the implementation of the strategy on time basis. The framework presents short, intermediate and long-term results and their associated indicators, and defines what the strategy should be achieving at four levels:

1. Inputs and processes
2. Outputs
3. Outcomes
4. Impacts

Table 14: Four Levels of Results and Its Definition.

Inputs and Processes	These are the resources and methods employed to conduct an activity, project and/or program. Inputs can be physical such as equipment rental or purchase; material such as supplies and provisions; human such as labour costs for salaries, technical assistance and staff; or financial such as travel costs, per diem costs, direct and indirect costs. Processes are the methods or courses of action selected to conduct the work such as training, capacity building, service provision and message promotion. Inputs usually produce results immediately (0–1 years).
Outputs	These are information, products or results produced by undertaking activities or projects. Outputs relate to completion of activities and are the type of results over which managers have a high degree of influence. Outputs reflect what you hoped to produce from a particular input (or set of inputs). For example: You decide the process you want to use is to train people. People trained is the result at the input/process level while knowledge level increased would be the result at an output level, the assumption being that if you train people, this will increase their knowledge on a given subject. Outputs usually reflect results achieved in a relatively short time period (0–2 years).
Outcomes	These are broad changes in development conditions. Outcomes help us answer the “so what?” question. (For example: we trained 100 people and increased their knowledge but did or did they not change their behaviour or change other peoples’ behaviour?). Outcomes often reflect behaviour or economic change and help us analyse how our activities and projects scale up or contribute toward development outcomes. Outcomes usually reflect results achieved over an intermediate time period (2–5 years).
Impacts	These are the overall, long-term effects of an intervention. Impacts are the ultimate result attributable to a development intervention over an extended period such as drop in HIV/AIDS incidence rates or TB prevalence, and or that higher standard of living for PLHIVs. Impacts usually reflect results achieved over a longer time period (5–10+ years).

(b) STI and HIV and their related associated data systems in PNG

There are four national structures that have functions of providing strategic information on HIV and STI diseases surveillance and monitoring and the responses to them (programs/services monitoring). These structures include: -

1. NDoH National Health Information ((NHIS) (the Electronic National Health Information (eNHIS))
2. NDoH HIV Disease Surveillance & Monitoring Unit (Surv1, Surv2 and Surv4, HIV Patient Database (HPDB) and the Key Population Management Information (KPMIS)
3. NACS Intelligence, Cross–Cutting Issues, Monitoring & Evaluation Unit (NACS M&E Unit)
4. NACS Research Coordination Unit (RCU)

I. NHIS (eNHIS).

Collects and contains sexually transmitted infection (STI) information and limited HIV data. The STI data captures syndromic treatment visits and there is no testing data. The HIV data captures sex, testing location, the number of tests and positive results, partial age groupings, supply chain and ART treatment. The eNHIS is currently being piloted in five provinces and expansion is planned to all provinces within the next five years. The eNHIS captures real time data for TB, STI and HIV using Surv1 and Surv2 aggregated reports and Surv4 reactive case forms.

II. HIV Disease Surveillance & Monitoring (Surv1, Surv2, Surv4, HPDB, KPMIS).

Collects and stores HIV demographic, risk, laboratory, testing and treatment data, antenatal care Syphilis results, non–specific STI results and TB testing and treatment data while the HPDB contains the clinical information for PLHIV including TB test results and treatment, risk and demographic information. Currently 21 ART health facilities enter and store data in the HPDB. HPDB also contains Surv2 aggregate reporting form.

The HPDB will expand to 10 additional health facilities by the end of 2017. The KPMIS collects and contains key population (SWs, MSM, and TG) data from the outreach and health facilities providing HIV services to the key populations. The tool will be implemented by NDoH staff in KP sites in an effort to capture key population (SWs, MSM, and TG) data, as well as identify potential areas to increase HIV intervention activities for key populations. There is also a data system used by the TB surveillance program that is not integrated into other data systems. Over time, TB data will be integrated into the eNHIS system and this will allow better monitoring of TB–HIV data.

III. NACS Intelligence, Cross–Cutting Issues, Monitoring & Evaluation Unit (M&E Unit NACS).

Responsible for collecting service and/ or programs monitoring data on HIV and STI prevention interventions implemented outside the health sector. In addition, this unit has the mandated role to coordinate overall monitoring of the national HIV and STI response and reporting this both at the national and global levels. This unit will evaluate the provincial program data and report back to the provinces.

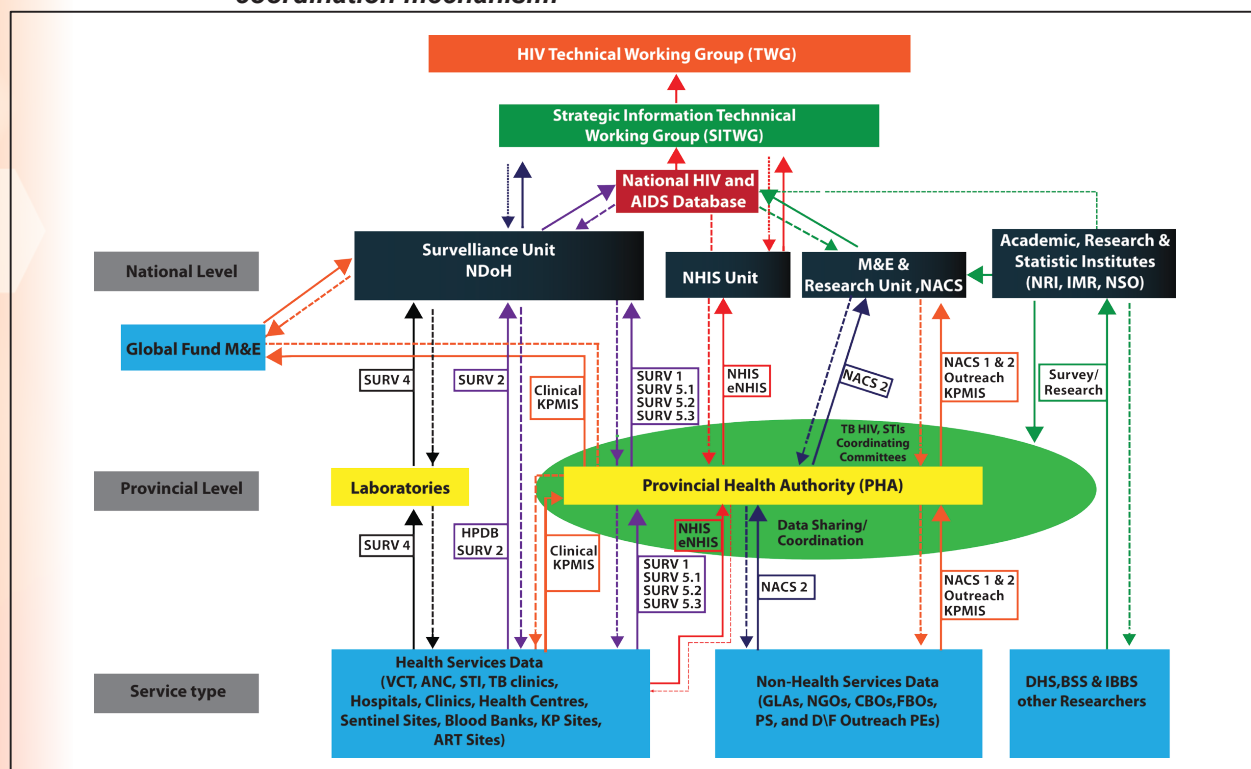
IV. NACS Research Coordination Unit (RCU).

Responsible for coordinating conduct of HIV and STI researches and surveys by ensuring ethical and medical clearance is done, research and survey protocols and methodologies are approved before implementation. In addition, the unit is responsible for compiling all research and surveys results as well as coordinating dissemination of main findings. Without Research funding the RCU and the RAC were not able to fund new research.

(c) STI and HIV and their related associated data management and dissemination coordination mechanism

At the national level, HIV TWG is currently the highest structure that makes decisions and approves technical agendas and issues on STI and HIV. Below HIV TWG is a committee called SITWG. SITWG reports to HIV TGW on matters relating specifically to M&E of STI and HIV. At the technical level, SITWG is responsible for providing coordinated technical oversight for all STI and HIV data gathering and management requirements, guidelines and procedures. Depicting this at the provincial level is what is termed ProMEST. At present the SITWG has been revived again and the ProMEST will be revived in a different format under the PHA system.

Figure 5: STI and HIV and their related associated data management and dissemination coordination mechanism.



Reporting ———→
Feedback - - - - -→

- NACS1: NACS Quarterly Reporting Form for Non-Health Agencies
- NACS2: NACS Quarterly Reporting Form for Non-Health Agencies
- NHIS1: National Health Information System Monthly Report
- SURV1: HIV Monthly Testing Summary Form
- SURV2: HIV/ART Monthly Data Collection Sheet
- SURV3: STI Clinic Patient Record Form (this form will be kept at health facilities)
- SURV4: Notification Form for HIV and AIDS Cases
- SURV4.1: Laboratory Request Form for HIV Confirmatory Test
- SURV5.1: HIV Sentinel Surveillance Form for ANC/PPTCT Clinic
- SURV5.2: HIV Sentinel Surveillance Form for STI Clinic
- SURV5.3: HIV Sentinel Surveillance Form for TB Clinic
- KPMIS: Key Population Management Information System
- eNHIS: Electronic National Health Information System

Figure 5 above illustrates the flow of data from service providers to the national level, reporting routes from the service providers' level to the provincial and national levels. Surv1, Surv2, Surv4, HPDB and KPMIS data streams flow from health facilities and outreach fields (for KP outreach) to NDoH HIV Disease Surveillance & Monitoring unit via PHAs/PHOs, passing through ProMEST for data checks and validation. NHIS Monthly Report also flows from service providers to NDoH NHIS via PHAs/PHOs and should also pass through ProMEST before going to NHIS.

NACS1 and NACS2 Quarterly forms comes from non-health service providers to provincial implementers then onto ProMEST and then onward to NACS M&E unit. HIV and STI researches and surveys are coordinated out of NACS RCU and implemented in a province upon approval. Results and findings of researches and surveys are shared with the province of participation, stakeholders, partners and HIV TWG and Surveillance unit.

There has been a lot of progress in ensuring STI and HIV M&E functions are aligned to existing structures and that these functions are strengthened and fully implemented. The NACS M&E, the NDoH HIV Disease Surveillance & Monitoring unit, the NDoH NHIS (eNHIS) and the NACS RCU with TWG and SITWG are the national structures with STI and HIV M&E functions. These structures are responsible for coordinating data management and dissemination in country. At the sub-national level, the PHAs and/or PHOs, the Provincial Implementers with the provincial laboratories and ProMEST are the main provincial structures to coordinate data management and dissemination within each province.

The main challenge now is to ensure there is regular and meaningful communication between these coordinating bodies and with all stakeholders to ensure comprehensive HIV and STI response is monitored through these structures and monitoring reports are utilised to inform programming at all levels.

(d) Processes, protocols and procedures for STI and HIV and their associated data management and dissemination

Processes, protocols and procedures have long been established at the national and provincial levels to facilitate robust and holistic STI and HIV data management and dissemination outcomes.

1. Processes

Some of the global processes that have been adopted nationally in the past include:-

- Global AIDS Monitoring (GAM/GARPR/UNGASS) reporting
- The Health Sector Universal Access To HIV Care, Treatment & Support (UA) reporting
- HIV Estimation & Projection (EPP) exercise
- National Commitment and Policy Instruments (NCPI)
- National AIDS Spending Assessment (NASA)
- Annual National HIV Disease Surveillance & Monitoring report
- Annual National Monitoring & Evaluation report
- Annual National HIV and STI Data Synthesis and Factsheet

These processes are part of the overall HIV data management and dissemination culture. Over the past few years, these seemed to have died out. In order for the current strategy to be appropriately measured, these processes have to be revived and coordinated well with partners WHO and UNAIDS.

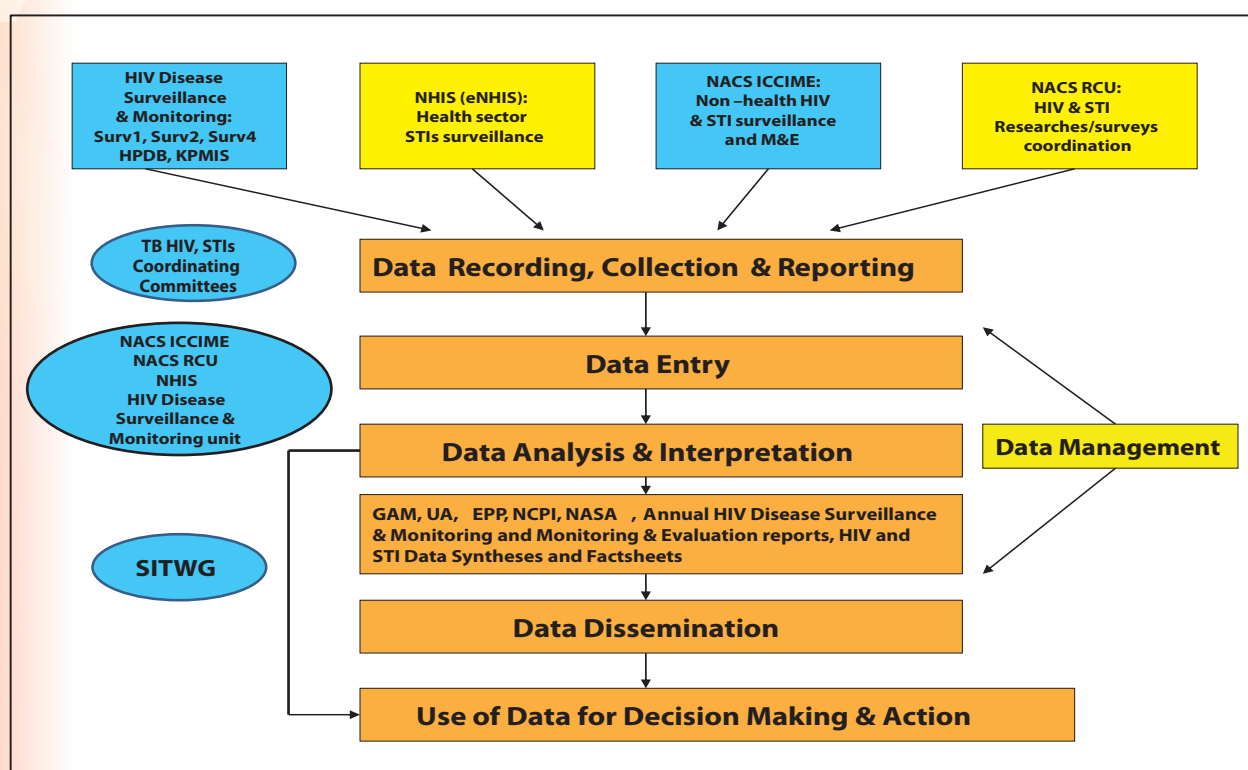
2. Protocols and procedures

At both NACS and NDoH, protocols on data management and dissemination have been written and approved for use by all partners and stakeholders. These protocols relate largely to routine data recording, collection, reporting, storage, security and dissemination. What is required for us to know now is, if these protocols and procedures contained in them have been adhered and complied with by those recording, collecting and reporting data and also by those analysing data, writing reports and disseminating results.

Some of these protocols include: -

- o Standard Operating Procedures for Routine HIV Disease Surveillance & Monitoring Data Recording, Collection and Reporting–Health Facility Manual.
- o Provincial AIDS Committee Secretariat (PACS) M&E Toolkit–Guide for Provincial Application.
- o STI & HIV Sentinel Sero–Surveillance Protocol.
- o STI and HIV Research and Survey Ethics.
- o National Health Administration Act, 1997 – provisions were included establishing procedures for follow – ups of missing reports, data quality Control, updating of coding systems, data summary and provision of feedbacks to compel all health facilities to report using the NHIS.

Figure 6: Processes, protocols and procedures for STI and HIV and their related associated data management and dissemination



Data collection, recording and reporting happens at the implementer's levels who are the service providers. Data is collected, recorded and reported through nationally standardised, TWG approved and SITWG designed data collection, recording and reporting tools.

At the provincial level, the ProMEST ensures all service providers adhere to the protocols of STI and HIV data management and dissemination and that all data are reported accurately, completely and on a timely basis. After all provincial data are scrutinized at the ProMEST level, data is then reported to the national level via the four main channel of reporting structures (NACS M&E, NDoH NHIS, HIV Disease Surveillance & Monitoring unit and the NACS RCU) respectively.

At the national level, data is entered into nationally installed databases respectively at NACS M&E, NDoH NHIS, NDoH HIV Disease Surveillance & Monitoring unit and the NACS RCU for storage, analysis, interpretation and report writing. SITWG at this stage provides oversight in scrutinizing processed data before dissemination. Dissemination takes place mostly by printing reports however; this strategy can look at other ways of disseminating processed data.

(e) Capacity building for STI and HIV Monitoring and Evaluation

In PNG, M&E is a profession that evolved over the last ten years and not so popular however, at the moment the demand is becoming very high, either it'd be M&E of programs or projects or disease surveillance and monitoring. There is also a lack of qualified and experienced elites in the pool of M&E, coupled with staff attrition being a common cause of high turnover of staffs. People lack expertise in epidemiology, demography, statistics and mathematics. Continuous short and long-term capacity building of staffs involved in M&E at national and sub-national levels is critical to ensure quality-monitoring outcomes.

There have also been quite a number of changes over in M&E staffs at NDoH and NACS, both at the national and provincial levels, causing disruption in building, maintaining and troubleshooting HIV and other health related M&E systems, loss of institutional knowledge and investments. A stock take of M&E capacity needs need to be undertaken.

At the NDoH, management will assess the competencies of current staff, review position descriptions and adjust personnel as needed. Capacity development plans will be put in place to support appropriate staff to meet the requirements of their roles. Provincial M&E officers will be provided with training, coaching, support and supervision to ensure data collection, quality assurance and reporting protocols are successfully implemented. These officers will provide training and support to district and facility level staff as well as conduct routine data audits.

At the NACS, a review on the functionality of the M&E and RCU units needs to be undertaken in order to ensure structural functions of HIV and STI M&E embedded within these units are not lost.

What really is missing now is an overall *HIV and STI Data Management and Dissemination Policy*, which this strategy must address. The policy should cover aspects such as one-point data compilation centre, data security, data access and data custodian.

(f) Budget for STI and HIV Monitoring and Evaluation

Under this strategy, M&E is addressed as Strategic Directive 02–Strategic Information, “*The right information to ensure effective interventions to track progress and to focus resources and efforts on established need and evidence of effectiveness.*” Under this strategic directive, four Strategic Results are listed which are to be achieved during and after the five–year implementation life of the strategy.

After a careful review of the final draft of the NHS 2018–2022 by a team of NACS and NDoH staffs, their partners and two locally hired consultants on 16th–20th December 2017 at the Bluff Inn motel in Central province, a recommendation was made that a proper National STI & HIV Strategy

2018–2022 M&E framework be drafted and costed thus, the costing of the NHS 2018–2022 M&E framework was done in two parts. In summary, PNG will need

USD 8,430,216.00 to implement the five–year NHS 2018–2022 M&E framework.

I. Costing for STI and HIV Monitoring and Evaluation activities under NDoH

Part one of the costing of STI and HIV M&E activities encompasses activities under NDoH. At the NDoH, a five–year STI and HIV M&E activities would cost NDoH a total of **USD5,980,944.00**. NDoH in the first year (2018) of the strategy, will need **USD409,604.00** for its STI and HIV M&E, **USD642,604.00** for the second (2019) year, **USD1,412,604.00** for the third (2020) year, **USD2,452,328.00** for the fourth (2021) year and **USD1,063,804.00** for the final (2022) year. (*Appendix 4: NDoH STI and HIV costed M&E Work plan.*)

II. Costing for STI and HIV M&E activities under NACS

Part two encompasses STI and HIV M&E activities under NACS, which would cost NACS a total of **USD2,449,272.00** for the five years implementation of the NHS. NACS would need **USD 482,948.00** for the first (2018) year, **USD498,085.00** for the second (2019) year, **USD465,821.00** for the third (2020) year, **USD578,085.00** for the fourth (2021) year and **USD424,333.00** for the final (2022) year.

(g) A list of indicators to measure strategic directive goals of the NSHS 2018–2022

The HIV TWG made a list of indicators to measure the NSHS 2018–2022. Table 3 below summarises these indicators and details of how these will be measured. Overall, there are a total of forty (40) indicators, which are disaggregated as follows: -

- Twenty nine (29) are global indicators which will track and measure global political commitment and declarations through the implementation of the strategy.
- Eleven (11) are national indicators which will track and measure PNG’s national STIs and HIV response through the implementation of the strategy.

- Of the forty (40) indicators, thirty–seven (37) will require data to be collected through the NDoH STI and HIV M&E systems in partnership with WHO, UNAIDS, CPHL and IMR.
- Of the forty (40) indicators: -
 - Three (3) will require data to be collected through the NACS STI and HIV M&E systems in partnership with UNAIDS.
 - Eleven (11) will require data to be collected through surveys.
 - Twenty–nine (29) will require data to be collected through routine program monitoring and/ or service reports, meeting minutes and activity reports.

(h) Priority Actions for STI and HIV Monitoring and Evaluation

Top priorities

- Review functionality of NACS M&E and RCU units and ensure their functions are continued as these units play vital roles at the HIV and STI M&E coordination level.
- Develop an overall M&E implementation plan as implementation path of the NSHS 2018–2022 National M&E framework. It would be advisable to leave this responsibility to the NACS M&E unit. The costing has been done.
- Revive SITWG outlining a ToR and membership.
- Ensure there is an overall HIV and STI Data Management and Dissemination Policy.
- Review how provincial HIV data hubs can be revived and/ or established to coordinate provincial HIV, STI and their related associated data. Previously, there used to be “ProMEST” but this has died. Something of similar, in a more integrated manner should be established.
- Recall all global HIV and STI M&E processes and ensure these are functional.
- Ensure all protocols and procedures for HIV and STI M&E are adhered to and followed by all partners and stakeholders implementing HIV and STI interventions when reporting their work.

Other priorities

- Adopt eNHIS as the primary data repository for HIV, STI and TB data, incorporating laboratory data and auto–generated NUIC for all patients.
- Continue the roll–out of modified HPDB to high volume ART facilities with the increased functionality of Surv2 and Surv4 site–based data.
- Provide access for certified surveillance staff to local and remote eNHIS, HPDB and HIV Disease Surveillance & Monitoring data systems.

Table 15: NHS 2018–2022 List of indicators, their baseline and targets.

SL #	Indicators	Baseline 2017	Milestone 2020	Target 2022	Data source	Frequency of collection	Entity responsible
Goal: An efficiently managed, capable and well-resourced national, provincial and district response to STIs and HIV							
1	Number of stock outs of essential medicines	0	0	0	NDoH Logistic Reports	Quarterly	NDoH
2	Number of stock outs of essential test kits	0	0	0	NDoH Logistic Reports	Quarterly	NDoH
3	Number of stock outs of essential condoms	1	0	0	NDoH Logistic Reports	Quarterly	NDoH
Goal: A successful response to STIs and HIV and that is driven by accurate and up to date strategic information and research							
1	National HIV surveillance system is harmonised into eNHIS	No harmonisation	Harmonisation process is underway	Harmonisation is completed	SI Milestone Report	Annual	NDoH/SITWG
2	Establish STI surveillance system (WHO Global STI strategy goal 2020)	No STI surveillance system	STIs surveillance system in development	STIs surveillance system is established	SI Milestone Report	Annual	NDoH/SITWG
3	National HIV surveillance report submission rate	50%	70%	90%	SI Milestone Report	Semi-annual	NDoH/SITWG
4	National STI & HIV data quality audits conducted	None at present	Quarterly	Quarterly	Meeting reports	Annual	NDoH/WHO
5	High Priority Provinces STI & HIV data quality audits conducted	None at present	Annually	Annually	Meeting reports	Annual	NDoH/WHO
6	National STI & HIV Consolidated report prepared and circulated	Not at present	Annual	Annual	Final Report	Annual	NDoH/WHO
Goal: Minimised HIV and STI transmission and optimised health and well-being of PLHIVs							
All elements of the Standard & Enhanced Service Package in place in all provinces (WHO Global HIV/STI Strategy 2020 milestones)							
1	HIV incidence GAM 3.1	No data	50% of provinces	All provinces	Mid-term/ final evaluation	Mid-term and final	NDoH/PHAs/PHOs
2	Syphilis screening among pregnant women (WHO Global STI Strategy 2020 milestones) GAM 2.4a	2,765	<1500	<500	Spectrum EPP Analysis	Annually	NDoH/UNAIDS
3	Syphilis screening among pregnant women (WHO Global STI Strategy 2020 milestones) GAM 2.4a	3.6%	50%	95%	Surveillance Database	Annually	NDoH
4	Syphilis-seropositive pregnant women treated with effective regimen (WHO Global STI Strategy 2020 milestones) GAM 2.4c	79%	85%	95%	Surveillance Database	Annually	NDoH
5	Men with urethral discharge GAM 10.4	5.2%	4.5%	3.5%	NHIS	Annually	NDoH
6	A country report on antimicrobial resistance in N. gonorrhoea is published every two years (WHO Global STI Strategy 2020 milestones)	No report	Report published	Report published	Survey	Once	NDoH/CPHL/WHO/IMR
7	HIV prevalence among key populations (by population) GAM 3.3	FSW 14.9% MSM/TG 8.9	FSW 14.9% MSM/TG 8.9	FSW 14.9% MSM/TG 8.9	BBS	Triennially	NDoH/IMR
8	Condom use among key populations (by population) (WHO/UNAIDS Global indicator) GAM 3.6	SW 49.5% MSM/TG 30.4%	SW 60% MSM/TG 50%	SW 80% MSM/TG 80%	BBS	Triennially	NDoH/IMR
9	Coverage of HIV prevention programmes among key populations (by population) (WHO Global HIV/STI Strategy 2020 milestones) GAM 3.7	SW 48.2% MSM 12% TG 18.8%	SW 60% MSM 25% TG 30%	SW 80% MSM 50% TG 60%	BBS	Triennially	NDoH/IMR
10	Knowledge of HIV status among key populations (by population) GAM 3.4	SW 38.9% MSM/TG 24.4%	SW 70% MSM/TG 70%	SW 85% MSM/TG 85%	BBS	Triennially	NDoH/IMR

11	Active syphilis among sex workers GAM 3.11	7.2%	5%	3%	BBS	Triennially	NDoH/IMR
12	Active syphilis among men who have sex with men GAM 3.12	4.0%	3.5%	3%	BBS	Triennially	NDoH/IMR
13	Viral hepatitis among key populations (by population) GAM 3.14	SW 9.3% MSM 11.7%	SW 7% MSM 9%	SW 5% MSM 7%	BBS	Triennially	NDoH/IMR
14	Percentage of people living with HIV who know their HIV status GAM 1.1	75%	85%	90%	HPDB/EPP Spectrum	Annually	NDoH/UNAIDS/WHO
15	Mother-to-child transmission of HIV GAM 2.3	28.3%	20%	15%	CPHL EID Data	Annually	NDoH/CPHL
16	Preventing mother-to-child transmission of HIV GAM 2.3 (ART coverage among pregnant women)	32.5%	50%	80%	Surveillance Database/EPP Spectrum	Annually	NDoH/UNAIDS
17	HIV screening among pregnant women (MTCT.1 PMTCT; WHO Global HIV/STI Strategy 2020 milestones)	21%	60%	90%	Surveillance Database/EPP Spectrum	Annually	NDoH/UNAIDS
18	People living with HIV on antiretroviral therapy (WHO/UNAIDS Global indicator) GAM 1.2	53.2%	70%	90%	HPDB	Annually	NDoH/WHO
19	Retention on antiretroviral therapy at 12 months (WHO/UNAIDS Global indicator) GAM 1.3	86.5%	90%	90%	HPDB	Annually	NDoH/WHO
20	People living with HIV who have suppressed viral loads (WHO/UNAIDS Global indicator) GAM 1.4	87.4%	90%	90%	CPHL/HPDB	Annually	NDoH/WHO/CPHL
21	AIDS-related deaths (WHO/UNAIDS Global indicator) GAM 1.7	1,062	750	<500	EPP Spectrum	Annually	NDoH/UNAIDS
22	Antiretroviral therapy coverage among people with HIV from key populations (by population) GAM 3.5	Not available	To be assigned	To be assigned	KPMIS	Annually	NDoH
23	Percentage of PLHIV in care who are screened for TB in HIV care or treatment settings Global Indicator Link 5	87%	100%	100%	HPDB	Annually	NDoH/WHO
24	Co-managing TB and HIV treatment GAM 10.1	65%	80%	90%	HPDB	Annually	NDoH/WHO
25	Proportion of people living with HIV newly enrolled in HIV care with active TB disease GAM 10.2	10%	10%	10%	HPDB	Annually	NDoH/WHO
26	Proportion of people living with HIV newly enrolled in HIV care started on TB preventive therapy (IPT) GAM 10.3	10%	30%	60%	HPDB	Annually	NDoH/WHO
27	Hepatitis B screening among PLHIV GAM 3.12	11%	50%	80%	HPDB	Annually	NDoH/WHO
Goal: An environment that is safe and supportive of people's efforts to remain healthy							
1	Discriminatory attitudes towards people living with HIV GAM 4.1	No Data	No Data	Baseline Established	Survey	Once every three to five years	NACS
2	Avoidance of HIV services because of stigma and discrimination among key populations GAM 4.2	No Data	No Data	Baseline Established	BBS	Triennially	NDoH/WHO/IMR
3	Prevalence of recent intimate partner violence GAM 4.3	No Data	No Data	Baseline Established	Survey	Once every three to five years	NACS
4	Annual assessment of legal and policy environment using UNAIDS-NCPI (National Commitment and Policy Instruments)	No Assessment	Completion of Two Assessments	Completion of Two Assessments	Policy Analysis	Annual	NACS

Glossary

Advocacy: Is an activity by an individual or group which aims to influence decisions within political, economic, and social systems and institutions.

An enabling environment: Is the social, legal and environmental factors that facilitate safe behavioural choice and encourage those most vulnerable to and living with HIV to participate at all levels of the response to the epidemic.

Combination prevention: Meeting ambitious 2020 and 2030 targets require focused combination packages that offer a mix of proven high-impact HIV prevention interventions. These include condom provision, immediate initiation of antiretroviral therapy (ART) and pre-exposure prophylaxis (PrEP).¹⁶

Communities: Is a term used for a wide range of population groups, which includes the community of people living in a defined geographic space such as a village. It also refers to groups of people in particular locations who may share a common characteristic which binds them together such as their sexuality (for example, homosexual men), occupation (for example, sex work), or gender identity (for example, women and transgendered people).

Discrimination: Results from stigma and is the unfair and unjust treatment of an individual based on his or her real or perceived HIV status or membership of a group perceived to be at risk of HIV (for example, sex workers).

Drivers of the HIV epidemic: The HIV/AIDS epidemic is driven by a complex interweaving of factors that include, extreme wealth disparities (socioeconomic and behavioral factors), cultural and traditional practices (i.e., polygamy, widow inheritance, gender inequality), casual and extramarital relationships, drugs and alcohol abuse, sex practices (i.e., inter and intra generational sex), condom negotiation and use in the communities.

Enhanced Service Package: This includes the all Elements of the Standard Service package together with: 1 Peer-based outreach to key populations in urban areas and sites of particular risk and at times when populations can be best accessed, with a direct connection between outreach to clinical services. 2. PLHIV peer counselling providing ART, with case management and adherence support 3 Coordinated TB and HIV services, including Provider Initiated HIV and TB testing, treatment, support and care 4. Decentralization of STI and HIV testing and HIV adherence support as far into rural health service levels as possible. 5. Decentralizing ART to district level and using community/outreach ART delivery approaches to increase access in remote districts with no road access to the provincial capital.

Epidemiology: Is the study of the distribution and determinants of health-related states or events (including disease), and the application of this study to the control of diseases and other health problems. Various methods can be used to carry out epidemiological investigations: surveillance and descriptive studies can be used to study distribution; analytical studies are used to study determinants.

¹⁶Fast-tracking Combination Prevention, UNAIDS 2015

FSW: Female sex workers both adults and young girls who receive money or goods in exchange for sexual services, either regularly or occasionally.

Gender: Is the socially constructed roles and relationships, personality traits, attitudes, behaviours, values, and relative power and influence that society assigns differently to women and men. Gender is related to how women and men are perceived and expected to think and act because of the way society is organised, not because of biological differences. The term 'sex' refers to biologically determined differences between women and men.

Gender expression: Refers to the way a person communicates gender identity to others through behaviour, clothing, hairstyles, voice or body characteristics. "Trans" is sometimes used as shorthand for "transgender." While transgender is generally a good term to use, not everyone whose appearance or behaviour is gender-nonconforming will identify as a transgender person. The ways that transgender people are talked about in popular culture, academia and science are constantly changing, particularly as individuals' awareness, knowledge and openness about transgender people and their experiences grow.

Gender identity: Is one's personal experience of one's own gender. Gender identity can correlate with assigned sex at birth, or can differ from it. All societies have a set of gender categories that can serve as the basis of the formation of a person's social identity in relation to other members of society.

Gender-based violence: Refers to the various forms of violence that women, men, girls and boys, and transgender people, experience because of issues relating to gender and sexual identity. These forms of violence include domestic violence and other forms of physical violence, rape (including rape within marriage), sexual abuse and exploitation of girls and boys, incest, forced prostitution, sexual abuse by authorities during conflicts, disasters and emergencies (including by the police), and homophobic violence directed towards women and men who are, or assumed to be, attracted to the same sex.

HIV mainstreaming: Means all sectors and organisations (public, private and civil society) determining: 1) how the spread of HIV is caused or contributed to by their sector, or their operations; 2) how the epidemic is likely to affect their goals, objectives and programs; 3) where their sector or organisation has a comparative advantage to respond to limit the spread of HIV and to mitigate the impact of the epidemic; and 4) then taking action.

HIV-related orphans: Are children who have lost one or both of their parents as a result of the HIV epidemic.

In concentrated epidemics: HIV has spread rapidly in a defined sub-population(s), but is not well-established in the general population. This epidemic state suggests active networks of risk within the sub-population. The future course of the epidemic is determined by the frequency and nature of links between highly infected sub-populations and the general population. In a concentrated epidemic, HIV prevalence is consistently over five per cent in at least one defined subpopulation and HIV prevalence is below one per cent in pregnant women in urban areas.

In generalized epidemics: HIV is firmly established in the general population. Although sub-populations at high-risk (for example, sex workers) may contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain an epidemic independent of sub-populations at higher risk of infection. In a generalised epidemic, HIV prevalence is consistently over one per cent in pregnant women which is used as a proxy for the general population. Information on risk behaviours, using them to warn of or explain changes in levels of infection. As such, second generation surveillance includes: HIV surveillance and AIDS case reporting, STI surveillance to monitor the spread of STIs, and behavioural surveillance to monitor trends in risk behaviours over time.

Integration: Integration involves the organization and management of *health services* so that people get the *care* they need, when they need it, in ways that are user-friendly, achieve the desired results and provide value for money.

Key Population: Are the population groups who are at high risk of becoming infected with HIV because of them being highly marginalized or because of their sexual behavior and characteristics. Most at risk populations group in PNG context include truck drivers, mobile men with money, MSM, FSW, Transgenders, heavy alcoholic drinker and injecting drug users.

MSM: MSM (men who have sex with men): MSM refers to all males – of any age – who engage in sexual and/or romantic relations with other males. The words “men” and “sex” are interpreted differently in diverse cultures and societies, as well as by the individuals involved. Therefore, the term “men who have sex with men” encompasses the large variety of settings and contexts in which male-to-male sex takes place, across multiple motivations for engaging in sex, self-determined sexual and gender identities, and various identifications with particular community or social groups

Multiple concurrent sexual partnerships: Are overlapping sexual partnerships where sexual intercourse with one partner occurs between two acts of intercourse with another partner. A sexual partnership is considered to be concurrent if a person reports having two or more overlapping sexual partners in the previous three months. It is well established that viral load, and thus infectivity, is much higher during the acute phase of HIV infection (that is, the window period). Where multiple concurrent sexual partnerships are common, the combined effects of sexual networking and the acute infection spike in viral load means that as soon as one person within a concurrent sexual network is infected, all other sexual partners are at higher risk. occasionally for goods or other benefits. While sex workers may be full or part time, sex work is undertaken on a more or less regular basis. Sex work is usually the sole or at least a significant component of regular monthly income for a sex worker.

Operational research: Involves the application of systematic research and evaluation techniques on the way services and interventions can be improved. Only factors that are under the control of program managers are studied.

Penile modification: Is any change made to the penis through: 1) cutting the penile foreskin, including full removal of the foreskin or the partial slitting of the foreskin on the dorsal side; 2) through the insertion of objects under the foreskin; and 3) through the injection of substances into the penis. Each type of penile modification increases the risk of HIV for both men engaging in these practices and their sexual partners.

Risks arise from the use of non-sterile equipment, particularly if it is shared; increased trauma to the vaginal wall or rectum during intercourse resulting from the modification; an inability to wear a condom correctly due to the modification or increased risk of condom breakage; and the false belief that the modification (the foreskin cutting) provides a protective effect from contracting HIV. Penile foreskin cutting (partial slitting or full removal of the foreskin) has long been part of some of the diverse traditional male initiation practices in PNG.

PLHIV Expert Patient Model: In this model expert PLHIV patients are trained and add value to the ART services at a tertiary referral HIV clinic. Expert patients carry out shifted tasks acceptably, saving formal health staff time, and also act as 'living testimonies' of the benefits of ART and can be a means of achieving greater involvement of People Living with HIV in HIV treatment programs.

Polygamy: A like this the marital practice of having more than one spouse at one time. Polygamy with men having more than one wife has been traditionally practiced and is sociocultural sanctioned in many parts of PNG, and particularly in the Highlands region. Polygamy creates networks of concurrent marital sexual partnerships and can increase risk of HIV transmission for women as condom use is usually reported least in the contexts of regular marital partners.

Prevalence: The number of existing cases in the population during a given time period. Prevalence rates are often expressed as a percentage.

Priority area goals: Define what the NHS aims to achieve in each of its three priority areas in the next five years.

Public - private partnerships: Describes a government service or private business venture, which is funded and operated through a partnership of government and one or more private sector companies.

Public Health Approach: A public health approach aims to achieve health equity and promote gender equality, to engage communities and to leverage public and private sectors in the response. It promotes the principle of health in all policies through where necessary legal, regulatory and policy reforms. It aims to strengthen integration and linkages between HIV and other services, improving both impact and efficiency.

Second generation surveillance: Is the regular and systematic collection, analysis and interpretation of biological and behavioural data for use in tracking and describing changes in the HIV epidemic over time. Second generation surveillance also gathers

Sentinel surveillance: Is the systematic, ongoing collection and analysis of biological data from certain sites (for example, antenatal or STI clinics) selected for their geographic location, medical specialty and/or populations served. It is considered to have the potential to provide an early indication of changes in the distribution of HIV.

Sero – discordant Couple: Couples with one person who is HIV-positive and one who is HIV-negative are sometimes called “serodiscordant” or “mixed serostatus”. “Sero-” refers to blood serum. “Serostatus” refers to whether someone has HIV infection or not.

Sero-discordant relationships: Also known as or mixed-status, is one in which one partner is infected by HIV and the other is not. This contrasts with sero-concordant relationships, in which both partners are of the same HIV status.

Sexual health: Is a state of physical, emotional, mental and social well being related to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.

SMART: Specific Measurable Achievable Realistic Time-bound. This is used as a measure of a well defined indicator.

Standard Service Package: Service Delivery Package, which includes a combination of prevention approaches involving: 1. PLHIV case management (with adherence support) incorporated into outreach–combined HIV and TB treatment support. 2. Active case management and tracking of clients initiated on HIV treatment and linking with TB programs to track clients and increase TB treatment success rates amongst clients with co-infections 3. Mobile clinical services (including rapid HIV testing) operating in key environments of risk, at times when people from key populations can be accessed–STI and HIV testing, STI treatment, TB testing, peer counselling, condom access, with a direct connection back to clinics. 4 Advocacy at provincial and local level to strengthen the supportive environment for service access with a particular focus on ensuring people from key populations have access to services and attention to police and justice.

Stigma and discrimination: Is defined as a powerful and negative social label that radically determines the way individuals view themselves and are viewed by others. It can be *felt* (internal stigma), leading to an unwillingness or inability to seek help and access resources for a person’s own well-being, or *enacted* (external stigma), leading to *discrimination* on the basis of HIV status or association with someone who is living with HIV, or on the basis of attitudes towards risk behaviours (for example, sexual behaviours).

Sub-national level: Refers to the provincial, district and local government levels. It can also refer more generally to places outside Port Moresby and not just to levels of government. For example, ‘the need to increase technical assistance at the sub-national level’ applies to all partners outside Port Moresby, not just to government partners.

Surveillance: Is the systematic collection, analysis and interpretation of data about a disease or health condition. Testing of blood samples for the purpose of disease surveillance is called sero-surveillance.

Sustainable Development Goals: The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another. The SDGs work in the spirit of partnership and pragmatism to make the right choices now to improve life, in a sustainable way, for future generations. They provide clear guidelines and targets for all countries to adopt in accordance with their own priorities and the environmental challenges of the world at large. The SDGs are an inclusive agenda. They tackle the root causes of poverty and unite us together to make a positive change for both people and the planet.

Syphilis: Syphilis is a sexually transmitted infection (STI) caused by an infection with bacteria known as *Treponema palladium*. Like other STIs, syphilis can be spread by any type of sexual contact. Syphilis can also be spread from an infected mother to the fetus during pregnancy or to the baby at the time of birth.

Syphilis – Seropositive pregnant women: Pregnant women who are tested or screened during the antepartum period and tested positive using serological testing.

The overarching goal: The overarching goal of the NSHS defines what the national HIV and AIDS response aims to achieve in the next five years.

Transactional sex: Is providing sexual services in exchange for money, goods, service, or other favours. This can be a frequent practice or on an occasional basis in response to a particular need (for example, women who need to raise money for their children's school fees). Those who engage in transactional sex usually do not self-identify as sex workers.

Transgendered people: Are individuals whose gender identity and/or expression of their gender differs from social norms related to their sex of birth. The term describes a wide range of identities, roles and experiences, which can vary considerably from one culture to another.

Universal Health Coverage: Universal health coverage is achieved when all people receive the health services required, which are of sufficient coverage to make a difference without those people incurring financial hardship. It comprises three major interlinked objectives: improving the range, quality and availability of essential health services (covering the range of services needed), improving the equitable and optimal uptake of services in relation to need (covering the population in need of services) and reducing costs and providing financial protection for those who need the services (covering the cost of services).

Viral Load tests: A laboratory test that measures the amount of HIV in a blood sample. Results are reported as the number of copies of HIV RNA per millilitre of blood. Viral load tests are used to diagnose acute HIV infection, guide treatment choices, and monitor response to antiretroviral therapy (ART).

Young people: Are defined as people aged between 15 to 24 years old.

Appendixes

(a) Epidemiology at a glance. Detailed information, data and references

PNG has had successive National HIV strategies since 2006. Over this time significant progress has been made in assisting individuals, families and communities respond to the challenges that HIV and Sexually Transmissible Infections (STIs) present. For HIV, there is now a network of prevention, testing, treatment, care and support services across PNG and civil society mobilisation to increase care in the community. For STIs, the network of STI clinics and services has expanded significantly in recent years, improving services access for people in all provinces.

Many lessons have been learned along the way, adapting models and ideas from the outside to PNG's particular context. There are still many challenges ahead, but there is a firm foundation in place to build on. This strategy aims to consolidate and strengthen that foundation and to find new and innovative ways to close the gap between what is being achieved now and what needs to be achieved to improve sexual health, minimise HIV transmission and maximise the health and wellbeing of people living with HIV (PLHIV) and their families and communities.

For the first time in PNG, this national strategy includes STIs in its title, highlighting the direct connection between the STI and HIV responses in PNG. Improving sexual health not only has direct health benefits for individuals and families, but reducing STIs also provides additional protection against HIV acquisition.

There has been considerable debate over definitions of PNG's HIV epidemic. The national prevalence hovers around 1%, which is used by many as the cut-off for defining a generalised HIV epidemic, yet HIV is concentrated in particular populations and at particular parts of the country. There is a significant concentration of HIV prevalence in a set of key populations (sex workers, men who have sex with men (MSM) and transgender people) and in certain geographical areas (the Highlands region in particular), but HIV exists across the whole country and affects people beyond the traditional key population definitions.

PNG supports the renewed global commitment to work towards ending the AIDS epidemic. This includes a commitment to the HIV 90:90:90 targets: by 2020, 90% of all people living with HIV will know their HIV status; by 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; by 2020, 90% of all people receiving antiretroviral therapy will have viral suppression.

I. Sexually Transmissible Infections

2015 STI syndromic management figures show that of the 133,927 patients treated across PNG under syndromic management guidelines, 41.4% had urethral discharge, 21.3% had pelvic inflammatory disease, 3.9% had genital ulcers and 4.3% had latent syphilis.¹⁷ General population STI data pooled across a number of community and clinic-based studies (until 2010) indicates the following rates:-

- Syphilis: 12.9% in men; 7.9% in women (community studies); 31.1% in female sex workers.
- Gonorrhoea: 10.0% in men; 16.3% in women (community studies); 33.7% in female sex workers.
- Chlamydia: 20.2% in men; 22.8% in women (community studies); 26.1% in female sex workers.¹⁸

The overall syphilis prevalence among women attending antenatal clinics surveyed and tested for syphilis during the 2011 sentinel (periodic) sero-surveillance survey was 7.24%.¹⁹ In a recent cross-sectional prevalence survey of women attending their first antenatal visit (sampled across three provinces), 43% were diagnosed with chlamydia, trichomonas and/or gonorrhoea (22.9% chlamydia, 22.4% trichomonas and 14.2% gonorrhoea). The prevalence of active syphilis was 3%.²⁰

This data indicates persistent high levels of STIs in the general population, resulting in pain and discomfort, general ill-health, severe long-term health complications, reproductive health problems, morbidity and mortality for infants and increased susceptibility to HIV transmission. Among key populations, the 2016 NCD IBBS revealed high rates of several STIs:

- Active syphilis 7.2% among female sex workers and 4% among MSM and transgender people.
- Gonorrhoea
 - anorectal: 19.3% among female sex workers and 7.1% among MSM and transgender people.
 - genital: 18.6% among female sex workers and 3.6% among MSM and transgender people.
- Chlamydia
 - anorectal: 31.8% among female sex workers and 9.6% among MSM and transgender people.
 - genital: 29.7% among female sex workers and 12.3% among MSM and transgender people.²¹

¹⁷NDoH STI data, 2015

¹⁸Vallely, A., Page, A., Dias, S., Siba, P., Lupiwa, T., Law, G., Millan, J., Wilson, D.P., Murray, J., Toole, M., Kaldor, J. The Prevalence of Sexually Transmitted Infections in Papua New Guinea: A Systematic Review and Meta- Analysis, PloS One Vol 5 Issue 12 2010

¹⁹The 2011 Annual STIs, HIV/AIDS Surveillance Report, PNG National Department of Health STIs, HIV/AIDS Surveillance Unit, Published in November 2013

²⁰Hocking, J., Vaughan, C., Lau, A., Machalek, D. and Graham, S. Reducing the burden of sexually transmissible infections in Papua New Guinea requires strengthening of clinical services and engaging men, *Sexual Health*, 2016, 13, 401–403

²¹2016 IBBS, preliminary data NCD

Since 2007, PNG/Australia Sexual Health Improvement Program (PASHIP, 2007–2012) and NDoH has established STI ‘White House’ clinics throughout PNG. These clinics have strengthened the capacity of primary health services to diagnose and treat STIs using syndromic treatment protocols. However, the independent PASHIP progress report conducted in 2011 indicated that whilst its program has increased access to STI services in its focus areas, there remained challenges for management and monitoring and evaluation.²² Gonococcal antibiotic resistance is a major health concern in PNG and across the region. PNG is a participant in the WHO-WPRO Gonococcal Antimicrobial Susceptibility Program (GASP).

II. Adoption of safer sex behaviours

Condom distribution, behaviour change communication and peer education strategies have been used to increase the level of safer sex in key populations and among other people at risk of HIV and STIs. In the early years of the HIV epidemic there were extensive general population condom campaigns and community development programs using models adapted from other countries—such as the Community Conversations Initiative—to assist community leaders and members to respond to HIV in their communities. There have also been social marketing campaigns to normalise condom use. There has been a move away from these strategies in recent years, and it is timely to revisit some of these initiatives to reinforce condom use and other messages in the general population.

Outreach programs have focussed on behaviour change communication to increase the level of safer sex in key populations. Despite this, the 2016 NCD IBBS revealed relatively low levels of condom use among key populations: 37.0% of female sex workers and 26.9% MSM and transgender people reported condom use at last sex. Only 14% of female sex workers reported condom use at last vaginal sex with main male partner. The *Tingim Laip* 2015 periodic survey reported 61% condom use at last vaginal sex with regular non-paying partner and 84.9% condom use at vaginal sex with last transactional partner.²³

In the 2011 *Askim Na Save* Port Moresby sex worker sample, 37% of male, female and transgender sex workers reported using a condom every time during vaginal sex with their clients in the previous six months. Forty-six percent of the male and transgender sex workers reported using a condom every time during anal sex with same-sex clients in the previous six months.²⁴

The 2011 BSS study estimated that for MSM in the study, the proportion of all sexual encounters protected with condom ranged from 39% to 45% with male partners, whereas around 43% of all sexual encounters with women were protected with condoms. The percentage of sexual encounters protected with condoms in the previous month was higher with female regular partners (43%) than with male regular partners (39%).²⁵

²² Butcher, K. & Martin, S., Independent Progress Report of PNG Australia Sexual Health Improvement Program (PASHIP) 2007 - 2012, AusAID HRF 2011

²³ Same as above

²⁴ Kelly, A., Kupul, M. et al, *Askim Na Save*, (Already quoted)

²⁵ Behaviors, knowledge, and exposure to interventions, FHI360 2011 (Already quoted above)

The results from these studies highlight that these key populations have not measurably changed their behavior in spite of condoms being made available. While *Tingim Laip* reported higher condom uses among its study participants, the results from the other studies show that condom use remains low.

III. Prevention of mother to child HIV transmission

HIV testing and counselling is taking place in 211 ANC sites across all 22 provinces. In 2016, 32.5% of HIV positive pregnant women received ARVs to prevent mother to child transmission. If the coverage is not improved, it is estimated that only 507 of the 1,559 women requiring PMTCT will access it in 2017. This service access gap is likely to result in around 443 new HIV infections among 0–14 year olds in 2017, highlighting the need to reach and test more pregnant women with HIV earlier in their pregnancy, or before their pregnancy.²⁶

In 2012, PNG became one of the first countries in the Asia Pacific Region to roll out the WHO recommended Option B+ model of care—that use the lifelong antiretroviral therapy. Between 2013 and 2016, with the support from GFATM, UNICEF and CHAI many provinces in the highlands region rolled out PMTCT to district level through task shifting and training of nurses and community health workers to integrate HIV testing and administration of ART in MCH settings. The regional mentoring teams funded with support from GFATM and UNICEF was instrumental in capacity building and onsite supervision to the lower health carders. Coverage of PMTCT services increased in these provinces with high rates of HIV testing. In 2016 Eastern Highlands Province had coverage of 70% of estimated HIV positive pregnant women receiving ART.

Male partner testing, which is a key factor for improving utilisation of PMTCT services increased in several health facilities through couple counselling and initiatives employed for inviting male partners to the ANC clinic. Strategic information, data management and reporting were strengthened to reflect major PMTCT indicators as part of the national HIV reporting system.

The major challenges are poor ANC antenatal attendance and low access to prenatal testing which contribute to low testing uptake; poor linkages to ART and loss to follow up of clients started on Option B+ especially post-partum period. Following the pilot project implemented by CHASI and UNICEF on use of mother mentors to provide peer psychosocial support and counselling to new mothers, many health facilities engaged peer educators attached to the PMTCT clinics to conduct counselling and tracking of mothers LTFU but this strategy required additional funding to scale up.

Early Infant HIV Diagnosis (EID) using dry blood spot was rolled out from 2013 reaching a peak in 2015 of 40.6% of infants born to HIV positive mothers receiving HIV virological test in the first two months after birth. However, performance declined when the PCR laboratory serving the Highlands region was closed. Currently only the Central Public Health Laboratory in Port Moresby provides PCR testing. The program faces challenges in sample transportation, delay in relaying results due to lack of electronic/digital transfer systems and high loss to follow-up that contribute to delays in initiation of ART among HIV positive children.

²⁶2016 PNG Spectrum data, not yet published

IV. Knowledge of HIV status

It is estimated that there were 45,795 people living with HIV in PNG in 2017. The proportion of PLHIV presenting for the first time at ART treatment clinics with a CD4 count below 200 has remained static at around 50%, indicating the need to focus on earlier detection of HIV through voluntary counselling and testing (VCT) and Provider-initiated Testing and Counselling (PITC) and to strengthen the effectiveness of referral systems to ensure that people testing positive for HIV are assisted to access ongoing prevention, treatment, care and support.

HIV voluntary counselling and testing services are widely available across PNG, as stand-alone services and in STI, ANC, TB and primary care clinics. There are still gaps to address in knowledge of HIV status, particularly among pregnant women, among people with TB and in some key populations.

Access to HIV testing will to be expanded under this strategy. This needs to include: -

- HIV testing for *all* people treated for STIs (presumptively, by syndromic management or by diagnosis).
- Three to six monthly testing for people from key populations clinic and community-based).
- Routinely through ANC and community-based HIV testing for pregnant women who do not access ANC
- Routinely in all TB diagnosis and treatment sites and initiatives in primary health care.

V. Outreach to key populations

Over the past 15 years, STI and HIV prevention outreach to key populations has been an important part of the response. Outreach programs have been in place in environments of increased risk across the higher-burden provinces in various forms. This initiative began with the High-risk Settings Strategy (HSS) under the National AIDS Council Secretariat (NACS) and was continued through the national Tingim Laip Project from 2006–2014 across 20 sites in ten provinces. This complemented by set of NGO-run outreach programs in NCD, Momase and the Highlands.

More recently, outreach services were provided through church and NGO groups funded by Australia Aid under the management of the Health and HIV Implementation Service Provider (HHISP), through the USAID funded project *Strengthening HIV Services for Key Populations in PNG* implemented by FHI 360 and through the HIV program funded by the Global Fund under the management of Oil Search Foundation. Recent shifts in donor priorities have reduced their commitment to outreach programs and filling the gap left by this will be an important priority of this Strategy.

In recent years, in line with lessons from program evaluation and global and regional evidence for effectiveness, the focus of key population outreach programs has changed dramatically, adopting new approaches that concentrate on increasing knowledge of HIV status among key populations and connecting PLHIV with treatment, care and support services.

Through this implementation, PNG has learned that people from key populations can be reached by peers in a range of settings, assisted to adopt safer behaviours and linked to HIV testing and treatment, care and support for those people living with HIV. The 2015 study of Tingim Laip Project *Periodic Survey* found that 73.4% of outreach clients (sex workers and women in transactional sex, MSM, transgender people and mobile men with money) had tested for HIV in the previous six months and knew their results.²⁷

Innovations in VCT and STI treatment access under the Tingim Laip project included mobile night clinics at truck stops (with local police providing security), partnerships with Palm Oil industry clinics and the mobilisation of a paid workforce of peer educators using a case management model to ensure regular contact with individual clients.²⁸ Some of these have continued under new programs, with HIV rapid testing by peers in the community and HIV case management being adopted by some programs.

The results of the 2015 study conflicts with the results of the 2016 *NCD IBBS* that reported HIV testing rates of only 44% of female sex workers and only 49% of MSM and transgender people. Almost half of the people from key populations in this study had never seen an outreach worker/peer educator, or had not seen one in the previous year.

The vast majority of the key population members diagnosed with HIV through the 2016 *NCD IBBS* were previously unaware that they had HIV (61% of the female sex workers and 75% of the MSM and transgender people).²⁹

The 2016 *NCD IBBS* indicates that the current outreach programs for key populations are not reaching enough people from the key populations to bring about the health gains needed.

Outreach programs under this Strategy will need to sharpen their focus on knowledge of HIV status and connection to STI and HIV treatment and care services under this Strategy in order to fill these gaps.

In 2016, outreach programs funded by Australian Aid, USAID/FHI 360 and under the Global Fund grant reached over 18,500 sex workers, 3,300 MSM and 550 transgender people with a package of prevention services—condoms and lubricant, IEC material, peer counselling and accompanied or non-accompanied referral for HIV testing and STI treatment.

This occurred across sites in across outreach sites in NCD and in Hela, Southern Highlands, Western Highlands, Enga, Jiwaka, Madang and Morobe provinces.

In 2016, FHI360 through its outreach programs to key populations in NCD reached 3,132 people with the comprehensive HIV prevention package and referred them to health facilities for HIV testing and STI management. The rate of successful referrals has increased from 8% in 2016 to 40% in 2017.

²⁷Amos, A., Kelly-Hanku, A. et al, Tingim Laip Periodic Survey 2, (Already quoted above)

²⁸ All Tingim Laip tools and reports available at www.tingimlaip.org

²⁹IBBS 2017, NCD preliminary data, not yet published

FHI360 has integrated HIV testing into peer outreach services to increase the number of key populations who know their HIV status. This strategy provides an opportunity to increase HIV testing uptake among key populations but there is need for NDoH to provide policy guidelines on HIV testing by lay counsellors and standardize the practice across all stakeholders.

Table 16: Outreach to individual key populations members

January–December 2016				
Indicators	DFAT Annual (Unique individuals)	PEPFAR Annual (Unique individuals)	GF Annual (Unique individuals)	Annual Overall Country Total
Number of sex workers reached with HIV prevention programs—defined package of services	11,813	3,431	3,354	18,598
Number of sex workers that have received an HIV test during the reporting period and know their results	1,588	710	1,017	3,315
Number of MSM reached with HIV prevention programs—defined package of services	2,360	1,965	482	4,807
Number of MSM that have received an HIV test during the reporting period and know their results	138	347	309	794
Number of TG reached with HIV prevention programs—defined package of services	326	79	136	541
Number of TG that have received an HIV test during the reporting period and know their results	60	9	46	115

It is difficult to compare this meaningfully with previous years as donor funds and sites changed considerably from year to year. The introduction of the National Unique Identifier Code (NUIC) for key populations has improved evaluation significantly as it is now possible to track the pattern of reach for individuals over time rather than just measure occasions of service.

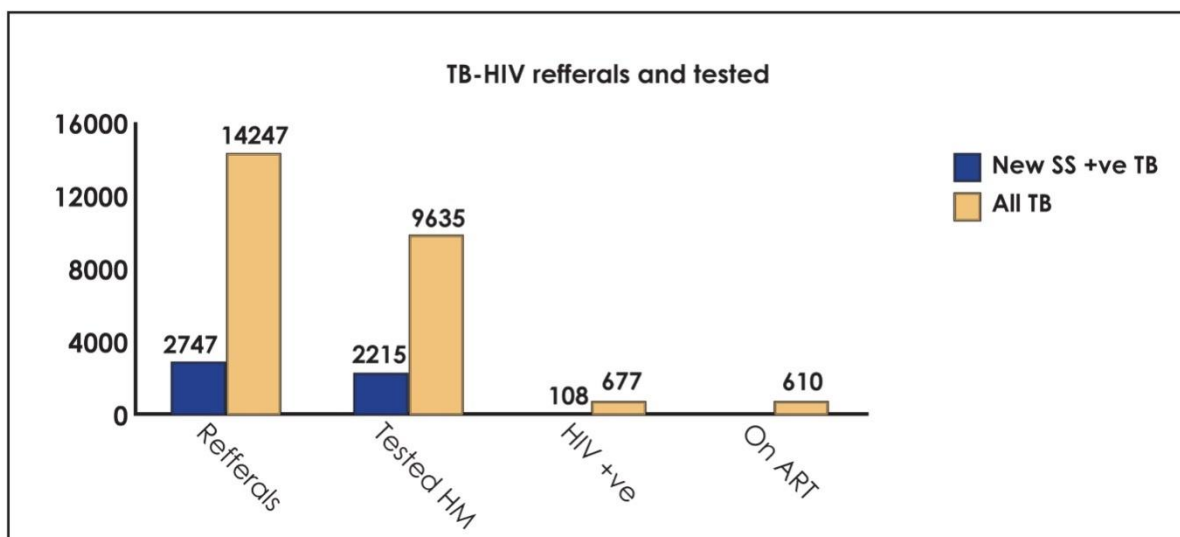
The most important challenge from the data above is to improve the connection between outreach and HIV testing—less than 20% of the people from key populations reached under these outreach programs in 2016 accessed a HIV test and knew their result. This compares with a figure of 73% of key populations under previous peer outreach programs. This gap is contributing to late presentation of people with HIV to treatment services and will be addressed as a priority by updating outreach models in the strategy.

VI. HIV/TB Co-infection

TB is the leading killer of PLHIV in PNG. In 2015, 33% of new TB patients were tested and knew their HIV status. Around 8% of those tested were HIV positive and 62% of patients on TB treatment who were HIV positive were receiving ART.

³⁰ Strategy 6.2.4 of the *PNG National Health Plan 2011–2020* seeks to ensure that every person with TB is tested for HIV. It is also essential to test newly–diagnosed PLHIV for TB.

Figure 7: HIV referral, testing and treatment for people with TB (2015).



Considerable effort has been made in recent years within the national Department of Health (NDoH) and partner organisations to ensure that PLHIV are tested for TB and placed on Isoniazid preventive therapy (IPT) or TB treatment as necessary. PLHIV on IPT have significantly greater life–expectancy than PLHIV not screened. Mortality rates among PLHIV with TB remain high (20 per 100 persons), highlighting the urgent need for PLHIV to be screened for TB at every care visit, direct access and treatment support for people with HIV/TB to TB treatment improved and linkages between the two vertical programs to further reduce mortality.³¹

Under the previous HIV Strategy 36 ARV clinicians across 10 high burden provinces were trained in HIV treatment and care and IMAI HIV treatment and care training was provided to TB clinicians. HIV PITC training was also provided to TB clinic staff. The National HIV/TB Collaboration Committee meets quarterly and identifies actions to improve HIV/TB coordinating and collaboration. The 2018–2020 Global Fund allocation for PNG is a joint HIV/TB programme and prioritises a range of integration initiatives across health services and community to reduce the impact of HIV/TB.

VII. Access to HIV treatment, care and support

It is estimated that at the end of 2016, 52% of the PLHIV eligible for ART in PNG were on treatment.³² HIV National Treatment Guidelines were updated in 2017 in line with global Test and Treat guidance. ART coverage for 2017 is estimated to be 52%—around 23,800 of the estimated 45,795 PLHIV are on ART.³³ There has been a significant roll– out of ART services in higher burden provinces, resulting in easier access for PLHIV to clinical monitoring and ART. From 2005 to 2016, 27,521 PLHIV have visited 19 major ART clinics.³⁴

³⁰TB National Program data

³¹ PNG NDoH Patient database, 2016

³²2016 PNG Spectrum data, not yet published

³³ 2016 Spectrum data

³⁴NDoH Patient database 2016

Table 17: Major ART Treatment sites and PLHIVs registrations.

Major ART Treatment sites					
Province	Clinic	Registered PLHIV	On treatment	Deaths	Loss to follow-up
NCD	Heduru Clinic, POM General Hospital	4140	2452	139	871
NCD	Lawes Road Clinic	476	310	3	0
NCD	Poro Sapot Project VCT & STI Clinic	372	251	5	5
NCD	St. Joseph's Care Center	223	216	5	25
NCD	Koki Clinic	249	188	6	2
NCD	Kila Kila Clinic	216	158	3	23
ENB	Vunapope Hospital, Peter Torot's VCT center	190	133	17	1
Madang	Bethany Care & Counselling, Hospital	128	131	4	16
Madang	Rai Clinic, Ramu Sugar Clinic	140	84	5	0
WHP	Anglicare Newtown VCT Centre, Mt Hagen	86	72	8	15
WHP	Tininga Clinic, Mt. Hagen GH	4590	3846	67	45
WHP	Rebiamul Care & Counselling Center	2675	2235	40	81
EHP	Michael Alper's Clinic	2704	1647	57	40
Morobe	Anua Moriri Day Care Center, Angau Hospital	2634	2093	244	758
Enga	Endakalipin Clinic, Wabag Hospital	1468	1014	19	8
SHP	Oil Search (Moro)	256	161	9	4
NCD	St Pauls Clinic–Gerehu Stage 6	22	15		
NCD	Anglicare STOP AIDS VCT Clinic	1736	909	19	0
Morobe	Yampu Health Center	886	941	15	48
WHP	Kudjip Nazarene Rural Hospital	1318	812	28	120
Simbu	Mingende Rural Hospital	895	883	48	7
SHP	Mendi Hospital, Nina Clinic	780	622	20	32
Simbu	Prapra Clinic, Kundiawa GH	838	495	10	33
Madang	Madang Hospital ID–INAD Clinic	761	570	15	26
Madang	St Joseph Freindemtz	720	577	8	16
NCD	9 Mile Clinic	448	316	33	101
ENBP	Nonga Hospital (Maravut)	69	69	8	5
NIP	Kavieng Hospital HIV/STI Clinic	81	62	5	22
NCD	6 Mile Clinic	65	47	0	0
NIP	Lihir Private Clinic	47	28	3	0
		29,213	21,337	843	2,304

In some ART clinics nurses, health extension officers (HEOs) and community health officers have been employed and trained in ART management. This task-shifting from doctors has increased ART access and adherence as these nurses, HEOs community health workers have more time and flexibility to travel to satellite ART sites in higher-burden provinces to provide clinical monitoring closer to the patient's home.

PLHIV have been engaged by some clinics as Expert Patients and provide information and support and outreach to PLHIV in community in an effort to increase ART adherence, improve treatment literacy and provide general support. ART prescribers are provided with coaching and supervision by Regional Medical Officers and through academic detailing and training by the Australasian Society for HIV Medicine (ASHM) and the PNG Sexual Health Society. HIV mortality has reduced dramatically, from 14.4 per 100 person years in 2010 to 2.1 per 100 person years in 2016.³⁵

While CD4 count remains the primary tool for clinical monitoring, point of care HIV viral load technology is being investigated by the Central Public Health Laboratory (CPHL), building on the experience gained through the *National TB Strategy*. A national plan for a staged roll-out of point-of-care HIV viral load testing will be developed under this Strategy to gradually replace CD4 testing as the primary HIV clinical monitoring tool.

The level of non-nucleoside reverse transcriptase inhibitor (NNRTI) drug resistance in antiretroviral drug naïve individuals recently-infected with HIV in Port Moresby is amongst the highest reported globally (16% in Port Moresby).³⁶ This alarming level of transmitted HIV drug resistance in a young sexually active population threatens to limit the on-going effective use of NNRTIs as a component of first-line ART in Papua New Guinea. To support the choice of nationally recommended first line antiretroviral therapy, representative surveillance of HIV drug resistance among antiretroviral therapy initiators in Papua New Guinea will be carried out early in this Strategy.

VIII. The context of HIV and STI risk

Several studies carried out under the last Strategy highlight the different contexts of STI and HIV risk across PNG and the impact of HIV on individuals, families and communities. The *Tingim Laip* 2013/14 Social Mapping studies looked at several different environments and groups: the Highlands Highway trade corridor; the Oil Palm industry; the movement of people associated with the Liquefied Natural Gas (LNG) Project in Hela and Central provinces; and the Military.³⁷

These studies describe some of the complexities in STI and HIV risk environments - the constant movement of people along trade corridors and to enterprise sites in search of work; industries and services that build up around enterprise sites (bars, guest houses, sex work); a 'night culture' in many towns and other significant trade route sites, where people gather to drink and trade sex for money, goods and physical protection; and the use of new technologies for meeting partners for transactional sex, like SMS and smartphone Applications.

³⁵Same as above

³⁶Lavu, E., Kave, E., Mosoro, E., Markby, J., Aleksic, E., Gare, J., Elsum, I., Nano, G., Kaima, P., Dala, N., Gurung, A., Bertagnolio, S., Crowe, S., Myatt, M., Hearps, A. & Jordan, M, High Levels of Transmitted HIV Drug Resistance in a Study in Papua New Guinea, PLOS ONE DOI:10.1371/journal.pone.0170265 February 1, 2017

³⁷PNG Tingim Laip Social Mapping Studies 2014 at <http://tingimlaip.org/Section5-Research.html>

These studies showed high levels of transactional sex in these environments, but also high levels of sex without a financial or other transaction. In these environments, while some of the women were comfortable to refer to themselves as sex workers, many were not. For many of the respondents to the studies, sex was just a part of the environment they were living in, sometimes traded for money, goods, food or physical safety, other times engaged in for pleasure, fun or love.

The 2011 *Askim Na Save* study (a sample of almost 600 women, men and transgender people who had sold or exchanged sex in the previous six months Port Moresby) also demonstrated the somewhat unique nature of transactional sex in PNG, compared with other countries in the Asia Pacific region. Study results show that three quarters of the sex worker participants reported having transactional sex on average with six clients or fewer per week.

Askim Na Save highlights the need to focus efforts on the men in these environments. Some PNG outreach programs specifically target men, identifying Mobile Men with Money (MMM) as a key population, but these men are not necessarily mobile as they may live and work in that town. The important indicator is that they participate in that environment purchasing sex (using money, goods, drinks or physical protection) and they need to be included in targeted outreach activities.

In addition, the two studies above concentrated on MSM and transgender people, as the STI and HIV prevalence among these two populations is significantly higher than the national average. Although there are overlaps between these two populations, they are not the same and each requires specific attention.

They are also not homogeneous populations. There are sub-populations within MSM and transgender populations that require special attention. In many countries, prevalence rates among transgender people are higher than among MSM. This is generally because transgender people, who are often more identifiable in the community than MSM, experience higher rates of discrimination, violence, disruption in education, poverty, unemployment and rejection by family and community which increases their vulnerability to sexually transmitted infections

The label 'MSM' has limitations in the PNG context. Kapul Champions, the national group representing transgender and MSM populations in PNG, refer to themselves as Men with Diverse Sexualities (MSD). In the 2011 BSS, one-fifth of the MSM respondents had a regular female partner.³⁸ In the *Askim Na Save* study, 23% of the transgender sex workers service only women or mostly women.³⁹ This illustrates the need to avoid assumptions about what key population labels mean in practice, and to ensure that programs appropriately address the particular context of the targeted sub-populations.

³⁸Behaviors, knowledge, and exposure to interventions: Report from a behavioral surveillance survey, Port Moresby, Papua New Guinea, 2011, FHI360

³⁹ Kelly, A., Kupul, M. et al, *Askim Na Save*, (Already quoted)

IX. Sexual violence as a key risk

Levels of gender-based violence (GBV) in PNG are among the highest in the Region. Two-thirds of women in a 2010 study reported that they had been forced to have sex or had submitted to sex in the real fear of violence.⁴⁰ GBV prevalence rates are also high among people from key populations, with half of the sex workers in the *Askim Na Save* study reporting forced sex in the previous six months.⁴¹ In the 2011 BSS, 78% of sex workers and 58% of MSM reported being sexually assaulted in the previous year.⁴²

This STI and HIV strategy complements the goals and results of the *PNG National Strategy to Prevent and Respond to Gender Based Violence 2016–2025*. Achieving the 90:90:90 goals requires considerable focus on assisting people with HIV to know their HIV status and access clinical monitoring, treatment care and support. Suppressing HIV among as many PLHIV as possible has a population-level impact as it reduces the possibility of HIV transmission.

Significant progress has been made in PNG over the last ten years in putting in place a set of STI and HIV programs and services, setting a supportive legal and policy environment and mobilising the necessary resources to sustain the response.

⁴⁰Ganster-Breidler, M. Gender-based Violence and Impact on Women's Health and Well-being in PNG, DWU Research Journal Vol 13 2010

⁴¹ Kelly, A., Kupul, M. et al, *Askim Na Save*, (Already quoted)

⁴²Behaviors, knowledge, and exposure to interventions: Report from a behavioral surveillance survey, Port Moresby, Papua New Guinea, 2011, FHI360

Appendix C

Costed M&E and Surveillance Work Plan 2018 - 2022

Table 18(A): Costed M&E and Surveillance Work Plan 2018

Year	NHS Strategic Result	M&E Indicators/ Surveillance Focus Area	Activity	Frequency	Timeline	Responsible Entity	Units	Unit Type	Cost Per Unit (USD)	Total Cost (USD)	Notes
2018	1.1	Focus Area 1	Hire appropriate personnel for vacant M&E and surveillance positions	Annual	2 nd Qtr.	NDoH			\$0.00		Routine
2018	1.1	Focus Area 1	Identify critical gaps in knowledge for new and existing personnel	Annual	2 nd Qtr.	NDoH			\$0.00		Routine
2018	1.1	Focus Area 1	Train new and existing personnel regarding gaps in capacity	Annual	4 th Qtr.	NDoH/WHO/CDC			\$0.00		Routine
2018	1.1	Focus Areas 1 and 3, Indicator 5	M&E and Surveillance Training for national staff (M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology; Project management, identified gaps in knowledge and; other program requirements)	Annual	1 st Qtr.	NDOH/WHO/CDC	4	Days	\$ 2,500.00	\$10,000.00	NCD host at NDOH cost for catering per training
2018	1.1	Focus Areas 1 and 3, Indicator 5 and 6	M&E and Surveillance Training for provincial staff (M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Qtr.	NDOH/WHO/CDC	22	People	\$2,270.00	\$49,940.00	NCD training for 3 days
2018	1.1	Focus Areas 1 and 3, Indicator 6	M&E and Surveillance Training for facility staff (M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Qtr.	PHO/PHA			\$0.00		PHO Budget
2018	1.2	Focus Area 3, Indicator 1	Develop clear protocol and procedures for the handling of all surveillance data to include Surveillance data (SURV forms), KPMIS and HPDB to include: Data submission; Data management; Data reporting and; Data security	Once and Annual Review	1 st Qtr.	NDOH/WHO/CDC			\$ 0.00		Routine
2018	1.2	Focus Area 3, Indicators 3, 3.1, 3.2, 4, 4.1, 4.2	Develop and implement documented process for tracking received and outstanding surveillance reports, KPMIS and HPDB data submissions. Conduct monthly reviews of outstanding data.	Once and Annual Review	1 st Qtr.	NDOH/WHO/CDC			\$0.00		Routine
2018	1.2	Focus Areas 1, 3 and 4, Indicators 1 and 2	Develop STI surveillance tools to be integrated into eNHIS	Once	2 nd Qtr.	NDOH/WHO/CDC/NAC			\$0.00		Routine
2018	1.2, 2.4	Indicators 9, 13, 14, 15, 16, 18, 19	Participate and provide data for Estimated Population Projection Activities	Annual	1 st and 2 nd Quarters	NDOH/JUNAIDS/WHO			\$0.00		Routine
2018	1.3, 2.4	Indicators 9, 10, 11, 12, 14, 15, 16, 17.1, 17.2, 17.3, 28, 29, 30	Produce cascades for HIV, Syphilis and HIV ANC, and TB and HIV	Annual	1 st and 2 nd Quarters	NDOH/JUNAIDS/WHO			\$0.00		Routine

2018	1.2	Focus Area 3, Indicator 5	Develop documented data quality assurance (DOA) audit process and internal, provincial and facility audit schedule.	Once	1 st Quarter	NDOH/WHO/CDC	16	Visits	\$ 3,784.00	\$0.00	Routine
2018	1.2, 2.4	Focus Area 3, Indicators 5 and 6	DQA: April and September conduct internal audit; May and October conduct provincial audit; Two provinces per region; One province with report completion rate above 75% and; One province with report completion rate below 75%. Focus on ANC and; Three HPDB sites per region.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/WHO/CDC				\$60,544.00	2 NDOH Staff, 5 days per province, 8 provinces
2018	1.1	Focus Area 1, Indicator 1	Improve access to HIV data for M&E and surveillance staff; HPDB accessible via the internet, KPMIS and; HIV database integrated with the NDOH IT platform	Once	4 th Quarter	NDOH/CDC				\$0.00	Routine
2018	1.1	Focus Areas 1, 2 and 4, Indicator 1 and 2	Collaborate with eNHIS to determine feasibility of using eNHIS as the data system for the HIV surveillance program, NUIC and access STI and TB data. Develop timeline for data mapping and integration; Develop process for testing the eNHIS system; Execute testing and; Conduct DQA.	On-going	On-going	NDOH/CDC				\$0.00	Routine
2018	1.3, 2.3, 2.4	Focus Area 2	Conduct Annual HIV Mapping Exercise: Create HIV surveillance map including HIV healthcare and support services, TB and STI sites, low ANC testing (syphilis and HIV), high burden areas, hotspots, partner funded sites and other indicators as determined. Timeline: January to March and April 1 disseminate Map to external partners. RMO and PDCO.	Annual	1 st Quarter	NDOH/CDC/PHO				\$ 0.00	Routine
2018	1.3	Focus Area 4 and Indicator 7	Develop quarterly reporting templates for surveillance data, and produce and disseminate surveillance quarterly reports. Timeline: Report time period October 1 to September 30. Content: National, regional and provincial level comparisons. Distribution cycle: March 15 (October 1 to December 31), June 15 (January 1 to March 31), September 15 (April 1 to June 30), December 15 (July 1 to September 30). Distribution: External partners, RMO and PDCO.	Quarterly	1 st , 2 nd , 3 rd and 4 th Quarters	NDOH/NACSWHO				\$0.00	Routine
2018	1.3	Focus Area 4 and Indicator 7	Produce and disseminate annual STIs, HIV/AIDS M&E and surveillance report to include three-year trend (January 1 to December 31). Provide national, regional and provincial level comparisons with a specific focus on high burden provinces. Timeline and distribution: Finalized and disseminated by July 15 to external partners. RMO and PDCO.	Annual	3 rd Quarter	NDOH/NACSWHO	500	reports	\$ 30.00	\$ 15,000.00	NACS Budget
2018	1.2	Focus Area 3	Create 2019 detailed work plan (July 1, 2018 completion date)	Annual	3 rd Quarter	NDOH/NACSWHO				\$0.00	Routine
2018	1.1, 1.2	Focus Areas 1 and 3, Indicator 1	Review all M&E and surveillance data collection instruments for modifications, usability.	Annual	2 nd Quarter	NDOH/NACS	7,000	pieces	\$15.00	\$105,000.00	NACS Budget
2018	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E Mentoring Visits to High Priority Provinces: Visits are geared for provincial level mentorship to increase M&E and Surveillance capacity.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/PHO	28	Visits	\$1,500.00	\$42,000.00	14 provinces, 2 NDOH staff per province, for 2 days in each province
2018	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E and surveillance officers' collaborative meetings with provincial partners from STI, HIV/AIDS and TB sectors.	Semi-Annual	2 nd and 4 th Quarters	NDOH/PHO	2	Meeting	\$63,560.00	\$127,120.00	3 days, NCD, 14 provinces, 2 staff from each province
Sub Total:										\$409,604.00	2018

Appendix C

Costed M&E and Surveillance Work Plan 2018 - 2022

Table 18(B): Costed M&E and Surveillance Work Plan 2019

Year	NHS Strategic Result	M&E Indicators/ Surveillance Focus Area	Activity	Frequen cy	Timeline	Responsible Entity	Units	Unit Type	Cost Per Unit (USD)	Total Cost (USD)	Notes
2019	1.2	Focus Area 3, Indicators 3, 3.1, 3.2, 3.3, 4, 4.1, 4.2	Annual M&E and surveillance plan assessment; Review M&E and surveillance work completed in prior year and adjust current work plan as needed.	Annual	1 st Quarter	NDOH/NACS	1	Meeting	\$3,000.00	\$3,000.00	catered meeting with key stakeholders
2019	1.1	Focus Areas 1 and 3, Indicator 5	M&E and Surveillance Training for national staff (M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology; Project management, identified gaps in knowledge and; other program requirements)	Annual	1 st Quarter	NDOH/WHO/CDC	4	Days	\$2,500.00	\$10,000.00	NCD, host at NDOH cost for catering per training
2019	1.1	Focus Areas 1 and 3, Indicators 5 and 6	M&E and Surveillance Training for provincial staff (M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Quarter	NDOH/WHO/CDC	1	Meeting	\$49,940.00	\$49,940.00	NCD training for 3 days
2019	1.1	Focus Areas 1 and 3, Indicator 6	M&E and Surveillance Training for facility staff (M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Quarter	PHO/PHA			\$0.00	\$0.00	PHO Budget
2019	1.3, 2.3, 2.4	Focus Area 2	Conduct Annual HIV Mapping Exercise: Create HIV surveillance map including HIV healthcare and support services, TB and STI sites, low ANC testing (syphilis and HIV), high burden areas, hotspots, partner funded sites and other indicators as determined. Timeline: January to March and April 1 disseminate Map to external partners, RMO and PDCO.	Annual	1 st Quarter	NDOH/CDC/PHO			\$0.00	\$0.00	Routine
2019	1.3	Focus Area 4 and Indicator 7	Produce and disseminate surveillance quarterly reports. Timeline: Report time period October 1 to September 30. Content: National, regional and provincial level comparisons. Distribution cycle: March 15 (October 1 to December 31), June 15 (January 1 to March 31), September 15 (April 1 to June 30), December 15 (July 1 to September 30). Distribution: External partners, RMO and PDCO.	Quarterly	1 st , 2 nd , 3 rd and 4 th Quarters	NDOH/NACS/WHO			\$0.00	\$0.00	Routine
2019	1.2	Focus Areas 3 and 4	Conduct Regional HPDB workshops to increase the capacity of facility staff to use the data to assess patient population and quality of healthcare services delivered.	Bi-Annual	2 nd and 3 rd Quarters	NDOH/CDC/WHO	60	People	\$ 2,270.00	\$136,200.00	
2019	1.2, 2.4	Indicators 9, 13, 14, 15, 16, 18, 19	Participate and provide data for Estimated Population Projection Activities	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO			\$0.00	\$0.00	Routine

2019	1.3, 2.4	Indicators 9, 10, 11, 12, 14, 15, 16, 17.1, 17.2, 17.3, 28, 29, 30	Produce cascades for HIV, Syphilis and HIV ANC, and TB and HIV	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO					\$0.00	Routine
2019	1.3	Focus Area 4 and Indicator 7	Produce and disseminate annual STIs, HIV/AIDS M&E and surveillance report to include three-year trend (January 1 to December 31). Provide national, regional and provincial level comparisons with a specific focus on high burden provinces. Timeline and distribution: Finalized and disseminated by July 15 to external partners, RMO and PDCO.	Annual	3 rd Quarter	NDOH/NACS/WHO					\$0.00	Routine
2019	1.2, 2.3	Focus Area 3, Indicators 3, 3.1, 3.2, 3.3, 4, 4.1, 4.2	Monthly review of surveillance reports, KPMIS and HPDB data submissions	Monthly	Last Week of the Month	NDOH/PHO/KP Sites					\$0.00	Routine
2019	1.2	Focus Area 3, Indicators 5 and 6	Develop internal, provincial and facility DOA schedule.	Annual	1 st Quarter	NDOH/WHO/CDC					\$0.00	Routine
2019	1.2, 2.4	Focus Area 3, Indicators 5 and 6	DQA: April and September conduct internal audit; May and October conduct provincial audit; Two provinces per region; One province with report completion rate above 75% and; One province with report completion rate below 75%. Focus on ANC and; Three HPDB sites per region.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/WHO/CDC	16	Visits	\$ 3,784.00	\$60,544.00	2 NDOH Staff, 5 days per province, 8 provinces	Routine
2019	1.1	Focus Areas 1, 2 and 4, Indicators 1 and 2	Collaborate with eNHIS to expand HIV surveillance data to include HPDB, KPMIS, sentinel surveillance and BBS determine feasibility of using eNHIS as the data system for the HIV surveillance program, NUIC and access STI and TB data. Develop timeline for data mapping and integration; Develop process for testing the eNHIS system; Execute testing and; Conduct DQA.	On-going	On-going	NDOH/WHO/CDC				\$0.00	Routine	
2019	1.1	Focus Area 2	Develop sentinel surveillance protocol (Completed draft due August 15, 2019 and; Protocol approved October 15, 2019	Once	3 rd and 4 th Quarters	NDOH/WHO/NACS/IMR				\$0.00	Routine	
2019	1.1, 1.2	Focus Area 2	Conduct sentinel surveillance training prior to December 1, 2019	Once	4 th Quarter	NDOH/WHO/NACS/IMR	40	People	\$ 2,720.00	\$108,800.00	2 people per site, 20 sites, NCD, 3 days	Routine
2019	1.1, 1.2	Focus Area 3	Create 2020 detailed work plan (July 1, 2019 completion date)	Annual	3 rd Quarter	NDOH/NACS/WHO				\$0.00	Routine	
2019	1.1, 1.2	Focus Areas 1 and 3, Indicator 1	Review all M&E and surveillance data collection instruments for modifications, usability.	Annual	2 nd Quarter	NDOH/NACS	7,000	pieces	\$ 15.00	\$105,000.00	NACS Budget	
2019	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E Mentoring Visits to High Priority Provinces: Visits are geared for provincial level mentorship to increase M&E and Surveillance capacity.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/PHO	28	Visits	\$ 1,500.00	\$42,000.00	14 provinces, 2 NDOH staff per province, for 2 days in each province	
2019	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E and surveillance officers' collaborative meetings with provincial partners from STI, HIV/AIDS and TB sectors.	Semi-Annual	2 nd and 4 th Quarters	NDOH/PHO	2	Meeting	\$ 63,560.00	\$127,120.00	3 days, NCD, 14 provinces, 2 staff from each province	
Sub Total:										\$642,604.00	2019	

Appendix C

Costed M&E and Surveillance Work Plan 2018 - 2022

Table 18(C): Costed M&E and Surveillance Work Plan 2020

Year	NHS Strategic Result	M&E Indicators/ Surveillance Focus Area	Activity	Frequen- cy	Timeline	Responsible Entity	Units	Unit Type	Cost Per Unit (USD)	Total Cost (USD)	Notes
2020	1.2	Focus Area 3, Indicators 3, 3.1, 3.2, 3.3, 4, 4.1, 4.2	Annual M&E and surveillance plan assessment; Review M&E and surveillance work completed in prior year and adjust current work plan as needed.	Annual	1 st Quarter	NDOH/NACS	1	Meeting	\$ 3,000.00	\$3,000.00	catered meeting with key stakeholders
2020	1.1	Focus Areas 1 and 3, Indicator 5	M&E and Surveillance Training for national staff ((M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology; Project management, identified gaps in knowledge and; other program requirements)	Annual	1 st Quarter	NDOH/WHO/CDC	4	Days	\$ 2,500.00	\$10,000.00	NCD, host at NDOH cost for catering per training
2020	1.1	Focus Areas 1 and 3, Indicators 5 and 6	M&E and Surveillance Training for provincial staff ((M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Quarter	NDOH/WHO/CDC	1	Meeting	\$ 49,940.00	\$49,940.00	NCD training for 3 days
2020	1.1	Focus Areas 1 and 3, Indicator 6	M&E and Surveillance Training for facility staff ((M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Quarter	PHO/PHA			\$0.00		PHO Budget
2020	.3, 2.3, 2.4	Focus Area 4	Conduct Annual HIV Mapping Exercise: Create HIV surveillance map including HIV healthcare and support services, TB and STI sites, low ANC testing (syphilis and HIV), high burden areas, hotspots, partner funded sites and other indicators as determined. Timeline: January to March and April 1 disseminate Map to external partners, RMO and PDCO.	Annual	1 st Quarter	NDOH/CDC/PHO			\$0.00		Routine
2020	1.3	Focus Area 4 and Indicator 7	Produce and disseminate surveillance quarterly reports. Timeline: Report time period October 1 to September 30. Content: National, regional and provincial level comparisons. Distribution cycle: March 15 (October 1 to December 31), June 15 (January 1 to March 31), September 15 (April 1 to June 30), December 15 (July 1 to September 30). Distribution: External partners, RMO and PDCO.	Quarterly	1 st , 2 nd , 3 rd and 4 th Quarters	NDOH/NACS/WHO	500	reports	\$ 30.00	\$15,000.00	NACS Budget

2020	1.3	Focus Area 4 and Indicator 7	Produce and disseminate annual STIs, HIV/AIDS M&E and surveillance report to include three-year trend (January 1 to December 31). Provide national, regional and provincial level comparisons with a specific focus on high burden provinces. Timeline and distribution: Finalized and disseminated by July 15 to external partners, RMO and PDSCO	Annual	3 rd Quarter	NDOH/NACS/WHO					\$0.00	Routine
2020	1.2, 2.4	Indicators 9, 13, 14, 15, 16, 18, 19	Participate and provide data for Estimated Population Projection Activities	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO					\$0.00	Routine
2020	1.3, 2.4	Indicators 9, 10, 11, 12, 14, 15, 16, 17, 1, 17.2, 17.3, 28, 29, 30	Produce cascades for HIV, Syphilis and HIV ANC, and TB and HIV	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO					\$0.00	Routine
2020	1.2	Focus Area 3, Indicators 3, 3.1, 3.2, 3.3, 4, 4.1, 4.2	Monthly review of surveillance reports, KPWIS and HPDB data submissions	Monthly	Last Week of the Month	NDOH/PHO/KP Sites					\$0.00	Routine
2020	1.2	Focus Area 3, Indicators 5 and 6	Develop internal, provincial and facility DQA schedule.	Annual	1 st Quarter	NDOH/WHO/CDC					\$0.00	Routine
2020	1.2, 2.4	Focus Area 3, Indicators 5 and 6	DQA: April and September conduct internal audit; May and October conduct provincial audit; Two provinces per region: One province with report completion rate above 75% and; One province with report completion rate below 75%. Focus on ANC and; Three HPDB sites per region.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/WHO/CDC	16	Visits	\$ 3,784.00		\$60,544.00	2 NDOH Staff, 5 days per province, 8 provinces
2020	1.2, 2.1, 2.4, 2.5	Focus Area 1	Conduct Sentinel Surveillance: June 1 to August 31: Blood Banks and TB Sites and September 1 to November 30: ANC and STI Facilities. Report findings in 2021 annual report.	Annual	June 1 to August 31: Blood Banks and TB Sites and September 1 to November 30: ANC and STI Facilities.	NDOH/WHO/PHO/NACS	1	Cycle	\$ 500,000.00		\$500,000.00	
2020	1.2, 2.3	Focus Areas 1 and 4, Indicators 19.1, 19.2, 20, 22.1, 22.2, 23, 24, 25, 26	Conduct triennial BBS to capture key population behavioral and biological data and incorporate using eNHIS.	Triennial	January 1- December 31, 2020	NDOH/IMR/CDC/WHO/NACS	1	Cycle	\$ 500,000.00		\$500,000.00	
2020	1.1, 1.2	Focus Area 3	Create 2021 detailed work plan (July 1, 2020 completion date)	Annual	3 rd Quarter	NDOH/NACS/WHO					\$0.00	Routine
2020	1.1, 1.2	Focus Areas 1 and 3, Indicator 1	Review all M&E and surveillance data collection instruments for modifications, usability.	Annual	2 nd Quarter	NDOH/NACS	7,000	pieces	\$ 15.00		\$105,000.00	NACS Budget
2020	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E Mentoring Visits to High Priority Provinces: Visits are geared for provincial level mentorship to increase M&E and Surveillance capacity.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/PHO	28	Visits	\$ 1,500.00		\$42,000.00	14 provinces, 2 NDOH staff per province, for 2 days in each province
2020	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E and surveillance officers' collaborative meetings with provincial partners from STI, HIV/AIDS and TB sectors.	Semi-Annual	2 nd and 4 th Quarters	NDOH/PHO	2	Meeting	\$ 63,560.00		\$127,120.00	3 days, NCD, 14 provinces, 2 staff from each province
Sub Total:											\$1,412,604.00	2020

Appendix C

Costed M&E and Surveillance Work Plan 2018 - 2022

Table 18(D): Costed M&E and Surveillance Work Plan 2021

Year	NHS Strategic Result	M&E Indicators/ Surveillance Focus Area	Activity	Frequency	Timeline	Responsible Entity	Units	Unit Type	Cost Per Unit (USD)	Total Cost (USD)	Notes
2021	1.2	Focus Area 3, Indicators 3.1, 3.2, 3.3, 4, 4.1, 4.2	Annual M&E and surveillance plan assessment; Review M&E and surveillance work completed in prior year and adjust current work plan as needed.	Annual	1 st Quarter	NDOH/NACS	1	Meeting	\$ 3,000.00	\$3,000.00	catered meeting with key stakeholders
2021	1.1	Focus Areas 1 and 3, Indicator 5	M&E and Surveillance Training for national staff (M&E and Surveillance tools, and data collection; DOA; Reporting requirements; Data management and security; Data analysis; Public health methodology; Project management, identified gaps in knowledge and; other program requirements)	Annual	1 st Quarter	NDOH/WHO/CDC	4	Days	\$ 2,500.00	\$10,000.00	NCD, host at NDOH cost for catering per training
2021	1.1	Focus Areas 1 and 3, Indicators 5 and 6	M&E and Surveillance Training for provincial staff (M&E and Surveillance tools, and data collection; DOA; Reporting requirements; Data management and security; Data analysis; Public	Annual	2 nd Quarter	NDOH/WHO/CDC	1	Meeting	\$ 49,940.00	\$49,940.00	NCD training for 3 days
2021	1.1	Focus Areas 1 and 3, Indicator 6	M&E and Surveillance Training for facility staff (M&E and Surveillance tools, and data collection; DOA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Quarter	PHO/PHA				\$0.00	PHO Budget
2021	1.3, 2.3, 2.4	Focus Area 4	Conduct Annual HIV Mapping Exercise: Create HIV surveillance map including HIV healthcare and support services, TB and STI sites, low ANC testing (syphilis and HIV), high burden areas, hotspots, partner funded sites and other indicators as determined. Timeline: January to March and April 1 disseminate Map to external partners, RMO and PDCO.	Annual	1 st Quarter	NDOH/CDC/PHO				\$0.00	Routine
2021	1.2, 2.4	Indicators 9, 13, 14, 15, 16, 18, 19	Participate and provide data for Estimated Population Projection Activities	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO				\$0.00	Routine
2021	1.3, 2.4	Indicators 9, 10, 11, 12, 14, 15, 16, 17, 1, 17.2, 17.3, 28, 29, 30	Produce cascades for HIV, Syphilis and HIV ANC, and TB and HIV	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO				\$0.00	Routine
2021	1.3	Focus Area 4 and Indicator 7	Produce and disseminate surveillance quarterly reports. Timeline: Report time period October 1 to September 30. Content: National, regional and provincial level comparisons. Distribution cycle: March 15 (October 1 to December 31), June 15 (January 1 to March 31), September 15 (April 1 to June 30), December 15 (July 1 to September 30). Distribution: External partners, RMO and PDCO	Quarterly	1 st , 2 nd , 3 rd and 4 th Quarters	NDOH/NACS/WHO				\$0.00	Routine

2021	1.3		Focus Area 4 and Indicator 7	Produce and disseminate annual STIs, HIV/AIDS M&E and surveillance report to include three-year trend (January 1 to December 31). Provide national, regional and provincial level comparisons with a specific focus on high burden provinces. Timeline and distribution: Finalized and disseminated by July 15 to external partners, RMO and PDCO.	Annual	3 rd Quarter	NDOH/NACCS/WHO	500 reports	\$ 30.00	\$15,000.00	NACCS Budget
2021	1.2		Focus Area 3, Indicators 3, 3.1, 3.2, 3.3, 4, 4.1, 4.2	Monthly review of surveillance reports, KPMIS and HPDB data submissions	Monthly	Last Week of the Month	NDOH/PHO/KP Sites			\$0.00	Routine
2021	1.2		Focus Area 3, Indicators 5 and 6	Develop internal, provincial and facility DQA schedule.	Annual	1 st Quarter	NDOH/WHO/CDC			\$0.00	Routine
2021	1.2, 2.4		Focus Area 3, Indicators 5 and 6	DQA: April and September conduct internal audit; May and October conduct provincial audit; Two provinces per region; One province with report completion rate above 75% and; One province with report completion rate below 75%. Focus on ANC and; Three HPDB sites per region.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/WHO/CDC	16 Visits	\$ 3,784.00	\$60,544.00	2 NDOH Staff, 5 days per province, 8 provinces
2021	1.2, 2.1, 2.4, 2.5		Focus Area 1	Conduct Sentinel Surveillance: June 1 to August 31: Blood Banks and TB Sites and September 1 to November 30: ANC and STI Facilities. Report findings in 2022 annual report.	Annual	June 1 to August 31: Blood Banks and TB Sites and September 1 to November 30: ANC and STI Facilities.	NDOH/WHO/PHO/NACCS	1 Cycle	\$ 500,000.00	\$500,000.00	
2021	1.1, 1.2		Focus Area 3	Create 2022 detailed work plan (July 1, 2021 completion date)	Annual	3 rd Quarter	NDOH/NACCS/WHO			\$0.00	Routine
2021	1.1, 1.2		Focus Areas 1 and 3, Indicator 1	Review all M&E and surveillance data collection instruments for modifications, usability.	Annual	2 nd Quarter	NDOH/NACCS	7,000 pieces	\$ 15.00	\$105,000.00	NACCS Budget
2021	1.1, 2.1, 2.3, 2.4, 2.5		Focus Areas 1 and 3, Indicator 1	M&E Mentoring Visits to High Priority Provinces: Visits are geared for provincial level mentorship to increase M&E and Surveillance capacity.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/PHO	28 Visits	\$ 1,500.00	\$42,000.00	14 provinces, 2 NDOH staff per province, for 2 days in each province
2021	1.1, 2.1, 2.3, 2.4, 2.5		Focus Areas 1 and 3, Indicator 1	M&E and surveillance officers' collaborative meetings with provincial partners from STI, HIV/AIDS and TB sectors.	Semi-Annual	2 nd and 4 th Quarters	NDOH/PHO	2 Meeting	\$ 63,560.00	\$127,120.00	3 days, NCD, 14 provinces, 2 staff from each province
Sub Total:										\$452,328.00	2021

Appendix C

Costed M&E and Surveillance Work Plan 2018 - 2022

Table 18(E): Costed M&E and Surveillance Work Plan 2022.

Year	NHS Strategic Result	M&E Indicators/ Surveillance Focus Area	Activity	Frequency	Timeline	Responsible Entity	Units	Unit Type	Cost Per Unit (USD)	Total Cost (USD)	Notes
2022	1	Focus Areas 3 and 4	Conduct Regional HPDB workshops to increase the capacity of facility staff to use the data to assess patient population and quality of healthcare services delivered.	Bi-Annual	2 nd and 3 rd Quarters	NDOH/CDC/WHO	60	People		\$136,200.00	
2022	1.2	Focus Area 3, Indicators 3, 3.1, 3.2, 3.3, 4, 4.1, 4.2	Annual M&E and surveillance plan assessment; Review M&E and surveillance work completed in prior year and adjust current work plan as needed.	Annual	1 st Quarter	NDOH/NACS	1	Meeting		\$3,000.00	catered meeting with key stakeholders
2022	1.1	Focus Areas 1 and 3, Indicator 5	M&E and Surveillance Training for national staff ((M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology; Project management, identified gaps in knowledge and; other program requirements)	Annual	1 st Quarter	NDOH/WHO/CDC	4	Days		\$10,000.00	NCD, host at NDOH cost for catering per training
2022	1.1	Focus Areas 1 and 3, Indicators 5 and 6	M&E and Surveillance Training for provincial staff ((M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Quarter	NDOH/WHO/CDC	1	Meeting		\$49,940.00	NCD training for 3 days
2022	1.1	Focus Areas 1 and 3, Indicator 6	M&E and Surveillance Training for facility staff ((M&E and Surveillance tools, and data collection; DQA; Reporting requirements; Data management and security; Data analysis; Public health methodology and; Project management)	Annual	2 nd Quarter	PHO/PHA				\$0.00	PHO Budget
2022	1.3, 2.3, 2.4	Focus Area 4	Conduct Annual HIV Mapping Exercise: Create HIV surveillance map including HIV healthcare and support services, TB and STI sites, low ANC testing (syphilis and HIV), high burden areas, hotspots, partner funded sites and other indicators as determined. Timeline: January to March and April, 1 disseminate Map to external partners, RMO and PDCO.	Annual	1 st Quarter	NDOH/CDC/PHO				\$0.00	Routine
2022	1.3	Focus Area 4 and Indicator 7	Produce and disseminate surveillance quarterly reports. Timeline: Report time period October 1 to September 30. Content: National, regional and provincial level comparisons. Distribution cycle: March 15 (October 1 to December 31), June 15 (January 1 to March 31), September 15 (April 1 to June 30), December 15 (July 1 to September 30). Distribution: External partners, RMO and PDCO.	Quarterly	1 st , 2 nd , 3 rd and 4 th Quarters.	NDOH/NACS/WHO				\$0.00	Routine
2022	1.3	Focus Area 4 and Indicator 7	Produce and disseminate annual STIs, HIV/AIDS M&E and surveillance report to include three-year trend (January 1 to December 31). Provide national, regional and provincial level comparisons with a specific focus on high burden provinces. Timeline and distribution: Finalized and disseminated by July 15 to external partners. RMO and PDCO.	Annual	3 rd Quarter	NDOH/NACS/WHO	500	reports		\$15,000.00	NACS Budget

2022	1.2, 2.4	Indicators 9, 13, 14, 15, 16, 18, 19	Participate and provide data for Estimated Population Projection Activities	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO					\$0.00	Routine
2022	1.3, 2.4	Indicators 9, 10, 11, 12, 14, 15, 16, 17, 1, 17.2, 17.3, 28, 29, 30	Produce cascades for HIV, Syphilis and HIV ANC, and TB and HIV	Annual	1 st and 2 nd Quarters	NDOH/UNAIDS/WHO					\$0.00	Routine
2022	1.2	Focus Area 3, Indicators 3, 3.1, 3.2, 3.3, 4, 4.1, 4.2	Monthly review of surveillance reports, KPMS and HPDB data submissions	Monthly	Last Week of the Month	NDOH/PHO/KP Sites					\$0.00	Routine
2022	1.2	Focus Area 3, Indicators 5 and 6	Develop internal, provincial and facility DQA schedule.	Annual	1 st Quarter	NDOH/WHO/CDC					\$0.00	Routine
2022	1.2, 2.4	Focus Area 3, Indicators 5 and 6	DQA: April and September conduct internal audit; May and October conduct provincial audit; Two provinces per region; One province with report completion rate above 75% and; One province with report completion rate below 75%. Focus on ANC and; Three HPDB sites per region.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/WHO/CDC	16	Visits			\$60,544.00	2 NDOH Staff, 5 days per province, 8 provinces
2022	1.2, 2.1, 2.4, 2.5	Focus Area 1	Conduct Sentinel Surveillance: June 1 to August 31: Blood Banks and TB Sites and September 1 to November 30: ANC and STI Facilities. Report findings in 2022 annual report.	Annual	June 1 to August 31: Blood Banks and TB Sites and September 1 to November 30: ANC and STI Facilities.	NDOH/WHO/PHO/NACS	1	Cycle			\$500,000.00	
2022	1.1, 1.2	Focus Areas 1 and 3, Indicator 1	Review all M&E and surveillance data collection instruments for modifications, usability.	Annual	2 nd Quarter	NDOH/NACS	7,000	pieces			\$105,000.00	NACS Budget
2022	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E Mentoring Visits to High Priority Provinces: Visits are geared for provincial level mentorship to increase M&E and Surveillance capacity.	Annual	2 nd , 3 rd and 4 th Quarters	NDOH/PHO	28	Visits			\$42,000.00	14 provinces, 2 NDOH staff per province, for 2 days in each province
2022	1.1, 2.1, 2.3, 2.4, 2.5	Focus Areas 1 and 3, Indicator 1	M&E and surveillance officers' collaborative meetings with provincial partners from STI, HIV/AIDS and TB sectors.	Semi-Annual	2 nd and 4 th Quarters	NDOH/PHO	2	Meeting			\$127,120.00	3 days, NCD, 14 provinces, 2 staff from each province
2022	1.1, 1.2	Focus Area 3	Produce 2023-2028 National STIs, HIV/AIDS Strategic Information Framework: To include outline and schedule of key surveillance activities and Costed work plan. Due by July 2022.	Once	2 nd Quarter	NDOH/WHO/PHO/NACS	500	Copies			\$15,000.00	NACS Budget
2022	1.1, 1.2	Focus Area 3	Create 2023 detailed work plan (July 1, 2022 completion date)	Annual	3 rd Quarter	NDOH/NACS/WHO					\$0.00	Routine
							Sub Total:				\$1,063,804.00	2022
							Grand Total:				\$5,980,944.00	5 year