

Thailand's

**NATIONAL AIDS SPENDING ASSESSMENT (NASA)
2022 - 2023**

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Thanaphon Phangsee

International Health Policy Foundation (IHPF)

Supported by

The Joint United Nations Programme on HIV/AIDS (UNAIDS)



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31 July 2024

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Executive summary

The National AIDS Spending Assessment (NASA) is an analytical tool designed to provide a comprehensive evaluation of financial expenditures related to HIV/AIDS across both health and non-health sectors. This resource tracking tool describes financial flow and actual expenditures for HIV/AIDS. It demonstrates which sources of finance, who manages the funds, how much and for which services. NASA can offer critical strategic insights on resource mobilisation and distribution of financial resources necessary for achieving the objective of ending AIDS.

Thailand initiated NASA over a decade ago. The initial data collection covered HIV/AIDS expenditures for 2008 and 2009. This ongoing process has resulted in a continuous 14-year series of data, spanning from 2008 to 2021. The current study aims to collect and analyze HIV/AIDS spending in Thailand for the years 2022 and 2023, following the guidelines established by the Joint United Nations Programme on HIV/AIDS (UNAIDS). Data were sourced from financial reports and secondary materials that detail actual HIV/AIDS expenditures by domestic organizations, particularly within the government sector, as well as from international development partners. Due to limitations in data accessibility, expenditures by households and the private sector, with the exception of certain non-profit institutions serving households (NPISH), were excluded.

An increasing trend with some fluctuations in HIV/AIDS spending was observed from 2008 to 2023. Total HIV/AIDS expenditure rose from 6,628.2 million baht in 2008 to 8,498.7 million baht in 2023. Within the study period, total HIV/AIDS spending amounted to 8,403.1 million baht in 2022 and 8,498.7 million baht in 2023. This corresponds to 127.1 baht and 128.7 baht per capita, or 14,448.3 and 14,744.6 baht per people living with HIV (PLHIV), respectively. These expenditures represented 0.05% of the Gross Domestic Product (GDP) in both years and accounted for approximately 1.0% of the Current Health Expenditure (CHE) in 2022 and 2023.

The majority of resources were allocated to care and treatment, comprising 74-75% of the total HIV spending. In contrast, the share of prevention expenditure slightly decreased from 16.1% in 2022 to 15.0% in 2023. The Thai government played a dominant role in the HIV/AIDS response, accounting for over 90% of domestic spending during these two years, with a strong emphasis on care and treatment. Conversely, international funds contributed approximately 9% of total HIV/AIDS spending, primarily focusing on prevention and management programmes. The inadequate investment in prevention could hinder the goal of ending AIDS by 2030. Additionally, the data highlights concern about the minimal investment in human rights and stigma reduction, which constituted less than 1% of total HIV/AIDS spending in 2022 and 2023.

The recent NASA aimed to map HIV/AIDS spending by beneficiary populations. People living with HIV benefited the most from overall spending. In contrast, the allocation of HIV/AIDS expenditure to key populations—including men who have sex with men (MSM), people who inject drugs (PWID), sex workers, and transgender individuals—was less than 20% of total HIV/AIDS spending each year. However, MSM received about 9.8% of all prevention spending in 2022, increasing to 13.1% in 2023. This was followed by people who inject drugs, sex workers, and transgender individuals, who accounted for approximately 8%, 2-4%, and 1% of prevention spending in these two years, respectively. On the other hand, spending on care and treatment was predominantly allocated to PLHIV, accounting for 58.8% of treatment spending in 2022 and 54.3% in 2023. Some of this spending could be disaggregated to specific populations, with MSM receiving about 9-10% of total spending on care and treatment in 2022 and 2023.

Keywords: HIV/AIDS spending, assessment, prevention, treatment, key populations

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Introduction

Thailand has implemented the National Policy and Strategic Plan to prevent and address HIV/AIDS for the years 2014-2016, with the aim of ending AIDS epidemic by 2030. Key objectives of this plan include 1) ensuring no children is born with HIV, 2) reducing new infections to fewer than 1,000 annually, 3) providing all HIV-positive individuals with access to antiretroviral treatment (ART) to reduce AIDS-related deaths to fewer than 4,000 per year, and 4) eliminating stigma and discrimination against people living with HIV and key populations. Thailand's commitment to ending AIDS by 2030 aligns with the global policy endorsed in the political declaration announced in June 2016 at the United Nations High-Level Meeting on Ending AIDS in New York, USA.¹

Assessing HIV/AIDS spending is crucial for informing and guiding the country's health financing policy in both the short and long term. The National AIDS Spending Assessment report, formerly known as the National AIDS Account (NAA), was initiated in Thailand in 2000²⁻⁵ to develop a method for reporting the financial profiles of the national HIV/AIDS programmes. However, the continuous updating of HIV/AIDS spending data has been conducted since 2008. NASA serves as a primary source of data concerning financing indicators that comprehensively inform HIV/AIDS expenditures in Thailand. It provides policymakers with detailed information on HIV/AIDS financing, including the sources of funds, managing entities, amounts allocated, services provided, and target beneficiaries. NASA also produces strategic information essential for managing and optimising financing to effectively respond to the HIV/AIDS epidemic.

In the current phase, the Thai working group on NASA collaborates with various partners, both domestic and international, who possess extensive expertise in HIV/AIDS activities and spending. This collaborative effort aims to collect data on HIV/AIDS spending for the years 2022 and 2023.

Objective

- To track the expenditure on HIV/AIDS from 2022 to 2023
- To produce key indicators on total expenditure on HIV/AIDS in terms of
 - Baht per capita Thai population,
 - Baht per capita people living with HIV
 - Percent of Gross Domestic Product
 - Percent of Current Health Expenditure

Methodology

This study utilises NASA to quantify the scale, sources, and allocation of expenditures for HIV/AIDS by tracing the flow of funds from financing agents to diverse HIV-related activities and ultimate beneficiaries. Actual expenditures from public, private, and international sources were collected using HIV/AIDS Spending Categories (ASC), which encompass eight categories as follows:

- 1) Prevention
- 2) Care and Treatment
- 3) Orphans and Vulnerable Children
- 4) Programme management and administration
- 5) Human resources
- 6) Social Protection and Social Services excluding Orphans and Vulnerable Children
- 7) Enabling Environment
- 8) HIV-related research

Flow of resources

The National AIDS Spending Assessment in Thailand delineates the allocation of resources dedicated to HIV/AIDS activities, emphasizing the financing sources (FS) contributing to each financing agent (FA). While this study did not specifically capture the subsequent funding provided to service providers, NASA identifies the types of HIV/AIDS spending categories allocated to specific beneficiary populations (BP). The flow of these resources is visually represented in Figure 1.

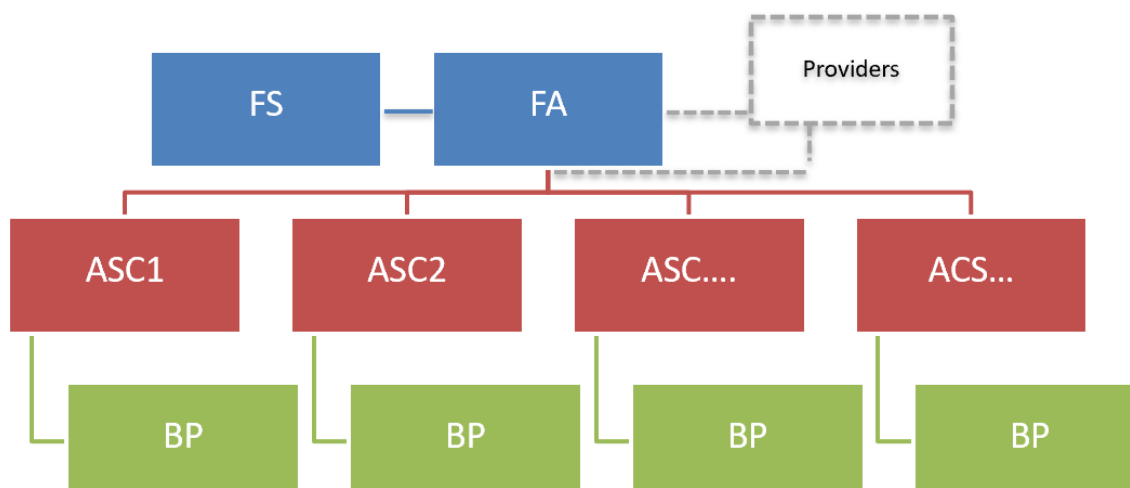


Figure 1 The flow of resources for data collecting process

Data collection

- Utilising the OECD System of Health Accounts, Version 2.0 (2011)⁶, a two-dimensional matrix was constructed to analyze financing sources and beneficiary populations across HIV/AIDS spending categories.
- Secondary data on actual expenditures for HIV/AIDS was compiled from various financing agents, including government and international sources. Additionally, HIV spending from certain non-profit institutes and civil society organizations was considered, particularly when they received funding not captured in the primary data collection process from non-key government and international sources.
- The PxQ approach (where P represents the price per unit and Q denotes the quantity of services provided during the observed period) was employed when secondary data was unavailable.

Data sources

- Actual spending on HIV/AIDS primarily sourced from government expenditure records across various organizations and ministries, as well as international sources, including:
 - The Ministry of Public Health (MOPH) has a pivotal role in operations, establishing policies, and developing operational plans aimed at addressing the AIDS epidemic, which includes setting goals, guidelines, and frameworks to guide national and local efforts in prevention, treatment, and care.

- The National Health Security Office (NHSO), manages universal access to antiretroviral therapy (ART) and opportunistic infections (OI) programmes for HIV patients under the Universal Coverage Scheme (UCS).
 - The Comptroller General's Department (CGD) of the Ministry of Finance (MOF), manages expenditure on HIV/AIDS within the Civil Servant Medical Benefit Scheme (CSMBS). However, this round of data collection, we need to estimate HIV/AIDS spending from CGD due to incomplete data of the actual spending.
 - The Social Security Office (SSO) is responsible for healthcare coverage for Social Health Insurance (SHI) members. Similar to the NHSO and CGD, the SSO provides funding for antiretroviral therapy (ART) for individuals insured under the scheme.
 - International sources such as the Global Fund, the United Nations agencies, and other international donors.
- The most recent Gross Domestic Product figures for 2022 and 2023 were obtained from the Office of the National Economic and Social Development Council.⁷
 - Current Health Expenditure for 2022-2023 was estimated by the research team by projecting the historical growth of health expenditures from preceding years.
 - The population numbers were retrieved from the Department of Provincial Administration.⁸
 - The number of people living with HIV/AIDS in 2022 and 2023 was determined using the Thailand Spectrum-AEM model developed by the Department of Disease Control.⁹

Scope

- This study covers only actual spending by government and international resources. We deliberately excluded the private sector (except some non-profit organisations that spent on HIV/AIDS) including household spending on HIV/AIDS, as there is no national household survey dataset capturing household spending specifically on HIV/AIDS.
- Data from the government sector covers the fiscal years 2022 and 2023 (from October to September of the following year), whereas some international agencies report data from January to December. The assumption of the same period for the fiscal year and the calendar year was applied.
- Healthcare functions and HIV/AIDS spending categories outlined by the NASA template 2021¹⁰ and Global AIDS Monitoring (GAM) report 2024¹¹ were utilised in this study.

Result

1. HIV/AIDS spending 2022-2023

1.1 Total HIV/AIDS spending and key indicators

In 2022, total expenditure on HIV/AIDS amounted to approximately 8,403.1 million baht, increasing to 8,498.7 million baht in 2023. This equates to approximately 127.1 baht per capita of the Thai population in 2022 and 128.7 baht per capita in 2023, or about 14,448.3 baht and 14,744.6 baht per PLHIV in 2022 and 2023, respectively. The share of HIV/AIDS spending to GDP in both years was approximately 0.05%. HIV/AIDS spending as a percentage of CHE was 1.0% in both 2022 and 2023.

Financing for HIV/AIDS programmes predominantly relied on domestic sources, accounting for 90.7-91.0% of total HIV/AIDS spending. The majority of HIV/AIDS expenditure focused on care and treatment, consistently comprising 74.0% of total spending in 2022 and 74.8% in 2023. However, expenditure on prevention decreased slightly from 16.1% in 2022 to 15.0% in 2023 (see Table 1).

Table 1 Total HIV/AIDS expenditure and key indicators, 2022-2023, current year price

Details	2022	2023
Total HIV/AIDS expenditure, million baht	8,403.1	8,498.7
Current Health Expenditure*, million baht	804,947.6	849,134.8
Total number of PLHIV, estimate ⁹	581,597	576,397
Total number of PLHIV on ART ¹²	457,133	474,675
<i>Total HIV/AIDS expenditure, as</i>		
o per capita population**, baht	127.1	128.7
o per capita PLHIV, baht	14,448.3	14,744.6
o % GDP	0.05%	0.05%
o % CHE	1.0%	1.0%
<i>Financing sources</i>		
Domestic sources, % of total HIV/AIDS expenditure	91.0%	90.7%
International sources, % of total HIV/AIDS expenditure	9.0%	9.3%
<i>HIV/AIDS categories</i>		
Prevention, % of total HIV/AIDS expenditure	16.1%	15.0%
Care and Treatment, % of total HIV/AIDS expenditure	74.0%	74.8%
Others, e.g. programme management and administration, human resources, and social protection and social services	9.8%	10.1%

Note: *Current Health Expenditure 2022-2023, estimated based on trend of health expenditure from 1994-2021

**The population was 66,090,475 in 2022 and 66,052,615 in 2023.⁸

1.2 HIV/AIDS spending by categories

Total HIV/AIDS expenditure across categories delineates the allocation of HIV/AIDS spending to various relevant activities (see Table 2). Approximately two-thirds of the funding, amounting to 6,220.2 million baht in 2022 and 6,360.0 million baht in 2023, was allocated to care and treatment. A significant portion of this expenditure, accounting for more than half of total HIV/AIDS spending, is dedicated to providing ART to people living with HIV.

Prevention expenditure amounted to 1,356.2 million baht in 2022 and decreased slightly to 1,277.0 million baht in 2023. A significant portion of this spending is allocated to blood safety, comprising 7.4% of total HIV/AIDS spending in 2022 and decreasing to 6.3% in 2023. Funds are also directed towards supporting key interventions such as voluntary counselling and testing (VCT), condom provision, programmatic interventions for people who inject drugs, men who have sex with men, and other vulnerable populations, as well as pre-exposure prophylaxis (PrEP). However, each of these interventions consumes less than 2% of total HIV/AIDS expenditure.

Social protection and social services (excluding Orphans and Vulnerable Children - OVC) received approximately 5.8% of total HIV/AIDS spending. Other programmes did not constitute a significant share of HIV/AIDS spending during these two years.

Table 2 Total HIV/AIDS expenditure by HIV/AIDS spending categories, 2022-2023

HIV/AIDS spending categories	2022		2023	
	baht	%	baht	%
1. Prevention	1,356,209,757.9	16.1%	1,276,992,345.9	15.0%
<i>Communication for Social and behavioural change</i>	<i>10,615,131.8</i>	<i>0.1%</i>	<i>8,871,918.7</i>	<i>0.1%</i>
Public communication	10,596,459.6	0.1%	8,845,665.0	0.1%
Non-Public communication	18,672.2	0.0%	26,253.7	0.0%
Community mobilization	224,403.2	0.0%	512,081.1	0.0%
Voluntary counselling and testing	136,933,591.8	1.6%	167,636,216.8	2.0%
<i>Programmatic interventions for vulnerable population</i>	<i>56,430,417.9</i>	<i>0.7%</i>	<i>47,112,011.4</i>	<i>0.6%</i>
Programmes for migrant	23,062,873.3	0.3%	24,397,624.3	0.3%
Programmes for prisoner	33,367,544.6	0.4%	22,714,387.1	0.3%
Programmes for juvenile detention	-	0.0%	-	0.0%
Prevention – youth in school	2,326,226.1	0.0%	796,935.3	0.0%
Prevention – youth out-of-school	377,673.1	0.0%	495,850.3	0.0%
Prevention of HIV transmission aimed at PLHIV not disaggregated by type	1,964,004.1	0.0%	2,002,045.3	0.0%
<i>Programmatic interventions for sex workers and their clients</i>	<i>17,955,345.2</i>	<i>0.2%</i>	<i>22,254,840.8</i>	<i>0.3%</i>
Female sex workers and their clients	14,241,806.0	0.2%	18,105,277.8	0.2%
Male sex workers and their clients	3,713,539.2	0.0%	4,149,563.0	0.0%
Programmatic interventions for MSM	71,466,301.2	0.9%	89,418,289.6	1.1%
Programmes for transgender people	9,865,748.5	0.1%	8,592,352.2	0.1%
Pre-exposure prophylaxis for serodiscordant couples	11,203.3	0.0%	1,180,756.2	0.0%

HIV/AIDS spending categories	2022		2023	
	baht	%	baht	%
<i>Programmatic interventions for injecting drug use (IDU)</i>	90,486,166.1	1.1%	81,323,049.9	1.0%
Needle and syringe exchange and other prevention programmes for people who inject drugs	90,086,545.0	1.1%	80,707,099.5	0.9%
Drug substitution treatment as part of programmes for IDUs	399,621.1	0.0%	615,950.5	0.0%
<i>Programmatic interventions in the workplace</i>	135,903.3	0.0%	82,703.2	0.0%
Programmatic interventions in the public workplace	124,700.0	0.0%	66,951.0	0.0%
Programmatic interventions in the private workplace	11,203.3	0.0%	15,752.2	0.0%
Condom promotion	21,888,197.3	0.3%	21,704,125.2	0.3%
Condom social marketing	11,203.3	0.0%	15,752.2	0.0%
Public and commercial sector condom provision	101,375,568.3	1.2%	103,336,872.2	1.2%
Microbicides	-	0.0%	-	0.0%
Prevention, promotion of testing and linkage to care programmes targeting young woman and adolescent girls (age 10-24 years)	400,534.2	0.0%	402,571.0	0.0%
Prevention, diagnosis and treatment of sexually transmitted infections (STI)	25,978,832.2	0.3%	33,374,620.0	0.4%
<i>Prevention Maternal to Child Transmission (PMTCT)</i>	34,117,000.6	0.4%	31,751,294.2	0.4%
Pregnant woman counselling and testing in PMTCT programmes	754,591.0	0.0%	891,453.2	0.0%
Early infant diagnosis	6,577,000.0	0.1%	6,609,000.0	0.1%
ARVs for PMTCT	186,101.5	0.0%	-	0.0%
Non ARVs-related component of PMTCT	26,302,780.0	0.3%	23,711,424.9	0.3%
Prevention of vertical transmission of HIV not disaggregated	296,528.0	0.0%	539,416.0	0.0%
Voluntary medical male circumcision	-	0.0%	-	0.0%
Blood safety	618,594,879.7	7.4%	533,891,376.1	6.3%
Safe medical injection	-	0.0%	-	0.0%
Universal Precaution	-	0.0%	-	0.0%
Post-exposure prophylaxis (PEP)	2,726,400.0	0.0%	4,079,965.0	0.0%
<i>Pre-Exposure Prophylaxis; PrEP</i>	68,601,461.0	0.8%	61,271,739.5	0.7%
PrEP for gay men and other men who have sex with men (MSM)	8,088,137.2	0.1%	10,077,684.5	0.1%
PrEP for sex workers	8,135,486.2	0.1%	8,849,772.9	0.1%
PrEP for persons who inject drugs (PWID)	168,831.4	0.0%	441,943.1	0.0%
PrEP for transgender persons	1,238,598.5	0.0%	591,507.8	0.0%
PrEP for serodiscordant couples	6,224.1	0.0%	8,751.2	0.0%
PrEP for other key populations	3,449,655.7	0.0%	3,812,623.7	0.0%

HIV/AIDS spending categories	2022		2023	
	baht	%	baht	%
PrEP for high-risk population not disaggregated by population type	47,514,527.9	0.6%	37,489,456.2	0.4%
Cash transfers to woman and girls (10-24 years)	-	0.0%	-	0.0%
Prevention programmes not disaggregated by intervention	83,723,565.6	1.0%	56,884,979.6	0.7%
2. Care and treatment	6,220,241,877.4	74.0%	6,360,030,847.8	74.8%
HIV testing and counselling (nontargeted; specific commodities separately) is used to refer to all services involving HIV testing provided alongside counselling	6,597,718.7	0.1%	7,816,620.6	0.1%
Mandatory HIV testing (not VCT)	4,774,762.2	0.1%	5,089,503.7	0.1%
OI inpatient prophylaxis and treatment not disaggregated by type	46,633.4	0.0%	-	0.0%
OI outpatient prophylaxis and treatment not disaggregated by type	174,463,687.0	2.1%	194,663,524.7	2.3%
Diagnosis and treatment of AIDS-related cancers	-	0.0%	-	0.0%
Diagnosis, treatment and prevention outpatient of AIDS-related coinfections (excluding TB and cancers)	188,429,569.4	2.2%	178,924,589.7	2.1%
<i>Diagnosis, treatment and prevention of AIDS-related coinfections</i>	<i>11,585,431.6</i>	<i>0.1%</i>	<i>7,740,571.9</i>	<i>0.1%</i>
TB screening and diagnostics for PLHIV	1,502,940.0	0.0%	2,856,443.7	0.0%
TB treatment for PLHIV	10,082,491.6	0.1%	4,884,128.3	0.1%
<i>Antiretroviral therapy (ART)</i>	<i>4,284,038,183.6</i>	<i>51.0%</i>	<i>4,296,622,564.9</i>	<i>50.6%</i>
Adult antiretroviral treatment (15+ years)	1,403,470,306.1	16.7%	1,579,613,801.7	18.6%
Paediatric antiretroviral treatment (less than 15 years)	20,175,664.9	0.2%	20,126,402.1	0.2%
Antiretroviral therapy not broken down by either age or line of treatment	2,860,392,212.7	34.0%	2,696,882,361.2	31.7%
Nutritional support associated to ARV therapy	-	0.0%	-	0.0%
Specific HIV-related laboratory monitoring	1,319,034,901.1	15.7%	1,446,940,420.0	17.0%
Dental care for PLHIV	28,330.0	0.0%	11,430.0	0.0%
<i>Psychological treatment and support services</i>	<i>71,211.1</i>	<i>0.0%</i>	<i>107,410.5</i>	<i>0.0%</i>
Pre-antiretroviral treatment care and palliative care in outpatient (before and after ART)	-	0.0%	-	0.0%
Pre-antiretroviral treatment care and palliative care in inpatient	71,211.1	0.0%	107,410.5	0.0%
Home-based medical care	1,929,061.3	0.0%	2,777,351.8	0.0%
Traditional medicine and informal care and treatment services	458,990.0	0.0%	478,962.0	0.0%
Care and Treatment programmes not disaggregated by intervention	228,783,398.0	2.7%	218,857,897.9	2.6%

HIV/AIDS spending categories	2022		2023	
	baht	%	baht	%
3. Orphans and vulnerable children	990,007.3	0.0%	1,048,654.5	0.0%
OVC Education	-	0.0%	-	0.0%
OVC Basic health care	952,248.5	0.0%	1,040,519.5	0.0%
OVC Family/home support (in-kind)	-	0.0%	-	0.0%
OVC Community support	37,758.8	0.0%	8,135.0	0.0%
OVC Social Services and Administrative costs	-	0.0%	-	0.0%
OVC Institutional care	-	0.0%	-	0.0%
OVC Services not disaggregated by intervention	-	0.0%	-	0.0%
4. Programme management and administration	183,961,639.1	2.2%	183,655,824.8	2.2%
Planning, coordination and programme management	27,261,378.7	0.3%	36,602,709.9	0.4%
Financing programme and administrative	79,763,587.8	0.9%	86,505,397.3	1.0%
Monitoring and evaluation	9,871,922.6	0.1%	10,216,755.9	0.1%
Operations research	864,499.8	0.0%	-	0.0%
HSS BSS IBBS	15,805,739.3	0.2%	19,399,328.8	0.2%
HIV drug-resistance surveillance	-	0.0%	-	0.0%
Drug supply system	7,379,043.9	0.1%	5,823,054.9	0.1%
Information technology	11,392,593.4	0.1%	5,636,956.9	0.1%
Upgrading and construction of infrastructure not disaggregated by intervention	24,824,300.0	0.3%	16,827,367.7	0.2%
Programme management and administration not disaggregated by type	6,798,573.6	0.1%	2,644,253.4	0.0%
5. Human Resources	77,860,984.3	0.9%	80,261,317.4	0.9%
Monetary incentives for human resources (included physicians and nurses)	41,001,925.9	0.5%	40,967,118.8	0.5%
Formative education to build-up an HIV workforce or officer staff	5,018,964.3	0.1%	2,371,594.5	0.0%
Training	23,413,200.5	0.3%	27,535,727.5	0.3%
Human resources not disaggregated by type	8,426,893.6	0.1%	9,386,876.5	0.1%
6. Social protection and social services (excluding OVC)	483,904,217.2	5.8%	491,084,997.0	5.8%
Social protection through monetary benefits	62,234.0	0.0%	332,788.8	0.0%
Social protection through in-kind benefits	3,316,635.0	0.0%	1,968,295.0	0.0%
Social protection through provision of social services	478,543,266.0	5.7%	482,130,160.0	5.7%
HIV-specific income generation projects	-	0.0%	-	0.0%
Social protection services and social services not disaggregated by type	1,982,082.2	0.0%	6,653,753.2	0.1%
7. Enabling environment	59,548,211.3	0.7%	93,332,106.3	1.1%
Policy dialogue/ Political commitment /Advocacy	8,338,078.0	0.1%	11,612,816.2	0.1%
Human rights programmes	121,916.8	0.0%	167,652.7	0.0%

HIV/AIDS spending categories	2022		2023	
	baht	%	baht	%
Stigma reduction	11,228,313.2	0.1%	19,539,491.7	0.2%
AIDS-specific institutional development/community mobilization	9,614,705.0	0.1%	17,729,419.2	0.2%
Female programmes	74,351.5	0.0%	88,616.0	0.0%
Gender programmes	19,320.3	0.0%	1,370,684.0	0.0%
Laws, legal policies, practices and enforcement	369,320.3	0.0%	370,684.0	0.0%
Mass media	29,762,885.9	0.4%	42,432,058.4	0.5%
Enabling environment not disaggregated by type	19,320.3	0.0%	20,684.0	0.0%
8. HIV-related research (excluding operations research)	20,362,191.2	0.2%	12,321,470.8	0.1%
Biomedical research	458,722.0	0.0%	366,650.0	0.0%
Clinical research	19,712,702.0	0.2%	11,764,053.5	0.1%
Epidemiological research	190,767.3	0.0%	190,767.3	0.0%
Social science research not disaggregated by type	-	0.0%	-	0.0%
Vaccine-related research	-	0.0%	-	0.0%
HIV and AIDS-related research activities not disaggregated by type	-	0.0%	-	0.0%
Total	8,403,078,885.6	100.0%	8,498,727,564.3	100.0%

1.3 HIV/AIDS spending by financing sources

The Thai government plays a significant role in HIV/AIDS programmes, particularly in funding care and treatment through the NHSO, which purchases health services for members of the Universal Coverage Scheme, covering over 70% of the total Thai population. The NHSO accounted for 46.9% of HIV/AIDS spending (3,943.3 million baht) in 2022 and 45.4% (3,862.5 million baht) in 2023. Similarly, SSO and CGD focused their HIV/AIDS spending on care and treatment. SSO's expenditure on HIV/AIDS increased from 16.8% (1,411.6 million baht) in 2022 to 19.7% (1,670.8 million baht) of total HIV/AIDS expenditure in 2023. Meanwhile, HIV/AIDS spending for the CSMBS by CGD and the MOPH constituted approximately 9% and 2% respectively in these two years. Other domestic sources, including both public and private agencies such as other ministries, local government, and the Thai Red Cross Society, also played important roles in prevention and social protection. Their contributions were particularly notable in specific areas of spending, such as blood safety initiatives by the Thai Red Cross Society and the provision of social services by local government agencies. International sources predominantly financed prevention and programme management and administration during this period, as detailed in Tables 3 and 4.

Table 3 Total HIV/AIDS expenditure by source and categories, 2022

HIV/AIDS spending categories	Total		Domestic sources										International sources	
			MOPH		NHSO		CGD*		SSO		Others			
	million baht	%	million baht	%	million baht	%	million baht	%	million baht	%	million baht	%	million baht	%
1. Prevention	1,356.2	16.1%	99.8	1.2%	259.6	3.1%	30.2	0.4%	-	0.0%	611.1	7.3%	355.6	4.2%
2. Care and treatment	6,220.2	74.0%	60.7	0.7%	3,683.8	43.8%	754.1	9.0%	1,411.6	16.8%	186.2	2.2%	123.9	1.5%
3. Orphans and vulnerable children (OVC)	1.0	0.0%	1.0	0.0%	-	-	-	-	-	-	-	-	0.0	0.0%
4. Programme management and administration	184.0	2.2%	30.2	0.4%	-	-	-	-	-	-	3.6	0.0%	150.1	1.8%
5. Human Resources	77.9	0.9%	9.2	0.1%	-	-	-	-	-	-	4.9	0.1%	63.7	0.8%
6. Social protection and social services (excluding OVC)	483.9	5.8%	-	-	-	-	-	-	-	-	478.7	5.7%	5.2	0.1%
7. Enabling environment	59.5	0.7%	-	-	-	-	-	-	-	-	0.3	0.0%	59.2	0.7%
8. HIV-related research (excluding operations research)	20.4	0.2%	0.5	0.0%	-	-	-	-	-	-	19.7	0.2%	0.2	0.0%
Total	8,403.1	100.0%	201.4	2.4%	3,943.3	46.9%	784.2	9.3%	1,411.6	16.8%	1,304.6	15.5%	758.0	9.0%

Note: * Estimated data

Table 4 Total HIV/AIDS expenditure by source and categories, 2023

HIV/AIDS spending categories	Total		Domestic sources										International sources	
			MOPH		NHSO		CGD*		SSO		Others			
	million baht	%	million baht	%	million baht	%	million baht	%	million baht	%	million baht	%	million baht	%
1. Prevention	1,277.0	15.0%	92.1	1.1%	313.9	3.7%	32.7	0.4%	-	0.0%	523.8	6.2%	314.5	3.7%
2. Care and treatment	6,360.0	74.8%	80.4	0.9%	3,548.6	41.8%	748.2	8.8%	1,670.8	19.7%	164.0	1.9%	148.1	1.7%
3. Orphans and vulnerable children (OVC)	1.0	0.0%	1.0	0.0%	-	-	-	-	-	-	-	-	0.0	0.0%
4. Programme management and administration	183.7	2.2%	21.0	0.2%	-	-	-	-	-	-	3.5	0.0%	159.2	1.9%
5. Human Resources	80.3	0.9%	11.2	0.1%	-	-	-	-	-	-	4.9	0.1%	64.1	0.8%
6. Social protection and social services (excluding OVC)	491.1	5.8%	-	-	-	-	-	-	-	-	482.1	5.7%	8.9	0.1%
7. Enabling environment	93.3	1.1%	-	-	-	-	-	-	-	-	0.3	0.0%	93.0	1.1%
8. HIV-related research (excluding operations research)	12.3	0.1%	0.4	0.0%	-	-	-	-	-	-	11.8	0.1%	0.2	0.0%
Total	8,498.7	100.0%	206.1	2.4%	3,862.5	45.4%	780.9	9.2%	1,670.8	19.7%	1,190.4	14.0%	788.0	9.3%

Note: * Estimated data

1.4 HIV/AIDS spending by beneficiary populations

A substantial portion of HIV/AIDS spending was allocated to various target groups, with PLHIV benefiting the most from these expenditures in 2022-2023. The majority of this funding was sourced domestically. PLHIV who were not categorized under key populations received 3,700.7 million baht in 2022 and 3,515.9 million baht in 2023, which accounted for more than 40% of the total HIV/AIDS spending. This substantial allocation is primarily attributed to approximately half of the spending being directed towards ART. Additionally, domestic funding was allocated to factory employees and populations not otherwise classified, including the general population and specific targeted populations not elsewhere classified.

Both domestic and international sources contributed to funding key populations, including MSM, PWID, sex workers, and transgender individuals. Domestic spending primarily focused on MSM and sex workers, whereas international funding was prominently directed towards PWID. However, the allocation of HIV/AIDS spending for each key population did not exceed 10%. For a detailed breakdown, refer to Table 5 and Figure 2.

Table 5 HIV/AIDS spending by beneficiary populations, 2022-2023 (million baht)

HIV/AIDS categories	2022			2023		
	Domestic sources	International sources	Total	Domestic sources	International sources	Total
PLHIV	3,633.6	67.0	3,700.7	3,442.7	73.2	3,515.9
PWID	68.2	168.4	236.6	93.6	174.0	267.6
Sex workers	172.9	4.2	177.1	205.6	10.5	216.1
MSM	673.1	53.1	726.2	732.8	64.8	797.6
TG	66.3	7.5	73.8	61.5	3.4	64.9
Prisoners and institutionalized persons	22.6	33.3	55.9	27.5	18.0	45.5
Health care workers	1.4	94.3	95.8	1.5	83.2	84.6
Factory employees	1,412.3	0.1	1,412.5	1,671.4	0.1	1,671.5
populations not elsewhere classified	1,418.8	153.7	1,572.5	1,296.8	109.6	1,406.5
Non-Thai	94.0	46.5	140.5	104.9	60.6	165.4
Others	81.9	129.7	211.6	72.5	190.5	263.1
Total	7,645.1	758.0	8,403.1	7,710.7	788.0	8,498.7

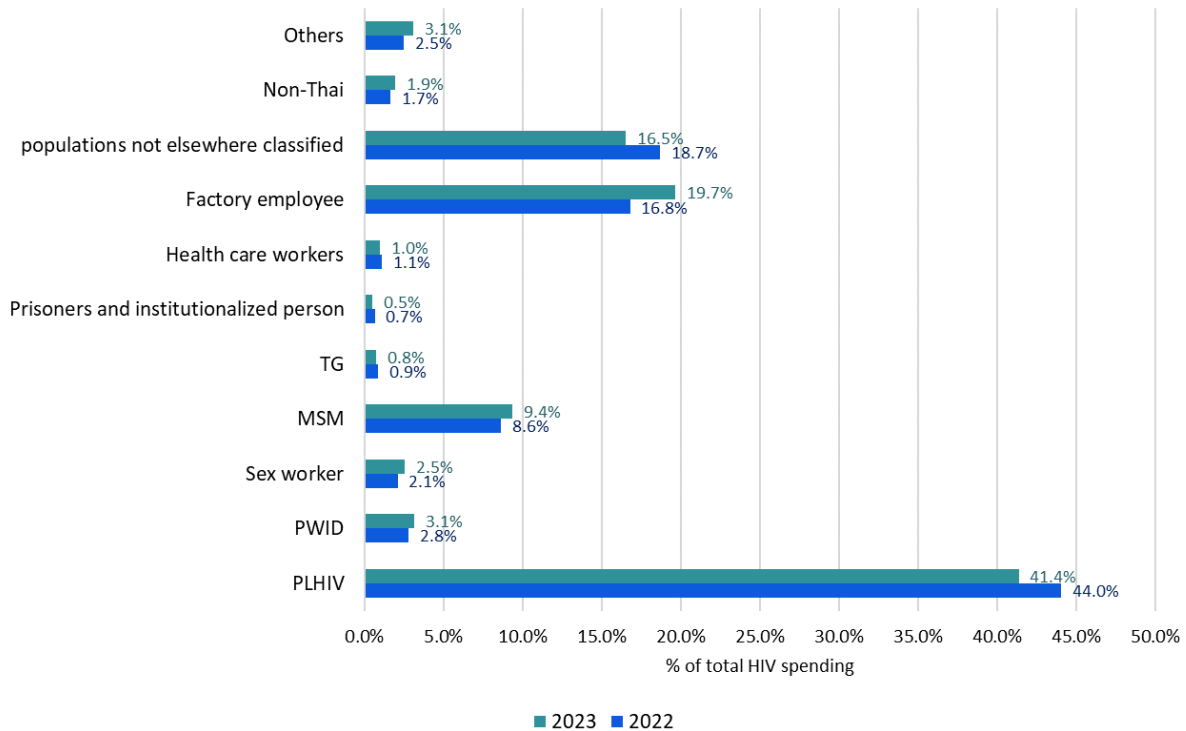


Figure 2 HIV/AIDS spending by beneficiary populations, 2022-2023

The general population and specific targeted populations not elsewhere classified were the primary beneficiaries across several categories, including prevention, management, human resources, social protection and social services, and HIV-related research. Prevention spending was directed towards key populations, with MSM receiving 132.7 million baht in 2022, which increased to 167.0 million baht in 2023, accounting for 9.8% of all prevention spending in 2022 and 13.1% in 2023, respectively. Additionally, prevention expenditures were allocated to people who inject drugs (approximately 8%), sex workers (2-4%), and transgender individuals (1%) during these two years.

In contrast, care and treatment expenditures were predominantly allocated to PLHIV, amounting to 3,659.8 million baht or 58.8% of treatment spending in 2022, with a slight decrease to 3,456.5 million baht, representing 54.3% of treatment spending in 2023. Additionally, a portion of care and treatment spending was disaggregated by specific populations, such as MSM, who consumed 9.4% and 9.8% of total spending on care and treatment in 2022 and 2023, respectively. Other categories also allocated spending to various target groups, as outlined in Table 6 and 7

Table 6 HIV/AIDS spending by beneficiary populations and HIV/AIDS spending categories, 2022

HIV/AIDS spending category	PLHIV	PWID	Sex workers	MSM	TG	Prisoners and institutionalized persons	Health care workers	Factory employees	populations not elsewhere classified	Non-Thai	Others	Total
1. Prevention, million baht (%)	31.4 (2.3%)	103.0 (7.6%)	32.5 (2.4%)	132.7 (9.8%)	15.6 (1.2%)	40.7 (3.0%)	54.9 (4.1%)	0.0 (0.0%)	728.4 (53.7%)	56.2 (4.1%)	160.7 (11.8%)	1,356.2 (100.0%)
2. Care and Treatment, million baht (%)	3,659.8 (58.8%)	94.9 (1.5%)	143.9 (2.3%)	587.2 (9.4%)	49.9 (0.8%)	13.9 (0.2%)	-	1,411.7 (22.7%)	166.8 (2.7%)	59.9 (1.0%)	32.3 (0.5%)	6,220.2 (100.0%)
3. Orphans and Vulnerable Children, million baht (%)	-	0.0 (3.8%)	-	-	-	-	-	-	-	1.0 (96.2%)	-	1.0 (100.0%)
4. Management and administration, million baht (%)	1.5 (0.8%)	11.3 (6.1%)	0.6 (0.3%)	3.3 (1.8%)	0.6 (0.4%)	1.0 (0.6%)	14.8 (8.0%)	0.1 (0.1%)	127.8 (69.5%)	11.5 (6.2%)	11.4 (6.2%)	184.0 (100.0%)
5. Human Resources, million baht (%)	-	4.6 (5.9%)	0.0 (0.0%)	1.3 (1.7%)	0.1 (0.1%)	0.3 (0.3%)	22.0 (28.3%)	0.6 (0.8%)	42.0 (53.9%)	1.8 (2.2%)	5.3 (6.8%)	77.9 (100.0%)
6. Social protection and social services, million baht (%)	0.0 (0.0%)	0.1 (0.0%)	-	0.1 (0.0%)	-	-	-	0.0 (0.0%)	482.0 (99.6%)	0.0 (0.0%)	1.7 (0.4%)	483.9 (100.0%)
7. Enabling environment, million baht (%)	7.9 (13.2%)	22.8 (38.4%)	0.0 (0.1%)	0.7 (1.2%)	0.8 (1.4%)	0.1 (0.2%)	4.1 (6.8%)	0.0 (0.1%)	13.2 (22.2%)	9.7 (16.2%)	0.2 (0.3%)	59.5 (100.0%)
8. HIV-related research, million baht (%)	-	-	-	0.8 (4.0%)	6.8 (33.4%)	-	-	-	12.3 (60.4%)	0.5 (2.3%)	-	20.4 (100.0%)
Total	3,700.7	236.6	177.1	726.2	73.8	55.9	95.8	1,412.5	1,572.5	140.5	211.6	8,403.1

Table 7 HIV/AIDS spending by beneficiary populations and HIV/AIDS spending categories, 2023

HIV/AIDS spending category	PLHIV	PWID	Sex workers	MSM	TG	Prisoners and institutionalized persons	Health care workers	Factory employees	populations not elsewhere classified	Non-Thai	Others	Total
1. Prevention, million baht (%)	36.1 (2.8%)	96.1 (7.5%)	50.3 (3.9%)	167.0 (13.1%)	14.0 (1.1%)	29.9 (2.3%)	23.4 (1.8%)	0.0 (0.0%)	643.3 (50.4%)	55.0 (4.3%)	161.7 (12.7%)	1,277.0 (100.0%)
2. Care and Treatment, million baht (%)	3,456.5 (54.3%)	127.6 (2.0%)	164.5 (2.6%)	621.7 (9.8%)	40.0 (0.6%)	15.1 (0.2%)	-	1,670.9 (26.3%)	148.4 (2.3%)	82.9 (1.3%)	32.5 (0.5%)	6,360.0 (100.0%)
3. Orphans and Vulnerable Children, million baht (%)	-	0.0 (0.8%)	-	-	-	-	-	-	-	1.0 (99.2%)	-	1.0 (100.0%)
4. Management and administration, million baht (%)	0.3 (0.2%)	15.4 (8.4%)	0.1 (0.0%)	4.9 (2.7%)	0.1 (0.0%)	0.5 (0.3%)	23.7 (12.9%)	0.1 (0.1%)	68.2 (37.2%)	12.9 (7.0%)	57.4 (31.2%)	183.7 (100.0%)
5. Human Resources, million baht (%)	0.0 (0.0%)	5.5 (6.9%)	0.0 (0.0%)	1.3 (1.7%)	0.1 (0.1%)	-	25.0 (31.2%)	0.4 (0.5%)	42.5 (52.9%)	0.9 (1.1%)	4.4 (5.5%)	80.3 (100.0%)
6. Social protection and social services, million baht (%)	0.0 (0.0%)	0.2 (0.0%)	-	0.0 (0.0%)	-	-	-	0.0 (0.0%)	484.2 (98.6%)	0.0 (0.0%)	6.6 (1.4%)	491.1 (100.0%)
7. Enabling environment, million baht (%)	22.9 (24.6%)	22.8 (24.4%)	1.3 (1.4%)	0.7 (0.8%)	0.8 (0.9%)	-	12.5 (13.4%)	0.0 (0.0%)	19.7 (21.1%)	12.3 (13.1%)	0.3 (0.4%)	93.3 (100.0%)
8. HIV-related research, million baht (%)	-	-	-	1.9 (15.4%)	9.9 (80.1%)	-	-	-	0.2 (1.5%)	0.4 (3.0%)	-	12.3 (100.0%)
Total	3,515.9	267.6	216.1	797.6	64.9	45.5	84.6	1,671.5	1,406.5	165.4	263.1	8,498.7

2. Trend of HIV/AIDS spending 2008-2023 (total and per capita)

2.1 Overall HIV/AIDS spending

Spending on HIV/AIDS in Thailand has shown varying figures from 2008 to 2023. Total HIV/AIDS spending increased from 6,928.2 million baht in 2008 to its peak at 9,921.6 million baht in 2011, followed by a decreasing trend between 2012 and 2016. Subsequently, fluctuating trends were observed in the following years. In the most recent period, total HIV/AIDS spending amounted to 8,403.1 million baht in 2022 and 8,498.7 million baht in 2023, see Figure 3.

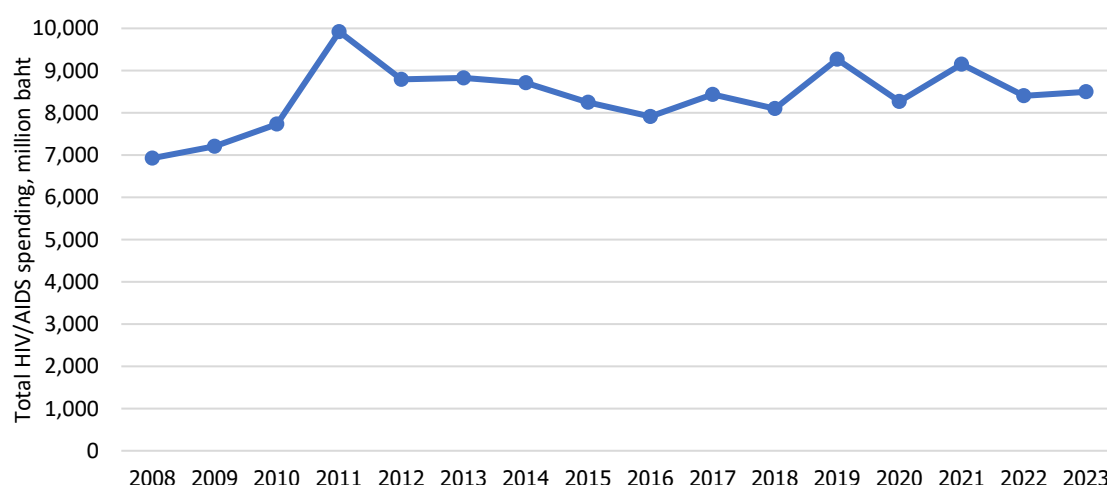


Figure 3 Total HIV/AIDS spending, 2008-2023, in nominal term

A similar trend is observed in HIV/AIDS spending per PLHIV. The upward trajectory of HIV/AIDS spending aligns with the declining number of PLHIV, which decreased from 643,960 in 2015 to 576,397 in 2023.⁹ Additionally, this trend corresponds with the increasing number of PLHIV receiving antiretroviral therapy (ART), rising from 288,231 in 2015 to 474,675 in 2023¹² (see Figure 4).

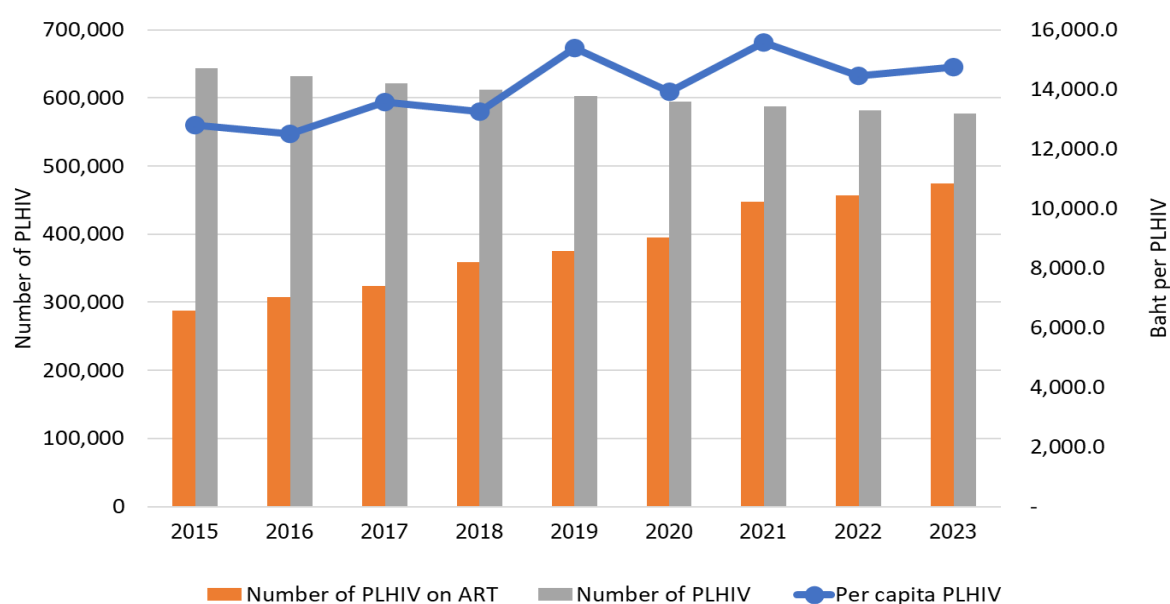


Figure 4 Number of PLHIV, and number of PLHIV on ART, and total HIV/AIDS spending per PLHIV in nominal term, 2015-2023

2.2 HIV/AIDS spending by categories

The lion's share of total HIV/AIDS spending was allocated to care and treatment, which increased significantly from 65.8% in 2008 to 74.8% in 2023; as a result of rolling out universal ART in 2006 and also introduce immediate treatment for any CD4 count in 2014.¹³ Expenditure on prevention ranged from 13% to 17% of total HIV/AIDS spending, except in the initial year of data collection in 2008. Spending on social protection and social services (excluding orphans and vulnerable children) has played an increasingly important role since 2012, rising from 3.2% in 2008 to 5.8% of total HIV/AIDS spending in 2023. In contrast, expenditure on programme management and administration decreased from 5.7% in 2008 to 2.2% in 2023. Other categories accounted for only a small share of HIV/AIDS expenditure (see Figure 5). Note that number of orphan due to HIV/AIDS, defined as children under 18 years who lost either father or mother or both from HIV/AIDS, is not a major public health problem as a result of successful prevention of Mother to Child Transmission of HIV.^{14,15} The number of new infection age 0-14 reduced from 630 [540-720] in 2010 to <100 [<100-<100] in 2021.¹⁶

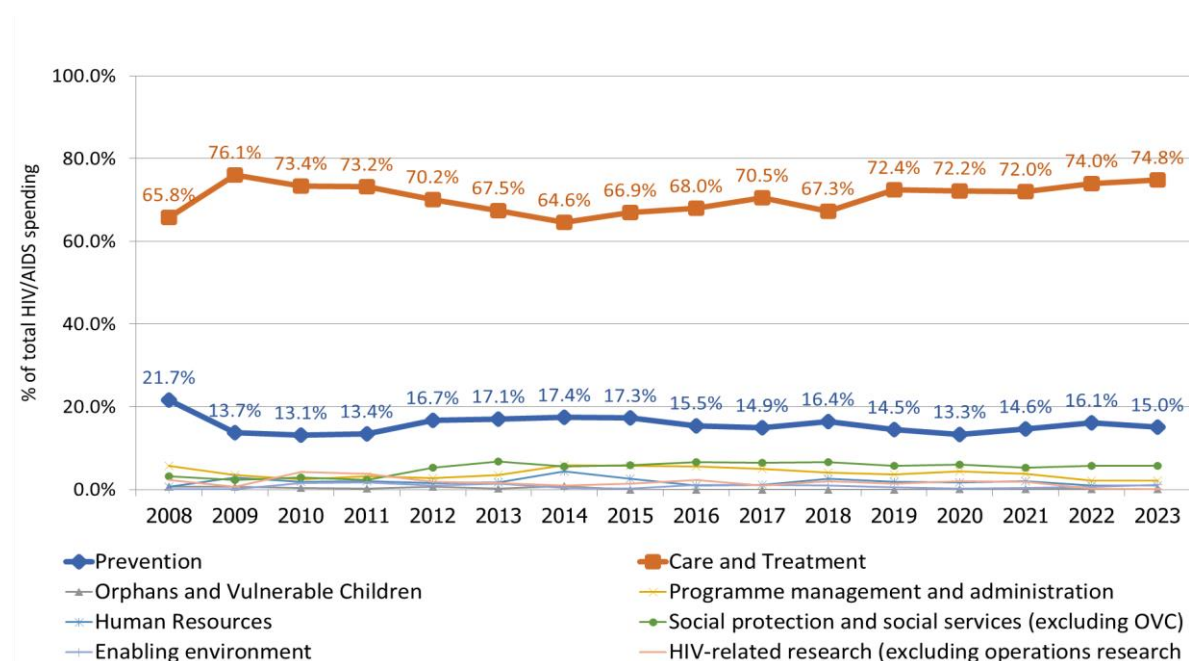


Figure 5 Total HIV/AIDS spending by eight categories, 2008-2023

2.3 HIV/AIDS spending by financing sources

During the period from 2008 to 2023, financing for HIV/AIDS programmes in Thailand predominantly relied on domestic sources, accounting for 85.2% to 93.3% of total HIV/AIDS expenditure. In contrast, spending from international sources, notably the Global Fund for HIV/AIDS, TB, and Malaria, ranged between 6.7% and 14.8% of total HIV/AIDS spending between 2008 and 2023. This reflects the strong financial commitment of the government and suggests good financial sustainability, with decreasing reliance on donor sources over time (see Figure 6).

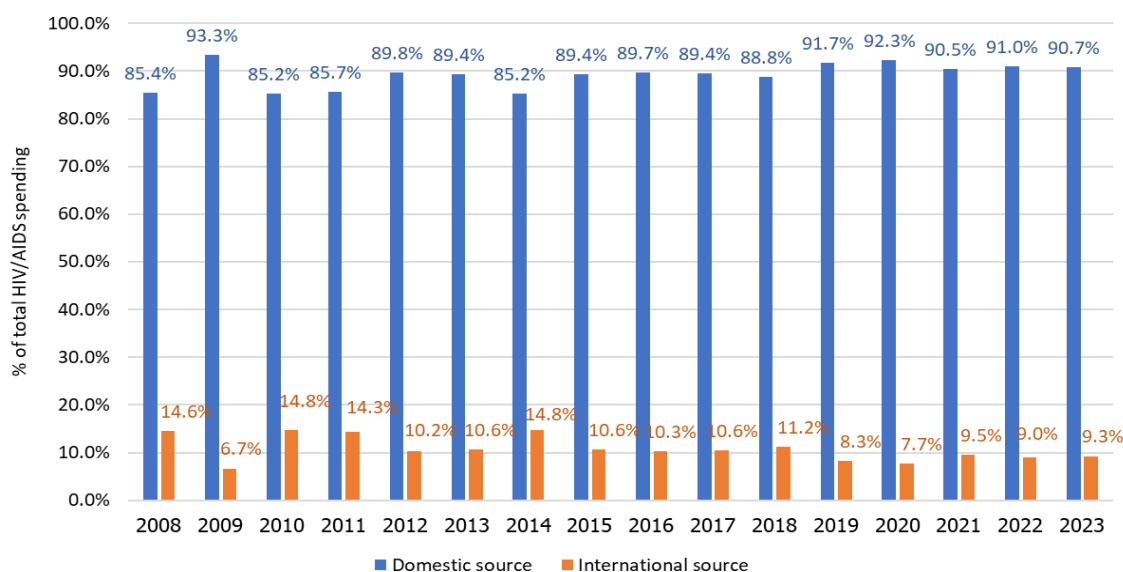


Figure 6 HIV/AIDS spending by financing sources, 2008-2023

Approximately one-third of domestic spending on HIV/AIDS in Thailand was allocated to care and treatment, while spending on prevention was less than 20% of total domestic spending, except in 2008. In contrast, spending from international sources predominantly focused on prevention and programme management and administration. However, the proportion of prevention expenditure financed by international sources varied significantly, ranging from 14.3% to 46.9% of total HIV/AIDS expenditure from international sources. Also, in some years, more than 15% of the spending from international sources was allocated to care and treatment, especially in the period from 2020 to 2023 (refer to Figures 7 and 8).

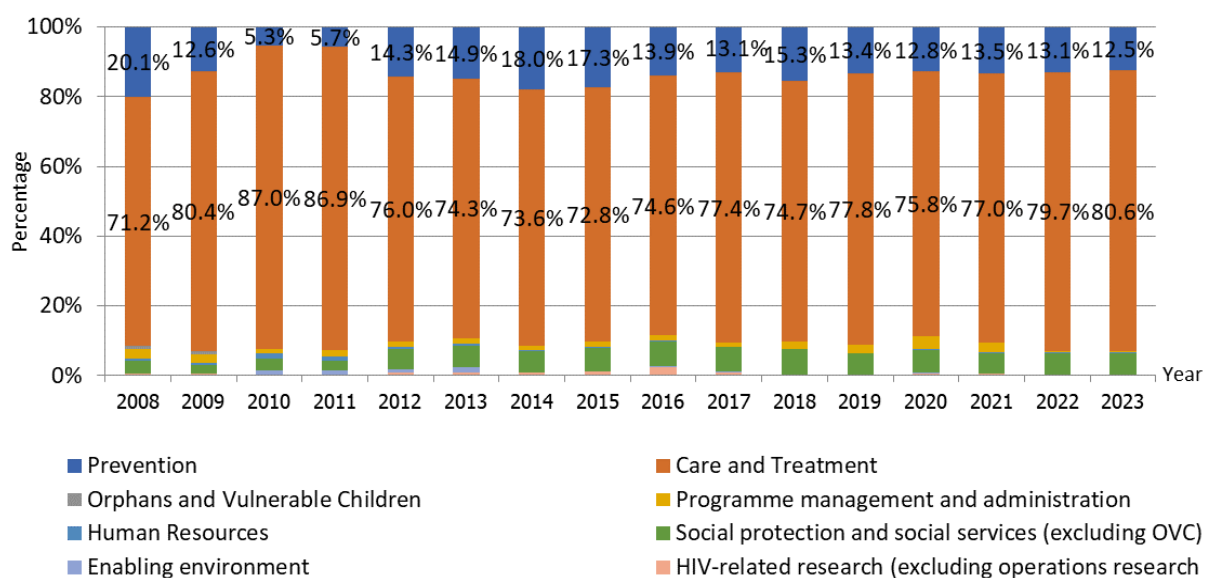


Figure 7 Expenditure on HIV/AIDS from domestic sources by eight categories, 2008-2023

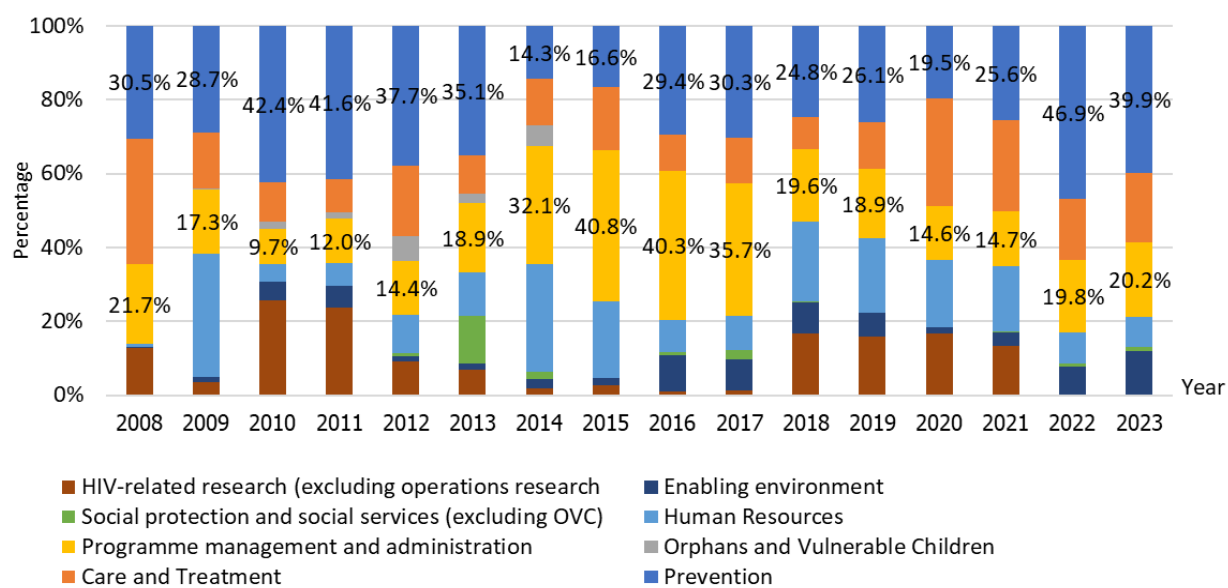


Figure 8 Expenditure on HIV/AIDS from international sources by eight categories, 2008-2023

Discussion

National AIDS Spending Assessment is indeed a valuable tool that provides insights into how countries respond to HIV/AIDS through a financial perspective. Over a span of 16 years, data shows a consistent increase in HIV/AIDS spending in Thailand, rising from 6,928.2 million baht in 2008 to 8,498.7 million baht in 2023; however, the nominal growth rate is not high, 1.5% between 2008 and 2023. Financing HIV/AIDS programmes predominantly relied on domestic sources, accounting for 85.2% to 93.3% of total spending throughout this period. The majority of this expenditure was directed towards care and treatment initiatives.

The series of HIV/AIDS spending trends clearly illustrates that the domestic sources remain the major funding of AIDS programme though external funds fluctuated between 6.7% to 14.8% during this period. Total HIV/AIDS expenditure from international sources decreased from 1,010.8 million baht (14.6% of total HIV/AIDS spending) in 2008 to 788.0 million baht (9.3% of total HIV/AIDS spending) in 2023, while domestic sources increased from 5,917.5 million baht (85.4% of total HIV/AIDS spending) in 2008 to 7,710.7 million baht (90.7% of total HIV/AIDS spending) in 2023. This shift highlights the Thai government's increasing role as the primary source of HIV/AIDS funding, ensuring funding sustainability, particularly in the face of potential reductions in contributions from international donors.

The government's commitment to funding HIV/AIDS programmes is clearly demonstrated through substantial allocations in the national budget. Three public health insurance schemes—the CSMBS managed by CGD, the SHI managed by SSO, and the UCS managed by NHSO—together cover approximately 73.1% to 74.3% of total HIV/AIDS spending in 2022-2023. Most of this funding is directed towards care and treatment, particularly since the adoption of universal ART in 2006¹³ and further extension to same-day ART policy when tested positive.¹⁷ This policy underscores the government's commitment to ensuring comprehensive HIV/AIDS care and providing access to comprehensive HIV/AIDS treatment for all eligible individuals covered under these health insurance schemes. Thailand achieved more than 82% of the Universal Health Coverage (UHC) index in 2021,¹⁸ indicating significant progress towards ensuring that a large majority of its population has access to essential healthcare services without financial hardship. Only 1.9% of Thai population experienced catastrophic expenditure from the medical bills in 2020,¹⁹ underscoring the effectiveness of the country's healthcare financing and insurance systems in protecting individuals from excessive healthcare expenditure.

Despite the increasing trend in HIV/AIDS spending in Thailand, the allocation towards HIV/AIDS prevention constitutes less than one-fifth of total HIV/AIDS expenditure. This inadequate support for prevention initiatives raises concerns about potential increases in newly infected cases, especially from key populations, thereby jeopardizing the goals of the Ending AIDS policy. Effective investments in other preventive programmes, such as communication for social and behavioural change, should be considered to better control the HIV/AIDS epidemic in Thailand.

The allocation of HIV/AIDS spending disaggregated by beneficiary populations, particularly focusing on key populations like MSM, people who inject drugs, sex workers, and transgender individuals, reflects an insufficient investment. It's estimated that less than 20% of spending on prevention was allocated to these key populations in both 2022 and 2023. This could be due to limitations in clearly disaggregating spending by these groups. Emphasizing efforts to reach and invest in key populations is crucial as part of the strategy for effectively ending AIDS in Thailand.²⁰ Future studies on

effectiveness in reaching out and coverage of prevention interventions among key populations is recommended.

Investment to address issues related to human rights and stigma discrimination in HIV/AIDS remains inadequate, with less than 1% of total HIV/AIDS spending allocated to this crucial area. This shortfall is concerning as stigma and discrimination can significantly hinder the effectiveness of HIV/AIDS treatment. Survey evidence indicates that many individuals are reluctant to undergo HIV testing due to fears about how others will react.²¹ NHSO has approved HIV self-test in 2023,²² which may overcome the challenges of access to testing. HIV self-test can also increase awareness of HIV status in the population and key population, and may support staying negative or immediate enrolment into ART programme. Addressing existing stigma and discrimination in society is crucial for advancing HIV/AIDS policy in Thailand. These societal barriers can significantly hinder health outcomes and the effectiveness of HIV/AIDS treatment and prevention efforts. Policies and actions are needed to reduce stigma and discrimination against HIV/AIDS patients, promote awareness about the benefits of ART among HIV-positive individuals, and enhance access to HIV/AIDS prevention services for those at risk. By tackling these issues, Thailand could improve public health outcomes and move closer to achieving its goals in ending HIV/AIDS. Though Thailand does not have Criminalization of TG people, or same sex sexual act, or parental consent for adolescents to access HIV testing or restricting the entry, stay and residence of people living with HIV; two major legal barriers are a) criminalization of sex work and b) the Law does not allow for possession of a certain limited amount of drugs for personal use.²³

This study has some limitations due to the exclusion of HIV/AIDS spending by households, which can be a major source of health spending in the private sector such as purchase of condom. However, we cannot distinguish the purpose of condom use for HIV STI prevention or family planning. This exclusion is due to the absence of a national household survey data specifically capturing household spending on HIV/AIDS. However, in the context of universal health coverage (UHC), household spending on HIV/AIDS is expected to be minimal, as all treatment of AIDS opportunistic infection and provision of ART services are fully covered by each of the three public insurance schemes, provided free of charge at the point of service. Additionally, a low level of out-of-pocket (OOP) spending has been observed since the implementation of UHC in 2002. Data from the Thai National Health Accounts showed that OOP accounted for less than 9.0%²⁴ of CHE in 2021.²⁵ Yet, the magnitude of these patients, who voluntarily opted out from their insurance scheme, is unknown.

Monitoring HIV/AIDS spending is indeed crucial for providing evidence to improve policies and effective allocation of resources targeting the ending the AIDS epidemic by 2030. Thailand's comprehensive approach to HIV/AIDS spending, encompassing prevention, care, treatment, management, and social support, as highlighted by NASA, underscores the government's pivotal role in addressing this public health challenge. Continued monitoring is essential in optimising resource utilisation and advancing towards the goal of ending AIDS. Collaboration among all stakeholders remains vital to overcoming the remaining challenges in achieving this ambitious goal.

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