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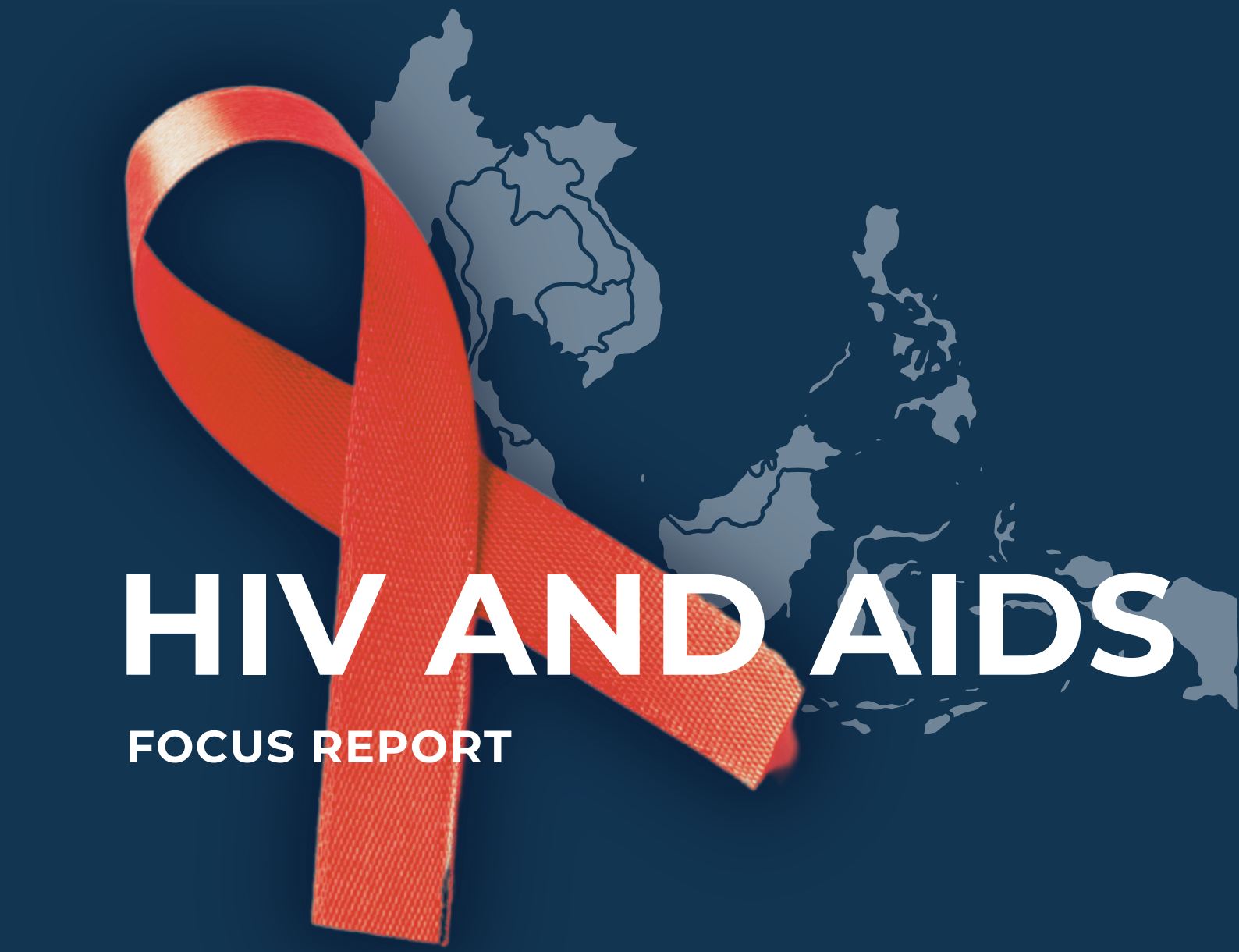
ASEAN BIODIASPORA VIRTUAL CENTER



HIV AND AIDS

FOCUS REPORT

With Support by:

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Korea Disease Control and Prevention Agency

In partnership with Canada

Kemenkes

ASSOCIATION OF SOUTHEAST ASIAN NATIONS

ASEAN BIODIASPORA VIRTUAL CENTER

Editorial

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HIV AND AIDS FOCUS REPORT

HIV & AIDS

Introduction

Human immunodeficiency virus (HIV) is a viral infection that specifically targets the body's immune system, leading to the development of acquired immunodeficiency syndrome (AIDS) in its most advanced stage. The virus primarily attacks white blood cells, compromising the immune system's ability to defend against various illnesses such as tuberculosis, infections, and certain cancers. HIV is transmitted through infected bodily fluids like blood, breast milk, semen, and vaginal fluids, though it is not spread through casual contact like kisses, hugs, or sharing food. Transmission can also occur from an infected mother to her baby. Antiretroviral therapy (ART) is effective in both treating and preventing HIV. Without proper treatment, HIV can progress to AIDS, often manifesting after an extended period. The World Health Organization (WHO) now defines Advanced HIV Disease (AHD) based on criteria such as a CD4 cell count below 200 cells/mm3 or WHO stage 3 or 4 in adults and adolescents, with all children under 5 years old with HIV considered to have advanced HIV disease (Becerra et al., 2016).

HIV remains a significant global public health challenge, having resulted in the loss of 40.4 million lives to date, with ongoing transmission occurring worldwide. Some countries are witnessing a resurgence in new infections, reversing previous declines. At the end of 2022, an estimated 39.0 million individuals were living with HIV, with the WHO African Region accounting for two-thirds of this population, totaling 25.6 million. In the same year, 630,000 people succumbed to HIV-related causes, while 1.3 million individuals acquired the virus (WHO, 2023).

WHO, the Global Fund, and UNAIDS have all developed global HIV strategies in alignment with the Sustainable Development Goal (SDG) target 3.3, which aims to end the HIV epidemic by 2030. According to these strategies, by the year 2025, it is envisioned that 95% of all people living with HIV (PLHIV) should be diagnosed, 95% of those diagnosed should be receiving life-saving antiretroviral treatment (ART), and 95% of those on treatment should achieve a suppressed viral load, benefiting both the individual's health and contributing to the reduction of onward HIV transmission. However, as of 2022, the actual percentages were slightly below these targets, with 86% [73–>98%] knowing their HIV status, 89% [75–>98%] receiving ART, and 93% [79–>98%] achieving a suppressed viral load. In the broader context of all people living with HIV, the figures were 86% [73>–98%] aware of their status, 76% [65–89%] undergoing antiretroviral therapy, and 71% [60–83%] achieving suppressed viral loads.

Method

This report delves into the landscape of HIV/AIDS in the ASEAN region, examining aspects such as prevalence, disease burden, preventive measures, and treatment updates. The analysis spans from 2020 to 2023, utilizing databases like PubMed, Embase, and Scopus. Real-time information is derived from official reports and news articles detailing HIV/AIDS cases.

The data extraction process centers on aspects like study design, sample size, demographic factors, diagnostic methods, and key findings. The report constructs a cohesive narrative that unveils trends, patterns, and existing challenges in the ongoing fight against HIV/AIDS in the Southeast Asia (SEA) region. Through this comprehensive methodology, a thorough understanding of the disease and its associated strategies is presented.

Epidemiology of HIV & AIDS

1. The Estimation of Global HIV Prevalence, 1990 – 2022

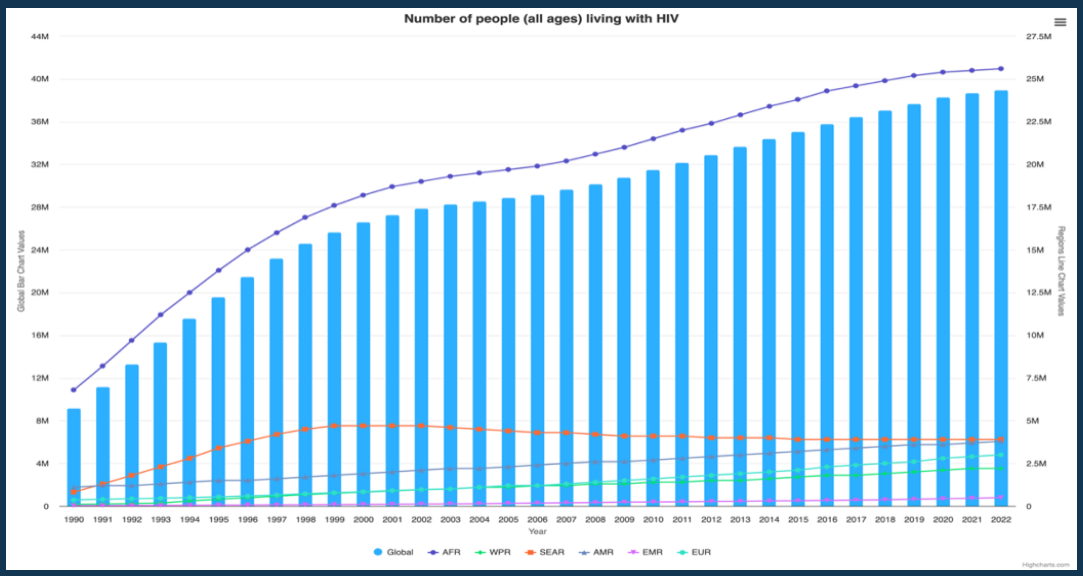

Figure 1 The Estimation of Global HIV Prevalence, 1990 – 2022

As it is shown on the figure 1, the estimation of HIV prevalence, globally, increased continually from 1990 to 2022 (WHO, 2021b). By WHO region, most of the cases were found in the Africa region.

2. The Estimation of Global HIV-related Deaths, 1990 – 2022

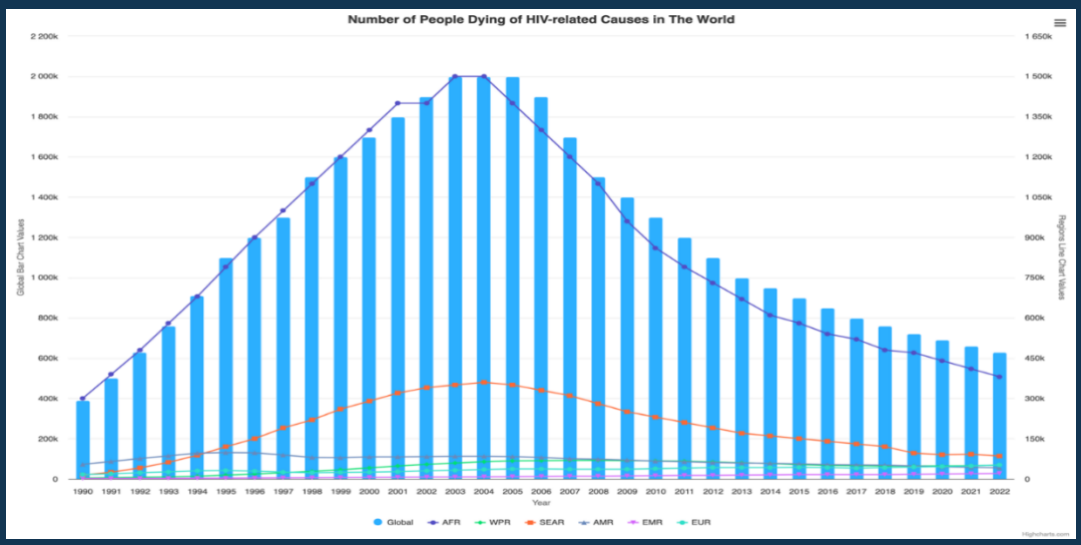

Figure 2 The Estimation of Global HIV-related Deaths, 1990 – 2022

Based on Figure 2, globally, after reached the peak of HIV-related mortality in 2004, the estimation of mortality number related to HIV

infection decreased gradually (WHO, 2021b). The trend was also shown in the Africa region and SEARO.

3. The Estimation of HIV Prevalence in the ASEAN Region, 1990 – 2022

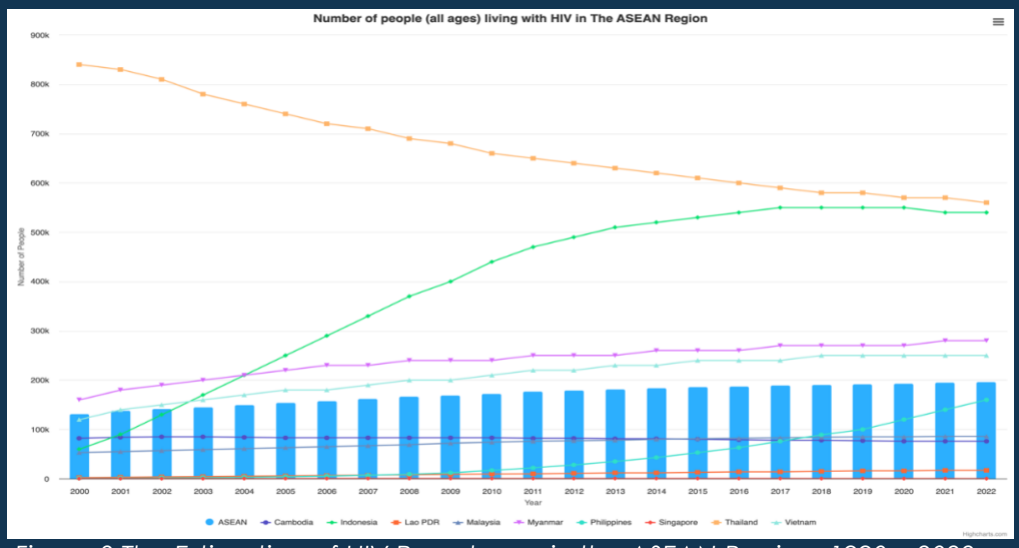

Figure 3 The Estimation of HIV Prevalence in the ASEAN Region, 1990 – 2022

Based on the estimation of HIV prevalence in the ASEAN region, the data shows that there was a gradual increase in average total of the ASEAN region (WHO, 2021b). In details, there were significant increases in Indonesia and the Philippines, similarly, Myanmar and Vietnam also experienced the same trend. However, there was a decrease in Thailand. The rest of countries' trends remained stable.

4. The Estimation of HIV-related Deaths in the ASEAN Region, 1990 – 2022

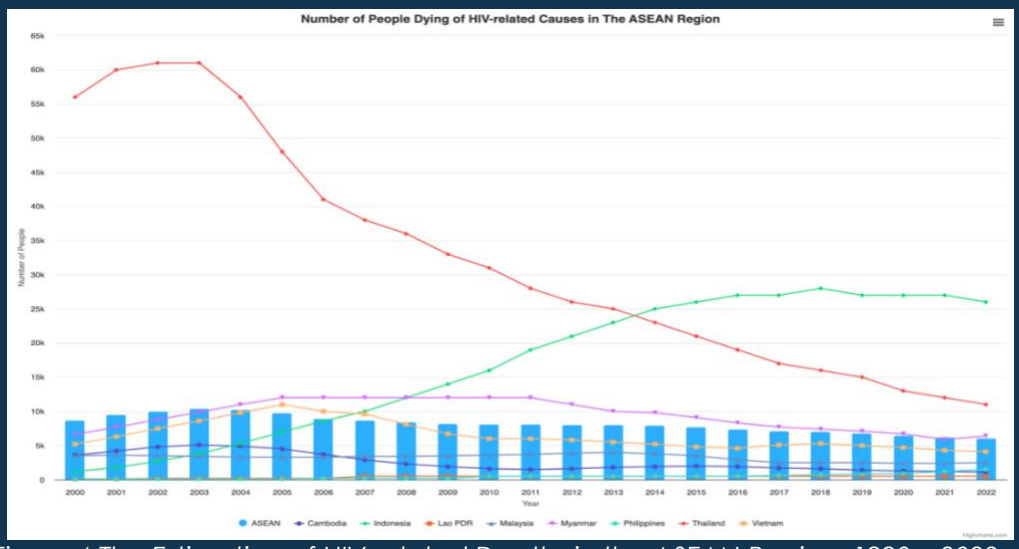

Figure 4 The Estimation of HIV-related Deaths in the ASEAN Region, 1990 – 2022

Based on estimates of HIV-related mortality in the ASEAN region, the highest total of average in the ASEAN was shown in 2003 (WHO, 2021b).

Afterwards, the trend in the ASEAN decreased gradually. In details, Thailand, Myanmar, and Vietnam showed a negative trend in HIV-related mortality after 2003. On the other hands, Indonesia showed an opposite trend in the number of HIV-related mortality.

5. The Estimation of New HIV Infections in the ASEAN Region, 1990 – 2022

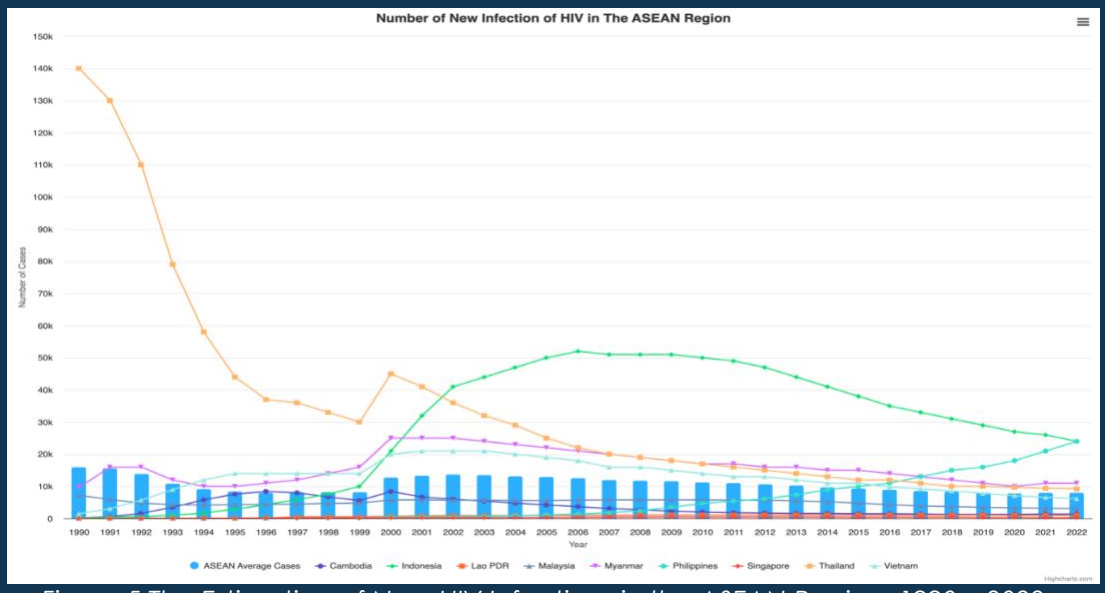

Figure 5 The Estimation of New HIV Infections in the ASEAN Region, 1990 – 2022

Based on the figure 5, the Philippines experienced an upward trend. After reached a peak in 2006, Indonesia decreased steadily to 2022 (WHO, 2021b). Furthermore, the other AMS experienced a downward trend to 2022

Case Management

Table 1 Case Definition (WHO, 2007):

Children younger than 1 months	Adults and children 18 months or older
• Positive virological test for HIV or its components (HIV-RNA or HIV-DNA or ultrasensitive HIV p24 antigen) confirmed by a second virological test obtained from a separate determination taken more than four weeks after birth. • Positive HIV antibody testing is not recommended for definitive or confirmatory diagnosis of HIV infection in children until 18 months of age.	• Positive HIV antibody testing (rapid or laboratory-based enzyme immunoassay). This is confirmed by a second HIV antibody test (rapid or laboratory-based enzyme immunoassay) relying on different antigens or of different operating characteristics. and/or. • Positive virological test for HIV or its components (HIV-RNA or HIV-DNA or ultrasensitive HIV p24 antigen) confirmed by a second virological test obtained from a separate determination.

Case Definition of Advanced HIV (infection or disease) (including AIDS) for reporting (WHO, 2007):

- Clinical criteria for diagnosis of advanced HIV in adults and children with confirmed HIV infection:
  - Presumptive or definitive diagnosis of any stage 3 or stage 4 condition and/or.
- Immunological criteria for diagnosing advanced HIV in adults and children five years or older with confirmed HIV infection:
  - CD4 counts less than 350 per mm3 of blood in an HIV-infected adult or child and/or.
- Immunological criteria for diagnosing advanced HIV in a child younger than five years of age with confirmed HIV infection:
  - %CD4+ <30 among those younger than 12 months.
  - %CD4+ <25 among those aged 12–35 months.

  %CD4+ <20 among those aged 36–59 months.

Table 2. Clinical Stage Adults and Adolescent

Clinical Stage	Adults and adolescent
Clinical Stage 1	• Asymptomatic • Persistent generalized lymphadenopathy
Clinical Stage 2	• Moderate unexplained weight loss (<10% of presumed or measured body weight) • Recurrent respiratory tract infections sinusitis, tonsillitis, otitis media and pharyngitis) • Herpes zoster • Angular cheilitis • Recurrent oral ulceration • Papular pruritic eruptions • Seborrhoeic dermatitis • Fungal nail infections
Clinical Stage 3	• Unexplainedi severe weight loss (>10% of presumed or measured body weight) • Unexplained chronic diarrhoea for longer than one month • Unexplained persistent fever (above 37.6°C intermittent or constant, for longer than one month) • Persistent oral candidiasis • Oral hairy leukoplakia • Pulmonary tuberculosis (current) • Severe bacterial infections (such as pneumonia, empyema, pyomyositis, bone or joint infection, meningitis or bacteraemia) • Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis • Unexplained anaemia (<8 g/dl), neutropaenia (<0.5 × 109 per litre) or chronic thrombocytopaenia (<50 × 10^9 per litre)
Clinical Stage 4	• HIV wasting syndrome. • Pneumocystis pneumonia • Recurrent severe bacterial pneumonia • Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration or visceral at any site) • Oesophageal candidiasis (or candidiasis of trachea, bronchi, or lungs) • Extrapulmonary tuberculosis • Kaposi's sarcoma • Cytomegalovirus infection (retinitis or infection of other organs) • Central nervous system toxoplasmosis • HIV encephalopathy • Extrapulmonary cryptococcosis including meningitis. • Disseminated non-tuberculous mycobacterial infection. • Progressive multifocal leukoencephalopathy • Chronic cryptosporidiosis (with diarrhoea) • Chronic isosporiasis • Disseminated mycosis (coccidiomycosis or histoplasmosis) • Recurrent non-typhoidal • Salmonella bacteraemia • Lymphoma (cerebral or B-cell non-Hodgkin) or other solid HIV-associated tumours • Invasive cervical carcinoma • Atypical disseminated leishmaniasis • Symptomatic HIV-associated nephropathy or symptomatic HIV-associated cardiomyopathy

Table 3. Clinical Stage Children

Clinical Stage	Children
Clinical Stage 1	• Asymptomatic • Persistent generalized lymphadenopathy
Clinical Stage 2	• Unexplained persistent hepatosplenomegaly • Papular pruritic eruptions • Fungal nail infection • Angular cheilitis • Lineal gingival erythema • Extensive wart virus infection • Extensive molluscum contagiosum • Recurrent oral ulcerations • Unexplained persistent parotid enlargement • Herpes zoster • Recurrent or chronic upper respiratory tract infections (otitis media, otorrhoea, sinusitis or tonsillitis)
Clinical Stage 3	• Unexplained moderate malnutrition or wasting not adequately responding to standard therapy. • Unexplained persistent diarrhoea (14 days or more) Unexplained persistent fever (above 37.5°C intermittent or constant, for longer than one month) • Persistent oral candidiasis (after first 6–8 weeks of life) • Oral hairy leucoplakia • Acute necrotizing ulcerative gingivitis or periodontitis • Lymph node tuberculosis • Pulmonary tuberculosis • Severe recurrent bacterial pneumonia • Symptomatic lymphoid interstitial pneumonitis • Chronic HIV-associated lung disease including brochiectasis Unexplained anaemia (<8 g/dl), neutropaenia (<0.5 × 109 per litre) • and or chronic thrombocytopaenia (<50 × 109 per litre)
Clinical Stage 4	• Unexplained severe wasting, stunting or severe malnutrition not responding to standard therapy. • Pneumocystis pneumonia Recurrent severe bacterial infections (such as empyema, pyomyositis, bone or joint infection or meningitis but excluding pneumonia) • Chronic herpes simplex infection (orolabial or cutaneous of more than one month's duration or visceral at any site) • Oesophageal candidiasis (or candidiasis of trachea, bronchi, or lungs) • Extrapulmonary tuberculosis • Kaposi sarcoma • Cytomegalovirus infection: retinitis or cytomegalovirus infection affecting another organ, with onset at age older than one month. • Central nervous system toxoplasmosis (after one month of life) • Extrapulmonary cryptococcosis (including meningitis) • HIV encephalopathy • Disseminated endemic mycosis (coccidiomycosis or histoplasmosis) • Disseminated non-tuberculous mycobacterial infection. • Chronic cryptosporidiosis (with diarrhoea) • Chronic isosporiasis • Cerebral or B-cell non-Hodgkin lymphoma • Progressive multifocal leukoencephalopathy • Symptomatic HIV-associated nephropathy or HIV-associated cardiomyopathy

Table 4 Classification for Confirmed HIV Infection

HIV-associated immunodeficiency	Age-related CD4 values			
	<11 months (%CD4+)	12 – 35 months (%CD4+)	36 – 59 months (%CD4+)	>5 years (absolute number per mm3 or %CD4+)
None or not significant	>35	>30	>25	>500
Mild	30 – 35	25 – 30	20 – 25	350 – 499
Advanced	25 – 29	20 – 24	15 – 19	200 – 349
Severe	<25	<20	<15	<200 or <15%

Table 5 Prevention

Prophylaxis	Biomedical	Behavioural
Pre-exposure prophylaxis Providing Oral pre-exposure prophylaxis (PrEP) to the person within area with substantial risk of HIV infection (≥ 3 per 100 persons)	Male and female condoms and condom-compatible lubricant	Targeted information and education
Post-exposure prophylaxis Two antiretroviral (ARV) drugs are effective, but three drugs are preferred	Harm reduction for people who inject drugs	Enabling interventions to address structural barriers to accessing services
Infant prophylaxis ART should be initiated urgently among all pregnant and breastfeeding women living with HIV, even if they are identified late in pregnancy or post-partum, because the most effective way to prevent HIV vertical transmission is to reduce maternal viral load.	Voluntary medical circumcision	

Treatment

When to start ART

ART should be initiated for all people living with HIV regardless of WHO clinical stage and at any CD4 cell count.

- Adults (strong recommendation, moderate-certainty evidence)
- Pregnant and breastfeeding women (strong recommendation, moderate-certainty evidence)
- Adolescents (conditional recommendation, low-certainty evidence)
- Children living with HIV one year old to less than 10 years old (conditional recommendation, low-certainty evidence)

Infants diagnosed in the first year of life (strong recommendation, moderate-certainty evidence.

Table 6 Timing of ART

Population or Clinical Status	Timing of ART initiation
Adults, adolescents, and children living with HIV with no signs and symptoms of TB	Rapid ART initiation on the same day should be offered to all people living with HIV following a confirmed HIV diagnosis and clinical assessment.
Adults, adolescents, and children living with HIV with suspected TB	Rapid ART initiation should be offered to all people living with HIV following a confirmed HIV diagnosis and clinical assessment and to people living with HIV with signs and symptoms suggesting TB. Except for central nervous system diseases (meningitis), initiate ART while rapidly investigating for TB, with close follow-up within seven days to initiate TB treatment if TB is confirmed.
Adults, adolescents, and children being treated for HIV-associated TB meningitis (either clinically or with a confirmed laboratory test)	ART should be delayed at least four weeks (and initiated within eight weeks) after treatment for TB meningitis is initiated. Corticosteroids should be considered adjuvant treatment for TB meningitis.
People living with HIV who are already diagnosed with TB but not receiving ART or treatment for TB	TB treatment should be initiated first, followed by ART as soon as possible within the first two weeks of treatment.
People living with HIV with cryptococcal meningitis	Immediate ART initiation is not recommended for adults, adolescents and children living with HIV who have cryptococcal meningitis because of the risk of increased mortality and should be deferred by 4–6 weeks from the initiation of antifungal treatment. Thus, ART should be initiated between 4–6 weeks after undergoing antifungal treatment.
People living with HIV with histoplasmosis infection	ART should be initiated as soon as possible among people with disseminated histoplasmosis for whom central nervous system involvement is not suspected or proven.

Table 7 ART Regimen

<table>
<tr><th>First-line ART</th><th>Second-line ART</th><th>Third-line ART</th></tr>
<tr><td>• Dolutegravir (DTG) combined with an NRTI backbone is recommended as the preferred first-line regimen for people living with HIV initiating ART.
• Adults and adolescents
• Infants and children with approved DTG dosing</td><td>• DTG in combination with an optimized nucleoside reverse-transcriptase inhibitor backbone may be recommended as a preferred second-line regimen for people living with HIV for whom non-DTG-based regimens are failing.
• Adults and adolescents Children with approved DTG dosing</td><td>National programmes should develop policies for third line ART.</td></tr>
<tr><td>Efavirenz (EFV) at low dose (400 mg) in combination with a nucleoside reverse-transcriptase inhibitor (NRTI) backbone is recommended as the alternative first-line regimen for adults and adolescents living with HIV initiating ART.</td><td rowspan="2">Boosted protease inhibitors in combination with an optimized nucleoside reverse-transcriptase inhibitor backbone are recommended as a preferred second-line regimen for people living with HIV for whom DTG-based regimens are failing.</td><td>Third-line regimens should include new drugs with minimal risk of cross-resistance to previously used regimens, such as integrase strand transfer inhibitor (INSTI) and second-generation non-nucleoside reverse-transcriptase inhibitor (NNRTI) and protease inhibitors (PI)</td></tr>
<tr><td>A Raltegravir (RAL)-based regimen may be recommended as the preferred first-line regimen for neonates.</td><td>People receiving a failing second-line regimen with no new ARV drug options should continue with a tolerated regimen.</td></tr>
</table>

The ASEAN Regional Policy and AMS Respond

On 40th and 41st ASEAN Summit in Phnom Penh, Cambodia, on 11 November 2022, ASEAN Member States release ASEAN Leaders' Declaration on Ending Inequalities and Getting on Track to End AIDS by 2030(ASEAN Secretariat, 2022). Some of the strategies that have been outlined are divided into several sub-topics: **Get on Track**, **Strengthen, Support, and Sustain Community-Led Responses**, **End Inequalities**, and **Finance and Sustain the AIDS Response**. The strategies than detailed into several points:

1) **Get on The Track**
   a) **Commitment Towards Ending AIDS in ASEAN by 2030**
      - Infuse new energy, effort, and resources into HIV and AIDS response.
      - Ensure no one is left behind, addressing access issues, and combating stigma.
      - Focus on key populations with tailored, evidence-based programs.
      - Increase coverage and quality of HIV prevention, harm reduction, testing, and treatment.
      - Maximize use of innovative strategies like pre-exposure prophylaxis and community-based interventions.
      - Address co-infections (tuberculosis, hepatitis, etc.) and support community responses.
      - Advocate for reform of discriminatory laws hindering the HIV response.
      - Promote human rights, gender equality, and address social determinants of health.
      - Increase financing and adopt innovative mechanisms for the HIV response.

   b) **Prioritize HIV Prevention**
      - Increase political leadership and resource allocation for prevention.
      - Tailor prevention approaches for key and vulnerable populations.
      - Ensure availability of condoms, pre-exposure prophylaxis, and new prevention technologies.
      - Integrate HIV prevention with services for co-infections
      - Strengthen roles of education, faith leaders, and community leaders in prevention.
      - Conduct targeted awareness and education campaigns.

   c) **Emphasize HIV Testing and Treatment**
      - Use innovative testing strategies tailored to key populations.
      - Ensure immediate linkage to HIV treatment and care.
      - Employ differentiated treatment delivery methods.
      - Expand access to HIV viral load testing, tuberculosis and hepatitis prevention and treatment.
      - Commit to eliminating parent-to-child transmission of HIV.
      - Aim for 95-95-95 targets: awareness of status, treatment, and viral suppression.

2) **Strengthen, Support, and Sustain Community-Led Responses**
   a) **Representation and Inclusion**
      i) Ensure inclusion of people living with HIV and affected communities in governance, management, planning, implementation, and evaluation.
      ii) Encourage representatives from these groups to take leadership roles whenever possible.

   b) **Equitable Access to Services**
      i) Ensure people living with HIV and key populations have

equitable access to prevention, testing, care, and treatment services.
ii) Prevent denial of HIV services due to stigma or discrimination.

c) Empowerment of Community-Led Organizations
i) Empower community-led organizations for a stronger and expanded response
ii) Scale up community- and peer-led initiatives.
iii) Support recruitment and retention of competent, skilled, and motivated community-based health educators and workers to reach affected communities and minimize loss to follow-up.

d) Investment in Community Participation:
i) Continue investing in community participation and service delivery.
ii) Adopt and implement policies like social contract-ing for sustainable financing of community-led HIV organizations.

e) Support for Monitoring and Research:
i) Support community-led monitoring and research efforts.
ii) Aim to better meet the needs of people living with HIV and affected com-munities.

3) End Inequalities:

a) Policy Improvement:
i) Remove political barriers to participation and access to HIV services for people living with HIV and key populations.
ii) Improve policy and legal environments, considering socio-cultural and legal contexts.

b) Reforming Discriminatory Laws:
i) Take steps to reform discriminatory and punitive laws hindering the HIV response
ii) Address criminalization of key populations and behaviors.
iii) Remove barriers to access HIV prevention, testing, and treatment service, especially for adolescents.
iv) Address restrictions on entry, stay, and residence of people living with HIV.

c) Eliminating Stigma and Discrimination:
i) Take steps to eliminate stigma and discrimination against people living with HIV and key populations.
ii) Focus on healthcare, education, workplaces, and communities.

d) Commitment to Global Targets:
i) Commit to the 10-10-10 targets in the Global AIDS Strategy 2021-2026
ii) Aim to reduce inequalities and end AIDS, with less than 10% experiencing stigma and discrimination, gender inequality, violence and punitive legal environments denying access to justice.

4) Finance and Sustain the AIDS Response

a) Political Leadership and Advocacy:
i) Further strengthen political leadership, commitment, visibility, coordination, and advocacy at all levels to address the financing shortfall in the HIV response.

b) Financial Resource Commitment:
i) Maintain and expand commitment to raising sufficient domestic and international financial re-sources.
ii) Develop national and sub-national investment cases.
iii) Improve efficiency in resource use and transition plans from external to domestic funding.

c) Public Financing and Innovation:
i) Pursue increased public financing for HIV and AIDS,

exploring an innovative mechanism, partnering with the private sector.

d) Efficient and Sustainable Programs:

i) Ensure existing HIV programs are efficient, sustainable, and integrated with communicable and non-communicable disease control efforts

ii) Adopt programs to humanitarian settings and pandemic responses.

e) Integration with Universal Health Coverage:

i) Align and integrate HIV service within universal health coverage, ensuring the maintenance of priority services for key populations.

f) Collaboration Responses:

i) Ensure collaboration bet-ween the response to HIV and AIDS with responses to pandemics and other public health threats.

ii) Maximize efficiencies and leverage lessons learned from each response.

g) Regional Dialogue and Cooperation:

i) Promote greater regional dialogue and cooperation within ASEAN.

ii) Encourage sharing of good practices, experiences, lessons learned, and joint interventions among countries, cities, and communities.

h) Region-Wide Negotiation for Access:

i) Pursue opportunities for region-wide negotiation for the joint development of strategies.

ii) Focus on improved access to commodities and health products for HIV prevention, testing, and treatment, utilizing the Agreement on Trade-Related Aspects of Intellectual Property Rights flexibilities.

The ASEAN Member States Response and Strategy to HIV-AIDS

(ASEAN Secretariat, 2016)

Brunei Darussalam's HIV Response and Strategy	
National Response Overview	i) Full commitment to universal and equitable access to comprehensive health care services. ii) Free and comprehensive health care is available to all citizens and permanent residents. iii) Inclusive of HIV prevention, care, treatment, and support. iv) No separate budget for HIV services or a national HIV Strategy. v) First-line Antiretroviral (ARV) treatment available to citizens and permanent residents. vi) Second and third-line ARV provision subject to internal regulations. vii) Access to ART for all eligible People Living with HIV (PLHIV) through a specialist clinic. viii) HIV is a notifiable disease under the Infectious Disease Act (2010). ix) Compulsory reporting of positive cases by clinicians to the Department of Health Services. x) HIV surveillance conducted through routine screening in various populations.
Gaps and Challenges	i) Lack of behavioral or prevalence data for general and key populations (MSM, FSW, PWID, TG). ii) Absence of prevention and treatment services targeting key populations, particularly MSM. iii) Legal prohibitions on homosexual acts and cross-dressing hinder targeting and peer support.
Towards 2030 – Strengths and Opportunities	i) Gradual increase in new diagnoses. ii) Availability of ART for PLHIV contributes to viral suppression. iii) Potential improvement if WHO guidelines on ART provision are adopted.
Financing the Response	i) Brunei Darussalam's HIV response is fully funded through domestic sources.

Cambodia's

HIV Response and Strategy	
National Response Overview	i) NSP focuses on a comprehensive approach for Key Population (KP) prevention and care. ii) Emphasizes Boosted Continuum of Prevention to Care and Treatment. iii) A National Harm Reduction Strategy developed with five objectives, including expansion to more People Who Inject Drugs (PWID) and strengthening the strategic information base. iv) Completion of the 3rd NSP (2011-2015) with increasing recognition of policy importance and innovation. v) Capacity building undertaken to enhance collaboration among stakeholders in response to reduced international funding.
Gaps and Challenges	i) Need to secure funding and ensure efficient resource use. ii) Increasing domestic funding is essential. iii) Competition with other diseases for national attention and resources. iv) Challenges in retention of PLHIV in care and treatment. v) Harm reduction strategy implementation is pending. vi) Variable HIV risk among KP, with those at higher risk not adequately reached. vii) ART coverage increased, but 12-month retention declined in 2014. viii) Stock-out of required ART reported in all health facilities in 2014. ix) Dropouts identified at various points in the cascade of prevention, diagnosis, treatment, and care. x) Decrease in the proportion of HIV+ incident TB cases receiving dual treatment in 2015.
Strengths and Opportunities Towards 2030	i) Development of NSP for 2015-2020 aligned with the vision of "The Three Zeros." ii) Primary objectives include reducing HIV incidence, transmission rate, and maintaining mortality rate. iii) Recognition of the need to target and adapt responses to the changing epidemic and resource environment. iv) Scaling up programs to identify high-risk KP for testing and prevention services while adjusting home and community-based care in response to ART effectiveness.

Indonesia's HIV Response and Strategy	
National Response Overview	i) Recent data suggests slowing HIV transmission, but expansion continues among some Key Populations (KP), especially MSM ii) Progress made in stabilizing sub-epidemics in some KP and the general population in West Papua. iii) Increase in eligible persons on ART but falls short of addressing annual new infections. iv) Insufficient ART retention rates limit the potential impact of ART on prevention and mortality. v) The 2015 Indonesia investment case indicates that even with high-level investment, HIV cannot be eradicated by 2030.
Gaps and Challenges	i) To implement the best-case scenario, Indonesia needs a significant increase in funding. ii) The investment case suggests an increase from an estimated US$108 million per year to US$211 million per year between 2014 and 2020, and US$330 million per year between 2021 and 2030.
Towards 2030 – Strengths and Opportunities	i) Scale up of the LKB - Integrated, Decentralized Continuum of Care Services. ii) This may result in cost savings and reduced HIV morbidity and mortality. iii) Focus on targeting communities with the highest burden for ART.

Lao PDR's HIV Response and Strategy	
National Response Overview	i) NSAP 2011-2015 goal achieved: GP prevalence below 1%, seroprevalence among Key Populations (KP) below 5%. ii) Next NSAP aims to reduce KP prevalence below 3%. iii) Implemented strategies include a successful condom social marketing campaign and a harm reduction pilot project. iv) Commitment to reduce mother-to-child transmission (MTCT) with improved testing rates. v) ART coverage was 57.7% in 2014, with a high 85.2% retention rate at 12 months. vi) Expansion of HIV testing sites, including mobile point-of-care testing and rapid tests for KP. vii) Improved management of HIV and tuberculosis with increased testing and treatment. viii) Significant progress on stigma and discrimination, including the introduction of the HIV/AIDS Control and Prevention Law 2010.
Gaps and Challenges	i) Shortfalls in national HIV program targets, significant loss to follow-up in the care and treatment cascade. ii) Need to increase testing rates for KP, streamline services, improve capacity, and promote ART adherence. iii) Only 57% of estimated PLHIV diagnosed, and 83% enrolled in care. iv) ART coverage for PLHIV is below the target. v) Procurement and stock system issues, improvements underway with support from the Clinton Health Access Initiative.
Towards 2030 – Strengths and Opportunities	i) Shift to a lower middle-income country opens the capacity for Lao PDR to draw on more domestic funding. ii) Centre for HIV/AIDS and STI (CHAS) managing contradictions between existing laws on sex work and best practices in prevention.
Financing the Response	ii) Funding for the HIV response in Lao PDR is 80% from international sources and 20% from public sources.

Malaysia's HIV Response and Strategy	
National Response Overview	i) ART coverage in 2013 was 47%, with a strong 95.1% retention rate at 12 months. ii) First-line ART available at no cost, including in closed settings (prisons, drug rehabilitation). iii) Expected decline in new HIV infections for most Key Populations (KP) from 2014. iv) Needle and syringe programs and Methadone Maintenance Therapy (MMT) key to preventing HIV among People Who Inject Drugs (PWID). v) Harm reduction program includes services like HIV counseling, testing, job placements, and drug rehabilitation. vi) HIV spending increased to around RM 181 million (USD 56.5 million) in 2013, with 95% through government funding.
Gaps and Challenges	i) Challenges include low knowledge levels among young people and the need for an increased health workforce. ii) Investment needed in the health system, including primary care, to improve coverage and integration of services. iii) Gaps in early TB screening of People Living with HIV (PLHIV) contribute to late diagnosis and high mortality rates. iv) Need for private health providers' involvement in Prevention of Mother-to-Child Transmission (PMTCT). v) Better outcome indicators are required for stigma, discrimination, and gender-based violence.
Towards 2030 – Strengths and Opportunities	i) Paradigm shifts from punishment and law enforcement to public health, focusing on harm reduction. ii) Public health approach led to more than a 70% decline in new cases among PWID. iii) PMTCT program rolled out nationwide in 1998, achieving almost 100% coverage for HIV-positive mothers through public facilities in 2013. iv) Civil society organizations face challenges in achieving financial sustainability. v) Declining rates of HIV in PWID indicate the success of harm reduction programs. vi) Malaysia well-placed to strengthen the relationship between government and civil society for future NSP.
Financing the Response	i) Total expenditure on HIV increased yearly, reaching around RM 181 million (USD 56.5 million) in 2013. ii) 95% of the country's expenditure on HIV is through public funding.

Myanmar's

HIV Response and Strategy	
National Response Overview	i) HIV is a priority disease in the National Health Plan (2011-2015). ii) Efforts to reduce stigma and discrimination include reviewing the legal framework and operationalizing recommendations related to restrictive laws. iii) Challenges include community resistance to Needle and Syringe Exchange Programs (NSEP) and the need to educate the public on their benefits. iv) Decentralization of treatment services aims to reduce costs to patients and normalize HIV disease. v) Testing policy reviewed to allow community-based rapid testing by NGOs. vi) The National Strategic Plan (NSP) extended to 2016, with a new NSP (2016-2020) in development.
Interventions and Coverage	i) Increase in spending facilitated an 11% rise in Female Sex Worker (FSW) programs in 2013. ii) Funding for Men who have Sex with Men (MSM) programs decreased by 15%, but without negatively impacting reach. iii) Distribution of injecting equipment increased, and Methadone Maintenance Therapy (MMT) scaled up. iv) ART services expanded with an increase in sites and introduction of eligibility at 500 CD4 in 2015.
Gaps and Challenges	i) Focus needed on clients of sex workers, increased coverage for MSM and People Who Inject Drugs (PWID). ii) Stronger political commitment required for legal reform and addressing stigma and discrimination. iii) Challenges in making services user-friendly, especially for Key Populations (KP) like MSM. iv) Gaps in data for HIV testing among infants born to HIV-positive mothers. v) Strategies for staff recruitment, retention, and task shifting need exploration.
Towards 2030 – Strengths and Opportunities	i) Government commitment demonstrated through a consultative process, legal reforms, and a supportive environment. ii) Civil society involvement increasing, with representation in key working groups. iii) Recognition of the importance of strategic information, setting 15 priority actions for strengthening monitoring and evaluation systems. iv) New NSP (2016-2020) aims to fast-track the national HIV response and end HIV as a public health threat by 2030..
Financing the Response	i) Funding mainly from international sources, with a gradual increase in the public sector's contribution. ii) The Ministry of Health made additional domestic contributions, and the government plans to develop a financial transition plan for sustainability.

The Philippine's HIV Response and Strategy	
National Response Overview	i) ART coverage improvement from 19.8% (2012) to 43.1% (Aug 2015), but still considered low. ii) 11,411 adults and children receiving ART, with 26,440 estimated eligible for ART. iii) Retention at 12 months is 86.0%. iv) The ASEAN Getting to Zero Project rolled out in 33 sites, assessing local government responses.
HIV Statistics and Prevention	i) Challenges in PMTCT scale-up, especially outside high burden sites like Manila and Cebu. ii) New WHO guidelines for ART initiation may face challenges due to low testing rates and late diagnosis. iii) Lack of NSEP or OST programs for People Who Inject Drugs (PWID).
Gaps and Challenges	i) Focus needed on clients of sex workers, increased coverage for MSM and People Who Inject Drugs (PWID). ii) Stronger political commitment required for legal reform and addressing stigma and discrimination. iii) Challenges in making services user-friendly, especially for Key Populations (KP) like MSM. iv) Gaps in data for HIV testing among infants born to HIV-positive mothers. v) Strategies for staff recruitment, retention, and task shifting need exploration.
Strengths and Opportunities	i) The Philippines National AIDS Council (PNAC) is proactive with an executive committee for decision-making. ii) Prioritization of HIV in regional health offices. iii) Global Fund's funding model focuses on key populations (PWID and MSM). iv) Department of Health (DOH) moving towards covering the full cost of ART.
Financing the Response	i) In 2013, 468 million PHP (US$10.8 million) spent on the HIV response. ii) Public funding: 191,974,886 PHP; International funding: 245,287,143 PHP; Private funding: 756,131 PHP. iii) Fluctuating spending levels, with an increase in prevention spending in 2012 but a decline in 2013. iv) Global Fund is the largest external contributor; there is a recognized need to increase the domestic budget for HIV.

Singapore's HIV Response and Strategy	
National Response Overview	HIV prevention and education core strategy in Singapore's HIV/AIDS control program. Multi-sectoral approach: public education, key population (KP) education, HIV testing, blood supply protection, PLHIV management, surveillance, and legislation. National HIV Policy Committee sets general direction; National AIDS Control Program under MOH. National Public Health Unit manages HIV registry and contact tracing.
Education and Prevention	i) Targeted at general population and key populations (e.g., sex workers, MSM). ii) Various sources provide information on HIV testing and prevention. iii) Structured programs for youths, workplaces, and at-risk groups available through Health Promotion Board and STI Control Clinic.
Testing and Management	i) Anonymous testing available at ten sites; 41,000 tests (2012-2014), 1.45% HIV positive. ii) Voluntaries opt-out testing in healthcare settings; 0.19% positive cases per 100,000 tests (2012-2014). iii) Majority of HIV cases managed by Communicable Disease Centre (CDC).
Financial Aspects	The Medisave scheme allows SGD$550/month for ART. Medifund assistance extended to ART from February 2010. Subsidies for eligible patients at public hospitals available from September 2014.
Gaps and Challenges	i) Efforts to address HIV-related stigma in the workplace ongoing. ii) Focus on reducing late-stage diagnosis, especially among high-risk heterosexual men and MSM.
Strength and Opportunities	i) A well-established and well-resourced health system facilitates comprehensive testing, care, and treatment. ii) Mature biological and behavioral HIV surveillance systems provide solid planning data. iii) Opportunity to enhance monitoring and evaluation data for better understanding of key populations' behaviors and needs.
Financing the Response	i) Singapore's HIV response is fully funded from domestic sources.

Thailand's HIV Response and Strategy	
National Response Overview	Thailand NSP 2014-2016 aims to reduce new HIV infections, peri-natal transmission, AIDS-related deaths, and discrimination of key populations (KP). Commitment to ending the AIDS epidemic by 2030; emphasis on test and treat strategies. Target to eliminate mother-to-child transmission (MTCT), improve ART coverage, and reduce MTCT rate. Efforts to align HIV and TB programs, eliminate gender inequalities, and combat stigma and discrimination.
Prevention and PMTCT	i) Outreach programs for HIV diagnosis include training staff in PMTCT. ii) Guidelines promote post-partum continuation of ART for pregnant HIV+ women. iii) Progress in reducing the proportion of pregnant HIV+ women not receiving ART.
Strategic Use of ART	i) Thailand adopts Reach, Recruit, Test, Treat, Retain (RRTTR) framework. ii) Costed plan at 9,214,862,566 THB for five years; commitment to strategic use of ART. iii) Focus on tailored service packages for each KP at the provincial level.
Gaps and Challenges	Stigma and discrimination recognized as key barriers; focus on revising laws and policies. Challenges in coordination for achieving targets; addressing discrimination and expanding protective legal environment.
Strength and Opportunities	i) Progressive public policy in HIV response effective in preventing transmission. ii) Bold targets set with policy and program initiatives aligned with goals. iii) History of successful programs like the 100% Condom Use Program.
Financing the Response	i) Total HIV expenditure in 2013 was 8,827 million THB, a 14% increase from 2010. ii) Thailand financed 89% of the total HIV expenditure through domestic funds in 2013. iii) Focus on closing AIDS resource gaps, preparing for transition to 100% domestic funding for sustainable financing.

Vienam's

HIV Response and Strategy	
National Response Overview	Aims to achieve targets in the National Strategy on HIV/AIDS Prevention and Control in Vietnam till 2020, with a vision to 2030. Evaluation estimates nearly 31,000 infections averted, and 16,000 life years saved through harm reduction strategies.
Harm Reduction and Opiate Substitution Theraphy	i) Successful outcomes associated with opiate substitution therapy, resulting in a 54% reduction in HIV risk for PWID. ii) Pilot projects on subsidized needle and syringe distribution through pharmacies show promising results.
Strategic Use of ART and Prevention	i) Call for a shift to positive prevention and outreach for partners of PWID. ii) Emphasis on reaching, testing, treating, and retaining in the cascade, including peer support for ART patients.
Challenges and Gaps	Limited condom programs for PWID and MSM. Challenges include late initiation of ART, low testing rates among KP, and increasing domestic spending. Need for an innovative test and treat program for KP with confidential and non-judgmental services.
Strength and Opportunities	i) MOH administration develops an HIV investment case for targeted, efficient, and sustainable approaches to Ending AIDS by 2030. ii) Increased domestic funding, with the aim of using domestic resources for 75% of total spending by 2020.
Financing and Transition	i) Urgent need to transition from donor-led to domestically funded, integrated, and decentralized response. ii) Currently, only 5% of ARV is purchased with domestic funds; a plan for centralised procurement to reduce costs is necessary. iii) Advocacy plans for leaders to align with Project for Sustainable Financing for HIV/AIDS Prevention and Control activities 2013-2020.
Evaluation and Impact	i) The AEM process estimates potential averted infections and deaths by 2030 with scaled-up responses. ii) A focus on effective investment, efficient strategies, and a nuanced understanding of epidemics in the investment case approach. iii) These initiatives aim to strengthen Vietnam's response to HIV/AIDS, focusing on prevention, treatment, and sustainable financing.

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