

Kingdom of Cambodia  
Nation Religion King



Ministry of Health

# Health Sector Strategic Plan for HIV and STI Prevention and Control in the Health Sector 2021–2025

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*Costing and Financing: Methods and Findings*



National Centre for HIV/AIDS, Dermatology and STD

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## Abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
ARVs	antiretroviral drugs
BIACM	Boosted Integrated Active Case Management
CSO	civil society organization
eMTCT	elimination of mother-to-child transmission of HIV
HIV	human immunodeficiency virus
HP+	Health Policy Plus
HSSP	Health Sector Strategic Plan
NAA	National AIDS Authority
NCHADS	National Centre for HIV/AIDS, Dermatology and STD
NGO	nongovernmental organization
NSP V	Fifth National Strategic Plan
OI	opportunistic infection
P4R	payment for results
PEPFAR	U.S. President’s Emergency Plan for AIDS Relief
PMTCT	prevention of mother-to-child transmission
PrEP	pre-exposure prophylaxis
STI	sexually transmitted infection
UNAIDS	Joint United Nations Programme on HIV and AIDS
USAID	U.S. Agency for International Development
USD	U.S. dollar

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## Executive Summary

This document presents an analysis of the estimated resource needs and projected future funding and resource gaps, and highlights key financing strategies for operationalizing the Health Sector Strategic Plan (HSSP) for HIV and STI Prevention and Control in the Health Sector (2021–2025). The objectives of the HSSP are as follows:

1. Reduce new HIV infections from 2,300 per year (baseline: 2010) to less than 250 in 2025 (an ending AIDS target of a 90% reduction from baseline)
2. Increase coverage of the comprehensive package of HIV and sexually transmitted infection (STI) prevention services for key and other vulnerable populations
3. Improve case detection and retention across the treatment cascade to achieve the 95-95-95 targets
4. Strengthen laboratory services to provide timely, quality, accessible, and equitable services to people living with HIV and key populations
5. Strengthen HIV strategic information to effectively monitor progress across the HIV prevention and treatment cascade
6. Build sustainable and cost-effective systems for health through integration and effective linkages of HIV/STI services within health facilities and in the community

A detailed costing analysis was conducted for each Core Component of the HSSP. The costing and financing analyses were conducted by a team of Health Policy Plus (HP+) health financing experts in collaboration with the National Centre for HIV/AIDS, Dermatology and STD, the HSSP Core Component Technical Working Groups, and development partners. A financial analysis was conducted based on government expenditures as per the National AIDS Spending Assessment 2016–2017, the Global Fund allocation for 2021–2023, the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) regional operation plan estimates, and Fifth National Strategic Plan (NSP V) financing targets. **All amounts are in U.S. dollars.**

The **estimated total resource needs for the HSSP 2021–2025 is \$186.0 million** (\$37.2 million per year, on average). The costs will increase by 8.0% from 2021 (\$35.7 million) to 2025 (\$38.5 million). Logistics and supply management, which includes the costs of antiretroviral drugs (ARVs), will account for the largest share of total resource needs in 2021–2025 by core component (\$61.8 million; 33.2%), followed by Program management (\$35.2 million; 18.9%), HIV care and treatment (\$34.1 million; 18.3%), and HIV prevention (\$26.2 million; 14.1%). The costs of ARVs are expected to increase from \$5.6 million in 2021 to \$6.5 million in 2025. By type of inputs, the largest share of the costs will be accounted for by human resources (\$46.6 million; 25.0%), followed by travel and training-related costs (\$41.2 million; 22.1%) and pharmaceuticals (\$33.3 million; 17.9%). Human resources costs are estimated to increase from \$8.8 million in 2021 to \$9.8 million in 2025.

**The estimated total financing for the total period of HSSP is \$150.5 million, consisting of \$60.3 million from the government, \$69.3 million from the Global Fund, and \$20.9 million PEPFAR.** Government funding is projected to increase from \$9.5 million in 2021 (26.6% of total resource needs) to \$14.1 million in 2025 (36.6% of total resource needs). The largest cost input increase from the government will be from financing of ARVs, which is projected to increase from \$2.5 million (44.7% of the total) in 2021 to \$6.0 million (92.6%) in 2025. The government is expected to finance \$22.5 million (73.4%) of ARVs in 2021–2025. Total donor financing is projected to decrease from \$23.3 million in 2021 (73.4% of total resource needs) to \$20.7 million in 2025 (63.4% of total resource

needs). The Global Fund will continue to fund critical parts of the response, including direct program costs across all core components. Prevention activities by civil society organizations (CSOs) will continued to be funded by The Global Fund (please refer to the detailed costing in the funding request application). Funding from PEPFAR is expected to decrease from \$5 million in 2021 to \$3.3 million in 2025. The PEPFAR funding will mainly concentrate on site-level technical assistance in improving HIV testing services, strategic information, and laboratory services, and improving logistical supply chain management.

The estimated total resource needs for the HSSP (\$186.0 million) and the projected funding for this period (\$150.5 million) will result in a **total resource gap of \$35.5 million over the five-year period 2021–2025**. This gap is estimated to increase from \$2.8 million in 2021, peak at \$4.8 million in 2023, and then drop to \$3.7 million in 2025. To address the resource gap and promote sustainability of the HIV response, it is essential to identify and implement technical and allocative efficiencies, enhance integration of HIV management and services into the existing health system, and increase government financing. The following next steps are suggested:

- Use the costing projections to mobilize funds for implementation of strategies and activities as per the financing goals of the NSP V and HSSP
- Explore options to increase implementation efficiencies by using the results and recommendations of the forthcoming Optima analysis and other available evidence
- Advocate with the Ministry of Health and Ministry of Economy and Finance, and private sector and CSOs/nongovernmental organizations (NGOs) for increased domestic funding for HIV

# 1. Introduction

The vision of the Health Sector Strategic Plan (HSSP) for HIV and STI Prevention and Control in the Health Sector (2021–2025) is “an AIDS-free generation, with longer, healthier and better life for PLHIV [people living with HIV] in Cambodia.” To achieve this vision, the HSSP defines six objectives, one of which focuses on sustainability: “build sustainable and cost-effective systems for health through integration and effective linkage of HIV/STI services with other related services, within health facilities and in the community.” The objectives of the HSSP are as follows:

1. Reduce new HIV infections from 2,300 per year (baseline: 2010) to less than 250 in 2025 (an ending AIDS target of a 90% reduction from baseline)
2. Increase coverage of the comprehensive package of HIV and sexually transmitted infection (STI) prevention services for key populations and other vulnerable populations
3. Improve case detection and retention across the treatment cascade to achieve the 95-95-95 targets
4. Strengthen laboratory services to provide timely, quality, accessible, and equitable services to people living with HIV and key populations
5. Strengthen HIV strategic information to effectively monitor progress across the HIV prevention and treatment cascade
6. Build sustainable and cost-effective systems for health through integration and effective linkages of HIV/STI services within health facilities and in the community

The HSSP is also informed by program reviews and monitoring processes. The HIV Joint Program Review reviewed progress in five thematic areas (prevention, treatment and care, strategic information, laboratory services, and integration) and made recommendations on how to address remaining challenges, including sustainability. Increased domestic financing for the HIV response is also one of the key joint monitoring indicators (RGC, 2019b). Table 1 presents the vision, objectives, and targets of HSSP 2021–2025.

This document will present an analysis of the estimated resource needs, projected future funding, and resource gaps, and highlight key financing strategies for achieving HSSP targets, and its operationalization and implementation. The costing and financing analysis for the HSSP builds on analysis conducted for the Fifth National Strategic Plan (NSP V), which estimated resource needs, projected future funding, and the resource gap from 2019–2023. The detailed costing analysis was done for each core component of HSSP 2021–2025: prevention, HIV testing services, HIV care and treatment, elimination of mother-to-child transmission of HIV (eMTCT), STI prevention and control, laboratory services, logistics and supply management, strategic information, and program management. This document explains where the data was obtained from and how such data and analysis was validated with the National Centre for HIV/AIDS, Dermatology and STD (NCHADS) and key partners. The HIV program targets, costing and financial estimates may vary from the Global Fund Funding budget as the period for both HSSP and Global Fund funding cycle is different.



**Table 1. HSSP Vision, Objectives, and Targets**

<b>Vision</b>	AIDS-free generation, with longer, healthier, and better life for people living with HIV in Cambodia
<b>Mission</b>	<ol style="list-style-type: none"> <li>1. Commit to support the Sustainable Development Goal for health (SDG-3) by moving toward ending the AIDS epidemic as a public health threat by 2025 in Cambodia</li> <li>2. Commit to achieving zero new HIV infections, zero AIDS-related deaths, and zero discrimination</li> </ol>
<b>Impact level/goals</b>	<ol style="list-style-type: none"> <li>1. Ensure the highest quality of prevention, treatment, and care services for HIV and STIs within the health sector for all in need</li> <li>2. End AIDS as public health threat</li> <li>3. Achieve virtual elimination of mother-to-child (eMTCT) transmission of HIV and syphilis by 2025</li> </ol>
<b>Outcome level/objectives</b>	<ol style="list-style-type: none"> <li>1. Reduce new HIV infections from 2,300 per year (baseline: 2010) to less than 250 in 2025 (ending AIDS target of 90% reduction from baseline)</li> <li>2. Increase coverage of the comprehensive package of HIV and STI prevention services for key and other vulnerable populations</li> <li>3. Improve case detection and retention across the treatment cascade to achieve the 95-95-95 targets</li> <li>4. Strengthen laboratory services to provide timely, quality, accessible, and equitable services to people living with HIV and key populations</li> <li>5. Strengthen HIV strategic information to effectively monitor progress across the HIV prevention and treatment cascade</li> <li>6. Build sustainable and cost-effective systems for health through integration and effective linkage of HIV/STI services within health facilities and in the community</li> </ol>

<b>Core component</b>	<b>1. HIV Prevention</b>	<b>2. HIV Testing Services</b>	<b>3. HIV Care and Treatment</b>	<b>4. eMTCT/BIACM/Payment for Results (P4R)</b>	<b>5. Sexually Transmitted Infections</b>
<b>Core component strategies</b>	<p>Increased coverage through expanded HIV prevention, including pre-exposure prophylaxis (PrEP), self-testing, and other innovative approaches, especially tailored to respond to the needs and preferences of sub-key populations who are at higher risk (including freelance, high-class, and non-Cambodian female entertainment workers, transgender women, women who use/inject drugs, men who have sex with men and sell sex, and young key populations).</p>	<p>Maintain a robust mix of provider-initiated and client-initiated testing approaches to improve access and coverage.</p> <p>Improved case detection through index testing, self-testing, and partner notification tracing and HIV testing services.</p>	<p>Same-day treatment, adherence, reduced lost to follow-up, link to viral load.</p> <p>Strengthen, expand, and integrate voluntary confidential counseling and testing and antiretroviral therapy services within referral hospitals.</p> <p>Integrate HIV/AIDS services into the service package for social health protection (Health Equity Fund, National Social Security Fund, and private health insurance)</p> <p>Strengthen, innovate, and adopt a more comprehensive approach to differentiated care.</p>	<p>Improve overall leadership of the prevention of mother-to-child transmission program and the quality of services through provision of optimal, linked, and quality eMTCT services, expansion of the eMTCT technical working group, and active participation and engagement of a broader group of stakeholders at all levels.</p> <p>Strengthen and improve testing coverage for the eMTCT target population; mothers receive recommended treatment for HIV and syphilis using the Boosted Integrated Active Case Management (BIACM) model and P4R.</p>	<p>Expand access to care and treatment for STIs and reproductive tract infections for key populations.</p> <p>Improve HIV/STI screening, immediate diagnosis, and clinical management of asymptomatic STIs among key populations and the general population and partners and address emerging antimicrobial resistance.</p> <p>Ensure appropriate supplies for diagnosis and treatment of STIs are available at all facilities providing STI services.</p> <p>Strengthen and improve STI services and expand family health clinics.</p>

Core component	1. HIV Prevention	2. HIV Testing Services	3. HIV Care and Treatment	4. eMTCT/BIACM/Payment for Results (P4R)	5. Sexually Transmitted Infections
Core component targets	<ul style="list-style-type: none"> <li>• 25 provinces</li> <li>• 100% of key populations covered</li> <li>• 3,000 people within key populations have access to PrEP (medicine and lab testing)</li> <li>• 40% of people who inject drugs receive opioid substitution services</li> </ul>	<ul style="list-style-type: none"> <li>• 95% of tested persons know their status</li> </ul>	<ul style="list-style-type: none"> <li>• 90% of people living with HIV have access to care and treatment</li> <li>• 95% of people living with HIV who are on treatment have viral load suppression</li> <li>• 95% of pregnant women know their HIV status</li> </ul>	<ul style="list-style-type: none"> <li>• 95% of pregnant women who know their status have access to antiretroviral drugs</li> </ul>	<ul style="list-style-type: none"> <li>• 95% of key populations have access to family health clinics for STI screening</li> </ul>
Core component (cross-cutting)	6. Laboratory services; 7. Logistics and supply management; 8. HIV strategic information; 9. Program management				

The HSSP builds on and is informed by key government policies and strategies, all of which recognize the importance of strengthening financial and programmatic sustainability of the HIV response. Policy circular SorChorNor #213 from February 2019 emphasizes the importance of multisector collaboration, integration of the HIV response in the broader health system, and allocating resources for HIV (RGC, 2019a). SorChorNor #213 instructs the National AIDS Authority (NAA) and relevant ministries to adopt six new policy measures. Several of these measures relate to sustainability either directly or indirectly, including “generate domestic funding to support an effective and efficient HIV response at national and sub-national levels.”

The NSP V was developed by the NAA in collaboration with government and development partners (NAA, 2019a). The NSP V addresses the broader elements of the national HIV response, such as cultural, legal, and socioeconomic issues. It outlines a vision of “sustainable financing through increased allocation of government funding and efficient use of resources,” building on the NAA and Joint United Nations Programme on HIV and AIDS (UNAIDS) Transition Readiness Assessment and Sustainability Roadmap (NAA and UNAIDS, 2018a, 2018b). Two of the four objectives of the NSP V directly relate to sustainability: “integrate prevention, care, and treatment within the health system for a more efficient and sustainable HIV response” (Objective 2) and “Increase government funding and support delivery of critical services by civil society organizations to strengthen the sustainability of the HIV response” (NAA, 2019a).

A team of Health Policy Plus (HP+) health financing experts conducted the costing and financing analysis in collaboration with NCHADS, the HSSP Core Component Working Groups, and other development partners.

## 2. Methods

### 2.1 Costing Methods

The resource needs for the HSSP 2021–2025 were estimated through a detailed and comprehensive costing analysis (Figure 1). The core activities in the HSSP were disaggregated from the strategic level to enable costing. Core Component Working Groups were requested to articulate sub-activities and provide information on units, quantities, unit costs, and frequency of each sub-activity that would enable the achievement of their respective targets for each component. Data were collected from each of the Core Component Working Groups and later validated with those groups. The final costing and financing data and analysis were then validated with NCHADS and key partners. Key indicators are presented in Table 1; the analysis was conducted in Excel. It was agreed that No general inflation rate will be applied to the costing estimates to keep consistency in approach with the Global Fund Funding request application This sub-section contains a summary of the costing methods and assumptions. Further details are provided in Annex A, Methods and Assumptions to Estimate Resource Needs.

#### Core Component Working Groups

1. HIV prevention
2. HIV testing
3. HIV care & treatment
4. eMTCT
5. STI prevention & control
6. Lab services
7. Logistics supply management
8. Strategic information
9. Program management

## **Step 1: Data Collection and Data Entry**

### *Data collection*

1. Conduct in-depth interviews with members of the nine Core Component Working Groups to discuss activities and inputs for core strategies and frequency per year to achieve the 95-95-95 targets—for example, human resources, level of effort, commodities and materials, training and mentoring, transportation, project management, and so on. Below is a summary of inputs; see Annex A for a full list of inputs.
2. Develop a database of unit costs from Global Fund financial guidelines and cost information provided by the Core Component Working Group. See Annex A for a full list of unit costs.

### *Data entry*

The team used an Excel spreadsheet to store data for different components and the dropdown feature in Excel to ensure accuracy in data entry. Also, the data tables were quality checked by other senior consultants and team members.

### *Summary of inputs*

**Staff salaries and incentives.** Data on staff salaries and outreach worker incentives were provided by the Core Component Working Groups and validated by the Technical Working Group. The working group members consisted of NGOs/civil society organizations and government staff, who provided firsthand information on salaries. The government salaries are estimated for an average 5 percent increase every year in the estimation. Costs were estimated as follows: government salaries, \$300 per month; contracted staff, \$800–2,000 (depending on level of skills and expertise); floating staff, \$200 per month; NGO/civil society organization (CSO) salaries, \$500–1,000 per month; outreach worker salaries, \$200 per month; and outreach worker incentives, \$7 per month.<sup>1</sup>

**Unit costs for per diem, transportation, and other meeting costs.** Unit costs for per diem, transportation, and costs to organize trainings and workshops were estimated following the Ministry of Economy and Finance Standard Operating Procedures and Financial Management Manual for externally funded projects and programs (MEF, 2012a, 2012b).

**Antiretroviral drugs (ARVs) and rapid diagnostic tests.** The costs of ARVs and rapid diagnostic tests were estimated using methods developed by the Clinton Health Access Initiative. The total costs were estimated by multiplying the number of patients based on the latest Asian Epidemic Model (AEM) and Spectrum projections with the estimated number of drugs required per patient per year, based on new HIV treatment guidelines under development (NCHADS and UNAIDS, 2019a) and the unit cost of each required drug (UNICEF, 2020). A buffer of 20% was added to the estimated number of drugs required per patient per year.

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<sup>1</sup> The estimate of \$200 per month for outreach workers complies with minimum wage regulations.

**Medical supplies and equipment.** The costs of medical supplies and equipment were based on the annual quantification done by NCHADS supported by technical partners and also validated by the Core Component Working Groups.

**Office supplies and running costs.** Office supplies and running costs were estimated based on estimated quantities and unit costs per month provided by NCHADS and implementing NGOs based on their expenditure statements.

**Payment for results.** The costs of payment for results are included under eMTCT.

## **Step 2: Data analysis**

Analysis was conducted using the pivot table feature in Excel to calculate costs for activities and commodities. The analysis included cross-tabs of two-by-two and two-by-three tables.

### **Calculation technique:**

1. Training/meeting/workshop/supervision: Unit cost x number of days x number of people x frequency per year
2. Salary: Unit cost x number of people x 1-month x frequency per year
3. ARV/opportunistic infection (OI)/test kits: Unit cost x number of people living with HIV x tablets x frequency per year
4. Lab commodity: Unit cost x bottle/box x estimated quantity required x frequency per year

### **Cost generation:**

1. Cost of Activity: Total sum cost of inputs
2. Cost of Core Activity: Total sum cost of supporting activities
3. Cost of Strategy: Total sum cost of core activity
4. Cost of Component: Total sum cost of strategy

## **Step 3: Costing validation**

The HSSP Technical Working Group validated the cost and financing estimates presented here. Feedback was collected on the estimates, which were revised based on the latest information various partners provided on committed and projected financing.

## **2.2 Methods for Financing Analysis**

A financing analysis was conducted to provide an estimate of the financing sources and potential gaps, and develop a set of recommendations for financing options. The projected funding estimates were prepared based on current funding patterns and committed financing from various sources. The outyear budgets may not reflect actual commitments by various sources.

**Current funding.** Data on Government HIV financing for 2010–2017 were taken from the sixth National AIDS Spending Assessment for the Period 2016–2017 in Cambodia (NAA, 2019b). Data sources for FY2020 include the Global fund budget estimates as per the allocated funding and PEPFAR budgets presented in Regional Operation Plan 2019

### **Projected funding:**

- *Government:* Projected funding from the government (beyond the committed funding of ARVs) was based on information about current expenditures provided by the HSSP 2021–2025, including administration, salaries of NCHADS and NAA staff

at the national level, and health system costs based on NASA estimates 2016–2017. The base year for the current financing is considered as the budget of FY 2020. These costs include national-level staff working on HIV and provincial and subnational staff working exclusively on HIV, including antiretroviral therapy (ART) sites. NCHADS provided data on health systems costs. Estimated committed funding from the government in 2021–2023 is equal to the government commitment to increase financing of ARVs to \$2.5 million in 2021, \$3.5 million in 2022, and \$5 million in 2023.

- *Global Fund*: The average for the three years of the Funding Request Application for 2021–2023 was applied to 2024 and 2025 to estimate projected funding from the Global Fund for those years. Estimated committed funding from the Global Fund was based on priority activities in the Global Fund Funding Request Application for 2021–2023.
- *Global Fund Prioritized Above Allocation Request*: Projected funding from the Global Fund Prioritized Above Allocation Request comprises estimates based on discussions with the Global Fund country team and the Funding Request Application preparation team. Global fund PAAR conservative estimates are applied at 30% allocation of the total global fund allocation
- *PEPFAR*: Projected funding from the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) was based on the PEPFAR team’s estimated funding for 2020. Based on discussions with the PEPFAR team, a 10% reduction was applied to the period 2021–2025. Projected funding from PEPFAR covers only direct program support and does not include program management costs. These costs were not included in the financing analysis because they are not reflected in the direct program costs of the HSSP.
- *Other*: Similarly, national and international donor financing from organizations such as the Clinton Health Access Initiative and Catholic Relief Services were not considered for the purpose of this exercise, given that such funding primarily finances technical assistance.

**Gap analysis.** The funding gap was identified based on the total resources required and total projected funding from the government and donor partners. Because projected funding information was available by core component, key programmatic areas funding gaps were discussed as potentially funded by the government.

## 3. Costing the HSSP

### 3.1 Total Resource Needs, 2021–2025

The estimated total resource needs for the HSSP 2021–2025 are \$186.0 million (\$37.2 million per year on average) (Table 2). The costs are projected to increase by 8.0% from 2021 (\$35.7 million) to 2025 (\$38.5 million). It should be noted that the HSSP 2021–2025 cost estimates are larger than previous cost estimates for the HSSP 2015–2020 and NSP V because (i) the HSSP 2021–2025 cost estimates were developed through a comprehensive costing analysis, with a full accounting of activities; (ii) HSSP 2021–2025 cost estimates were based on the most recent baseline data; and (iii) the HSSP 2021–2025 reflects more recent information about the HIV context and more recent developments in treatment technologies, resulting in the costing of additional and more expensive elements, such as

drugs, tests, and community health worker incentives. Table 2 provides costing estimates by each core component of the health sector response to HIV in Cambodia. Table 3 provides detailed input costing of the HIV response for the next five-year period.

**Table 2. Total Resource Needs, by Core Component, Year 2021–2025 (US\$ million)**

Core Component	2021	% of total FY 2021	2022	% of total FY 2022	2023	% of total FY 2023	2024	% of total FY 2024	2025	% of total FY 2025	Total	%
1. HIV prevention	5.1	14.4%	5.2	14.3%	5.2	14.0%	5.3	13.8%	5.3	13.8%	26.2	14.1%
2. HIV testing	0.9	2.5%	0.8	2.2%	0.8	2.2%	0.8	2.1%	0.9	2.3%	4.2	2.3%
3. HIV care & treatment	6.8	19.2%	6.8	18.7%	6.8	18.2%	6.8	17.9%	6.8	17.8%	34.1	18.3%
4. eMTCT	1.7	4.8%	1.6	4.3%	1.6	4.3%	1.5	4.0%	1.7	4.3%	8.1	4.4%
5. STI prevalence & control	0.5	1.3%	0.4	1.1%	0.4	1.0%	0.7	1.9%	0.4	1.0%	2.4	1.3%
6. Lab services	0.7	2.0%	0.9	2.5%	0.9	2.3%	0.7	1.8%	0.7	1.7%	3.8	2.1%
7. Logistics supply management	11.3	31.5%	12.0	32.7%	12.6	33.6%	12.9	33.7%	13.2	33.6%	61.8	33.2%
8. Strategic information	2.1	5.9%	2.0	5.5%	2.1	5.5%	2.0	5.3%	2.1	5.4%	10.3	5.5%
9. Program management	6.5	18.2%	6.7	18.3%	7.0	18.8%	7.3	19.2%	7.6	19.9%	35.2	18.9%
<b>Total</b>	<b>35.7</b>		<b>36.5</b>		<b>37.3</b>		<b>38.0</b>		<b>38.5</b>		<b>186.0</b>	

**Table 3. Total Resource Needs, by Input Categories, 2021–2025 (US\$ million)**

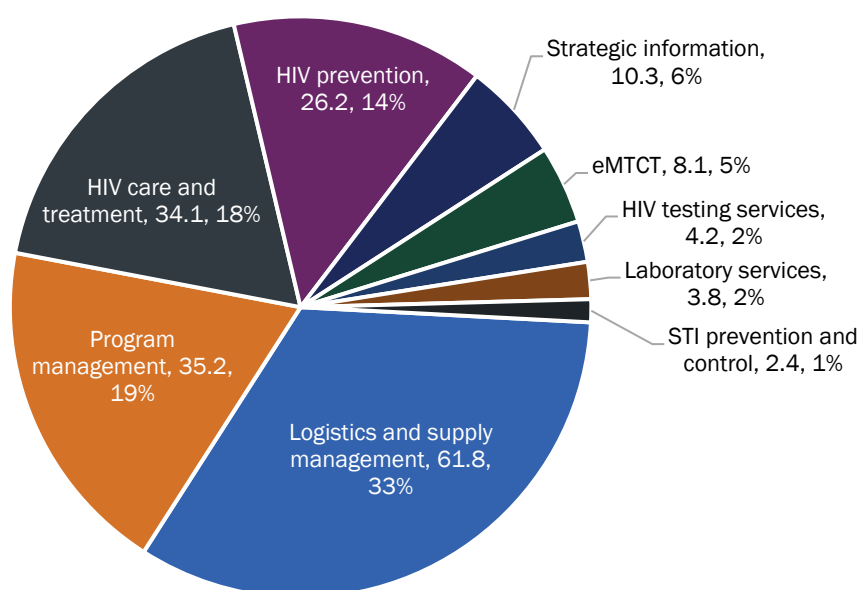
Input	2021	2022	2023	2024	2025	Total
Human resources	8.8	9.1	9.3	9.6	9.8	46.6
Travel- and training-related costs	8.3	8.2	8.2	8.1	8.3	41.2
External professional services	0.4	0.3	0.3	0.7	0.4	1.9
Pharmaceuticals	6.0	6.4	6.8	7.1	7.1	33.3
Nonpharmaceuticals	2.0	2.1	2.1	2.1	2.4	10.9
Health products - equipment	1.7	1.8	2.1	1.9	1.9	9.5
Procurement and supply management costs	1.7	1.7	1.8	1.8	1.8	8.8
Infrastructure	0.2	0.4	0.2	0.2	0.2	1.2
Nonhealth equipment	0.4	0.3	0.3	0.4	0.3	1.8
Communication materials	0.7	0.5	0.6	0.6	0.7	3.1
Indirect and overhead costs	3.9	4.0	4.1	4.0	4.0	20.0
Living support for target population	0.8	0.8	0.8	0.8	0.8	4.1
Payment for results	0.8	0.7	0.7	0.7	0.7	3.7
<b>Total</b>	<b>35.7</b>	<b>36.5</b>	<b>37.3</b>	<b>38.0</b>	<b>38.5</b>	<b>186.0</b>

## 3.2 Resource Needs by Core Component

The logistics and supply management component, which includes the costs of ARVs, accounts for the largest share of total resource needs in 2021–2025 by core component (\$61.8 million; 33.2%), followed by program management (\$35.2 million; 18.9%), HIV care and treatment (\$34.1 million; 18.3%), and HIV prevention (\$26.2 million; 14.1%) (Table 2 and Figure 1).

The overall increase in costs is driven by a 16.8% increase in logistics and supply management (from \$11.3 million in 2021 to \$13.2 million in 2025) and a 16.8% increase in program management (from \$6.5 million in 2021 to \$7.6 million in 2025). There were no increases in other core components, all of which decreased by small percentages and small absolute amounts in 2021–2025.

**Figure 1. Resource Needs, by Core Component, 2021–2025 (US\$ million)**



Source: HSSP costing analysis.

The estimated resource needs in 2021–2025 are broken down further in Tables 4–14, which present the resource needs by strategy and input under each core component.

**Table 4. Prevention Costs, by Strategy (USD\$)**

No.	Strategy	2021	2022	2023	2024	2025
1	HIV prevention	5,146,462	5,227,702	5,221,701	5,271,572	5,285,632
1.1	Increase geographic coverage and expand provision of the HIV/STI combination prevention package	2,974,814	3,145,060	3,156,740	3,168,420	3,167,170
1.2	Improve the quality and friendliness of key population prevention services, including community outreach	168,038	168,038	168,038	168,038	168,038
1.3	Develop strategies to address emerging risk behaviors, such as chemsex in communities of men who have sex with men	201,524	171,224	171,224	171,224	171,224



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No.	Strategy	2021	2022	2023	2024	2025
1.4	Optimize the use of social media and other online platforms	169,955	163,431	163,431	163,431	163,431
1.5	Optimize new case detection and linking to treatment, care, and support	272,781	235,782	235,782	235,782	235,782
1.6	Expand and strengthen the enabling environment	111,480	120,370	105,060	111,800	127,110
1.7	Address gender-based violence and other associated social factors that contribute to key population vulnerability to HIV infection	256,332	254,532	254,532	254,532	254,532
1.8	Improve coverage of HIV prevention services, notably needles and syringes, for people who inject drugs	634,970	627,827	625,456	620,491	620,491
1.9	Strengthen strategic behavior change communication through outreach and drop-in centers	13,490	13,490	13,490	13,490	13,490
1.10	Address gender-specific vulnerabilities and barriers that have led to higher infection rates among women	160	160	160	160	160
1.11	Strengthen program quality and improve uptake of methadone maintenance therapy	42,186	42,186	42,186	55,686	55,686
1.12	Provide overdose prevention and management	22,746	22,746	22,746	22,746	22,746
1.13	Link Community Based Treatment BTx to HIV prevention, testing, and treatment, and other services at health facilities	277,986	262,856	262,856	285,772	285,772

**Table 5. Prevention Costs, by Input (US\$)**

Input	2021	2022	2023	2024	2025
HIV prevention	5,146,464	5,227,703	5,221,702	5,271,574	5,285,634
1. Human resources	1,792,157	1,792,157	1,792,157	1,792,157	1,792,157
2. Travel-related costs	1,208,384	1,160,034	1,147,609	1,192,138	1,207,448
3. External professional services	7,940	3,840	3,840	3,840	3,840
4. Health products – pharmaceutical products	5,278	5,278	5,278	5,278	5,278
5. Health products – nonpharmaceuticals	177,354	177,354	177,354	177,354	177,354
6. Health products – equipment	-	-	-	-	-
9. Nonhealth equipment	77,820	76,020	76,020	76,020	76,020
10. Communication materials and publications	314,454	279,300	279,300	293,100	293,100
11. Indirect and overhead costs	697,018	867,661	874,086	865,628	864,378
12. Living support for client/target population	808,981	808,981	808,981	808,981	808,981
13. Payment for results	57,076	57,076	57,076	57,076	57,076

**Table 6. Costs of HIV Testing Services, by Strategy (US\$)**

No.	Strategy	2021	2022	2023	2024	2025
2	HIV testing services	880,161	821,057	831,639	818,363	876,413
2.1	Maintain robust mix of provider- and client-initiated testing approaches	365,928	365,928	365,928	365,928	408,008
2.2	Consolidate testing sequence and referral systems, and avoid loss of diagnosis confirmation	25,350	25,350	25,350	25,350	25,350
2.3	Identify geographic and demographic hotspots of recent HIV infections by scaling up recency testing	262,350	258,350	260,850	258,350	260,850
2.4	Expand case finding through index contact testing, aided by risk elicitation/screening/assessment	179,682	136,578	144,660	133,884	147,354
2.5	Enable testing facilities and service providers to achieve optimum service delivery	46,851	34,851	34,851	34,851	34,851

**Table 7. Costs of HIV Testing Services, by Input (US\$)**

Input	2021	2022	2023	2024	2025
HIV testing services	80,161	821,057	831,639	818,363	876,413
1. Human resources	46,851	34,851	34,851	34,851	34,851
2. Travel-related costs	797,550	754,446	762,528	751,752	807,302
5. Health products - nonpharmaceuticals	-	-	-	-	-
10. Communication materials and publications	31,760	31,760	31,760	31,760	31,760
11. Indirect and overhead costs	4,000	-	2,500	-	2,500

**Table 8. Costs of HIV Care and Treatment, by Strategy (US\$)**

No.	Strategy	2021	2022	2023	2024	2025
3	HIV care and treatment	6,840,169	6,824,758	6,777,936	6,808,792	6,811,592
3.1	Strengthen, expand, and integrate voluntary confidential counseling and testing and ART services within referral hospitals	289,808	289,808	289,808	289,808	289,808
3.2	Explore private sector involvement for HIV testing and treatment	976,179	976,179	976,179	976,179	976,179
3.3	Optimize ARV treatment regimens and prophylaxis for opportunistic infections	93,378	144,072	102,818	102,818	102,818
3.4	Strengthen systems for case management of people living with HIV with viral load failure and retention issues	172,245	164,585	163,721	163,721	172,721

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No.	Strategy	2021	2022	2023	2024	2025
3.5	Strengthen human resources capacity for voluntary confidential counseling and testing, and ART services	121,743	121,743	121,743	121,743	121,743
3.6	Integrate HIV services in service package for social health protection (Health Equity Fund, National Social Security Fund, and other health insurance); consider private sector involvement	152,719	152,719	152,719	152,719	152,719
3.7	Improve and strengthen access to viral load testing, including improving and ensuring human resources capacity	495,416	495,416	495,416	495,416	495,416
3.8	Address the needs of specific groups, including adolescents, key populations, and migrants	77,059	-	29,328	30,840	29,328
3.9	Strengthen, innovate, and adapt more comprehensive approaches to differentiated care	260,332	260,332	260,332	260,332	260,332
3.10	Strengthen linkages/integration of HIV services with STIs, reproductive health (antenatal care), noncommunicable diseases, and other services	1,184,602	1,261,252	1,243,252	1,243,252	1,243,252
3.11	Strengthen training, monitoring and evaluation, and supply chain coordination to ensure adequate Tuberculosis Preventive Therapy coverage	112,130	81,470	81,470	81,470	81,470
3.12	Create sustainable hepatitis C program for screening, diagnosing, providing treatment, and ensuring cure	91,617	68,929	57,585	68,929	46,241
3.13	Build a culture of data use to improve quality of care (care and treatment, Community Action Approach Framework CAA, Boosted-Integrated active case management B-IACM, Partner Notification Tracing and Testing PNTT, Enhanced Adherence Counselling EAC)	137,056	114,368	91,680	91,680	91,680
3.14	Support affected communities and civil society in engaging in care and treatment services	2,675,885	2,693,885	2,711,885	2,729,885	2,747,885

**Table 9. Costs of eMTCT/BIACM/Payment for Results (P4R), by Strategy (US\$)**

No.	Component	2021	2022	2023	2024	2025
4	eMTCT/BIACM/P4R	1,724,754	1,590,289	1,596,725	1,537,813	1,655,163
4.1	Improve the overall leadership of the prevention of mother-to-child transmission (PMTCT) program and quality of services	1,308,591	1,237,531	1,209,591	1,223,561	1,223,561
4.2	Improve and harmonize PMTCT data management system and quality at the national and subnational levels	207,351	143,946	178,322	105,440	222,790
4.3	Improve quality of laboratory services relevant to PMTCT/eMTCT	124,870	124,870	124,870	124,870	124,870
4.4	Enhance human rights, gender equity, and community participation as cross-cutting within PMTCT/eMTCT	29,328	29,328	29,328	29,328	29,328
4.5	Support National Maternal Child Health Centre NMCHC to explore the possibility of triple elimination of HIV, congenital syphilis, and hepatitis B	54,614	54,614	54,614	54,614	54,614

**Table 10. Costs of STIs, by Strategy (US\$)**

No.	Component	2021	2022	2023	2024	2025
5	STIs	477,722	393,808	385,436	718,122	391,558
5.1	Expand access to STI/reproductive tract infection care and treatment for key populations	114,819	114,819	114,819	114,819	114,819
5.2	Increase user-friendliness of STI services for key populations	117,303	117,303	117,303	117,303	117,303
5.3	Improve STI screening, immediate diagnosis, and clinical management of asymptomatic STIs	-	8,372	-	-	-
5.4	Ensure supplies for appropriate diagnosis and treatment of STIs at all facilities providing STI services	-	-	-	-	-
5.5	Improve prevention and case management for STIs/reproductive tract infections	124,514	124,514	124,514	130,636	130,636
5.6	Strengthen the reporting and reliability of STI data to guide the program	121,086	28,800	28,800	355,364	28,800

**Table 11. Costs of Lab Services, by Strategy (US\$)**

No.	Component	2021	2022	2023	2024	2025
6	Laboratory services	702,374	932,731	854,206	674,263	669,032
6.1	Ensure full coverage of HIV viral load, genotype, early infant diagnostic, and hepatitis C viral load tests	586,246	551,603	568,546	551,603	568,546
6.2	NCHADS and Siem Reap laboratories implement laboratory quality management system, and achieve and maintain International Organization for Standardization ISO accreditation	106,128	371,128	275,660	112,660	90,486
6.3	Ensure the lab information system technology is deployed (and interoperable) at NCHADS and Siem Reap labs	10,000	10,000	10,000	10,000	10,000

**Table 12. Costs of Logistics and Supply Management, by Strategy (US\$)**

No.	Component	2021	2022	2023	2024	2025
7	Logistics and supply management	11,275,070	11,973,359	12,570,776	12,856,330	13,168,223
7.1	Strengthen and monitor consumption reporting and distribution for ARVs, rapid diagnostic tests, and lab commodities	99,601	99,601	99,601	99,601	99,601
7.2	Regularly complete precise quantification for all required ARVs, rapid diagnostic tests, and lab commodities	10,908,899	11,626,788	12,204,905	12,509,909	12,802,352
7.3	Ensure effective coordination and collaboration between the NCHADS program and relevant Ministry of Health departments	163,736	163,736	163,736	163,736	163,736
7.4	Strengthen stock management practices for ARVs, rapid diagnostic tests, and lab commodities at the national level	6,016	6,016	6,016	6,016	6,016
7.5	Build human resources and stock management capacity at health facilities through local/regional training	92,078	72,478	91,778	72,328	91,778
7.6	Safeguard end-to-end tracking of all HIV commodities for ordering, purchasing, procurement, and delivery	4,740	4,740	4,740	4,740	4,740

**Table 13. Costs of Strategic Information, by Strategy (US\$)**

No.	Component	2021	2022	2023	2024	2025
8	HIV strategic information	2,098,704	2,023,399	2,057,999	2,013,399	2,057,999
8.1	Enhance the quality of routine search results, web results, and integrated biological and behavioral survey, program data, and other studies	761,183	697,543	733,543	697,543	733,543
8.2	Strengthen HIV estimation exercises through better and granular data inputs	661,590	652,990	651,590	642,990	651,590
8.3	Improve data system for pregnant and breastfeeding women living with HIV and their babies (HIV/syphilis)	111,773	108,708	108,708	108,708	108,708
8.4	Align and harmonize databases and maximize use of existing key identifiers for key populations and people living with HIV	418,950	418,950	418,950	418,950	418,950
8.5	Continue capacity building and minimize turnover of the Strategic Information workforce	28,464	28,464	28,464	28,464	28,464
8.6	Optimize data quality and analysis, and promote data use at site, subnational, and national levels	116,744	116,744	116,744	116,744	116,744

**Table 14. Costs of Program Management, by Strategy (US\$)**

No.	Component	2021	2022	2023	2024	2025
9	Program management	6,523,971	6,714,934	7,025,800	7,318,816	7,617,882
9.1	Enhance partnership and coordination in implementing the HSSP	74,261	72,799	84,399	185,749	185,549
9.2	Ensure that roles and responsibilities at national and subnational levels are fit to implement the HSSP	5,938,886	6,184,352	6,429,818	6,675,284	6,920,750
9.3	Mobilize and use resources efficiently to support implementation of the HSSP	510,824	457,784	511,584	457,784	511,584

### 3.3 Resource Needs, by Inputs

By type of inputs, human resources accounted for the largest share of costs (\$46.6 million; 25.0%), followed by travel- and training-related costs (\$41.2 million; 22.1%), and pharmaceuticals (\$33.3 million; 17.9%) (Table 15). Human resources costs are estimated to increase from \$8.8 million in 2021 to \$9.8 million in 2025.

**Table 15. Resource Needs, by Input Categories, 2021–2025 (US\$ million)**

Input	2021	2022	2023	2024	2025	Total
Human resources	8.8	9.1	9.3	9.6	9.8	46.6
Travel- and training-related costs	8.3	8.2	8.2	8.1	8.3	41.2
External professional services	0.4	0.3	0.3	0.7	0.4	1.9
Pharmaceuticals	6.0	6.4	6.8	7.1	7.1	33.3
Nonpharmaceuticals	2.0	2.1	2.1	2.1	2.4	10.9
Health products – equipment	1.7	1.8	2.1	1.9	1.9	9.5
Procurement and supply chain management costs	1.7	1.7	1.8	1.8	1.8	8.8
Infrastructure	0.2	0.4	0.2	0.2	0.2	1.2
Nonhealth equipment	0.4	0.3	0.3	0.4	0.3	1.8
Communication materials and publications	0.7	0.5	0.6	0.6	0.7	3.1
Indirect and overhead costs	3.9	4.0	4.1	4.0	4.0	20.0
Living support to target population	0.8	0.8	0.8	0.8	0.8	4.1
Payment for results	0.8	0.7	0.7	0.7	0.7	3.7
<b>Total</b>	<b>35.7</b>	<b>36.5</b>	<b>37.3</b>	<b>38.0</b>	<b>38.5</b>	<b>186.0</b>

Source: HSSP costing analysis.

**Costs of PrEP, ARVs, and OI.** The estimated total costs for pre-exposure prophylaxis (PrEP) are \$1.3 million in 2021–2025. The costs of PrEP are estimated to increase from \$0.09 million in 2021 to \$0.3 million in 2025 because of an expected increase in coverage of key populations (from 0.8% [1,000 of 123,800] in 2021 to 2.3% [3,000 of 131,500] in 2025) (NCHADS and UNAIDS, 2019b). This intervention, which is new and not included in the previous HSSP, is major cost driver for prevention. As per the Optima analysis, the expanded prevention program, including PrEP reaching 10,000 men who have sex with men and transgender people by 2023, is projected to avert 220 (140–310) annual new infections in 2025, or a cumulative total of 2,040 (1,250–2,880) from 2020 to 2030 (NCHADS and UNAIDS, 2020). However, the Technical Working Group on prevention suggested using a conservative coverage target of 3,000 by 2025.

The estimated total costs of ARVs in 2021–2025 are \$30.6 million (Table 16), with an expected increase from \$5.6 million in 2021 to \$6.5 million in 2025. The estimated total costs of treating opportunistic infections (OIs) in 2021–2025 are \$2.6 million, with an increase from \$0.4 million in 2021 to \$0.6 million in 2025.

**Table 16. Costs of ARVs and Opportunistic Infections, 2021–2025 (US\$ million)**

Category	2021	2022	2023	2024	2025	Total
ARVs	5.6	5.9	6.2	6.5	6.5	30.6
Opportunistic infections:	0.4	0.5	0.6	0.6	0.6	2.6
• Hepatitis C medicine & health products	0.06	0.03	0.03	0.03	0.03	0.2
• OI	0.2	0.2	0.2	0.2	0.2	0.9
• PrEP medicines and commodities	0.09	0.2	0.3	0.3	0.3	1.3
• Exposed infant diagnosis and syphilis	0.05	0.05	0.05	0.05	0.05	0.2
• Cryptococcus treatment	0.005	0.006	0.006	0.006	0.006	0.0
<b>Total</b>	<b>6.0</b>	<b>6.4</b>	<b>6.8</b>	<b>7.1</b>	<b>7.1</b>	<b>33.2</b>

Source: HSSP costing analysis.

Table 17 shows resource needs by inputs and core components.

**Table 17. Resource Needs, by Inputs and Core Components, 2021–2025 (US\$)**

Cost Category	Prevention	HIV Testing Services	HIV Care and Treatment	eMTCT/BIACM/P4R	Sexually Transmitted Infections	Laboratory Services	Logistics and Supply Management	HIV Strategic Information	Program Management	Total
1. Human resources	8,960,785	186,255	4,215,333	96,000	-	-	-	-	33,140,354	46,598,727
2. Travel-related costs	5,915,615	3,873,578	18,589,635	3,852,069	835,432	2,209,770	1,114,155	4,132,481	672,863	41,195,597
3. External professional services	23,300	-	672,000	-	489,200	283,336	180,000	60,270	225,700	1,933,806
4. Pharmaceuticals	26,392	-	-	-	-	-	33,229,023	-	-	33,255,415
5. Nonpharmaceuticals	886,771	-	-	453,000	-	-	9,512,393	-	-	10,852,165
6. Health equipment	-	-	-	-	-	608,000	8,853,926	-	-	9,461,926
7. Procurement and supply chain management costs	-	-	516,000	-	-	-	8,317,710	-	-	8,833,710
8. Infrastructure	-	-	-	-	922,220	317,500	-	-	-	1,239,720
9. Nonhealth equipment	381,900	-	618,680	-	58,550	-	-	518,500	180,000	1,757,630
10. Communication materials and publications	1,459,256	158,800	957,352	158,395	61,244	-	66,550	248,400	1,463	3,111,460
11. Indirect and overhead costs	4,168,772	9,000	8,494,246	105,080	-	414,000	570,000	5,291,850	981,025	20,033,973
12. Living support to client/target population	4,044,905	-	-	15,000	-	-	-	-	-	4,059,905
13. Payment for results	285,380	-	-	3,425,200	-	-	-	-	-	3,710,580
<b>Total</b>	<b>26,153,076</b>	<b>4,227,633</b>	<b>34,063,247</b>	<b>8,104,744</b>	<b>2,366,646</b>	<b>3,832,606</b>	<b>61,843,758</b>	<b>10,251,501</b>	<b>35,201,404</b>	<b>186,044,613</b>



Table 18 presents a breakdown of human resources costs by core component.

**Table 18. Breakdown of Human Resources Costs, by Core Component, 2021–2025 (US\$ thousand)**

Core Component/Cost Category	2021	2022	2023	2024	2025	Total
<b>HIV prevention</b>	<b>1,792</b>	<b>1,792</b>	<b>1,792</b>	<b>1,792</b>	<b>1,792</b>	<b>8,961</b>
Salaries: program management	1,130	1,130	1,130	1,130	1,130	5,651
Salaries: outreach workers, medical staff, other providers	390	390	390	390	390	1,949
Other human resources costs: contracts	272	272	272	272	272	1,361
<b>HIV testing services</b>	<b>47</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>186</b>
Other human resources costs: contracts	47	35	35	35	35	186
<b>eMTCT/BIACM/P4R</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>96</b>
Salaries: program management	10	10	10	10	10	48
Salaries: outreach workers, medical staff, other providers	10	10	10	10	10	48
<b>HIV care and treatment</b>	<b>807</b>	<b>825</b>	<b>843</b>	<b>861</b>	<b>879</b>	<b>4,215</b>
Salaries: program management	636	636	636	636	636	3,180
Salaries: outreach workers, medical staff, other providers	81	81	81	81	81	405
Other human resources costs: contracts	90	108	126	144	162	630
<b>Program management</b>	<b>6,137</b>	<b>6,383</b>	<b>6,628</b>	<b>6,874</b>	<b>7,119</b>	<b>33,140</b>
Salaries: program management	755	777	800	822	845	3,999
Salaries: public health facility staff	4,682	4,905	5,128	5,351	5,574	25,641
Other human resources costs: contracts	700	700	700	700	700	3,500
<b>Total</b>	<b>8,802</b>	<b>9,054</b>	<b>9,317</b>	<b>9,581</b>	<b>9,844</b>	<b>46,599</b>

A breakdown of training- and travel-related costs is provided in Table 19. Further details on the type of training activities by core component are provided in Annex B.

**Table 19. Breakdown of Training and Travel Costs, by Core Component, 2021–2025 (US\$ thousand)**

Cost Category	Prevention	HIV Testing Services	Care and Treatment	eMTCT/ BIACM/ P4R	STIs	Lab	Logistics and Supply Management	STI	Program Management	Total for Five Years
2.1 Training-related per diems/transport/other costs	2,709	3,054	15,711	1,573	723	1,573	835	3,196	430	29,803
<i>Key training subjects in each of the core components</i>	<i>Harm reduction</i>	<i>Voluntary confidential counseling and testing (VCCT)</i>	<i>Guideline</i>	<i>BIACM</i>	<i>STIs to all</i>	<i>Laboratory quality management system</i>	<i>Multi-month scripting</i>	<i>Database</i>	<i>Program management review</i>	
<i>Key workshops in each of the components</i>	<i>Methadone maintenance treatment</i>	<i>Mentorship</i>	<i>Clinical training</i>	<i>PMTCT</i>	<i>VCCT link STI</i>	<i>Lab service</i>	<i>ART and rapid diagnostic test</i>	<i>Integrated biological and behavioral surveillance training</i>		
<i>Key orientation in each of the components</i>	<i>PrEP</i>	<i>Health provider-initiated counseling and testing</i>	<i>Co-infection</i>	<i>Training of trainers</i>		<i>ISO</i>				
2.2 Technical assistance-related per diems/transport/other costs	15	12	0	65	0	0	0	0	0	92
2.3 Supervision/surveys/data collection-related per diems/transport/other costs	798	263	614	409	112	418	190	327	137	3,270
2.4 Meeting/advocacy-related per diems/transport/other costs	699	323	1,599	1,279	0	140	72	609	106	4,828
2.5 Other transportation costs	1,951	398	1,071	525	0	79	0	0	0	4,024
<b>Total</b>	<b>6,173</b>	<b>4,050</b>	<b>18,995</b>	<b>3,852</b>	<b>835</b>	<b>2,210</b>	<b>1,097</b>	<b>4,132</b>	<b>673</b>	<b>42,017</b>

Source: HSSP costing analysis.

## 4. Financing the HSSP

### 4.1 Current Funding

Total spending on the HIV response in Cambodia decreased from \$58.1 million in 2010 to \$34.4 million in 2017 (Table 20). Donor financing decreased from \$55.6 million in 2010 to \$26.1 million in 2017, whereas government financing more than tripled between 2010 (\$2.5 million) and 2017 (\$8.3 million).

Table 20. HIV Spending, by Funding Source, 2010–2017 (US\$ million)<sup>2</sup>

Funding source	2010	2011	2012	2013	2014	2015	2016	2017
Government	2.5	5.6	5.6	No data	6.4	8.2	8.0	8.3
Donor	55.6	46.6	44.3	No data	42.7	38.7	23.5	26.1
<b>Total</b>	<b>58.1</b>	<b>52.2</b>	<b>49.9</b>	<b>No data</b>	<b>49.1</b>	<b>46.9</b>	<b>31.5</b>	<b>34.4</b>
Government share	4.3%	10.7%	11.2%	No data	13.0%	17.5%	25.4%	24.1%

Source: NAA, 2019b.

**Core components.** Donor financing was reduced by more than half between 2010 (\$55.6 million) and 2017 (\$26.1 million). However, some key components, such as prevention activities for key populations that CSOs implemented, have been almost completely financed by donors. More than 90% of viral load testing is financed externally (PEPFAR, 2019). The Global Fund’s contribution increased from 59% of all donor funding in 2014 to 70% in 2017 (NAA, 2019b). Bilateral donors (primarily the United States) accounted for 18% in 2017, down from 29% in 2014 (NAA, 2019b).

**Inputs.** Salaries accounted for the largest share (\$7.4 million or 21%) of the total expenditure on HIV in 2017, followed by ARVs (\$6.6 million or 19%). The government financed 47% of total salaries and 13% of total ARVs expenditure in 2017 (\$0.8 million out of \$6.6 million) (NAA, 2019b). Expenditures related to program management, administration, and technical assistance accounted for 17% (\$5.9 million) of the government HIV spending in 2017, more than double the proportion in 2014 (8%) (NAA, 2019b). Less than 2% of the government’s budget for HIV activities is used to finance prevention activities (NAA, 2019b). The country’s Global Fund grant for 2018–2020 includes the following distribution of funding: ARVs 33.3%, OIs and patient care 12.4%, lab agents 13.1%, and planning and monitoring and evaluation 10.8% (Global Fund, 2018).

Comprehensive data on HIV expenditure in 2018 and 2019 are not yet available. However, data from NCHADS on Global Fund expenditure suggest that \$7.4 million of the 2018 grant (\$11.3 million) and \$14.0 million of the 2019 grant (\$17.1 million) was spent (NCHADS, 2020). The same source suggests that the U.S. Centers for Disease Control and Prevention allocated \$1.4 million to NCHADS in 2019. PEPFAR expenditure amounted to \$6.4 million in 2018 and \$5.1 million in 2019, with \$5.8 million planned for 2020 (PEPFAR, 2019).

<sup>2</sup> The National AIDS Spending Assessment does not include data for 2013.

Trends in ARV financing are presented in Table 21. The government financed 26.3% of ARVs in 2018 and 25.9% in 2019 (NAA, 2019c). The NAA has recommended that the share of government financing of ARVs increase to more than 50% in 2021.

**Table 21. ARV Spending, by Funding Source, 2011–2019 (US\$ million)**

Funding source	2011	2012	2013	2014	2015	2016	2017	2018	2019
Government	0	0	No data	0	0.8	0.3	0.8	1.5	1.5
Global Fund	5.5	5.4	No data	7.8	7.7	5.8	6.6	4.2	4.3
<b>Total</b>	<b>5.5</b>	<b>5.4</b>	<b>No data</b>	<b>7.8</b>	<b>8.5</b>	<b>6.1</b>	<b>7.4</b>	<b>5.7</b>	<b>5.8</b>

Source: NAA, 2019b, 2019c.

## 4.2 Projected Funding

Projected future funding of the HIV response from the government, Global Fund, and PEPFAR is presented in Table 22. Data from other donors have not been included at this stage. Further information is provided below.

**Table 22. Projected Funding for HIV, 2021–2025 (US\$ million)**

Category	2021	2022	2023	2024	2025	Total
Government	9.5	10.8	12.6	13.3	14.1	60.3
Global fund	15.1	14.0	12.5	13.9	13.9	69.3
PEPFAR	5.1	4.6	4.1	3.7	3.3	20.9
<b>Total</b>	<b>29.7</b>	<b>29.4</b>	<b>29.2</b>	<b>30.9</b>	<b>31.3</b>	<b>150.5</b>

Source: HSSP financing analysis.

### Projected funding sources:

- Government funding is based on the current expenditure as provided by the Technical Working Group, including administration, salaries of NCHADS and NAA staff at the national level, and health system costs.
- The Global Fund funding is based on priority activities in its Funding Request Application for 2021–2023. The average of the three years 2021–2023 was applied to 2024–2025. The Global Fund Prioritized Above Allocation Request is not included in the above projection because it is not a core part of the Global Fund approved allocation. PAAR is a “wish list” in the Global Fund Funding Request Application annexure and can be considered only when funds become available.
- PEPFAR’s funding is based on its funding allocation for FY 2021. A 10% reduction was applied to the subsequent years of 2022–2025. The amount for PEPFAR does not include its donor agency program management costs, but only direct program support and the implementing partners’ program management costs. The assumption is that if the government or another entity procured services from implementing partners, it would need to include their program management costs in their budget.

**Government funding.** Government funding is projected to increase from \$9.5 million in 2021 (26.6% of total resource needs) to \$14.1 million in 2025 (36.6% of total resource needs). It is projected that the government mainly will continue to finance health systems

costs; staff salaries; administrative costs at the local level; and commodities, including ARV and OI drugs. The increase in government financing is for the most part through a commitment to increase contributions to ARV funding. The government’s financing of ARVs is projected<sup>3</sup> to increase from \$2.5 million (44.7% of the total) in 2021 to \$6.0 million (92.6%) in 2025 (Table 23). Though the commitment of government financing for ARVs in 2021 is less than what has been recommended, it is consistently increasing over time. The government will finance \$22.5 million (73.4% of total ARV costs) in 2021–2025.

**Table 23. Projected Government Funding of ARVs, 2021–2025 (US\$ million)**

Category	2021	2022	2023	2024	2025	Total
ARV costs	5.6	5.9	6.2	6.5	6.6	30.6
Government funding	2.5	3.5	5.0	5.5	6.0	22.5
Government share	44.7%	59.2%	80.9%	84.9%	92.6%	73.4%

Source: HSSP costing and financing analysis.

Health Equity Fund reimbursement for HIV services is an additional incentive provided to public health facilities for providing services to poor people living with HIV and not paid directly against any input-related cost. Therefore, Health Equity Fund expenditure on HIV by the government is not estimated as a part of the HSSP costing. Although it should be noted that the government is projected to finance a total of \$10.6 million in 2021–2025 for this benefit package.

**Donor funding.** Total donor financing is projected to decrease from \$23.3 million in 2021 (73.4% of total resource needs) to \$20.7 million in 2025 (63.4% of total resource needs). The Global Fund, which is the major donor to the HIV program in Cambodia, is expected to provide \$69.3 million for the five-year period. The Global Fund will continue to fund critical parts of the response, including the direct program costs across all core components. Prevention activities by CSOs will continue to be funded by The Global Fund. Please refer to the detailed costing provided in the funding request application. Funding from PEPFAR is expected to decrease from \$5.1 million in 2021 to \$3.3 million in 2025. PEPFAR funding will concentrate mainly on technical assistance above the site level for improving HIV testing services, strategic information, laboratory services, and logistical supply chain management.

### 4.3 Resource Gap Analysis and Discussion

The resource gap analysis uses the FY 2020 budget as a reference point for the FY 2021–2025 budget allocations. The FY 2020 data budget data were used for allocating resources across various components because allocations for funding by various sources were not available by HSSP categories. Data sources for FY 2020 include Global Fund budget estimates as per the allocated funding and PEPFAR budgets presented in the Regional Operation Plan 2019. Table 24 provides the detailed projected funding across key components by all funding sources.

<sup>3</sup> Government financing of ARVs is based on committed funding for 2021–2023 and estimated increases of funding in 2024–2025.

**Table 24. Projected Funding Across Key Components, by All Sources**

Core Components	2020	2021	2022	2023	2024	2025
HIV prevention	2,033,155	5,146,464	5,227,703	5,221,702	5,271,574	5,285,634
HIV testing services	671,934	880,161	821,057	831,639	818,363	876,413
HIV care and treatment	4,004,154	6,840,169	6,824,758	6,777,936	6,808,792	6,811,592
eMTCT/BIACM/P4R	46,227	1,724,754	1,590,289	1,596,725	1,537,813	1,655,163
STIs	19,000	477,722	393,808	385,436	718,122	391,558
Laboratory services	618,834	702,374	932,731	854,206	674,263	669,032
Logistics and supply management	10,581,324	11,275,070	11,973,359	12,570,776	12,856,330	13,168,223
HIV strategic information	938,913	2,098,704	2,023,399	2,057,999	2,013,399	2,057,999
Program management	6,787,528	6,523,971	6,714,934	7,025,800	7,318,816	7,617,882
<b>Total</b>	<b>25,701,069</b>	<b>35,669,388</b>	<b>36,502,038</b>	<b>37,322,219</b>	<b>38,017,471</b>	<b>38,533,496</b>

Source: HSSP financing analysis.

Comparing the estimated total resource needs for the HSSP 2021–2025 (\$186.0 million) and the projected funding for this period (\$150.5 million) reveals a **total resource gap of \$35.5 million** (Table 25). The resource gap is estimated to increase from \$5.9 million in 2021 to \$7.21 million in 2025.

**Table 25. Resource Needs, Projected Future Funding, and Resource Gap (US\$ million)**

Category	2021	2022	2023	2024	2025	Total
<b>Total resource needs</b>	<b>35.67</b>	<b>36.50</b>	<b>37.32</b>	<b>38.02</b>	<b>38.53</b>	<b>186.0</b>
<b>Projected</b>	<b>29.72</b>	<b>29.36</b>	<b>29.19</b>	<b>30.92</b>	<b>31.32</b>	<b>150.5</b>
• Government	9.50	10.79	12.58	13.34	14.11	60.3
• Global fund	15.13	13.98	12.48	13.87	13.87	69.3
• PEPFAR	5.09	4.58	4.12	3.71	3.34	20.9
<b>Resource gap</b>	<b>5.94</b>	<b>7.14</b>	<b>8.14</b>	<b>7.10</b>	<b>7.21</b>	<b>35.53</b>

Source: HSSP financing analysis.

If the conservative Global Fund Prioritized Above Allocation Request estimates are applied at a 30% allocation of the total Global Fund allocation, the total funding gap can be reduced by \$21 million for the five-year period. Details of the Prioritized Above Allocation Request activities were not broken out when preparing this document. The Prioritized Above Allocation Request reducing the funding gap should not be considered as a domestic sustainable financing option for the HIV response in Cambodia. Table 26 outlines resource needs, projected funding by source, and resource gap by core component for 2021–2025.

**Table 26. Resource Needs, Projected Funding, and Resource Gap, by Core Component, 2021–2025 (US\$ million)**

Core Component	Resource Needs						Projected Funding				Resource Gap
	2021	2022	2023	2024	2025	Total	Government	Global Fund	PEPFAR	Total	
HIV prevention	5.15	5.23	5.22	5.27	5.29	26.15	3.07	16.27	-	19.35	(6.81)
HIV testing services	0.88	0.82	0.83	0.82	0.88	4.23	-	1.47	3.12	4.59	(0.36)
HIV care and treatment	6.84	6.82	6.78	6.81	6.81	34.06	15.68	12.39	-	28.07	(5.99)
eMTCT/BIACM/P4R	1.72	1.59	1.60	1.54	1.66	8.10	-	0.35	-	0.35	(7.75)
STIs	0.48	0.39	0.39	0.72	0.39	2.37	-	0.68	-	0.68	(1.69)
Laboratory services	0.70	0.93	0.85	0.67	0.67	3.83	-	0.54	2.56	3.10	(0.73)
Logistics and supply management	11.28	11.97	12.57	12.86	13.17	61.84	25.11	33.46	0.97	59.55	(2.30)
HIV strategic information	2.10	2.02	2.06	2.01	2.06	10.25	2.15	2.37	3.23	7.75	(2.50)
Program management	6.52	6.71	7.03	7.32	7.62	35.20	14.32	1.78	10.97	27.07	(8.13)
<b>Total</b>	<b>35.67</b>	<b>36.50</b>	<b>37.32</b>	<b>38.02</b>	<b>38.53</b>	<b>186.04</b>	<b>60.33</b>	<b>69.33</b>	<b>20.85</b>	<b>150.51</b>	<b>(35.53)</b>

**Increasing domestic financing to reduce the funding gap.** According to the joint monitoring indicators and NSP V, the government HIV financing target is \$11.6 million in 2021, \$15.9 million in 2022, and \$18.7 million in 2023. The government is currently financing of some of the key areas of the HIV response—for example, human resources and ARVs, but there is room for the government to increase further the financing of human resources and contribute to the financing of CSOs/NGOs. However, based on discussions with stakeholders, the government may face challenges in increasing its share of the funding. The NCHADS and NAA need more discussions and advocacy with the Ministry of Economy and Finance and Ministry of Health to increase government funding and identify measures to improve efficiency—for example, through integration of HIV interventions into regular health services delivery and community outreach activities.

A gap of more than \$6.8 million exists in financing HIV prevention activities—a critical area of the HIV response. CSOs/NGOs play a key role in the HIV response, especially in prevention care and support. The government currently does not contribute financial resources to CSOs/NGOs. Table 27 presents trends in financing of CSOs/NGOs by source; this information is critical for informing advocacy for government financing of CSOs/NGOs to ensure the sustainability of the implementation of critical HIV activities. These CSO/NGO activities were financed entirely by donors and international NGOs in 2011–2017 (\$108.0 million). The annual amount decreased from \$26.9 million in 2011 to \$10.9 million in 2017. The largest donor in 2011–2017 was PEPFAR, followed by the Global Fund, bilateral agencies, and international NGOs. In 2017, the Global Fund financed \$4.7 million (43.0% of the total), followed by PEPFAR at \$4.0 million (36.9%) and international NGOs at \$1.9 million (17.4%).

**Table 27. Financing of CSOs/NGOs, by Source, 2011–2017 (US\$ million)**

Funding source	2011	2012	2013	2014	2015	2016	2017
Government	0	0	No data	0	0	0	0
Global Fund	6.7	5.0	No data	5.7	3.7	4.1	4.7
PEPFAR	N/a	N/a	No data	9.9	11.9	4.8	4.0
Bilateral agencies	12.0	11.7	No data	0.5	0	0.1	0.2
United Nations agencies	3.4	2.7	No data	0.3	0.2	0.6	0
Other multilaterals	1.6	1.0	No data	0.8	0.5	0.04	0.06
International NGOs	3.2	2.4	No data	1.4	1.5	1.5	1.9
<b>Total</b>	<b>26.9</b>	<b>22.7</b>	<b>No data</b>	<b>18.6</b>	<b>17.7</b>	<b>11.2</b>	<b>10.9</b>

Source: NAA, 2019b.

Policy measure 4 of the SorChorNor #213 recognizes the role of CSOs/NGOs in delivering HIV interventions and commits to government financing for them. To support implementation of the SorChorNor #213, the NAA, with support from HP+, is identifying options for social contracting mechanisms to help CSOs working in HIV. Based on that exercise, it is anticipated that the government would need to allocate additional \$0.8 million of government HIV budget in 2021 to support CSOs/NGOs in the delivery of critical services, increasing to \$1.7 million in 2025 (Table 28), which could close the funding gap in prevention activities. This will not replace the Global Fund Funding of CSOs working in HIV but an additional co-financing by government. Looking at the current situation and discussions between NAA and stakeholders, the government will not able to initiate social contracting before FY 2022.



**Table 28. Projected Government Funding of CSOs/NGOs, 2021–2025 (US\$ million)**

Category	2021	2022	2023	2024	2025	Total
Government funding of CSOs/NGOs	0.8	1.2	1.4	1.5	1.7	6.6

Source: HSSP costing and financing analysis.

Critical resource gaps also exist for treatment and care activities. The key programmatic areas identified are private sector engagement, improving civil society engagement in treatment and care, creating a sustainable hepatitis C care and treatment program, and improving the quality of care through the community action Boosted Integrated Active Case Management (BIACM) approach. They are some of the critical areas on which the government should focus in increasing its financing commitments. The sustainability roadmap of 2030 calls for increasing government commitment of resources to sustain the HIV response and maintain the gains made in achieving HIV targets (NAA and UNAIDS, 2018b). In accordance with this roadmap, the joint monitoring indicators, which the government and development partners agreed upon, specify that the government should finance 35% of the HIV response by 2020 (RGC, 2019b). The NSP V of the NAA suggests that the government should finance 50% of the HIV response by 2023 (NAA, 2019a). According to these targets, the government should aspire to fund \$11.6 million of the total resource needs in 2021, \$15.9 million in 2022, and \$18.7 million in 2023.

## 5. Conclusion

Increasing government funding of HIV programs and supporting CSOs' delivery of critical services are essential for strengthening the sustainability of the HIV response. To mobilize additional financing of the response, the government and partners can build on a set of strategies to strengthen sustainability of the national response proposed in the NSP V, including the following: increasing the government's share of HIV financing to 50% by 2023, leveraging government financing to fund the HIV response, increasing government financing of HIV/AIDS by using social health insurance contributions as a source of revenue, exploring the potential for private sector co-financing and engagement in service provision, allocating a share of the government health budget to CSOs, creating a supportive environment for social contracting, and implementing and monitoring contracting mechanisms (NAA, 2019a).

In addition to increasing the level of government financing, increasing the efficiency of current and future resources can contribute to the sustainability of the HIV response. Examples of actions to add more value for money spent on HIV includes improving public financial management; exploring ways of integrating HIV financing into the broader health system; and using social health protection mechanisms, such as social health insurance and the Health Equity Fund, which already includes some HIV interventions in its benefit package. The following recommendations from the Optima analysis should be considered for improving HIV program implementation efficiencies (NCHADS and UNAIDS, 2020):

- Scaling up multi-month scripting at ART sites
- Initiating same-day ART treatment
- Using point-of-care testing
- Introducing recency testing for HIV diagnosis

- Developing a detailed framework for integration of HIV into public health systems

Integration of HIV programs into public health systems is key to increasing the efficiency of the HIV response. The HSSP provides a framework for integrating HIV programs into health information systems and procurement, and the HIV supply chain into the central procurement system of the Ministry of Health and other key health systems areas. Task shifting of existing human resources at all levels can also be explored. In addition, using technology for monitoring and evaluation could reduce potentially large input costs, such as travel-related expenses for workshops, trainings, and supervision visits.

The following next steps are suggested:

- NCHADS and NAA to use the costing projections, mobilize funds to implement strategies and activities according to the financing goals of the NSP V and HSSP
- NAA and NCHADS to advocate with the Ministry of Health and Ministry of Economy and Finance, the private sector, and CSOs/NGOs for increased domestic funding for HIV
- Carry out operational planning and preparation for implementing Cambodia's HSSP
- Examine and allocate roles and responsibility of various government units and departments for implementation of HSSP activities
- Explore options to increase implementation efficiencies by using the results and recommendations of the forthcoming Optima analysis and other available evidence
- Develop and implement a transition plan to centralize commodity procurement, including an assessment of institutional and staff capacity at the central level

## References

- The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). 2018. *The Global Fund Allocation Letter for 2018-2020*. Geneva: Global Fund.
- The Global Fund to Fight AIDS, Tuberculosis and Malaria. 2019. *The Global Fund Allocation Letter for 2020-2022*. Geneva: Global Fund.
- Ministry of Economy and Finance (MEF). 2012a. *Standard Operating Procedures for all Externally Financed Projects Programs in Cambodia*. Phnom Penh: MEF.
- Ministry of Economy and Finance (MEF). 2012b. *Financial management Manual for all Externally Financed Projects/Programs in Cambodia*. Phnom Penh: MEF.
- National AIDS Authority (NAA). 2019a. *The Fifth National Strategic Plan for a Comprehensive, Multi-Sectoral Response to HIV/AIDS (2019-2023): Moving Toward Ending AIDS as a Public Health Threat by 2025*. Phnom Penh: NAA.
- NAA. 2019b. *National AIDS Spending Assessment for the Period 2016-2017 in Cambodia*. Phnom Penh: NAA.
- NAA. 2019c. *ARV Financing in Cambodia: Recommendation from the National AIDS Authority*. Phnom Penh: NAA.
- NAA and UNAIDS. 2018a. *Towards Ending AIDS in Cambodia: Transition Readiness Assessment*. Phnom Penh: NAA and UNAIDS.
- NAA and UNAIDS. 2018b. *Towards Ending AIDS in Cambodia: Sustainability Roadmap*. Phnom Penh: NAA and UNAIDS.
- National Centre for HIV/AIDS, Dermatology and STDs (NCHADS). 2020. *Global Fund Expenditure Data 2018-2020*. Phnom Penh: NCHADS.
- NCHADS and UNAIDS. 2019a. *Cambodia HIV Estimate and Projection for National and Subnational Levels 2019 Using SPECTRUM Version 5.76*. Phnom Penh: NCHADS.
- NCHADS and UNAIDS. 2019b. *Cambodia HIV Estimate and Projection for National Level Using AEM*. Phnom Penh: NCHADS.
- NCHADS and UNAIDS. 2020. *Forthcoming Resource Optimization to Maximize the HIV Response in Cambodia Using OPTIMA-HIV*. Phnom Penh: NCHADS.
- PEPFAR. 2019. *Dashboard: PEPFAR Panorama Spotlight: Cambodia*. Available at: <https://data.pepfar.gov/dashboards>.
- Royal Government of Cambodia (RGC). 2019a. *SorChorNor (Circular #213)*. Phnom Penh: Council of Ministers, Royal Government of Cambodia.
- Royal Government of Cambodia (RGC). 2019b. *Decision on the Joint Monitoring Indicators 2019-2023*. Phnom Penh: Royal Government of Cambodia.
- UNICEF. 2020. *Antiretroviral Medicines Price Data*. New York: UNICEF. Available at: [https://www.unicef.org/supply/files/ARV\\_LTA\\_Prices.pdf](https://www.unicef.org/supply/files/ARV_LTA_Prices.pdf).
- Zida, A., M. Kukla, and R. Sanders. 2015. *A Cost Analysis of Cambodia's Strategic Plan for HIV/AIDS and STI Prevention and Control in the Health Sector 2015-2020*. Bethesda, MD: Health Finance & Governance Project, Abt Associates Inc.

## Annex A. Methods and Assumptions to Estimate Resource Needs

The estimation of HSSP 2021–2025 resource needs was done by core component, strategy, and activity. The HSSP contains nine core components, 61 strategies, and 288 core activities. Each core activity is disaggregated further into sub-activities. The methods and assumptions are summarized in Section 2 of this document. This annex provides further details on these methods and assumptions.

### 1. Consensus activities provided by Core Component Working Groups

#### a. Group meeting on the key activities to be costed

- i. Component [not for costing]
- ii. Strategy [not for costing]
- iii. Core activity [not for costing]
- iv. Activity
  1. Training/meeting/workshop/orientation
  2. Supervision/monitoring/onsite coaching
  3. Outreach activities and support activities
  4. Printing standard operating procedure/guideline/Information Education and Communication/report
  5. Research/survey
  6. Purchasing services of and hiring consultants
  7. Administration
  8. Salary and incentives
  9. Pharmaceutical and nonpharmaceutical procurements estimation
  10. Infrastructure (renovation, buildings, and other supply costs)

#### b. Assumptions for cost variables for main items

- i. Detail cost assumptions for each activity in training/meetings/workshops
  1. Number of facilitators
  2. Number of participants
  3. Number of days
  4. Room rental cost
  5. Cost for refreshment and materials
  6. Frequency per year
- ii. Detail cost assumptions for supervision/monitoring and onsite coaching
  1. Number of supervisors
  2. Number of days of use
  3. Fuel consumption
- iii. Detail cost assumptions of outreach activities and support
  1. Number of outreach workers
  2. Incentives per months
  3. Underlying cost: insurance

- iv. Detail cost assumptions for printing standard operating procedure/guideline/IEC/reports
  1. Number of books needed
  2. Number of pages in a book
  3. Cost of book design and translation
  
- v. Detail cost assumptions for research/surveys
  1. Cost of protocols approved by ethics committee
  2. Number of field supervisors
  3. Number of field enumerators
  4. Number of surveys to be conducted per year
  
- vi. Purchase services of and hiring consultants
  1. Number of consultants
  2. Number of days required for work
  3. Frequency per year
  
- vii. Detail cost assumptions for administration
  1. Office rental
  2. Utility cost
  3. Insurance
  4. Maintenance services
  5. Other administrative needs
  6. Office supply
  7. Office equipment
  
- viii. Detail cost assumptions for salary and incentives
  1. Based on position
  2. Number of months used
  3. Number of staff
  
- ix. Detail cost assumptions for pharmaceutical and nonpharmaceutical procurements
  1. List of required medicines and commodities
  2. Number of patients targeted or quantity required
  3. Number of medicines needed per patient per year
  
- x. Detail cost assumptions for infrastructure
  1. Items required
  2. Lump sum cost
  3. Number of buildings or locations required per year
  
- xi. Detail cost assumptions for supporting transportation and its enablers
  1. Number of items need
  2. Lump sum allowance
  3. Frequency per year

## 2. Unit cost assumptions

- a. Unit cost follows the Global Fund financial guidelines
  - i. Per diem rate for overnight stays: \$34.00 per night per person
  - ii. Per diem rate for day trips: \$14.00 per day per person
  - iii. Per diem rate for return from day trips: \$14:00 per trip per person
- b. Transportation costs: A lump sum is applied
  - i. Community to health centers/Referral Hospitals sites: \$5.00 per round trip
  - ii. Health center to Operational Districts: \$5.00 per round trip
  - iii. Health center to community: \$5.00 round trip
  - iv. Health center to Provincial Health Department: \$10.00 per round trip
  - v. Province to provinces/Phnom Penh: \$20.00 per round trip
  - vi. For central staff who use car: \$120.00 per car per trip
- c. Unit cost of training workshop materials and other costs
  - i. Refreshment: \$2.00 per person per day
  - ii. Training materials: \$2.00 per person per session
  - iii. Room rental: \$250.00 per room per day at the provincial level
  - iv. Room rental: \$350.00 per room per day at the central level
- d. Unit cost for consultant, salary, incentives, and so on
  - i. Local consultant: \$300.00 per person per day
  - ii. International consultant: \$600.00 per person per day
  - iii. Outreach workers: \$200.00 per person per month
  - iv. Incentive for case finding or referral: \$5.00–10.00 per case person
  - v. Salary of government staff: \$350.00 per person per month for doctoral, pharmacist, and other medical specialist
  - vi. Salary of government staff: \$250.00 per person per month for nurses, midwives, and other medical staffs
  - vii. Salary for government flowing staff: \$180.00–200 per person per month
  - viii. Salary contract staff: \$500–2,500.00 per month, based on qualification and expertise
- e. Unit cost for office supplies, equipment, and stationery: based on the month of current expenditure, using March 2020 as the monthly average cost
- f. Unit cost for ARV, OIs, and other commodities:
  - i. ARVs

Brand Name	Dosage	Unit	Unit Cost (US\$)
Abacavir	300mg tablet 60	Package	8.25
Abacavir/Lamivudine	600/300mg tablet 30	Package	8.65
Atazanavir/Ritonavir	300/100mg tablet 30	Package	12.85
Darunavir	400mg tablet 60	Package	36.00
Darunavir	600mg tablet 60	Package	55.20
Dolutegravir	50mg tablet 30	Package	3.39
Dolutegravir/Lamivudine/Tenofovir	50/300/300mg tablet 30	Package	5.60
Efavirenz	600mg tablet 30	Package	2.38
Efavirenz/Lamivudine/Tenofovir	400/300/300mg tablet 30	Package	5.80
Lamivudine	150mg tablet 60	Package	2.00
Lamivudine/Tenofovir	300/300mg tablet 30	Package	3.16

Brand Name	Dosage	Unit	Unit Cost (US\$)
Lamivudine/Zidovudine	150/300mg tablet 60	Package	4.90
Lopinavir/Ritonavir	200/50mg tablet 120	Package	18.55
Lopinavir/Ritonavir	40/10mg oral granules – 120 sachets	Package	19.20
Nevirapine	10mg/ml oral suspension 100ml	Package	1.45
Ritonavir	100mg tablet 30	Package	6.90
Tenofovir	300mg tablet 30	Package	2.89
Zidovudine	50mg/5ml oral solution 240ml	Package	3.50

ii. OI medicines and commodities

Brand Name	Target	Unit of Measurement	Unit Cost (US\$)
<b>Hepatitis C (HCV) medicines and health products</b>			
Sofosbuvir 400mg (28)	HCV medicine	Package	18.20
Daclatasvir 30mg (28)	HCV medicine	Package	10.00
Sofosbuvir 400mg/Daclatasvir 60mg FDC (28)	HCV medicine	Package	26.25
SD Bioline anti-HCV rapid diagnostic test	HCV health product	Package	1.00
HCV viral load test	HCV health product	Package	17.00
<b>OI and dry blood spot</b>			
DBS bundles collection kit (20)	Dry blood spot for HIV infant testing	Package	65.00
Co-trimoxazole 960mg DS tablet (500)	OI – Pneumocystis carinii Pneumonia prophylaxis and treatment	Package	11.68
Lateral flow assay (LFA): Latex Agglutination kit (50)	OI – Cryptococcus antigen screening	Package	211.70
Co-trimoxazole 240mg/5mL susp (100)	OI – Pneumocystis carinii pneumonia prophylaxis	Package	0.44
Fluconazole 100mg capsule (100pack)	OI – Cryptococcus prophylaxis	Package	2.24
Benzympenicillin 2.4M IU injection (50)	Syphilis treatment	Package	11.25
Anti-retroviral genotype test	Genotype testing – patients moving from 2nd line to 3rd line	Package	79.31
Asanté HIV-1 rapid recency assay by Sedia Biosciences; 100 tests per kit	Recency testing: HIV recency assay	Package	4.75
OraQuick rapid HIV 1/2 antibody test	HIV self-testing: HIV rapid test	Package	8.21
<b>PrEP medicines and commodities</b>			
Lamivudine/Tenofovir 300/300mg tablet 30	For PrEP usage	Package	3.16
HIV 1/2 – Determine HIV combo kit 100 tests (HIV Ab/Ag)	For PrEP usage	Package	115.50
HBsAg surface antigen test	For PrEP usage	Package	1.00
Anti-HCV rapid diagnostic test	For PrEP usage	Package	1.10
Urine-CT/NG PCR Neisseria Gonorrhoeae polymerase chain reaction (PCR)	For PrEP usage	Package	17.00
Anal-CT/NG PCR	For PrEP usage	Package	17.00
Renal function (creatinine)	For PrEP usage	Package	2.50
Rapid plasma reagin	For PrEP usage	Package	3.00
<b>Exposed infant diagnosis and syphilis</b>			
GeneXpert testing per test, cartridge, shipping, and clearance	For pregnant women, exposed infant diagnosis, and all other populations	Package	17.20
Rapid plasma reagin	For syphilis testing	Package	3.00

Brand Name	Target	Unit of Measurement	Unit Cost (US\$)
<b>Cryptococcus treatment</b>			
Fluconazole 400mg capsule	Cryptococcus treatment	Package	0.15
Fluconazole 200mg injection	Cryptococcus treatment	Package	0.02
Amphotericin B deoxycholate 50mg	Cryptococcus treatment	Package	7.09
Flucytosine 500mg tablet	Cryptococcus treatment	Package	1.30
Fluconazole 200mg capsule (100 pack)	Cryptococcus treatment	Package	6.25

### iii. Consumables

Item	Description	Unit Cost (USD)
Rapid diagnostic test – HIV	HIV 1+2 – Stat-Pak HIV Kit – 20 tests	26.00
Rapid diagnostic test – HIV	HIV 1+2 – Uni-gold HIV Kit – 20 tests	33.00
Rapid diagnostic test – HIV	HIV/syphilis – SD Bioline Duo complete kit – 25 tests	38.00
Lubricant	5 ml – water based – 1,000 sachets	24.00
Male condom	49 mm – plain – pack of 144	3.34
Laboratory equipment – other equipment	Syringe (100)	3.00
Laboratory equipment – other equipment	Water for injection (100)	3.60

### iv. Lab reagents

Itemize	Description	Unit Cost (US\$)
PPT tube (HIV-1 VL sample collection tube)	Box/100t.	30.00
Vacutainer tube EDTA K3	Box/100t.	12.00
Needle for vacutainer tube collection size: "21Gx11/2"	Box/100t.	12.00
Screw-cap microcentrifuge tubes, 2.0 ml, sterile, freestanding	Pack/1000	210.00
Cryostore boxes, 100-wells, 1.5–2.0 mL tubes	Pack/5	45.00
Vial/tube labels "Freezerbondz™ Polyester" for use with "Brady IP™ Printer" THT-131-461-3	Roll/3000	450.00
Printer ribbon "R-4300" for use with "Brady IP™ Printer"	Pcs	220.00
Filter tips sterile 100–1,000µl (Ependoff pipette)	Box/960 t.	120.00
Filter tips sterile 1–200 µl (Ependoff pipette)	Box/960 t.	120.00
Filter tips sterile 0.5–20µl (Ependoff pipette)	Box/960 t.	120.00
Conical tubes 15mL	Pack/50 t.	150.00
Conical tubes 50mL	Pack/50 t.	150.00
Powder-free nitrile gloves, small	Pack/1000	120.00
Powder-free nitrile gloves, medium	Pack/1000	120.00
USP-grade 10–200 proof ethanol (pure 100%)	Botl/1L	85.00
DNase-/RNAse-free decontaminant	Botl/750ml	77.00
Cryoware marker, extra-fine tip	Set/4	15.00
Bleach solution	Botl/2.5L	5.00
Alcohol for decontamination 75%	Botl/1L	2.00
Plastic bottle 250 mL	Pcs	12.00
Plastic bottle 250 mL	Pcs	12.00
Lab coat or gown standard in molecular lab	Case/50	350.00
Safety glasses (eye protection)	Case/10	250.00
Autoclavable biohazard bags 90 x 115 cm	Pack/200	320.00
Cleaning paper, Kimberly Clark (for cleaning the instrument)	Case/20box	180.00



v. Lab equipment

Item	Unit	Unit Cost (USD)
Viral load and/or exposed infant diagnosis analyzer	Set	1,200.00
Viral load and/or exposed infant diagnosis analyzer	Set	1,632.00
Flow cytometry analyzer (CD4)	Set	262.50
Flow cytometry analyzer (CD4)	Set	120.00
Flow cytometry analyzer (CD4)	Set	32.00
Flow cytometry analyzer (CD4)	Set	30.00
Flow cytometry analyzer (CD4)	Set	36.00
PPT tube (HIV-1 VL sample collection tube)	Set	30.00
Vacutainer tube EDTA K3	Set	12.00
Needle for vacutainer tube collection size: "21Gx11/2"	Set	12.00
Screw-cap microcentrifuge tubes, 2.0 ml, sterile, freestanding	Set	210.00
Cryostore boxes, 100-wells, 1.5–2.0 mL tubes	Set	45.00
Vial/tube labels" Freezerbondz™ Polyester" for use with "Brady IP™ Printer" THT-131-461-3	Set	450.00
Printer ribbon "R-4300" for use with "Brady IP™ Printer"	Set	220.00
Filter tips sterile 100–1,000µl (Ependoft pipette)	Set	120.00
Filter tips sterile 1–200 µl (Ependoft pipette)	Set	120.00
Filter tips sterile 0.5–20µl (Ependoft pipette)	Set	120.00
Conical tubes 15mL	Set	150.00
Conical tubes 50mL	Set	150.00
Powder-free nitrile gloves, small	Set	120.00
Powder-free nitrile gloves, medium	Set	120.00
USP-Grade 10–200 proof ethanol (pure 100%)	Set	85.00
DNase-/RNase-free decontaminant	Set	77.00
Cryoware marker, extra-fine tip	Set	15.00
Bleach solution	Set	5.00
Alcohol for decontamination 75%	Set	2.00
Plastic bottle 250 mL	Set	12.00
Plastic bottle 250 mL	Set	12.00
Lab coat or gown standard in molecular lab	Set	350.00
Safety glasses (eye protection)	Set	250.00
Autoclavable biohazard bags 90 x 115 cm	Set	320.00
Cleaning paper, Kimberly Clark (for cleaning the instrument)	Set	180.00

**3. Calculation for different year**

- a. Formula for package unit cost:
  - i. Unit cost of each items x (multiply by)
  - ii. Number of days/months x (multiply by)
  - iii. Quantity per session
- b. Formula for annual cost:
  - i. Package unit cost x (multiply by)
  - ii. Number or frequency per year

**4. Calculation for HSSP layer**

- a. Core Activity:  $\Sigma$  total cost of activities
- b. Cost of Strategy:  $\Sigma$  Total cost of Core Activities
- c. Cost of Component:  $\Sigma$  Total cost of Strategies
- d. Cost of HSSP:  $\Sigma$  total cost of Components

**5. Cost analysis:**

- a. Cost by Component by year

- b. Cost by Strategy by year
- c. Cost by Core Activities (e.g. by year)
- d. Cost by cost group (e.g. workshop, supervision, Training, etc. as per global fund funding) by year

**6. List of assumptions:**

**a. Training/workshop/ meeting/orientation**

**i. One day**

No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
1	Per diem for facilitators, organizer, and drivers	Person	34.00	5	2.0	340.00
2	Transportation cost	Car	120.00	1	1.0	120.00
3	Per diem on return day	Person	14.00	5	1.0	70.00
4	Per diem for participants 1-40km	Person	14.00	20	1.0	280.00
5	Transportation cost for participants 1-40km	Person	10.00	20	1.0	200.00
6	Per diem for participants >40km	Person	34.00	15	2.0	1,020.00
7	Transportation for participants >40km	Person	20.00	15	1.0	300.00
8	Per diem on return day for participants >40km	Person	14.00	15	1.0	210.00
9	Training/workshop materials	Person	2.00	35	1.0	70.00
10	Refreshment	Person	2.00	40	1.0	80.00
11	Venue rental cost	Room	250.00	1	1.0	250.00

**ii. Two days**

No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
1	Per diem for facilitators, organizer, and drivers	Person	34.00	5	3.0	510.00
2	Transportation cost	Car	120.00	1	1.0	120.00
3	Per diem on return day	Person	14.00	5	1.0	70.00
4	Per diem for participants 1-40km	Person	14.00	20	2.0	560.00
5	Transportation cost for participants 1-40km	Person	10.00	20	2.0	400.00
6	Per diem for participants >40km	Person	34.00	15	3.0	1,530.00
7	Transportation for participants >40km	Person	20.00	15	1.0	300.00
8	Per diem on return day for participants >40km	Person	14.00	15	1.0	210.00
9	Training/workshop materials	Person	2.00	35	1.0	70.00
10	Refreshment	Person	2.00	40	2.0	160.00
11	Venue rental cost	Room	250.00	1	2.0	500.00

**iii. Three days**

No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
1	Per diem for facilitators, organizer, and drivers	Person	34.00	5	4.0	680.00
2	Transportation cost	Car	120.00	1	1.0	120.00
3	Per diem on return day	Person	14.00	5	1.0	70.00
4	Per diem for participants 1-40km	Person	14.00	20	3.0	840.00

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No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
5	Transportation cost for participants 1–40km	Person	10.00	20	3.0	600.00
6	Per diem for participants >40km	Person	34.00	15	4.0	2,040.00
7	Transportation for participants >40km	Person	20.00	15	1.0	300.00
8	Per diem on return day for participants >40km	Person	14.00	15	1.0	210.00
9	Training/workshop materials	Person	2.00	35	1.0	70.00
10	Refreshment	Person	2.00	40	3.0	240.00
11	Venue rental cost	Room	250.00	1	3.0	750.00

**iv. Four days**

No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
1	Per diem for facilitators, organizer, and drivers	Person	34.00	5	5.0	850.00
2	Transportation cost	Car	120.00	1	1.0	120.00
3	Per diem on return day	Person	14.00	5	1.0	70.00
4	Per diem for participants 1–40km	Person	14.00	20	4.0	1,120.00
5	Transportation cost for participants 1–40km	Person	10.00	20	4.0	800.00
6	Per diem for participants >40km	Person	34.00	15	5.0	2,550.00
7	Transportation for participants >40km	Person	20.00	15	1.0	300.00
8	Per diem on return day for participants >40km	Person	14.00	15	1.0	210.00
9	Training/workshop materials	Person	2.00	35	1.0	70.00
10	Refreshment	Person	2.00	40	4.0	320.00
11	Venue rental cost	Room	250.00	1	4.0	1,000.00

**v. Five days**

No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
1	Per diem for facilitators, organizer, and drivers	Person	34.00	5	6.0	1,020.00
2	Transportation cost	Car	120.00	1	1.0	120.00
3	Per diem on return day	Person	14.00	5	1.0	70.00
4	Per diem for participants 1–40km	Person	14.00	20	5.0	1,400.00
5	Transportation cost for participants 1–40km	Person	10.00	20	5.0	1,000.00
6	Per diem for participants >40km	Person	34.00	15	6.0	3,060.00
7	Transportation for participants >40km	Person	20.00	15	1.0	300.00
8	Per diem on return day for participants >40km	Person	14.00	15	1.0	210.00
9	Training/workshop materials	Person	2.00	35	1.0	70.00
10	Refreshment	Person	2.00	40	5.0	400.00
11	Venue rental cost	Room	250.00	1	5.0	1,250.00

**b. Supervision/monitoring and onsite coaching**

**i. By central level**

No	Cost Assumption	Unit	Unit cost	Person	Day	Total
1	Per diem for supervisors and driver	Day	34.00	5	6.0	1,020.00
2	Transportation cost	Car	120.00	1	1.0	120.00
3	Per diem on return day	Person	14.00	5	1.0	70.00

**ii. By PHD**

No	Cost Assumption	Unit	Unit cost	Person	Day	Total
1	Per diem for supervisor	Day	14.00	2	1	28.00
2	Transportation cost	Day	10.00	2	1	20.00

**iii. By OD**

No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
1	Per diem for supervisor	Day	14.00	1	1	14.00
2	Transportation cost	Day	8.00	1	1	8.00

**iv. By health center**

No	Cost Assumption	Unit	Unit Cost	Person	Day	Total
1	Per diem for supervisor	Day	14.00	1	1	14.00
2	Transportation cost	Day	5.00	1	1	5.00

**c. Outreach activities and support activities**

**i. Routine outreach**

No	Cost Assumption	Unit	Unit Cost	Number	Qty
1	Salary of outreach worker	Person	200	1 month	1
2	Insurance outreach worker	Person	7.00	1 month	1

**ii. Night outreach**

No	Cost Assumption	Unit	Unit Cost	Number	Qty
1	Car rental	Car	100	1 session	1
2	Car decoration (e.g. material for slogans)	Car	500	1 session	1

**iii. World AIDS Day**

No	Cost Assumption	Unit	Unit Cost	Sessions	Qty
1	Transportation for outreach workers	Person	5.00	1	1
2	Drinking water	Boxes	3.5	1	3
3	Transportation	Tuk	10.00	1	2
4	Banner	Set	20.00	1	6

**d. Printing standard operating procedure/guideline/IEC/report**

No	Cost Assumption	Unit	Unit Cost	Pages	Qty
1	Translation for curriculum and job aids	Book	12.00	100	1
2	Printing of curriculum	Book	0.25	100	70
3	Printing of job aids	Pcs	0.50	350	120

**e. Research/survey**

**i. Conduct pre-data collection to modify tools**

No	Cost Assumption	Unit	Unit Cost	days	Qty
1	Per diem for principal investigator	Pers.	40.00	5	3
2	Per diem for research coordinator	Pers.	34.00	5	1
3	Per diem for driver	Pers.	34.00	5	1
4	Cost for transportation	Car	120.00	1	1
5	Per diem for return day	Pers.	14.00	1	3
6	Per diem for data collectors	Pers.	34.00	4	2
7	Transportation for data collector	Pers.	10.00	1	2
8	Per diem for return day	Pers.	14.00	1	2
9	Local transport for data collector	Pers.	5.00	1	2
10	Printing questionnaire	Pcs	0.03	5	15

**ii. Collect data from the field on Integrated biological and behavioral assessment among Entertainment workers**

No	Cost Assumption	Unit	Unit Cost	Days	Qty
1	Recruit field supervisor and data collectors				
2	Advertise in newspapers	Pieces	150.00	1	1
3	Advertise on websites	Person	50.00	1	1
4	Conduct training for field data collectors				
5	Per diem for facilitators	Person	34.00	5	3
6	Per diem for organizers	Person	34.00	5	1
7	Per diem for drivers	Pers.	34.00	5	1
8	Cost for fuel from Phnom Penh City to province	Liters	1.20	1	150
9	Per diem for return day for facilitators	Person	14.00	1	5
10	Per diem for data collectors	Person	34.00	4	20
11	Travel for data collectors	Person	10.00	1	20
12	Per diem for return day for data collectors	Person	14.00	1	20
13	Cost of room rental	Room	250.00	1	1
14	Refreshment for all	Person	2.00	5	24
15	Workshop/training materials	Person	2.00	1	20
16	Conduct data collection				
17	Per diem for principal investigator	Person	34.00	8	3
18	Per diem for research coordinator	Person	34.00	20	1
19	Per diem for drivers	Person	34.00	20	1
20	Cost for fuel from Phnom Penh to province	Car	150.00	20	5
21	Per diem for return day for Principal Investigator & Research Coordinator	Person	14.00	1	5
22	Per diem for data collectors	Person	34.00	20	20
23	Travel for data collectors	Person	10.00	20	20
24	Per diem for field coordinators	Person	14.00	20	4
25	Travel for field coordinator	Person	10.00	1	4

No	Cost Assumption	Unit	Unit Cost	Days	Qty
26	Communication cost for all	Person	5.00	1	24
27	Per diem for return day for all (Data Collector & Field Coordinator)	Person	14.00	1	20
28	Recruit field supervisor and data collectors				
29	Advertise in newspapers	Piece	150.00	1	1
30	Advertise on websites	Person	50.00	1	1
31	Conduct training for field data collectors				

### iii. Manage and analyze data collected from the field

No	Cost Assumption	Unit	Unit Cost	Days	Qty
1	Purchase research materials and devices				
2	Computer set	Piece	800.00	1	2
3	STATA software	Piece	250.00	1	1
4	Per diem for data entry person	Piece	34.00	30	5
5	Per diem for data cleaning analysis	Piece	34.00	20	5
6	Writing the report in English	Piece	250.00	10	1

### f. Purchasing and hire consultants

No	Cost Assumption	Unit	Unit Cost	Days	Qty
1	International consultant	Person	600.00	30 days	1
2	Local consultant	Person	300.00	30 days	1
3	Print job aids	Piece	0.50	350 pages	120

### g. Administration

No	Cost Assumption	Unit	Unit Cost	Months	Qty
1	Office supplies and consumables	Set	3,953	1	1
2	Bank charge	Set	350	1	1
3	Cartridge, office supplies	Set	1,000.00	1	1
4	Small equipment for office	Set	100.00	1	1
5	Cleaning + drinking water	Set	100.00	1	1
6	Social Health Clinic office supplies, cartridge	Set	600.00	1	1
7	Cost for running Data Management Unit (DMU) provincial office, 68 sites	Set	95.00	1	1
8	Internet fees	Set	477.00	1	1
9	Staff cell card	Set	700.00	1	1
10	Phone, office	Set	30.00	1	1
11	SHC internet and communication	Set	150.00	1	1
12	Fuel for vehicle x 19	Set	2,800.00	1	1
13	Generator	Set	200.00	1	1

**h. Salary and Incentives**

No	Cost Assumption	Unit	Unit Cost	Months	Qty
1	NCHADS: government staff	Person	300.00	1	100
2	NCHADS: floating staff	Person	300.00	1	25
3	Provision Health Department: Provincial AIDS and STI Program	Person	300.00	1	25
4	Operational District : District AIDS and STI program	Person	300.00	1	103
5	Referral Hospital: ART sites	Person	300.00	1	256
6	Health Centre: voluntary confidential counseling and testing, and other	Person	210.00	1	1,221

**i. Pharmaceutical and nonpharmaceutical procurements estimation (as in 2f)**

**j. Infrastructure (renovation, building, and other supply costs): Project base**

## Annex B. Type of Training, by Core Component

Core Component	Type of Training
<b>1. Prevention</b>	<ul style="list-style-type: none"> <li>• Harm reduction training for local authority and healthcare workers</li> <li>• Conduct multi-month scripting visit</li> <li>• Support multi-month scripting patients</li> <li>• PrEP orientation and implementation</li> <li>• Support Peer Driven Initiative Plus (PDI+) and refer key populations</li> </ul>
<b>2. HIV testing services</b>	<ul style="list-style-type: none"> <li>• Pilot merit-based incentive</li> <li>• Training on voluntary confidential counseling and testing and self-testing</li> <li>• Mentorship support program</li> <li>• Monitoring and evaluation training</li> <li>• Training for private providers on voluntary confidential counseling and testing</li> <li>• Training on Health Provider Initiated Counseling and Testing for health center and reproductive health staff</li> <li>• Training on voluntary confidential counseling and testing data management</li> </ul>
<b>3. HIV care and treatment</b>	<ul style="list-style-type: none"> <li>• Update training curriculum and printing</li> <li>• Training only on clinical skills for reproductive health staff</li> <li>• On-site coaching for reproductive health staff</li> <li>• Training for staff members of Civil Society Organization and Commune Council staff members</li> <li>• Training on hepatitis C for all care providers</li> <li>• Training pharmacists on pharmaceutical management</li> <li>• Training on co-infections for all reproductive health and health center staff</li> <li>• Annual workshop review on co-infection and comorbidity</li> <li>• Orient clinicians to new ART guideline</li> </ul>
<b>4. eMTCT/BIACM/P4R</b>	<ul style="list-style-type: none"> <li>• BIACM training on HIV cascade to Provincial Health Department/Provincial AIDS and STI Program/Maternal and Child Health</li> <li>• Training on how to use GeneXpert</li> <li>• Training for healthcare providers for training of trainers on PMTCT</li> <li>• Step Down Training program on PMTCT for healthcare providers</li> <li>• Disseminate new guideline on Data Quality Assessment standard operating procedure to all ARV sites</li> </ul>



Core Component	Type of Training
<b>5. Sexually transmitted infections</b>	<ul style="list-style-type: none"> <li>• Initial training for 70 Referral Hospitals on syphilis case management among newborn babies</li> <li>• Refresher training for 70 Referral Hospitals on syphilis case management among newborn babies</li> <li>• Refresher training for STI lab</li> <li>• Refresher training for family health clinic</li> <li>• Initial training for STI lab</li> <li>• Initial training for family health clinic</li> <li>• Refresher training on HCP for 70 Referral Hospitals</li> <li>• Initial training on HCP for 70 Referral Hospitals</li> <li>• Provide a routine STI check-up at 3-month intervals for higher-risk key populations</li> <li>• Refer HIV-reactive clients to confirmation test at voluntary confidential counseling and testing facility using the B-IACM mechanism</li> <li>• Consultative workshop on developing training curriculum for integrated STI services in Comprehensive Package of Activities of Referral Hospitals</li> <li>• Refer and treat all detected syphilis clients (refer to revised national guidelines on STI)</li> <li>• Training on Motivational Interaction and Health 4 All for 10 family health clinics</li> <li>• Training on Provider Satisfaction Feedback for 10 family health clinics</li> <li>• Dissemination workshop on standard operating procedures of family health clinic</li> </ul>
<b>6. Laboratory services</b>	<ul style="list-style-type: none"> <li>• Laboratory quality management system training for healthcare workers</li> <li>• Conduct baseline assessment for ISO 15189</li> <li>• Develop database linkage from labs to ART sites</li> <li>• Training on specimen collection and packaging</li> <li>• STD training to family health clinic</li> <li>• Initial training on HTS-ART, recency testing</li> </ul>
<b>7. Logistics and supply management</b>	<ul style="list-style-type: none"> <li>• Conduct training for technical working group for Logistics Management Unit, Central Medical Store, Department Drug and Food, UNOPS, Procurement Unit at provincial level (15 p x 3 f x 1 driver x 2 days/2 times/year x 5 years)</li> <li>• Refresher training for multi-month scripting/MMD for ART staff who lack knowledge (24 p + 3 f + 1 driver + 1 coordinator....) x 1 session/year</li> <li>• Training on multi-month scripting for ART sites staff (clinician, pharmacist, data management) (35 px 6 session x 2 days + 4 f) for 2 sessions per year</li> <li>• Training on ARV and rapid diagnostic test (combine with 7.1.3)</li> <li>• Training on good storage practices</li> <li>• Initial training for new staff at new sites and new staff at old sites on national tools and stock management practices (30 pt x 3 days + 5 f) x 1 session x 5 years</li> <li>• Training on stock management of rapid diagnostic test for Operational District staff</li> <li>• Training on stock management at ART sites</li> <li>• Conduct training of national staff on lab dashboards</li> </ul>

Core Component	Type of Training
<b>8. Strategic information</b>	<ul style="list-style-type: none"> <li>• Training on B-IACM database</li> <li>• Revise and update B-IACM standard operating procedures/guideline</li> <li>• Conduct study/research on eMTCT, breastfeeding, HIV+ women with late presentation at clinic</li> <li>• Research on quality-of-care issues: \$60,000 per year</li> <li>• Research on emerging risks: \$60,000 (consultants, researchers, field personnel) per year</li> <li>• Cost in Integrated Biological and Behavioral Surveillance (IBBS)</li> <li>• Training and re-training for ART providers on updated patient forms in line with ART database (71 sites x 4 pt x 2 days)</li> <li>• Organize regional workshop with provincial team (program people) to review the data cascade (4 fa, 2 pt x 25 prov, 10 NCHADS, 10 NGOs/United Nations staff x 2 per years x 2 days x 5 regions per year)</li> <li>• IBBS, including STI, among people who inject drugs</li> <li>• IBBS, including STI, among men who have sex with men/transgender people</li> <li>• Conduct IBBS, including STI, among Entertainment Workers</li> <li>• Maintain computer system for voluntary confidential counseling and testing/prevention/labs/ART sites</li> <li>• Training on data management system at the provincial level (30–50 p x 3 days x 4 sessions x 1 per year)</li> </ul>
<b>9. Program management</b>	<ul style="list-style-type: none"> <li>• Consultation workshop on the key findings of efficiency analysis</li> <li>• Attend HIV conferences to share experiences and learn from updates on advanced HIV strategies for 6 key persons</li> <li>• Conduct national monitoring and evaluation framework workshop</li> <li>• Develop detailed monitoring and evaluation framework</li> <li>• Conduct national workshop on operational plan</li> <li>• Develop operational plan of HSSP</li> <li>• Dissemination/finding presentation of mid-term review of HSSP</li> <li>• conduct data quality review by Department Planning Monitoring and Research and Data Management Unit to SSIs</li> <li>• Department Planning Monitoring and Research – mid-year program review with partners and implementers</li> <li>• Department Planning Monitoring and Research conducts national HIV and AIDS annual planning workshop for 3 days in provinces (review past performance planning)</li> </ul>

## Annex C. Technical Working Group on Costing and Financing for the HSSP for HIV and STI Prevention and Control 2021–2025

No	Name	Position	Institution
1	H.E. Dr. Tia Phalla	Vice Chair	NAA
2	Dr. Ly Penh Sun	Director	NCHADS
3	Dr. Lan Vanseng	Deputy Director	NCHADS
4	Dr. Ouk Vichea	Deputy Director	NCHADS
5	Dr. Samreth Sovannarith	Deputy Director	NCHADS
6	H.E. Dr. Lon Chan Rasmey	Deputy Director General for Health and Project Manager (LIT)	Ministry of Health - Lead Implementer Team
7	Dr. Chea Sovann	Technical Advisor	Ministry of Health - Lead Implementer Team
8	Ms. Chhun Bunnary	Deputy Chief, Office of Multilateral Cooperation II	Ministry of Economy and Finance
9	Dr. Seshu Babu	International Project Management Advisor	Ministry of Economy and Finance
10	Mr. Gary T. Daigle	Management, M&E Technical Advisor	NCHADS
11	Mr. Fabrice Petit	International Financial Management Advisor	NCHADS
12	Ph. Prok Kaheanh	Head of Admin Bureau, and Chief of Logistic Supply Management Unit	NCHADS
13	Dr. Ngauv Bora	Deputy Head of Technical Bureau	NCHADS
14	Dr. Kaoeun Chetra	Officer at Technical Bureau	NCHADS
15	Dr. Touch Sarun	Officer at AIDS Care Unit	NCHADS
16	Mrs. Yun Chanphanet	Finance Manager	NCHADS
17	Dr. Kim Bunna	Chief of Planning, Monitoring and Reporting Unit	NCHADS
18	Mrs. Khem Veasna	Chief of Procurement Unit	NCHADS
19	Ms. Phom Sreymoch	Monitoring and Evaluation Officer	NCHADS
20	Dr. Tep Navuth	Director, Planning, Monitoring, Evaluation and Research Unit	NAA
21	Dr. Sok Bunna	Project Management Specialist for HIV/AIDS	USAID
22	Mr. Robert Stanley	Health Finance and HIV/AIDS Technical Advisor	USAID
23	Dr. Rachel Albalak	Country Director	U.S. Centers for Disease Control and Prevention

No	Name	Position	Institution
24	Dr. LY Vanthy	Deputy Director	U.S. Centers for Disease Control and Prevention
25	Ms. Soch Kunthea	HIV Program Implementation Lead	U.S. Centers for Disease Control and Prevention
26	Ms. Vladanka Andreeva	Country Director	UNAIDS Cambodia
27	Dr. Khin Cho WIN HTIN	Strategic Information Advisor	UNAIDS Cambodia
28	Mr. Ung Polin	Community Support Advisor	UNAIDS Cambodia
29	Mr. Yann Derriennic	Chief of Party and Country Director	HP+ (USAID-funded project)
30	Mr. Bhavesh Jain	HIV and Health Financing Advisor	HP+ (USAID-funded project)
31	Dr. Srey Mony	HIV and Health Policy Advisor	HP+ (USAID-funded project)
32	Dr. Steve Wignall	Chief of Party	LINKAGES (USAID-funded project)
33	Ms. Seng Sopheap	Country Representative	LINKAGES (USAID-funded project)
34	Mr. Im Chanry	Strategic Information Senior Technical Advisor	LINKAGES (USAID-funded project)
35	Mr. Sopha Ratana	Social Marketing Advisor	LINKAGES (USAID-funded project)
36	Mr. Sem Sithat	Manager	Friends International
37	Mr. Andrew McCracken	Country Director	Clinton Health Access Initiative
38	Dr. Emi Okamoto	Technical Advisor	Clinton Health Access Initiative
39	Ms. Hul Sivantha	Senior Associate	Clinton Health Access Initiative
40	Mr. Stanton Hor	Senior Associate	Clinton Health Access Initiative
41	Dr. Deng Serongkea	Technical Officer	World Health Organization
42	Mr. Tim Vora	Executive Director	Health Action Coordinating Committee
43	Mr. Choub Sokchamroeun	Executive Director	KHANA Cambodia
44	Mr. Seng Porsourn	Deputy Director	KHANA Cambodia
45	Dr. Sok Pun	Deputy Head of Program	Catholic Relief Services
46	Dr. Noy Prophea	HIV Project Manager	Catholic Relief Services
47	Dr. Vith Sreng	Program Manager	Reproductive Health Association of Cambodia
48	Mr. Sorn Sotheariddh	Manager	Cambodian People Living with HIV/AIDS network
49	Mr. Kong Bunthorn	MSM team leader	National MSM Network
50	Mr. Jan de Jong	Local Fund Agent Team Leader	PricewaterhouseCoopers (Cambodia) Ltd.
51	Mr. Taing Phoeuk	Executive Director	Korsang

No	Name	Position	Institution
52	Ms. Chhorn Ann	Executive Director	Cambodian Women for Peace and Development
53	Mr. Vichet Kem	Program Manager	Men's Health Cambodia
54	Mr. Pagna Dork	Executive Director	Men's Health Social Services
55	Dr. Thai Sopheak	Executive Director	Sihanouk Hospital Centre of HOPE
56	Mr. Yun Phearun	Program Manager	Chhouk Sor Clinic
57	Dr. Men Pagnaroat	Program Manager	AIDS Healthcare Foundation
58	Ms. Keo Tha	Program Officer	Joint Forum of National Networks of PLHIV and Most-at-Risk Populations
59	Ms. Han Sienghorn	Executive Director	Association of ARV Users in Cambodia
60	Mr. Henrik Axelson	Consultant, Costing and Financing, HSSP-HIV	HP+ (USAID-funded project)
61	Dr. Kimlee Khieu	Consultant, HSSP-HIV	HP+ (USAID-funded project)