Country Progress Report On HIV/AIDS 2019 MALAYSIA

Ministry of Health Malaysia

The Global AIDS Monitoring Report 2019

This report was coordinated and produced by HIV/STI/Hepatitis C Section of Ministry of Health Malaysia.

Editorial Team

Dr. Anita Suleiman (Chief Editor) Head HIV/STI/Hepatitis C Sector, Ministry of Health Malaysia

Dr. Chai Phing Tze (Lead author & Editor) Senior Principal Assistant Director (Behavioral Research) HIV/STI/Hepatitis C Sector, Ministry of Health Malaysia

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LIST OF MAIN CONTRIBUTORS

- 1. Dr Mazliza Ramly, HIV/STI/Hepatitis C Sector
- 2. Dr Fazidah Yuswan, HIV/STI/Hepatitis C Sector
- 3. En Azman Mohamed, HIV/STI/Hepatitis C Sector
- 4. Pn Fatimah Azzahroh Ahmad Hafad, HIV/STI/Hepatitis C Sector
- 5. Dr Mohamad Naim, TB/Leprosy Sector
- 6. En Parimelazaghan Ellan, Malaysian AIDS Council
- 7. Pn Tamayanty Kurusamy, Malaysian AIDS Council
- 8. Dr Rohemi Abu Bakar, State Health Department Perlis
- 9. Dr Azlina Azlan, State Health Department Kedah
- 10. Dr Janizah Abd Ghani, State Health Department Pulau Pinang
- 11. Dr Ariza Abd Rahman, State Health Department Perak
- 12. Dr Ismawati Ismail, State Health Department FT Kuala Lumpur & Putrajaya
- 13. Dr Gurpreet Kaur, State Health Department Selangor
- 14. Dr Sharifah Nor Ahmad, State Health Department Negeri Sembilan
- 15. Dr Mahanim Md Yusof, State Health Department Melaka
- 16. Dr Jeyanthini Sathasivam, State Health Department Johor
- 17. Dr Sharifah Mahani Syed Mahar Affandi, State Health Department Pahang
- 18. Dr Mahani Nordin, State Health Department Terengganu
- 19. Dr Haniah Yusoff, State Health Department Kelantan
- 20. Dr Valentine @ Japulee Bin Gantul, State Health Department Sabah
- 21. Dr Ruziana Miss, State Health Department Sarawak
- 22. Dr Normaslina Mustaza, State Health Department FT Labuan

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LIST OF ABBREVIATION

AIDS	Acquired Immune Deficiency Syndrome
AEM	AIDS Epidemic Model
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral
AZT	Zidovudine
CBT	Community Based Testing
CCM	Country Coordinating Mechanism
eMTCT	Elimination of Mother-to-Child Transmission
FSW	Female sex worker
GAM	Global AIDS Monitoring
GF	Global Fund
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IBBS	Integrated Bio-Behavioral Surveillance
KP	Key population
MAC	Malaysian AIDS Council
MMT	Methadone maintenance therapy
МоН	Ministry of Health
MSM	Men having sex with men
NGO	Non-government organization
NSEP	Needle and Syringe Exchange Program
NSPEA	National Strategic Plan on Ending AIDS
01	Opportunistic infection
OST	Oral substitution therapy
PLHIV	People living with HIV
PMTCT	Prevention of Mother-to-Child Transmission
PSE	Population Size Estimates
PWID	People who inject drugs
STI	Sexually transmitted infection
TAPS	Treatment Adherence Peer Support
ТВ	Tuberculosis
TG	Transgender
UNGASS	United Nations General Assembly Special Session
VCT	Voluntary counseling and testing
WHO	World Health Organization



CHAPTER 1. INTRODUCTION

1.1 The milestone

Malaysia response on HIV/AIDS started even before the first case of HIV was reported. The National AIDS Task Force was established in year 1985; which is a year before the first case was reported. With strong commitment from the government and active participation from multi-agencies to support the policies related to HIV/AIDS tabled by the task force, the country witnessed many policies turn to success stories that help to halt and reverse the epidemic. Table 1 showed the major milestones of Malaysia responses on preventing and controlling HIV/AIDS.

Year	National Response	Infection Rate in the corresponding year (per 100,000 pop.)
1985	National AIDS Task Force established National Surveillance System established; HIV/AIDS as notifiable disease	0.00
1986	First case reported HIV screening initiated in prisons and drug rehabilitation centers	0.02
1988	First National Plan of Action on AIDS developed	0.05
1990	HIV Screening Program started for prisoners, inmates of drug rehabilitation centers, TB/STI patients, sex workers, antenatal (sentinel) Provision of AZT treatment for health care worker exposed to HIV	4.30
1991	1 st National Healthy Life-style Campaign on AIDS	9.67
1992	Inter-Ministerial Committee on AIDS National Coordinating Committee on AIDS National Technical Committee on AIDS AIDS/STD Section established in MoH Malaysian AIDS Council established	13.17
1997	AZT available in government Health Clinics	18.03
1998	Revised Plan of Action on HIV/AIDS Prevention of Mother-to-Child Transmission (PMTCT) Program	20.70
2000	Cabinet Committee on AIDS (CCA) HIV Management at Primary Care Program Anonymous HIV test program MDG-6 Target: Halve new HIV infection by 2015	21.74
2002	Premarital HIV Screening – Pilot by Islamic Religious Dept	28.45
2003	Government partnership with MAC through funding scheme	26.97
2004	Provision of Free two (2) ART to limited patients	25.12
2005	Harm Reduction Program implemented	23.42
2006	1 st National Strategic Plan for HIV and AIDS (2006 – 2010) Provision of Free first line ART to all Malaysian	21.88

Table 1: Major milestones of the country's responses on HIV/AIDS and corresponding infection rate



2010	ARV treatment initiation revised from CD4 200 to 350 cells/μL National Premarital Screening Program	12.93
2011	2 nd National Strategic Plan for HIV and AIDS (2011 – 2015) Treatment Option B+ for PMTCT Provision of isoniazid prophylaxis for PLHIV	12.18
2013	City Getting to Zero project – Melaka Historical City	11.42
2015	HIV screening program at 1Malaysia Clinic (MDG 6 target achieved)	10.90
2016	National Strategic Plan – Ending AIDS 2016 - 2030	11.00
2017	ARV initiation regardless of CD4 count	10.33

1.2 Epidemic Snapshot

At the end of year 2018, it is estimated that 87,041 people live with HIV (PLHIV) in Malaysia, 75,040 of whom were notified through the national surveillance system (Table 2). By December 2018, 55% of the reported PLHIV were receiving antiretroviral treatment (ART). It is also reported that new HIV infection has declined by more than 50% from year 2002, with 6,978 cases new HIV notification (equivalent to 28 cases per 100,000 population), to 3,293 cases in 2018 (equivalent 10.0 cases per 100,000 population (Figure 1), while the estimated HIV incidence rate per 1000 uninfected population has also gradually declined to 0.25 in year 2018 (Figure 2).

Table 2: overview of HIV epidemic, Malaysia 2018

Indicator	Number
Cumulative number of reported HIV	118,883
Cumulative number of reported AIDS	25,925
Cumulative number of deaths related to HIV/AIDS	43,843
Estimated people living with HIV (Spectrum 2018)	87,041
Total number of people living with HIV (surveillance data)	75,040
Reported new HIV infections	3,293
HIV notification rate (per 100,000)	10.0
People living with HIV receiving ART as of December 2017	41,430



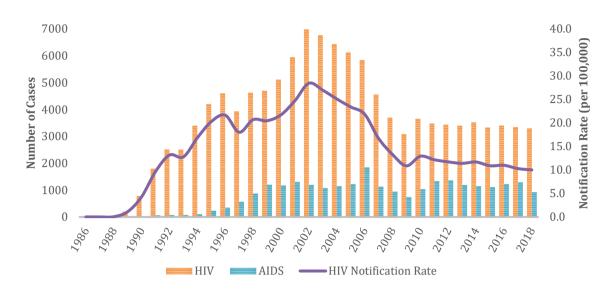
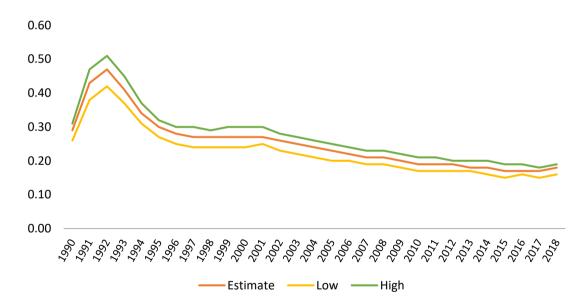


Figure 1: Reported HIV and AIDS, Malaysia 1986 – 2018





Approximately half of the PLHIV were reported from Selangor (28.0%), Kuala Lumpur & Putrajaya (13.0%), and Johor (9.4%) (Figure 3). PLHIV in Malaysia are predominantly male. However, over the years, notification rate among female has increased, with male/female ratio declining from 9.6 in 2000 to 7.3 in 2018 (Figure 4).



Figure 3: People living in HIV in Malaysia by state, 2018

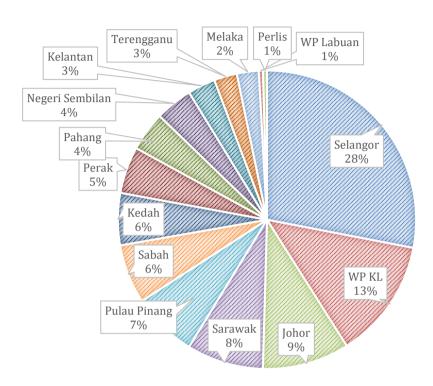
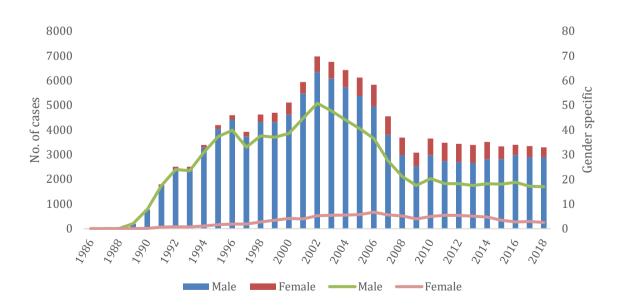


Figure 4: Distribution of reported HIV cases by gender, Malaysia 1986 - 2018





From the beginning of HIV epidemic, the main key population at high risk of HIV infection in Malaysia is PWID followed by FSW, TG and MSM. However, over the time, MSM is expected to become the main key population in Malaysia in year 2030 as projected using the Asian Epidemic Modelling (AEM) (Figure 5). Consistent with the projection, figure 6 also showed trend of HIV transmission mode in Malaysia has shifted towards sexual transmission from injecting drugs, with PWID/sexual transmission ratio declining from 3.95 in 2000 to 0.03 in 2018. More than 70% of HIV new infections are reported among people age 20 to 39 years old in year 2018. While children age less than 13 years old are approximately less than 1% and this has consistently remained the same from the beginning of the epidemic (Figure 7).

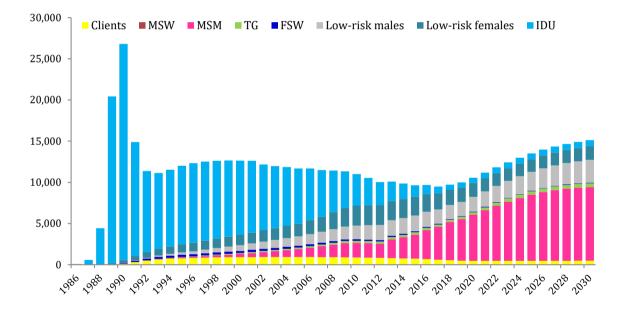


Figure 5: HIV infection trend by key population (projection using AEM), Malaysia 1986 - 2030



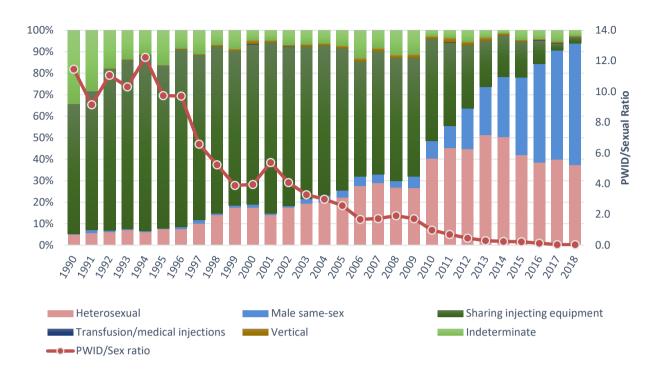
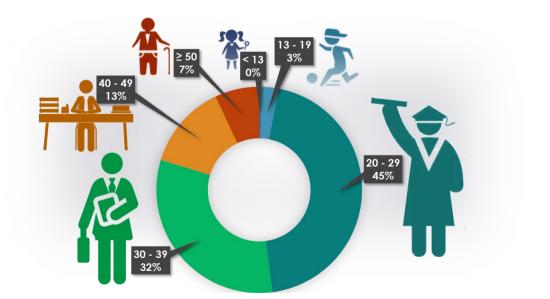


Figure 6: Trend of HIV infection by mode of transmission, Malaysia 2000 - 2018

Figure 7: Distribution of reported HIV cases by age group, Malaysia 2018





CHAPTER 2. ENDING AIDS IN 2030: 2018 ACHIEVEMENT

2.1 Overview of Global AIDS Monitoring 2019 indicators

Table 3 summarizing Malaysia's achievement over the past three years according to Global AIDS Monitoring (GAM) core indicators.

Indicators		2016	2017	2018	Comments		
90-90-90 target							
1.1	Percentage of PLHIV who know their HIV status (First 90)	-	83%	86%	M&E data EPP 2017		
1.2	Percentage of PLHIV on ART among those who know their HIV status (Second 90)	-	54%	55%	M&E data EPP 2017		
1.3	Percentage of PLHIV known to be on ART 12 months after starting	95.5%	84.3%	65%	Cohort survey		
1.4	Percentage of PLHIV on ART who have suppressed viral load (Third 90)	-	95%	97%	Survey from main treating center		
1.5a	Percentage of PLHIV with initial CD4 cell count <200 cells/mm ³ during reporting period	44.6%	36%	31%	Study at selected sites		
1.5b	Percentage of PLHIV with initial CD4 cell count <350 cells/mm ³ during reporting period	67.9%	55.2%	53%	Study at selected sites		
1.6	Percentage of treatment sites that had a stock-out of one or more required ART during a defined period	0%	0%	0%	M&E		
1.7	Rate of people who have died from AIDS- related causes per 100,000 population	16.86	13.91	8.13	M&E		
Preve	ention of mother-to-child transmission (PM	тст)					
2.1	Percentage of infants born to women living with HIV receiving a virological test for HIV within 2 months of birth (EID)	100%	99%	95%	MOH antenatal surveillance data & EPP 2017		
2.2	Estimated percentage of children newly infected with HIV from MTCT among women living with HIV delivering in the past 12 months	1.99	1.77	1.99	Spectrum 2017		
2.3	Percentage of pregnant women living with HIV who received ART to reduce the risk of MTCT of HIV	97%	98%	99%	M&E		
2.4A	Coverage of syphilis testing in women attending antenatal care services at any visit	99.6%	99.3%	99.5%	M&E		
2.4B	Percentage of pregnant women attending antenatal care clinics with a positive (reactive) syphilis serology	0%	0%	0.1%	M&E		
2.4C	Percentage of antenatal care attendees during a specified period with a positive	100%	100%	96%	M&E		

Table 3: Overview of Global AIDS Monitoring indicators, 2016 - 2018



Indica	itors	2016	2017	2018	Comments
	syphilis serology who were treated adequately				
2.5	Percentage of reported congenital syphilis cases (live birth and stillbirth)	0%	0%	0%	M&E
2.6	Percentage of pregnant women with known HIV status	NA	99.7%	99.7%	M&E
HIV in	icidence				
3.1	Incidence of people newly infected with HIV in the reporting period per 1000 uninfected population (15-49)	0.42	0.43	0.18	Spectrum 2018
Key p	opulations (PSE)				
3.2	 a) PWID b) Female sex worker c) Transgender women d) MSM 		75,000 22,000 15,000 220,000		Multiplier method (2018) National consensus (2018)
FSW					
3.3A	Percentage of FSW who are living with HIV	NA	6.3%	NA	IBBS 2017
3.4A	Percentage of sex workers who tested for HIV in the past 12 months, or who know their current HIV status	NA	35.1%	NA	IBBS 2017
3.5A	Percentage of sex workers living with HIV receiving antiretroviral therapy in the past 12 months	NA	22.5%	NA	IBBS 2017
3.6A	Percentage of sex workers reporting using a condom with their most recent client	NA	83.5%	NA	IBBS 2017
3.7A	Percentage of sex workers who report receiving HIV prevention services from an NGO, health-care provider or other sources	NA	40.0%	NA	IBBS 2017
3.11	Percentage of sex workers with active syphilis	3.3%	0.3%	1.9%	STI friendly clinic 2018
MSM					
3.3B	Percentage of MSM who are living with HIV	NA	21.6%	NA	IBBS 2017
3.4B	Percentage of men who have sex with men who tested for HIV in the past 12 months or who know they are living with HIV	NA	43.3%	NA	IBBS 2017
3.5B	Percentage of men who have sex with men living with HIV receiving antiretroviral therapy in the past 12 months	NA	62.6%	NA	IBBS 2017
3.6B	Percentage of men reporting using a condom the last time they had anal sex with a male partner	NA	65.4%	NA	IBBS 2017
3.7B	Percentage of men who have sex with men who report receiving HIV prevention services from an NGO, health-care provider or other sources	NA	36.7%	NA	IBBS 2017
3.12	Percentage of men who have sex with men with active syphilis	16.0%	6.0%	7.9%	STI friendly clinic 2018
PWID	· · · · · · · · · · · · · · · · · · ·	l			
3.3C	Percentage of PWID who are living with HIV	NA	13.5%	NA	IBBS 2017

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Indica	ators	2016	2017	2018	Comments
3.4C	Percentage of people who inject drugs who tested for HIV in the past 12 months or who know they are living with HIV	NA	38.9%	NA	IBBS 2017
3.5C	Percentage of people who inject drugs living with HIV receiving antiretroviral therapy in the past 12 months	NA	34.6%	NA	IBBS 2017
3.6C	Percentage of people who inject drugs reporting using a condom the last time they had sexual intercourse	NA	25.7%	NA	IBBS 2017
3.7C	Percentage of people who inject drugs who report receiving HIV prevention services from an NGO, health-care provider or other sources	NA	1.4%	NA	IBBS 2017
3.8	Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	NA	79.5%	NA	IBBS 2017
3.9	Rate of needles and syringes distributed per person who injects drugs per year by needle and syringe programmes	26.3	13.7	17.9	National program data
3.10	Percentage of people who inject drugs receiving opioid substitution therapy	32.2%	82.9%	74.3%	National program data
Trans	gender women				
3.3D	Percentage of transgender women who are living with HIV	NA	10.9%	NA	IBBS 2017
3.4D	Percentage of transgender people who tested for HIV in the past 12 months or who know they are living with HIV	NA	43.0%	NA	IBBS 2017
3.5D	Percentage of transgender people living with HIV receiving antiretroviral therapy in the past 12 months	NA	34.0%	NA	IBBS 2017
3.6D	Percentage of transgender people reporting using a condom during their most recent sexual intercourse or anal sex	NA	78.2%	NA	IBBS 2017
3.7D	Percentage of transgender people who report receiving HIV prevention services from an NGO, health-care provider or other sources	NA	57.9%	NA	IBBS 2017
Prisor	hers				
3.3E	Percentage of prisoners who are living with HIV	0.2%	0.11%	0.18%	M&E
Stigm	a and discrimination	·			
4.1	Percentage of women and men aged 15-49 who report discriminatory attitudes towards PLHIV ^a	NA	57.3%	NA	Online survey to general population
	^a Number of respondents who respond 'No' to either of the two questions:				
	 Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV? 				
	Do you think children living with HIV should be able to attend school with children who are HIV negative?				

Indica	tors	2016	2017	2018	Comments
Young	populations		·		
5.1	Percentage of respondents aged 15-24 years who gave the correct answer to all five questions	41.4%	54%	NA	Survey among school children age 15-18 years old
HIV an	nd other diseases				
10.1	Number of HIV-positive new and relapse TB patients started on TB treatment during the reporting period who were already on antiretroviral therapy or started on antiretroviral therapy during TB treatment within the reporting year	437	949	402	M&E
10.2	Percentage of those who are newly enrolled in HIV care (pre-antiretroviral therapy or antiretroviral therapy) during the reporting period	5.7%	4.7%	19.3%	M&E
10.3	Percentage of the total number newly enrolled in HIV care during the reporting period	69.0%	78.8%	37.9%	M&E
STI					
10.4	Percentage of men reporting urethral discharge in the past 12 months	0%	0%	0.03%	M&E
10.5	Rate of laboratory-diagnosed gonorrhea among men in countries with laboratory capacity for diagnosis	0	0	0.02%	M&E
Hepati	tis				
10.6	Proportion of people starting antiretroviral therapy who were tested for hepatitis B	100	62.4	70.1%	data from HIV registry
10.8	Proportion of people starting antiretroviral therapy who were tested for hepatitis C virus (HCV)	100	69.4	68.6%	
AIDS S	pending				
	Domestic and international AIDS spending by	Total:	Total:	Total:	
	categories and financing sources	221,213,095	144,002,769	90,908,285	
		<u>Domestic</u> <u>Public:</u>	<u>Domestic</u> <u>Public:</u>	<u>Domestic</u> <u>Public:</u>	
		RM 216,270,981 (98%)	RM 136,747,270 (95%)	RM 81,782,245 (90%)	
		<u>Domestic</u> <u>Private:</u>	<u>Domestic</u> Private:	<u>Domestic</u> Private:	
		RM 3,247,294 (1%)	RM 2,815,622 (2%)	RM 3,248,089 (4%)	
		International: RM 1,694,818 (1%)	International: RM 4,439,877 (3%)	<u>International:</u> RM 5,877,951 (6%)	



2.2 National Strategic Plan for Ending AIDS 2016-2030

Malaysia has always committed on Ending AIDS by year 2030 as stated in the 2016 United Nations General Assembly Political Declaration on Ending AIDS. The UNAIDS strategic guidance on Fast Tracking to reach 90-90-90 by year 2020 was adopted to develop the National Strategic Plan for Ending AIDS (NSPEA) 2016-2030 to replace the National Strategic Plan (NSP) 2011-2015. This NSPEA is also in line with the Sustainable Development Goals (SDG). The NSPEA targeted four key strategies with the vision for Malaysia reaching zero new infections, zero discrimination and zero AIDS related deaths. The strategies are based on identified work in local context which is (1) Testing and treatment; (2) Improving the quality and coverage of prevention program among KP; (3) Reduction of stigma and discrimination; and (4) Ensuring quality strategic information and its use by policy makers and planners through monitoring, evaluation and research.

2.2.1 Strategy 1: Test and treat to end AIDS

The NSPEA highlighted testing and treatment as one of the main national response towards the aim of ending AIDS. This is to ensure that all PLHIV in Malaysia have access to treatment through meeting the 90-90-90 targets by 2020. In 2017, Malaysia has implemented the WHO recommendation for initiation of ART regardless of CD4 cell count. This policy together with policy of free first line ARV treatment to all PLHIV has marked a significance achievement in the national response towards reaching the 90-90-90 targets.

In regards of Malaysia's progress on the targeted 90-90-90 treatment cascade, 86% of the PLHIV was diagnosed to be HIV and knew their results, the treatment uptake among people diagnosed with HIV was 55% which indicates a gap in treatment and care, and out of those already on treatment, 97% became virally suppressed (Figure 8).

The HIV testing and treatment cascade for Malaysia showed the gap at each stage of HIV care (Figure 9). Based on the current treatment cascade, much is to be done to reduce the gap in treating PLHIV.

Linkage to care and retaining patient in ART treatment remain the biggest challenge. However, once on treatment, more than 90% of them become virally suppressed. The treatment cascade showed that there is a need to improving the delivery of services to people living with HIV across the entire continuum of HIV care.



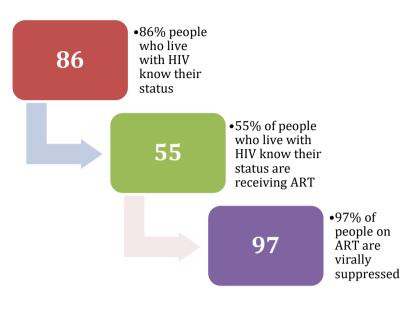
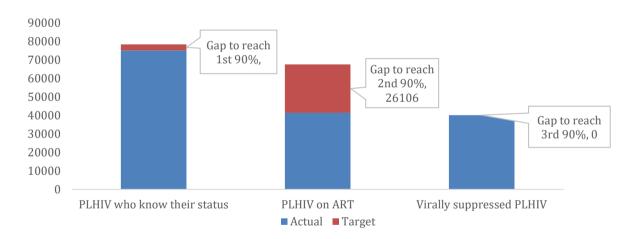


Figure 8: Progress towards 90-90-90 target, Malaysia (2018)

Figure 9: HIV testing and treatment cascade in Malaysia, 2018



The epidemic in Malaysia is still concentrated in KP where majority of them remain hidden and not accessing public healthcare services, especially HIV screening and testing. It is thus a challenge to achieve the first 90. To overcome these challenges, programmes targeted at KPs have been implemented by the Ministry of Health in collaboration with other government agencies (such as JAKIM, NADA and RMP) and CBOs through MAC. Meanwhile in the government healthcare facilities, integrated services at primary health care were implemented. All government health facilities have linked HIV testing and treatment to all TB patients, all 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

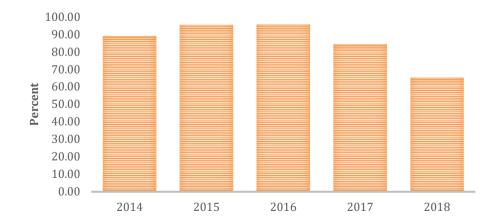


care, TB and STI services. The Community-Based Testing (CBT) was also introduced with partnership with CBO to increase the testing uptake in KP.

To close the gap between current achievement and the second 90, engagement of newly diagnosed PLHIV is critical. All PLHIV were encouraged to enrol in HIV care during their first facility visit following an HIV-positive diagnosis. For individual tested via CBT program, CBO is to make sure all HIV-positive individual be referred to health facilities for link to care and this will be monitored by MAC through case management program which started in 2017.

To complement and support ART delivery, retention in care and adherence to treatment, the government has invested in training paramedic HIV counsellors and Treatment Adherence Support Services (TAPS). Paramedic HIV counsellors cover HIV clinics in their administrative district and provide a range of health services including health education, motivation for healthy choices, promoting adherence to treatment as well as psychosocial support. Peer support volunteers (TAPS) provide the community portion of HIV care, by becoming 'patient navigator' to help the new patient to navigate and understand the flow of the hospital services, besides providing psychosocial support for key populations to understand importance of consistent treatment. From 2011 to 2018, the ART retention at 12 months after starting was between 65% to 95% (Figure 10).

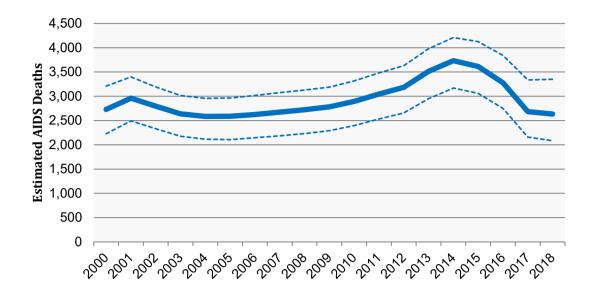
With this significant effort in expanding availability and accessibility of antiretroviral treatment, the AIDS mortality rate in Malaysia has declined from 12.23 per 100,000 population in 2014 to 8.13 per 100,000 population (Figure 11).











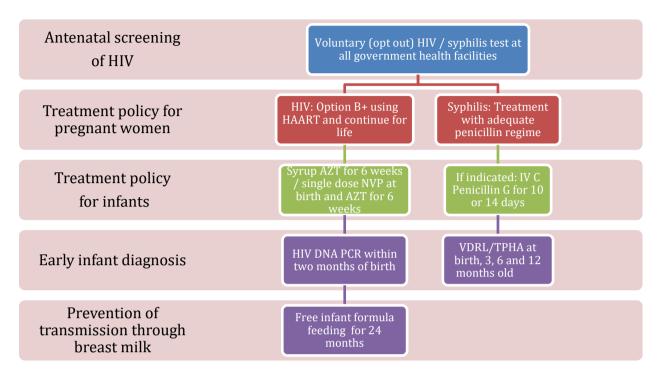
2.2.2 Strategy 2: Improving the quality and coverage of prevention program among KP

A. ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

For more than three decades, Malaysia has implemented the PMTCT of syphilis program as part of the comprehensive maternal and child health (MCH) package. A decade later, PMTCT for HIV was implemented following a pilot project in 1997 which then became a country wide program in 1998. The comprehensive antenatal package includes screening expectant mothers for syphilis, HIV, hemoglobin analysis, urine analysis and blood group analysis.

The aimed of PMTCT program is mainly to prevent vertical transmission of HIV and syphilis. The PMTCT Program in Malaysia is based strongly around early detection and treatment of HIV and syphilis for mother and baby, safer modes of delivery and safer infant feeding practices. These strategies also include timely commencement of ARV prophylaxis for HIV and excellent early neonatal follow-up for both HIV and syphilis. Current policy of PMTCT program in Malaysia as showed in Figure 12. Besides that, we are also enhancing our PMTCT program at private clinics and hospitals and to strengthen the PMTCT strategies by expanding the monitoring of positive infant to include information of their general well-being such as immunization status.





ACHIEVEMENT OF eMTCT OF HIV AND SYPHILIS

From the programmatic data, antenatal coverage has been reported to be between the range of 93% to 98% since year 2011 (Figure 13). Even with high HIV and syphilis screening coverage (more than 95%) for more than a decade, HIV and syphilis detection rate remained below 0.1%.

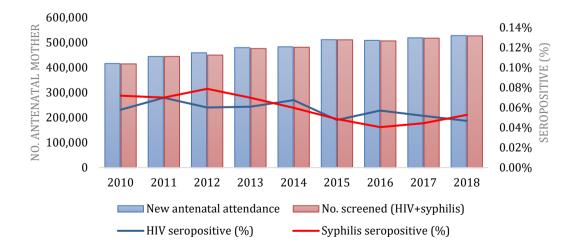


Figure 13: HIV and syphilis screening coverage and seroconversion rate (2010 – 2018)



In the late 90's, the standard treatment for the eMTCT of HIV in Malaysia was Zidovudine (AZT) which was later changed to option B in 2008. However, in year 2012, Malaysia has start to use option B+ as recommended in the WHO guidelines in which the mothers living with HIV has been given free ART coverage during antenatal and continue for life. In 2018, about 99% of pregnant women living with HIV received ART to reduce the risk of MTCT of HIV and this trend has remained above 95% since year 2015 (Figure 14). Out of the mothers on treatment, 44.7% of them had received ART more than four (4) weeks before delivery and 53.6% of them are already on ART treatment even before the current pregnancy.

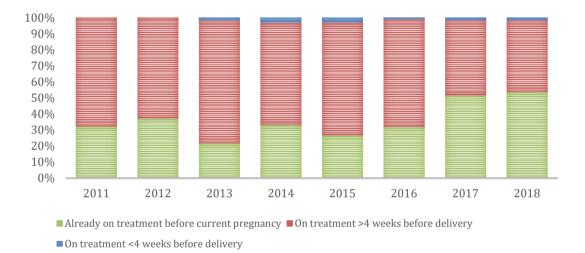


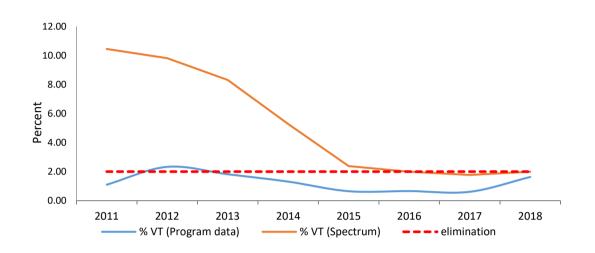
Figure 14: Percentage of pregnant women living with HIV who received antiretroviral medicine to reduce the risk of mother-to-child transmission of HIV

One of the impact indicators of eMTCT is the MTCT rate. The programmatic data showed the vertical transmission trend has recorded a declining trend below the WHO elimination target of 2% since year 2013 (Figure 15). A similar trend of MTCT rate was also recorded when using the Spectrum v5.754 in which the MTCT rate is declining from 2.38% in 2015 to 1.99% in 2018.

Early infant diagnosis¹ using HIV antibody testing was started in 2000. In 2004 the HIV DNA PCR test was introduced for HIV diagnosis of infants for all babies born to HIV+ mothers. All HIV-exposed infants should have PCR testing at birth and 6 weeks. A new HIV paediatric infection is defined when an HIV-exposed infant has two concordant EID (PCR) positive at birth (0-2 weeks) and 6 weeks of life. The national surveillance system reported the

¹ Vertical transmission diagnosis is based on early infant diagnosis (EID) with 2 concordance PCR at birth (0-2 weeks) and at 6 weeks post-partum

percentage of early infant diagnosis as 95.3% in year 2018 with four (4) new HIV paediatric infection.



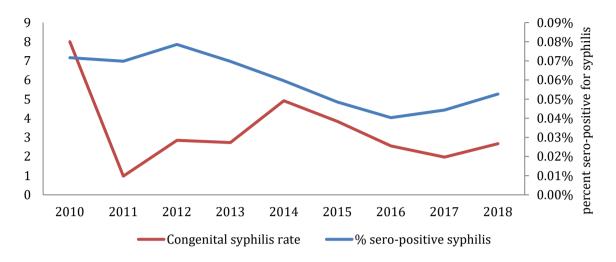


In Malaysia, a congenital syphilis case is defined as a clinically compatible case that is laboratory confirmed with demonstration of T. pallidum by dark field microscopy and/or serology, as elaborated in the Case Definitions for Infectious Diseases in Malaysia (2017 edition). From 2018 onwards, Malaysia has adopted the World Health Organization's definition of congenital syphilis to a clinically compatible case whose mother was untreated or inadequately treated syphilis at delivery, or who has a reactive non-treponemal test for syphilis, with suggestive changes in cerebrospinal fluid analysis or long bone radiographs. In addition, starting 2018, a national committee for prevention of mother-to-child transmission of syphilis, comprising multidisciplinary experts, was set up to verify all reported congenital syphilis cases.

Over the years, the syphilis seropositivity among mothers has declined, together with the syphilis MTCT rate (Figure 16). The treatment coverage for syphilis infected mothers was 96% for 2018 and has remained above 95% over the past decade.







B. HIV PREVENTION AMONG KP

As mentioned in the earlier chapter, Malaysia has a concentrated HIV epidemic, in which the prevalence rates remain above 5% among key populations (KP) which include person who inject drugs (PWID), female sex worker (FSW), transgender people (TG) and men having sex with men (MSM). Malaysia has conducted four (4) series of Integrated Biological Behavioral Surveillance (IBBS) survey at regular interval (2 to 3 years) among these key populations since year 2009. These surveys were aimed to monitor the behavioral and HIV trend among these KP. The results of key indicators form the IBBS survey are summarized in Table 3.

PWID	2009	2012	2014	2017
	(n=630)	(n=1906)	(n=1445)	(n=1413)
HIV Prevalence	22.1%	18.9%	16.3%	13.4%
Duration of injecting (median year)	NA	10	15	15
Median number of injection/days	NA	3	2	2
Used sterile needle during last injection	83.5%	97.5%	92.8%	79.5%
Received N/S in the past 12 months	NA	77.8%	75.3%	70.8%
Condom use with most recent partner	19-58%	26.7%	28.0%	25.8%
Knowledge on modes of transmission	49.7%	53.8%	58.3%	54.4%
Tested in the past 12 months and knew results	60.8%	64.5%	37.8%	38.9%
Reached with prevention program	NA	68.9%	64.8%	65.5%
Received ARV	NA	NA	5.0%	4.7%
Had enrolled in MMT program	NA	NA	34.5%	38.4%

Table 4: Behavioral trend by KP from IBBS results, 2009-2017



FSW	2009	2012	2014	2017
	(n=551)	(n=864)	(n=839)	(n=630)
HIV Prevalence	10.5%	4.2%	7.3%	6.3%
Duration of sex work (median year)	NA	6	7	24
Number of day work/week (median)	NA	5	5	5
Number of client(s) in the past 1 week (median)	NA	6	7	4
Condom use with most recent client	60.9%	83.9%	84.5%	83.5%
Received free condom in the last 12 months	NA	50.3%	57.5%	78.7%
Used psychotropic drugs before sex	38.5%	20.8%	33.8%	27.5%
Consumed alcohol before sex	35.9%	39.9%	46.2%	34.0%
Injected drugs in the last 12 months	5.6%	4.2%	2.1%	2.7%
Had been diagnosed with STI in the past 12 months	NA	NA	6.5%	3.2%
Knowledge on modes of transmission	38.5%	35.4%	39.2%	41.0%
Tested in the past 12 months and knew results	46.1%	32.4%	46.1%	35.1%
Reached with prevention program	NA	44.9%	49.9%	42.7%
Received ART	NA	NA	1.8%	1.4%
MSM	2009	2012	2014	2017
	(n=529)	(n=365)	(n=531)	(n=682)
HIV Prevalence	3.9%	7.1%	8.9%	21.6%
Duration of risk behavior (median year)	NA	7	7	
Ever being paid for anal sex in the last 12 months	NA	19.5%	39.4%	34.0%
Condom use with most recent partner	55-63%	74.2%	56.7%	65.4%
Received free condom in the last 12 months	NA	52.9%	39.2%	36%
Used psychotropic drugs before sex	23.8%	14.5%	26.9%	NA
Consumed alcohol before sex	23.2%	33.8%	45.8%	32.1%
Injected drugs in the last 12 months	6%	3.6%	2.8%	0.9%
Had been diagnosed with STI in the past 12 months	NA	NA	8.1%	14.7%
Knowledge on modes of transmission	NA	44.5%	47.8%	49.6%
Tested in the past 12 months and knew results	41.0%	47.1%	40.9%	43.3%
Reached with prevention program	NA	43.8%	30.7%	37.4%
Received ART	NA	NA	1.9%	13.5%
TG	2009	2012	2014	2017
	(n=540)	(n=870)	(n=1247)	(n=889)
HIV Prevalence	9.3%	4.8%	5.6%	10.9%
Duration of risk behavior (median year)	NA	7	11	13
Had received money for sex with man	83.7%	83.8%	86.6%	80.0%
Condom use with most recent client	67-95%	72.5%	81.2%	83.3%
Received free condom in the last 12 months	NA	74.4%	74.8%	63.1%
Used psychotropic drugs before sex	32.8%	22.0%	24.1%	NA
Consumed alcohol before sex	35.9%	38.1%	39.5%	28.5%
Injected drugs in the last 12 months	3.1%	2.1%	1.0%	1.4%
Had been diagnosed with STI in the past 12 months				4.6%
Knowledge on modes of transmission	37.2%	40.6%	38.1%	47.1%
Tested in the past 12 months and knew results	48.6%	35.5%	46.7%	43.0%
Reached with prevention program	43.7%	64.3%	64.1%	65.5%
Received ART	NA	NA	3%	3.7%

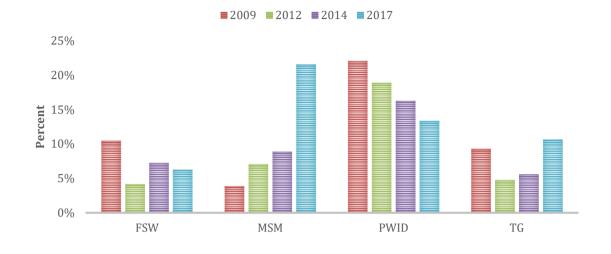


TESTING AND TREATMENT AMONG KEY POPULATION

Malaysia has a concentrated HIV epidemic, in which the prevalence rates remain above 5% among key populations (KP) which include person who inject drugs (PWID), female sex worker (FSW), transgender people (TG) and men having sex with men (MSM). Figure 17 showed the trend of HIV prevalence among KP from year 2009 to 2017. The HIV prevalence is based on the IBBS survey. The trend of HIV prevalence among PWID has showed a steady declining while the other KP especially MSM and TG showed an increment of HIV prevalence in year 2017.

To materialized the National Strategic Plan for Ending AIDS to reach 90-90-90 targets by 2020, and in eventually ending AIDS by 2030, Malaysia has committed to affordable and universal access to care through the public health system by continuing the government support to decentralized approach to health services and giving free or subsidized access to ART. These strategies include the community-based and primary health care linked to hospital-based care. With all the effort by the government with support by NGOs/CBOs, based on the IBBS 2017, the percentage of KP who tested for HIV in the past 12 months, or who know their current status had remained less than 50% (Figure 18). Hence, programs such as STI Friendly Clinics and Treatment Adherence Peer Support (TAPS) has been implemented aims increase HIV test uptake. STI Friendly Clinics was initiated in year 2015 at selected government health clinics while TAPS program is a government in partnership with Malaysian AIDS Council through 10 partner organizations aims to ensure treatment literacy, adherence and outcome among KP. In 2017, 2,827 new clients we registered under this program bringing the total number of individual clients received peer support and treatment adherence services to 5,778. Out of this, 67% of them are in ART.

Apart from that, implementation of HIV testing in outreach and community settings or Community Based Testing (CBT) has been expanded in 2017 to ensure the services is accessible to KP. The CBOs was trained and accredited to provide HIV screening and counselling by implementing a rapid point-of-care testing services in non-clinical settings. 18 trained personnel of 13 partner organizations of respective KP were involved. In total, 508 clients were screened via this program since it is started in 2017.









In realizing the 90-90-90 targets by year 2020 and 95-95-95 targets by year 2030, Malaysia has been providing all ART (including first, second and third line) almost free to PLHIV irrespective of their CD4 count.

Based on the IBBS 2017, less than 70% of PLHIV in KP receiving ART in the past 12 months (Figure 19).



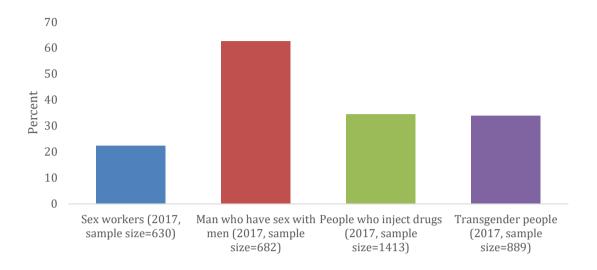


Figure 19: Antiretroviral therapy coverage among people living with HIV in key populations, Malaysia)

IMPROVING THE QUALITY AND COVERAGE OF HIV PROGRAM AMONG KP

As mentioned in chapter 1, from the surveillance data, HIV transmission mode through injecting drugs route has significantly declined from 377 cases in 2016 to 115 cases in 2017. In contrast, HIV transmission route through sexual transmission among key population has risen significantly from 2,864 in 2016 to 3,032 in 2017. In response to these hanging trend of HIV transmission from injecting drugs to sexual transmission, Ministry of Health in partnership with Malaysian AIDS Council has executing targeted community-based interventions to scale up its HIV programmed coverage. The intervention includes Information, Education and Behavior Change Communication (BCC), referral to sexual reproductive health (SRH) and STI services, encouraging HIV testing through voluntary testing and counselling which includes CBT program. NSPEA 2016-2030 has targeted the HIV prevention program coverage among KP must be more than 80% by end of 2030. Based on the IBBS survey, percentage of KP reporting having received a combined set of HIV prevention interventions (condom & BCC for FSW, TG and MSM and NSP & BCC for PWID) is still less than 70% with MSM is reported the lowest (37.4%) among KP to have received HIV prevention program in year 2017 (Figure 20). Based on the 2008 Report of the Commission on AIDS in Asia², coverage of HIV prevention programs must reach 80% to initiate the 60% behavior change to reverse the epidemic. We have exceeding the minimum level needed to initiate behavior changes. The IBBS 2017 reported that among the KP, safe sex practices have remained above 60% among KP except among PWID (Figure 21). While safe injecting practices among PWID has always remained above 80% since 2012 (Figure 22). However, to reverse the epidemic, the HIV prevention

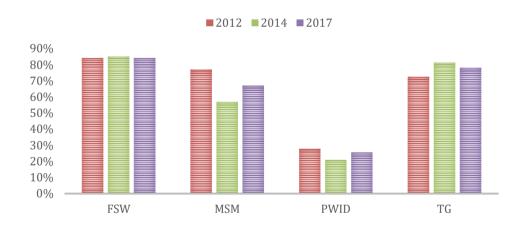
² Report of the Commission on AIDS in Asia - Redefining AIDS in Asia, Crafting an Effective Response. UNAIDS, 2008

programs and interventions must be consistently above 80% reaching the KP to induces reliably behavior change among KP.

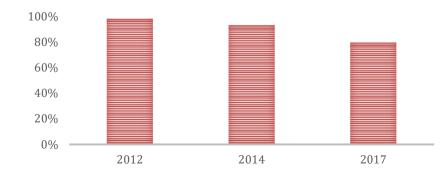


Figure 20: Coverage of HIV prevention programs among key populations, Malaysia









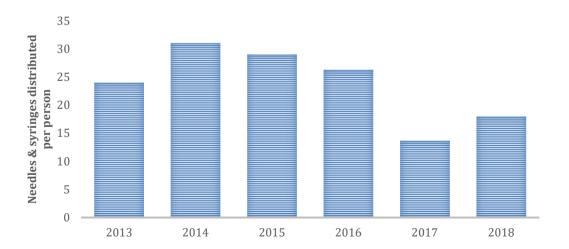


As for HIV preventive programs for PWID, Malaysia has implemented harm reduction program through Opiate Substitution Therapy (OST) since 2006 in which it is provided at both government and private health facilities. This is followed by Needle Syringe Exchange Program (NSEP) which is provided by MoH and NGO at their outreach points throughout Malaysia. The cumulative number of clients registered until 2017 is 103,934 which includes clients enrolled in the MoH-funded NSEP and KK Model project, CAHR project, MAC-GFATM funded project. The progress of these programs over the past years was shown in Table 4. The impact of these programs can be reflected by a significant decline of HIV prevalence among PWID (Figure 17) and continuous safe injecting practices among PWID above 80% (Figure 22).

NSEP	Year					
	2013	2014	2015	2016	2017	
NSEP Site: NGO	576	540	487	543	349	
NSEP Site: Health Clinic	152	152	152	152	152	
TOTAL	728	692	639	694	501	
Registered Client (cumulative)	72,686	85,693	99,824	100,910	103,934	
Needle & Syringe return rate	61.5%	60.0%	59.9%	68.1%	70.4%	
% VCT Referral	7%	6%	13%	12%	18%	
% Methadone Referral	12%	5%	12%	16%	20%	

Table 5: Harm reduction – Needle & Syringe Exchange Program, 2013 – 2017







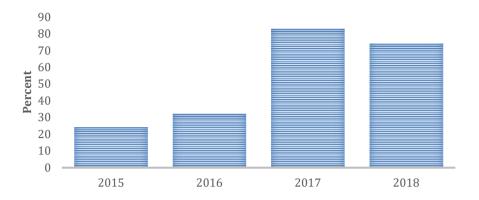


Figure 24: Coverage of opioid substitution therapy, Malaysia (2015-2018)

PREVENTION OF HIV AMONG YOUNG POPULATIONS

In Malaysia, the trend of HIV prevalence among young population age 13 to 29 years showed some increasing trend since 2009 (Figure 25). Most of the HIV infection among young population occurred among young homosexual and bisexual men (Figure 26). This increasing trend of HIV infection is because young population are vulnerable to HIV exposure and transmission such as higher usage of substance abuse, low rates of condom use, low rates of testing and had more than one sexual partner. Figure 27 showed the summary of safe behavior and practices among young population (age 18 to 24 yeas) from the IBBS data in 2014 and 2017. It was very alarming to found trend of clean needle usage among young PWID and condom usage with last partner/client among young FSW and TG is declining.

In addition to engaging in high risk behavior, young populations are also often subject to significant levels of stigma, discrimination and violence causing them to be at high risk of HIV infection. Fearing discrimination and possible legal consequences, many of them are reluctant to attend HIV testing and treatment services as well as being reach by ORW for health education. As such, they remain hidden from services and support networks and are often reluctant to disclose their HIV status to parents and family members in fear of revealing their identity or risk behavior.

Therefore, addressing HIV in young population requires that young people have access to information and tools they need to reduce their risk, make healthy decisions, and get treatment and care if needed. Abstinence from sexual intercourse and delayed initiation of sexual behavior are among the central aims of HIV prevention efforts for young people. Decreasing the number of sexual partners and increasing access to, and utilization of comprehensive prevention services, including prevention education and increasing access to condoms are essential for young people who are sexually active.





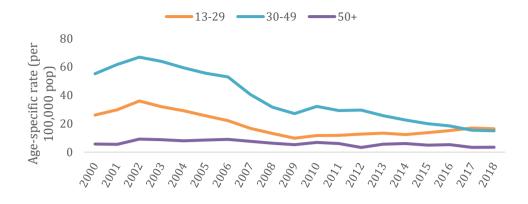
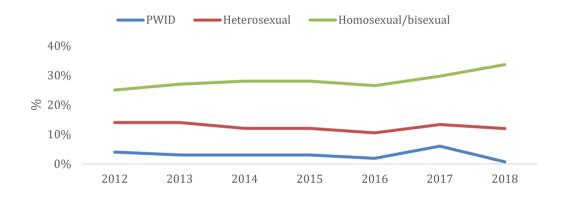
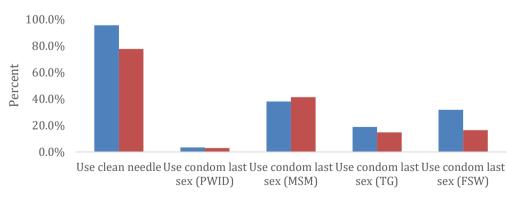


Figure 26: Distribution of reported HIV infection by risk behavior among young population (13-29), Malaysia (2012 – 2018)











2.2.3 Strategy 3: Reduction of Stigma and discrimination

One of the important targets and commitment in the Ending AIDS is to eliminate gender inequalities and end all forms of violence and discrimination against women and girls, people living with HIV and key populations by 2020 (fast track). Stigma against HIV/AIDS has existed around the world in forms of rejection, discrimination, harassment and avoidance of HIV infected people. It is one of the barriers to HIV prevention, treatment and care. These can result in PLHIV being insulted, rejected, gossiped about and excluded from social activities as well as weaken the ability of individuals to protect themselves from HIV and to stay healthy if they are living with HIV.

In IBBS 2017, we have incorporated the Stigma Index Assessment to assess the level of HIV/AIDS stigma faced by KP. We also conducted an online survey to assess the stigma and discriminatory attitudes towards PLHIV in the general population. The questionnaire consisted questions regarding awareness of the modes of transmission and questions to assess the attitudes toward PLHIV.

A. STIGMA INDEX ASSESSMENT (IBBS 2017)

In relation to internal stigma, PWID reported feeling internalized HIV-related stigma more than other KP followed by FSW (Figure 28). Majority of KP have negative feelings towards themselves like feeling ashamed and guilty (>50%) because of their behavior and appearance. This can explain the reason why testing coverage and ART coverage among PWID and FSW are low compared to TG and MSM (Figure 18 and Figure 19).

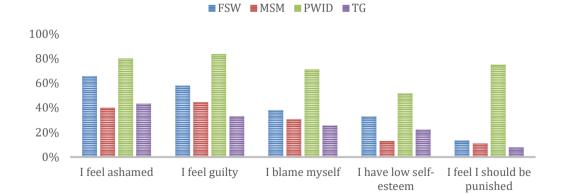


Figure 28: Internal stigma among KP, Malaysia 2017



Due to feeling internalized stigma, most KP especially PLHIV had some level of assumption of rejection. Many of them especially PWID feel that they had been excluded from social gathering (80%) and all KP experienced being isolated and abandoned by family or friend (5% to 20%) (Figure 29).

Most of them have some fear of what people said behind their back or being mistreated physically and verbally due to their appearance or health condition. Around 30% to 50% of KP reported that they have the experience of being gossiped about or teased / insulted or sworn at (Figure 30). Meanwhile, less than 20% of all KP reported that they have the experience of threatened with violence or physically assaulted. Having said that, most KP have no trouble in their workplace or having issues in securing property except for PWID who reported more than 25% of them had lost their job (Figure 31).

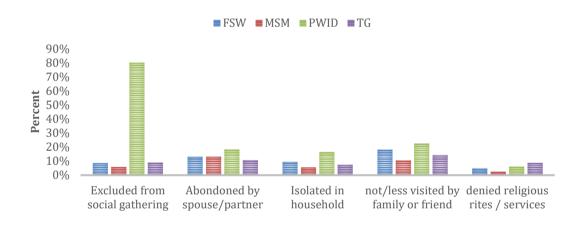


Figure 29: Exclusion from family and society experienced by KP, Malaysia 2017

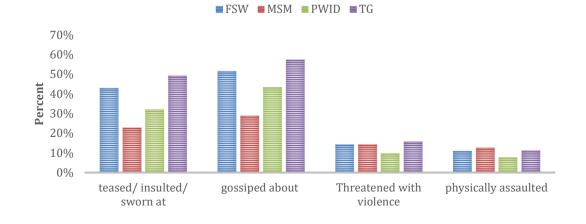


Figure 30: Physical and verbal harassment experienced by KP, Malaysia 2017







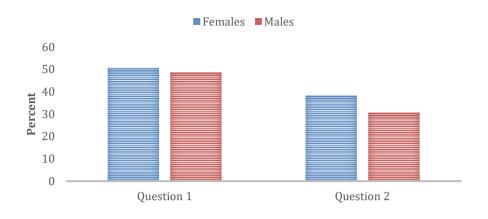
B. STIGMA AND DISCRIMINATORY ATTITUDES TOWARDS PLHIV IN GENERAL POPULATION

To assess the discriminatory attitudes towards the PLHIV in general population, we have conducted an online survey in 2017. About 640 respondents aged 15 to 49 years participate in this survey. The survey observed the stigma and discriminatory attitudes of the general population towards PLHIV is still exists (Figure 32); most prominent among young population aged <15 to 19 years (Figure 33). This is probably lack of knowledge among young population about HIV (Figure 34). This is further supported by a survey conducted among secondary school students in Malaysia on knowledge on HIV in which only 50% of them correctly identify both ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission (Figure 35).

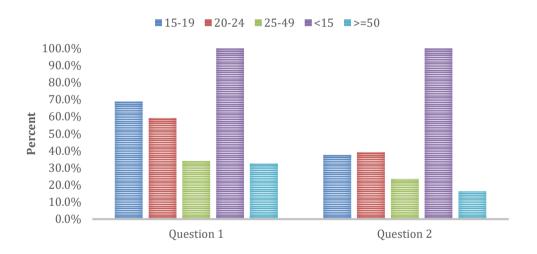
In addition, the online survey also demonstrated only less than 5% of the general population have sound and comprehensive knowledge of the essential facts about HIV and AIDS.



Figure 32: Discriminatory attitudes towards PLHIV among general population (aged 15 to 49 years)³ by gender







³ Who respond No to Question 1 - "Would you buy fresh vegetable³s from a shopkeeper or vendor if you knew that this person had HIV?"; Question 2 - "Do you think that children living with HIV should be able to attend school with children who are HIV negative?"



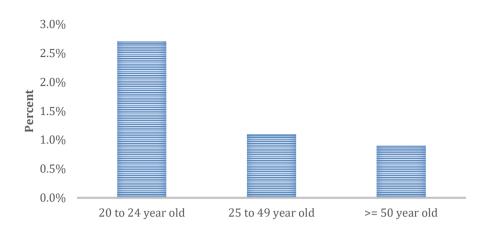
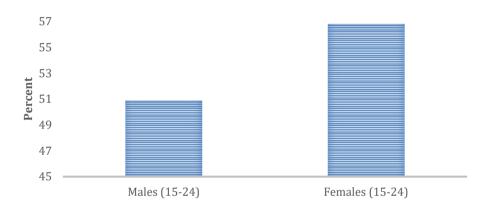


Figure 34: Adequate⁴ knowledge about HIV prevention by age group

Figure 35: Adequate³ knowledge about HIV prevention among young population.



⁴ Correctly identify both ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission using the UNGGAS indicators

CHAPTER 3. HIV AND OTHER INFECTION

3.1 HIV and TB treatment

Worldwide, tuberculosis (TB) is the most common opportunistic infection in PLHIV and is one of the leading causes of death among PLHIV. In Malaysia, despite of TB infection has steadily increase since year 2000, TB/HIV co-infection prevalence is remained less than 6% since year 2014 (Figure 36).

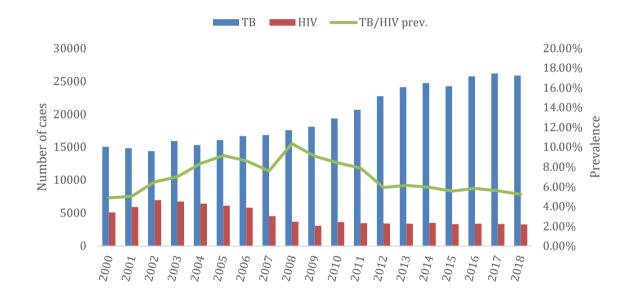
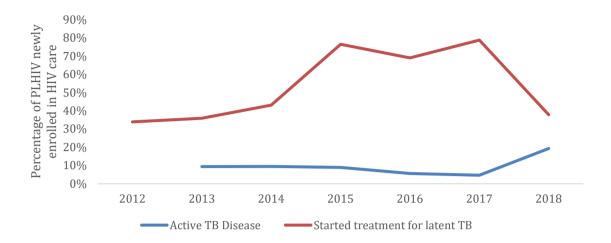


Figure 36: New TB, HIV and TB/HIV Prevalence, Malaysia (2000 – 2018)

PLHIV are 16 to 27 times greater risk of developing TB than among those without HIV⁵. In Malaysia, management of co-infection among PLHIV has become part of disease control and prevention policy since 1997. This is including TB screening among PLHIV and HIV screening among TB patients. In 2003, Ministry of Health has started a policy of TB screening in closed setting such in prison and rehabilitation Centre. As shown in Figure 37, number of active TB among newly enrolled PLHIV had remained below 10% from 2013 to 2017. In 2018, however, the proportion has increased to 19%, probably an indirect reflection of increased disease burden in Malaysia. In 2010, isoniazid prophylaxis was started to reduce morbidity and mortality of TB/HIV co-infection. In year 2018, 38% of PLHIV newly enrolled in HIV care was started on TB preventive therapy (Figure 37).

⁵ http://www.who.int/hiv/topics/tb/en/

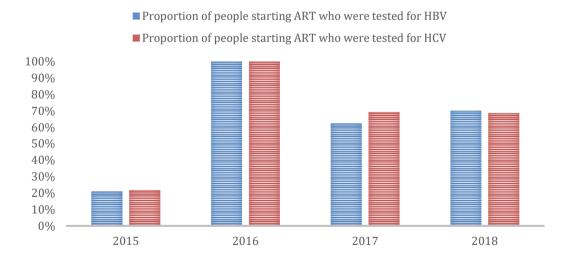
Figure 37: Proportion of PLHIV newly enrolled in HIV care with active TB disease and started on TB preventive therapy, Malaysia (2012 – 2018)



3.2 Hepatitis

Screening of hepatitis B and C were routine requirement for all new PLHIV cases. Data from main treating centres in Malaysia were reported for 2018, the proportion of people newly starting antiretroviral therapy who were also tested for hepatitis B is 70.1%, whilst proportion of people starting antiretroviral therapy who were tested for hepatitis C is 68.6% (Figure 38).

Figure 38: Hepatitis testing, Malaysia (2015-2018)



3.3 STI

Since 1997, all STI patients is offered HIV test by health provider as part of disease control and prevention measures. In addition to that, Malaysia has started STI friendly clinic in selected government health clinics since June 2016. This initiative is aimed to encourage people at high risk of sexually transmitted diseases especially KP to come forward for regular STI screening. Incidence of active syphilis was less than 10% among FSW and MSM attending STI friendly clinics (FSW: 2.9%; MSM: 7.9%).

CHAPTER 4. FINANCING THE HIV AND AIDS RESPONSE

Since the beginning of the epidemic, HIV response in Malaysia rely heavily on domestic public funding (>95%). In 2018, the total expenditure for HIV response was RM90 million (USD22 million) (Table 4). Majority of the funding came from domestic fund (94%). More than 70% of the funding was spent on NSPEA strategy 1, testing and treat to reduce the gap on the first and second 90 of HIV treatment cascade.

Table 6: Source of approximate AIDS expenditure, 2016 - 2018

2016 (RM)	%	2017 (RM)	%	2018 (RM)	%
216,270,981	98	136,747,270	95	81,782,245	90
3,247,294	1	2,815,622	2	3,248,089	4
1,694,818	1	4,439,877	3	5,877,951	6
221,213,095	100	144,002,769	100	90,908,285	100
	216,270,981 3,247,294 1,694,818	216,270,981 98 3,247,294 1 1,694,818 1	216,270,98198136,747,2703,247,29412,815,6221,694,81814,439,877	216,270,98198136,747,270953,247,29412,815,62221,694,81814,439,8773	216,270,98198136,747,2709581,782,2453,247,29412,815,62223,248,0891,694,81814,439,87735,877,951

Table 7: AIDS Spending category – Approximate total expenditure from domestic (public & private) and international sources, 2016 - 2018

		2018 (RM)	%
111,273,108	77	67,818,384	75
19,501,281	14	7,692,525	8
2,705,498	2	2,414,210	3
645,561	0.4	387,493	0.4
1,619,055	1.1	1,689,861	2
86,967	0.1	87,280	0.1
8,171,299	5.2	10,818,532	12
144,002,769	100%	90,908,285	100%
	19,501,281 2,705,498 645,561 1,619,055 86,967 8,171,299	19,501,281142,705,4982645,5610.41,619,0551.186,9670.18,171,2995.2	19,501,281147,692,5252,705,49822,414,210645,5610.4387,4931,619,0551.11,689,86186,9670.187,2808,171,2995.210,818,532



CHAPTER 5. THE WAY FORWARD

In realizing SDGs through ending AIDS, full operationalization and effective implementation of national, sub-national and local development plans was initiated to achieve the target of reducing number of new HIV cases. With all the initiatives, HIV infections has declined from peak in 2002 (28 per 100,000) to a plateau since 2009 (11 per 100,000) till 2017 (10.3 per 100,000). However, to ensure Malaysia vision of ending AIDS by 2030, successful implementation is dependent on identifying undiagnosed individuals, linking and retaining them in care. The current HIV treatment cascade demonstrated there is still gaps and challenges that need immediate attention for Malaysia reaching zero through fast tracking (2016-2020) and Ending AIDS (2021-2030). Among the challenges are:

- 1. Expansion of HIV testing services at the community level i.e. CBT
- 2. To reduce the treatment gap to reach the second 90. It is crucial to find an innovative and practical ways to reduce the time of diagnosis to initiating treatment especially when diagnosis and HIV care taken place in different setting.
- 3. Changes in HIV landscape in Malaysia from injecting drug use to sexual transmission. There is a need to mitigate sexual transmission of HIV among KP by emphasize on changes of risk behavior among (persistent condom usage and reducing substance abuse prior to sex).

Main activities planned for 2019 to address some of these challenges are:

- 1. Update Maternal-To-Child Transmission of HIV & Syphilis guideline to reflect current World Health Organization recommendations
- 2. Differentiated HIV Services for Key Populations

5.1 Update national guideline on Prevention of Mother-to-Child Transmission of HIV & Syphilis

Current PMTCT guideline was published in 2008. Since then, advances in treatment and laboratory testing have minimized risk of vertical transmission. Therefore, mothers have safer and more varied options in family planning, methods of delivery as well as feeding their infants. These changes would be reflected in the updated PMTCT guideline.



5.2 Differentiated HIV Services for Key Populations (DHSKP)

The Global Fund transition plan for Malaysia is set to take place between 2019 – 2022. Under this initiative, parallel HIV programs for key populations (PWID, TG, MSM, FSW) will be unified under one "Differentiated HIV Services for Key Populations" (DHSKP).

The DHSKP Model will be introduced from 2019 onwards in both GF-sites and MOH-supported states, using new Manual of Procedures, HIV Reference Manual and M&E/Reporting Standard Operating Procedures. Under DHSKP, all community-based organizations share standardized performance indicators, reporting requirements and implementation processes under governance of the Malaysia AIDS Council (MAC). Projects previously funded by Global Fund and have positive outcome will be transitioned to MOH fund once Global Fund Transition Fund ceases.

Notes



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