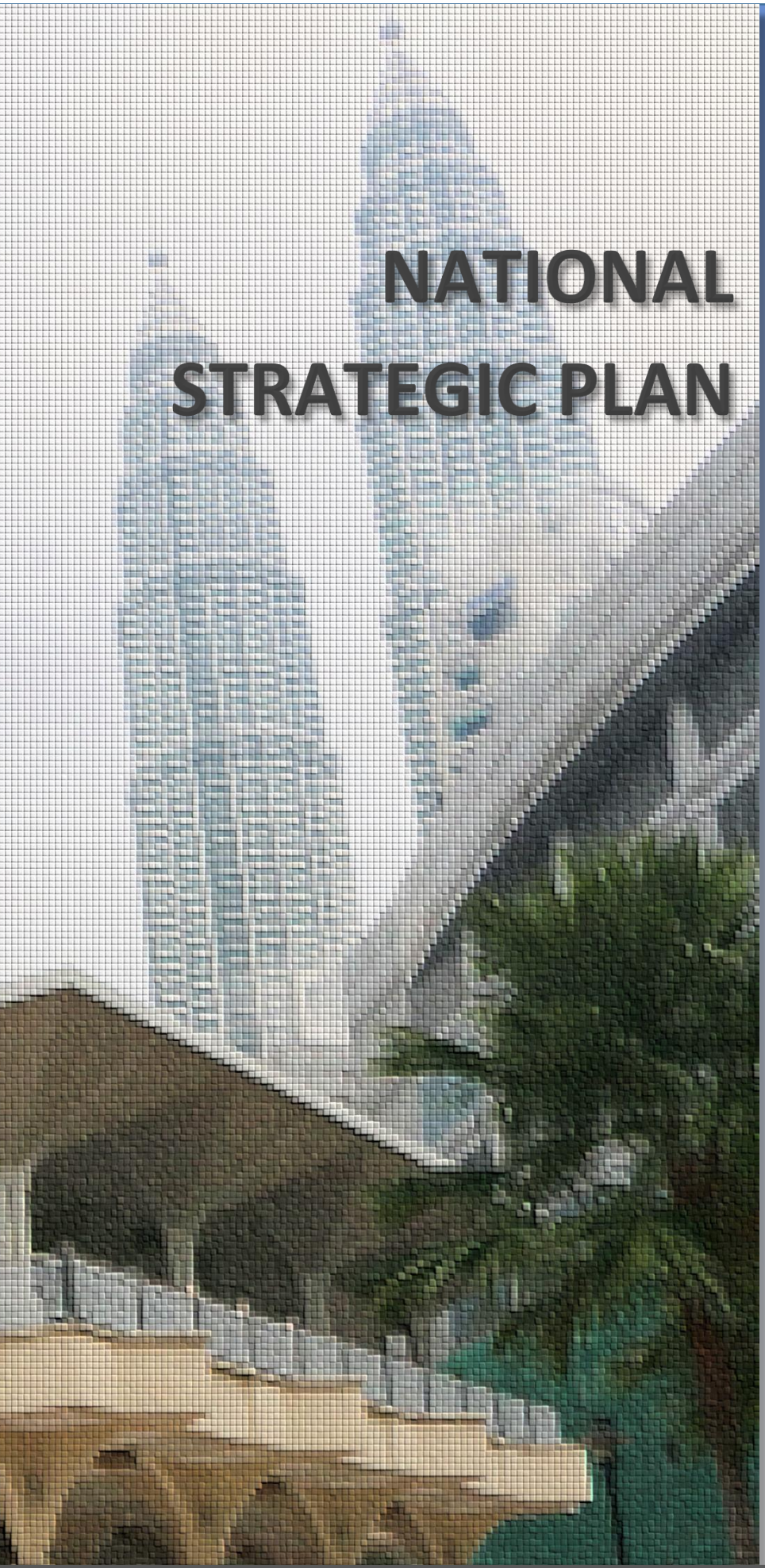


NATIONAL STRATEGIC PLAN

ENDING AIDS

2016 - 2030

Together
we can end AIDS
epidemic by 2030

MINISTRY OF HEALTH MALAYSIA
PUTRAJAYA, 2015

Malaysia

National STRATEGIC PLAN

Report prepared by:

HIV/STI SECTION
Disease Control Division
Ministry of Health Malaysia
Tel: +60 3 8883 4387
Fax: +60 3 8883 4285

Correspondence:
Dr. Sha'ari Ngadiman
drshaari@moh.gov.my

The National Strategic Plan for Ending AIDS 2016-2030

This document was coordinated and produced by HIV/STI Section of Ministry of Health Malaysia.

Editorial Team

Dr. Sha'ari Ngadiman (Chief Editor)
Consultant Public Health Physician
Deputy Director of Disease Control & Head
HIV/STI Sector, Ministry of Health Malaysia

Dr. Anita Suleiman (Principle author & Editor)
Public Health Physician
Senior Principal Assistant Director (Technical & Behavioral Research)
HIV/STI Sector, Ministry of Health Malaysia

Dr. Mohd. Nasir Abd Aziz
Consultant Public Health Physician
Senior Principal Assistant Director (Prevention and Collaboration)
HIV/STI Sector, Ministry of Health Malaysia

Dr. Fazidah Yuswan
Public Health Physician
Senior Principal Assistant Director (Harm Reduction)
HIV/STI Sector, Ministry of Health Malaysia

Dr. Salina Md. Taib
Senior Principal Assistant Director (M&E)
HIV/STI Sector, Ministry of Health Malaysia

Hairuddin Masnin
UNAIDS Country Manager

Parimelazhagan Ellan
Program Director
Malaysia AIDS Council

Shamala Chandrasekaran
Malaysia AIDS Council

Dr. Olavi Elo
UNAIDS Technical Assistance

Acknowledgements

The editorial team would like to express our gratitude to various government ministries and departments, civil societies, development partners and individuals who have greatly assisted us in developing this document.

The team is highly indebted to the technical staff of HIV/STI Sector and State AIDS Officer for their tremendous help in providing related strategic information needed and in facilitating the workshops.

Our heartfelt thanks go to UNAIDS Malaysia for funding the second workshop and financing a consultant to assist in the development of this document.

We greatly admire the partnership spirit of the Malaysia AIDS Council and its partner organizations in crafting the ending AIDS responses.

Our deepest gratitude to all individuals / agencies / departments not mentioned here.

Technical Team

National Advisor:
Datuk Dr. Noor Hisham bin Abdullah
Director General of Health, Malaysia

Technical Advisors:
Datuk Dr. Lokman Hakim bin Sulaiman
Deputy Director of Health (Public Health)
Ministry of Health Malaysia

Dr. Chong Chee Kheong
Director of Disease Control
Ministry of Health Malaysia

Technical Team:
Dr. Sha'ari bin Ngadiman (Head)
Deputy Director of Disease Control and Head HIV/STI Section
Ministry of Health Malaysia

Dr. Anita bt Suleiman (Coordinator)
Public Health Physician
HIV/STI Section, Ministry of Health Malaysia

Dr. Mohd Nasir bin Abd Aziz
Public Health Consultant
HIV/STI Section, Ministry of Health Malaysia

Dr. Fazidah bt Yuswan
Public Health Physician
HIV/STI Section, Ministry of Health Malaysia

Dr. Salina bt Md Taib
Senior Principal Assistant Director
HIV/STI Section, Ministry of Health Malaysia

Datuk Dr. Christopher Lee
Infectious Disease Consultant
Hospital Sungai Buloh

Dato' Dr Ghazali bin Ismail
Obstetrics & Gynaecology Consultant
Hospital Sultan Ismail, Johor

Mohd Nazri Mohd Dazali
Pharmaceutical Service Division, Ministry of Health Malaysia

Hairuddin bin Masnin
Country Manager, UNAIDS

Dr. Ilias Yee
Malaysia AIDS Council

Parimelazhagan Ellan
Malaysia AIDS Council

Table of contents

Foreword

In the past decade, Malaysia has witnessed unprecedented multi-sectoral commitment in setting and implementing imperative agenda for halting and reversing the HIV epidemic. Guided by series of National Strategic Plan (NSP), the nation has made great strides in effectively responding to the HIV epidemic.

The resources are deployed in the most effective and efficient way possible resulting in the achievement of MDG 6 target of reducing by half the proportion of new HIV infections. Today, the HIV infection rate has declined by half, falling from 21.8 per 100,000 population in 2000 to 10.9 per 100,000 population in 2009. The number of new infections have been stable in the past five years though it edged up in 2010.

Building on this momentum, the nation has its sight set on the beginning of the end of AIDS in the country. Our roadmap to ending the epidemic in the country begins with the New National Strategic Plan for 2016-2030 that places testing and treatment at the heart of national response, supported by intensified targeted prevention strategies that offer high-impact interventions.

Developed through a diverse consultative process, the New National Strategic Plan for 2016-2030 adopts the “Ending AIDS” as the vision for Malaysia getting to the “Three Zeros: Zero new infections, Zero discrimination and Zero AIDS related deaths”. In line with the Sustainable Development Goals (SDG), the new NSP adopts the UNAIDS strategic guidance on Fast Tracking to reach 90-90-90 by 2020 and Ending AIDS by 2030. It recognizes WHO’s new recommendations on HIV treatment and prevention, adjusted to the country context.

While the goal of Ending AIDS may look ambitious, systemic and well managed coordination for smart investment and timely acceleration of delivery of key services along with innovative and cutting edge strategies could well result in averting new infections and AIDS related deaths by 2030. As we move into the future, we are hopeful that Malaysia will end the epidemic earlier than 2030. In the spirit of shared responsibility, we shall seize every available opportunity to fast-track the HIV response and become one of the first few countries in ending the epidemic.

Last but not least, we would like to acknowledge the key government and non-government experts and community representatives for the tremendous contribution and effort that went into the preparation of the NSPEA. We would like to especially thank the HIV/STI Sector for their relentless effort in coordinating and drafting this important document.

DATUK DR. NOOR HISHAM BIN ABDULLAH
DIRECTOR GENERAL OF HEALTH MALAYSIA

List of figures:

List of tables:

List of Annexes:

List of annexed AEM figures and tables:

Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral drugs
BSS	Behavioral Surveillance Survey
CBO	Community-based Organization
CCA	Cabinet Committee on AIDS
CCAI	Coordinating Committee on AIDS Intervention
DIC	Drop-In Centre
DRC	Drug Rehabilitation Centre
EMTCT	Elimination of Mother to Child Transmission
FMS	Family Medicine Specialist
FSW	Female Sex Worker
GFATM	The Global Fund for fight against AIDS, Tuberculosis and Malaria
GARPR	Global AIDS Response Progress Report
HAART	Highly Active Anti-Retroviral Therapy
HIV	Human Immunodeficiency Virus
HPSP	Hospital Peer Support Programme
HR	Harm Reduction
IBBS	Integrated Bio-Behavioural Survey
JAKIM	Department of Islamic Development
MAC	Malaysian AIDS Council
MDG	Millennium Development Goals
MMT	Methadone Maintenance Therapy
MoH	Ministry of Health
MSM	Men having Sex with Men
MTCT	Mother-to-child transmission
MWFCD	Ministry of Women, Family and Community Development
NADA	National Anti-Drug Agency
NAP	National AIDS Programme
NAR	National AIDS Registry
NATCA	National Advisory and Technical Committee on AIDS
NCPI	National Commitments and Policy Instrument
NGO	Non-Governmental Organization
NPFDB	National Population and Family Development Board

NSEP	Needle and Syringe Exchange Programme
NSP	National Strategic Plan on HIV and AIDS
NSPEA	National Strategic Plan for Ending AIDS
NTR	National Treatment Registry
OST	Opiate Substitution Therapy
PCR	Polymerase Chain Reaction test
PEP	Post Exposure Prevention
PrEP	Pre Exposure Prevention
PITC	Provider Initiated Testing
PLHIV	People Living With HIV
PMTCT	Prevention of Mother-to-Child Transmission
PWID	Person/People who inject drugs
SDG	Sustainable Development Goal
SRH	Sexual and Reproductive Health
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
SW	Sex Worker
VCT	Voluntary Counselling and Testing
TasP	Treatment as Prevention
TB	Tuberculosis
TG	Transgender person
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session
UNHCR	United Nations High Commissioner for Refugees
UNODC	United Nations Office on Drugs and Crime
UNTG	United Nations Theme Group on HIV
WB	World Bank
WHO	World Health Organization

Terms and definitions

Civil society refers to NGOs and informal groups which may include People Living with HIV (PLHIV), key and vulnerable populations, women's organisations and faith-based organisations.

Cost estimates are financial estimations of how much is envisaged to be spent for a particular programme, usually not be considered as detailed budgets. Detailed budgets are prepared usually for Annual Work Plans itemising details of the budget.

Coverage is a measure of whether a programme is working in the right places and reaching its target population.

Ending AIDS refers to elimination of AIDS as public health threat by 2030 through sustained maintenance of fast tracking results and achieving the targets of 95% of key populations tested and knowing their results, 95% of those detected as HIV positive placed on ART, and 95% of these having an undetectable viral load, as well as through reaching 80% coverage of key populations with effective prevention programmes.

Evaluation is a rigorous, scientifically-based collection of information about programme activities, characteristics, and outcomes that determine the merit of a specific programme. Evaluation studies are used to improve programmes and inform decisions about future resource allocations.

Fast Tracking refers to accelerating the HIV response to reach the 90-90-90 targets by 2020 (90% of key populations tested for HIV and knowing their results, 90% of those detected HIV positive placed on ART, and 90% of these having undetected viral load. It also includes reaching 80% of key populations with effective prevention programmes.

Impact evaluation is conducted to assess changes in disease incidence and prevalence as a function of programme implementation. Evaluation of impact on populations entail rigorous evaluation design to assess the combined effects of a number of programmes.

Impact indicators are used to evaluate the impact of programmes and interventions on the overall epidemic, in key populations as well as in general population.

Impact mitigation refers to programmes and activities which work towards reducing the negative impact and direct consequences of HIV on key and vulnerable populations and People Living with HIV, such as illness, loss of employment, discrimination and death.

Incidence is defined as new infections per population at risk in a specified time period.

Input indicators are used to monitor the resources available for implementation of the National Strategic Plan on HIV and AIDS, and to evaluate sustainability of programmes and interventions.

Intervention is a set of activities implemented by a project often at the community level.

Men who have Sex with Men (MSM). Many men who have sex with men (MSM) engage in anal sex and often have multiple sexual partners.

Monitoring is the routine tracking of key elements of a programme or project and its intended outcomes. It usually includes information from record keeping and surveys – both population and client-based.

Outcome indicators measure the effectiveness of programmes implemented to change risk behaviours among key populations, to encourage prevention, treatment, care and support seeking behaviours.

Output indicators measure the implementation of programmes for key populations, achieved through behavioural change communication, harm reduction, including access to needles, syringes and condoms, or utilisation of VCT, treatment, care and support services.

Outreach services take health information and services into the communities where key populations live, or places where they congregate.

People who inject drugs (PWID) refers to drug users who use injecting equipment.

Prevalence is the total number of HIV infections at a point in time per population.

Programme refers to an overarching national or subnational response to a disease and generally includes a number of projects.

Project refers to a mix of activities supported by resources, implemented often at the community level.

Transgender persons refers to persons whose gender identity differs from their sex at birth. The term “mak nyah” is commonly used in the Malaysian context.

Universal Access refers to access to HIV treatment, prevention, care and support to all, including key and vulnerable populations, through strengthening of health and community systems.

Young person or people refers to individuals or group in the age range of 15 – 24 years.

EXECUTIVE SUMMARY

Since the beginning, HIV epidemic in Malaysia has been driven by injecting drug use, increasingly in recent years also by sexual transmission among key populations and their intimate sexual partners, including people who inject drugs, sex workers, men who have sex with men and transgender persons. The share of new infections through sexual transmission has increased to close to 80% of the annual total by 2014. The epidemic is still concentrated in key populations, not spread to general population, as indicated by the low level HIV detection in routine premarital and antenatal testing.

The recent surveys and surveillance indicate that the steady decline of the reported number of new HIV infections since the peak of the epidemic in 2002 has stagnated since 2010, and has even been reversed among men having sex with men, transgender persons, and sex workers, particularly in geographic locations which may be different for each key population. These surveys have identified gaps and challenges in the implementation of HIV and AIDS response under the previous National Strategic Plans (NSP), which will be addressed in the new National Strategic Plan for Ending AIDS 2016-2030 (NSPEA).

The NSPEA was developed through a comprehensive consultation process, it builds on the successes of the previous strategies and addresses the challenges identified in the surveys and surveillance, in the Mid Term Review of the 2011-2015 NSP and in the consequent consultation process. It places strong emphasis on strengthening the multi-sectoral and civil society collaboration practiced under the previous strategic plans.

The NSPEA adjusts to the changing international environment and scientific evidence, and adopts the “Ending AIDS” as the strategy for Malaysia to achieve the Vision of “Zero new infections, Zero discrimination and Zero AIDS related deaths”. It adjusts to the Sustainable Development Goals (SDG) endorsed by the UN General Assembly and adopts UNAIDS strategic guidance on Fast Tracking to Zero and Ending AIDS.

The priorities identified in the extensive consultation process include: 1) Intensifying testing and treatment; 2) Harm Reduction to considerably increase coverage of the Opiate Substitution Therapy and Needle and Syringe exchange; 3) Reducing sexual transmission among key populations (Sex Workers, Men having sex with men, Transgender persons, also people who use drugs) and their sexual partners, and striving to early elimination of mother to child transmission; 4) Reducing Stigma and Discrimination, and providing social protection as a cross-cutting issue for all key populations.

In the NSPEA Malaysia commits to Fast Tracking the HIV and AIDS response. The first fast tracking phase of the NSPEA, during 2016-2020, aims to reach the 90-90-90 targets: 90% of key populations tested for HIV and knowing their results, 90% of people infected with HIV placed on ART, and 90% of these adhering to treatment with suppressed viral load. The fast tracking phase also aims to reach 80% of key populations with effective prevention.

Malaysia commits to “Ending AIDS” by 2030 through achieving the 95-95-95 target: 95% of key populations tested for HIV and knowing their results, 95% of people infected with HIV placed on ART, and 95% of these adhering to treatment with suppressed viral load. The commitment includes reaching 90% of the key populations with effective prevention.

The strategies and action plans developed through consultations build on an increasing collaboration between the government and the civil society organizations, linking the facility-based health services with community level service provision by lay workers, and ensuring the quality of these services through extensive training and capacity building of the community-based organizations and service providers. Ensuring continuum of care between medical and paramedical health facility-based staff and outreach workers requires extensive training in new skills for these workers to be able to perform expanded tasks, adequate support by the health facility staff and smooth referral arrangements.

A few new approaches will be carried out by NGO. This initiative will include treatment adherence peer support programme (TAPS) and case management by lay person which is currently piloted by Global Fund grant-supported MSM programme. Another initiative is community-based HIV screening. This approach will allow NGO to conduct HIV screening among KPs and those found reactive will be referred to health clinics for confirmation and further management.

Task Forces will be extended, such as the Harm Reduction Task Force, and new Task Forces will be established to develop operational plans and to support and guide the development of prevention programmes, such as programmes for mitigating sexual transmission or addressing issues specific for young people. Coordination between multiple partners will be enhanced through establishment of local coordination councils, which will work with support from State and National levels.

Decentralization of HIV services to primary health facilities, closely linked with the main hospitals, is gradually taking place and will be quickly expanded during the fast tracking period. HIV services are integrated in the other services at primary health centres, the network of which is expanding. Private health facilities and general practitioners are increasingly engaged and will be accredited for service provision. Treatment adherence, which has been a challenge, is being addressed, including through peer support groups and ensuring the continuum of care between health facilities and community level services.

Harm reduction programme, with focus on MMT and NSEP, will continue to be a priority prevention programme. The advocacy and support to shifting from injection drug use to oral substitution therapy will be intensified, the trends of people shifting to multi-drug use will be analysed and addressed. The low condom use, which contributes to sexual transmission among PWID and their sexual partners, will be addressed.

Sexual transmission among MSM, FSW and TG and their sexual partners has been increasing. There is a trend for providers of sexual services shifting to use mobile phones and social media to advertise and connect with clients. Programmes to identify and analyse the failure of the prevention programmes in these key populations and to intensify the successful approaches will be developed, including development of social media advocacy and

information sharing programmes. Mother to child transmission of HIV will be eliminated during the fast tracking period.

NSPEA will be implemented within the Malaysian Development Plan framework. Given the mandate by the Government under the NSPEA, the leadership in responding to the epidemic continues to be shouldered by the Ministry of Health. The engagement from non-health sectors, NGOs, civil society, private sector, bilateral and international agencies will be strengthened. Adequate resources and technical support are required to strengthen the management and human capacity of the health facilities and of civil society organizations, the crucial partners in the NSPEA implementation.

To maximize the impact of the response, the country will invest adequately and strategically, prioritising where, for which people and what to invest in to generate best returns. The priorities are based on what has been identified to work in local context. Sustained domestic funding of the national response to HIV and AIDS is to be secured. Resources will be allocated aligned to the priority areas and programmes identified in NSPEA, including strengthening of the critical enablers, health and community systems capacity and quality of services, and addressing the prevailing stigma and discrimination.

The Asian Epidemic Modelling (AEM) has provided the projections for the epidemic's development and estimated the resource need for Ending AIDS. The total resources needed to realize the fast tracking targets amount to USD 429.1 million for the period 2015 to 2021. Annual investment will increase until 2020 and will start gradually decreasing thereafter. 'Ending AIDS' scenario shows that intensifying treatment and investing in prevention, even when the initial costs increase, yields significant savings of costs later, making the programme affordable in the long term.

Implementation of the NSPEA will be monitored and evaluated through the national HIV monitoring and evaluation framework, coordinated by the National AIDS Programme Secretariat. Information gathered from monitoring and evaluation will be used to: a) Ensure HIV and AIDS response achieves high levels of accountability and efficiency; b) Inform and help determine whether adjustments are required and to facilitate corrective action; c) Provide quality information and evidence for future programming; d) Facilitate reporting, such as reporting for GARPR, Universal Access and the SDGs.

Vision for Malaysia reaching zero through fast tracking and ending AIDS

VISION:
Zero new infections-Zero discrimination-Zero AIDS related deaths

GOAL:
Ending AIDS by 2030 (90% reduction of new HIV cases from 2010 based on AEM)

TARGETS:

- 95% of key populations tested for HIV and know their results
- 95% of people with diagnosed HIV+ receive ART
- 95% of people on ART achieve viral suppression
- 90% of key populations are reached by combination prevention services

INTERIM GOAL:
Fast tracking 2016-2020 towards Ending AIDS

TARGETS:

- 90% of key populations tested for HIV and know their results
- 90% of people with diagnosed HIV+ receive ART
- 90% of people on ART achieve viral suppression
- 80% of key populations are reached by combination prevention services

PRIORITY PROGRAMMES:

- Testing and Treatment
  a) Intensify and expand testing, including community testing
  b) Intensify and expedite introduction to treatment of all PLHIV
  c) Ensure adherence through peer support and quality case management
- Harm Reduction
  a) Increase PWID shifting from injecting to MMT
  b) Increase coverage of NSEP
  c) Expedite PWID enrollment in ART
- Reduction of Sexual Transmission
  a) Focus and tailor prevention services for MSM, increase condom use
  b) Improve access to health and HIV services for TG
  c) Improve FSW access to SRH services, develop social media messaging
  d) Eliminate mother to child HIV transmission
- Reduction of Stigma and Discrimination
  a) Aim to zero discrimination in health services and community
  b) Review and remove prohibitive legislation and regulations
  c) Provide adequate social protection for PLHIV and affected people

PROGRAMME INTERVENTION COVERAGE (BASED ON AEM):

By 2030, the intervention programmes should reach

- 95% PWID (80% MMT and 15% NSEP)
- 80% FSW
- 80% TGSW
- 80% MSM
- 95% KPS on ART

CRITICAL ENABLERS:

- Health and Community Services Strengthening
  a) Ensure health services capacity for expanded case load from fast tracking
  b) Intensify support to NGOs/CBOs, build up capacity for community level services
  c) Promote integrated health service—community continuum of care and services

- Sustainable Financing
  a) Ensure domestic financing for fast tracking and ending AIDS
  b) Establish adequate accountability and auditing mechanisms

- Quality information and evidence
  a) Ensure and synchronize quality information from multiple information sources
  b) Strengthen monitoring and analyzing capacity and information sharing

CHAPTER 1: INTRODUCTION

1.1 The Big Picture

The HIV epidemic in Malaysia has been driven by injecting drug use, more recently increasingly also by sexual transmission among key populations and their intimate sexual partners, including people who inject drugs, sex workers, men who have sex with men and transgender persons. The share of new infections through sexual transmission has been increasing to close to 80% of the annual total by 2015, including sexual transmission with the partners of people who inject drugs. The epidemic is still concentrated in key populations, as indicated by the low level of HIV detection in routine premarital and antenatal testing.

The response to the epidemic in Malaysia started in 1985—a year before the first case of HIV infection in the country was detected—when a National Task Force was established for development of policies, coordination and HIV surveillance. The first National Strategic Plan on HIV and AIDS was formulated in 1998, the consequent National Strategic Plans, the most recent for the years 2011 – 2015, have guided the national HIV and AIDS response. The Mid-Term Review (MTR) of the National Strategic Plan of 2011-2015, conducted in 2013, assessed the progress, achievements and gaps in the implementation of the NSP, and provided the starting point for the development of the post-2015 National Strategic Plan aiming at ending AIDS (NSPEA).

The MTR recognized the significant progress in achieving the NSP 2011-2015 targets across all priority programmatic areas, in improving the access to HIV services, and in enrolment of people living with HIV to PMTCT, VCT, ART and Harm Reduction services. MTR identified challenges in key areas which need to be addressed in NSPEA: Low awareness of HIV, risk behaviours and HIV transmission among young people and key populations; Increasing trend of alcohol and substance use affecting risk behaviours; Need for further scaling up HIV testing and treatment; Mitigating the increasing sexual transmission of HIV; Integration of VCT in all health services—PMTCT, HIV treatment, TB, SRH; TB detection in PLHIV; Scaling up PMTCT in private health care; Government-NGO partnerships in eliminating stigma; Male circumcision among the non-Muslim population; and strengthening of community capacity for Fast Tracking of HIV response.

The New National Strategic Plan for 2016-2030, developed through a comprehensive consultation process, builds on the successes of the previous strategies, addresses the challenges identified in the MTR of the 2011-2015 NSP and in the consequent consultation process. It continues to place strong emphasis on strengthening the government-non-government (GONGO) partnership undertaken under the previous strategic plans. It adjusts to the changing international environment and adopts the “Ending AIDS” as the goal for Malaysia getting to the vision of “Three Zeros”: Zero new infections, Zero discrimination and Zero AIDS related deaths. It adjusts to the Sustainable Development Goals (SDG) endorsed by the UN General Assembly and adopts the UNAIDS strategic guidance on Fast Tracking to reach 90-90-90 by 2020 and to Ending AIDS by 2030. It recognizes WHO’s new recommendations on HIV treatment and prevention, adjusted to the country context.

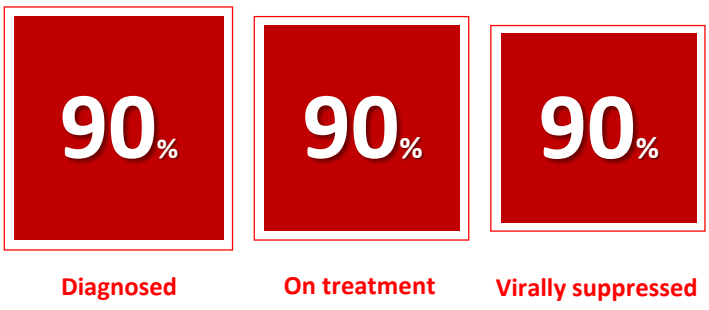
1.2 Rationale

The Malaysian National Strategic Plan for Ending AIDS 2016-2030 (NSPEA) has been developed building on the successes in the implementation of the previous strategic plans, to address the gaps and challenges identified in the MTR in 2013 and in the following consultation process. NSPEA continues to adhere to the principles established in the previous strategies, adjusts to the scientific findings and advances in HIV prevention and treatment, and adopts the most recent global strategic and programmatic recommendations, adjusted to the country context.

The Strategic Plan has been developed for implementation in the rapidly changing international political environment. The Millennium Development Goals (MDG), the political framework for the previous national strategies, are being replaced by the Sustainable Development Goals (SDG), which extend from 2016 to 2030. SDGs, adopted by the UN General Assembly in 2015, include a target for "Ending AIDS" embedded in an integrated health goal. Adjusted to the SDG framework, the UNAIDS strategy for 2016-2021, "Fast-tracking to Zero", presented to UNAIDS Programme Coordinating Board for approval in October 2015, will provide the programmatic guidance for reaching the target.

UNAIDS has introduced ambitious treatment target 90-90-90, adopted in Malaysian country context: 90% of key populations tested and know their results, 90% of those detected HIV positive placed on ART, and 90% of these adhering to ART with suppressed viral load. The aim is to achieve the targets by 2020 through Fast Tracking, which also includes reaching 80% of key populations with effective prevention programmes. The aim is eventually to "End AIDS" by 2030 by raising the treatment targets to 95-95-95% and the prevention target to 90%.

THE TREATMENT TARGET



On scientific and programmatic fronts, the results of the global studies have convincingly demonstrated that early treatment reduces HIV and AIDS mortality and morbidity. Several countries have already adopted the immediate initiation of ART after HIV detection, "Test and Treat", as part of their HIV and AIDS strategies. WHO treatment guidelines are being adjusted accordingly in 2015. WHO also, in the consolidated guidelines on HIV testing services of July 2015, recommends HIV testing by trained lay providers using rapid diagnostic tests, thus

promoting further decentralization of testing and HIV case management in the communities where people live and access the services.

Against this background the Malaysian government conducted the Asian Epidemic Modelling (AEM) exercise in 2014-2015, to project the epidemic's path up to 2030 and beyond. The modelling generated options for epidemic response which strongly support the policy option "Ending AIDS", which has been adopted as the basis for the new NSPEA development. The analysis of the projected investment options demonstrated that this option of investing in intensified targeted prevention and substantially expanding access to treatment will put Malaysia on track to ending AIDS.

1.3 Development of the National Strategic Plan on HIV and AIDS 2016-2030

The development of the NSPEA 2016-2030 began in 2013 with the Mid Term Review of the progress made under the NSP 2011-2015. The process included review of the reports and other information, and extensive consultations with key government and non-governmental experts and civil society representatives. Extensive consultations took place from mid-2014 onwards through workshops convened to formulate recommendations to achieve "Ending AIDS"; to identify challenges, gaps and needs for capacity building and financial inputs; and to discuss and recommend indicators for "Ending AIDS".

A technical working group of experts in HIV programming, in behavioural surveys and M&E, with representatives of civil society and UNAIDS country manager, worked on data consolidation – collecting, collating, analysing and triangulating data from various programmatic and survey data sources. Three workshops were held to develop, validate and analyse a baseline model and a set of scenarios for the response with expert assistance from East-West Centre Hawaii. The first workshop in October 2014 worked towards the development of a baseline model; the second workshop in December 2014 validated and refined the baseline model and began work on scenarios for the epidemic. The final review of the scenarios was conducted at the third workshop in April 2015. The estimations resulting from the model were validated against the national surveillance data.

Consultations were held in 2015 with key partners, Ministry of Health (MOH), Malaysian AIDS Council (MAC), UNAIDS, selected District Health Officers and State AIDS Officers to discuss the HIV strategic issues and challenges and to suggest changes to policy and priority areas. List of participants is in annex 1. The first consultation identified priority areas, programmes and targets for the next 5 years and beyond. The second consultation of selected participants (annex 1) discussed and developed the National Action Plan and M&E Framework, translating the inputs from the first consultation into action plans for the fast tracking phase. The final consultations, involving NSPEA Core Team of key staff from MOH, MAC and UNAIDS, reviewed the final action plan and estimates of the future financial needs for fast tracking of response to 2020 and ending AIDS by 2030. The action plans have been incorporated as integral part of the NSPEA, the costing of the NSPEA is based on the AEM estimates of the epidemic's evolution and on the investment analysis.

The extensive consultations made recommendations which aim at addressing the identified challenges through: Establishment of a National task force for mitigation of sexual HIV transmission that would effectively review current status and develop a national plan with defined key targets; Establishment of a Technical Working Group to develop the plan for scaling up testing and treatment, including Treatment as Prevention; Establishment of a National Task Force for most at risk young people to review the current status and existing prevention modules and to develop an effective national operational plan; Development of national policy and guidelines on male circumcision for non-Muslims; Strengthening of the National M&E unit to include NSPEA monitoring and evaluation; Strengthening Government-NGO partnership and developing management guidelines and capacity building for costing, M&E and priority areas of action.

Information sharing, inclusivity and consensus building in the development of the NSPEA 2016-2030 resulted in the experiences in the NSP 2011-2015 implementation now being reflected in the NSPEA 2016-2030. The setting of prioritized and evidence-based national priorities, which respond to the evolving dynamics of Malaysian HIV epidemic, was possible with access to the strategic information and research data, which included data from the work of civil society and community based organisations working in partnership with Government agencies and academic institutions. The inputs from government and civil society have been critical in improving the understanding of the epidemic and its response. The findings indicate that without substantially expanding the community based HIV response the Ending AIDS will not become reality.

The NSPEA 2016-2030 is comprised of The National Strategic Plan on HIV and AIDS, the Action Plans for fast tracking and the Monitoring and Evaluation framework. The first fast tracking phase of the NSPEA, during 2016-2020, aims to reach the 90-90-90 targets: 90% of key populations tested and knowing their results, 90% of those detected as HIV positive placed on ART, and 90% of these adhering to treatment with suppressed viral load. The fast tracking phase aims to reach 80% of key populations with combination prevention. The second phase of the NSPEA from 2021 to 2030 aims to end AIDS as public health threat, consolidating the gains of the fast tracking period and reaching the 95-95-95 targets: 95% of key populations tested and knowing their results, 95% of those detected as HIV positive placed on ART, and 95% of these adhering to treatment with suppressed viral load, as well as reaching 90% of key populations with combination prevention. NSPEA identifies the capacity building needs and resources for implementation of the NSPEA 2016-2030, based on AEM projections and estimations.

CHAPTER 2: HIV EPIDEMIC SITUATION, RESPONSE AND CHALLENGES

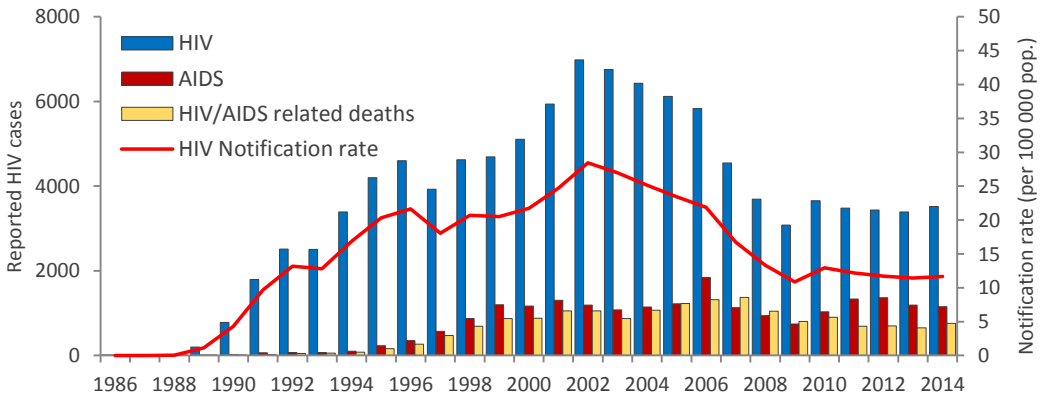
2.1 HIV situation in the country

The Global AIDS Response Progress Reports (GARPR) of 2014 and 2015 provide a comprehensive overview of Malaysian epidemic situation and response up to 2014. The report of the Ministry of Health "Ending AIDS in Malaysia. Myth or Reality" updates the information, including the key IBBS results of 2014, which indicate that the HIV prevalence among people who inject drug (PWID) continues to decline while the prevalence in the other key population groups seems to be increasing. It also notes that more than half of the newly diagnosed PLHIV had the first CD4 count below 200cells/µL, indicating late treatment seeking. The report details the AEM modelling and estimation exercise which provides the parameters for NSPEA. The findings of the IBBS surveys in 2009, 2012 and 2014 are presented in table 2.

Malaysia has a concentrated HIV epidemic, the prevalence rates remain elevated among key populations, which include PWID, female sex workers (FSW), transgender people (TG) and men having sex with men (MSM). The number of people living with HIV (PLHIV) in 2014 was estimated at 91,848 (AEM 2015). Based on surveillance data the cumulative number of HIV infections in Malaysia since the first case of HIV was reported in Malaysia in 1986 had reached 105,189 by the end of 2014, the AIDS cases 21,384, and 17,096 deaths related to AIDS. Thus the number of PLHIV alive at the end of 2014 was 88,093 according to the surveillance data.

The annual number of reported new HIV cases has been in steady decline from a peak of 6,978 in 2002, however this decline has stalled since 2010 (Figure 1). In 2014, 3,517 new HIV infections were reported to the Ministry of Health, approximately half of what was reported in 2002, an average 9 new infections each day. The estimated number of all new infections in 2014 was 6,204 (AEM), indicating that the number of all new infections may have been almost double to those reported. The notification rate of HIV continued to decline from 28.4 per 100,000 population in 2002 to 11.4 in 2013, it edged up slightly to 11.7 cases per 100,000 population in 2014.

Figure 1. Reported HIV and AIDS cases and AIDS-related deaths, Malaysia 1986 – 2014



There has been a steady decline in the number of reported AIDS-related deaths. The reduction has been attributed to the introduction of affordable and accessible first and second line antiretroviral (ARV) treatment. At the end of 2014 there were 21,654 PLHIV on treatment, 51% of the estimated number of 42,408 PLHIV eligible for ARV treatment (CD4 count less than 350), but only 23% of all 89,093 PLHIV.

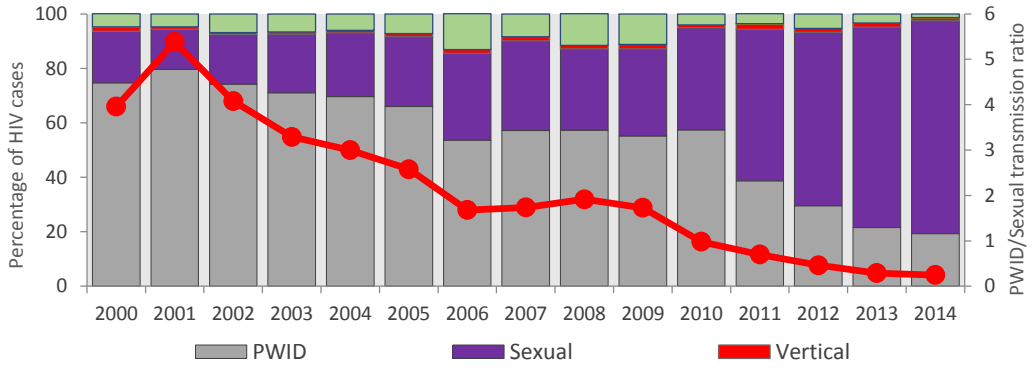
Injecting drug use has been the main driving factor for the country's epidemic. However, sexual transmission has been progressively increasing. Sexual transmission of HIV is currently responsible for almost 80% of new infections. Share of transmission through injecting drug use has declined significantly from 60-75% range in 1990s to less than 20% in 2014 (Table 1).

Table 1. Percentage of new HIV infections by Mode of transmission, Malaysia 1990-2014

Mode of transmission	1990	2000	2010	2014
Injecting drug use	470 (60.4%)	3,815 (74.7%)	1,737 (47.6%)	680 (19.3%)
Sexual transmission	41 (5.3%)	964 (18.9%)	1,773 (48.5%)	2,752 (78.3%)
- Heterosexual	38 (4.9%)	902 (17.7%)	1,472 (40.3%)	1,768 (50.3%)
- Homosexual	3 (0.4%)	62 (1.2%)	301 (8.2%)	984 (28.0%)

PLHIV in Malaysia are predominantly male. However, the trend has changed with increasing female infections, with male/female ratio declining from 9.6 in 2000 to 4.5 in 2010 and to 4.0 in 2014 (Figure 2). With rigorous implementation of harm reduction programme since 2005 the mode of transmission is progressively shifting from injecting drug use transmission to sexual transmission, with injecting drug use/sexual transmission ratio of 3.9 in 2000 declining to 1 in 2010 and to 0.2 in 2014.

Figure 2. Reported HIV cases by mode of transmission and PWID/Sexual transmission ratio, Malaysia 2000-2014



About 35% of reported infections were among young people between 13-29 years of age, and around 1% among the less than the 13 year olds in 2014 (Figure 3). However, HIV prevalence has been stabilizing in all age groups (Figure 4).

Males continue to represent the majority of all HIV cases in Malaysia but the prevalence rate among both sexes seems to have stabilized (Figure 5) for the last five years. In 2014, among men, 23.7% acquired infection through injecting drug use and 74.6% through sexual mode, while among women the majority acquired HIV through heterosexual transmission (92.4%).

Figure 3. Distribution of reported new HIV cases by age group, Malaysia 1990 – 2014

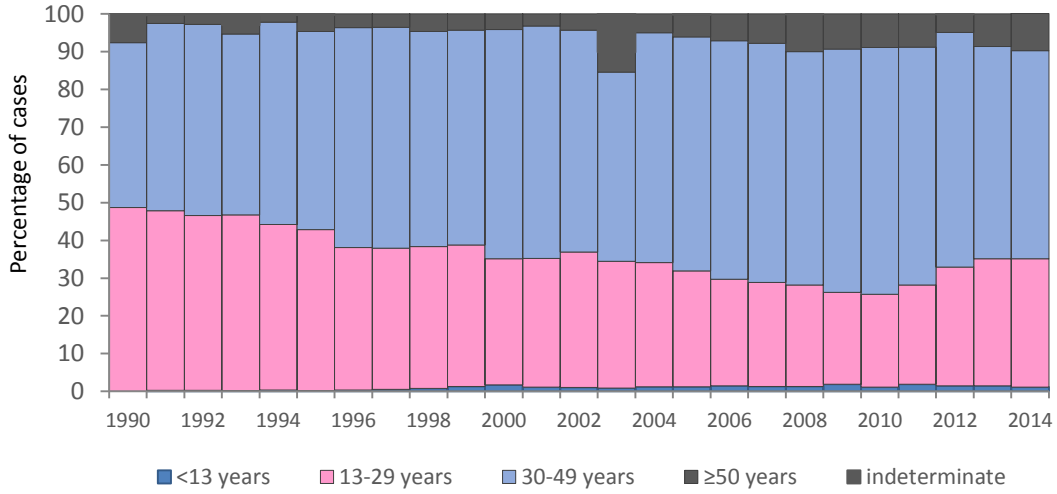


Figure 4. Age-specific HIV Prevalence, Malaysia 2000-2014

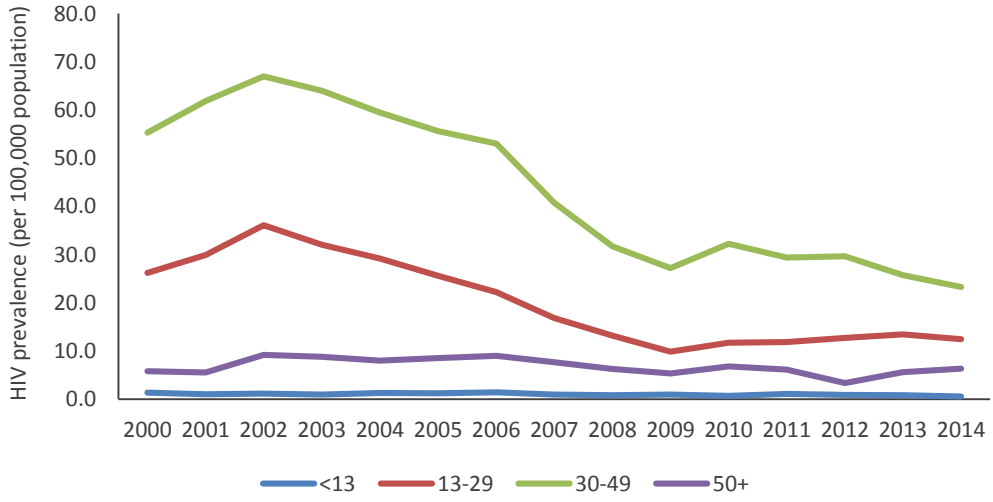
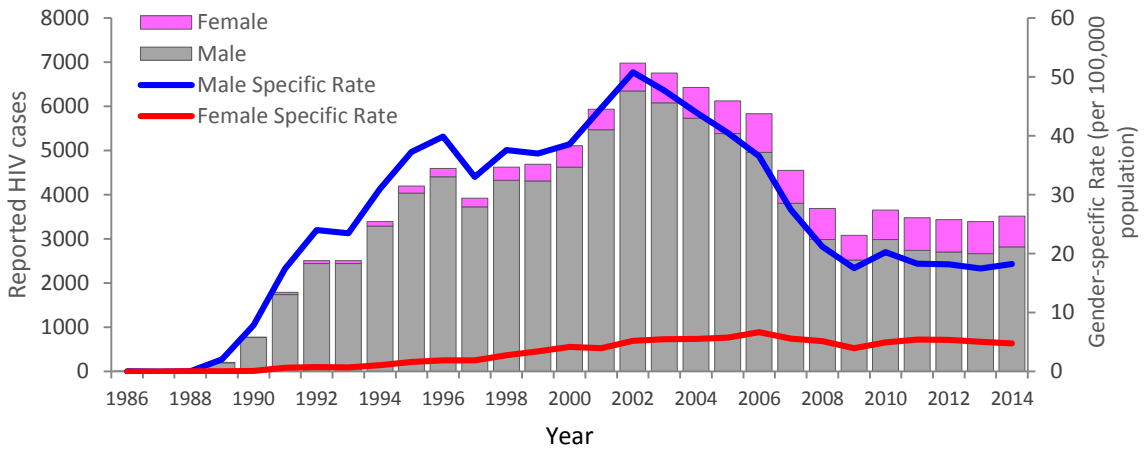


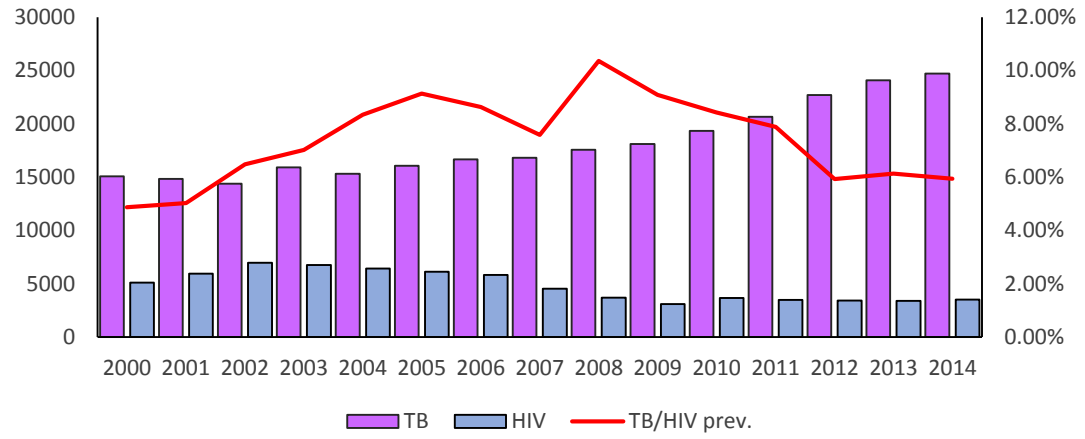
Figure 5. Gender-specific HIV Prevalence, Malaysia 1986 – 2014



2.2 HIV/TB Co-infection

Tuberculosis (TB) remains a public health challenge in Malaysia with around 16,000 – 20,000 new cases reported annually (Figure 6). From 1990 to 2014 the number of TB/HIV co-infections reported nationwide has increased from six to 1,468 cases. In 2014, 24,711 new TB cases were registered in Malaysia with reported TB-HIV co-infection of 5.9%. To reduce morbidity and mortality of TB/HIV co-infection, the government has started Isoniazid prophylaxis for PLHIV in 2010. As part of its disease control and prevention measures, the government conducts routine TB-HIV screening for all new inmates in closed settings such as prisons and drug rehabilitation centres, started in 2001

Figure 6. New TB, HIV and prevalence of TB-HIV Co-infection, Malaysia 2000-2014



2.3 Geographic differences in HIV prevalence

Knowing the geographic distribution of HIV transmission is essential for planning the response, these differences point to where the priority of response needs to be directed. In IBBS 2014 the prevalence among PWID, while nationally slowly declining, was highest in Kelantan (44.7%), Terengganu (30.0), Johor (27.1) and Kuala Lumpur (21.3), and lowest in Penang (1.6) and Melaka (1.7). Among FSW the prevalence was highest in Kuala Lumpur (17.1) and Pahang (14.5) and lowest in Perak (0.6), but had been increasing rapidly in Sabah (from 1.1 in 2012 to 6.7 in 2014) and Sarawak (from 0.7 to 6.7). Among MSM and TG the HIV prevalence was highest in 2014 in Kuala Lumpur for MSM at 22.0 (up from 10.2 in 2012), and for TG at 19.3 (up from 4.8 in 2012), and in Johor for MSM at 15.7 and for TG at 10.6.

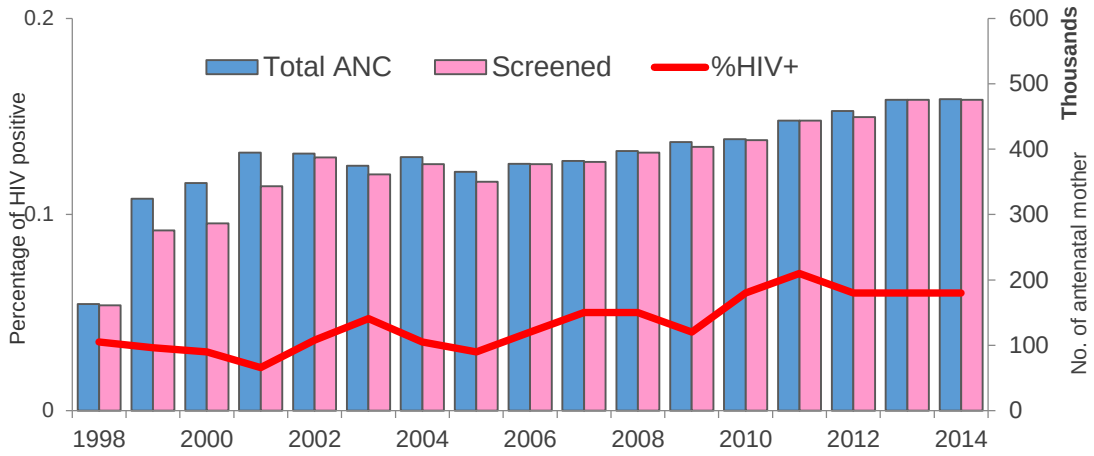
Within these geographic areas more detailed mapping will be conducted to identify the hotspots for transmission where the response will be intensified. As the cities have higher prevalence rates in a country, but also have the means to fast track the response, a global movement for cities ending AIDS was initiated in 2014. Melaka was the first city in Malaysia where the “City Ending AIDS” movement was initiated, by 2015 the participation had been extended to five other cities in Malaysia. A region-wide movement is ongoing within the framework of “ASEAN cities against AIDS.

2.4 HIV Testing, Surveillance and Surveys

HIV testing in Malaysia started as early as 1985. Provided for free in all government health facilities, HIV test can be accessed in 1,039 health clinics and 141 hospitals, inclusive of private hospitals. The Ministry of Health is promoting both voluntary and confidential HIV testing (VCT) and Provider Initiated Testing and Counselling (PITC). Ministry of Health has incorporated behavioural surveillance survey into the existing surveillance system since 2004. The first round of IBBS survey was conducted in 2009 focusing on three key affected populations (PWID, FSW and TG). The second and third rounds of IBBS were successfully carried out countrywide in 2012 and 2014.

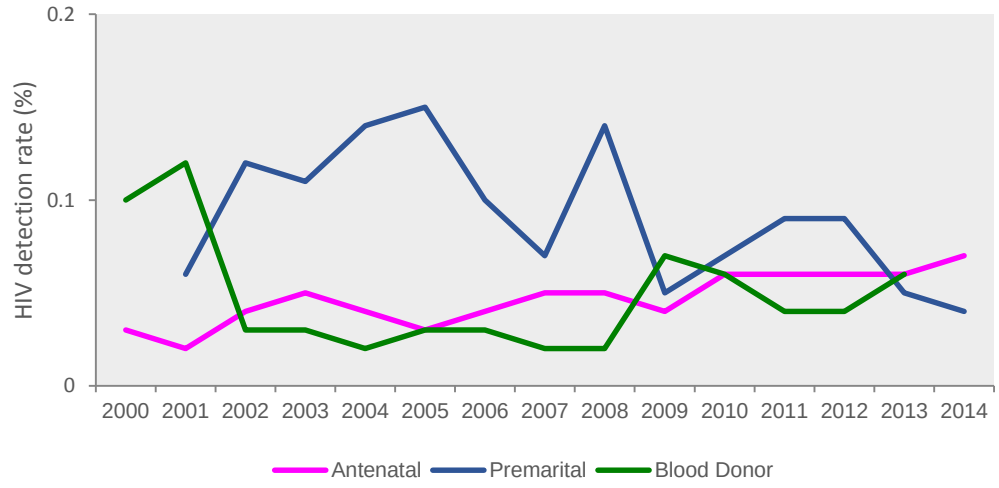
The testing and screening programmes include routine HIV screening of all donated blood, blood products and organs, opt-out antenatal screening, routine testing of inmates in drug rehabilitation centres and prisons, testing of TB and STI patients, clients of harm reduction programme, contacts of HIV infected persons, and voluntary premarital testing. Premarital HIV testing for Muslim couples started in 2001 in one state, programme was expanded country-wide in 2007 and made accessible to anybody who wishes to undergo premarital HIV testing, irrespective of faith. As part of the prevention of mother-to-child-transmission (PMTCT) programme, in 2014 close to 490,000 pregnant women were tested and 324 individuals, 0.06%, were detected with HIV (Figure 7).

Figure 7. Testing of pregnant women, Malaysia 1998-2014



Over the past five years, an average of 1.3 million HIV tests was conducted. In 2014, 1,439,855 men and women aged 15 and above had received HIV test and counselling and knew the result, out of these 1,321 (0.09%) were HIV positive. Despite strengthening the surveillance programme and intensified testing the detection rate of HIV is decreasing. This is compatible with the declining HIV reporting through surveillance system which has validated the reduction in new HIV infections, in accordance with the estimation and projection exercise. The surveillance data and routine screening activities demonstrate that HIV is still confined within the key populations and that the prevalence among relatively low risk population is still low between 0.02 to 0.11% (Figure 8).

Figure 8. HIV prevalence of selected testing and screening programmes, Malaysia 2000-2014



2.5 Key populations

(a) People who inject Drugs (PWID)

It is estimated that there are about 170,000 PWID in the country. The HIV testing among PWID started as early as 1989 and was further strengthened in 1996. At the beginning of the epidemic, injecting drug use was the main driver, about 60-75% of all new reported cases. The prevalence of reported cases among PWID started to decline beginning in 2004, and reached 19.3% in 2014. Similar pattern has been observed in the three cycles of IBBS in which the HIV prevalence among PWID declined from 22.1% in 2009 to 18.9% in 2012 to 16.3% in 2014. Reported use of clean needles and syringes for injection has remained above 90%. Above one third (37.8%) of PWID were tested in the last 12 months and knew the result.

Through the country wide testing programme most of the PWID have come into contact with HIV test somewhere during their life, either in rehabilitation centre, prison, outpatient clinic or MMT service outlet. Results of IBBS indicate that most of PWID in Malaysia stay injecting for median 15 years. There is an increasing trend of young PWID shifting to non-injection drug use or mixed use of multiple drugs.

(b) Men Who Have Sex with Men (MSM)

Based on the last national survey, it has been estimated that the MSM population is about 170,000 (2% of male adult population). In the National HIV surveillance system, MSM are grouped as homosexual/bisexual. The new infections reported among MSM indicate an increasing pattern with significant rise in the last couple of years (figure 10). By the end of December 2014, cumulative of 4,799 MSM have been reported. The increasing trend of HIV infection reported by National Surveillance among MSM is supported by the findings of two IBBS surveys (in 2012 and 2014) that observed an increase of HIV prevalence from 7.1% to 8.9%. This finding is complemented by reducing trend in condom use from 74% in 2012 to 57% in 2014, aggravated by increasing trend of alcohol and narcotics use prior to sex among MSM.

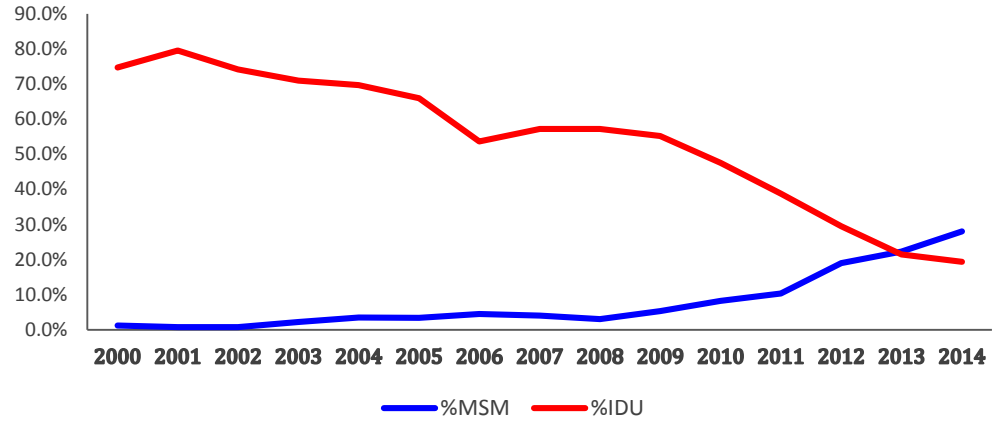
(c) Sex Workers (SW)

It has been estimated in the last consensus dialogue in 2014 that the sex worker population size in Malaysia is about 45,000, out which 21,000 are female sex workers and 24,000 transgender sex workers. Sex workers account for approximately 0.6% of total reported HIV cases, or 658 out of the 105,189 accumulated cases reported by 2014. The number of HIV cases reported among sex workers may be grossly under reported as they may not identify themselves as sex worker. These infections are categorized by risk factor, heterosexual, homosexual or bisexual, in the surveillance system. Preventative behaviour as reflected by condom use with their last client has improved over years. However, with the trend of narcotics and alcohol use prior to sex, proper condom use may be impeded. Sex workers' knowledge on HIV transmission (39%) remains low, needs to be improved, together with focus on alcohol and substance use.

(d) Transgender persons (TG)

The latest consensus dialogue in 2014 estimated the number of TG sex workers at about 24,000. TG are often stigmatized and discriminated by society. The number of HIV infections within this population is not reflected in surveillance system as TG is not identified by the system. However, based on IBBS studies in 2012 and 2014, the HIV prevalence among TG population seems to be on the rise, from 4.8% in 2012 to 5.6% in 2014. Condom use among TG is better (81.2%) than among MSM (56.7%) in 2014. The increasing trend of narcotics and alcohol use prior to sex is a concern.

Figure 9. Proportion of reported cases by mode of transmission – comparison between MSM and PWID, 2000-2014



(e) Young people, women and girls

Young people among key populations, including street children, are vulnerable and at high risk of HIV exposure, they may be subjected to sexual exploitation and trafficking, and face stigma and discrimination. Of the total 105,185 cumulative HIV cases since 1986, some 2,695 (2.6%) have been individuals aged 19 years and below. In 2014, there were 117 cases among young people out of the 3,517 new reported HIV cases. IBBS findings in 2014 indicate that 47.8% of MSM were in the age group 18-24 years, while the majority of the PWID were 25 years or older. It also indicated that condom use of young FSW and TG was lower than that of older FSW and TG.

Young people's awareness on HIV has not improved. The IBBS (2014) revealed that only 40.8% of young people (15-24 years) could correctly identify ways of preventing sexual transmission of HIV and reject major misconceptions about HIV transmission. As of December 2014, about 11,653 women and girls in Malaysia had acquired HIV since 1986.

The profile of the Malaysian HIV epidemic has progressively shifted from predominantly male to an increasing share among females, the proportion of female/male has shifted from the ratio of 1:99 in 1990 to 1:4 in 2013. In 2014, the Ministry of Health recorded 697 new HIV cases and 183 AIDS cases among females, the numbers seem to be stabilizing the past couple of years.

Table 2. Key IBBS findings

Injecting Drug Users	**2009 (n=630)**	**2012 (n=1906)**	**2014 (n=1445)**
HIV prevalence	22.1%	18.9%	16.3%
Tested in the past 12 months and knew results	60.8%	64.5%	37.8%
Duration of risk behaviour (median year)	NA	10	15
Used sterile needle during last injection	83.5%	97.5%	92.8%
Condom use with most recent partner	19 - 58%	26.7%	28.0%
Knowledge on modes of transmission	49.7%	53.8%	58.2%
Received N/S in the past 12 months	NA	77.8%	75.3%
Know where to get HIV test	NA	86.5%	84.2%
Reached with prevention programme[1]	NA	68.9%	64.8%
Female sex workers	**2009 (n=551)**	**2012 (n=864)**	**2014 (n=839)**
HIV prevalence	10.5%	4.2%	7.3%
Tested in the past 12 months and knew results	46.1%	32.8%	49.4%
Duration of risk behaviour (median year)	NA	6	7
Condom use with most recent client	60.9%	83.9%	84.5%
Injecting drugs	5.6%	4.2%	7.2%
Used narcotics before sex	38.5%	20.8%	33.8%
Consumed alcohol before sex	35.9%	31.8%	46.2%
Knowledge on modes of transmission	38.5%	35.4%	39%
Received free condom in the last 12 months	NA	50.3%	57.5%
Reached with prevention programme[2]	NA	44.9%	49.9%
Men who have sex with men (MSM)	**2009 (n=529)**	**2012 (n=365)**	**2014 (n=531)**
HIV prevalence	3.9%	7.1%	8.9%
Tested in the past 12 months and knew results	41%	47.1%	40.9%
Duration of risk behaviour (median year)	NA	7	7
Condom use with most recent partner	55-63%	74.2%	56.7%
Injecting drugs	6%	3.6%	2.8%
Used narcotics before sex	23.8%	14.5%	26.9%
Consumes alcohol before sex	23.2%	33.8%	45.8%
Knowledge on modes of HIV transmission	NA	44.5%	47.8%
Received free condom in the last 12 months	NA	52.9%	39.2%
Reached with intervention programmes[3]	NA	43.8%	30.7%
Transgender persons (TG)	**2009 (n=540)**	**2012 (n=870)**	**2014 (n=1247)**
HIV prevalence	9.3%	4.8%	5.6%
Tested in the past 12 months and knew results	48.6%	35.5%	46.7%
Duration of risk behaviour (median year)	NA	7	11
Sex worker	83.7%	83.8%	86.6%
Condom use with most recent client	67 - 95%	72.5%	81.2%
Injecting drugs	3.1%	2.1%	1.0%
Used narcotics before sex	32.8%	22.0%	24.1%
Consumed alcohol before sex	35.9%	38.1%	39.5%
Knowledge on mode of HIV transmission	37.2%	40.6%	38.1%
Received free condom in the last 12 months	NA	74.4%	74.8%

[1] 'Reached with intervention programme' refers to PWID who received free N/S in the last 12 months and know where to go for HIV test
[2] 'Reached with intervention programme' refers to FSW who received free condom in the last 12 months and know where to go for HIV test
[3] 'Reached with intervention programme' refers to MSM who received free condom in the last 12 months and know where to go for HIV test

2.6 Response to the AIDS epidemic

(a) National Political Commitment

Strong political commitment and leadership at highest levels have been keys to successful response to the epidemic. The government initiated the response to HIV epidemic well before the first case of HIV was reported in 1986. This was marked with formation of National AIDS Task Force in 1985, an inter-sectoral committee chaired by the Director General of Health. The Task Force was responsible for formulating policies, strategies and assumed the role of national HIV/AIDS prevention and control programme coordinator. During the same year, HIV, AIDS and deaths related to HIV/AIDS were included on the list of notifiable diseases under the Prevention and Control of Infectious Diseases Act, which led to increasing notification from screening programmes among high risk populations.

In 1992 the Government established the Inter-Ministerial Committee on HIV/AIDS (CCA) in order to strengthen the National HIV/AIDS response and its coordination. The Committee was assisted by the National HIV/AIDS Technical and Coordinating Committees, which took over the functions of the National Task Force on HIV/AIDS. CCA was entrusted with advising the Cabinet of Ministers on HIV/AIDS prevention, control and management in Malaysia. The CCA was in 2009 replaced by National Coordinating Committee on AIDS Intervention (NCCAI) chaired by the Minister of Health.

Following the restructuring of the Ministry of Health's Public Health Division in 1993, an AIDS/STI Section was created under the Disease Control Division. The Section serves as the secretariat to the Ministerial, Technical and Coordinating committees and coordinates and streamlines the national response supported by the AIDS Officers in every state. Similar mechanism, which coordinate actions carried out by NGOs, is being implemented in every state and district.

Another coordinating body, where also civil society is represented, is the Country Coordinating Mechanism (CCM), a national consensus body with Deputy Minister of Health as Chair. The formation of the CCM was mandated in 2009 by the Cabinet to provide governance for programmes and activities related to the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) in Malaysia.

Mandated by the Government, the leadership in responding to the epidemic continues to be shouldered by the Ministry of Health. Multi-sectoral engagement has improved over the several years. Non-health sectors i.e. Ministry of Women, Family and Community Development (MWFCD), which leads the Task Force on Women, Girls and HIV/AIDS, National Anti-Drug Agency (NADA) which implements HIV programmes in the facilities under its responsibility, Department of Islamic Development (JAKIM), Ministry of Home Affairs, and the Information Ministry now form part of the key stakeholders in the country involved in the national HIV prevention and control programmes. Ministry of Human Resources has developed 'Code of Practice on Prevention and Management of HIV/AIDS at the Workplace' as a guideline to employers and employees in managing issues pertaining to HIV at the workplace.

In the nut shell, all HIV responses in the country were guided by series of strategic plans started with National Plan of Action 1988, reviewed Plan of Action 1998, National Strategic Plan 2006-2010 and the currently running National Strategic Plan 2011-2015.

(b) Involvement of key populations and civil society

The MOH recognizes the pivotal role of civil society in the national efforts to effectively respond to the epidemic. To ensure civil society engagement, the government continues to support the civil society organizations through funding allocated every year for HIV/AIDS response through Malaysian AIDS Council (MAC). MAC functions as an umbrella organization to support and coordinate the efforts of Malaysian NGOs, civil society and community based organizations working on HIV and AIDS response. MAC oversees the implementation of high-impact HIV prevention programmes of NGOs, which aim to provide 80% service coverage for key populations, with 60% of those covered practicing safe behaviour consistently. Since 2003, through MAC, the government has extended its funding to more than 30 NGOs every year, amounting to more than RM 80 million (USD 26.7 million).

Recognizing the varied and vital roles of community health actors in support and promotion of HIV prevention and care amongst key populations, the MOH extended the CCA membership to MAC in December 2008, and consequently the membership in CCAI. Inclusion of MAC in the committee to represent the voice of civil society marked a momentous move in further strengthening the community systems for an effective response to the epidemic. To ensure meaningful social impact mitigation, PLHIV and key populations have been involved in decision making at national level through their participation in NCCAI and CCM. JAKIM has developed the Manual “Islam and HIV” that provides emotional, religious and spiritual support to PLHIV and their families.

(c) Treatment and care

Malaysia has witnessed transformation in treatment and care for PLHIV that benefits both the person and the society. Significant achievements have been accomplished, including the availability and provision of first line ARV treatment at no cost for those eligible, and the availability of ARVs for incarcerated populations, specifically for prisoners living with HIV as well as for inmates in drug rehabilitation centres. Currently, the second line regime is also heavily subsidised by the government. The policy to provide free first line ARV to all PLHIV in 2006 marked an important milestone in the national response to the HIV epidemic, followed by a shift in ART initiation from CD4 200 to 350 cells/μL in 2010. The latest development in prevention of transmission to sexual partners has been extending treatment for sero-discordant couples, introduced in Consensus Guidelines on Antiretroviral Therapy in 2014. Furthermore, availability of PrEP and PEP for key populations at cost is among the latest developments.

Services are provided by an extensive network of public and private facilities, an effective rural health delivery system, specialized care at regional level and successful health promotion and preventive programmes. Accessible through 355 hospitals (141 government and 214 private), 7,832 clinics with doctors (1,031 public and 6,801 private) and 2,075 community clinics run by paramedics (Community Clinics and 1Malaysia Clinics), the Malaysian health services have improved over years with doctor to patient ratio rising to 1:633[4]. Within the dual public-private health service system, the Ministry of Health plays the role of funder, provider and regulator.

[4] Malaysia Heath Facts 2014

The Government continues to support the decentralized approach to health service provision, which includes community-based and primary health services linked to hospital-based care. It provides treatment (ART), voluntary counselling and testing (VCT), psychosocial support, nutritional support and treatment for opportunistic infections. Currently, all government hospitals and health clinics are providing ART either on site or through referral to those facilities that are entitled to provide ART. In addition, every year health staff including Infectious Disease Physicians, Family Medicine Specialists, nurses and medical assistant counsellors are trained and assigned to various hospitals and clinics to assist in HIV testing, treatment and counselling.

Integration of services at primary health care level has been practiced since 1960s. Among the activities that have been integrated into Maternal and Child Health Clinics are screening of syphilis among antenatal mothers, PMTCT, VCT, TB and HIV care. All government health facilities have linked HIV to TB services, PLHIV are referred for TB testing and IPT or TB treatment. Voluntary Counselling and Testing (VCT) is available in all government health facilities integrated with antenatal care, TB and STI services. However, the uptake of VCT by key populations, as observed in IBBS was within the range of 32% to 51% only.

Integrating the management of HIV in Primary Health Care makes HIV services accessible, acceptable and affordable to the whole community, especially to key populations. It is expected to increase the uptake of HIV testing, care and treatment for PLHIV. The services are available in almost all primary health clinics which have Family Medicine Specialist (FMS) in their staff. All these clinics have been equipped with trained health personnel and point of care testing with rapid HIV test and CD4 testing.

There is a need for better treatment education for PLHIV who are initiating or currently on treatment to address the low adherence. To ensure treatment adherence, the government has invested in Treatment Adherence Support Services. Through peer support volunteers, this service provides psychosocial support for key populations to understand importance of consistent treatment, and provides a ‘patient navigator’ to help the new patient to navigate and understand the flow of the hospital services.

(d) Prevention through Harm Reduction

Harm reduction programme was initiated in Malaysia in October 2005 with the Opiate Substitution Therapy (OST), followed by Needle and Syringe Exchange Programme (NSEP) in February 2006. These main components of harm reduction programme remain a cornerstone of the Government’s HIV prevention strategy. OST is currently being implemented in partnership with NGOs, CBOs and private health practitioners. OST is being provided at government facilities under the Ministry of Health as well as in facilities under Ministry of Education. Is also being introduced in the National Anti-Drug Agency (NADA) service centres and in incarcerated settings, specifically in prisons.

Together, these programmes aim at reaching at least 60% out of estimated population of 170,000 PWIDs by 2015. Provision of harm reduction services is available in 728 NSEP sites and 811 OST outlets established in government health facilities, NGO sites, private health facilities, National Anti-Drug Agency (NADA) service outlets and prisons.

NSEP is mainly provided by the NGOs (78%) and in government health clinics (22%). The number of NSEP outreach points run by NGO is 540 while the number of NSEP sites in government clinics is 152. As of 2014, the programme had reached 85,693 PWID with average distribution of 285 needles and syringes per PWID in a year. In the past two years the proportion of clients referred to VCT and MMT from NSEP has been increasing, an average of 21% referred to VCT a year, only 5% of PWID had changed to oral substitution therapy (OST). This programme is planned to be further strengthened to reduce the harm from injecting drugs through shifting to OST.

OST programme is currently provided by government hospitals and clinics (44%), private healthcare practitioners (44%) and has been extended to the National Anti-Drug Agency (NADA) service centres (7%), and prisons (2%); altogether to 838 OST centres throughout the country. The programme has reached 74,816 drug users.

NADA has introduced a new way of managing drug users, changing from compulsory rehabilitation centres to voluntary open access services, Cure and Care Clinics, Cure and Care Service Centres and Caring Community Houses since 2007. OST has also been expanded in prison set up, beginning with 1 prison in 2008 and expanded to 18 by 2014. Methadone is the drug of choice at these facilities. OST at private clinics run by qualified and trained private practitioners uses widely Buprenorphine and Methadone. 160,509 people who inject drugs have been reached by this programme since its implementation.

The Harm Reduction programme has been acknowledged worldwide as the country's success story in reducing new HIV infections. The programme has benefited 160,509 drug users. With the expansion of NSEP programme, drug users have better access to clean needles and syringes, the findings of the latest IBBS 2014 indicated that 97.5% had used clean needles which was way above target set in the NSP 2011-2015 (60%)

(e) Prevention of Sexual Transmission

To address the rise of sexual transmission of HIV, the NGOs through MAC have amplified their work to deliver appropriate sexual and reproductive health services and education to key populations who are vulnerable to sexual transmission of HIV, namely male and female sex workers (SWs), men who have sex with men (MSM) and transgender persons selling sex (TGSW). Sexual transmission intervention coverage has improved through: sexually transmitted infection (STI) prevention services, including education, testing and access to free condoms; information, education and Behaviour Change Communication; community sensitisation and provision of sexual and reproductive health (SRH) education and other essential SRH services; outreach and peer education; encouraging HIV testing through voluntary testing and counselling; counselling and psychosocial support.

The number of NGOs providing outreach services to key populations that include HIV Prevention Packages has increased. IBBS 2014 indicated that up to 65% of the key populations were reached. The IBBS noted a worrying trend of alcohol and substance use prior to sex among FSW, TG and MSM.

The IBBS 2014 revealed that understanding on prevention of HIV through sexual transmission and rejecting major misconceptions about HIV transmission among key affected populations (FSW, TGSW and MSM) was not satisfactory (38% - 58%). Inversely, the pattern of condom use with recent partner has shown an increase to a range of 57% - 87%. Although VCT, SRH and HIV/ STI services were available in all public health facilities, service uptake is low among key populations, ranging in IBBS 2014 from 41% to 49% only.

To intensify decentralization of services, training in post-basic counselling for paramedics has been included as one of 6-months in-service training courses offered by the Ministry of Health and is beginning to show momentum. At the same time, every State Health Department and National Public Health Institute is currently conducting their own short counselling courses to equip the Health Clinics with trained personnel.

(f) Prevention of Mother to Child Transmission

Prevention of mother to child HIV transmission became the country's key programme in 1998 when testing among antenatal mothers was initiated in the whole country. HIV positive mothers were given free antiretroviral therapy, ART prophylaxis was given to HIV-exposed infants and routine PCR test was strictly observed. To further prevent transmission through breast milk, HIV-exposed infants are given free formula feeding. The programme also offers HIV testing and counselling for spouses. Beginning 2011 the government adopted treatment option B+ for HIV infected mothers, and the HIV exposed infants are getting free replacement feeding for extended period of 2 years since 2012.

Moving rapidly towards elimination of mother to child transmission (EMTCT) of HIV and congenital syphilis the high quality programme is available in all government and in some private health facilities. Testing coverage in public facilities improved substantially from 49.7% in 1998 to almost 100% in 2014. In 2014, about 489,993 or 85% of all estimated pregnant women (575,604) had undergone MTCT programme in 1,039 government health facilities. The overall prevalence of HIV among pregnant women in 2014 was 0.06 %. To eliminate vertical transmission MOH has started HIV testing among 'missed-opportunity' mothers—those not tested at ANC services in labour rooms. In 2014, 9651 pregnant women with unknown HIV status were tested in labour room, HIV prevalence at 0.1% (14 cases) among them was much higher than among mothers tested in ANC (0.03%).

349 pregnant women received ART in 2014, including 58 pregnant women detected late in 2013, to prevent mother-to-child transmission. All 349 HIV exposed infants born in 2014 were given ARV prophylaxis resulting in 344 (98.6%) mother-to-child transmission infections averted. With PMTCT intervention, the HIV transmission rate has been reduced to 1.3%, compared to 30-40% had there been no intervention. Testing of male partners of pregnant women at antenatal clinics remains low. In Kedah, Terengganu and Penang where it has been implemented, about 38% of male partners have agreed to be tested, with HIV prevalence at 0.02%.

(g) Stigma and Discrimination

Stigma and discrimination has been gradually reduced but is still experienced by PLHIV. The IBBS findings in 2014, along the lines of the MAAG+ stigma index study of 2013, indicated

that some sixty percent of PLHIV experience self-stigma, and that up to 50% of PLHIV had experienced verbal abuse and up to 20% had experienced harassment, discrimination and even physical violence. Creating and maintaining better understanding of HIV transmission among people living with HIV and among population as well as service providers, to reduce risk taking, stigma and discrimination is essential for ending AIDS. It is important to establish and maintain an enabling public policy and environment to reduce HIV stigma and discrimination, and to respect human dignity.

The involvement of religious leaders, especially Muslim religious leaders has increased over the past years. Advocacy and investment in programming has facilitated mobilization and harnessing the support of Islamic religious leaders in HIV prevention and the provision of care and support. There have been remarkable developments of programmes by JAKIM which involve a number of religious bodies engaging key populations, such as female SW, TG and MSM, through the availability of religious classes and programmes. Building on the successes of the “Islam and HIV/AIDS” project, which was initiated in 2001, Muslim religious leaders have engaged in not only the implementation of HIV awareness programmes but also proactively established care and support facilities which extend from financial and welfare assistance to shelters for Muslim PLHIV. The success of “Islam and HIV/AIDS” programme has also gained recognition in other Muslim countries worldwide.

There are still gaps in delivery of care and support. Partner Organizations under the coordination of Malaysian AIDS Council, which are primarily funded by the government, are addressing the challenge. Treatment and Adherence Support Programme (TAPS)—formerly Hospital Peer Support Programme (HPSP), has been established to improve coordination, linkages and referrals from social, health and community level services. TAPS delivers outreach services to hospital clients who require information and education about antiretroviral treatment and adherence, emotional management and healthy living with HIV. TAPS complements the ART provided by the hospitals, ensuring continuum of care and adherence to ART.

In 2014, 10 Partner Organisations conducted the TAPS in 24 treatment centres, reaching out to 4924 clients living with HIV, their family and friends. This was achieved through support group gatherings and peer support counselling sessions. The programme’s standard operating procedure (SOP) has been drafted by MAC and widely used by the NGOs as guidance to standardize the operations throughout the country.

In 2014, the Partner Organisations operated 16 shelter homes. These shelter homes were mainly funded by the government, the Ministry of Women, Family and Community Development, and complemented through grants from other sources. Services provided by the shelter homes include basic nursing care, palliative care, medical referrals, distress counselling, and psychosocial and spiritual support, and also teaching of life skills. In 2014, 625 residents of the shelter homes, 355 of whom were PLHIV, 254 of these on ART, were served by the shelter homes.

Ministry of Women, Family and Community Development (MWFCD) has established 1Azam and eKasih Programme that has successfully raised living standards of low income households of more than 40,000 ‘extremely poor’ families by 2012.

(h) Availability of quality strategic information

In line with the Three Ones Principle, implementation of the National Strategic Plan is monitored and evaluated through the national HIV monitoring and evaluation framework, coordinated by the National AIDS Programme Secretariat, the HIV/STI sector of the MOH, which has been given the responsibility to monitor and evaluate the implementation of the national HIV and AIDS response. The NAP Secretariat is also empowered to ensure that all relevant stakeholders report to the Secretariat on specific indicators and that the results and achievements of targets are monitored and evaluated periodically.

Poor availability and quality of strategic information and its use by policy makers and programme planners through monitoring, evaluation and research has been recognized as a serious gap. Over time, the quality of the case reporting has improved with the use of electronic and web-based National AIDS Registry (NAR). With the establishment of national Monitoring and Evaluation (M&E) unit in the HIV/STI Sector of Ministry of Health, HIV programme monitoring is more systematic and comprehensive. This includes monitoring of programmes from private sector and NGOs through MAC supervision, and reporting on regular basis.

The analysis and use of M&E data has ensured support from CCA and CCAI in scaling up interventions. Progress has been made in understanding the HIV epidemic and key populations' vulnerability to HIV and STI infection and the need for specific essential services. Over 25 years a number of surveillance activities have been in place, including: a) Manual case notification, b) Electronic National AIDS Registry, and c) Behavioural Surveillance, including now the biological component (HIV test) complementing the surveillance system.

(i) Critical enablers

Implementing the National Strategic Plan requires extensive multi-sectoral collaboration between the government and non-governmental organizations, and engagement of key populations, including people living with HIV. Other sectors than health sector, including law enforcement, prison services, education sector, social services are engaged providing the support to the National AIDS response. Health system and civil society work increasingly closely together and coordinate their activities. Health facilities and community based organizations need to have sufficient capacity to provide integrated and quality treatment and prevention services, to reach the key populations, and to ensure continuum of care and services at the community level. Led by the government the services which integrate HIV with other health and social services are being expanded and decentralized throughout the country through education and training programmes, and assigning qualified staff to primary service level.

Financing of the NSP is almost totally provided by the government, including financing of the civil society organizations through MAC. These organizations need appropriate support and training in management and accountability to qualify for funding. With the expected rapid expansion of the national response the sustainability of funding is crucial, with front loading the expenditure during the fast tracking period and keeping in mind the expected large savings in not too distant future from "Ending AIDS", as projected by AEM.

Quality information, collected, analysed and shared between partners is a prerequisite for efficient implementation of AIDS response. The MOH M&E unit has been strengthened and will play the central role in monitoring and providing evidence for programme planning and adjustments as required. Regular surveys and ongoing surveillance provide detailed information on progress towards targets, reviews and evaluations conducted will guide the NSP implementation.

Above all, strong political support, appropriate policy in place and active well-coordinated participation of key players are backbone to the successful HIV response in Malaysia.

2.7 Challenges and lessons to learn

The NSP 2011-2015 Mid Term Review, conducted halfway through the implementation of the NSP 2011-2015 implementation, assessed gaps and challenges, and made proposals to improve the HIV/AIDS response and identify next steps to reach the targets. Acknowledging the considerable successes in the implementation of the national strategies the MTR also identified challenges to be addressed:

a) The gap in accurate knowledge in the young general population and key populations about HIV and AIDS is concerning, especially the gap in knowing the risks of transmission and what they need to do to protect themselves and others.

b) Plans for scaling up testing and treatment will need adequately trained human resources, appropriate infrastructure and consistent budget allocation for ARV within the health sector as well as within the community.

c) There is challenge to get PWIDs to change from injecting and adhere to OST. This will impact on achieving targets to introduce the eligible people on treatment.

d) To reduce sexual transmission of HIV significantly, a special Task Force needs to look for innovative ways that can have high impact on behaviour change and improve coverage of comprehensive prevention packages for most at risk populations.

e) To improve coverage and integration of VCT, PMTCT, ART, TB and SRH services at all levels of the system, including in primary health care facilities, is a challenge. More investment in health system strengthening is needed, particularly at primary health care level, to make it happen (staffing, training, infrastructure, accreditation etc.)

f) There is still a large gap in TB/HIV care, notably in early TB screening and awareness, leading to late TB diagnosis among PLHIV and resulting in high mortality due to TB.

g) Moving towards eliminating MTCT of HIV Malaysia has been implementing high quality PMTCT since 1998, but its implementation has been limited to government health facilities.

h) NGOs' and multi-sectoral agencies' engagement in combating HIV and AIDS needs to be re-energized with new smart partnerships focusing on improving coverage of HIV related services for key populations, including post-release detainees, and expanding the role of community support groups.

i) Stigma and discrimination are still experienced in various forms, including among health staff and population. There is a need to intensify efforts to reduce stigma and discrimination, and to establish outcome indicators that allow programmes to measure progress on stigma and discrimination reduction in the workplace and in the community, as well as to tackle gender based violence and its impact on women's and children's health. A clear operational plan with targets involving all stakeholders needs to be developed, implemented and reported on.

j) A policy and implementation plan on male circumcision is needed for non-Muslims.

k) The main challenges related to M&E, Research and Surveillance are:
   i) Lack of unifying plan for monitoring the National Strategic Plan
   ii) Some of the indicators are not measurable and with no clear definitions.
   iii) HIV/AIDS research has tended to be dominated by research on bio-medical issues, with little effort going into the socio-cultural drivers and responses to the HIV epidemic.
   iv) Size estimates for key populations have been outdated, especially for PWID and MSM populations.

The consultation process leading to NSPEA development after the MTR largely agreed to the MTR identified challenges, and pointed out some more specific challenges, to be addressed in the NSPEA:

a) The delays in initiating the PWID on ART after the initial HIV detection if PWID still inject
b) Decentralization of rapid testing and intensified follow up of treatment and case management
c) Low adherence to ART in the absence of smooth CBO-health service linkage
d) Insufficient attention to female PWID specific needs, including SRH
e) Recognizing that TGSW need more attention
f) More attention to expand MSM prevention activities
g) Insufficient attention to HIV prevention for young persons in education sector
h) PrEP and PEP promotion and use
i) Adjusting the ART eligibility criteria, and
j) Capacity building to improve NGO/CBO general management and financial management

2.4. Projections of HIV epidemic in Malaysia

AEM modelling was used to estimate the projected development of HIV epidemic for the post 2015 period, based on information on programme coverage in 2013 (Figure 10). The model projected the epidemic's development if the "business as usual" approach was adopted, resulting its stagnation with no end of the epidemic in sight.

AEM modelling then designed five scenarios (details in annex 2) for intensified response aiming to achieve elimination of HIV and AIDS. Comparing all options, 'Ending AIDS' will reach 90% reduction of new HIV cases, to less than 800 new HIV cases a year in 2021, eventually leading to ending AIDS, while the other scenarios would drive the country further away from ending AIDS, even after 2050 (Figure 11).

Figure 10. Estimated and projected number of cases by Mode of Transmission, Malaysia 1986 – 2030

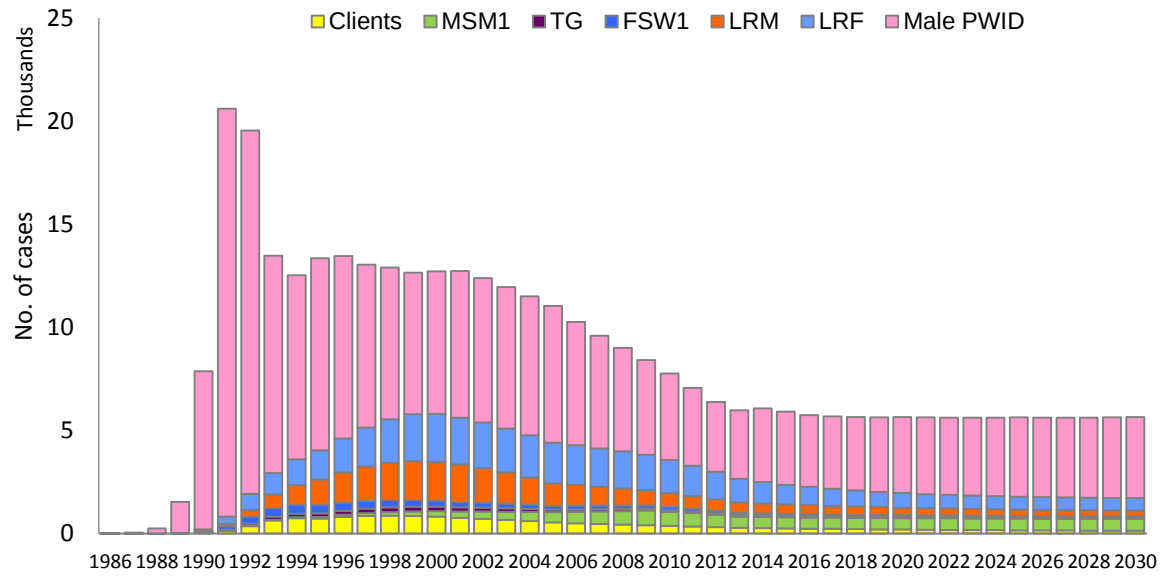
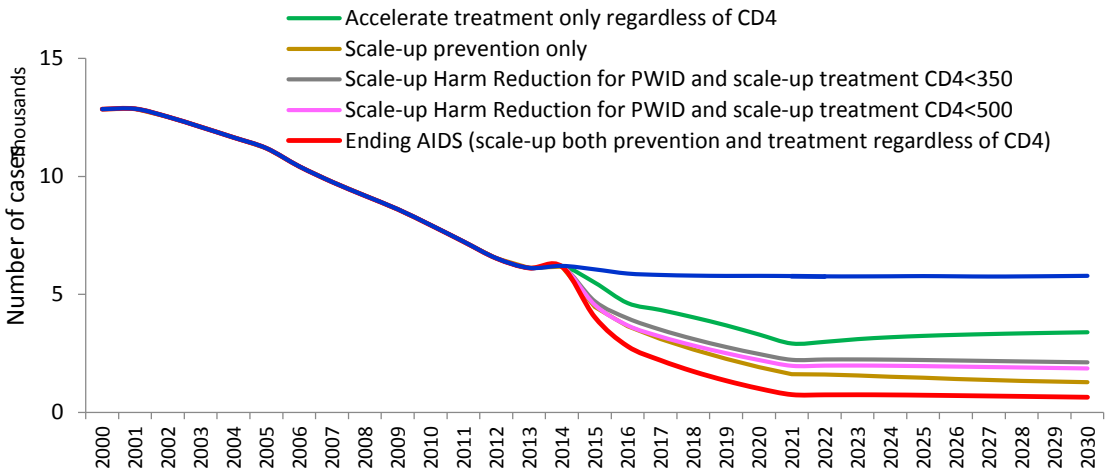


Figure 11. Scenarios for New HIV Infections for adults, Malaysia 2000-2030



CHAPTER 3: NATIONAL STRATEGIC PLAN FOR ENDING AIDS 2016-2030

3.1 Guiding Principles for National Response

Malaysia's national response to HIV and AIDS is guided by following principles:

a) The spread of HIV is a challenge to the national development of Malaysia and a concern to be addressed under the Malaysian Development Plans.

b) HIV and AIDS response is based on evidence, it prioritises interventions among key and vulnerable populations.

c) HIV and AIDS response focuses on promoting healthy practices and prevention, as well as on treatment, care and support for People Living with HIV and affected by HIV and AIDS.

d) The comprehensive response to HIV and AIDS takes into consideration cultural, religious and societal values.

e) Government, civil society and private sector stakeholders work together in multi-sectoral partnerships to respond to the spread of HIV. All stakeholders work together to create a possible, comprehensive and effective intervention in fighting against HIV and AIDS.

f) Working in consultation and collaboration with relevant stakeholders, the Government provides policy direction, HIV treatment for those in need, and financial resources in support of the response.

g) Civil society, including non-governmental organisations, community groups, People Living with HIV and those affected by HIV and AIDS, complements the Government in the prevention of HIV, as well as in treatment, care and support for those living with HIV and for those affected.

h) Active and meaningful participation of key populations, including communities, People Living with HIV and people affected, is integral to development, implementation, monitoring and evaluation of all interventions.

3.2 Priorities for 'Ending AIDS'

To maximize the impact of the response, the country will invest adequately and strategically, prioritising where, for which people and what to invest in to generate best returns. The priorities are based on what has been identified to work in local context. The AEM modelling has provided the projections for the epidemic development and the estimated resource requirements for Ending AIDS.

(a) Priority 1. Testing and treatment.

There is overwhelming evidence that early antiretroviral treatment keeps people living with HIV healthy and reduces the social and economic costs of advanced HIV-related illness, care of orphaned children and lost productivity. Effective treatment averts death and also prevents transmission of HIV. The experience indicates that for every 10% increase in the number of PLHIV getting treatment, the population-level HIV transmission rate drops by 1%.

Malaysia commits to "Ending AIDS" by 2030 through achieving the 95-95-95 target: 95% of key populations tested for HIV and knowing their results, 95% of people diagnosed with HIV placed on ARV treatment, and 95% of people on ART achieving HIV suppression, an undetectable viral load. The commitment includes reaching 90% of the key populations with effective prevention.

Malaysia commits to Fast Tracking the response during 2016-2020 to achieve 90-90-90 of the above treatment targets, as well as the 80% prevention target by 2020. The current low coverage and delayed HIV testing and counselling among key populations is a major challenge to achieving an early initiation of treatment, and achieving an undetectable viral load requires strict adherence to treatment.

A technical working group will study the options for intensifying testing and treatment. These include scaling up testing, making rapid point-of-care testing accessible in community, performed by health and paramedical professionals working at all health facilities country wide and through community-based screening, through acceptable testing approaches that minimize turn-around time for result confirmation and ART initiation.

The working group will also study options to gradually expand initiation of ART immediately after HIV detection irrespective of CD4 count, as recommended by WHO, and to provide adequate peer and outreach support and case management to ensure adherence to treatment, recognizing that treatment resulting in suppressed viral load will also be an effective means of preventing HIV transmission.

To reach the target of 90-90-90 by 2020, assuming that the eligibility for ART is extended to all PLHIV irrespective of CD4 count by 2020, will require intensified testing and increasing the number of PLHIV on ART four fold during the five-year period, from 21,654 PLHIV in 2014, to cover 90% of the estimated 88,093 PLHIV and newly infected, less those deceased, during the five-year period. The intensified testing and increased numbers of PLHIV on ART, and the intensified case management to ensure 90% adherence to ART, will require additional resources and capacity building both in the health and in the community level services.

(b) Priority 2. Harm Reduction.

Injecting drug use remains a key driving factor for the country's epidemic. In an effort to control the transmission of HIV among PWID and their intimate sexual partners, Malaysia is implementing the Harm Reduction Programme through provision of clean needles and syringes (NSP) and Methadone Maintenance Therapy (MMT), combined with prevention of sexual transmission among PWID. The programme has been the cornerstone in government's

response to HIV since 2006. The prevalence of HIV among PWID has been steadily declining over the years. The Task Force for Harm Reduction will study the implications of the trend of particularly younger PWID to shift from injecting drug use to oral, and to multi-drug use.

Over 81% of estimated 170,000 PWID population have been enrolled in the programme. However, the proportion of PWID living with HIV initiated on ART is still low. Social support and adherence to treatment are among crucial factors in initiating and providing ART. Experience indicates that peer support group is essential to improve the adherence. However, the majority of PWID who are still injecting have been observed not to be able to adhere to the treatment, thus provision of ART to these PWID may prove difficult. Persuading them to change to MMT is one alternative to improve treatment coverage.

(c) Priority 3. Sexual Transmission

A Task Force will be established to review the increasing trends of sexual transmission and to develop effective messages and methods for HIV prevention in the changing sexual transmission scenarios. To fast track and eventually end AIDS, the prevention programmes need to be scaled up to cover at least 80% of key populations. The increasing trend of HIV transmission through unprotected sexual intercourse, which is still largely confined in the key populations and their intimate sexual partners, will have to be reversed. While there is a need to continue the ongoing efforts to map and identify the high risk locations and to intensify the preventive efforts in those, there is a need to develop innovative and effective ways to address sexual transmission in the increasing sex trade through mobile phones and social media. This will include consideration of the newly available PrEP and PEP tools for prevention in specific key populations and situations.

(d) Priority 4. Stigma and discrimination

Stigma and discrimination faced by key populations and PLHIV are still experiencing will be addressed in multi-sectoral collaboration, including civil society, and law enforcement authorities. It will be included as a cross-cutting issue in all prevention programmes, and will include provision of adequate social and legal protection. It is important to establish and maintain an enabling public policy and enabling environment which will help to reduce HIV stigma and discrimination, respect human dignity, gender and sexuality and is supportive to HIV programmes and interventions.

Stigma is still experienced by key populations in various forms, including in health and social contexts. The IBBS study of 2014 indicated that up to sixty percent of PLHIV experience self-stigma, and that up to fifty percent had experienced verbal harassment and twenty percent had experienced harassment, discrimination and even violence. Creating and maintaining a better understanding of HIV to reduce risk taking as well as stigma and discrimination are essential for ending AIDS.

3.3 Framework for National Strategic Plan for Ending AIDS

3.3.1 National Strategic Plan

The government and key stakeholders have agreed that the new National Strategic Plan on HIV and AIDS will sustain and upscale the achievements and commitments achieved under the previous National Strategic Plans, to address concerns and identified gaps, as well as to respond more effectively to the needs of the stakeholders, especially those of civil society and key populations. The National Strategic Plan for 2016-2030 aims at Ending AIDS, and includes the first 5-year Fast Tracking period of 2016-2020 to reach the intermediate targets established in accordance with the endorsed global and regional agreements and commitments, followed by consequent 5-year periods. Evaluations of each 5-year period plan implementation, and the mid-term reviews during these periods, will be conducted and plans adjusted as necessary.

3.3.2 Leadership and Partnerships

Given the mandate by the Government under the NSPEA, the leadership in responding to the epidemic continues to be shouldered by the Ministry of Health. The engagement from non-health sectors, NGOs, civil society, private sector, bilateral and international agencies will be strengthened.

The Government has always acknowledged the role of civil society in fighting against HIV/AIDS and this undivided support has been translated into annual funding channelled to Malaysia AIDS Council (MAC) for implementation of HIV/AIDS programmes in line with national strategies. NSPEA 2016-2030 acknowledges the increasing role that NGOs continue to play in HIV response, especially in addressing the needs of key populations. The Government-NGO co-operation will be based on good partnership and will cover all issues of national concern, including periodic and systematic evaluation of roles, performance and impact.

3.3.3 Testing and Treatment

In realizing ‘Three Zeros’ Malaysia has been providing all ART (including first, second and third line) almost free to PLHIV. Implementing HIV testing in outreach and community settings will be expanded to ensure services for key populations. CBOs implementing rapid point-of-care testing services in non-clinical settings are able to reach a large number of people at high risk for HIV transmission. CBOs will assist in HIV screening; they will be trained and accredited to provide HIV screening and counselling as well as extend their support to PLHIV. These services will be linked with the health facilities, to provide adequate quality of testing, treatment, care and support, to ensure continuum of care and adherence to treatment, including training and capacity building of health professionals and lay service providers.

3.3.4 HIV prevention among key populations

(a) Harm Reduction

Harm Reduction programme will be intensified to ensure the encouraging decline of the prevalence of HIV among PWID living with HIV will continue. PWID population size will be re-estimated and its geographical distribution mapped, and programme implementation adjusted to the priority locations. The Task Force for Harm Reduction will review the policy of providing ART to PWID still injecting along the lines of international recommendations in Malaysian context.

(b) Sexual Transmission

The increasing trend of HIV sexual transmission will be addressed. Mapping of the geographic and local hotspots for HIV transmission will be conducted. A National Task Force on Mitigation of HIV through Sexual Transmission will look into innovative and effective ways to mitigate sexual transmission and recommend ways of intensifying the existing effective sexual transmission prevention programmes and explore innovative ways of addressing the changing sexual transmission scenarios, particularly the increasing use of mobile phones and communication through social media for sex trade.

(c) Eliminating Mother to Child Transmission

Malaysia is on the verge to eliminate mother to child transmission with almost 100% coverage of option B+ in government health facilities. The service will be rapidly expanded to private health facilities, including adequate training and accreditation of the facilities and service providers.

(d) Young people

The multi-partner National Task Force on HIV and AIDS for the most-at-risk young people will be dedicated to prevention of HIV and to care of young persons living with HIV and AIDS. The Task Force will provide the platform for networking, sharing information as well as for planning, executing and evaluating promotive, preventive, curative and rehabilitative HIV/AIDS programmes for young people. These will ensure prevention and reduction of HIV transmission risk among the most at risk young people, improve the quality of life of people living with HIV, and reduce the social and economic impact resulting from HIV and AIDS on the individual, family and society.

(e) Stigma and discrimination

Key populations continue to experience stigma and discrimination. Self-stigma is common among PLHIV, and requires intensification of psycho-social support. This issue will be discussed at appropriate forums and will be incorporated as cross cutting issue to all key population programmes, as well as in the IBBS monitoring.

3.3.5 Strategic information

(a) National AIDS and Treatment Registries (NAR and NTR)

In view of the gaps in the HIV treatment cascade from HIV testing and detection to treatment and adherence, as well as the gaps in care and support, measures are being taken to improve the availability of information for monitoring the situation and progress in the implementation of strategies and action plans. These include the combined use of National AIDS Registry (NAR), which was launched in 2010, and registration of the PLHIV who are on treatment (National Treatment Registry, NTR). NAR is a real time web-based registration of all notified PLHIVs while NTR is operating as stand-alone registration to be incorporated into NAR.

(b) Critical enablers:

In order to reach the goal of ending AIDS by 2030 and of fast tracking by 2020, the critical enablers include: Strengthening health and community services to ensure service capacity for expanded case load from fast tracking, intensifying support to NGOs/CBOs to build up capacity for community level services, and promoting integrated health service-community continuum of care and services. Sustainable domestic financing will be secured for fast tracking and ending aids, including establishment of adequate accountability and auditing mechanisms. Quality information will be provided, including synchronizing information from multiple information sources.

3.4 National Strategies

3.4.1 Strategy 1 - Testing and treatment to End AIDS

The Government continues to support the decentralised approach to health services which includes community-based and primary health care linked to hospital-based care. It provides also psychosocial support, nutritional support and treatment for common opportunistic infections. Malaysia already provides and is committed to affordable and universal access to care through the public health system, including free or subsidized access to ART.

Testing and counselling will be intensified through community-based rapid testing, performed with support by paramedical staff attached to primary health care facilities. Test and treat immediately after testing HIV positive will be gradually introduced and guidance and training provided for all staff in the fast tracking of testing and treatment to reach 90-90-90 by 2020, and in eventually ending AIDS.

The access to testing and treatment of People Living with HIV (PLHIV) in closed settings and of those living outside the major cities is of concern, and their access will be ensured under existing programmes. Stronger linkages and referral systems, as well as integration of HIV in related services, such as VCT, tuberculosis (TB), opportunistic infections (OIs), PMTCT, SRH, Hepatitis B and C testing, as well as in OST and NSEP will be instituted. The quality and sustainability of treatment, care and support services for PLHIV will be ensured. Positive prevention will also be promoted among people living with HIV.

Fast tracking in 2016-2020:

a) Intensify testing and treatment, decentralize testing and treatment to accredited primary health centres and introduce community based point-of-care rapid testing and case management with support by professional staff to perform testing, link peripheral services to integrated services in health system.

b) Improve coverage and early access to quality HIV testing, care and treatment, sexual and reproductive health and STI services for key populations and their partners. Ensure access to testing and ARVs as well as to commodities at affordable prices.

c) Improve continuum of care and adherence to treatment and detection of treatment failure through intensified case management by trained lay service providers and peer educators.

d) Expand routine PICT for pregnant women, TB and STI patients and strengthen linkages from prevention to integrated SHR, TB, STI and other services.

e) Adopt single first line treatment and standardize treatment procedures

f) Scale up HIV testing, care and treatment with ARVs, hepatitis and TB screening and treatment for drug users in prisons and other detention centres, ensure continuum of treatment and care after their release.

g) Improve TB/HIV detection, including by expanding Gen-expert technology, ensure early treatment of all TB/HIV patients, as well as IPT for newly detected PLHIV, improve case management at community level by training and authorizing peer and outreach workers to perform additional duties

h) Improve availability of strategic information through monitoring, surveillance and surveys, and the analysis and use of the information

3.4.2 Strategy 2 - Improving the quality and coverage of prevention programmes among key populations

HIV prevention in 2016 – 2030 will focus on addressing the primary drivers of HIV transmission in Malaysia, injecting drug use and sexual transmission, through intensifying the Harm Reduction programme, including NSP and MMT for people injecting drugs, and preventing sexual transmission amongst key and vulnerable populations, intensifying advocacy amongst young people, and achieving early elimination of mother to child transmission. It is recognized that effective ART will also constitute prevention by drastically reducing sexual transmission to intimate partners of PLHIV whose viral load is suppressed. The fast tracking activities for 2016-2020, summarized below each strategy, are priority activities which will provide the basis for Ending AIDS by 2030.

(i) Prevention of HIV transmission through injecting drug use

The primary mode of transmission in Malaysia continues to be through injecting drug use. Sustaining and scaling up of the existing comprehensive prevention interventions which consist the harm reduction programme, needle and syringe exchange and methadone maintenance therapy, remains a priority and will be further intensified.

Fast tracking 2016-2020:

a) Build an enabling environment for HIV prevention amongst people injecting drugs and their partners by mobilizing key stakeholders, including health offices at district level, the care providers, community networks and peer support groups, NGOs, local authorities, and law enforcement, through local coordination councils, strengthen and regularize the State and National Task Force on HR.

b) Develop innovative strategies to address challenges in the delivery of HIV treatment for people who inject drugs, map the high risk locations, provide access to friendly services, including during extended service hours, improve linkages between community and health services by locating CBO in health facilities and assigning paramedical staff to support community services, review and amend SOP.

c) Establish treatment adherence peer support system to ensure adherence to treatment, train and accredit the CBOs and outreach workers in case management and continuum of care to ensure adherence.

d) Intensify and scale up HIV prevention for PWID and their partners and spouses, including referrals to needle and syringe exchange programmes and opioid substitution therapy. Review the practices for initiating ART for PWID who are still injecting drugs and initiate early treatment as appropriate in country context.

e) Intensify targeted behaviour change initiatives for male and female PWID, emphasize risk reduction and promote safer sexual behaviours. Develop innovative approaches to attract women who use drugs or are partners of people who use drugs to address sexual transmission and sexual health.

f) Review and revise as appropriate the package of services offered to programme beneficiaries, to include sexual and reproductive health services, opioid substitution therapy, community-based TB and hepatitis screening.

g) Strengthen management of HIV prevention among drug users in prisons, in other detention facilities and drug rehabilitation centres, provide access to MMT and TB/HIV services. Establish training and advocacy for police and other uniformed services, develop training curricula.

(ii) Prevention of sexual transmission

Strengthening of prevention of sexual transmission will include advocacy and support activities which apply for all key populations, female sex workers, MSM and TG, as

well as interventions specific for each of these populations. In view of the increasing trend of sexual transmission there is a need to establish a Task Force for prevention of sexual transmission, to develop innovative strategies for prevention of HIV transmission in the increasingly mobile phone and social media use for sex trade, to strengthen existing programmes for prevention of sexual transmission in key locations, to improve coverage and quality of interventions. Introduce case management approach to ensure adherence to treatment and continuum of services linking health and community level services, including accompanied referrals, peer groups.

Fast tracking 2016-2020:

a) Review existing strategies including awareness programmes and activities to encourage and facilitate behavioural change among key populations. Build an enabling environment for behavioural change through economic, welfare and religious aid.

b) Raise awareness and build knowledge and awareness on HIV and other diseases (TB and STIs), among key populations and youth and their spouses and sexual partners. Support and promote the use of condoms and lubricants among key populations and their partners or clients.

c) Improve and strengthen client-friendly VCT, STI and SRH services to all key populations, including counselling. Develop and scale up services on sexual and reproductive health, counselling and treatment related to STIs, HIV and AIDS to ensure universal access to services.

d) Expand and scale up HIV prevention programming incorporating a comprehensive package of services for men who have sex with men (MSM) and transgender persons (TG).

e) Study the feasibility and expand introduction of PrEP and PEP for prevention of sexual transmission.

(iii) Elimination of Mother to Child Transmission

Prevention of Mother to Child Transmission (PMTCT) Programme was piloted in 1997 and implemented countrywide in 1998. Malaysia is on the verge of eliminating the mother to child transmission of HIV. Building on the successful PMTCT programme, option B+ which was started in 2012 in government health facilities Malaysia aims at early elimination of mother to child transmission expanding the services to private health facilities and general practice. The programme engages also spouses in the programme. EMTCT will be introduced in accredited private health facilities linking with existing SRH programmes.

Fast tracking 2016-2020:

a) Maintain the provision of quality, comprehensive national PMTCT services, in line with the WHO recommended four pronged strategies, to reach pregnant women, their partners and their infants, including key populations.

b) Strengthen community awareness of HIV to increase enrolment in the PMTCT programme and other related antenatal, family planning, sexual and reproductive

health, voluntary confidential counselling and testing services, particularly among key populations.

c) Ensure the availability of PMTCT in all ANC facilities, including in private health care facilities, so that all HIV-infected pregnant women and their HIV-exposed infants receive ARV treatment, prophylaxis and breastfeeding education and supplies.

(iv) Young key population

Adolescents and young adults are at increased risk for HIV exposure and transmission due to the many developmental, psychological, social, and structural transitions that converge in this period of the lifespan. Young key populations (YKPs) also bear disproportionate burdens of HIV and are the most vulnerable, including young MSM, transgender youth, young PWID, and adolescent and young adult sex workers. It is therefore critical to stop new HIV infections and untimely HIV-related deaths through both primary and secondary prevention and better management approaches. Using an interwoven prevention and treatment cascade approach, the starting point for all interventions must be HIV counselling and testing. Subsequent interventions for both HIV-negative and HIV-positive youth must be "adolescent-centred," occur within the socio-ecological context of young people and take advantage of the innovations and technologies that youth have easily incorporated into their daily lives. In order to achieve the global goals of zero infections, zero discrimination and zero deaths, a sustained focus on HIV research, policy and advocacy for YKPs must occur.

Fast tracking 2016-2020:

a) Enhance delivery of curriculum and co-curriculum related to HIV education & awareness in school and higher learning institutions.

b) Strengthen awareness programme using interactive and multimedia to reach out adolescent and young people.

c) Facilitate and support existing programme for young people with drug use behaviour in school and higher learning institutions.

d) Increase uptake of HIV testing among YKPs.

e) Improve treatment adherence among adolescent living with HIV (ALHIV) and Young PLHIV with support group

3.4.3 Strategy 3 - Reduction of Stigma and Discrimination

Ending AIDS requires addressing the still experienced stigma and discrimination by PLHIV through increasing their access to and availability of care and support programmes, addressing their physical, mental, social, spiritual, religious and economic needs, and providing social and legal protection. These will be addressed as cross-cutting issues in each of the priority strategies.

Fast tracking 2016-2020:

a) The required multi-sectoral collaboration and coordination, including with civil society and private sector, will be strengthened, including establishment of technical cooperation and regular information exchange and sharing.

b) Ministry of Health will lead consultations with relevant government entities and civil society, including engagement of private sector, on mainstreaming programmes to address stigma and discrimination and to ensure social protection.

3.4.4 Strategy 4 - Ensuring quality strategic information and its use by policy makers and planners through monitoring, evaluation and research.

Implementation of the National Strategic Plan for Ending AIDS will be structured and managed to facilitate the participation and involvement of relevant stakeholders from government, civil society, the private sector and development partners, and to ensure sharing of the results from the interventions. Strong governance and coordination of the National AIDS Programme by Ministry of Health will ensure harmonisation and alignment of all stakeholders involved in AIDS response.

The overarching principle in management of the National Strategic Plan is the Three Ones Principle of one national multi-sectoral strategy, one national coordination platform with a multi-sectoral mandate and one monitoring and evaluation framework. There is a continuous need to improve the availability and quality of research, surveillance and bio-behavioural data, and analysis of monitoring and evaluation of HIV response, to guide, adjust and determine the policy and programme directions for prevention, treatment, care and support.

Fast tracking 2016-2020:

a) Develop and strengthen partnerships to plan, coordinate and manage the national monitoring and evaluation, research and surveillance systems.

b) Produce and disseminate timely and high quality data from research, integrated biological behavioural surveillance (IBBS), population size estimations and other studies.

c) Promote the production, dissemination and effective use of strategic information to inform and guide programme and policy decision making.

d) Consolidate and streamline mechanism for data collection from both private and public health facilities for future planning.

e) Strengthen the capacity of the MOH M&E unit for effective coordination of all stakeholders, and to analyse and share the information with all partners, and to prepare reports for programme planning and reporting, including to international fora.

CHAPTER 4: LEADERSHIP, COORDINATION AND IMPLEMENTATION

4.1 Leadership

a) National Coordinating Committee on AIDS Intervention

Leadership of HIV policy and decision making rests with the restructured Cabinet Committee on AIDS now acting as the National Coordinating Committee on AIDS Intervention (NCCAI) chaired by the Minister of Health. The NCCAI functions as the highest decision-making body on HIV and AIDS related policies. Its membership includes all the Secretaries General of the relevant ministries and agencies as well as civil society representatives, including the Malaysian AIDS Council.

b) National Advisory and Technical Committee on AIDS

The National Advisory and Technical Committee on AIDS (NATCA), is a merger of two bodies in the previous framework, namely the National Advisory Committee on AIDS and the Technical Committee on AIDS. This committee, which is chaired by the Director General of Health, acts as a high level advisory body to the NCCAI. It provides a forum for discussion of policy issues relevant to increasing the success of Malaysia's response to the HIV epidemic as well as to review progress against the annual work plans and budgets. The membership of the NATCA is made up of key Ministry officials, subject matter experts, NGO and community representatives and the Director Generals and HIV Focal Points of the Ministries. It meets and reports to the NCCAI.

4.2 Coordination

a) National AIDS Programme Secretariat

The responsibility for the overall coordination of Malaysia's HIV and AIDS response is currently tasked to the AIDS/STI Sector of the Disease Control Division, Ministry of Health. The AIDS/STI Sector of the MOH is currently functioning as the National AIDS Programme (NAP) Secretariat. The Secretariat interacts and engages the other institutions within the Federal Government and the civil society through HIV Focal Points who are present in each of the relevant Ministries.

The NAP Secretariat will be strengthened with sufficient resources and capacity to the implementation of the National Strategy on HIV and AIDS 2016–2030. It will be responsible for overall coordination, monitoring, evaluation and reporting. This secretariat will continue to strengthen and maintain linkages with state and district authorities through the respective State AIDS Officers, build capacity of ministerial AIDS focal points and facilitate information sharing among the different national level committees.

The work of the National AIDS Programme Secretariat is supported by the State AIDS Officers whose tasks are to plan, coordinate, implement and evaluate HIV interventions. The AIDS Officers and the NAP Secretariat are also instrumental and critical in ensuring that HIV prevention, care and support programmes carried out by NGOs, who are recipients of public funds, are harmonised and in line with the identified priorities under the National Strategy on HIV and AIDS.

b) Country Coordinating Mechanism (CCM)

The Country Coordinating Mechanism, chaired by the Honourable Deputy Minister of Health, provides governance for all programmes and activities related to the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) in Malaysia. CCM operates concurrently and complements the work of the NATCA.

c) Malaysian AIDS Council

The Malaysian AIDS Council (MAC) was established in 1992 by the Ministry of Health as an umbrella organisation to support and coordinate the efforts of partner organisations working on HIV and AIDS issues in Malaysia. In partnership with government agencies, private sector and international organisations, MAC works towards ensuring a committed and effective response by NGOs to HIV and AIDS response. MAC facilitates the collaboration with civil society organisations in the implementation of the National Strategy on HIV and AIDS. Most of the public funds for use by non-governmental organisations working on HIV and AIDS projects are channelled through MAC.

d) UN Theme Group on HIV

The UNTG composed of the UN agencies in Malaysia, provides coordinated support to the national authorities and civil society partners.

4.3 Implementing the National Strategic Plan

National Plans of Action

The action plans, developed based on evidence driven national priorities, guide the implementation of the NSPEA 2016-2030. These broad action plans aim to define the priority action areas, which will then be translated into actionable and costed annual work plans. The overall AEM costing, which is based on more detailed cost calculations, serves as the framework for the action plans. Resources needed to realize the fast tracking action plans amount to USD 429.1 million for 2015- 2021.

The first action plans, developed through national consultations, have been designed for fast tracking of the response 2016-2020, to reach the 90-90-90 targets, testing 90% of all key populations, enrolling 90% of the detected HIV positive cases on ART, and ensuring that 90% of these will achieve viral load suppression (90-90-90) by 2020, as well as to achieve 80%

coverage of the key populations with prevention programmes. These action plans will guide the activities and the decision making in resource allocations (Annex 4).

After evaluation of the programme achievements towards the end of the fast tracking period 2020, the action plans for the remaining NSPEA up to 2030 will be adjusted as necessary to reach the goal of “Ending AIDS”, to achieve 95%-95%-95% coverage of testing and treatment, and 90% prevention coverage of key populations. There will be another evaluation after five years of implementation, towards the end of 2025, with necessary adjustments for the remaining 2025-2030 period, and the final evaluation in 2030.

The broad action plans will be complemented by annual work plans which will be clear, action and results oriented and targeted, to translate strategic priorities and the broad action plans to operational realities. The adjustments to the action plans and the development of the annual work plans will be guided by the periodic reviews of the NSPEA, including mid-term reviews of the fast tracking period and of each consequent five-year period.

Given its role in monitoring and evaluation as well as in resource tracking, the National AIDS Programme Secretariat will play a central role in advising NCCAI and NATCA in priority setting and adjustments, facilitating and conducting the reviews and evaluations of the national action plans, and in the development of the annual work plans. The Secretariat will facilitate these through regular information sharing and exchange, and through consultations at partnership and stakeholder forums and through technical working groups and engaging scientific institutions. The Secretariat will collect and analyse strategic programmatic and financial information needed to inform priority setting and programme development

CHAPTER 5: RESOURCES

5.1 Financing HIV and AIDS responses

Information on past programme expenditure has been collected using AIDS spending format aggregated by category from all key partners, the government and non-governmental organizations, civil society and bilateral agencies. Total expenditure has increased every year, in 2014, the total expenditure of HIV and AIDS response was calculated at RM 195,705 million (Table 3), an increase of 5.5% compared to the previous year, with domestic public funding from the government covering most of the HIV response expenditure (94%). About 65% of AIDS spending was for HIV treatment (ART) and care, and 15% for prevention programmes (Figure 12).

Table 3. Approximate total expenditure from Domestic (Public and Private) and International Sources by AIDS spending category, Malaysia 2013-2014

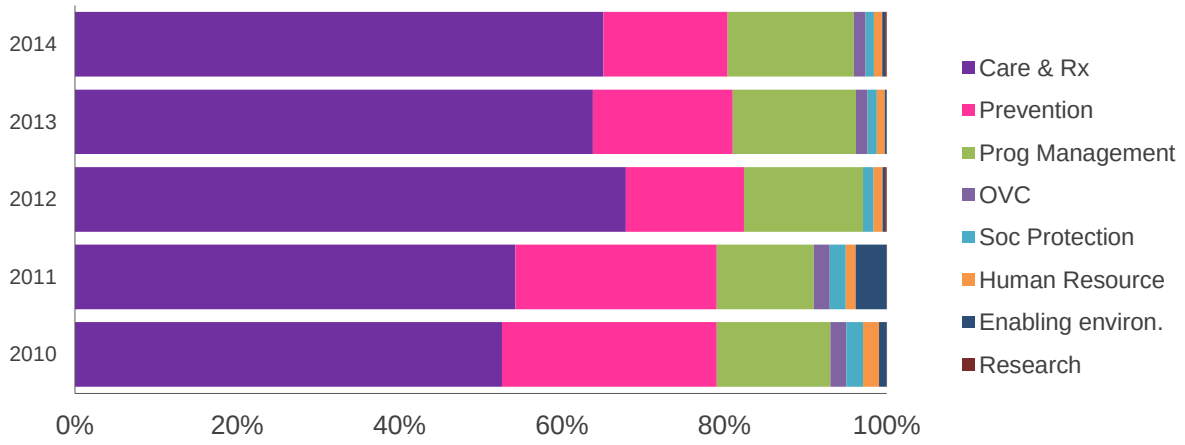
AIDS Spending Category	2012 (RM)	2013 (RM)	2014 (RM)
Prevention	26,390,256.14	32,011,097.15	29,939,632.08
Care and treatment	123,026,700.28	118,612,712.05	127,395,654.84
Orphans and vulnerable children	3,550.00	2,688,638.34	2,842,117.00
System strengthening and programme coordination	26,553,621.16	28,210,162.38	30,446,995.42
Incentives for Human Resources	2,013,434.70	1,826,443.69	1,994,167.68
Social Protection and Social Services including Orphans and Vulnerable	2,394,000.00	2,060,800.00	2,000,000.00
Enabling Environment	521,219.95	462,134.06	697,914.50
Research	363,300.00	0.00	388,351.50
TOTAL	**181,266,082.23**	**185,871,987.67**	**195,704,813.03**

Regarding sources of financing for HIV response, in 2014 the domestic public funding from the Government covered most of the AIDS related expenditure, whereas international and private sector contributions resources contributed 6% of the total funding (Table 4). The external funding includes a limited Global Fund Grant, of USD 10,742,323 for 01.07.2011-30.06.2016. No further grants from the Global Fund are expected as Malaysia will no more qualify for these grants as higher middle income county, approaching high income status. Some limited resources have been provided by the UN, WB, EU and the International Alliance.

Table 4: Source of approximate AIDS expenditure, Malaysia 2012-2014

Source of Funding	2012 (RM)	%	2013 (RM)	%	2014(RM)	%
Domestic Public	173,083,236.10	95	176,705,624.34	95	184,902,731.22	94
Domestic Private	2,853,763.20	2	2,427,169.63	1	1,835,679.81	1
International	5,329,082.93	3	6,739,193.70	4	8,966,402.03	5
Total	**181,266,082.23**	**100**	**185,871,987.67**	**100**	**195,704,813.06**	**100**

Figure 12. AIDS spending by function, Malaysia 2010-2014



Government funding is channelled from the Ministry of Finance to the Ministry of Health which disburses the funds to other government ministries and departments. The other Ministries are also able to provide funding for their own HIV related programmes utilising their individual budgets. The government is committed to subsidise ARV for PLHIV either in institutionalised settings or otherwise, including HIV testing and treatment at the Primary Health Care Levels (VCT, PICT, pre-marital HIV testing, STI) or secondary levels.

In order to support the NGO related programmes, the MOH uses the Malaysian AIDS Council as a conduit for channelling the necessary public funds to the individual NGOs. Currently, support to several HIV prevention and control programmes and activities is channelled through MAC, namely the NSEP for IDUs and intervention programmes for sex workers, MSM and TG.

5.2 Financing Fast Tracking and Ending AIDS

The resources required to implement the NSPEA 2016-2030 have been calculated based on the implementation of "Ending AIDS" scenario by AEM. The coverage to be achieved is assumed to gradually increase from the baseline levels to the planned targets by 2020 and further to 2030. The number of people on ART is estimated to increase 3-4 fold from 2014 (21,654) during the fast tracking five-year period to 2020. The unit costs for the services are based on cost of interventions currently being implemented by the government and non-governmental partners.

Over the next five to fifteen years, it is important to secure sustained domestic commitment to fund the national response to HIV and AIDS. Resource allocations will need to be aligned to the priority areas and programmes identified in NSPEA 2016-2030. Adequate resources and technical assistance will be needed for the next five to fifteen years to further strengthen organisational and human capacity for HIV response to be sustained and to build upon the progress and results obtained from the previous National Strategic Plans.

Table 6. Total annual resource need for 'Ending AIDS', Malaysia 2016 – 2030

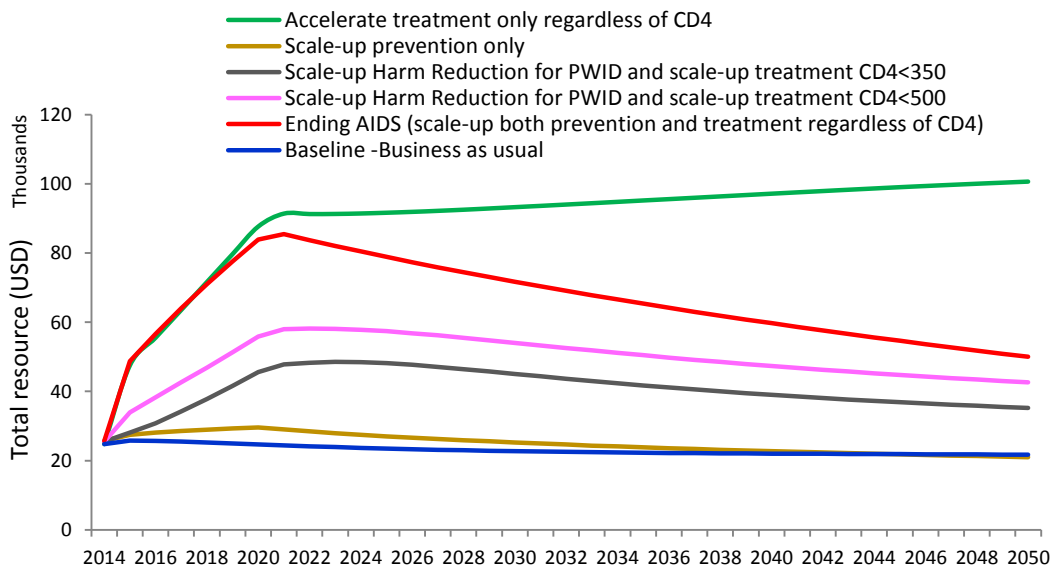
		Prevention ('000)		Treatment ('000)		Total ('000)	
		USD	RM	USD	RM	USD	RM
Fast-track	**2016**	10,236	37,872	43,111	159,511	53,347	197,383
	2017	10,826	40,057	47,745	176,655	58,571	216,713
	2018	11,383	42,118	51,703	191,300	63,086	233,418
	2019	11,913	44,079	55,064	203,735	66,977	247,815
	2020	12,427	45,980	57,852	214,053	70,279	260,033
	Total	**56,785**	**210,106**	**255,474**	945,254	**312,260**	1,155,361
Ending AIDS	**2021**	12,155	44,975	57,365	212,250	69,520	257,225
	2022	11,890	43,991	54,215	200,597	66,105	244,588
	2023	11,631	43,034	51,262	189,669	62,893	232,703
	2024	11,378	42,099	48,479	179,372	59,857	221,471
	2025	11,129	41,179	45,853	169,656	56,982	210,835
	2026	10,864	40,196	43,381	160,510	54,245	200,706
	2027	10,604	39,235	41,052	151,894	51,656	191,129
	2028	10,350	38,296	38,857	143,770	49,207	182,065
	2029	10,102	37,378	36,785	136,103	46,887	173,481
	2030	9,860	36,481	34,828	128,864	44,688	165,346
	Total	**109,963**	**406,864**	**452,077**	1,672,684	**562,040**	2,079,549

The resources needed to realize the Fast Tracking targets amount to USD 312.3 million (RM1.1 billion) for period of 2016-2020. The initial investment is undeniably high, but the annual expenditure needed will start declining within as little as 6 years. The cost of treatment drives up the total costs incrementally year by year. Prevention is a 'must have' component as it averts substantial costs of providing HIV treatment over medium to long-term. In contrast, avoiding such investments will merely postpone huge, ever-increasing costs into the distant future.

If intervention remains as before (business as usual), with no new investment in the response, the HIV epidemic would continue with serious implications for public health as well as with major social and economic costs. But focusing all investments on accelerating treatment only would still lead to a continuous increase in new infections each year. The key to significantly reducing new HIV infections, therefore, is to scale up the prevention and to accelerate treatment.

The 'Ending AIDS' scenario shows that investing in prevention yields significant savings on treatment costs later, making the program affordable over the long term (table 8). However, if ART is scaled up without expanding and optimizing prevention coverage of the most affected populations, new infections continue to increase, treatment costs will spiral upwards, and the program becomes unsustainable.

Figure 13. Total Resource Needs, Malaysia 2014-2050



CHAPTER 6: The National M&E Framework

6.1 The Purpose

In line with the Three Ones Principle, a comprehensive national HIV and AIDS Monitoring, Evaluation and Research Framework (M&E Framework) has been developed to coordinate stakeholders towards one agreed country-level monitoring and evaluation system. The development of the National M&E Framework (M&E) was participatory involving wider stakeholders at public, private and community levels and in harmony with the global (Global Response Progress Report) and country specific indicators.

Information gathered from M&E of HIV and AIDS programmes will be used for tracking the epidemic trends and the national response to HIV. The goal of National M&E Framework is to provide timely and accurate strategic information to guide the planning of the national response to HIV and AIDS in order to achieve the object of NSPEA. Information sources include among others: a) Mapping of Key Populations; b) Monitoring of overall programme coverage; b) Monitoring of prevention services; e) Monitoring of treatment services; f) Monitoring of impact mitigation; g) Operational research conducted to increase the effectiveness of prevention, treatment, care and support programmes.

Partners involved in the implementation of the National Strategic Plan will continue to operate their own systems for programme monitoring and evaluation using standard common indicators. The National M&E Framework (M&E) will consolidate information which is generated by the government and other key stakeholders. Achievement of expected results and targets will be monitored and evaluated periodically.

6.2 Indicators and Targets

To monitor the NSPEA Fast Tracking and Ending AIDS, the indicators for measuring programme coverage targets have been selected to get consistent and accurate information on programme performance and outcomes, which ensure that key populations will have access to high quality prevention, treatment, care and support services (Annex 4). The indicators used in monitoring the past NSPs' performance have been reviewed and adjusted to NSPEA Fast Tracking and Ending AIDS targets. These indicators are in line with the AEM model and UNAIDS global target on ending AIDS. The indicators include:

By 2020:

a) 90% of all key populations will be tested and know their results
b) 90% of detected PLHIV will be placed on ART
c) 90% of PLHIV on ART will have an undetectable viral load.
d) 80% of key populations, including sex workers, MSM and transgender persons will be

reached by prevention programmes

e) 95% of people who inject drugs will be reached by the harm reduction programme (80% referred to MMT and 15% referred to NSEP).

By 2030:

a) Testing and treatment targets will be 95%-95%-95%,
b) Prevention programmes will reach 90% of key populations resulting in Ending AIDS as public health threat in Malaysia.

6.3 Monitoring and Evaluation Process

Monitoring and evaluation programme will capture and evaluate programme implementation from input, activities and output to impact level. All stakeholders involved in the response to HIV are contributors to achieving the targets, measured using the standard common indicators, and are equally responsible to ensure that their activities are regularly monitored, reported and utilised to measure progress.

The National AIDS Programme (NAP) Secretariat within the Ministry of Health is given the responsibility to monitor and evaluate the overall HIV/AIDS framework. The NAP Secretariat is also empowered to ensure that all relevant stakeholders report to the Secretariat on specific indicators as necessary. NAP Secretariat will work with Ministries and civil society organisations to lead the national programme monitoring and evaluation. Utilising strategic information gained from the M&E, the NAP Secretariat will evaluate the existing response as well as suggest areas needing improvement or adjustment.

6.4 Surveillance

The responsibility of HIV surveillance is with the HIV/STI Sector of the Ministry of Health. Over 25 years a number of surveillance related activities have been in place:

a) Case notification

All HIV, AIDS and AIDS-related death diagnosed by registered medical practitioners are reported manually to the Ministry of Health as stipulated in the Prevention and Disease Control Act 1988. As a nominal case reporting, this surveillance system aims to better characterize the populations in which HIV have been newly diagnosed and to facilitate the public health follow up. Sources of notification include health facilities, routine HIV testing among people who inject drugs in drug rehabilitation centers and prisons, TB and STD patients, pregnant women attending antenatal clinics and blood donors. The system was upgraded to web-based notification in 2001.

b) National AIDS Registry

The Ministry of Health established the National AIDS Registry (NAR) in 2009. Intended to replace the existing surveillance system, the internet-based registry is designed to function as a streamlined and effective national HIV programme monitoring mechanism able to capture detailed disaggregated data continuously and systematically. The registry captures data on each HIV patient relating to their socioeconomic background, risk factor, date of confirmation, contact information, AIDS-related symptoms etc.

c) Behavioural Surveillance

Malaysia began implementing the third generation surveillance system (Behavioural Surveillance System) among key populations for the first time in 2004 under the auspices of Ministry of Health Malaysia. Biological component (HIV test) was integrated in the survey in 2012. Currently, integrated bio-behavioural surveillance survey (IBBS) is complementing the National Surveillance System and is conducted periodically.

Strategic information collected and analysed by surveillance system includes also ARV resistance surveillance and estimations of key populations and their locations. The information will be designed, collected and analysed together with the universities, institutions and international agencies to have meaningful data collection programme planning and for future projections.

6.5 Guidance and Reporting

Horizontal working relationships between government and non-government agencies at the state level are critical to ensure that there is appropriate programme monitoring at both operational and national levels.

National HIV and AIDS Monitoring, Evaluation and Reporting Guidelines will be reviewed and revised as appropriate, and used to guide monitoring and evaluation of the NSPEA 2016-2030 implementation. These guidelines will be kept as simple and practical as possible to allow monitoring, evaluation and reporting to be properly carried out. The guidelines will be disseminated, and training of all service providers conducted so that monitoring, evaluation and reporting will be optimized.

6.6 Progress Monitoring

Progress monitoring and evaluation are conducted through joint government and civil society periodic performance reviews which will be conducted at both state and national levels. The intention of the performance reviews is to evaluate progress based on coverage, effectiveness, relevance and sustainability of programmes. The frequency of the state level HIV programme review will be every 6 months with the State AIDS Officers and the State Health Department taking the lead. The review will be conducted with government and civil society organisations responding to HIV at the state level.

The Technical Working Group on Monitoring and Evaluation (TWG-M&E), chaired by the Monitoring and Evaluation Unit of the National AIDS Programme Secretariat will lead the HIV programme performance reviews conducted at the national level. This includes strengthening of Secretariat's own technical capacity and the capacity of the involved Ministries and civil society organisations

6.7 Annual Progress Report

The National AIDS Programme Secretariat will coordinate and facilitate the preparation of annual progress reports and development of annual work plans through the national HIV programme performance review, which will be discussed and finalised as part of the annual joint stakeholder meeting held towards the end of each year. The input to the annual progress report will also be based on HIV programme performance review conducted at the State level.

The annual progress report will provide information on the progress made in implementing the work plans. Based on programme monitoring data which is routinely collected by the National AIDS Programme Secretariat and the Malaysian AIDS Council, an assessment is made whether planned activities have been implemented and whether planned outputs and expected results have been achieved, and whether corrective adjustments need to be made.

The annual progress report will be based on the indicators and targets agreed in the M&E framework, which includes core indicators (Annex 1). Based on data collected by the National AIDS Programme Secretariat and the Malaysian AIDS Council and stored in a centralised database an analysis will be made concerning the progress made in achieving the agreed targets for these core indicators. The annual progress report will include an analysis of most recent surveillance data as well as data from other recent surveys in order to assess changing and emerging epidemiological trends. Based on the results and findings of the assessments presented in the annual progress report, the National AIDS Programme Secretariat, in close consultation with its partners, will prepare or revise the work plan for each coming year.

6.8 Mid Term Reviews

A mid-term review of the implementation of the first fast tracking period 2016-2020 is planned to take place in 2018. After the interim fast tracking evaluation in 2020, and the evaluation of the second 5-year period 2025, the mid-term reviews will be conducted every 2-3 years, until the final evaluation in 2030. The reviews on the progress made in the implementation of the national response will be discussed in joint stakeholder meetings and will suggest adjustments and direction and scope of future implementation of the response.

6.9 Impact Evaluation

An interim evaluation of the fast tracking period will take place in 2020, to evaluate the implementation of fast tracking phase. It will recommend corrective action and adjustments to the NSPEA if necessary. The second evaluation will take place in 2025. The final evaluation of the National Strategic Plan will take place in the second half of 2030. These evaluations will assess the results in the achievement of targets, analysing the available data to verify outcome and impact in comparison with baseline values for core indicators. These evaluations will not only assess effectiveness of individual programmes and of the overall national response, but will take into consideration the quality and efficiency of programmes and interventions.

6.10 HIV and AIDS Research

Monitoring and evaluation of the National Strategic Plan will also require data collected through research, including regular surveys. Research compliments monitoring and evaluation by building a knowledge base which will guide the national response. Thematic research will be conducted to better understand underlying causes, dynamics and impacts of the epidemic, such as epidemiological trends, new and emerging areas of concern and a better understanding of vulnerability and long-term consequences of the epidemic.

Annex 1

List of participants attended 1st consultation meeting (9 – 11 June 2015)

NO.	NAME	ORGANIZATION
1	Dr. Sha'ari Ngadiman	MOH (HIV/STI)
2	Dr. Anita Suleiman	MOH (HIV/STI)
3	Dr. Salina Md Taib	MOH (HIV/STI)
4	Dr. Fazidah Yuswan	MOH (HIV/STI)
5	Dr. Mohd. Nasir Abd. Aziz	MOH (HIV/STI)
6	Azman Mohamed	MOH (HIV/STI)
7	Dr. Jiloris Donny	MOH (TB/Leprosy)
8	Dr. Gunenthira Rao	MOH (Family Health)
9	Mohd Nazri Mohd Dazali	MOH (Pharmaceutical Service)
10	Dr. Zahariyah Yaacob	AIDS Officer, State Health Department, Kedah
11	Dr. Khamisah Awang Lukman	AIDS Officer, State Health Department, Sabah
12	Dr. Ruziana Miss	AIDS Officer, State Health Department, Sarawak
13	Dr. Norhayati Md. Amin	AIDS Officer, State Health Department, Melaka
14	Dr. Masitah Mohamed	AIDS Officer, State Health Department, Selangor
15	Dr. Janizah Ghani*	AIDS Officer, State Health Department, Pulau Pinang
16	Dr. Hazura Mat Zubir	AIDS Officer, State Health Department, Kelantan
17	Dr. Mahani Nordin	AIDS Officer, State Health Department, Terengganu
18	Dr. Surinah Asan	AIDS Officer, State Health Department, Johor
19	Dr. Norliza Ibrahim	AIDS Officer, State Health Department, N. Sembilan
20	Datuk Dr. Christopher	ID Physician, Hospital Sungai Buloh
21	Dr. Suresh Chidambaran	ID Physician, Hospital Sungai Buloh
22	Dr. Norliza Che Mi	Psychiatrist, Hospital Kuala Lumpur
23	Dr. Masliza Zaid	ID Physician, Hospital Tun Aminah, Johor
24	Dr. Wan Fazilah Wan Ismail	Family Medicine Specialist, KK Mahmoodiah
25	Dr. Sheela	Family Medicine Specialist, KK Cheras
26	Dr. Narul Aida	Family Medicine Specialist, KK Tanglin
27	Dr. Sally Ahip	Family Medicine Specialist, KK Kota Sentosa
28	Hammed Noor Norddin	Health Edu. Officer, Hospital Tanah Merah
29	Dr. Rahimi Hassan	District Health Office, Cameron Highland
30	Dr. Norzakiah Tahir	District Health Office, Melaka Tengah
31	Kumar a/l K.M. Perumal	Royal Malaysia Police (Johor)
32	VM Asok Kumar A/L Marathiah	Anti-Drug Agency (Johor)
33	Mohd. Zulhelmy B. Abd Jalil	Prison, Simpang Renggam
34	Jeremy Jahir	Prison, Kluang
35	Ust. Khairil Isma Hafiz b. Mahathir	Dept. Islamic Development (JAKIM)
36	Ustaz Zakuan Sawai	Dept. Islamic Development (JAKIM)
37	Nik Azlan Nik Man	Dept. Islamic Development (JAKIM)
38	Ustaz Sulaiman Dumang	Islamic Religious Department, Johor
39	En. Abd Majid bin Mat	Min. of Women, Family and Community Development
40	Abd Majid Mat	Min. of Women, Family and Community Development

NO.	NAME	ORGANIZATION
41	Norehan Yusof	District Edu. Office., Larut, Matang & Selama
42	Hairuddin Masnin	Country Manager, UNAIDS
43	Stefan Stojanovik	GFATM
44	Datuk Dr. Raj Karim	President, MAC
45	Jasmin Jalil	Executive Director, MAC
46	Parimelazhagan Ellan	Progam Director, MAC
47	Joselyn Pang	Program Director (GF), MAC
48	Assoc. Prof. Dr. Azlinda Azman	MAC
49	Hisham Hussein	MAC
50	Dr. Ilias Yee	MAC
51	Tamayanty Kurusamy	MAC
52	Azahari Said	MAC
53	Abdul Muizz Che Zaini	MAC
54	Malini Sivapragasam	MAC
55	Mazlimi Ramthan	MAC
56	Shamala Chandrasekaran	MAC
57	Jane Kasim	MAC
58	Chung Han Yang	MAC
59	Manohara Subramaniam	MAC
60	Ridzuan Kamaruddin	MAC
61	Khalid Hashim	NGO, Komited Malaysia
62	Zulkifli Zamri	NGO, Pertubuhan Ikhlas
63	Ust. Bukhari Mat Akhir	NGO, Yayasan Ihtimam
64	Rueben Kiew	NGO, KLASS
65	Berlin Elvis Lee	NGO, KLASS
66	Ng Bertlin	NGO, Intan Life Zone
67	Raymond Tai Fook Then	NGO, PT Foundation
68	Frederick Pour	NGO, PT Foundation
69	Julia Atan	NGO, Harapan Kasih
70	Fatimah Abdullah @ Selvi	NGO, PAMT
71	Christine Low Bee Cheng	NGO, FHDA
72	Rahmah Nicholls	NGO, SACS
73	Danisha Monish	NGO, Komited Malaysia
74	Mohd. Nor Azlie Roslan	NGO, SAGA
75	Jessy Lim Wah Leng	NGO, SEED
76	Sulastri Ariffin	NGO, SEED
77	Nor Hasni Fazlinda Binti Mat Yunus	NGO, ReHAK
78	Elisha Kor Krishnan	NGO, PKKUM
79	Hafiz Afendi	NGO, Sahabat
80	Low Cheap Foh @ Edward	NGO, MTAAG+
81	Rasasooran Kannian	NGO, Harapan Kasih

List of participants for the 2nd consultation meeting (9-11 August, 2015)

NO.	NAME	ORGANIZATION
1	Dr. Sha'ari Ngadiman	MOH (HIV/STI)
2	Dr. Anita Suleiman	MOH (HIV/STI)
3	Dr. Mohd. Nasir Abd. Aziz	MOH (HIV/STI)
4	Dr. Salina Md Taib	MOH (HIV/STI)
5	Dr. Fazidah Yuswan	MOH (HIV/STI)
6	Azman Mohamed	MOH (HIV/STI)
7	Dr. Fatanah Ismail	MOH (Family Health)
8	Dr. Jiloris Dony	MOH (TB/Leprosy)
9	Dr. Khamisah Awang Lukman	AIDS Officer, State Health Department, Sabah
10	Dr. Ruziana Miss	AIDS Officer, State Health Department, Sarawak
11	Dr. Zahariyah Yaacob	AIDS Officer, State Health Department, Kedah
12	Dr. Norliza Ibrahim	AIDS Officer, State Health Department, Negeri Sembilan
13	Dr. Masitah Mohamed	AIDS Officer, State Health Department, Selangor
14	Dr. Nur Aishah Buang	AIDS Officer, State Health Department, Melaka
15	Dr. Hazura Mat Zubir	AIDS Officer, State Health Department, Kelantan
16	Dr. Mahani Nordin	AIDS Officer, State Health Department, Terengganu
17	Dr. Surinah Asan	AIDS Officer, State Health Department, Johor
18	Dr. Rohemi bin Abu Bakar	AIDS Officer, State Health Department, Perlis
19	Dr. Hafeez Intiaz	AIDS Officer, State Health Department, Pahang
20	Dr. Hj. Amirullah Mohd Arshad	Deputy Director, State Health Department, Melaka
21	Dr. Suresh Chidambaran	ID Physician, Hospital Sungai Buloh
22	Dato' Dr Ghazali Bin Ismail	O&G Specialist, Hospital Sultan Ismail
23	Prof. Dr. Raja Iskandar	ID Physician, UMMC
24	Dr. Salmiah Sharif	Family Medicine Specialist, KK AU2 Keramat
25	Dr. Narul Aida	Family Medicine Specialist, KK Tanglin
26	Dr. Rohaya Rahman	Director, Hospital Port Dickson
27	Dr. Sahrol Azmi bin Termizi	State Health Department, Pahang
28	Cheok Yoon Wah	Royal Malaysia Police
29	Dr. Ravi Ramadah	Anti-Drug Agency
30	Ust. Bukhari Mat Akhir	Dept. Islamic Development (JAKIM)
31	Ust. Saiful Azhar Saadon	Dept. Islamic Development (JAKIM)
32	Ustazah Mastura Mohamed Tahir	Dept. Islamic Development (JAKIM)
33	Dr. Srii Puvaneswari A/P Selvaraj	Occupational Safety and Health Department
34	Dr. Hammed Noor Norddin	Health Edu. Officer, Hospital Tanah Merah
35	Hairuddin Masnin	UNAIDS
36	Parimelazhagan Ellan	Program Director, MAC
37	Dr. Ilias Yee	Executive Director, MAC
38	Joselyn Pang	Program Director (GF), MAC
39	Hisham Hussein	MAC
40	Assoc. Prof. Dr. Azlinda Azman	MAC
41	Abdul Muizz Che Zaini	MAC
42	Mazlimi Ramthan	MAC

NO.	NAME	ORGANIZATION
43	Malini Sivapragasam	MAC
44	Jane Kasim	MAC
45	Chung Han Yang	MAC
46	Shamala Chandrasekaran	MAC
47	Tamayanty Kurusamy	MAC
48	Manohara Subramaniam	MAC
49	Amran Ismail	NGO, CAKNA
50	Zulkifli Zamri	NGO, Pertubuhan Ikhlas
51	Clayton Koh	NGO, KLASS
52	Andrew	NGO, KLASS
53	Raymond Tai Fook Then	NGO, PT Foundation
54	Christine Low Bee Cheng	NGO, FHDA
55	Rahmah Nicholls	NGO, SACS
56	Danisha Monish	NGO, Komited Malaysia

Annex 2

AEM Projections of HIV epidemic in Malaysia

Baseline scenario

AEM modelling was used to estimate the projected development of HIV epidemic for the post 2015 period. Based on information on programme coverage in 2013, the current prevention interventions for key populations were reaching 52% of PWID, 52% of FSW, 49% of TGSW and 38% of MSM (Figure A1). Treatment coverage was reaching only 44% of eligible PLHIV (CD4 count under 350 cells). Majority of PLHIV in Malaysia who either did not know their HIV status or had not been initiated on ART was PWID, not initiated for fear that they may not be able to adhere to the regime.

Using these baseline levels and assuming that the interventions continue at the present level, the AEM predicted that the new HIV cases will decline and stabilize from 2014 onwards (Figure A2). This could be due to declining new cases among PWID as they change substance use from injecting to oral drugs. At the same time HIV cases among other risk groups would increase as more get tested and treated early. This projection indicates that the HIV transmission would be ongoing in 2021 and beyond, AIDS-related deaths and HIV prevalence gradually declining. It projected that ART coverage barely would reach half of those in need if interventions remain the same as 2013. The summary of baseline scenario projected by the model is as below.

1. New HIV infections showed a smooth decline at the beginning but reached plateau from 2014 onwards. This means that the epidemic will continue, thus ending AIDS would be far from reality.
2. AIDS-related deaths would be declining but only gradually.
3. Epidemic would be largest in PWID with increasing proportions reaching 62% of all by 2030 (Figure A3).
4. The infections among MSM would continue to climb slowly in the range of less than 10%. In opposite, infections among LRM, LRF, clients of FSW and TG would be declining (Figure A3).
5. This model showed that more than 50% PLHIV still would not get ART; this explains the slow decline of AIDS-related deaths (Figure A4).

Figure A1. Treatment and prevention coverage, Malaysia 2013

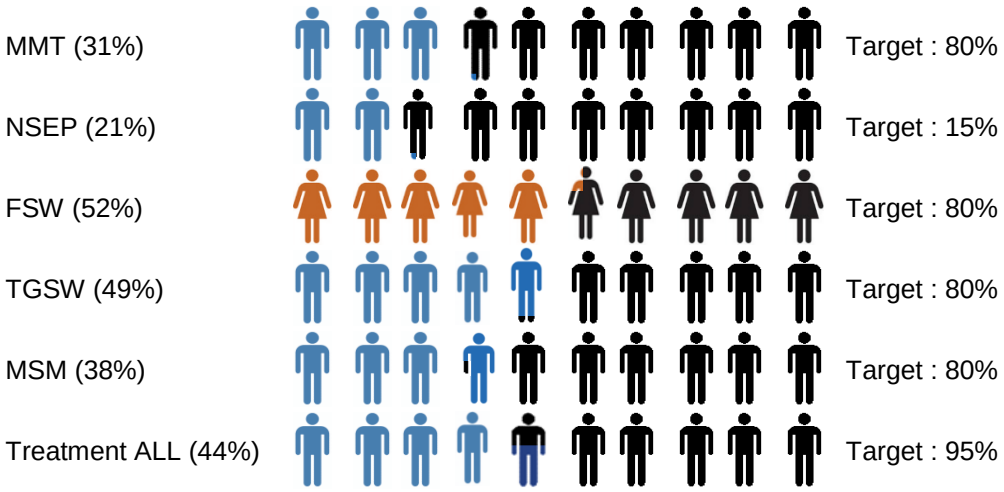


Figure A2. Estimated numbers of new HIV, PLHIV and AIDS-related death in Malaysia, 1986 - 2030

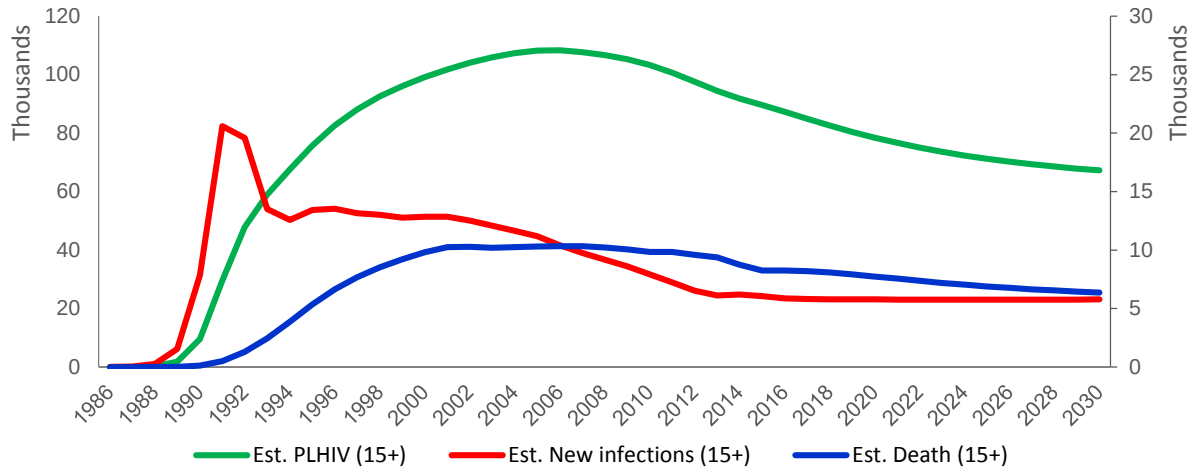


Table A1. ARV treatment at baseline scenario and its impact on the epidemic

Sub-epidemic model	2000	2010	2013	2020	2030
PLHIV	99,175	103,319	94,399	78,480	67,277
New HIV infection	12,853	7,936	6,118	5,780	5,781
Annual AIDS related death	9,809	9,838	9,366	7,748	6,373
Number of PLHIV on ART	82	12,148	15,615	16,826	14,236
PLHIV in need for ART (CD4 < 350 counts)	14,487	43,842	42,764	38,350	32,305

Figure A3. Estimated and projected number of cases by Mode of Transmission, Malaysia 1986-2030

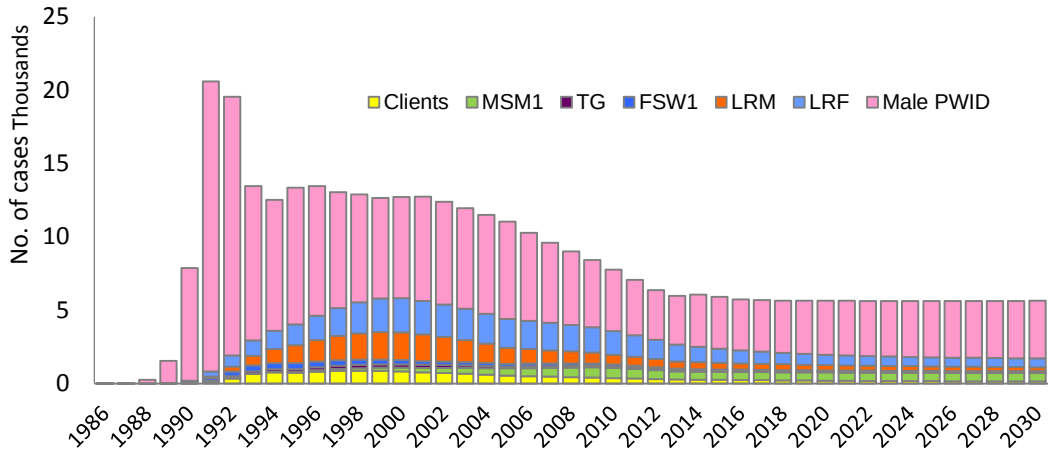
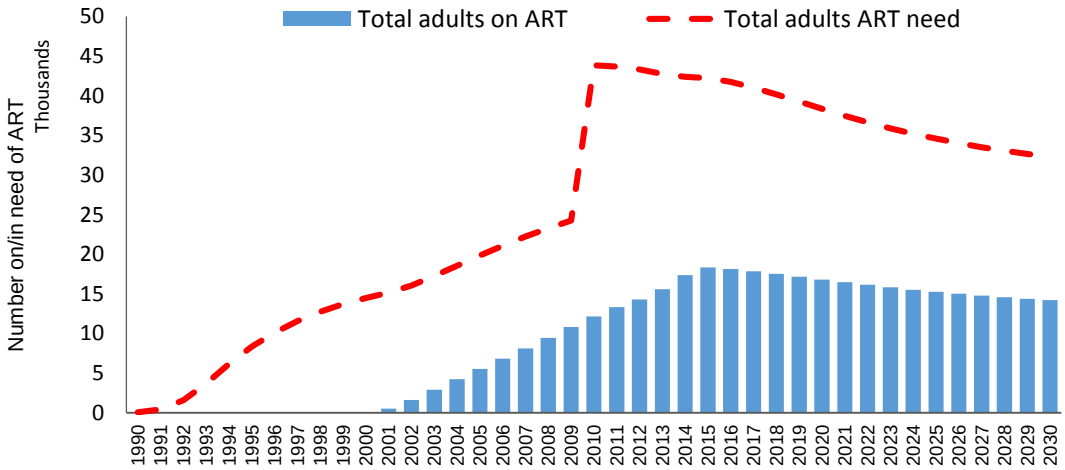


Figure A4. Total adult ART coverage and need, Malaysia 1986-2030



Designing Investment Options for Ending AIDS

Using AEM, six (6) best investment scenarios were projected that focus on ending AIDS. The summary findings are as follow:

a) Scenario 1: Business as usual
This scenario shows how the epidemic would progress over the years if the present prevention intervention and treatment coverage remain as in 2013. The average annual resource need from 2015 to 2021 would be around **USD 25.2 million** (RM 93.2 million).

b) Scenario 2: Accelerate treatment only
This scenario looks at the impact of a rapid scale-up of universal access to ART by adopting the 'test and treat' model (treating 90% of PLHIV regardless of CD4 count), while sustaining prevention coverage at current levels for all KPs. This scenario would require an average annual investment of **USD 71 million** (RM 262.7 million) from 2015 to 2021.

c) Scenario 3: Scale-up Prevention only
In this scenario, the prevention coverage was scaled up for the KPs with the greatest need - 80% coverage for opioid substitution therapy and 15% for needle exchange programme, 80% coverage for female sex workers, 80% coverage for MSM and 80% coverage for transgender. This scenario would require an average annual investment of **USD 28.7 million** (RM 106.2 million) from 2015 to 2021.

d) Scenario 4: Scale-up Harm Reduction for PWID and treatment at CD4<350 cells/μL
This scenario was designed to scale-up access to 80% coverage for opioid substitution therapy and 15% coverage for needle exchange programme and 80% treatment coverage for PLHIV at CD4<350 cells/μL. This scenario would require an average annual investment of **USD 38 million** (RM 140.6 million) from 2015 to 2021.

e) Scenario 5: Scale-up Harm Reduction for PWID and treatment at CD4 <500 cells/μL
This scenario was designed to scale-up access to 80% coverage for opioid substitution therapy and 15% coverage for needle exchange programme and 80% treatment coverage for PLHIV at CD4<500 cells/μL. This scenario would require an average annual investment of **USD 46.7 million** (RM 172.8 million) from 2015 to 2021.

f) Scenario 6: Ending AIDS
This scenario was designed to scale-up Harm Reduction coverage for PWID - 80% for MMT and 15% for NSEP and simultaneously increase to 80% prevention coverage for other KPs (FSW, TG and MSM). This scenario also adds in 95% treatment coverage for all key populations irrespective of CD4 counts. To end AIDS, the country would require an average annual investment of **USD 69.6 million** (RM 257.5 million) from 2015 to 2021.

Table A3. Summary of targets for each investment scenario, Malaysia

Options	MMT	NSEP	FSW	MSM	TG	CD4	ART
Scenario 1: Business as usual (Base-line)	31%	21%	52%	38%	49%	350	37%
Scenario 2: Accelerate treatment only	31%	21%	52%	38%	49%	ALL	95%
Scenario 3: Scale-up prevention only	80%	15%	80%	80%	80%	350	37%
Scenario 4: Scale-up Harm Reduction and treatment CD4<350	80%	15%	52%	38%	49%	350	80%
Scenario 5: Scale-up Harm Reduction and treatment CD4<500	80%	15%	52%	38%	49%	500	80%
Scenario 6: Ending AIDS	80%	15%	80%	80%	80%	ALL	95%

Investment Impact

a) Impact on the epidemic

The estimated number of new infections has already started to decline. The interventions, starting from 2015, would result in the biggest reduction in the number of PLHIV in scenario 'Scale-up prevention only'. However, in the absence of treatment intervention, more PLHIV would progress to AIDS and end up with premature death, thus bringing down the number of current infections year by year. Focusing solely on treatment, on the other hand, would stagnate the epidemic but the country would end up having to constantly increase resources for ART (Figure A5).

The graph in figure A6 shows that the number of new infections has started to decline beginning in 2002 but this decline would stall from 2014 onwards in baseline scenario. Investing in treatment only is not a good choice as this would eventually result in another cycle of epidemic after 2021, and to spiraling treatment cost. A good investment needs to balance between prevention and treatment interventions. AEM has modeled several options that would lead to a decline of new infections. Comparing all options, 'Ending AIDS' will reach 90% reduction of new HIV cases to less than 800 new HIV cases a year in 2021, eventually leading to ending AIDS, while the other scenarios would drive the country further away from ending AIDS, even after 2050.

Figure A5. Current infections (PLHIV) for Adults, Malaysia 2000 - 2030

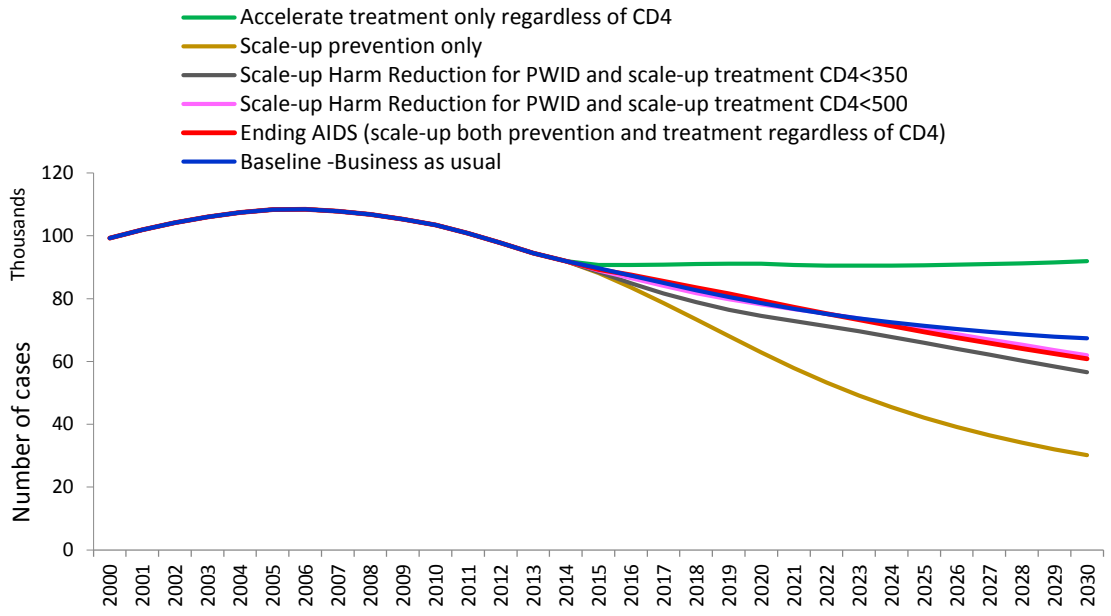
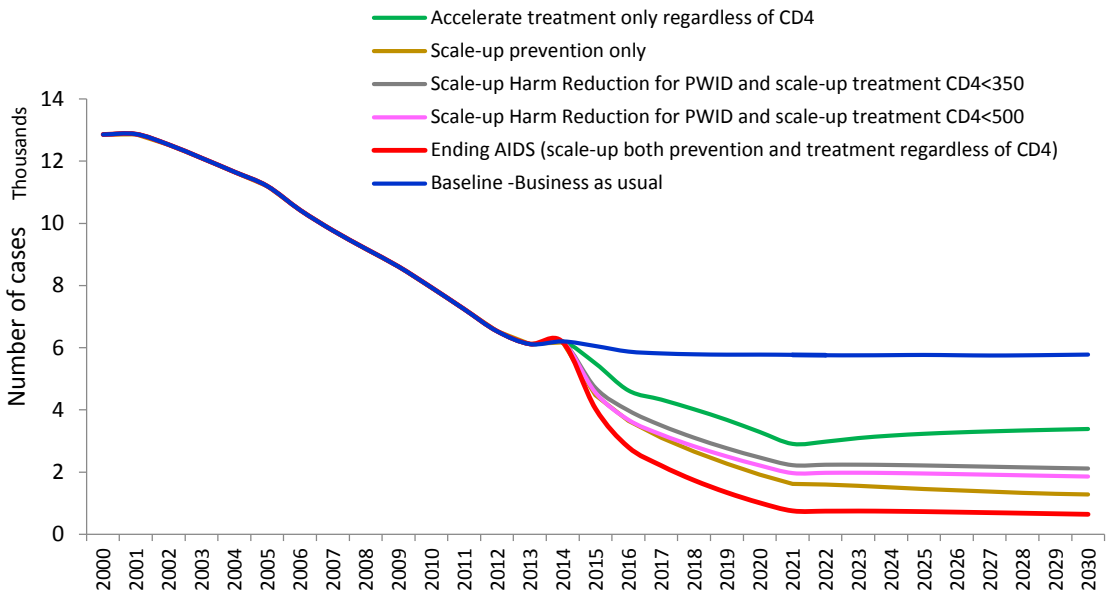


Figure A6. New HIV Infections for total adult, Malaysia 2000-2030



b) Impact on resource needs

Based on projected annual new HIV infections the country would reach 90% reduction of new cases in 2021 through 'Ending AIDS' scenario. The total resources needed to realize this target will amount to USD 429.1 million for period of 2015 to 2021. The initial investment is undeniably high, but the annual expenditure needed would start declining within as little as 7 years (Figure A7). Summary of total resource needs is narrated in table A4. Under all scenarios, the treatment cost of ongoing infections drives up the costs incrementally year by year. Looking at all scenarios, prevention would be a 'must have' component in any investment option as it averts substantial costs of providing HIV treatment over medium to long-term. In contrast, avoiding such investments will merely postpone huge, ever-increasing costs into the distant future.

If intervention remains as before (business as usual), with no new investment in the response, the HIV epidemic would continue with serious implications for public health as well as with major social and economic costs. But focusing all investments on accelerating treatment only would still lead to a continuous increase in new infections each year. The key to significantly reducing new HIV infections, therefore, is to scale up the prevention and to accelerate treatment.

The 'Ending AIDS' scenario shows that investing in prevention yields significant savings on treatment costs later, making the program affordable over the long term (Table A5). However, if ART is scaled up without expanding and optimizing prevention coverage of the most affected populations, new infections continue to increase, treatment costs will spiral upwards, and the program becomes unsustainable.

Figure A7. Total Resource Needs, Malaysia 2014-2050

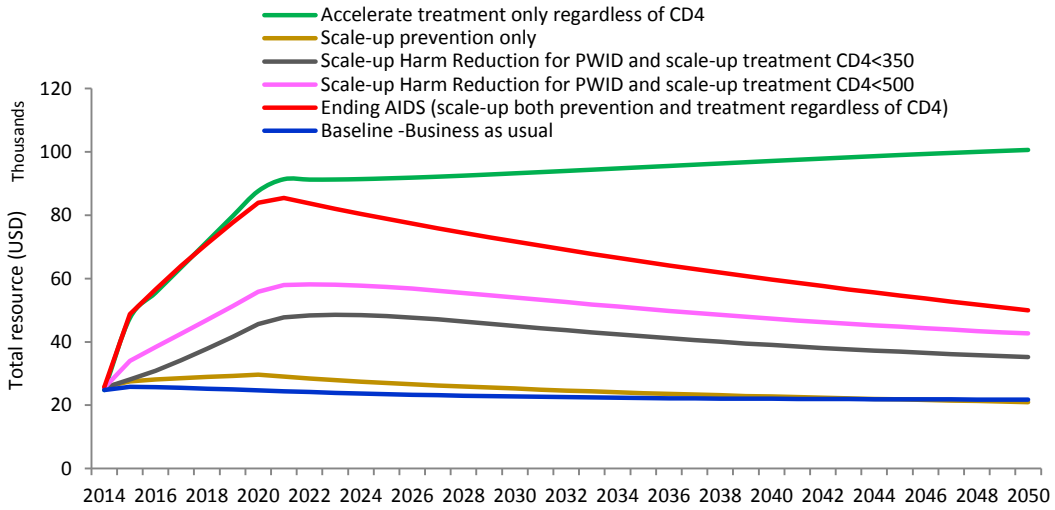


Table A4. Summary of total resource needs based on investment scenarios, Malaysia 2015-2021 and 2022-2050

SCENARIO	INVESTMENT OPTION	TOTAL RESOURCE NEED (USD)	
		2015-2021	2022-2050
Baseline	Business as usual	157.1 million	434.4 million
Scenario 1	Accelerate treatment only	436.9 million	1.8 billion
Scenario 2	Scale-up prevention only	178.7 million	470.3 million
Scenario 3	Scale-up HR for PWID and treatment CD4<350	234.1 million	820.5 million
Scenario 4	Scale-up HR for PWID and treatment CD4<500	287.9 million	987.7 million
Scenario 5	Ending AIDS	429.1 million	1.3 billion

Table A5. Total annual resource need for 'Ending AIDS', Malaysia 2015 – 2050

		Prevention (thousands, USD)	Treatment (thousands, USD)	Total (thousands, USD)
Invest now	**2015**	9,603.01	37,712.80	47,315.81
	2016	10,235.63	43,111.03	53,346.67
	2017	10,826.34	47,744.67	58,571.00
	2018	11,383.30	51,702.61	63,085.91
	2019	11,913.32	55,063.60	66,976.92
	2020	12,426.93	57,852.18	70,279.11
	2021	12,155.47	57,364.74	69,520.21
Ending AIDS (2015-2021)		**78,544.00**	**350,551.63**	**429,095.63**
Future savings	**2030**	9,859.81	34,828.19	44,687.99
	2040	7,464.09	20,219.52	27,683.60
	2050	5,540.05	11,706.14	17,246.19

c) Return of investment

The return on investing in AIDS can be measured in several different ways. Among others are annual reduction of new cases, treatment cost saved if fewer people become infected and number of disability-adjusted life years (DALY) saved. AEM permits calculation of DALYs and comparison between scenarios. A DALY is equal to one year of healthy (and productive) life which translates into one year of earned per capita GDP, currently USD 10,500 (World Bank). Every HIV infection averted in Malaysia saves an average of 27 DALYs, amounting to USD 285,580 GDP earned.

Table A6 shows the impact and resource needs for each investment option. The analysis of the six different scenarios shows that the highest impact can be attained through 'Ending AIDS' scenario that is combination of prevention (coverage of FSW, MSM and TG at 80%, and PWID at 80% with reference to MMT 80%, NSEP 15%) and scaling up effective testing of key populations to 95%, treatment of those detected with HIV to 95%, and achieving adherence of those in ART to 95%. This investment option will save more lives and yield the greatest cost-benefits in terms of DALYs, income and treatment cost saved. Saving DALYs is good for productivity and economic growth and reduces the impact of AIDS on individuals, families and society in general. The impact on the longer term is even more striking. Figure A8 compare number of DALYs that could be saved under each scenario between 2015 and 2021. 'Ending AIDS' save over 640,000 DALYs compared to just about 300,000 if only treatment is accelerated.

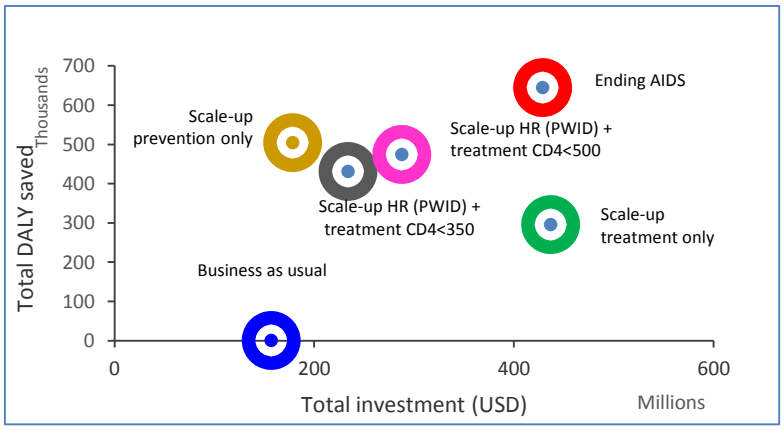
From the model, it can be concluded that through an investment of approximately USD 429 million over short period of 7 years (2015-2021) or an average of USD 61 million a year, Malaysia will be able to avert close to 27,000 HIV infections and save over 640,000 DALYs potentially ending AIDS by 2021. The financial returns are also substantial. 'Ending AIDS' will save USD 6.8 billion in future income.

Table A6. Summary of cost-effectiveness by different investment options, Malaysia 2013-2021

	Base-line	Business as usual	Accelerate treatment only	Scale-up prevention only	Scale-up PWID + treatment CD4<350	Scale-up PWID + treatment CD4<500	Ending AIDS
	2013	**2021**	**2021**	**2021**	**2021**	**2021**	**2021**
New infections	6,118	5,773	2,912	1,622	2,227	1,974	751
HIV averted	-	-	2,861	4,151	3,546	3,799	5,022
Death averted	-	-	4,318	902	3,717	4,135	4,676
PLHIV on ART	15,614	16,477	86,142	14,641	35,739	46,341	73,358
DALYs saved	-	-	76,000	110,000	94,000	100,000	133,000
GDP earned (million)	-	-	798	1,155	987	1,050	1,396
Resource Need (thousand)		$24,418	$91,417	$29,031	$47,794	$57,991	$85,501

Malaysia GDP per capita – $10,500 (World Bank 2015)

Figure A8. Total investment and DALY saved, Malaysia 2015-2021



For a total investment of USD 429 million in 7 years beginning 2015, 'Ending AIDS' will:

a) Reduce new HIV infection by 90% from 2010 (7,936) to 2021 (751)
b) Each HIV infection averted saves an average of 27 DALYs; resulting in $283,500 GDP earned
c) Save total of 644,000 DALYs, or healthy, productive life years

'Ending AIDS' scenario will reverse the epidemic and achieve the three Zeros.

Annex 3

NATIONAL PLAN OF ACTIONS FOR FAST-TRACKING 2016-2020

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
STRATEGY 1: TESTING AND TREATMENT TO END AIDS				
1.1	Increase testing in key affected population and PLHIV-indicator conditions (STI, Herpes Zoster, Hepatitis B, IDU on MMT)			
	• Training of health care providers, including health care providers within institutionalized setting (such as prisons) and other government health care (such as LPPKN) on providing STI/HIV awareness and test screening during family planning counselling	MOH, General Practitioners, Prison, CBOs	Implementation of services by end of 2017	
1.2	Normalizes HIV testing in all Health Care Services			
	• Revision and reform current SOP / Module Counselling Guidelines that normalizes HIV testing in all Health Care Services (Government & Private) and enhance Provider Initiated Testing and Counselling (PITC) services	MOH	Guideline to be revised by 2016	
1.3	Enhance and implement Community-based HIV / STI screening			
	• Revise policy and guideline to allow community based HIV screening • Accreditation the CBOs / NGOs to be screening centers • Credential of CBOs/NGOs to be HIV para counsellors	MOH, NGO	Policy and guideline to be revised by end 2016	PTF CHCC: In 2014, total clients (all clients) screened was 1,635 clients. All reactive clients referred for medical follow-ups. From Oct 2014-Jul 2015, PTF CHCC screened 650 clients for STIs (Syphilis= 589; HCV= 31; HBV=30) Private GPs (10 clinics) Community Based Testing (CBT) - CBO based (model FHDA, Penang) - HC based using Beserah model (Kuantan), Pekan model (Kota Kinabalu) and Cheras model (KL)

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
1.4	Improve and ensure linkage to care after diagnosis			
	• Enhance the utilization of National AIDS Registry (NAR) • Linking NGO/CBOs/Private labs to Treatment Centers (KK) for case management	MOH, NGO/CBO, Private labs		
1.5	Increase coverage of PLHIV on ART			
	• Increase number of Integrated HIV Treatment Centres[5]	MOH	One Integrated Treatment Centre per district by 2017	
	• Increase number of private clinics providing HIV services	MOH, GPs	Provision for providing testing and treatment at cost through public-private partnership	
1.6	Adopt a single first line regime for all adults and adolescents with HIV – Tenofovir + Lamivudine or Emtricitabine + Efavirenz as a fixed dose combination			
	• Fixed dose combination becomes a preferred First Line regime in all facilities	MOH	80% of all new patients by 2017	
1.7	Decentralization treatment center to increase access to HIV treatment and improved rate of retention to care for those already on ART			
	• Increase the number of HIV Post Basic Training Center	MOH	Increase from 1 to all Allied Professionals training centers by end 2018	
	• Strengthen & increase the number of shelters / halfway house services (job placement and life skills building) for PLHIV	NGO/CBO, MWFCD, JAKIM	At least one shelter home in each Region / State	
	• Scale up treatment peer support programmes in all and to include outreach services	MOH, NGO/CBO	Peer support programmes available in all Integrated HIV Treatment Centres (IHTC)	

[5] Component of integrated HIV clinic includes:
(i) FMS who has undergone attachment at ID clinic; (ii) Paramedic HIV counsellors / trained in HIV management; (iii) RVD MTAC Pharmacist; (iv) Peer support / outreach worker from CBO; (v) X-Ray facilities to detect TB; (vi) Lab facilities- Basic investigations for STI , TB, CD4 / Viral Load POCT, Basic bio-chemistry / haematology test- RP, LFT, FBC; (vii) Methadone clinic; (viii) Medications- 1st line ARV, Anti TB, Penicillin injection, Ceftriaxone ; (ix) Key Affected Population (TG, MSM, FSW, MSW) friendly environment

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
1.8	Improve retention and viral suppression through better case management			
	• Opening Integrated services for PLHIV after office hours to improve retention	MOH	By end 2016 one clinic per district	Currently offered only in Sg. Buloh Hospital (Saturdays)
	• Expand the services to all institutions and continuation of ART, anti TB, MMT on entry into the institution	MOH		
	• Sustain & Expansion of 'Teman' pilot project[6] to all incarcerated settings	MoH, NGO/CBO	Expansion of Teman Project in all States with incarcerated settings	
	• Shelter home for post release care for TB-HIV patients (halfway house)	NGO/CBO, MWFCD	At least one shelter available per region	As more PLHIV are on TB treatment, shelter care to adhere to treatment is needed
1.9	Increase/ upscale coverage of PLHIV on treatment			
	• Task shifting to Paramedics	MOH	Allow paramedics to prescribe ARV drugs for patients stable on ART	As more testing and improved linkage to care is done, health facilities is needed & need to be equipped to cater to the increased number of PLHIV
1.10	Improve TB diagnosis and case management			
	• Upscale case detection activities and prevention of TB infection a) *Train and equip CBO/NGO with right information on TB screening and prevention* b) *Sputum collection by CBO/NGO* c) *Strictly implement IPT program for all newly diagnosed HIV*	MOH, CBO/NGO	Training completed by end of 2016 IPT implemented in all integrated health clinics by 2016	Currently TB sputum collection being piloted in Terengganu.
	• Improve availability of point of care test (Gene expert)	MOH	To procure point of care equipment by end 2016	Currently 4 available

[6] Teman is Buddy Project in incarcerated settings currently implemented in Pahang, Kelantan, Johor, Negeri Sembilan and Penang

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Prevent TB transmission among PLHIV in close setting a) *To procure Gene Xpert unit* b) *Standardize training curriculum for Prison Officers creating awareness, sensitization of HIV / TB / MMT integrated into the current training and daily work of Parole Officers to ensure TB-HIV parolees are linked to Health Care Facilities during parole period*	MOH, Prison Department	By end of 2018	In all prisons in Malaysia, currently none available. Training is currently conducted state-based
STRATEGY 2 - IMPROVING THE QUALITY AND COVERAGE OF PREVENTION PROGRAMMES AMONG KEY POPULATIONS				
2.1	**Prevention of HIV transmission through injecting drug use**			
2.11	**Increase effort toward client's behavioural change**			
	• Organize training / seminar on capacity building for ORW to improve and update ORW's knowledge on treatment cascade (HIV and co-infection (Hep/TB), SRH, OST, testing, treatment)	NGO, MOH, MOE, NADA, RPM, Prison Department, Head of Community	Min 80% ORW will be trained annually • **District level:** at least 2 sessions per year (District Health Office's Initiative) • **National level:** at least 2 sessions per year (MOH and MAC initiative)	30% ORW trained in 2014. With these knowledge, ORWs are expected to be able to provide accurate information on HIV and co-infection (Hep/TB), SRH, OST, testing, ARV treatment and condom usage to NSEP's clients
	• Provide accurate information on HIV and co-infection (Hep/TB), SRH, OST, testing, ARV treatment and condom usage to NSEP's clients	NGO, MOH	at least 3 sessions per client per year	• Referral NSEP for OST: 5.4% in 2014 (targeted 30%), • Referral NSEP for VCT: 29% (targeted 50%) • Condom use: still very low (25%)
	• Increase number of referral to testing and treatment (OST/ARV/SRH/Hep/TB)	NGO, MOH, NADA	• Min 30% of active NSEP client (opiate users) referred to OST services per year • At least 80% of active NSEP client referred to VCT services per year	• Referral NSEP for OST: 5.4% in 2014 (targeted 30%), • Referral NSEP for VCT: 29% (targeted 50%) • Condom use: still very low (25%)

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Organizing VCT session with health clinic at NGO office or appropriate community site	NGO, MOH	• At least 2 VCT sessions organized per year	VCT session with NGO has been carried out at certain site such IKHLAS, CAKNA and AARG.
	• Appoint person in charge at health clinic/NADA facilities as liaison officer to improve or facilitate referral from NGOs	NGO, NADA, MOH	• To appoint one Assistant Medical Officer / NADA's key person in each OST center to be liaison officer for NGO	The OST services were headed by FMS at health clinic or head of NADA institutions.
2.12	Expand OST Programme			
	• Increase OST center at health care centre	MOH, NGO, MOE	Min 45% of health clinics provide OST by 2020; 55% by 2025; 65% by 2030 (~20 clinics/year)	33% (316/954) health centres provide OST services in 2014.
	• Increase OST/HTC/ARV uptake at existing facilities	MOH, MOE, NADA, Prison Department, NGO	Sustain OST services at the existing center in hospital, prison institution and NADA facilities.	39% (55) hospitals, 58% (18) prison, 16% (30) NADA facilities, 5.3% (366) GP provided OST service in 2014
	• Expand Methadone dispensing hours	MOH, MOE, NADA, Prison Department, NGO	Methadone dispensing hours at health clinic to be conducted throughout office hours including public holiday and weekends	• 63.9% (76 out of 119 health clinics surveyed) assign 1-2 hours methadone dispensing services; • 10.9% (13 out of 119 health clinics surveyed) assign 7-9 hours methadone dispensing services; • 4.2% (5 out of 119 health clinics surveyed) assign two (2) times / day (methadone dispensing services) with total various hours from 2.5 to 4 hours.
	• Enable other healthcare providers (MA/ Nurses) to dispense methadone and other substitution medications.	MOH (Pharmaceutical service)	Amend Poisons (Psychotropic Substances) Regulations 1989 by 2016/2017	Regulation 11 (1) (e) in Poisons (Psychotropic Substances) Regulations 1989 permits pharmacists to dispense methadone or other substitution medication.

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Increase number of accredited assistant pharmacist on dispensing methadone	MOH	a) Percentage of assistant pharmacist at health clinic accredited; • 45% by 2020 • 60% by 2025 • 75% by 2030 b) 100% assistant pharmacist at health clinic without pharmacist will be accredited by 2020.	• 30% (556 / 1806) assistant pharmacist at health clinics accredited on methadone dispensing as of Dec 2014 • 121 assistant pharmacist in hospital accredited on methadone dispensing as of Dec 2014 • Number of health clinic with assistant pharmacy (but no pharmacist) 2014 : 125
	• Expand the use of Methadone 1Malaysia card	MOH	Methadone 1 Malaysia services will be available at; • 60% health clinic by 2020 • 100% health clinic by 2025	14% (130 / 954) health clinics provide Methadone 1 Malaysia card services in 2014
	• Review and update SOP / Guideline of OST, NADA, NSEP, Prison, Police for standardization	MOH, MOE, NADA, Prison Department,	SOP / Guideline reviewed every five years	SOP OST last reviewed was in 2010 but no updated done since no much of changes agreed. Lasted up: Revised SOP OST will be ready by beginning of 2016
	• Accelerate the administration of Methadone / OST medication to new clients	MOH, MOE, NADA, Prison Department,	Newly registered OST client will be prescribed with minimum dose (20mg) of Methadone / other OST medication once passed physical examination and without waiting for Liver Function Test (LFT) result.	Currently patient / client has to be 2 weeks or more for blood result before starting OST, thus losing the patient

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Ensure the continuation of OST & ARV in custody (lockup and prison & detention centre) by conducting regular visit and health services at lockup and remand and provide basic health assessment and treatment for clients in the initial custody	MoH, RMP, Prison Department, NADA	Number of detainees examined for OST and ARV in lock up, remand and detention center to ensure continuum of care & treatment	• **RMP Guideline** - Guideline on methadone dispensing in lock up was implemented on 22 July 2014 with approval by MOH and RMP (RMP Letter KPN 10/3/7 dated 8 August 2014). Lock up was gazetted for methadone dispensing on 5 November 2012 (Director General of Health letter, Bil (46) dlm. KKM-171/BKP/ 07/32/ 0475Jld.2). - Guideline *Pemeriksaan Perubatan Untuk Orang Kena Tahan (OKT)* in RMP's lock up will be finalized by end of October 2015 for implementation. - These two guidelines will complement each other • Gap in continuum of care & treatment in rehab center & remand prison
	• Organize support group for OST/ARV patient at Healthcare Clinic	MOH, NGO	Support group session: minimum 1 session/ 2 wk/ health clinic	Only selected sites in Kuala Lumpur implementing Peer Support
	• Adopt "Klinik Kesihatan Angkat Project" in which NGOs will be located in health clinic and assist in running harm reduction services at the clinic.	MOH, NGO	At least 40 clinics by year 2020	• Pilot project currently being carried out in Kuala Sg Baru, Melaka • Currently – 316 health clinic with OST service with 40 NGOs running NSEP.
	• Monitoring of Methadone diversion	Pharmacy, MOH	At least once a year (report)	No mechanism to monitor diversion

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.13	Sustain and Consolidate Needle Syringe Exchange Programme			
	• Increase active NSEP registered client by: *a) Stress on the need of regular NSEP service to client* *b) Establish 'to increase rate of active clients' as indicator that need to be achieved* c) *Conduct activities/event to attract back client into NSEP once every quarter (4 times a year)*	NGO, MOH	Min 35% active NSEP client by 2020; 40% by 2025 and 50% by 2030	Less than 30% registered NSEP clients were active in 2014. Definition of active NSEP client: Registered NSEP client came for NSEP services at least 9 times per year
	• Improve outreach services *a) Provide sterile water in NSEP kit* *b) Educate client on the important of using sterile water while injecting* *c) Provide first aids kits to be taken along by ORW during outreach activities* d) *Include tong in NSEP outreach programme for safe disposal*	MAC, NGO, MOH	• All Harm Reduction Prevention Programme • Increase return rate of used needle & syringe	Demand from client & also attracts client to join NSEP
2.14	Increase adherence of ARV treatment among PWID			
	• Retain number of PWID on ARV treatment	MOH	Percentage of eligible PWID with HIV receiving ARV: • 2020=50% • 2025=70% • 2030=90%	23.8% of eligible PWID with HIV received ARV treatment in 2014.
	• Provide post release support to inmates who are on ARV & OST	NGO, MOH, Prison Department, NADA	a) Briefing in Prison every quarterly by NGO on Harm Reduction Programme upon release b) Receive clients upon release (focusing inmates on treatment)	Project TEMAN was implemented in 2014.

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Establish drop in center (DIC) at NGO office to improve PWID's adherence to ARV treatment.	Ministry Women, Family &Community Development, MAC, NGO, MOH	At least three DICs established by 2030	
2.2	**Mitigating Sexual Transmission**			
	• Revive the Sexual Transmission Task Force that leads the development of SOP guiding inter-agencies collaboration to upscale prevention efforts in line with NSPEA.	MOH, NGO (MAC to facilitate and co-chair the formation of the task force), MWFCD, UN, Government stakeholders	a) In 2017, gap analysis on sexual transmission reported will be conducted on transmission of HIV in Malaysia b) A working group or Task Force to be formed by 2016 to be coordinated by MAC and the Ministry of Health c) Terms of reference on this Task Force will be jointly be done by MAC and the Ministry of Health	
	• Capacity building for ORWs and healthcare workers: a) Prevention, treatment and care cascade of HIV and STI b) Sexual Reproductive Health c) Behaviour Change Communication	MOH, NGO	a) 80% of ORWs trained annually b) 30% of health care workers trained annually c) Frequency of training: 2/year	20% of ORWs trained
2.2	**Mitigating Sexual Transmission among Men having Sex with Men**			
2.21	Increase awareness on HIV and STI testing among the youth			
	• Reviving the SRH education, prevention HIV and STI in schools/colleges	MOE, KPWKM, JAKIM, KBS, NGOs	One awareness campaigns in university or Colleges per year per Pejabat Kesihatan Daerah	Reviving SRH education is important, however, due to cultural sensitivity, MSM target SRH is not feasible to be implemented
	• Internet-based targeted messages/intervention for high risk young population (peer created content) Social media strategy			

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.22	Increased HIV and STI awareness in high risk behaviours			
	• Provision of comprehensive package of services, i.e. condoms, lubricants, IEC materials, testing, linkage to care, as indicated by WHO 2014 Guideline for key affected populations in high risk venues (etc. saunas, pubs and public gyms such as Celebrity Fitness gyms).	Ministry of Housing (PBT), MOH, NGOs, venue operators, PDRM, SKMM (multimedia)	a) 100 MSM reached/NGO b) 1 safer sex kits distributed/MSM reached c) 50% MSM tested for HIV per session d) 100% of MSM tested for HIV will be reviewed every 6 months e) Pilot new intervention method at public gyms (1 fitness chain, 6 branches in Klang Valley)	
	• Strengthening Access and Usage of condoms and Lubricants through Condom and Lubricants Social Marketing and Promotion Strategy	NGO	Conduct an assessment on condom and lubricants usage and attitude among MSMs (social marketing)—2016—TA support	
	• Targeted Awareness Programme *a) To have awareness poster to encourage the community to look at positive ways on the usage of condoms in online, facebook, website, private clinics* *b) Condom negotiation skill as part of the outreach programme* *c) Attitudes about condom* *d) Knowledge, attitude and practice* *e) Usage of chem sex*	NGO	a) One assessment project on condom and lubricants usage and attitude among MSMs (social marketing) will be done in 2016. b) One report will be distributed to the Ministry of Health and other key stakeholders	

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Awareness campaign[7] using social media	NGO	a) By the end of each year, 5,000 respondents will be using the social media to test HIV & STIs via social media campaigns done by Malaysian AIDS Council. b) 25,000 MSMs will be tested for HIV & STI by the end of 2020 using the social media campaigns as advertised by MAC	
	• Behaviour Change[8] to minimize risk of acquiring HIV & STIs infection through spiritual support and guidance	JAKIM, MOH, Muslim-based NGOs	a) I session of Mukhayyam per state per year b) 50% MSM reached tested for HIV & STI c) A registry of MSM joining the session will be kept by JAKIM and the respective state to take note of changing behavior of Muslim MSMs • 50 Muslim MSM reached per session • Reduction of number of partners • Abstinence behavior from MSM to heterosexual • Increase knowledge on the issue of HIV / AIDS and reduce the risk of new HIV infections	

[7] Integrated social media awareness campaign on gay apps with banner advertising that is linked to safer sex videos, referrals to Whatsapp and telephone counselling, web based resource center, appointments for community based testing and case management approach to health clinic testing

[8] The objective is to expose and 1) guide Muslim MSMs to perform religious demands, 2) provide knowledge and awareness of the health especially HIV and other infectious diseases, 3) provide guidance and motivation to improve the skills of identifying, guiding and giving spiritual awareness through religious approach (tauhid) to face the challenges of life and abandon the practice of unnatural sex, 4) and eliminate stigma and discrimination among religious groups and communities with the surrounding communities. *Classes are held in the form of camping for 3 days 2 nights (i.e. Mukhayyam). Completion of a spiritual awareness, knowledge about health, outdoor activities / sports*

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.23	**Increase uptake of HIV test & and proactive/asymptomatic STI testing**			
	• Use of mobile HIV and STI test	MOH (Sabah), NGO	1 Pilot project in Kota Kinabalu (Sabah) to conduct HIV & STI testing among MSMs and transgenders	Based on AFA's mobile testing in Singapore. See AFA 2013 Performance Report http://www.afa.org.sg/wordpress/wp-content/uploads/mts/afa-mts-report-2013.pdf
	• Exploring the feasibility of integrating self-testing HIV test kits as part of prevention (rapid assessment +pilot project)	NGO	By the end of 2017, MAC will conduct an assessment study/ survey on the feasibility of "self HIV testing"	
	• Accompanied referrals by integrating case management approach/ client-centered approach (case workers facilitate clients to come forward for testing at health clinics or drop-in-centers)	MOH, NGO	a) By the end of 2017, MAC will present an evaluation report of Integrated Case Management Report to the Ministry of Health regarding the study done in KK Kelana Jaya, Cheras, Sentul Kuala Lumpur (Global Fund project). b) By the end of 2018, at least 1 health clinic per state in Malaysia will run this project. Among the key screenings to be done include the following: i. HIV testing ii. STI screening iii. Nucleic acid amplication tests (NAT)	Global Fund Pilot MSM project conducted in KL and JB Progress Update: January-June 2015: 228 clients reached, 148 MSM clients (65 % of total clients) were screened for HIV, and of those screened, 34 MSM clients are tested HIV positive (23%), and 2 MSM clients (6% of HIV positive clients) started on ART.

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Awareness campaign to private hospitals, GPs and labs on possibility of doing mas HIV screening among community[9]	MOH, NGO, Private Practitioner Association, MMA	Malaysian AIDS Council will facilitate at least 2 sessions per year together with the Ministry of Health on the possibility of expanding HIV screening among the public together with the Private Hospitals, Private Laboratories and General Practitioners	
	• Opportunistic PITC (Provider initiated testing and counselling)		a) Malaysian AIDS Council will initiate a session with the Ministry of Health and other key stakeholders on this topic. b) By the end of 2017, Malaysian AIDS Council will produce a report on the possibility of doing this project will involve private practitioners and health clinic	
	• Screening of minors (address policy issues pertaining to Child Act under the purview of MWCFD)	MOH (Family Health), NGO, JAKIM	Policy brief on screening of HIV and STI for minors (reinterpret policy of testing for minors	UNICEF's study on young key population (minors. Policy brief on screening of HIV and STI for minors (reinterpret policy of testing for minors)
2.24	**Pre and post exposure prophylaxis (ARV as a method of prevention)**			
	• Pre Exposure Prophylaxis (PrEP) a) *Positioning Paper on PrEP's feasibility in Malaysia* b) *Research data for PrEP among selected pilot sites (implementation science) by MAC/ UNAIDS/ CERIA.research (PrEP cost-borne by clients)*	NGO		Latest research supports early ART treatment. Ref : The Strategic Timing of Anti-retroviral Treatment (START) Study: Results and Their Implications, UNAIDS

[9] Expanding HIV and STI testing in private hospitals/GPs and robust data surveillance, ensure the confidentiality of clients when engaged in services, revisit HIV testing policy in government community health clinic setting, ensuring paramedics at health clinic/hospitals are trained to conduct pre-post HIV counseling, prevention in HIV and STI, treatment and support counselling

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Post Exposure Prophylaxis (PEP) *a) Agreement or buy-in from key stakeholders to implement a pilot PEP* *b) Setting up of Pilot KKs, CBOs, Private GPs, and hospitals for PEP (PEP cost borne by clients)* *c) Development of guideline for healthcare workers in administrating PEP (MASHM)* *d) Revise the PEP policy and key population (MSM) eligibility for PEP—based on feedback of pilot programme* *e) Central sourcing of PEP to reduce the price of PEP*	MOH, MGO, MASHM, MMA, Malaysian Primary Care Association of Malaysia (MPCAM)	a) By 2016: forum on PEP/PreP by MAC and agreement from key stakeholders by June 2016, including the Corporate Bodies and private sector in Malaysia. This forum will include Medical Development Div. of MoH b) By mid-2016: MAC will initiate a pilot study on PreP/PEP at 1 Health Clinic (Cheras), 1 CBO, 1 GP, 1 Hospital (HSB) c) Revision on the guidelines on PrEP and PEP by the Malaysian AIDS Council and Medical Development Div. of MoH. It is envisaged that there will be a new guideline on PEP / PrEP by mid-2017 d) MAC and CERIA of UM will conduct a feasibility study (of usage PrEP and PEP by PLHIVs in Malaysia) by mid-2017.	WHO consolidated guideline for Key Population 2014
	• Training on PrEP and PEP *a) Training workshops for NGOs, and health providers on PrEP and PEP* b) *Development of IEC and awareness programme on PrEP and PEP*	NGO, MOH	a) Yearly training workshops on PrEP and PEP by MAC b) By 2017, 100 healthcare workers will be trained by MAC on PrEP and PEP yearly	Refer to the latest research supports early ART treatment. Ref : The Strategic Timing of Anti-Retroviral Treatment (START) Study: Results and Their Implications, UNAIDS
2.25	Managing drug dependency in MSM community			
	• Identify MSM using polysubstance/ice in existing prevention and treatment programme	MOH, NGO	a) By 2017, MAC will produce a report on challenges of MSM using polysubstance abuse based on a study (KL, Selangor, Penang, Johor, Sabah).	
	• Design a pilot intervention for MSM with drug use (peer support, psychosocial support, harm reduction paradigm using case management approach)			

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Training for FMS, other health providers, NGOs on management of substance use • Collaboration with psychiatrists in referral and management of MSM with drug use • Development of IEC/BCC materials for management of drug use (harm reduction based)		b) MAC will produce yearly IEC/BCC development of materials on polysubstance abuse and the risk of acquiring HIV infection by 2017. c) By 2017, MAC will conduct yearly workshops on polysubstance abuse and the risk of acquiring HIV infection among the CBOs	
2.26	Expand Care and Support			
	• Setting up of self-help peer support (including HIV negative) *a) Inclusive of adherence support and counseling (developing of treatment literary module for community)* *b) Counselling and treatment for serodiscordant couples* • Managing discrimination (at work, college, community)	MOH, NGO, JAKIM	1. By 2020, a minimum of 2 Health Clinics will have peer support groups for HIV+ patients in KL, Selangor, Melaka, Negeri Sembilan, Penang, Pahang, Sabah, Sarawak, Johor (by 5th year—18 sites). This project will be initiated by the CBOs (expansion of peer support groups like - Yayasan Ihtimam Malaysia, MSM Poz) 2. Training sessions will be done by CBOs at least once a year based on the "Module for Healthcare Worker by MAC" in 5 regions (Central Region, Southern region, Northern region, Eastern Region, Sabah, Sarawak). Each region conduct 4 modules per year.	MSM Poz, KLASS, FHDA, --Module for Health Care Workers (HCW)— The Time Has Come - Training Package for Healthcare Providers, UNDP 2013. In Mar 2014 – Feb 2015, MSM POZ total case management = 347 MSM clients (incld 213 new MSM clients) MSMPOZ workshop module in 2012-2013 adapted from Australia ACON module has demonstrated results in adherence to treatment.
2.3	**Mitigating Sexual Transmission among Female Sex Workers**			
2.31	Upscaling coverage of prevention services			
	• Retaining client in the programme through support group sessions coupled with other activities/ services such HIV info session, legal aid, HIV/STI screening, SRH info and services[10]	NGO, MOH	a) Min 50% clients are retained in the programme (6x/year) b) Frequency of support group session: One session/month	10% clients are retained as of 2014

[10] Other activities such as *beauty course, opening of bank account, getting admission in the school for children, living skills (baking, sewing) could be organised on a regular basis to attract the clients*

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Expand programme outreach sites: Current outreach programme is focused more on street and venue based FSWs. To include FSWs operating through social media and apps: *a) Maintain the existing peer to peer approach* *b) Social media e.g. FB, TAGGED, WECHAT* c) *To expand on VOICE POWER (Closed group on FB specifically for FSW – currently there are 138 active members in KL only)*	MOH,NGO	a) By 2020, 60% of the FSW are reached b) By 2030, 95% of the FSW are reached	14 programme sites as of 2014 Estimated FSW: 20,000 Unique client as of 2014: 8584 clients (40%)
	• Forging smart and connected partnership to reach out to FSWs in states that has limited NGOs/CBOs implementing HIV prevention services:	MOH, NGO	a) *To identify and place outreach workers in government clinics in states without NGO/CBOs* b) Pilot states (4 outreach workers/site): c) 2016 – 2020: 5 states: Terengganu, Sarawak, Kedah, TBC1 & TBC2. Expansion of programmes in all states by 2030	Terengganu – 0 programme Sarawak – 1 CBO
	• Increase uptake of VCT and STI among FSW: *a) Community-based testing sessions organised in partnership with JKN in locations preferred by the FSW e.g. salon, brothel, entertainment outlets, FSW's house. When this is not possible, NGOs to engage independent registered health care personnel for on-site testing.* *b) Community-based testing paired with interesting activities[11] to attract FSW* *c) To promote HTC in social network - VOICE POWER and social apps such as*	MGO, MOH	a) By 2020 – 90% of reached FSW are tested and know result b) By 2030 – 95% of reached FSW are tested and know result Frequency of testing session: 1/month	Current target - 50% for VCT and 30% STI and achievement – 28% for VCT and 57% for STI

[11] Activities such as Make-up , hair-styling, cooking, baking, tailoring

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	WhatsApp, Tagged, Wechat in addition to the existing approach (peer to peer). *d) Rapid kit for STI*			
	• Increase uptake of SRH services among FSW: Outreach workers to actively promote SRH services offered in healthcare settings as an entry point to VCT and STI screenings through referrals in identified clinics. The outreach workers are to accompany the clients to the clinics – at least for the first visit[12]	NGO, MOH, FRHAM, LPPKN	a) By 2020 – 30% clients receive SRH services b) By 2030 – 80% clients receive SRH services	SRH is not actively promoted to clients though SRH services are offered in all government health clinic.
2.32	Condom and lubricant programming			
	• Increase number of FSW practicing safe sex consistently with regular and non-regular partners[13]	NGO, MOH	By 2020 - 90% of reached FSW using condom By 2030 - 95% of reached FSW using condom	IBBS 2012: 84% IBBS 2014: 84%
	• BCC intervention – to reduce alcohol or drug use prior to sexual act	NGO, MOH, AADK & JAKIM	All FSW reached to be educated on no drugs and alcohol prior to sex. *<10% of FSW consume alcohol or take drugs before sex*	<u>Drugs</u> IBBS 2009: 38.5% IBBS 2012: 20.8% <u>Alcohol</u> 2009: 35.9% 2012: 40.0%
	• Empower FSW that condom is not an evidence for sex work: *a) Paralegal training for ORW and community leaders* *b) Involvement of legal aid centre at state level*	NGO, MOH, Bar Council & RMP	a) Frequency of training: 2/year b) 80% of outreach workers trained. c) Activation of all legal aid centers by end 2016 d) % of clients assisted through this service	

[12] Training as part of capacity building is proposed in the next section to enhance knowledge of ORW in SRH.
[13] Education focused on positive behaviour change combined with condom use negotiation skills.

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.33	Linkage to Treatment, Care and Support			
	• To link FSW with HIV to treatment: *a) Outreach worker are trained to facilitate referral to TAPs.* *b) Peers are engaged as navigators in hospital and clinics (ID @ KK) to strengthen adherence and retention.*	NGO, MOH	a) 100% of FSW tested positive and require treatment are linked to treatment. b) To identify and train case workers if case management approach is used.	Case management approach to be considered.
	• Refer FSW to agencies that provide psychosocial support including spiritual and religious support that could facilitate positive behavior change leading to better adherence and retention in treatment.	NGO, MOH, JAKIM, Interfaith organisations	Number of clients referred	
2.34	Risk Elimination through Job Rehabilitation			
	• Provide training and job opportunities as an alternative to sex work. Sessions could be organised for the FSW to introduce these opportunities.	KPKWM, JPN, Majlis Agama Islam Negeri-negeri (MAIN), GIAT MARA, Amanah Ikhtiar Malaysia, MOHR, ZAKAT, KEMAS, Jabatan Pertanian	a) % FSW referred and assisted b) % FSW change job Frequency: 1 session/quarter	

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.4	**Mitigating Sexual Transmission among Transgender**			
2.41	Upscaling of HIV / STI Testing uptake			
	• Community mobilization and mapping *a) Mapping of population of Mak Nyah (MN/TG) in localized areas* *b) Identify community led local TG groups (using social media such as Facebook and Whatsapp) with potential to be trained to provide HIV/STI education/services to TG community* *c) Training of those identified focal groups on specific issues related to TG (Capacity building on full cascade of HIV/STI services)*	MOH, NGO	a) Estimation of TG population size b) Coverage of all states (relative to overall population density) c) Min 80% Identified focal group trained on specific issues related to TG	- Very limited capacity building has been conducted or planned - **ISEAN HIVOS (myISEAN)** capacity building initiatives can be leveraged upon - 42.8% tested for HIV and know result – IBBS 2014
	• Community led HIV/STI services	MOH, NGO	a) Min 1 CBO/HC per year provide CBT b) 80% high risk TG tested for HIV	At present 1 NGO (FHDA) in Penang and Kedah providing CBT and 3 HC providing special testing facilities for the community.
	• Case Management approach for continuum of care and to ensure comprehensive and quality services to TG.	MOH, NGO	Min 80% of Case Management conducted by peers from CBO.	Modelled on currently ongoing MSM pilot project by GF (Global Fund)
	• Ensuring community friendly services at Health Care Providers (HCPs) *a) Sensitization of health care workers (HCW) to provide more effectively full HIV/STI cascade of services to TG community* *b) Trained Peer educators from the TG community stationed at HCPs*	MOH, NGO	Coverage of areas not reached by Community Based Testing (CBT)	Complement community led services especially where it is not feasible/available

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.42	**Upscale awareness and education on safer sex**			
	• Condom Marketing to increase the use of condoms with all partners *a) Assessment of needs, willingness & feasibility* *b) Increase coverage of existing prevention program* *c) Expansion of outreach activities using Focal Points who will conduct peer education sessions* *d) Expansion of prevention programme for partners of TG* *e) Condom negotiation skills (role play or simulation)*	MOH, NGO	a) Incorporate with IBBS activities every 2 years in all states Prevention programs to cover all states b) 1 Focal Point per district in Year1 in district with TG. c) Min 2 peer education session per district per year. d) Increased condom usage among TG with most recent partners - 2016– 75% - 2018 - 80 % - 2020– 85% e) 2 TOT workshops for focal points on Condom Negotiation Skill per state/year (to be incorporated into above mentioned district peer educations sessions.	- Currently not all states were involved - To overcome limitation of venue based outreach - Condom use with recent partner 69.2% (2014) - TG are less likely to use condoms with their regular partners (unlike with customers)
2.43	Upscale behaviour change communication			
	• Training of Peer educators from the TG community themselves	MOH, NGO	a) Peer educators trained for every state b) Min 2 BCC Material per year. c) Min 2 Workshop / FGD / state / year.	Currently BCC are available however need to be improved using ICT and delivery should be by peers from the community ISEAN HIVOS (myISEAN) capacity building initiatives can be leveraged upon
	• On site FGD with hands on experiences by peer educators in cooperation with Health Clinics	MOH, NGO		
	• Interactive education material/application (video/ ICT) with FAQ / social media/apps a) *Strengthening SRH activity - focusing on HRT management related on HIV prevention – providing information on HRT and use as an Entry Point for HIV and STI program.* *b) Platform for advocacy*	MOH, NGO, MWFCD (LPPKN)		

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• TG representative in related committees –at all levels of Prevention, Treatment, Care and Support for HIV	MOH, NGO, JAKIM	Number of committees with representative from TG	
2.44	Improve service delivery and treatment compliance			
	• Training to empower TG-specific PLHIV support groups	MOH, NGO	Min 1 Training or Workshop / state (Mentor mentee training)	
	• Create Buddy system (Treatment buddy) within TG-specific PLHIV support group			"Buddys" must be properly trained to provide the support needed.
	• Increase Drop In Centers	NGO, MOH, JAIN, Local authorities	Min 1 Drop In Center in each states within 5 years	No Drop In Centre in except for Komited Malaysia & SEED currently
	• Establishment of treatment modality based on existing best practices models	NGO, MOH	80% of TG PLHIV treated at Health Clinics	Existing Beserah (Kuantan), Pekan (Kota Kinabalu) and Cheras health clinic models
2.45	Development of supportive systems			
	• Address non-injecting substance abuse: *a) Awareness program on substance abuse* *b) Referral to relevant agencies*	MOH, NGO, AADK	2 workshop per year per states At least 60% who need substances abuse referred to the relevant agency	Estimated 80% of TG SW abusing substances particularly ATS and alcohol
	• Psychosocial support *a) Job Substitution &Income generation, Skills training and career related training* *b) Legal Aid Sessions - to increase awareness of legal aids*** *c) Family Reconciliation - Engage communities at local level to raise awareness and encourage acceptance of TG to overcome rejection of TG by their families* *d) Upscale Program 'Mukhayyam'* *e) General Peer support groups for TG (CBO based)*	TEKUN, MARA, KEMAS, Jobs Malaysia, NGO, Private sector, JAKIM, SUKAGUAM, Yayasan Bantuan Guaman Kebangsaan, community leaders	a) Number of TG being referred to related agencies b) At least 2 legal Aid sessions per state per year c) Number of TG CBO participation in local engagement d) 1 TOT at Federal level (for officers at the State Religious Departments (JAIN) using the training manual for Mak Nyah. e) Min 1 activity/ state f) Min 1 CBO support group per state	Need to break out of stereotypical job initiatives for TG Can we use legal aids instead of legal rights Program Mukhayyam is a program under JAKIM mainly conducted for Muslim TG groups in Malaysia. The activities are focusing on voluntarily participation, empowerment, self-motivation and spiritual well-being that help to reduce internal stigmatization.

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.5	**Prevention of HIV Transmission and Care Among Children, Adolescent & Young People**			
2.51	Enhance delivery of curriculum and co-curriculum related to HIV education & awareness in school			
	• Ongoing capacity building among teachers who teach subject related HIV education	MOH, MOE, NGO	a) Min 2 state level training per year, with District Health Office (DHO) echo training to schools in districts. Coverage at least 70% of schools in the states trained b) Pocket information for trained teachers on Comprehensive Sexual Reproductive Health (SRH) Education	Already had existing curriculum in school[3] • Primary school: Personal and Family Health • Secondary school: Family Health and Sexuality Module *Teachers trained are those involved in subject matters and Doctor Muda
	• Ongoing capacity building among teachers who are in charge for co-curriculum activity related to HIV	MOH, MOE, NGO	Coverage 100% of schools with "Kelab Doktor Muda" dan "Kelab Doctor Remaja" (Young Doctor Club) trained in implementing HIV module	Not all secondary school currently having the programme but is in the process of expanding to all school Focus on primary school students as main prevention direction
	• Task Force for HIV, Drug & Reproductive Health	KBS, MOE, AADK, PDRM, MOH, MWFCD, JAKIM, RPM, NGO/MAC	No. of meetings: a) National: 2 times/year b) State: 2 times/year	JKN with existing Task force may continue with the present committee
	• Weekly School Program/ Social Ethics Program (Etika Pergaulan) – reading health education material during school assembly	MOH, MOE	a) 100% school implementing the programme – 2 times/year HIV education topics b) 100% schools received standard education materials from MOH	These two existing programmes are already ongoing.
2.52	Interactive and Multimedia Campaign to reach out adolescent and young people			
	• Social media campaign to reach out to younger online users & developing social network among users	MAMPU, MOH, NGO	One apps / one webpage created, updated and maintain on monthly basis, with target of 20% of the young population in Malaysia.	There are two apps available (Info Sihat & myHealth) currently, but not enough focus on HIV. Yearly increment of 5% visit flow into the webpage

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Multimedia campaign to reach out children[4] on HIV messages	MOH, MOE, KKMM	HIV slot for popular TV programme	Example of popular cartoon with high airtime – Upin & Ipin
	• Interactive game/awareness message in school to increase interest in HIV awareness	MOH (HECC)	a) One material per school b) (primary schools) developed and utilized c) One human standby in school to have HIV messages	Snake & Ladder game Used during school health festival (School Health Week) /Young Doctor's Club activities
	• Multimedia campaign to reach out adolescent and young people on HIV message	MOH, KKMM	TV Programme Reality Show/Prime time show to take on HIV theme as part of the awareness campaign	"Run" Programme TV reality show to take on awareness campaign in one of their episode
2.53	Rehabilitation & Care of young people with drug use behavior			
	• Facilitate and Support existing programme on managing drug use issue in secondary school	MOH, MOE, AADK	Collaboration of MoH with MOE & AADK for the HIV Prevention programme, twice per year	Existing DARIH/SHIELD programme DARIH: Dadah (Drug), Alkohol (alcohol), Rokok (cigarette), Inhalant, HIV SHIELD (Sayangi Hidup Elak Derita Selamanya)
2.54	Provide safe space for young MSM/TG/SW (Male & Female) to discuss about health behaviours and HIV			
	• Training for school counsellors in HIV/STIs & Sexuality for them to increase skills in providing counselling support to students whom belong to Key Populations	MOH, MOE	a) MOH identified technical expert to be trainer (Psychology Officer, Family Medicine Specialist, Psychiatrist) b) One national ToT organized by MOH c) Echo training at state level – JKN or PKD (minimum one or two a year) d) To create one Hotline number as a link to support group	

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
	• Need assessment in school to Identify key population, and follow up with confidential counselling programme in school	MOE	One survey per year for all forms of students[5] and smart partnership with JKN	MOE currently having the survey in place[5]
	• A compulsory slots of HIV/STIs sexual education programme in Orientation programme of IPTA/IPTS or PROSIS	MOH, MOE, Universities' Student Affair Dept.	One education activity/university/year	Focus on creating awareness on early STIs/HIV testing for KAPs
2.55	Provide treatment support to Adolescent Living with HIV (ALHIV) and Young PLHIV			
	• Improve treatment adherence among Adolescent Living with HIV (ALHIV) and Young PLHIV with support group[6]	MOH, NGO/MAC	a) 1 adolescent support group/ state b) 50 % of patient linked to the CBOs/NGOs/ Adolescent Support Group	* Pending on verification of disease burden amongst the adolescent
	• Enhancing paramedic adolescent counsellors' skill on treatment adherence for ALHIV/PLHIV	MOH	90% of ALHIV/PLHIV retained in care	
2.56	Access to HIV & STI testing for young key populations			
	• Increase uptake of HIV testing among young people (key populations)	NGO, MOH	a) At least one smart partnership of NGO screening site and government health clinic – b) Empower community to conduct HIV screening c) 100% screened reactive will be referred to health clinic	*RTK reten as baseline* *To increase uptake to 90% testing *To counter self-stigma of key population
	• Review HIV/STI testing barrier for adolescent	MOH		Community feedback reflects needs to have doctor test minor on HIV/STI
2.57	Need Assessment for at risk young people (school drop-out/street kids/young people with sexual exposure before marriage)	MOH, MOE, NGO	Regular need assessment conducted on the at risk young people (once in every 2 years)	Include into IBBS

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.6	**Elimination of Mother to Child Transmission**			
2.61	Increase testing among women of reproductive age			
	High Risk Group a) Contact tracing through NSEP/MMT program (Screening for spouse/partner) b) Community-based screening (eg: home visit for screening)	NGO MOH	100% among partner MMT program clients 50% among partner NSEP program clients	All reproductive age group women should know their status
	Low Risk Group *a) Incorporate into BSKK (Borang saringan klinik kesihatan) screening-offer for screening (>18 years)* *b) To review pre-marital course/module every 5 years- Collaborate with MOH (To emphasize more on HIV and STI)* *c) To train appropriate medical personnel to deliver talk* *d) Refreshment course for the pre-marital facilitator and certificate valid for 5 years* *e) To increase uptake of pre-marital HIV testing among non-muslim couple* *-Collaboration with registrar of marriage* *-Create Awareness (Forum, IEC materials)*	MOH JAKIM, Islamic Religious Dept., MOH Islamic Religious Dept., MOH MOH, Registration Dept.	a) 50% of reproductive aged group women involved in BSKK screening b) Module to be reviewed every 5 years	
2.62	Reduce the failure rate in locating partners of HIV positive prisoners			
	• Incorporate contact tracing through Project TEMAN	NGO, Prison Department	50% of partners among clients in TEMAN program did HIV testing	a) Wrong/incomplete address b) Mobile c) Failure to identify partners

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.63	Reduce loss to follow up among HIV Positive women at PPHIV clinic			
	a) Appoint dedicated staffs at clinics as trained counsellors/assistant counsellors to look after the well-being of HIV positive mothers. (Personalised Care) *b) Clinic Peer Support Program at point of care (Klinik Kesihatan)*	MOH NGO	<5% defaulter rate	a) no family support b) logistics c) poor knowledge d) no partner support e) poor defaulter tracing f) stigma (self/public)
2.64	Reduce new HIV infections among women			
	a) Initiation of ART treatment in all HIV positive partners among sero-discordant couple regardless of CD4 level. *b) Appoint dedicated staffs at clinics as trained counsellors/assistant counsellors to look after the well-being of sero-discordant couple*	MOH	100%	a) Early initiation of ART(regardless of CD4 count) among HIV positive partner in sero-discordant couple is not widely practiced in Malaysia b) Failure to regularly monitor HIV status of the partner
2.65	Reduce late booking among pregnant women			
	a) Strengthen pre pregnancy counselling in PPHIV *b) Establish "Rakan Ibu Mengandung" support group lead by HIV positive mothers (e.g. CAKNA and PFHDA)* *c) Strengthening tracing system for defaulters*	NGO MOH	95% of HIV Positive mothers under follow up to come for early booking (<12w POA)	a) poor knowledge b) denial c) stigma d) logistics e) background problem f) no family/partner support g) defaulter tracing
2.66	Strengthen partners screening			
	Partner's screening as an "opt out"	MOH	2016- 20% of partner's antenatal women screened. 2017- 30% 2018- 40% 2019-50% 2020-75%	a) unknown status of husband/Partner b) unknown risk behavior of husband/partner

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.67	Promote adherence among HIV positive pregnant women			
	a) *Establish peer support group "Rakan Ibu Mengandung"* b) *Dedicated team from health clinics to do regular home visits to check on medication and compliance of the treatment.* c) *Treatment literacy and patient education at point of care by dedicated staff.* d) *Strengthen HIV MTAC (Medication Therapy Adherence Clinic)*	MOH, NGO	100% of HIV Positive mothers adhere to treatment	1.non compliance 2. lack of knowledge 3. no proper counselling
	• Titer monitoring of VDRL to be done regularly in accordance to the SOP	MOH	100% of patient receiving treatment should be performed regular VDRL titer	Failure to adhere to the SOP
2.68	Improve repeat test among HIV negative pregnant women during ANC			
	• Repeat HIV test to all pregnant women at 28w	MOH	100% of High risk pregnant women are screened in according to SOP	Failure to adhere to the SOP and failure to appreciate the risk
2.69	Expand HIV test among pregnant women at private hospitals and clinics			
	• Credentialing of private hospitals / clinics providing antenatal care to do HIV test	MOH, UKAPS Private Practise Practitioners	100% for GP providing antenatal care are credentialed	
2.610	Ensure locational suppression therapy for HIV positive mothers with 24 hours after delivery			
	a) *Lactation Suppression Therapy given to all mothers with HIV* b) *Peer support group by HIV positive mothers*	MOH NGO, MOH	100% mothers been given Lactation Suppression Therapy within 24 hours	Lactation suppression therapy not universally practiced to prevent mixed feeding
2.611	Provision of Zidovudine for HIV positive new born baby after discharge from ward			
	a) New born babies are provided with Zidovudine and mothers are counselled b) Linkage of care between paediatrics clinics and health clinics	MOH, NGO	a) 100% of baby are provided with Zidovudine before discharge and 100% of mothers counselled before discharge b) 100% of HIV positive babies come for follow up	Lack of awareness regarding the importance of compliance to medication

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
2.612	Provision of Option B+ for HIV positive pregnant women			
	• Optimise Option B+ART for HIV positive mothers	MOH	At least 90% given option B+ ART	
STRATEGY 3 - REDUCTION OF STIGMA AND DISCRIMINATION				
3.1	Reduce Stigma and discrimination through: *a) Development of specific module and training among KPs to overcome self-stigma* b) *Development of module for effective communication and HIV counselling for HCW* c) *Service Providers sensitization (HCW and staff of related agency) based on 'Manual Islam and HIV/AIDS'*	MOH, NGO, Government agencies, private sectors	Module 'Managing Stigma among KP' by 2016 Module 'Effective communication & HIV Counselling for HCW' by 2016 Training for HCW – 2/state/year Training for KPs – 2/year	Workshops on Manual Islam and HIV/AIDS have been conducted by JAKIM since 2009 to Imams, Bilals, officers at the State Religious Departments and community leaders.
STRATEGY 4 - ENSURING QUALITY STRATEGIC INFORMATION AND ITS USE BY POLICY MAKERS AND PLANNERS THROUGH MONITORING, EVALUATION AND RESEARCH.				
4.1	Develop and strengthen M&E framework for all projects/programme	MOH, NGO, government agencies	One M&E framework for all key players – MOH, NGO & government agencies in line with GARPR monitoring	M&E Framework currently being developed and subject to need for modification. My MMT Database is currently being developed apart from existing PMTCT and ART Cohort National AIDS Registry is being upgraded to include treatment module and co-infections; scheduled for review 2 yearly
4.2	Conduct timely and high quality surveys including behavioural study (IBBS), population size estimations, stigma and other studies.	MOH, NGO, Academia	Structured study carried out: • IBBS - 2 yearly • Stigma among KPs, HCW & community - 2 yearly • Pop. Size estimate for KPs once every 5 years	3 cycles of IBBS conducted – 2009, 2012 & 2014 Stigma assessment among KPs has been incorporated as part of IBBS since 2014 Stigma assessment among HCW and community has taken place since 2014

NO	KEY ACTIVITIES	KEY STAKEHOLDERS	PROGRAMMATIC TARGET	REMARKS
4.3	Promote the production, dissemination and effective use of strategic information to inform and guide programme and policy decision making.	MOH, NGO, bilateral and other government agencies	GARPR report (incorporate IBBS and Stigma findings from study) produced and disseminated annually	GARPR is a collaborative work involving key stakeholders – MOH, NGO, bilateral and other government agencies
4.4	Sustain and strengthen data collection mechanism from both private and public health facilities.	MOH, GPs	Standard M&E format for PMTCT, STI and MMT for both MOH and GPs	Reporting of PMTCT, STI and MMT are currently on-going.
4.5	Coordinate NSPEA evaluation through systematic data collection and review (MTR)	MOH, NGO, Bilateral and government agencies	Review of NSPEA indicators yearly MTR every 2 years	

Annex 4

Indicators for monitoring NSPEA 2016-2030

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
STRATEGY 1. Testing and Treatment to end AIDS											
OUTCOME INDICATORS											
1.1	**Percentage of eligible adult and children receiving ART**	Annually	M&E	MOH	**44%**	50%	60%	70%	80%	90%	95%
	Numerator:	(GARPR)									
	Number of adults and children currently receiving ART in accordance with the nationally approved treatment protocol (or WHO standards) at the end of the reporting period.										
	Denominator:										
	Estimated number of adults and children living with HIV										
1.2	**(a) Percentage of PWID receiving ART**	2 yearly	IBBS	MOH	**29.1%**					90%	95%
	Numerator:										
	Number of PWID currently receiving ART										
	Denominator:										
	Number of PWID living with HIV included in the sample										
	(b) Percentage of TG receiving ART	2 yearly	IBBS	MOH	**45.7%**					90%	95%
	Numerator:										
	Number of TG currently receiving ART										
	Denominator:										
	Number of TG living with HIV included in the sample										
	(c) Percentage of MSM receiving ART	2 yearly	IBBS	MOH	**14.9%**					90%	95%
	Numerator:										
	Number of MSM currently receiving ART										
	Denominator:										
	Number of MSM living with HIV included in the sample										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
	(d) Percentage of FSW receiving ART	2 yearly	IBBS	MOH	**16.1%**					90%	95%
	Numerator:										
	Number of FSW currently receiving ART										
	Denominator:										
	Number of FSW living with HIV included in the sample										
1.3	**Percentage of PLHIV with late diagnosis (first CD4 cell count <200 cells/µL)**	Annually	M&E	MOH	**53%**	40%	30%	20%	10%	5%	0%
	Numerator:	(GARPR)									
	Number of PLHIV with late diagnosis in reporting year										
	Denominator:										
	Total number of PLHIV with first CD4 cell count in reporting year										
1.4	**Percentage of PLHIV known to be on treatment 12 months after initiation of ARV**	Annually	M&E	MOH	**89%**	90%	90%	90%	90%	90%	95%
	Numerator:	(GARPR)									
	Number of adults and children who are still alive and on ART at 12 months after initiating treatment.										
	Denominator:										
	Total number of adults and children who initiated ART who were expected to achieve 12-month outcomes within the reporting period, including those who have died since starting ART, those who have stopped ART, and those recorded as lost to follow-up at month 12.										
1.5	**Percentage of people on ART tested for viral load (VL) with undetectable viral load in the reporting period**	Annually	M&E	MOH	**81.7%**	82%	83%	85%	88%	90%	95%
	Numerator:	(GARPR)									
	Number of people on ART tested for viral load in the reporting period with undetectable viral load (i.e. ≤ 1000 copies)										
	Denominator:										
	Number of people on ART tested after 12 months therapy for VL during the reporting period										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
1.6	**(a) Percentage of PWID that have received an HIV test and knew their results**	2 yearly	IBBS	MOH	**85%**		88%		90%	90%	95%
	Numerator:	(GARPR)									
	Number of PWID respondents who have been tested for HV and who know their results										
	Denominator:										
	Number of PWID included in the sample										
1.6	**(b) Percentage of MSM that have received an HIV test and knew their results**	2 yearly	IBBS	MOH	**55%**		70%		80%	90%	95%
	Numerator:	(GARPR)									
	Number of MSM respondents who have been tested for HV and who know their results										
	Denominator:										
	Number of MSM included in the sample										
	(c) Percentage of TG that have received an HIV test and knew their results	2 yearly	IBBS	MOH	**67%**		70%		80%	90%	95%
	Numerator:	(GARPR)									
	Number of TG respondents who have been tested for HV and who know their results										
	Denominator:										
	Number of TG included in the sample										
	(d) Percentage of FSW that have received an HIV test and knew their results	2 yearly	IBBS	MOH	**62%**		70%		80%	90%	95%
	Numerator:	(GARPR)									
	Number of FSW respondents who have been tested for HV and who know their results										
	Denominator:										
	Number of FSW included in the sample										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
1.7	**Percentage of women and men aged 15+ who are HIV+ in the last 12 months**	Annually	M&E	MOH	**0.09%**	0.09%	0.08%	0.08%	0.07%	0.06%	0.04%
	Numerator:	(GARPR)									
	Number of women and men 15+ who are HIV+ out of number tested										
	Denominator:										
	Number of women and men aged 15+ who received HIV test and know the result										
1.8	**Percentage of estimated HIV-positive incident TB cases that received treatment for TB and HIV**	Annually	M&E	MOH	**19.7%**	30%	60%	70%	80%	90%	95%
	Numerator:	(GARPR)									
	Number of people with HIV infection who received ARV combination therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) and who were started on TB treatment (in accordance with the national TB programme guidelines) within the reporting year										
	Denominator:										
	Estimated number of incident TB cases in people living with HIV										
1.9	**Percentage of adults and children living with HIV newly enrolled in care who are detected having active TB disease**	Annually	M&E	MOH	**9.50%**	9%	9%	9%	9%	8%	5%
	Numerator:	(GARPR)									
	Total number of adults and children newly enrolled in HIV care who are diagnosed as having active TB disease during the reporting period										
	Denominator:										
	Total number of adults and children newly enrolled in pre-ART care or on ART during the reporting period										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
1.10	**Percentage of adult and children newly enrolled in HIV care starting isoniazid preventive therapy (IPT)**	Annually	M&E	MOH	**43%**	50%	60%	70%	80%	90%	95%
	Numerator:	(GARPR)									
	Number of adults and children newly enrolled in HIV care (pre-ART & ART) who also start (given at least one dose) IPT during the reporting period										
	Numerator:										
	Number of adults and children newly enrolled in HIV care during the reporting period										
1.11	**Percentage (%) of adults and children enrolled in HIV care who had TB status assessed and recorded during last visit**	Annually	M&E	MOH	**88.2%**	89%	90%	90%	90%	90%	95%
	Numerator:	(GARPR)									
	Number of adults and children enrolled in HIV care ('in HIV care' includes people in the pre-ART register and people in the ART register) , who had their TB status assessed and recorded during their last visit during the reporting period										
	Denominator:										
	Number of adults and children newly enrolled in HIV care during the reporting period										
OUTPUT INDICATORS											
1.12	**Number of facilities providing HIV screening/testing services**	Annually	M&E	MOH							
	Numerator:	(GARPR)		NGO							
	(a) Government health facilities				**1187**	100%	100%	100%	100%	100%	100%
	(b) Private health facilities				**7035**						
	(c) NGO/CBO screening points				**5**	10	15	20	25	25	25
1.13	**(a) Percentage of PWID reached that have received an HIV screening**	Quarterly	M&E	NGO	**14%**	30%	50%	60%	70%	90%	95%
	Numerator:										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
	Number of PWID client who have been screened for HIV										
	Denominator:										
	Number of active PWID (≥9 times face-to-face outreach)client in the last 12 months										
	(b) Percentage of SW reached that have received an HIV screening	Quarterly	M&E	NGO	**12%**	20%	40%	60%	80%	90%	95%
	Numerator:										
	Number of active SW client who have been screened for HIV										
	Denominator:										
	Number of active SW (≥6 times face-to-face outreach) client in the last 12 months										
	(c) Percentage of MSM reached that have received an HIV screening	Quarterly	M&E	NGO	**22%**	30%	40%	60%	80%	90%	95%
	Numerator:										
	Number of active MSM client who have been screened for HIV										
	Denominator:										
	Number of registered active MSM client in the last 12 months (>=4 times face-to-face outreach)										
1.14	**Treatment adherence peer support (TAPS) programme**	Annually	M&E	NGO							
	Numerator:										
	Number of HIV treatment centers with TAPs programme										
	a) Hospital				**23**						
	b) Health Clinic				**5**						
1.15	**Capacity building of outreach/case worker on Harm Reduction, HIV screening, TB detection and linkages to care**	Annually	M&E	NGO							
	Numerator:			MOH							
	(a) Appropriate module developed					1					
	(b) Number of outreach worker or case worker trained				0	60					

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
STRATEGY 2. IMPROVING THE QUALITY AND COVERAGE OF PREVENTION PROGRAMMES AMONG KEY POPULATIONS											
A. Prevention of HIV transmission through injecting drug use											
OUTCOME INDICATORS											
2.1	**Percentage of PWID who have <u>never shared</u> needle in the last 12 months**	2 yearly	IBBS	MOH	**76%**		80%		85%	90%	95%
	Numerator:										
	Number of PWID respondents who have never shared needle in the last 12 months										
	Denominator:										
	Number of PWID included in the sample										
2.2	**Percentage of PWID who report the use of a condom at last sexual intercourse**	2 yearly	IBBS	MOH	**20.8%**		30%		40%	50%	80%
	Numerator:	(GARPR)									
	Number of PWID who reported that a condom was used the last time they had sex										
	Denominator:										
	Number of PWID who report having injected drugs and having sexual intercourse in the last month.										
2.3	**Percentage of NSEP client referred to OST**	Annually	M&E	MAC	**21%**	30%	40%	50%	60%	70%	80%
	Numerator:										
	Number of active NSEP client who have been referred to OST service										
	Denominator:										
	Number of registered active opiate NSEP clients										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
2.4	**Percentage of PWID living with HIV**	2 yearly	IBBS	MOH	**16.3%**		<14%		<12%	<11%	<5%
	Numerator:	(GARPR)									
	Number of PWID who test positive for HIV										
	Denominator:										
	Number of PWID tested for HIV										
2.5	**Percentage of Hepatitis C infection among PWID**	Annual	M&E	MOH	**28%**		24%		22%	20%	15%
	Numerator:										
	Number of PWID infected with Hepatitis C										
	Denominator:										
	Number of new PWID enrolled in OSTin the current year										
2.6	**Percentage of PWID on OST**	Annual	M&E	MOH	**30%**	40%	50%	60%	65%	80%	85%
	Numerator:										
	Number of registered OST clients										
	Denominator:										
	Number of estimated opiate PWID										
2.7	**Percentage of PWID reached with prevention programme[a]**	2 yearly	IBBS	MOH	**65%**		70%		75%	80%	90%
	Numerator:	(GARPR)									
	Number of PWID reached										
	Denominator:										
	Number of PWID included in the survey										
OUTPUT INDICATORS											
2.8	**Needles distributed to each PWID in the last 12 month**	Annually	M&E	MAC	**285**					300	300
	Numerator:	(GARPR)									
	Number of sterile needles distributed in the past 12 months										
	Denominator:										
	Number of active PWID client										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
2.9	**Number of substitution therapy (OST) sites**	Annually	M&E	MOH	**838**						
	(a) Government	(GARPR)			**472**						
	(b) Private (GP)				**366**						
2.10	**OST retention**	Yearly	M&E	MOH	**NA**					80	85
	Numerator:										
	Number of OST clients still in treatment 6 months after starting OST										
	Denominator:										
	Number of clients started on OST										
2.11	**Percentage of PWID reached with minimum prevention programme**	Annually	M&E	NGO	**24%**	30%	40%	60%	70%	80%	90%
	Numerator:										
	Number of PWID reached										
	Denominator:										
	Estimated number of PWID										
B. Prevention of sexual transmission of HIV											
OUTCOME INDICATORS											
2.12	**Percentage of FSW reporting use of a condom with their most recent client**	2 yearly	IBBS	MOH	**84.5%**		86%		88%	90%	100%
	Numerator:	(GARPR)									
	Number of SW who reported that a condom was used with their last client										
	Denominator:										
	Number of SW who reported having commercial sex in the last 12 months.										
2.13	**Percentage of FSW reached with prevention programmes[a]**	2 yearly	IBBS	MOH	**49.9%**		55%		63%	65%	80%
	Numerator:	(GARPR)									
	Number of FSW reached with prevention programme in the last 12 months										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
	Denominator:										
	Total number of FSW surveyed										
2.14	**Percentage of FSW living with HIV**	2 yearly	IBBS	MOH	**7.3%**		7.0%		6.8%	6.7%	6.5%
	Numerator:	(GARPR)									
	Number of FSW who test positive for HIV										
	Denominator:										
	Number of FSW tested for HIV.										
2.15	**Percentage of MSM reporting use of a condom with their most recent partner**	2 yearly	IBBS	MOH	**57%**		62%		65%	70%	80%
	Numerator:	(GARPR)									
	Number of MSM who reported that a condom was used with their last sexual partner										
	Denominator:										
	Number of MSM who reported having anal sex in the last 12 months.										
2.16	**Percentage of MSM reached with prevention programmes**	2 yearly	IBBS	MOH	**31%**		40%		50%	65%	80%
	Numerator:	(GARPR)									
	Number of MSM reached with prevention programme in the last 12 months										
	Denominator:										
	Total number of MSM surveyed										
2.17	**Percentage of MSM living with HIV**	2 yearly	IBBS	MOH	**8.9%**		8.6%		8.5%	8.3%	8.0%
	Numerator:	(GARPR)									
	Number of MSM who test positive for HIV										
	Denominator:										
	Number of MSM tested for HIV.										
2.18	**Percentage of TG reporting use of a condom with their most recent partner**	2 yearly	IBBS	MOH	**81%**		83%		88%	90%	100%
	Numerator:	(GARPR)									

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
	Number of TG who reported that a condom was used with their last sexual partner										
	Denominator:										
	Number of TG who reported having anal sex in the last 12 months.										
2.19	**Percentage of TG reached with prevention programmes**	2 yearly	IBBS	MOH	**64%**		68%		70%	75%	80%
	Numerator:	(GARPR)									
	Number of TG reached with prevention programme in the last 12 months										
	Denominator:										
	Total number of TG surveyed										
2.20	**Percentage of TG living with HIV**	2 yearly	IBBS	MOH	**5.6%**		5.4%		5.2%	5%	5%
	Numerator:	(GARPR)									
	Number of TG who test positive for HIV										
	Denominator:										
	Number of TG tested for HIV.										
2.21	**Percentage of FSW with active syphilis**	Annually	M&E	MOH	NA						
	Numerator:			NGO							
	Number of FSW who are tested positive for syphilis										
	Denominator:										
	Number of FSWs who are tested for syphilis										
2.22	**Percentage of TG with active syphilis**	Annually	M&E	MOH	NA						
	Numerator:			NGO							
	Number of TG who are tested positive for syphilis										
	Denominator:										
	Number of TGs who are tested for syphilis										
2.23	**Percentage of MSM with active syphilis**	Annually	M&E	MOH	NA						
	Numerator:			NGO							
	Number of MSM who are tested positive for syphilis										
	Denominator:										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
	Number of MSM who are tested for syphilis										
OUTPUT INDICATOR											
2.24	**Percentage of active FSW reached**	Annually	M&E	MAC	**38%**	50%	55%	60%	70%	80%	85%
	Numerator:										
	Number of unique FSW client reached										
	Denominator:										
	Estimated number of FSW										
2.25	**Percentage of TGSW reached with HIV prevention programme**	Annually	M&E	MAC	**21%**	30%	40%	50%	70%	80%	85%
	Numerator:										
	Number of unique TGSW reached										
	Denominator:										
	Number of estimated TG										
2.26	**Percentage of MSM reached with prevention package**	Annually	M&E	MAC	**0.70%**	20%	30%	40%	60%	80%	85%
	Numerator:										
	Number of unique MSM reached										
	Denominator:										
	Number of estimated MSM										
C. Elimination of mother-to-child transmission of HIV and syphilis											
OUTCOME INDICATORS											
2.27	**Percentage of pregnant women who know their HIV status (tested for HIV and received results - during pregnancy, during labour and delivery, and during the post-partum period (<72 hours), including those with previously known HIV status**	Annually (GARPR)	M&E EPP	MOH	**85%**					90%	95%
	Numerator:										
	Number of pregnant women who were tested for HIV in the last 12 months and received their results - during pregnancy, during labour and delivery, and during the post-partum period (<72 hours), including those with previously known HIV status										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
	Denominator:										
	Estimated number of pregnant women										
2.28	**Percentage of HIV+ pregnant women who received ARV to reduce the risk of mother-to-child transmission**	Annually	M&E	MOH	**78%**	80%	82%	85%	90%	95%	100%
	Numerator:	(GARPR)									
	Number of HIV-positive pregnant women who received antiretroviral medicine during the past 12 months to reduce the risk of mother-to-child transmission during pregnancy and delivery.										
	Denominator:										
	Number of HIV-positive women who delivered within the past 12 months										
2.29	**Percentage of child HIV infections from HIV+ women delivering in the past 12 months**	Annually	M&E	MOH	**1.3%**	1.0%	1.0%	<1%	<1%	<1%	<1%
	Numerator:	(GARPR)									
	Number of children newly infected with HIV due to mother-to-child transmission among children born in the previous 12 months to HIV-infected women										
	Denominator:										
	Number of HIV positive women who delivered in the previous 12 months										
2.30	**Percentage of antenatal care attendees who were positive for syphilis**	Annually	M&E	MOH	**0.06%**					0.05%	0.03%
	Numerator:	(GARPR)									
	Number of antenatal care attendees who tested positive for syphilis										
	Denominator:										
	Number of antenatal care attendees who were tested for syphilis										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
2.31	**Number of adults reported with syphilis (primary/secondary and latent/unknown) in the past 12 months**	Annually	M&E	MOH	**0.01%**	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %
	Numerator:	(GARPR)									
	Number of adults reported with syphilis during the reporting period										
	Denominator:										
	Number of individuals aged 15 and older										
2.32	**Number of men reported with gonorrhoea in the past 12 months**	Annually	M&E	MOH	**0.01%**	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %
	Numerator:	(GARPR)									
	Number of men reported with gonorrhoea in the past 12 months										
	Denominator:										
	Number of males aged 15 and older										
2.33	**Number of men reported with urethral discharge in the past 12 months**	Annually	M&E	MOH	**0.01%**	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %
	Numerator:	(GARPR)									
	Number of men reported with urethral discharge in the past 12 months										
	Denominator:										
	Number of males aged 15 and older										
2.34	**Number of adults reported with genital ulcer in the past 12 months**	Annually	M&E	MOH	**<0.01 %**	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %
	Numerator:	(GARPR)									
	Number of adults reported with genital ulcer in the past 12 months (disaggregated by sex)										
	Denominator:										
	Number of individuals aged 15 and older (disaggregated by sex)										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
2.35	**Percentage of congenital syphilis**	Annually	M&E	MOH	**0.01%**	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %
	Numerator:	(GARPR)									
	Number of congenital syphilis born in the previous 12 months										
	Denominator:										
	Number of deliveries in the previous 12 month										
OUTPUT INDICATORS											
2.36	**Percentage of male partner screened for HIV**	Annually	M&E	MOH	**8%**	20%	30%	50%	70%	75%	90%
	Numerator:	(GARPR)									
	Number of spouse/male partner screened										
	Denominator:										
	Number of mother attending antenatal care										
2.37	**Percentage of woman known to be living with HIV who come for early booking (<12w POA) in the current year**	Annually	M&E	MOH	NA	20%	40%	60%	80%	95%	100%
	Numerator:										
	Number of woman known to be living with HIV who come for booking within <12 week of gestation										
	Denominator:										
	Number of woman known to be living with HIV attended antenatal care										
2.38	**Percentage of women accessing antenatal care (ANC) services who were tested for syphilis at first ANC visit**	Annually	M&E	MOH	**98.9%**	99%	99.2%	99.5 %	99.8%	99.9%	100%
	Numerator:	(GARPR)									
	Number of women attending ANC services who were tested for syphilis at first ANC visit										
	Denominator:										
	Number of women attending ANC services										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
2.39	**Percentage of infants born to HIV-infected women receiving antiretroviral prophylaxis for prevention of mother-to-child transmission (PMTCT)**	Annually	M&E	MOH	**100%**	100%	100%	100%	100%	100%	100%
	Numerator:	(GARPR)									
	Number of infants born to HIV-infected women receiving antiretroviral prophylaxis for PMTCT										
	Denominator:										
	Number of HIV-infected pregnant women giving birth										
2.40	**Percentage of infants born to HIV-infected women started on cotrimoxazole (CTX) prophylaxis within two months of birth**	Annually	M&E	MOH	**100%**	100%	100%	100%	100%	100%	100%
	Numerator:	(GARPR)									
	Number of infants born to HIV-infected women started on CTX prophylaxis within two months of birth										
	Denominator:										
	Number of HIV-infected pregnant women giving birth										
2.41	**Percentage of infants born to HIV+ women receiving a virological test for HIV within 2 months of birth**	Annually	M&E	MOH	**68.5%**	70%	75%	80%	80%	80%	95%
	Numerator:	(GARPR)									
	Number of infants who received an HIV test within two months of birth, during the reporting period. Infants tested should only be counted once										
	Denominator:										
	Number of HIV-positive pregnant women giving birth in the last 12 months										
2.42	**Percentage of syphilis infected mother receiving treatment**	Annually	M&E	MOH	**100%**	100%	100%	100%	100%	100%	100%
	Numerator:	(GARPR)									
	Number of syphilis infected mother receiving treatment										
	Denominator:										
	Number of mother infected with syphilis										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
D. Prevention of HIV among young key population											
OUTCOME INDICATORS											
2.43	**Percentage of young women & men (15–24 years) who correctly identify ways of preventing sexual transmission of HIV and reject major misconceptions about HIV transmission**	Annually	Survey	MOH	**40%**	42%	45%	50%	55%	60%	80%
	Numerator:	(GARPR)									
	Number of respondents aged 15-24 years who gave the correct answer to all five questions										
	Denominator:										
	Number of all respondents aged 15–24										
2.44	**Percentage of young women aged 15-24 who are living with HIV**	Annually	M&E	MOH	**0.08%**					0.05%	0.02%
	Numerator:	(GARPR)									
	Number of antenatal clinic attendees (aged 15-24) tested whose HIV test results are positive										
	Denominator:										
	Number of antenatal clinic attendees (aged 15-24) tested for their HIV infection status										
2.45	**Percentage of young key populations (<25 years) reported use condom with last sexual partner:**	2 yearly	IBBS	MOH							
	(a) Numerator: *Number of FSW aged <25 years reported use of condom with last sexual partner*	(GARPR)			**78%**		79%		79.5%	80%	90%
	Denominator: *Number of FSW aged <25 years*										
	(b) Numerator: *Number of MSM aged <25 years reported use of a condom with last sexual partner*				**57%**		60%		70%	80%	90%
	Denominator: *Number of MSM aged <25 years*										
	(c) Numerator: *Number of TG aged <25 years reported use of a condom with last sexual partner*				**77%**		79%		80%	80%	90%
	Denominator: *Number of TG aged <25 years*										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
2.46	**Percentage of young PWID reported use sterile N/S in the past 12 month**	2 yearly	IBBS	MOH	**95%**		98%		99%	100%	100%
	Numerator:	(GARPR)									
	Number of PWID aged <25 years reported use of clean N/S during last injection										
	Denominator:										
	Number of PWID aged <25 years										
OUTPUT INDICATORS											
2.47	**Percentage of schools with trained teacher counselor in HIV/STIs & SRH**	Annually	M&E	MOE	NA					50%	80%
	Numerator:			MOH							
	Number of school with trained teacher counselor										
	Denominator:										
	Number of schools										
STRATEGY 3. REDUCTION OF STIGMA AND DISCRIMINATION											
OUTCOME INDICATORS											
3.1	**Percentage of respondents (aged 15–49 years) who respond "No" or "It depends" to both of the two questions:** **(a) 'Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?' and (b) 'Do you think children living with HIV should be able to attend school with children who are HIV negative?**	2 yearly	Survey	MOH NGO	**19%**		18%		16%	15%	10%
	Numerator:	(GARPR)									
	Number of respondents (aged 15–49 years) who respond "No" or "It depends" to both of the two questions										
	Denominator:										
	Number of all respondents aged 15–49 years who have heard of HIV										

No.	Indicator	Data Collection Frequency	Data Collection Method	Org.	2014	2016	2017	2018	2019	2020	2030
OUTPUT INDICATORS											
3.2	**Number of HCW undergo internship at ID Clinic (1-2 week)**	Annually	M&E	MOH	**NA**						
	Numerator:										
	Number of HCW (doctor, paramedics, counselors) trained in HIV care										
3.2	**Managing Stigma (HCW & KP)**	Once		MOH							
	Development of Module - 'Managing Stigma'			NGO							

References:

1) MoH: Malaysia National HIV Strategic Plan on HIV and AIDS 2011-2015 (2011)
2) MoH: Mid Term Review of National Strategic Plan (2013)
3) MoH: Malaysia Global AIDS Response Progress Report (GARPR) (2014 AND 2015)
4) MoH: National Commitments and Policy Instrument (NCPI) (2015)
5) MoH: Ending AIDS in Malaysia, Myth or Reality (5 May 2015)
6) MoH: Development of the National Strategic Plan for Ending AIDS, NSPEA 2016-2030 (2015)
7) MoH: IBBS survey results (2014)
8) MoH: Ending AIDS in Malaysia; presentation by Anita Suleiman at CCM (19 June 2015)
9) MTAAG+: The people living with HIV Stigma Index (2012)
10) WB: Return on Investment and cost effectiveness of harm reduction in Malaysia (2013)
11) UNGA: Special Rapporteur on trafficking in persons; mission report to Malaysia (15 June 2015)
12) Malaysia Human Rights Commission: Round Table discussions on the right to health and HIV/AIDS in Sarawak, Sabah and Kuala Lumpur (November 2014)
13) MAC: Community dialogue; Mona Sheikh Mohamud presentation (2015)
14) MAC: Community Assessment, preliminary results; Mona Sheikh Mohamud (2015)
15) MAC: Report on operational research to map existing HIV services for MSM and to identify factors to increase utilization of these services in four States of Malaysia (2014)
16) MAC: Global Fund project progress update Jan-March 2015; Joselyn Pang at CCM 19 June 2015
17) MAC: Global Fund grant MYS-H-MAC progress report and reprogramming proposal (2015)
18) UNAIDS: Aidsinfo fact sheet Malaysia HIV and AIDS estimates (2013)
19) UNAIDS: Global report (2013)
20) UNAIDS: Gap report (2014)
21) UNAIDS: The Cities report (Outlook 2014)
22) UNAIDS: Understanding Fast Track; Accelerating action to end the AIDS epidemic by 2030 (2015)
23) UNAIDS: 90-90-90; An ambitious treatment target to help end the AIDS epidemic (2014)
24) UNAIDS: Fast Track strategy; Malaysia country specific targets and resource needs (2015)
25) UNAIDS/Lancet Commission: Defeating AIDS, Advancing global health (2015)
26) UNAIDS: Biomedical AIDS research, recent and upcoming advances, references (2015)
27) UNAIDS: How AIDS changed everything (2015)
28) UNAIDS: HIV and AIDS Strategy 2016-2021 (PCB 2015)
29) UNAIDS: Implications of the START study; questions and answers (2015)
30) UNAIDS and UNHABITAT: Ending urban epidemic (2015)
31) WB/UNAIDS: National HIV Strategy for Impact; Guidance note getting to zero (2014)
32) ILO: Code of Practice on Prevention and Management of HIV/AIDS at the Workplace
33) UNGA: Political Declaration on HIV/AIDS (2011)
34) UNGA: Sustainable Development Goals 2016-2030 (September2015)
35) ASEAN: 19th Summit Declaration; Getting to Zero (November 2011)
36) ASEAN: ATFOA meeting in Manila (July 2015)

37) UNESCAP: Asia-Pacific intergovernmental meeting on HIV/AIDS (January 2015)
38) High Level Expert Panel: Investing in Results; How Asia Pacific countries can invest for ending AIDS (January 2015)
39) WHO: Guidelines on HIV prevention and treatment for sex workers (2011)
40) WHO: Guidelines on HIV prevention and treatment for MSM and transgender people (2012)
41) WHO: HIV and adolescents, guidelines for testing, treatment and care (2013)
42) WHO: Consolidated guidelines on use of ARVs for treating and preventing HIV (2013)
43) WHO: Prevention, diagnosis, treatment and care for Key Populations (2014)
44) WHO: Global update on health sector response to HIV (2014)
45) WHO: Consolidated guidelines on HIV testing services (July 2015)

HIV/STI Sector
Disease Control Division
Ministry of Health Malaysia
www.moh.gov.my