TOWARDS ENDING AIDS IN CAMBODIA

Transition Readiness Assessment

Service Delivery & Health Systems

Civil Society Organizations

Costs and Financing

NATIONAL AIDS AUTHORITY

UNAIDS

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December 2018

Foreword

Cambodia's HIV response over the past two decades has been highly successful and has led the country to be one of seven globally to achieve the 90-90-90 targets in 2017. The strong support of Samdech Techo the Prime Minister and other leaders within the Royal Government of Cambodia to the HIV response has greatly contributed to its success. In 1991 the first case of HIV was reported in Cambodia, and by 1995 there were over 23,000 new infections. The Royal Government of Cambodia worked closely with civil society and partners in building an evidence-based program that has reduced the number of new infections to less than 1000 in 2018 and massively increased the number of people living with HIV who are on anti-retroviral therapy.

Over the past two decades, a wide range of multilateral and bilateral donor agencies and international NGOs have supported national HIV efforts while engaging proactively in the broader reconstruction and development of Cambodia through the implementation of numerous economic, infrastructural, and social programs. The national AIDS response has been heavily dependent on external financial and technical support. International investments amounted to 82% of financing for the HIV response in 2015. Cambodia has made significant economic and social progress and became a lower middle-income country, affecting its Global Fund allocation. Analyses conducted in 2017 show that donor support is likely to continue to diminish in the coming years.

Recognizing the increasing need to safeguard the outcomes from Cambodia's HIV program, the Sustainability Technical Working Group led by the National AIDS Authority and UNAIDS, has initiated a Transition Readiness Assessment and development of a Sustainability Roadmap. The Transition Readiness Assessment, presented here, will help align partners in designing and implementing a strategy that leads to the sustainability of the HIV response in the areas of access to and provision of quality services, financing, governance, human rights and the involvement of civil society.

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the Royal Government of Cambodia

Acknowledgements

The Transition Readiness Assessment was guided by the Co-Chairs of the Sustainability Technical Working Group, Dr Tia Phalla, National AIDS Authority, and Dr Vladanka Andreeva, UNAIDS, with support from Pharos Global Health Advisors team led by Dr Robert Hecht. We would like to thank Pharos Global Health Advisors team (Dr Robert Hecht, Mr Carl Schutte, Mr Markus Haacker, Mr Dave Burrows and Ms Kelly Flanagan) for the design of the Transition Readiness Assessment exercise and development of the report, and UNAIDS team (Dr Vladanka Andreeva, Dr Saleem Muhammed, Mr Polin Ung and Ms Nertila Tavanxhi) for inputs into the adaptation of the assessment tools, and contribution to the report. We are grateful to the Royal Government of Cambodia (Ministry of Health, Ministry of Planning, Ministry of Economy and Finance, National AIDS Authority, and National Centre for HIV/AIDS Dermatology and STDs), US-CDC, USAID, Global Fund, civil society and development partners for their support in the transition readiness assessment process. For a full list of key stakeholders that provided valuable insights and helped to facilitate the data collection process see Annex 9.1.

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Acronym List

AEM	Asian Epidemic Model
AHF	AIDS Healthcare Foundation
AIM	AIDS Impact Model
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
APCOM	Asia Pacific Coalition on Male Sexual Health
ARV	Antiretroviral
ART	Antiretroviral therapy
AUA	ART Users Association
B-IACM	Boosted Integrated Active Case Management
BLR	Boosted Linked Response
CAC	Community Action Counsellor
CAW	Community Action Worker
CBPCS	Community Based Prevention Care and Support
CCM	Country Coordinating Mechanism
CCC	Country Coordinating Committee
CCHR	Cambodian Centre for Human Rights
CDC	Centers for Disease Control and Prevention
CEDAW	Convention on the Elimination of Discrimination against Women
CHAI	Clinton Health Access Initiative
CMA	Case Management Assistants
CMC	Case Management Coordinators
CMS	Central Medical Stores
CNCW	Cambodian National Council for Women
CNPUD	Cambodian Network for People who Use Drugs
CoC	Boosted Continuum of Care
COP	Country Operational Plan
CoPCT	Boosted Continuum of Prevention to Care and Treatment
CPA	Complementary Package of Activities
CPN+	Cambodian PLHIV Network
CQI	Continuous Quality Improvement
CRS	Catholic Relief Services
CSO	Civil Society Organization
DDF	Department of Drugs and Food

DID	Drug Inventory Database
DMU	Data Management Unit
DNA	Deoxyribonucleic acid
DPHI	Department of Planning and Health Information
EID	Early Infant Diagnosis
e-MTCT	Elimination of Mother to Child Transmission
FBW	Facility Based Worker
FEW	Female Entertainment Workers
FSW	Female Sex Workers
GAM	Global AIDS Monitoring Report
GDP	Gross Domestic Product
GF	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GOC	Group of Champions
GNI	Gross National Income
HEAD	Health and Development Alliance
HEF	Health Equity Fund
H-EQUIP	Health Equity and Quality Improvement Project
HIS- TWG	Health Information Systems Technical Working Group
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HR	Human Resources
HSSP-HIV	Health Sector Strategic Plan - HIV
HTC	HIV Testing Centre
IBBS	Integrated Biological and Behavioural Surveillance
IMF	International Monetary Fund
ISO	International Organization for Standardization
IST	In-Service Training
IT	Information Technology
IRIR	Identify, Reach, Intensify and Retain Strategy
KP	Key Populations
LGBT	Lesbian, Gay, Bisexual, Transgender
LMIS	Logistics Management Information Systems
LR	Linked Response
LSMU	Logistics and Supply Management Unit
M&E	Monitoring and evaluation
MEF	Ministry of Economy and Finance

MOH	Ministry of Health
MOWA	Ministry of Women's Affairs
MPA	Minimum Package of Activities
MSM	Men who have Sex with Men
MTCT	Mother-to-Child Transmission
NAA	National AIDS Authority
NASA	National AIDS Spending Assessment
NCHADS	National Centre for HIV/AIDS, Dermatology and STD Control
NGOs	Non-Governmental organizations
NHA	National Health Accounts
NP-SNDD	National Program for Sub-National Democratic Development
NSP	National Strategic Plan
OD	Operational District
OI	Opportunistic Infections
OST	Opioid Substitution Therapy
OVC	Orphans and Vulnerable Children
OW	Outreach Workers
P4R	Payment for Results
PCPI	Police Community Partnership Initiative
PCR	Polymerase Chain Reaction
PEPFAR	President's Emergency Plan for AIDS Relief
PFM	Public Financial Management
PFMRP	Public Financial Management Reform Program
PHD	Provincial Health Department
PLHIV	People Living with HIV
PMTCT	Prevention of Mother to Child Transmission
PMRS	Patient Monitoring Registration System
PR	Principal Recipient
PSI	Population Services International
PSM	Procurement and Supply Chain Management
QA	Quality Assurance
QI	Quality Improvement
QM	Quality Management
RBF	Results-Based Financing
RGC	Royal Government of Cambodia
RH	Referral Hospital

RSSH	Resilient and Sustainable Systems for Health
SAHACOM	Sustainable Action against HIV and AIDS in Communities
SID	Sustainability Index Dashboard
SOA	Special Operating Agencies
SOP	Standard Operating Procedure
SR	Sub-Recipient
SRH	Sexual and Reproductive Health
STD	Sexually Transmitted Diseases
STI	Sexually Transmitted Infection
STWG	Sustainability Technical Working Group
SW	Sex Workers
TA	Technical Assistance
TB	Tuberculosis
TG	Transgender
TRA	Transition Readiness Assessment
TRANS	Transgender
UN	United Nations
UNAIDS	Joint United Nations Program on HIV/AIDS
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USD	United States Dollars
VCCT	Voluntary Confidential Counselling and Testing
WFP	World Food Program
WHO	World Health Organization
WOMEN	Woman Organization for National Economy and Nursing

Executive Summary

The State of the response

Cambodia's HIV response over the past two decades has been highly successful and has led the country to be one of seven globally to achieve the 90-90-90 targets (that translates into 73% of all people living with HIV being virally suppressed)[1]. The number of new HIV infections has fallen for 63% between 2010 and 2017 in 2017; out of estimated 67,000 PLHIV, 88% know their HIV status, and 87% are receiving anti-retroviral therapy (ART) in Cambodia[2]

Cambodia's successful HIV program has emerged from a sound policy and strategic framework that dates back more than two decades. The national strategies and goals complement Cambodia's legal framework, which is, overall, conducive to creating an enabling environment for the HIV response.

The achievements described above, while driven by the Cambodian government, have been heavily dependent on external financial and technical support. International investments amounted to 82% of financing for the HIV response in 2015[3]. Cambodia has made significant economic and social progress and became a lower middle-income country, affecting its Global Fund allocation.[4] Analyses conducted in 2017[5] show that donor support is likely to continue to diminish in the coming years. The impressive achievements of declining new infections, high treatment coverage, and increasing rates of viral suppression could be in jeopardy unless the Royal Government of Cambodia and other stakeholders take steps to identify transition and sustainability risks and develop actions to mitigate them.

In recognition of the impending transition, the Sustainability Technical Working Group (STWG) co -chaired by NAA and UNAIDS was tasked to facilitate a coordinated approach to transition. The STWG requested the development of this Transition Readiness Assessment (TRA) and a subsequent Sustainability Roadmap.

Transition Readiness Assessment

The Transition Readiness Assessment was carried out in two phases: 1) an exploratory and diagnostic phase and 2) an in-depth data collection, analysis and report production phase. Importantly, these two phases provide a platform for the development of the Sustainability Roadmap, which will describe mitigating responses for identified risks. The TRA and the Sustainability Roadmap will inform subsequent phases in the transition process which may include the development of a sustainability strategy and detailed operational plan.

During the first phase in August 2017, an initial country visit was conducted to gain a preliminary

1 UNAIDS; Ending AIDS: Progress towards the 90-90-90 targets (July 2017)
2 http://aidsinfo.unaids.org/
3 NAA," Cambodia's Fifth National Aids Spending Assessment (NASA), 2014-15"
4 Ministry of Economy and Finance and Asian Development Bank, "Cambodia's Macroeconomic Progress: A Journey of 25 Years" Power Point Presentation, October 5, 2016 accessed at https://www.mef.gov.kh/documents/shares/Macroeconomic_Progress_at_ADB.pdf
5 The Case for Investing in Cambodia's HIV and AIDS Response; April 2017

understanding of the risks to sustainability of the HIV response in Cambodia, examining issues related to the institutional and political environment, programmatic and epidemiological context, service delivery, health information systems, the role of civil society organisations (CSOs), and a review of the resource needs and current and future financing of the response. Additional data collection and interviews were conducted during a second in-country mission in November 2017 in order to gain a deeper understanding of the vulnerabilities and risks associated with transition. At the end of the second mission, the STWG convened to discuss the initial findings and to score and rank the short and medium-term risks identified, based on their probability of occurring and anticipated severity.

The risks identified through this TRA will underpin the Sustainability Roadmap, which will include a matrix of recommendations to be implemented over the next 10 years to mitigate risks in the short and medium term.

The remainder of this Executive Summary presents descriptions of each of the major HIV transition and sustainability risks, under three headings (Service Delivery, Role of CSO, Costs and Financing), along with the most salient evidence to support these findings.

Health Systems

ART Services are provided at 67 treatment sites[6], located in 25 provinces. In some cases, these sites are staffed by dedicated ART staff, typically funded by donors, while other sites are staffed by general hospital staff who rotate to provide ART services. At most sites, both government and contracted staff provide services. From a practical management perspective, senior management teams at public sector hospitals are involved and participate in the oversight and coordination of ART services at most sites.[7]

Historically, a significant number of contract staff have supported the provision of ART services at ART centers, which facilitated the rapid scale-up of the ART program. The AIDS Healthcare Foundation (AHF), using funds received from the Global Fund grant and from its own and other sources, deploys 3-4 staff members, including physicians, per site at over half of the government ART centers. The current Global Fund grant includes transitional funding of $385,000 to cover the costs of AHF support for one year only (2018).[8] AHF, together with NCHADS, has initiated the process of developing a transition plan which will see the withdrawal of AHF support at many ART sites.[9] There is a general concern amongst stakeholders interviewed that the quality of ART services at these sites may be impacted if this transition is not carefully managed.

Despite impressive ART coverage levels for those PLHIV who know their status, Cambodia still faces challenges in identifying remaining PLHIV. A number of policy and programmatic steps were taken over the last year to intensify HIV case detection, enroll those people living with

6 NCHADS Report, 2017
7 Key Informant Interviews. MOH. November, 2017.
8 Global Fund Funding Request. 2018-2020.
9 Key Informant Interviews. NCHADS. April, 2018.

HIV (PLHIV) not currently receiving ART services, follow them along the treatment cascade, and improve the efficiency and effectiveness of treatment service delivery.

Many of the innovations and re-designed service delivery modalities, as described in the Health Sector Strategic Plan for HIV/AIDS & STI Prevention and Control 2016-2020 (HSSP-HIV) and provided for in the GF funding request and COP17, are aimed at improving the quality of ART and prevention services. From a transition perspective the question that arises is whether quality improvement gains are under threat if external funding is reduced or terminated.

The Community Action Framework[10] was developed to improve efficiencies in prevention, care and support services and provides for the deployment of facility-based community workers and outreach workers (OW). Peer Outreach Workers will be employed by NGOs and provide prevention services to specific key populations such as entertainment workers, MSM, Transgender people and people who inject drugs. The current GF HIV grant provides for 273 facility-based support workers and 256 OWs for a period of three years. The funding of these critical support and prevention personnel and their services beyond 2020 is uncertain. It is also unclear whether the implementation of the Community Action Framework will result in the achievement of increased efficiencies and improved effectiveness, a key objective of the new framework.

The provision of laboratory services poses a further transition risk. The CDC funds the salaries of 2 Laboratory Technicians, to help scale-up use of the SR viral load machine to other provinces. The PEPFAR SID (2016) indicates that 98% of all laboratory expenditures were externally funded, raising concerns regarding the sustainability of HIV laboratory services in the event of a scale back or withdrawal from Cambodia by external funders including PEPFAR.[11]

The Logistics and Supply Management Unit (LSMU) of NCHADS also relies heavily on contract staff. In close collaboration with CHAI, logistics contract staff assist in supply chain management, forecasting, quantification and quality assurance of procured drugs and commodities, including ARVs. Although there is a national supply chain plan to ensure that facilities are supplied with ARVs at least 90% of the time, respondents to the 2017 SID indicated that there is no domestic financing in place to implement the planning, procurement, and re-supply decisions, as it is heavily reliant on external support.

Management of information systems and strategic information for the HIV response is conducted by NCHADS through the Data Management Unit (DMU), Surveillance Unit, and Research Unit , that together employ 17[12] staff (including contract staff) and 68 Provincial Data Management Officers and Data Entry Clerks, many of whom are also contract staff. Contract staff therefore play an important role in ensuring that robust HIV program information informs planning, ongoing decision making and monitoring and evaluation.

10 Ministry of Health, NCHADS, Consolidated operational framework on Community Action Approach to implement B-IACM Towards achieving 90-90-90 in Cambodia, June 2017
11 PEPFAR SID 2016. Quoting the NHA 2014 and Global Fund 2015 data.
12 NCHADS organogram. 2017.

The RGC has transferred the majority of contract staff salaries from external funding to domestic funding. However, the Global Fund funding request (2018-2020) noted that the process of requiring contract staff either to be absorbed by or paid by the government from 2016-17 has been challenging. Highly experienced contract staff appear to be reluctant to convert to regular MOH staff, since salaries of permanent government positions are lower. Further, the MOH seems hesitant to employ non-clinical staff although no policy or legal reason for this could be determined.

For the period form 2018-2020, the Cambodian government has committed to providing $700,000 per year for the payment of contract staff but after 2020 it is unclear whether the government will be able to absorb all contract workers into the government service or whether contract workers providing key services will be willing to join the government service.

In summary, although stakeholders have already implemented several innovations in service delivery and policies to improve the efficiency and effectiveness of the response, it is possible that these efficiencies will not be realized or be maintained in light of declining donor support, or that financing of contract positions will not be continued post-2020, leading to a multitude of risks in the area of service delivery outlined in the matrix below.

	RISK	LIKELY IMPACT	Severity	Probability (2018-2020)	Probability (2021-2025)
1.	In the context of declining external support, failure to develop a common long-term implementation mechanism after 2020, defining the respective roles of the health sector, CSOs in the HIV response, results in confusion and reduced efficiency.	If the roles of partners are not clearly spelled out in the long-term strategy, their involvement and effectiveness could be reduced resulting in a decrease in quality and frequency of services.	2	N/A	2
2.	Government health staff are unable to absorb the workload when AHF externally-funded posts supporting treatment (currently receiving one year of Global Fund support in 2018) are phased out in facilities at the end of 2018	A decline in client access to ART services and reduced quality of care and support.	2	2	1.5
3.	NCHADS is not able to retain key contract staff as the RGC takes over the funding of their posts from the Global Fund, especially after 2020, thus reducing the effectiveness of this key agency in planning, managing, and monitoring the health sector response to HIV	This could weaken management and oversight of the HIV program, resulting in greater inefficiency and a decline in service coverage and quality.	2.5	1	2

	RISK	LIKELY IMPACT	Severity	Probability (2018-2020)	Probability (2021-2025)
4.	Development partner budget cuts and refocusing leads to the elimination of high-level technical posts providing support in areas such as forecasting, quantification, and strategic information, thereby diminishing the speed, coverage, and quality of key supporting services.	Negative impact on laboratory services, guideline development, information systems, and sufficient national financing for the response, leading to non-achievement of 90-90-90 and elimination goals.	3	2	2
5.	Quality control and monitoring systems for service delivery currently supported by the Global Fund are not diligently maintained by NCHADS/MOH as external support (TA and funds) is decreased and as donors withdraw from Cambodia	Quality and efficiency of HIV frontline services declines gradually as the support from external funders for quality control systems diminishes.	2	1	2
6.	Current PEPFAR funded projects to integrate (increase interoperability) and strengthen HIV and health information systems are discontinued as PEPFAR winds down its funding in Cambodia	Integration and interoperability of HIV systems is not achieved, and current systems are not maintained, which negatively impacts the ability of RGC to manage the HIV response and ensure quality and efficiency of HIV-related services.	2	2	2
7.	MOH takes over ARV and other HIV commodity procurement, without first establishing the necessary capacity of the national procurement mechanism, resulting in a shift to less efficient processes and higher costs	If MOH does not use transparent and competitive tendering and loses the support of donor-funded technical experts, Cambodia may pay more for ARV drugs and other HIV commodities, raising costs and potentially reducing the reliability of the supply chain to health centers and hospitals.	2.5	N/A	3

Role of CSO in the Cambodia HIV Response

Civil Society Organizations working on HIV in Cambodia include local and international non-government organizations (NGOs) and community networks. International NGOs have generally played a technical support role in the Cambodian HIV response together with some service provision, while national NGOs and community-based organizations (CBOs) have mainly provided services in the areas of prevention for key populations, and care and support of people living with HIV.

Until recently, about 20 local NGOs provided HIV prevention, testing, and care and support services to key populations and PLHIV. Only one national NGO, Chouuk Sar, provides ART service delivery, running two ART clinics in Phnom Penh and producing excellent results, including 95% of their patients on ARVs and viral load suppression rates of 98.5%.

There are also three networks of key populations, representing Entertainment Workers (SMARTGirl Network), people who use/ inject drugs (CNPUD) and MSM and TG (Bandanh Chaktomuk-BC) and one network of people living with HIV (CPN+) Each network carries out capacity building among its members, collects and communicates the needs and concerns of the community, documents human rights abuses and violations, provides referrals to legal services, and conducts advocacy to create an enabling environment and protect the rights of KPs and PLHIV.

Future Funding of CSOs

Due to funding constraints and the drive for improved efficiencies, the number of national NGOs will be reduced from 19 to 6, who will be almost entirely supported through Global Fund grants. Global Fund support to NGO activities will be reduced by $700,000 over the course of the three year grant when compared to the previous Global Fund grant, and beginning in 2018 PEPFAR will move away from supporting service delivery through NGOs. Chouuk Sar will continue to be funded under the GF grant through 2019 but there will be a substantial cut in the number of staff, and the two clinics will be combined into one. After 2019, the MOH is expected to take over or absorb the functions of the clinic, but the modality for doing so has not been made clear.[13]

While this transition risk assessment did not include a full legal and regulatory review related to government funding of CSOs, no legal or specific policy barriers were found that would prevent the Ministry of Health from funding CSOs. In addition, a mechanism already exists in NCHADS for selection and funding of CSOs (including established financial, project and monitoring reporting systems); and CSOs stated that they are willing to be funded by government for these activities. Further, in conversations with stakeholders from the MEF, they indicated that the RGC would be open to government contracting and paying NGOs, where this is the most efficient solution.[14] Research is needed to help RGC to determine where CSOs can more effectively and efficiently provide these services.

Even though it appears to be possible for the RGC to legally fund CSOs, three main risks remain that could impact the viability of CSOs following the exit of external donors, and in the short-term it is possible that the current Global Fund grant for CSO activities does not result in the desired level of output and achievement of objectives, i.e. additional funds and an increased level of effort are required. These risks are summarized below:

13 As of November 2017, the key population networks and PLHIV organizations were unsure of their future funding, as the CCC had not yet determined which organizations would be funded under the 2018-2020 Global Fund grant.

14 MEF Stakeholder Interview, November 2017

RISK	LIKELY IMPACT	Severity	Probability (2018-2020)	Probability (2021-2025)
8. The new Global Fund grant (started in January 2018) which provides funding for prevention services fails to achieve the required prevention coverage, negatively impacting new case finding and treatment adherence and causing Cambodia not to continue achieving its 90-90-90 targets.	GF funding, which is based on a new and untested model for outreach to KPs and ART patients, turns out to be too low because anticipated efficiencies in prevention services and grant management do not materialise. On-going prevention, case findings, and linkage to treatment activities could be curtailed.	2	1	2
9. Prevention, care and support services for key populations and PLHIV are implemented by the MOH rather than contracting CSOs (with proven track record in implementation) to provide these services; but in practice, MOH prevention, care and support services fail to reach key populations and PLHIV, leading to declines in coverage and quality.	If the MOH decides not to engage in "social contracting" of local CSOs, two things could happen: either KPs will go unreached and ART patient support will decline; or the MOH may decide to implement these services itself. Either way, coverage and quality are likely to be negatively impacted, resulting in failure to achieve and sustain the 90-90-90 targets.	3	1	2.5
10. In an environment of declining donor financial support, CSOs are unable to secure adequate funding to operate effectively, which erodes established capacity for advocacy.	Society's ability to advocate for positive change, to engage in discussions for improved service delivery and promote new causes will be diminished. Ultimately, the success of the HIV response will be affected, potentially reducing access to and quality of services.	2	1	2

Costs and Financing of the HIV Response

Health financing in Cambodia is in transition, primarily as a consequence of generally declining donor contributions to many middle-income countries including Cambodia, and the country's rapid economic development, which gradually reduces its eligibility for aid. GDP per capita was estimated at $ 1 390 in 2017, and economic growth averaged 7.1 percent in 2012-2017.[15] Further, the RGC has successfully expanded domestic revenues, with tax revenues increasing

15 IMF, 2017

more than 5% annually from 2011 to 2016 and currently estimated to be at 15.3% of GDP.[16] However, Cambodia still relies heavily on external donors for health financing.

On average, 20% of funding for health spending comes from the RGC, 20% from external donors and 60% of health spending is from out of pocket private expenditures.[17] The largest disease-specific external contribution is to the HIV response, amounting to $42 million in 2014 and accounting for 83% of the total expenditures for HIV.[18] Although the HIV program is largely externally financed, domestic financing has increased steadily from 3% of total funding in 2009 to 17% in 2015.[19]

Public Financial Management and Budgeting

The Ministry of Economy and Finance (MEF) has facilitated major Public Financial Management (PFM) reforms, referred to as the Public Financial Management Reform Program (PFMRP)[20], since 2004. Of particular relevance in the context of this report is platform 3 which is largely focused on:

(i) Strengthening discipline of public financial management

(ii) Improving the efficiency of budget allocation and enhancing technical spending efficiency, and

(iii) Moving from incremental/input based to output/program based budget (PBB) system.

While considerable progress has been made with the implementation of these reforms, implementation has been slower than anticipated. Budgeting in the health sector remains predominantly incremental and focused on inputs. Nevertheless, the inclusion of the HIV programme in the PPB system is fortuitous and given the considerable capacity and experience for developing output-based budgets together with good performance and research data, the HIV program is well-positioned to exploit any opportunities for mobilizing additional domestic resources through the PBB.

Health financing in Cambodia is highly fragmented at present. Funds are transferred to the MOH from the Treasury Single Account but also directly to the provincial health system. The MOH in turn transfers funds to national centers, national hospitals and regional training institutions. The MEF also transfers funds to provincial governors for spending on health. Further fragmentation arises due to transfers to provincial health departments from the MOH directly or via national centers. Although most development assistance is disbursed and delivered through the public sector[21] the management of external funding tends to be

16 World Bank. Tax Revenue (% of GDP), 2015. https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS.
17 Bureau of Health Economics and Planning, 2015
18 Bureau of Health Economics and Planning, 2016
19 NASA IV. 2015.
20 WHO Regional Office for the Western Pacific. 2017. Strengthening Domestic Financing Institutions for Universal Health Coverage in Cambodia. Situation analysis of health financing policy and implementation.
21 According to the IHME's DAH database, about one-quarter of total development assistance was channelled through NGOs or international NGOs.

separated from public financial management procedures. Decentralization and de-concentration may add to this complexity if not carefully addressed. Given the above, some level of inefficiency, both administratively but also in terms of resource allocation and expenditure management, seems inevitable. There may be an opportunity for Cambodia to consolidate funding flows for health generally and specifically for HIV resulting in a more efficient allocation and use of funds.

Health Equity Fund and Social Health Insurance

Currently a significant portion of health expenditure comprises out of pocket expenditure, and the poor in particular are exposed to the risk of catastrophic health expenditure. In response, the government aims to expand financial risk protection. In the first instance, this takes the form of expanding coverage of the Health Equity Fund (HEF) to additional populations such as the urban poor and children under the age of 5. Secondly, in line with the National Social Protection Policy Framework (2016-2025) (NSPPF), the government is proposing to develop a coherent and financially sustainable social health protection system[22] which includes the establishment of a social health insurance fund for those in formal employment and eventually cover the entire population as part of the movement toward UHC. It will be important for NAA and NCHADS, as well as Cambodia's HIV partners, to remain attuned to these changes in the health financing system, so that they can advocate for the inclusion of HIV testing, counselling, and treatment in the emerging social insurance package.

Projected Costs and Financing

The projected cost of the HIV response shows a decline from $24.2 million in 2018 to $ 17.4 million in 2028, mainly due to a decrease in ARV unit costs and the anticipated reduction in the number of people on treatment, along with fewer new infections expected after 2020.[23] Capacity building and support costs are also expected to fall as further capacity for support functions and management is established within the country.

However, as costs decline, projected financing for HIV also decreases. Projected funding from Global Fund grant for the period 2018-2020 decreases from $ 16.9 million in 2018 to $ 12.5 million in 2020 (as in the Global Fund proposal), and then by 25% over each three-year grant period. In the absence of a definitive long term plan for investment, PEPFAR contributions are assumed to decrease by 20% annually to $0.4 million in 2028 for the purposes of this assessment. In contrast, the RGC has increased its core annual contributions to the response to $ 1.5 million for ARVs and $0.7 million for contract staff for the period 2018-2020. In addition, domestic funding includes providing human resources and infrastructure for health services valued at $ 1.6 million in 2018 but increasing as the health system is required to absorb an increasing workload (e.g. due to withdrawal of AHF support after 2018). Therefore,

22 Strengthening Domestic Financing Institutions for Universal Health Coverage in Cambodia Situation analysis of health financing policy and implementation, Health Policy and Financing Unit, Cambodia - WHO Country Office, WHO Regional Office for the Western Pacific, January 2017

23 UNAIDS. Investment Case, 2017.

in total domestic contributions increase from $3.8 million in 2018 to $7.0 million in 2020 and $ 11.2 million in 2028; these increases after 2020 are proportionate to anticipated growth in government revenues.

The cost projections for the baseline scenario show that a small financing gap will emerge which sums to $2.1 million from 2010 to 2028. This financing gap could conceivably be closed by small increases in contributions from donors or the government, or modest improvements in the costs of drugs or service delivery.

However, there is considerable uncertainty around the projected financing gap. The gap could become smaller if:

- There is a faster than anticipated decline in the unit costs of ARVs. Currently the baseline projection assumes an annual ARV cost of $ 123 in 2018, declining to $ 108 in 2020 and remaining at that level thereafter. Based on discussions with NCHADS a decline in the annual ARV cost to $75 after 2020 is possible and would lead to a savings of $ 10.3 million from 2018 to 2028. This would be more than sufficient to close the anticipated funding gap in the baseline scenario.

In contrast, the financing gap could become larger if:

- There is an accelerated decline in the Global Fund contribution. For example, one scenario would be a faster decrease in GF funding, where funds decline by one-half rather than one-quarter between grant periods. Such an accelerated decline in Global Fund financing would have the largest consequences, resulting in a potential shortfall of $28.1 million over the ten-year period (approximately $4 million per annum after 2020). The RGC would need to significantly increase its domestic contribution, by over 5% annually (in addition to GDP growth), to cover the gap and ensure that essential treatment, care and prevention programs continue and maintain coverage. This could be challenging given the potential for competing priorities, other development programs which are transitioning from external funding (e.g., immunization, malaria), and the demands on fiscal space of an expansion of social protection schemes.
- There is a faster-than-anticipated build-up in the number of people receiving antiretroviral therapy, summing to 5,000 additional patients over the ten-year period, leading to a total funding gap of $5.7 million. This would require that the RGC increase their annual allocation by an additional 1.6% each year (above GDP growth) to offset this funding gap

While the baseline cost and funding scenario (explained further in the report in greater detail) suggests that Cambodia will be able to make the necessary fiscal adjustments, the potential for funding gaps described above combined with competing priorities for domestic funding nevertheless pose three separate and linked risks to the sustainability of the HIV response in Cambodia and are summarized below.

RISK	LIKELY IMPACT	Severity	Probability (2018-2020)	Probability (2021-2025)
11. The Government is unable to mobilize sufficient domestic funding for the HIV response, because of fiscal constraints and (mis) perceptions that the HIV program is "over-funded".	Insufficient funds to improve and sustain quality of prevention, treatment and care and support services in the short run, as well as lack of money for other prevention and KP activities in the longer-run. This would result in failure to deliver HIV-related services and serious backsliding on elimination goals.	3	1.5	2
12. In the event that Global Fund puts Cambodia on a path to full transition by the late-2020s the Government may not be in a position to react fast enough to expand its budget to cover the resulting funding gaps, which could amount to as much as $5 million a year.	In case the two main donors reduce their funding support rapidly, and the RGC does not react quickly to make up the shortfall, the entire HIV response could be seriously disrupted, leading to reversals in new infections and in HIV-related mortality, as prevention and treatment are negatively impacted.	3	1	2
13. A larger than expected funding gap emerges because future financing needs are higher than envisaged (e.g., more patients must be treated, patient monitoring and adherence is more labour-intensive, program management cannot be fully rationalized, etc.).	Even if resource mobilization from RGC and donors is positive, greater than expected funding needs could create a financing crisis for the HIV response, leading to cuts in services and negative HIV outcomes.	3	1	2

Toward the Sustainability Roadmap

While the process of HIV transition in Cambodia appears to be a gradual one that will unfold over the next 5-10 years, the exact pace is hard to predict, and there are no grounds for complacency. It is hard to forecast with precision, for example, how quickly Global Fund and PEPFAR financing will decline. Some of the transition risks mentioned above and detailed throughout the TRA report will begin to be felt in the next few years and need to be tackled

soon. Even if the monetary value associated with some of these risks is modest, failure to respond decisively and effectively to the risks may negatively impact service delivery and begin to erode the significant gains made in recent years. Other risks will likely take longer to materialize but could have larger financial consequences and will be easier to mitigate if actions are taken in the next 1-2 years to address them.

Once consensus among stakeholders is reached on this transition risk assessment, Cambodia should be in a good position to design and agree on the priority actions that need to be taken to mitigate these risks. It is suggested that the TRA analysis and the identification of the priority risks be thoroughly debated by the STWG during the first quarter of 2018, and that a Sustainability Roadmap with concrete steps to mitigate these risks be developed and approved during the second quarter of 2018. Thereafter, a detailed Operational Plan can be designed and implemented.

In this way, Cambodia's widely-recognized HIV program can be sustained, and the country can maintain the achievement of the 90-90-90 targets and its ambitious goal of virtual elimination of HIV by 2025.

1 Introduction

1.1 Transition Readiness Assessment Objective

External financing to Cambodia's HIV response has been declining in recent years and analyses conducted in 2017[24] show that donor support will continue to further decline in the coming years. Cambodia is now a lower middle-income country and economic growth is expected to continue.[25] Although Cambodia is not currently listed by The Global Fund (GF) as a transitioning country,[26] donors have encouraged early preparation for transition, and the Government is increasingly aware of the issues and challenges of transition. The impressive achievements of declining new infections, high coverage of ART, and increasing rates of viral suppression may be at risk unless the Royal Government of Cambodia and other national stakeholders take steps to address the decline in external financing.

Recognizing the increasing need to safeguard the outcomes from Cambodia's HIV program, the Sustainability Technical Working Group (STWG) led by the National AIDS Authority (NAA) and UNAIDS, has requested a Transition Readiness Assessment (TRA) and the development of a Sustainability Roadmap to be carried out in Cambodia. The TRA, presented here, and the forthcoming Sustainability Roadmap, will help align partners in designing and implementing a strategy that leads to the sustainability of the HIV response in the areas of access to and provision of quality services, financing, governance, human rights and the involvement of civil society. The recommendations presented in the Sustainability Roadmap will help to mitigate potential risks and thus protect and further advance the progress Cambodia has made towards the 90-90-90 targets and the eventual elimination of HIV in the country.

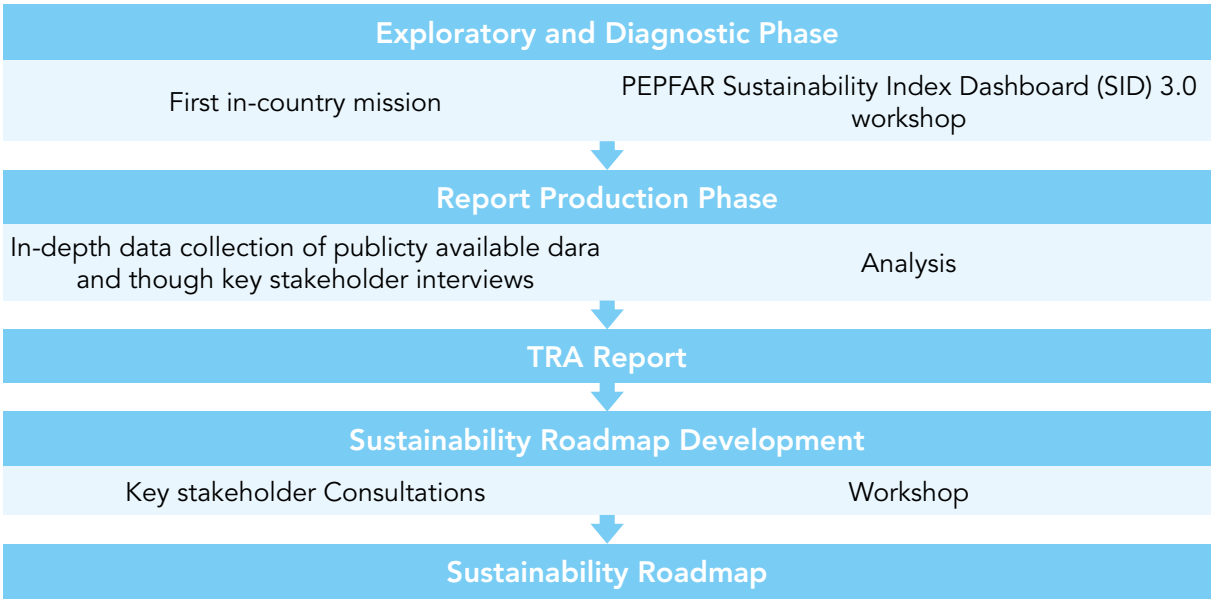
1.2 Methodology

The TRA guidance document formulated by Aceso Global and APMG Health (and recommended by GF)[27] served as a starting point for developing areas of focus and a methodology for the TRA in Cambodia. This report expands on the Aceso/APMG guidance document in several ways. First, the Cambodia report covers funding from the United States President's Emergency Plan for AIDS Relief (PEPFAR) and other external funding sources. Second, it does not touch upon TB or malaria, but instead provides a deeper analysis of the HIV response. Third, it describes and separates transition risks into short and medium-term risks and ranks them using input from stakeholders as well as the team's own judgment. Finally, the Cambodia TRA contains an in-depth look at risks to financial sustainability and builds multiple costing and financing scenarios to examine a range of both the most likely as well as lower probability worst-case outcomes.

24 The Case for Investing in Cambodia's HIV and AIDS Response. April 2017.
25 Data for Cambodia, Lower middle income. 2017. https://data.worldbank.org/?locations=KH-XN
26 The Global Fund. Projected Transitions from Global Fund support by 2025 – projections by component. 2016.
27 TRA Guidance Document, APMG/Aceso 2015

As noted in the GF policy on Co-financing, Transitioning and Sustainability[28], transitioning to a sustainable HIV response funded largely from domestic sources is a long-term process. Sustainability is defined by the Global Fund as "the ability of a health program or country to both maintain and scale up service coverage to a level, in line with epidemiological context, that will provide for continuing control of a public health problem and support efforts for elimination of the three diseases, even after the removal of external funding by the Global Fund and other major external donors."[29],[30] The TRA is an important component in the transition process and underpins and informs subsequent stages of the transition. As shown in Figure 1, the Transition Readiness Assessment was conducted in two phases: 1) the exploratory and diagnostic phase and 2) the in-depth data collection, analysis, and report production phase. The TRA establishes a platform for the third and concluding phase of this assignment which is the development of the Sustainability Roadmap.

Figure 1: Transition Readiness Assessment process



During the first phase of the assessment, a one-week in-country mission was carried out in August 2017 to develop a preliminary understanding of the risks to sustainability. In close partnership with the Sustainability Technical Working Group and with guidance from the UNAIDS Country Office, issues relating to external support, programmatic and epidemiological context, future financing options, the institutional environment, human rights, civil society organisations (CSOs), service delivery and health information systems were examined. These issues were discussed in key stakeholder interviews and small group meetings. As part of the Sustainability Technical Working Group's larger effort to coordinate transition, a meeting was held to launch the TRA work and conduct the PEPFAR Sustainability Index Dashboard (SID) 3.0 workshop where key stakeholders completed the SID tool to assess the current level of sustainability of Cambodia's HIV response. The results from the SID were used to inform the

28 The Global Fund. The Global Fund Sustainability, Transition and Co-financing Policy. 2016. https://www.theglobalfund.org/media/4221/bm35_04-sustainabilitytransitionandcofinancing_policy_en.pdf
29 ibid
30 This report only uses the definition of sustainability in the context of HIV

TRA. From these initial meetings and a preliminary review of the literature, a list of potential risk areas emerged.

In the second phase of the assessment, these risks were further explored through in-depth desk and document review, secondary data collection, analysis, and confirmatory stakeholder interviews during a second mission to Cambodia in November 2017. Semi-structured key stakeholder interviews were conducted with representatives from government ministries and departments, including the National AIDS Authority (NAA), Ministries of Health, Economy and Finance; Planning; The National Centre for HIV/AIDS, Dermatology and STD (NCHADS), development partners, coordinating and implementing NGOs, Joint UN Team on HIV/AIDS members, technical experts and health workers, and CSOs (see Annex 9.1 for a list of key stakeholder meetings). The six modules in the Aceso / APMG guidance document were covered by this TRA with research effort concentrated in those areas where transition vulnerabilities were identified during phase one. The areas of focus thus covered in this TRA include the following:

- Service delivery and support services described in Section 4 below.
- A comprehensive analysis of civil society organizations and their involvement in the HIV response, detailed in Section 5 of this report.
- The projected future resource needs of the HIV response, the availability of external and domestic financing and examination of government's ability to domestically fund the response in coming years. These analyses and the results are described in greater detail in Sections 6 and 7 of this report.

At the end of the second mission, the Sustainability Technical Working Group convened to discuss the initial findings. At this meeting, the STWG was briefed on the progress made, and presented with a preliminary description of the key risks. Meeting participants were asked to score these short and medium-term risks based on their probability of occurring and anticipated severity. After the risks were scored, there was a discussion to validate findings and provide feedback. Results from this scoring and feedback session informed the rating of risks presented in this TRA (original STWG scores are presented in Annex 9.6).

To guide and orient readers of this report, risks are listed in bullet form in a box at the beginning of each relevant TRA section. The risks are fully explained in the body of the relevant section, and the section ends with a compiled risk table that restates the nature of the risk, its potential negative impact if not mitigated, and a ranking of the expected severity and probability of each risk.

As depicted in Figure 1, this TRA report will feed into the next step in the sustainability and transition process, spearheaded by the STWG, which is the development of the Sustainability Roadmap. Following the Sustainability Roadmap, a detailed Sustainability strategy and operational plan will be developed.

2 Country Context and Institutional Environment

Key risks in this area:

1. In the context of declining external support, failure to develop a common long-term implementation mechanism after 2020, defining the respective roles of the health sector, CSOs in the HIV response, results in confusion and reduced efficiency.

2.1 HIV response over the years

The strong support of the Prime Minister and other leaders within the Royal Government of Cambodia (RGC) to the HIV response has greatly contributed to its success. In 1991 the first case of HIV was reported in Cambodia, and by 1995 there were over 23,000 new infections.[31] The RGC worked closely with civil society and welcomed the assistance of NGOs, building a national program that has reduced the number of new infections to less than 1000 in 2018[32] and massively increased the number of people living with HIV who are on anti-retroviral therapy to around 58 ,516.[33]

Over the past two decades, a wide range of multilateral and bilateral donor agencies and international NGOs have supported national HIV efforts while engaging proactively in the broader reconstruction and development of Cambodia through the implementation of numerous economic, infrastructural, and social programs. In particular, the Global Fund and PEPFAR have made significant contributions to the response and these are described more fully in section 6 of this report. Other development partners have made valuable contributions through the provision of technical assistance to key strategic functions.

National NGOs and community-based organisations have also been instrumental in Cambodia's progress over this period. NGOs have led prevention efforts among key populations, provided care and support services for people living with HIV and have worked in collaboration with government partners, international organizations and private health service providers to strengthen the community response. More details on the role of national NGOs in the HIV response and their evolving role can be found in Section 5.

A comment on socio economic status

The total population in Cambodia has increased quite swiftly from 8.97 million in 1990 to a current estimate for 2016 of 15.76 million.[34] The period of relative political stability and improved governance since 1993 has resulted in a better standard of living for most Cambodians. Development indicators reflect a significant improvement in the last 20 years

31 Ending AIDS in Cambodia. December, 2016. https://kh.usembassy.gov/ending-aids-cambodia/
32 Cambodia Fact Sheet 2017, http://aidsinfo.unaids.org/
33 ibid.
34 World Bank Development Indicators for Cambodia, Sep 2017

and current indicator values are comparable to neighboring countries:

- Growth in Gross Domestic Product (GDP) has been 7% per annum since 2010 which makes Cambodia one of the fastest growing economies in the world. Rapid growth has resulted in Cambodia being re-classified as a lower middle-income country by the World Bank in 2015.[35] GDP for 2016 was $20 billion. As a result, the GDP per capita has increased from $ 786 in 2010 to $ 1270 in 2016 (measured in current USD).
- The poverty rate in 2016 was 13.5%, a significant reduction from the 47.8% in 2007[36], lifting 4 million people out of poverty.
- The GINI index measures the degree of inequality of income distribution where 0 constitutes perfect equality. In Cambodia the GINI index has declined from a high of 41.1 in 2007 to a level of 30.76 in 2012, demonstrating an overall reduction in inequality.[37]
- National unemployment estimates reflect total unemployment (% of total labor force) at 18% for 2015.[38]

Although there have been improvements in the socioeconomic status of Cambodians in the past decade, many Cambodians are still vulnerable, with 4.5 million Cambodians (or 28% of the population) at risk of returning to poverty.[39] Any lapse in the ability of the RGC to fund treatment and care for PLHIV would impact this near-poor population to a greater extent than in wealthier countries and it is unlikely that this population would be able to fund ARV drugs, treatment and prevention from out of pocket expenditure. Further, it may be difficult for this vulnerable population to fund costly treatments for chronic diseases as PLHIV age.

2.2 Institutional environment and overview of the health system

The HIV response in Cambodia involves several governmental and non-governmental actors, each of whom maintains a unique role in implementing the response.

2.2.1 Governmental actors

2.2.1.1 National AIDS Authority

In line with the Three Ones principles, the NAA was established as part of the country architecture to be the 'national AIDS coordinating authority with a broad-based multi-sectoral mandate'[40]. The National AIDS Authority (NAA) is an advisory, policy, and multi-sectoral coordination body that reports directly to the Office of the Prime Minister. The NAA has a senior government minister as its chair. In addition to reporting directly to the Royal Government

35 Ministry of Economy and Finance and Asian Development Bank, "Cambodia's Macroeconomic Progress: A Journey of 25 Years" Power Point Presentation, October 5, 2016 accessed at https://www.mef.gov.kh/documents/shares/Macroeconomic_Progress_at_ADB.pdf
36 The World Bank, "The World Bank in Cambodia" accessed at http://www.worldbank.org/en/country/cambodia/overview
37 The World Bank (2017). GINI Index. https://data.worldbank.org/indicator/SI.POV.GINI.
38 International Lending Organization. Unemployment Estimates. 2015.
39 The World Bank (2017), "The World Bank in Cambodia: Overview" accessed at http://www.worldbank.org/en/country/cambodia/overview
40 UNAIDS publication, The Three Ones' key principles

on the HIV response, the NAA prepares the multi-sectoral National Strategic Plan on HIV, guides implementation of HIV related laws, policies and educational programs related to HIV, provides research support, and plays a coordination function between government entities, development partners and civil society organizations. It is also responsible for follow-up and reporting on government global commitments related to HIV response.[41] The NAA has 45 staff members, three of whom are supported by external donors.

2.2.1.2 Ministry of Health

The Ministry of Health is the main ministry responsible for the organization and delivery of public health services in Cambodia. MOH is the lead implementation team for the national HIV response under the latest GF grant that started in January 2018. The Ministry of Health is currently in charge of report compilation and oversight of the Global Fund grants through its national program, the National Centre for HIV/AIDS, Dermatology and STDs (NCHADS).

The public health system (See Annex 9.3 for a figure illustrating the structure) operates through a tiered model with three levels: 1) the Central Ministry; 2) the Provincial level; and 3) the Operational District (OD) level. The Central Ministry is responsible for developing laws, policies, and strategies. It leads research and monitoring and evaluation, along with the mobilization of resources and coordination of donor aid. The Central Ministry manages the national Health Information System and plays a coordination role between different ministries. The Municipal/Provincial Health Departments manage operations at the Provincial Level. Provincial Health Departments (PHDs) are responsible for implementing the Health Strategic Plan. They also serve as a link between the Ministry of Health and the Operational Districts. Operational Districts are managed by the Municipal/Provincial Health Departments and oversee health services delivery.[42]

As seen in Annex 9.3, Cambodia is split into 25 Municipal/Provincial Health Departments (PHDs), which govern 1-10 operational districts (ODs).[43] There are 100 ODs in total,[44] each covering between 100,000-200,000 people.[45] Each OD maintains a number of Health Centers, covering 10,000-20,000 people.[46] Health Posts are rural points of care and cover 2000-3000 people.[47]

As of 2013, 26 ODs and 10 PHDs have been converted to Special Operating Agencies (SOAs). Being designated as a SOA improves autonomy in decision making for local health managers, ensures more flexibility in human resource and financial management decisions, and allows for the SOA to receive technical assistance from NGOs and additional funding through Service Delivery Grants (see Section 4 below for more details).

41 NAA. Roles and Responsibilities. http://www.naaa.gov.kh/sm/28/9/52/. Accessed February 13th, 2018.
42 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2.
43 ibid
44 Global Fund Concept Note, 2017
45 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2.
46 ibid
47 ibid

2.2.1.3 National Centre for HIV/AIDS, Dermatology and STDs

The National Centre for HIV/AIDS, Dermatology and STDs (NCHADS) is a national program under the Ministry of Health that acts as the focal point for the HIV response within the ministry, leading policy, strategies, guidelines and standard operational procedures development, program management, coordination, dissemination of information relevant to prevention and treatment as well as care and support, and evaluation of the HIV portion of the national health sector plan. NCHADS was the Principal Recipient for the Global Fund grant when ended in 2017 and is the main implementer in the current Global Fund grant, ending in 2020.

NCHADS has 10 operational units sitting under three bureaus: The Admin Bureau, the Technical Bureau, and the Finance Bureau (See Annex 9.4 for organizational structure chart). NCHADS currently has 184 staff, 157 of which are contract staff.[48] Each NCHADS unit is led by a government staff member and typically has one to two contract staff to help with Global Fund grant management. The Finance Unit of NCHADS has a large number of contract staff. These contract staff are necessary due to the level of detail and complexity of reporting required by the Global Fund. The IT and Data Management Unit has the largest total number of contract staff, most of whom sit at the provincial health level. These contract staff are typically responsible for recording Active Case Management data. Working in collaboration with CHAI, logistics contract staff assist in supply chain, forecasting and quality assessment. Procurement contract staff work with the Logistics Unit and the procurement agent (UNOPS) and are responsible for procurement under the Global Fund grant. The Lab Management Unit, and the Planning, Monitoring and Reporting Unit also employ contract staff.

In preparation for impending transition and already declining external funding, the Ministry of Health proposed a "Counterpart Fund" be established in 2016.[49] This counterpart fund aimed to reduce the burden on NCHADS and facilitate a transition to domestically funding contract staff positions, which were previously funded by the Global Fund. This has allowed most contract staff to maintain their positions and salaries; however, some contract positions which were considered unnecessary were eliminated. The fund combined Global Fund funding for contract staff with RGC funding during 2017 and disbursed the combined funds directly to the PR.

To receive government funding for its programs, NCHADS must submit a proposal to the Ministry of Health, which in turn submits a broader budget proposal to the Ministry of Economy and Finance. NCHADS has prior experience receiving money in this way, but external donors are still the primary funders of its activities. In the past, NCHADS has not been required to advocate for significant funding through the Ministry of Health budget, as most of their funding has been secured through the Global Fund grant, along with support from the U.S. government. Further, the MEF has been under the impression that NCHADS is well funded through these donors, which it has been in the past. Although NCHADS recently obtained additional domestic funds, it is unclear if NCHADS will be able to successfully secure their

48 Plummer, S. & Kimchoeun, P. (2016). Counterpart Fund Proposal Analysis.
49 ibid

entire required budget through the MOH budget as external sources of funding decline after 2020.

2.2.1.4 Ministry of Economy and Finance

The Ministry of Economy and Finance works to ensure sustainable growth and development by managing the economic and financial affairs of the Royal Government.[50] This includes analyzing and forecasting the future economic situation, properly allocating and distributing government funds to appropriate government institutions, managing the national budget and procurement processes, implementing tax policies, and managing public debt among other responsibilities.[51]

The Ministry of Economy and Finance (MEF) is the new Principal Recipient for the Global Fund grant from 2018 -2020. In this role the MEF will receive and manage the funds for the grant and will ultimately be responsible for its implementation.

The MEF was nominated as the new Principal Recipient for the 2018-2020 grant cycle in order to align Global Fund disbursement mechanisms with that of the national government and to improve national ownership. This is also seen as an opportunity to promote the transition to more domestic financing of the HIV response. NCHADS will still maintain its implementing role within this new structure, as a sub-implementer of the Global Fund grant.[52] The MEF is also responsible for determining what proportion of the national budget is allocated to the NAA and the Ministry of Health (and therefore NCHADS). Current contributions for ARVs and contract staff are being made in response to funding requests which have been received from the MOH but outside of the annual budget formulation processes. The MEF is largely responsible for approving the available co-financing required by the GF grant process.

2.2.1.5 Ministry of Planning

The Ministry of Planning also plays an important role in the HIV response as it is responsible for the ID Poor program. Approximately 18% of the population is covered under the ID Poor system.[53] With an ID Poor Card, patients are entitled to free medical care through government-run health facilities, along with other social services benefits. Although HIV services are free, PLHIV are required to pay for consultation and medication when receiving non-HIV related services, unless they hold an ID Poor Card (see section 6 for an overview of the Health Equity Fund). Following transition, it is possible that not all HIV services will be provided free of charge, depending on government policy. In this event, PLHIV who do not have ID Poor Cards would be required to pay for HIV services.

50 MEF. About the Institution. http://www.mef.gov.kh/about-ministry.html Accessed February 13th, 2018.
51 ibid
52 Global Fund Concept Note, 2017
53 Bureau of Health Economics and Planning, 2015

2.2.2 Country Coordinating Committee (CCC)

The CCC[54] is the main entity responsible for the oversight of the Global Fund grant implementation in Cambodia.[55] Its roles and responsibilities include facilitating the development and submission of GF funding requests, nominating a Principal Recipient for Global Fund grants, selecting sub-recipients, overseeing the implementation of grants, and responding to inquiries from the Global Fund.[56] A fully functioning CCC will remain operational until the end of Global Fund grants.

2.2.3 Institutional environment for transition

Cambodia has established a Sustainability Technical Working Group, under the Government-Donor Joint Technical Working Group on HIV, to oversee the transition from donor support for the HIV response and ensure the sustainability of programs. The TWG is co-chaired by the NAA and UNAIDS. Members of this working group include representatives from the US Government, NCHADS, the Ministry of the Interior, the Ministry of Economy and Finance, the Ministry of Social Affairs, KHANA, and CPN+. As noted earlier, the STWG as part of its transition planning identified the need for this TRA as an important first step in the process.

2.3 Risk summary and impact

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
1	In the context of declining external support, failure to develop a common long-term implementation mechanism after 2020, defining the respective roles of the health sector, CSOs in the HIV response, results in confusion and reduced efficiency.	If the roles of partners are not clearly spelled out in the long-term strategy, their involvement and effectiveness could be reduced resulting in a decrease in quality and frequency of services.	The RGC has an HIV strategy through to 2020. After 2020 it is unclear what the respective roles of different partners (ministries and CSO) in the response are, e.g. currently treatment services are delivered primarily by the health sector, led by NCHADS, prevention and care services delivered by CSO, as well as some advocacy work. With declining donor funding, it is critical that a high degree of implementation efficiency is achieved and maintained. Without clearly defined roles for abovementioned organisations after 2020 operational planning and funding for the implementation of the HIV response will compromised. This 'confusion' may ultimately impact negatively on the quality of prevention, treatment, and care services.	Severity: 2 Probability (2018 - 2020): N/A Probability (2021-2025):2

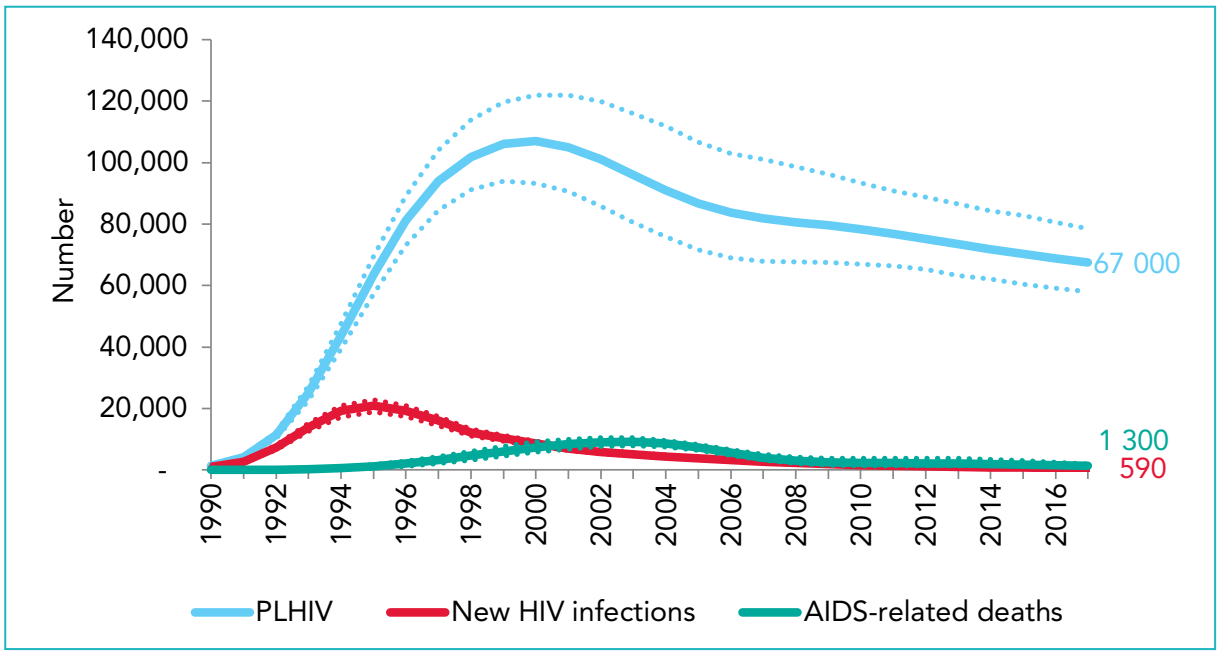
54 Equivalent to the Country Coordinating Mechanism (CCM) in other Global Fund countries
55 CCC. About CCC. http://ccmcambodia.org/. Accessed February 13th, 2018.
56 ibid

3 Summary of Epidemiological Context

3.1 Current status of the epidemic

Although the prevalence of HIV in Cambodia (0.5%) is higher than the regional prevalence (0.2%),[57] Cambodia has made significant progress towards ending the epidemic, as seen through the declining incidence and prevalence rates illustrated in Figure 2. In fact, Cambodia is one of the rare developing countries that has reduced the number of new HIV infections to less than 1000 per year, according to 2018 estimates and projections.[58]

Figure 2: Estimated people living with HIV, new HIV infections and AIDS-related deaths in Cambodia, 1990-2017



Source: Prepared by www.aidsdatahub.org based on UNAIDS. (2018). UNAIDS 2018 HIV Estimates

In 1996 Cambodia reached its peak in number of new infections at over 21,000.[59] As of 2017, there were only 590 new adult infections.[60] The number of people living with HIV in Cambodia is estimated to be 67,000, down from an estimated 110,000 in 1999.[61] The epidemic affects men and women almost equally in Cambodia, with 50% of the estimated 67,000 PLHIV being women.[62] In 2017, the adult incidence was 0.05 per 1000.[63] Approximately 1300 people died

57 AIDSinfo.UNAIDS.org
58 ibid
59 AIDSinfo.unaids,org
60 The Case for Investing in Cambodia's HIV/AIDS Response, April 2017
61 AIDSinfo.UNAIDS.org
62 ibid.
63 AIDSinfo.unaids.org

from AIDS-related deaths in 2017.[64] The table below shows these figures broken down by gender. The adult prevalence varies by province, with the majority of cases concentrated in urban areas. Phnom Penh has the highest prevalence, followed by Battambang and Siem Reap.

As seen in Table 2, HIV disproportionately affects key populations in Cambodia including people who inject drugs (PWID), female entertainment workers (FEW), men who have sex with men (MSM) and transgender people. Most recent data on these populations mainly come from the Integrated Biological and Behavioral Surveillance (IBBS) surveys, which are funded by the Global Fund and now plan to be conducted every three years for each population.

The most recent survey on PWID was conducted in 2017 with analysis underway, however, according to the 2012 survey, among the key population groups, PWID have the highest HIV prevalence at 24.8%. The next highest prevalence is among FEW with more than seven clients per week with a prevalence of 14.8%. Among FEW with fewer than seven clients per week, the prevalence is only an estimated 6.0%. The FEW population size is much larger than PWID, with about 34,000 FEW. The transgender population in Cambodia has a HIV prevalence of about 5.9%, with a population size of just 3100. Among an estimated 31,000 MSM, the prevalence is approximately 2.3%.

Table 1: Incidence, prevalence and mortality

	Total	Male	Female	Year	Source
Total PLHIV	67,000	30,000	34,000	2017	Cambodia, Country Factsheet 2017, AIDSinfo.org
Incidence per 1000 (all ages)	0.04	N/A		2017	Cambodia, Country Factsheet 2017 AIDSinfo.org
Prevalence (Adults, 15-49)	0.5%	0.5%	0.6%	2017	Cambodia, Country Factsheet 2017 AIDSinfo.org
Number of people living with HIV (PLHIV)who know their status	58,338	26,780	31.558	2017	GAM Report, March 2017
Number of AIDS-related deaths	1,300	<1,000	<1,000	2017	Cambodia, Country Factsheet 2017 AIDSinfo.org

64 AIDSinfo.unaids.org

Table 2: Population sizes and prevalence estimates for key populations

	Population Size	Prevalence
Transgender	3,100[65]	5.9%[66]
MSM	31,000[67]	2.3%[68]
FEW (>7 clients per week)	34,000[69]	14.8%[70]
FEW (<7 clients per week)		6.00%[71]
PWID	1,300[72]	24.8%[73]

All prevention programs for key populations are delivered by NGOs in Cambodia. While all government ART sites provide services to key populations, two KP-friendly NGO clinics also provide ART to key populations. Coverage of prevention programs is relatively high among key populations, as seen in Table 3. PWID have the lowest prevention program coverage at just 41.8%. ART coverage is also high among most populations with 83% of HIV positive FEW on ART according to a 2017 study.[74] Condom use is low among the transgender population (61.9%), but at almost 90% for FEW (86.2%). For PWID neither OST nor the use of safe injecting practices are widespread with under 30% coverage for both.

Table 3: Coverage of key and vulnerable populations

	Coverage Of Hiv Prevention Programs	Art Coverage	Condom Use	Opioid Substitution Therapy	Safe Injecting Practices
Transgender	45.0%[75]	94.9% [76]	61.9%[77]	N/A	
MSM	71.6%[78]	N/A	69.4%[79]		
FEW	71.5%[80]	83.0%[82]	86.2%[82]		
PWID	41.8%[83]	N/A	68.8%[84]	22.1%[84]	29.4%[86]

65 UNAIDS Programme Data 2014
66 IBBS 2016
67 Phalkun Mun, et al., 2016
68 IBBS 2015
69 UNAIDS Programme Data 2014
70 IBBS 2016
71 ibid
72 IBBS-PWID 2012; 2017 IBBS-PWID has now been completed but analysis is under discussion
73 GARPR 2013
74 Muth S, Len A, Evans JL, Phou M, Chhit S, Neak Y, Ngak S, Stein ES, Carrico AW, Maher L, Page K. HIV treatment cascade among female entertainment and sex workers in Cambodia: impact of amphetamine use and an HIV prevention program. Addiction science & clinical practice. 2017 Dec;12(1):20.
75 IBBS 2016
76 IBBS 2016
77 ibid
78 IBBS 2015
79 IBBS 2015
80 IBBS 2016
81 Muth S, Len A, Evans JL, Phou M, Chhit S, Neak Y, Ngak S, Stein ES, Carrico AW, Maher L, Page K. HIV treatment cascade among female entertainment and sex workers in Cambodia: impact of amphetamine use and an HIV prevention program. Addiction science & clinical practice. 2017 Dec;12(1):20.
82 IBBS 2016
83 Mith Samlanh. (2017). Friends International Report to NCHADS.
84 IBBS 2012, condom use with casual partners in last 12 months
85 GARPR 2014
86 ibid

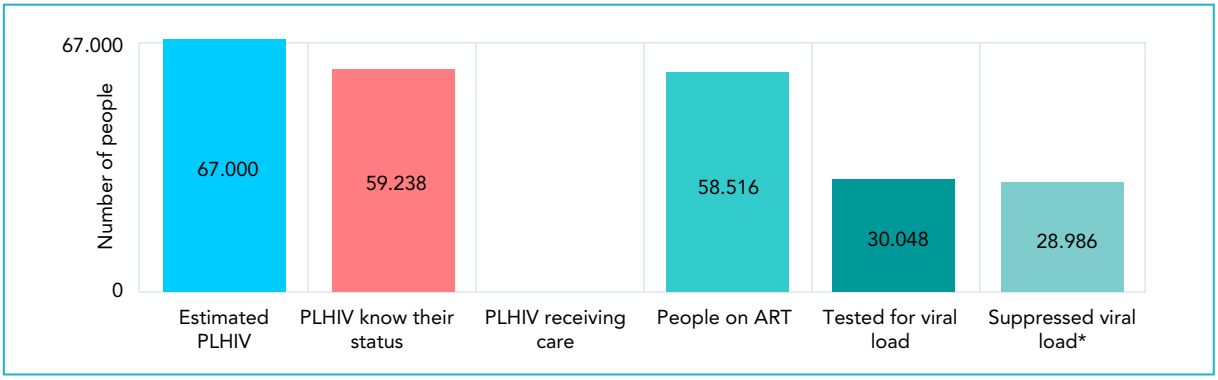
Table 4 provides information on the percent of key populations that have received HIV testing. TG and FEW had the highest HIV testing at 80.4% and 72.3% respectively. Testing was lower among MSM at just 66.6% and extremely low among PWID at 15%.

Table 4: HIV testing indicators

	Number	Year	Source
% of KP that received HIV testing			
MSM	66.6%	2015	IBBS 2015
Entertainment Workers	72.3%	2016	IBBS 2016
PWID	15%	2012	IBBS 2012
Transgender	80.4%	2016	IBBS 2016
% of other vulnerable populations that received HIV testing and know their result			
Pregnant Women	82%	2017	Aidsinfo.unaids.org

Cambodia is one of the seven countries worldwide to reach the 90-90-90 targets in 2017.[87] Approximately eighty-eight percent of all PLHIV know their status in Cambodia.[88] 87% are on ART[89] and an estimated 83% of those on ART have achieved viral suppression.[90] At 12 months since the initiation of ART, 90% of PLHIV were continuing ART in 2017.[91]

Figure 3: Treatment cascade, 2017[92]



*Number of people on ART who received a viral load test in the past

Year and have viral load of <1000 copies/ml

Source: Global ADG Monitoring 2018 and UNADG 2018 Estimates

87 UNAIDS, Global Report 2017
88 AIDSinfo.org
89 ibid
90 ibid
91 AIDSinfo.org
92 https://aidsdatahub.org/sites/default/files/country_review/Cambodia_Country_Card_2018.pdf

3.1.1 New infections and efforts to reach the first 90

Despite Cambodia's progress on the 90-90-90 targets, there are still approximately 8,000 PLHIV who do not know their status and are not in the ART treatment cascade.[93] In order to meet the first 90 target, Cambodia will need to find at least 4,000 of these missing 8,000 PLHIV. Many in the missing 8,000 are not key populations, making it challenging to identify these PLHIV. In 2016, data collected through B-IACM shows that approximately two-thirds of newly diagnosed cases had unidentified risks.[94] Preliminary findings from a PEPFAR supported case profiling project demonstrated that among new cases not identified as key populations, 28% were partners of FEW and 47% were migrants.[95] Cambodia has developed strategies and initiatives using community based approaches to reach those PLHIV who do not know their status, which are described in further detail in Section 4.1.

4 A Review of Health Systems in Transition – HIV Focus

Key risks in this area:

2. Government health staff are unable to absorb the workload when AHF externally-funded posts supporting treatment (currently receiving one year of Global Fund support in 2018) are phased out in facilities at the end of 2018.
3. NCHADS is not able to retain key contract staff as the RGC takes over the funding of their posts from the Global Fund, especially after 2020, thus reducing the effectiveness of this key agency in planning, managing, and monitoring the health sector response to HIV.
4. Development partner budget cuts and refocusing leads to the elimination of high-level technical posts providing support in areas such as forecasting, quantification, and strategic information, thereby diminishing the speed, coverage, and quality of key supporting services.
5. Quality control and monitoring systems for service delivery currently supported by the Global Fund are not diligently maintained by NCHADS/MOH as external support (TA and funds) is decreased and as donors withdraw from Cambodia.
6. Current PEPFAR funded projects to integrate (increase interoperability) and strengthen HIV and health information systems are discontinued as PEPFAR winds down its funding in Cambodia.
7. MOH takes over ARV and other HIV commodity procurement, without first establishing the necessary capacity of the national procurement mechanism, resulting in a shift to less efficient processes and higher costs.

93 NCHADS/UNAIDS estimates, 2017.
94 HSSP HIV, 2016
95 Preliminary Findings of Case Profiling, Flagship Project, KHANA, April 2017

The Global Fund stresses the need for significant investment in Resilient and Sustainable Systems for Health (RSSH) to improve health outcomes. In the recent GF publication Focus on RSSH, attention is drawn to the importance of quality health information, improved procurement and supply chain management (PSM), a capacitated health workforce, the role of community systems, and financial and risk management. Given the critical importance of these components of the health system, it is necessary to examine to what extent these are reliant on external support and as a result vulnerable to a decline or withdrawal of donor assistance. Previous guidance on RSSH also highlights the quality of the service delivery platforms as a key building block in the system. Within the context of the HIV response, the purpose of this section is to examine the service delivery, human resources, PSM and information systems components with the intention of identifying transition risks and vulnerabilities. Community systems are examined in sections 5 and financing of the response is addressed in sections 6 and 7.

4.1 Service delivery

4.1.1 An overview of the ART program

By far the most significant component of the HIV response, in monetary value, is the ART program, which (as described in Section 3 of this report) has been very successful and resulted in Cambodia being on the brink of achieving the three 90s; some challenges remain with the identification of approximately 8,000 PLHIV who still do not know their status (2017 estimate). A comprehensive package of anti-retroviral therapy (ART) services is provided at ART sites. Most referral hospitals have ART sites and there are currently 67[96] treatment sites in 25 provinces. ARV dispensing is carried out through monthly patient visits to HIV out-patient care facilities.[97]

Within the framework of the 1995 Health Coverage Plan[98], services delivered at government facilities are regulated by MOH guidelines that define a Minimum Package of Activities (MPA) for Health Centers and a Complementary Package of Activities (CPA) for Referral Hospitals (MOH, 2006, 2007b). These have been updated to include the provision of the comprehensive package of ART services. Standard operating procedures have been developed and support strong HIV treatment (and prevention) interventions.[99]

At the health facility level, ART services are typically provided in free-standing structures, co-located at hospitals that do not provide other forms of chronic care services and currently utilize a mix of staff. The ART team typically comprises 8-10 people who provide a standard package of services. In some cases, these sites are staffed by dedicated ART staff, typically funded by donors, while other sites are staffed by general hospital staff who rotate to provide ART services. At most sites, both government and contracted staff provide services. Importantly, many ART staff received incentives until 2015 through GFATM grants, but these incentives

96 There were 67 ART sites during the preparation of the GF funding request. 69 sites scheduled by 2019, NCHADS Report 2017.
97 Discussion Paper: A Blueprint for the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) to Assist Cambodia in Achieving and Sustaining Epidemic Control through 2025, 2015
98 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2., section 4.1.1, box 4.1
99 HSSP-HIV III, 2016

have now ceased. From a practical management perspective, senior management teams at public sector hospital are involved and participate in the oversight and coordination of ART services at most sites. Having said that there may be opportunities for further integration of planning and budgeting functions for the ART program, at lower levels of the health system. Program Managers at NCHADS were cautious and stressed the need to ensure that further integration did not compromise the quality of and access to services.

HIV Voluntary Confidential Counselling and Testing (VCCT) is an integral component of the ART program and the B-IACM strategy.[100] Introduced in the mid-1990s, VCCT has been critical in reducing HIV incidence and facilitating the early provision of treatment and care. Sixty-Eight Voluntary Confidential Counselling and Testing (VCCT) clinics are largely co-located with ART sites but VCCT services are also available at over 1000 health facilities and trained community lay counsellors/outreach workers provide services to KP.[101] Voluntary testing services are integrated with government service provision at most sites.

A number of policy and programmatic steps were taken over the last year to intensify HIV case detection and enroll those people living with HIV (PLHIV) not currently receiving ART services and follow them along the treatment cascade. Many of these changes were introduced to improve the efficiency and effectiveness of treatment service delivery and to address quality-related issues. The decline in external resources has been a key driver to 'deliver more with less. The most important of these steps are detailed in the figure below.

Figure 4: Changes in service provision and enrolment of PLHIV not on ART

Test and Treat All Policy: The Test and Treat All policy was implemented in late Nov 2016 and has increased ART coverage. Currently there are 58 516 patients on treatment of which 3 408 are paediatric patients (Adults: Male 25 122, Female 29 986. The programme also aims to place Adolescent Assistants at 35 ART sites to facilitate and assist paediatric clients to transition into the adult treatment programme.

Community Action Model: In order to improve efficiencies in service delivery to stable patients, the current model of ART is being differentiated through the Community Action model using CSO affiliates (peer PLHIV) stationed at ART sites, to ensure enrolment and boost adherence. For stable clients, multi-month drug-dispensing will also be introduced. (See description of the community action framework below in section 4.1.1).

Improved Outreach Worker Model: The outreach worker model for key populations has also changed significantly resulting in a reduction in the number of outreach workers but improved remuneration and increased workloads in terms of outreach targets.

Boosted Integrated Active Case Management initiative (B-IACM): B-IACM will be expanded from 12 provinces in 2017 to the remaining 13 provinces by the end of 2020.

100 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2., section 5.1.7

101 Royal Kingdom of Cambodia, Global Fund funding request, 2018-2020, 23 May 2017

Results from the initial four provinces where this initiative was implemented have shown that it is an effective and cost-efficient strategy for improving access to and retaining clients on HIV-related services. At facility level, Case Management Coordinators (CMC) and Case Management Assistants (CMA) will be responsible for the implementation of the B-IACM

Payment for results (P4R): P4R has been introduced to provide results-based payments to provincial health departments (PHD) to more effectively implement B-IACM. Payments will be allocated based on three outcomes, including increased HIV case finding amongst KP and targeted general populations, improved retention and adherence and improved viral load suppression. P4R has been implemented in 14 provinces, 13 PRHs, and 34ODs. The GF funding proposal includes $500,000 for this intervention in 2018. Training for the second phase is expected to begin in June 2018.

Finding the remaining 10,000: A key focus of the programme in the next three years is to identify and find the remaining 10,000 PLHIV who do not know their status and have not been enrolled. The P4R mechanism described above and the community action framework approach are key strategies to boost case finding, as well as improved strategies for index tracing and provider initiated testing and counselling. The new IRIR (identify, reach, intensify and retain) strategy for key populations to bolster B-IACM also aims to accelerate case finding (according to COP17).

There is currently no engagement with the for-profit private sector to provide ART and related services. Regulations for registration,[102] accreditation and licensing of health professionals are incomplete, which prevents a large scale engagement with the private sector for the delivery of quality HIV-related services. NCHADS currently works with four not-for-profit sites to provide ART and other HIV-related services. The two Chouuk Sor clinics and the Sihanouk Hospital Centre of Hope are providing services to PLHIV and key populations. At these sites staff were previously paid by PEPFAR and other external sources and ARV drugs were supplied by the MOH but funded by the GF grant. Current practice prevents the MOH from distributing drugs for opportunistic infections to these NGO sites and it is unclear whether the MOH will make ARVs available to these sites once the drugs are purchased with government funds. However, PEPFAR support to service delivery ended in March 2018. These NGO-managed ART clinics were included in the GF funding request for 2018 only, after which funds will have to be secured from the government or other sources. This may imply integration into government health services. The best option for these centers remains unclear. (See section 5 below for a more detailed discussion of NGO service provision).

102 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2.

4.1.2 Contract staff at ART sites

At the sub-national level there are challenges in securing a sufficient number of qualified staff to deliver HIV-related services. As external funding declines, ART sites will need to rely more heavily on hospital and clinic staff for HIV service delivery. Based on discussions with NCHADS, most government staff perceive the work in ART clinics as additional work and expect supplementary payment for the delivery of these services; this expectation may be a carry-over from the payment of incentives which were paid until 2015. Despite updating the CPA for HIV-related services, many staff still see the HIV program as a separate program and even where there are enough staff numbers, the motivation to provide ART and other HIV-related services is reduced. To some extent this may be aggravated by the fact that some patients, who would otherwise qualify for benefits under the Health Equity Fund (see Section 7 for further details) are not yet classified as ID poor and receive ART-related services at no cost.[103] This means that the facility does not get paid for their consultation and service provision.

Historically, a significant number of contract staff have supported the provision of ART services at ART centers, which facilitated the rapid scale-up of the ART program. NCHADS funds some clinical staff, but they are not based at facilities. The AIDS Healthcare Foundation (AHF), using funds received from the Global Fund grant and from other sources, deploys 3-4 staff members at most of the 34 supported government ART centers including physicians, counsellors and data capture clerks. One of the key objectives was to develop the capacity of government health staff. The current Global Fund grant includes transitionary funding of $385,000 to cover the costs of AHF for one year only (2018).[104] AHF together with NCHADS has initiated the process of developing a transition plan to handover service provision in most of the facilities to public sector staff by 2019.[105] It will continue to support a limited number of facilities with its own funding, planning for an ultimate but gradual phase-out of support.

There is a general concern amongst stakeholders interviewed that the quality of ART services at these sites may be impacted if this transition is not carefully managed which may require additional government staff and resources at certain sites. As an example, at the Siem Riep ART Centre, which has a cohort of approximately 3000 ART patients, only one government doctor currently participates in the ART program and would need additional support to run the ART clinic if the AHF-sponsored staff exit the facility in January 2019.

4.1.3 PMTCT

Cambodia is committed to eliminating mother to child transmission (e-MTCT) of HIV and congenital syphilis. The implementation of a comprehensive sexual and reproductive health (SRH) service package, which includes HIV care and treatment for all pregnant women who are

103 The current policy is that if there is another source of funding for the service, then HEF will not reimburse facilities for the services. However, where services are provided by government staff these costs are usually not covered. There is confusion about what it means for these services to be "free" and hospitals are not charging the HEF consistently even when patients have ID poor cards.
104 Global Fund Funding Request. 2018-2020.
105 Key Informant Interviews. NCHADS. April, 2018.

HIV positive, has resulted in a significant reduction of transmission of HIV from mothers to infants and a significant scale up of PMTCT services in Cambodia. The Boosted-Linked Response (B-LR) strategy builds on the widespread access to and success of the ART program for adults and children, and aims to virtually eliminate paediatric HIV and drastically decrease mortality for HIV positive children. The main objective of BLR is to increase testing and treatment coverage for pregnant women and to improve testing and treatment services for HIV exposed infants. In addition, PMTCT information systems are being strengthened to improve the quality of data to guide national efforts and attain global elimination standards.

4.1.4 Overview of the Community Action Framework

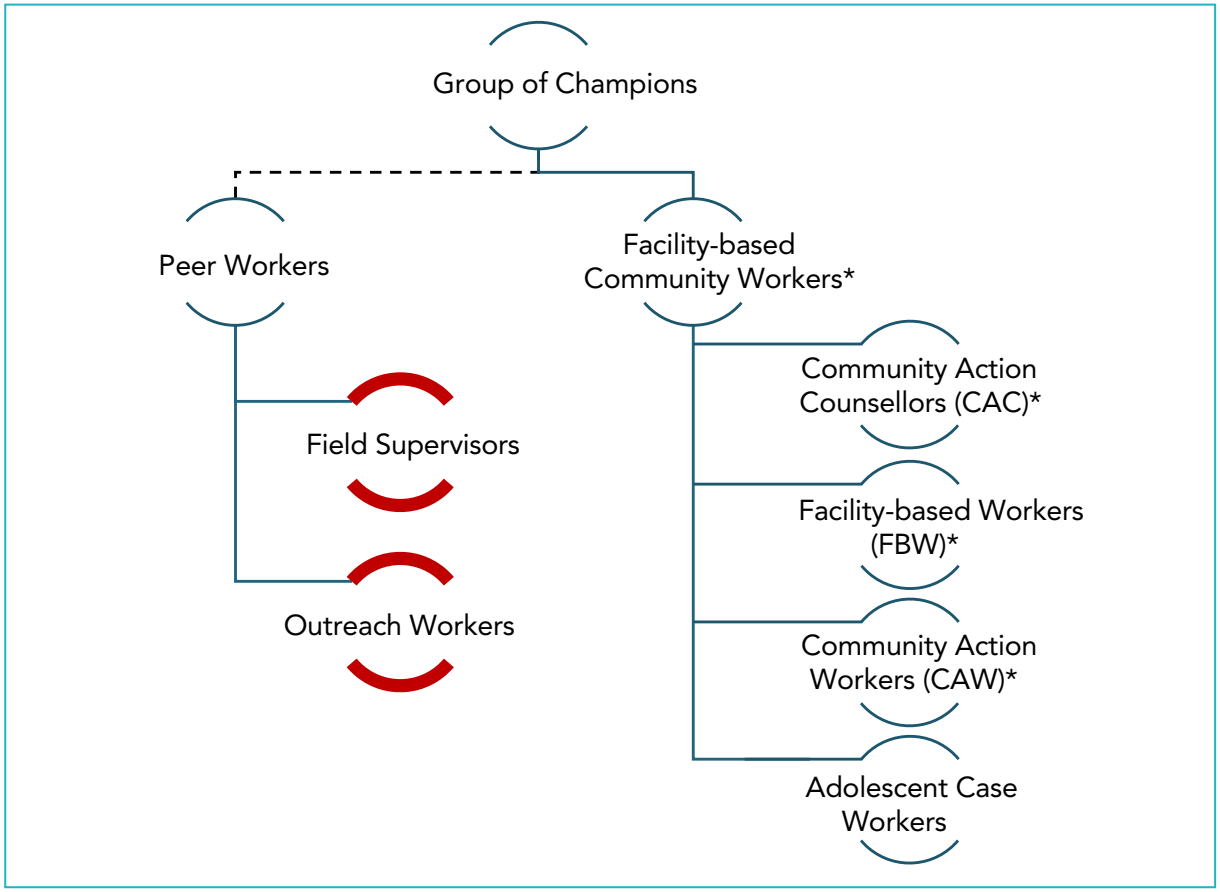
In Cambodia, community participation is integral to the delivery of health services, particularly for the HIV response. The National Program for Sub-National Democratic Development (NP-SNDD) was adopted in 2010 to improve governance functions and facilitated the establishment of Village Health Support Groups and Health Centre Management Committees. The HIV response has relied heavily on community support volunteers to provide home based care services and outreach work as part of the Community-based Prevention Care and Support approach. This approach aims to shift direct service delivery from the implementing partner NGOs to community support volunteers (PLHIV and self-help groups) and to develop a more self-reliant community.[106]

In 2013, there were 283[107] home-based care teams covering over 784 Health Centers in 64 operational districts in 20 provinces. Home-based care teams have now been replaced by facility-based workers as described in the section below. A large number of part-time outreach workers provided prevention services to KPs and received stipends which were funded through the GF grant and PEPFAR that ended in 2017. The 2018-2020 Global Fund grant provides funding for a smaller number of OW although now deployed on a full-time basis (detailed description below).

The use of community support volunteers has been the subject of ongoing review. The final evaluation of the USAID funded project (SAHACOM) recommended that a more effective way to provide support services would be to embed PLHIV Peer Supporters at ART clinics. In light of this recommendation and program implementation experience, the Community Action Framework was developed, which significantly changes how the community peer supporters and Outreach Workers (OW) are deployed (See Figure 5). The funding request for the current GF funding cycle (2018-2020) will cover the Framework in an effort to find a more cost-effective solution in support of home-based care, B-IACM and prevention, using a reduced allocation from the GF.

106 Kingdom of Cambodia Global Fund funding request, May 2017
107 Discussion Paper: A Blueprint for the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) to Assist Cambodia in Achieving and Sustaining Epidemic Control through 2025, 2015

Figure 5: Community Action Framework personnel



Legend:

Red circle= Key population (MSM, FEW or PWID)

*= PLHIV and based at ART clinics and other facilities

Note: The Group of Champions (GOC) provides a coordination and support function with currently a greater emphasis on treatment and care but this is expected to expand to social, policing and other issues affecting PLHIV

The Community Action Framework[108] includes facility-based community workers and outreach workers (OW) who report to the Group of Champions. Peer Outreach Workers will be employed by NGOs and provide prevention services to specific key populations such as entertainment workers, MSM, Transgender people and people who inject drug. These Outreach Workers are mostly peers and are trusted within these communities.

Facility-based community workers are a different type of personnel covered under the framework and are PLHIV peers. These facility-based community workers will ease government health worker caseloads by providing counselling and support to the newly diagnosed, monitoring patients to encourage good adherence, and providing limited outreach and follow-up services to both ART clients in greatest need and the partners or family members of newly identified PLHIV who need HIV testing services. These facility-based community workers provide prevention, care and support services to the general population (which may include

108 Ministry of Health, NCHADS, Consolidated operational framework on Community Action Approach to implement B-IACM Towards achieving 90-90-90 in Cambodia, June 2017

KPs). The framework provides for four types of facility-based community workers implementing services at ART sites:

- One or two **Community Action Counsellors** (CAC) will work at facilities to provide support to patients through individual or group educational counselling sessions on a range of HIV and treatment related topics, including adherence counselling.
- One **Facility-Based Worker** (FBW) will help with the everyday functioning of the ART site. These two cadres will be deployed at all ART sites under the current proposal in order to continue and maintain the quality of service delivery for PLHIV at ART sites.
- **Community Action Workers (CAW)** will implement the revised CBPCS initially in 37 selected sites. CAW will deliver CBPCS for Other Targeted Populations in the catchment area of the ART facilities. Community Action workers will link with the Village Health Support Group, which will soon have an HIV focal person, to help with case finding and monitoring of existing ART patients.
- **Adolescent Case Workers (ACW)** will be based at the majority of pediatric ART sites to support adolescent PLHIV, consistent with the HIV Clinical Guidelines for Adults and Adolescents (Aug 2016).[109]

The current GF HIV grant provides for 273 facility based support workers, all employed by NGOs for a period of three years. They will be deployed on a full-time basis, unlike the part-time workers under the old model, but will also have to meet more demanding targets. The provision and funding of these critical support services beyond 2020 is uncertain. It is also unclear whether the new community-based program is sufficiently resourced to maintain and build on the considerable gains made in Cambodia to reach elimination by 2025.

As mentioned above, the Community Action Framework also makes provision for the deployment of peer outreach workers, who will implement the Boosted Continuum of Prevention, Care, and Treatment (B-CoPCT) aimed at key populations. Implementing NGO partners, working with KPs, will implement activities in line with the relevant Standard Operating Procedure (SOP). NGO peer workers include Outreach Workers (OW) and Field Supervisors. In order to implement this approach, this cadre of community workers will need to be trained to provide prevention services including finger-prick HTC at places where KPs gather. OW will report to NGO Field Supervisors. A significant difference from previous community outreach models is that these OWs will be employed full-time with increased remuneration, with higher case-loads, but reduced frequency of outreach.

Prevention work will be managed at OD level and a Group of Champions (GOC), comprising stakeholders mainly from the district, will oversee the B-IACM interventions. Close cooperation between NGO Field Supervisors and Case Management staff (Coordinators and Assistants) at facilities is critical to ensure the success of the various strategies and case finding methods. The 2018-2020 Global Fund grant provides for 256 OWs, including Field Supervisors, who will

109 Expression of Interest, sub-sub implementer – HIV/AIDS grant implementation January 2018 to December 2020

receive approximately USD160 each per month. Therefore, there is reasonable certainty that prevention activities and case finding will continue in KP target communities, but the future of this important cadre after 2020 is unclear. It is also uncertain whether the implementation of the Community Action Framework will result in the realization of anticipated efficiencies and improved effectiveness.

4.1.5 Laboratory services

Laboratory services have played an important role in the scale-up of the ART program and in reaching for the three 90s. In a test and treat environment, the focus of laboratory services has shifted from determining eligibility for treatment to monitoring patients' response to treatment. Cambodia[110] has 21 CD4-count machines in 19 laboratories and three HIV viral load and EID (DNA PCR tests) machines, two in Phnom Penh and one in Siem Reap. Each Referral Hospital has on-site laboratory services for biochemistry and hematologic analysis (HSSP-HIV).

In line with WHO guidelines (2015), the revised Cambodian HIV clinical guidelines recommend a reduction in the frequency of CD4 monitoring from every 6 months to no routine monitoring once off OI prophylaxis. However, routine viral load monitoring will be scaled-up for all patients on treatment from optional monitoring to essential monitoring every 12 months.[111],[112] The HSSP-HIV includes numerous strategies to improve laboratory services related to sample transportation and result turn-around times Importantly, the NCHADS Laboratory Unit is working closely with the Data Management Unit (DMU) to introduce a barcode system and move from paper to electronic data systems to link patient monitoring and laboratory reports. In addition, NCHADS is introducing cloud-based remote printers to ensure real-time use of viral load test results for patient management. These transitions aim to reduce data entry errors, improve data reliability, and decrease turnaround time for results. According to the 2017 SID, regulations exist to monitor the quality of laboratories and point of care testing sites in the country, but these are not implemented at all sites.

Importantly for the assessment of transition readiness, the PEPFAR SID (2016) (quoting the NHA 2014 and Global Fund 2015 data) indicates that 98% of all laboratory expenditures were externally funded, raising concerns regarding the sustainability of HIV laboratory services in the event of a scale back or withdrawal from Cambodia by external funders including PEPFAR. Although some senior contract staff remain, reliance on external funders to support senior technical staff in the laboratory has declined, with the recent employment of 7 laboratory staff members by the MOH. Currently the CDC provides support to the laboratory system and funds the salaries of 2 Laboratory Technicians, to help scale-up use of the SR viral load machine to other provinces. In COP17, CDC will increasingly focus on strengthening staff capacity at the national and provincial levels. The COP 17 activity plan states they will "Support the national referral laboratories to develop robust laboratory quality management systems and

110 HSSP – HIV, 2016-2020

111 NCHADS. National HIV Clinical Guidelines for Adults and Adolescents, 2015. http://www.nchads.org/cgi-sys/suspendedpage.cgi

112 Kingdom of Cambodia, MoH. National Guidelines for the use of Antiretroviral Therapy in Adults and Adolescents, 2007. http://www.who.int/hiv/pub/guidelines/cambodia_art.pdf

finalize attainment of ISO accreditation to support accurate HIV diagnostics for sustained elimination" and include "Technical staff to strengthen national/provincial laboratory capacity and case finding."

4.1.6 Quality control

At the national level the quality improvement of health services is guided by the National Policy for Quality in Health (2005) and the Master Plan for Quality Improvement in Health (2010–2015). The policy requires the establishment of an accreditation system for health providers. The Minimum Package of Activities (MPA) and the Complementary Package of Activities (CPA) establish standards for service providers. The policy also provides for the creation of a semi-autonomous accreditation agency under the MOH and a Quality Assurance Office has been established within the MOH Hospital Department. Referral Hospitals and Health Centers should undergo annual assessments in line with the MPA and CPA. The HSP III[113] notes that although improvements have been achieved in structural and technical quality and the supportive environment has improved, "there remains a crucial need for continuous quality improvement" (CQI) in a systematic way. Many other interventions have been implemented that aim at enhancing the quality of health services by improving health systems functions (such as procurement and supply chain, mobile health information systems). However, the WHO Health Systems in Transition report and national planning documents both note that quality of care in the public and private sectors remains low,[114] demonstrating the need for scaling up CQI interventions. Other relevant interventions aimed at improving quality include the Health Equity and Quality Improvement Programme (described in Section 4.1.6.1) and the Payment for Results initiative (described in Figure 4 above).

NCHADS[115] has lead responsibility for recommending and implementing policies, strategies and Standard Operating Procedures (SOPs) to ensure quality for the health sector response to HIV and STI in Cambodia. Many of the new innovations and re-designed service delivery modalities, as described in the latest versions of the HSSP-HIV and provided for in the GF funding request and COP17, are aimed at improving the quality of ART and prevention services. The 2017 PEPFAR SID score for quality management was an impressive 9, which implies that the components of a sound quality management (QM) function are in place:

- National and sub-national structures are in place to implement quality management procedures and systems.
- There is a current national QM plan which includes HIV program-specific elements (or is dedicated to HIV)
- HIV program performance measurement data is systematically collected and analyzed to identify areas of patient care and services that can be improved
- The government builds capacity amongst the health workforce for QM by integrating quality management in the national in-service training (IST) curricula

113 Health Strategic Plan 2016-2020, Department of Planning and Health Information, May 2016 (HSP3)
114 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2.
115 HSSP – HV,2016-2020, section 10.7

At practical implementation level, numerous quality-related building blocks have been put into place. These include implementation of WHO guidelines for ART and the improvement of operational control and supervision through the ongoing development of numerous SOPs (updated ART guidelines for Adults, PMTCT and paediatrics, HTC guidelines, and Continuous Quality Improvement (CQI)). As noted in the PEPFAR SID, key indicators for the various programs are reported on a quarterly basis. Facilities are also selected and surveyed from time to time, although key informant interviews (WHO/UNAIDS) indicated that additional resources are required to scale up supervision and monitoring at health facilities. The implementation of performance-based service delivery grants at some facilities (described below in more detail) seeks to address this and other quality related concerns.

From a transition perspective the question that arises is whether quality improvement gains are under threat if external funding is reduced or terminated. One area which was targeted specifically as a key strategy in the HSSP-HIV (7.2.1) was the establishment of a quality assurance system in the NCHADS laboratory network. Section 4.1.5 above (Laboratory Services) describes how this critical function is being supported by technical experts and assistance funded largely by PEPFAR. Other key elements of the QM mechanism that are supported by external funding include the TA support that CHAI provides in the quantification, forecasting and procurement of ARVs, related pharmaceuticals and medical products; the training of health workers, funded through the GF grant; and TA support to maintain, update and link health information systems and databases, funded mainly by PEPFAR. In addition, routine implementation of CQI has not yet been scaled up nationally which may pose a threat to gains already made. Scaling up CQI is likely to require some external support.

With respect to program management (which includes QM) and training, the 2018-20 GF final budget includes:

- Supervision visits of NCHADS technical units to monitor the HIV program implementation at provincial and operational district levels ($194,130 from 2018-2020)
- Site supervision costs, technical support and other QM activities in support of various programme activities (approximately $485,710 from 2018-2020)
- Training and related costs for managers and health workers ($725,477 from 2018-2020)

These amounts, along with the human resource costs for supervision and QM activities, account for a significant portion of the total Global Fund grant value, and fund important QM activities. Given that contract workers at facilities (mainly AHF) are likely to withdraw from health facilities in 2019, supervisory and monitoring visits will become even more important to ensure service quality. Beyond 2020, funding for these activities is unclear.

4.1.6.1 Special operating agencies and service delivery grants

In an innovative move to improve utilization of underutilized health facilities and quality of care, in 2009 the MOH established special operating agencies (SOAs), either based in a provincial referral hospital (RH) or in an operational district (OD). SOAs give referral hospitals and ODs a greater degree of autonomy in making optimal use of their human and financial

resources to deliver services. SOA staff collectively and individually sign contracts which set annual performance targets. The achievement of these targets triggers payments, known as Service Delivery Grants (SDGs). Achievement of these targets is monitored by the Service Delivery Monitoring Group within the MOH. Targets are revised annually to drive improvements in service delivery.

These supply-side incentives have allowed more staff to be employed and have reduced stock-outs of important drugs and supplies. They have also given facilities extra funds to provide staff with bonus payments where targets have been achieved or surpassed. Initially financed almost entirely by development partners from the HSSP2 pooled funds, the government funded 40% of SDGs in 2013.[116]

In the current phase of the project (which began in 2016), referred to as Component 1[117] of the Health Equity and Quality Improvement Project (H-EQIP), the payment mechanism has been redesigned to be more closely linked to performance in the delivery of basic and comprehensive packages of services. The Service Delivery Grants focus on improving quality of care at all levels of the health system, and the project also makes discretionary funds available for health facilities. As described above, these packages of services are detailed in the Minimum Package of Activities (MPA) and Complementary Package of Activities (CPA) which now include HIV related services and a revised set of performance-linked indicators has been developed. Grants include a lump sum grant and a performance-based grant. Grants are also being made available to ODs and Provincial Health Departments to improve management and supervision. The RGC is funding 73% of the fixed and performance-based grants, which in total amount to $74 million.[118] This project therefore makes a valuable indirect contribution to the HIV response by improving health service delivery including HIV and other support functions such as the implementation of infection control measures and availability of supplies.

Based on past experience, the expansion of SDGs to other underperforming ODs and health facilities can make a significant contribution to improving the quality of HIV related services. If HIV service related indicators are also incorporated in the performance score card, this could encourage facilities to embrace HIV-related services previously viewed as 'separate' and not part of the MPA/CPA.

4.2 Human resources

The Health Strategic Plan 3[119] provides a summary of total human resources for health. Between 2008 and 2015, the size of the public sector health workforce increased from 18,096 to 20,954. Most of the existing health work force consists of nurses (46%) and midwives or midwife associates (24%).[120] Doctors make up approximately 12% of the health workforce,

116 World Bank, Project Appraisal Document, Report No: PAD1647, April 2016
117 Component 1 is described as Strengthening Health Service Delivery and includes the SDGs
118 World Bank, Project Appraisal Document, Report No: PAD1647, April 2016
119 Health Strategic Plan 2016-2020, Department of Planning and Health Information, May 2016 (HSP3)
120 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2., Table 4.6.

with a greater number of general practitioners than specialists (11% and 1%, respectively). This increase in public human resources for health has been accompanied by a rapidly growing private sector which now has more than 8,800 licensed providers who deliver a significant proportion of health services, mainly ambulatory care.

The Health Strategic Plan states that to fully staff the health system according to recommended staffing level included in the Health Coverage Plan (1995), there is a need to expand the total public health workforce to 36,000 by 2020, an increase of 70% from the 2014 level. Strategic recruiting of health care workers aims to minimize this shortfall and improve the quality and skills mix of the health workforce. Within the MOH, the Director-General for Health, the directors of the Personnel Department, and the General Directorate for Administration and Finance are responsible for personnel management, including recruitment, deployment and distribution, salaries, and career pathways. Ultimately, the Council of Administrative Reform, the Ministry of Economy and Finance, Ministry of Civil Services and the Office of Public Function (which serves as the civil service secretariat) are regulators of the number of civil servants and their employment conditions.

In discussions with NCHADS, the Director indicated that many vacancies in the health sector had not been filled. If this is the case, the total pool of available and qualified health staff willing to enter the public service may be a constraint. A further constraint is that government salaries are relatively low and up to two thirds of government health employees are active in the private sector, referred to as dual service provision.[121]

The Global Fund funding request (2018-2020) noted that the process of requiring contract staff either to be absorbed by or paid by the government from 2016-17 has been challenging. Highly experienced contract staff appear to be reluctant to convert to regular MOH staff, since salaries of permanent government positions are lower (this seems to affect senior contract workers in particular). Further complicating the process of absorbing contract staff into the government service, it seems that the MOH is reluctant to employ non-clinical staff on a contract or regular basis. The precise reason for this is not clear but there is no policy or legal reason why the MOH cannot employ non-clinical staff. It may be that clinical positions are easier to advocate for and are perceived as more important than non-clinical posts. According to MOH officials, the Ministry receives an approved (staffing) quota from the Ministry of Civil Service, which can provide for both clinical and non-clinical staff. The most important barrier is that salary levels, especially for senior positions, are very low.

In preparation for impending transition and already declining external funding, the MOH proposed the establishment of a "Counterpart Fund" in 2016.[122] This counterpart fund aimed to reduce the burden on NCHADS and facilitate a transition to domestically funding contract staff positions, which were previously funded by the Global Fund. This has allowed most

121 Asia Pacific Observatory on Health Systems and Policies (2015). The Kingdom of Cambodia Health System Review in Health Systems in Transition. 5:2. (S4.2.2), quotes a World Bank study (2013) which indicates that "the exact number of public health staff in dual practice is unknown, but has been estimated at two thirds of the total workforce"

122 ibid

contract staff to maintain their positions and salaries, however, some contract positions which were considered unnecessary were eliminated. At the start of 2017, 60 of the contract positions within NCHADS were funded through the counterpart fund and 60 were removed from NCHADS as they were deemed unnecessary. From 2018, 97 additional contract staff are being financed from domestic funds while 25 more contract positions were removed. The estimated cost of HIV contract staff at NCHADS in 2018 is approximately $840,000. For the next three years government has committed $700,000 per annum for the payment of contract staff (those employed by NCHADS) as part of its GF grant co-financing agreement. What remains uncertain is the future of contract staff after 2020, and whether the government will be able to absorb contract workers into the government service.

4.3 Health products procurement and supply chain management

The Health Strategic Plan 3 emphasizes the need for affordable access to "quality-assured medicines and health technologies" for functioning health systems and to secure improved health outcomes. Capacitated human resources, sustainable financing, and a reliable supply system are named as key components to ensure uninterrupted availability of and accessibility to essential medicines.

The Central Medical Store (CMS) within the MOH is responsible for the procurement, storage and distribution of essential medicines and certain health products to all public health facilities. Essential medicines are defined by the MPA and CPA drug list and include drugs for vertical programs including HIV and Tuberculosis. The MOH controls and monitors the quality of pharmaceuticals. Medicines are distributed on a quarterly schedule by CMS to public health facilities. An exception to the above is that the procurement of medicines for certain vertical programs is undertaken by an agent; in the case of ARVs UNICEF was the appointed agent until the end of 2017. UNOPS has now been contracted to provide Procurement Agent services.

At public facilities, qualified pharmacists and assistant pharmacists work under the direction of hospital or health center directors to manage pharmacy stock levels and re-ordering.

The significant scaling up of the ART program since 2005 and the shift to Test and Treat has required considerable capacity to manage the procurement, warehousing and distribution of ARVs and related drugs to treat opportunistic infections. To address this need, NCHADS established the Logistics and Supply Management Unit (LSMU) within NCHADS in 2005 to operate a specific procurement and supply management system using proprietary software for forecasting and quantification of commodities (ARVs, medicines to treat OIs, reagents, and laboratory consumables, such as rapid diagnostic test kits). External technical support has been provided by CHAI, who assist with quantification and forecasting of ARVs and related pharmaceuticals and commodities.

Currently, information systems for the HIV program are not integrated with CMS systems and

exist side by side and ARVs are stored in a physically separate area in the CMS warehouse to facilitate better management. Since 2014[123] NCHADS LSMU has continued to strengthen and harmonize the Logistics Management Information System (LMIS) with patient data systems maintained by the NCHADS Data Management Unit (DMU). The HSSP details five core strategies to strengthen supply chain management over the next five-year period. Two of these include:

- The integration of the Drug Inventory Database (DID) system at the MOH Central Medical Stores (CMS) with the LMIS system at NCHADS; and
- The coordination of meetings of the Supply and Logistics working group with all relevant units within NCHADS, all treatment sites, and external HIV partners that support and collaborate with the NCHADS program.

The LSMU relies heavily on the input of logistics and procurement contract staff. Logistics contract staff assist in managing the supply chain and the critically important functions of forecasting, quantification and quality assurance of procured drugs and commodities, in close collaboration with CHAI. Procurement contract staff are responsible for general procurement of medicines and health commodities under the grant, and liaising with the Procurement Agent (in collaboration with CHAI & the logistics unit). In addition to the funding of ARVs, the GF grant request includes financing of quality assurance costs, including both the random and targeted sampling of products and sites. This will be done in collaboration with the Department of Drugs and Food (DDF) and CMS, using the NCHADS SOP for Sampling and QA of ARV medicines and health commodities, and a general provision of 9% on all ARV purchases for procurement and supply management ($642 371 in 2018). According to the PEPFAR COP17 Summary, TA will be provided to assist DDF/CMS with the integration of LMIS and efficient commodity pricing.

The SID 2017 acknowledges the presence of a "comprehensive supply chain plan at national level which ensures that facilities are supplied with ARVs 90% of the time", but respondents indicated that there is no domestic financing in place to implement the plan, procurement, and re-supply decisions, and it is heavily reliant on external support. As a result, and as confirmed in key informant interviews, CMS and its supply chain systems are currently not able to absorb all of the NCHADS LSMU functions under the stated objective of integration.

4.4 Information systems

The MOH Department of Planning and Health Information (DPHI) maintains the national Health Management Information System (HMIS) with web-based aggregate reporting and access, since its launch in 2010. Health facility data are the primary source of routinely collected data and provide a critical input into assessing national progress and performance. The use of information and communications technology has grown, with nearly all government

123 HSSP-HIV 2016-2020

hospital facilities[124] reporting monthly results electronically to the HMIS, with the majority reporting against all routine indicators.

Routine data quality assessments, using WHO data quality scorecards, indicate that there is generally a high[125] rate of consistency between source documents and monthly HMIS reported values. 55 Referral Hospitals, 24 Provincial Hospitals, eight national hospitals, two NGO hospitals, and all OD offices enter data directly via the Internet for immediate access by HMIS users. However, many Health Centers (60% in 2015) do not have access to electricity or to an internet connection, and thus submit this information on paper. In addition, 163 private providers and NGO facilities currently provide data to the HMIS, although this is only a small fraction of the private sector.

Cambodia has a well-established HIV surveillance and reporting system, with routine data collection using standardized methods for all components of the HIV program.[126] HIV sentinel events[127] are monitored each quarter at facilities using the ART databases. Management of information systems and strategic information for the HIV program is conducted by NCHADS in the Data Management Unit (DMU), the Surveillance Unit and the Research Unit. At the central level these units employ 17[128] staff (including contract staff) in addition to 68 Provincial Data Management Officers and Data Entry Clerks, many of whom are also contract staff. As with other contract staff previously financed by donors, funding for contracts from 2018 onwards will come from domestic sources. This funding appears to be relatively secure for the next three years. What is uncertain is what happens thereafter, as the need for contract staff will be affected by the level decentralization, potentially improved capacity at provincial level, and government's willingness to continue funding contract positions at rates which differ from government rates.

A number of separate databases, which are not currently linked, are used to store HIV-related data and provide information for quarterly reporting by NCHADS. These include the VCCT, ART, B-IACM, and ANC (within MNCH) databases. The laboratory also maintains its own separate database, as described briefly in Section 4.1.5. Several key improvements in information systems have been identified in the HSSP HIV strategy and in the GF funding request. Ensuring that all databases are linked and reinforcing the B-IACM approach continues to be one of the most important interventions and is a core strategy (strategy 10.5[129]). An individual case-based reporting system, as part of B-IACM, is under development and will help monitor progress of active HIV case detection and enrolment into the HIV treatment cascade.

A more ambitious objective in the long-run is the merging or integration of the HIV databases with the Patient Monitoring Registration System (PMRS) administered by the MOH. The

124 Health Strategic Plan 3, 2016-2020
125 The most recent assessment referred to in the HSP3 was conducted in 2013
126 HSSP – HIV 2016-2020
127 Defined by The Joint Commission (TJC) as any unanticipated event in a healthcare setting resulting in death or serious physical or psychological injury
128 NCHADS organogram
129 10.5 "Build database linkages to allow longitudinal follow up of individual PLHIV along the HIV cascade"

NCHADS DMU participates in the MOH Health Information Systems Technical Working Group (HIS-TWG) which will assess the feasibility of this integration. Interviews with key informants point to a clear preference for establishing interoperability between systems and not for physically merging the data sets. An example of successfully linking systems is the Early Warning System (referred to as the "115 HIV case notification system") at all testing sites which issues notification of positive cases. The system is run by the Communicable Disease Control within the ministry (MOH-CDC) but also directly notifies NCHADS of the positive case at the same time. The system was launched as a pilot in July 2017 and will now be expanded.

In the PEPFAR SID 2017, the section on Epidemiological and Health Data (section 13) achieved a score of 5.38, marginally higher than in the previous 2015 SID score of 4.84. The SID notes that general population surveys and surveillance activities are largely implemented and funded by external organizations and although key population surveys are planned and implemented by government, they too are dependent on external funding (more than 90%) for implementation.

The COP 17 summary details several Strategic Information activities which include for example capacity building in the DPHI to implement new national health unique identifier system, completing the transition of HMIS to DPHI ensuring the quality of HIV data, supporting the link of electronic HIV data systems and interoperability with other health information systems. The total value of these activities is estimated at just over $400,000 per annum. There is no direct support for information systems in the GF funding proposal for the next three years.

4.5 Risk summary for HIV-related services and systems

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
2	Government health staff are unable to absorb the workload when AHF externally-funded posts supporting treatment (currently receiving one year of Global Fund support in 2018) are phased out in facilities at the end of 2018	A decline in client access to ART services and reduced quality of care and support	This risk relates to the AHF health workers and data capturers substantially supported by the GF for one more year in 2018. AHF together with NCHADS has developed a transition plan to handover service provision in most of the facilities to public sector staff by 2019. It is uncertain whether the existing government staff establishment will be prepared for this transition and able to absorb the additional workload at all affected facilities. To add to the complexity of the situation, in some facilities Government staff were employed by the AHF and may not return to their Government-funded posts when AHF support ends.	Severity: 2 Probability (2018-2020): 2 Probability (2021-2025): 1.5

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
3	NCHADS is not able to retain key contract staff as the RGC takes over the funding of their posts from the Global Fund, especially after 2020, thus reducing the effectiveness of this key agency in planning, managing, and monitoring the health sector response to HIV	This could weaken management and oversight of the HIV program, resulting in greater inefficiency and a decline in service coverage and quality	According to the Counterpart Fund Proposal,[130] there are 157 contract positions that are essential to NCHADS functioning. As part of the GF co-financing commitment the government contribution of $700,000 per annum, for the next three years, will allow these essential contract staff to maintain their current positions and salaries through 2020 on short-term contracts. Thereafter it is not certain that this arrangement will continue, and it is possible that these essential contract staff posts will be converted to regular MOH posts. Because of differences in salary rates, these contract staff may not want to become regular staff and may leave their positions. The loss of these key personnel would adversely impact NCHADS programs and outcomes. The IT/DMU has the largest number of contract staff, to record Active Case Management data at the Provincial Health Departments. The loss of these staff would adversely affect the B-IACM program. The loss of NCHADS contract staff for logistics and procurement could jeopardize the accurate forecasting and timely procurement of ARVs and other commodities.	Severity: 2.5 Probability (2018-2020): 1 Probability (2021-2025): 2

130 Plummer, S. & Kimchoeun, P. (2016), Counterpart Fund Proposal Analysis

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
4	Development partner budget cuts and refocusing leads to the elimination of high-level technical posts providing support in areas such as forecasting, quantification, and strategic information, thereby diminishing the speed, coverage, and quality of key supporting services	Negative impact support services such as commodities logistics, laboratory services, timely delivery of ARVs, test kits, and other commodities leading to non-achievement of 90-90-90 and elimination goals	Much of the externally funded effort is focused on staff strengthening and providing technical assistance at the national and provincial levels including developing robust laboratory quality management systems, guideline development, supporting health information systems and quantification and forecasting of drugs and commodities. Although funding for this support appears to be in place for the next two to three years, there is much uncertainty regarding external funding thereafter. A cut in funding could lead to the loss of key technical skills. Given the critical nature of these functions the heavy dependence on external funding, this risk is considered high in the medium term, unless domestic funding can be mobilized to secure these critical skills.	Severity: 3 Probability (2018-2020): 2 Probability (2021-2025): 2
5	Quality control and monitoring systems for service delivery currently supported by the Global Fund are not diligently maintained by NCHADS/MOH as external support (TA and funds) is decreased and as donors withdraw from Cambodia	Quality and efficiency of HIV frontline services declines gradually as the support from external funders for quality control systems diminishes	Although the mechanisms and tools for quality control are firmly established, resulting in a 2017 SID score of 9, there is room for more supportive supervision especially in the remote rural health facilities. The current GF grant budget includes approximately $680,000 for supervision and support costs and over $700,000 for management and health worker training-related costs. This, together with the performance-based service delivery grants which are heavily funded by donors, creates a system for quality control and monitoring that is to a large extent reliant on outside funding. This external support is expected to be in place for the next three years, but after that the outlook is uncertain. There is therefore a risk in the longer term that quality control and monitoring systems will not be maintained after 2020 if external funding support declines, unless the Government steps in and increases investment in these critical functions.	Severity: 2 Probability (2018-2020): 1 Probability (2021-2025): 2

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
6	Current PEPFAR funded projects to integrate (increase interoperability) and strengthen HIV and health information systems are discontinued as PEPFAR winds down its funding in Cambodia	Integration and interoperability of HIV systems is not achieved, and current systems are not maintained, which negatively impacts the ability of RGC to manage the HIV response and ensure quality and efficiency of HIV-related services	The information systems and strategic information management for the HIV program is located in the NCHADS Data Management; Surveillance; and Research Units. These units employ 17 staff at central level plus 68 Provincial Data Management Officers and Data Entry Clerks, many of whom are contract staff. RGC funding for these contract staff after 2020 is uncertain. Several separate databases, which are not currently linked, are used to store HIV-related data and provide information for quarterly reporting by NCHADS. These include the VCCT, ART, B-IACM, and ANC (within MNCH) databases. The laboratory services also maintain their own separate database. NCHADS is working to ensure that all of these databases are linked and reinforce the B-IACM approach, and ultimately linked with the PMRS administered by the MOH. This is specifically provided for in the PEPFAR COP17/18 through the technical assistance activities estimated at $400,000 in 2018. There is a risk that the early reduction or withdrawal of PEPFAR funding would negatively affect these planned activities, impacting negatively on the quality of HIV strategic information. This risk becomes more acute if funding for the affected contract workers in NCHADS is not renewed and technical expertise is not retained to complete and maintain abovementioned projects.	Severity: 2 Probability (2018-2020): 2 Probability (2021-2025): 2
7	MOH takes over ARV and other HIV commodity procurement, without first establishing the necessary capacity of the national procurement mechanism,	If MOH does not use transparent and competitive tendering, and loses the support of donor funded technical experts, Cambodia may pay more for ARV drugs and other HIV commodities,	Currently all procurement of ARVs is managed by the LSMU unit in NCHADS, with technical assistance from CHAI. CHAI TA support includes drugs and commodities quantification and forecasting to support procurement. The procurement of ARVs and diagnostics has been sub-contracted to UNOPS, who manages the process from tendering, negotiation, contracting suppliers,	Severity: 2.5 Probability (2018-2020): N/A

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
	resulting in a shift to less efficient processes and higher costs	raising costs and potentially reducing the reliability of the supply chain to health centers and hospitals	and ensuring delivery to Central Medical Stores (CMS). As the MOH progressively funds a more significant portion of the ARVs budget, it is possible that the procurement of ARVs will shift to CMS. There is a risk, to be further evaluated, that CMS will not have the capacity and systems to take on the efficient procurement of ARVs should this function be transferred to them.	Probability (2021-2025): 3

5 Overview of Civil Society – Current Role and Capacity

Key risks in this area:

8. The new Global Fund grant (started in January 2018) which provides funding for prevention services fails to achieve the required prevention coverage, negatively impacting new case finding and treatment adherence and causing Cambodia not to continue achieving its 90-90-90 targets.
9. Prevention, care and support services for key populations and PLHIV are implemented by the MOH rather than contracting CSOs (with proven track record in implementation) to provide these services; but in practice, MOH prevention, care and support services fail to reach key populations and PLHIV, leading to declines in coverage and quality.
10. In an environment of declining donor financial support, CSOs are unable to secure adequate funding to operate effectively, which erodes established capacity for advocacy.

5.1 Current role and capacity of CSOs

Civil Society Organisations working on HIV in Cambodia include local and international non-government organizations (NGOs) and community networks.

International NGOs have generally played a technical support role in the Cambodian HIV response, but have also acted as a conduit for specific funding and implemented some services. AIDS Healthcare Foundation provides partial support for ART services in 35 ART clinics located in 16 provinces, among a total of 69 clinics in the country. In addition, AHF Cambodia also provides free HIV testing and HIV education, and distributes free condoms

during outreach, campaign and special events. The costs of these services are partially funded internally and partly by the GF. Catholic Relief Services (CRS) Cambodia, in partnership with local NGOs, implements care and support services for PLHIV. This is done by providing training to community health volunteers who visit patients' homes and teach patients how to correctly take medicines, the possible side effects of medications, and when to seek care for other illnesses. It also runs community support groups to help people living with HIV deal with social stigma. Most of its care and support activities are funded by the GF; however, some funding is from CRS private funds.

Other International NGOs participating in the response are FHI360 and PSI who were consortium partners with KHANA under the $30 million USAID Cambodia / PEPFAR HIV/AIDS Flagship Project which was implemented from 2012-2017. These three consortium partners NGOs provided technical assistance and developed innovations throughout the duration of the Flagship Project. An evaluation of the Flagship Project found significant problems in many areas of its work, and recommended a substantial set of changes, particularly to HIV testing among key populations and funding and recruitment of outreach workers, which have been reflected in the new GF Funding Proposal. One major success documented by the evaluation was the "case management" model in which PLHIV organizations worked in close collaboration with government health facilities to improve retention in ART. The evaluation also noted that SMARTgirl and MStyle programs played an important role in the HIV response: "Their integrated and inclusive approach to population-specific service delivery and behavior change for entertainment workers (EWs) and MSM respectively contributed to improvements in the response of these populations to HIV prevention interventions. The development in 2013 of Srey Sros as a TG-specific variation of the SMARTgirl/MStyle model also improved the availability of HIV-related services for individuals in that community."

National NGOs and community-based organizations (CBOs) have played important roles in prevention for key populations, and care and support of people living with HIV. Until recently, about 20 local NGOs provided HIV prevention and HIV testing to key populations, assisting PLHIV with access to treatment, adherence and other forms of support. According to KHANA, until recently, these NGOs were providing these services to approximately 60,000 members of key populations and 18,600 PLHIV.[131]

In prevention for key populations, these roles included:

- Identifying and building trust with key population members.
- Distribution of condoms, lubricants, safe injecting equipment and advice on where to acquire these.
- Strategic behavior change communications, including information and education on safer behaviors and promotion of services uptake.
- Delivering community finger-prick HTC, encouragement and accompaniment to a HIV

131 KHANA. Annual Report. 2017.

testing center for HTC if community-based testing is not preferable, and for confirmatory testing.

- Accompaniment of and referral of newly HIV diagnosed KPs to HIV treatment, care and support.
- Encouragement and referral to assistance for other health, social and legal services.

Prevention among key populations is carried out by outreach staff using a peer education model, in which members of a key population community are employed to carry out the above services. These staff work for a range of NGOs who manage outreach and other prevention efforts, organise prevention supplies, train outreach workers, establish and maintain relationships with health providers for referral and relationships with other key stakeholders such as voluntary and confidential counselling and testing (VCCT) sites, police, commune and district authorities. Outreach workers are also trained by NCHADS in HIV counselling and testing, enabling them to carry out finger-prick HIV testing at community settings during their routine outreach activities.

In care and support, these roles include:

- Treatment literacy.
- Assisting newly diagnosed PLHIV to make appointments for initial tests and initiate ART.
- Specific education on each individual's regimen, including provision of pills separated into times of day and days of the week if needed; and how to take and store medications.
- Education on immediate and long-term side effects.
- Counselling for PLHIV on issues from health needs through to family planning and meeting psychosocial needs.
- Support monitoring and follow up of patients who have been lost to follow-up.

Care and support activities are mainly carried out by PLHIV through PLHIV-led organisations including CPN+ (Cambodian PLHIV Network) and AUA (ART Users Association). PLHIV employed by these organizations work both in the community and at some ART sites. These types of PLHIV-led NGOs also participate (to at least some degree) in national and local planning, coordination and monitoring and evaluation. Representatives of these organisations also sit on the CCC and various national and sub-national technical working groups, such as the Group of Champions at the Operational District Level. These care and support activities are also implemented by a few other local NGOs, mainly focusing on community settings.

One additional type of national NGO (Chouuk Sar) runs two ART clinics in Phnom Penh (the only NGO-operated ART clinics for KPs in the country). The Chouuk Sar clinics work specifically with key populations in Phnom Penh and have achieved extraordinary results, with viral load suppression rates of 98.5% and 95% of the patients on ART in its two mentioned clinics, according to key informant interviews with clinic staff in November 2017. Staff at the clinic ascribed this success rate to a close working relationship with key population NGOs and to a

significant involvement by PLHIV in counselling, adherence support, and follow up of patients lost to follow-up. Similar remarks were made by the head doctor of a government ART clinic.

In addition to national NGOs and CBOs, there are also three networks of key populations, representing Entertainment Workers (Smart Girl Network), people who use drugs (CNPUD) and MSM and TG (Bandanh Chaktomuk-BC). The three networks have been established to increase representation of key populations. However, this has not been consistent across the three networks. BC, which is a registered network for MSM and TG, has recently expanded its role to be a LGBTI network. It has an increased membership of approximately 2000 members (including more than 650 transgender people) across 6 provinces and represents MSM and transgender people on the CCC. Recently, three part-time staff were funded by a regional GF grant through APCOM to carry out surveys among young MSM. CNPUD (about 800 members) and SMARTgirl (1500 members), on the other hand are not represented on the CCC. It is interesting to note that representatives of EWs and PWID communities were elected to sit on the CCC, but are not necessarily members of the network organisations.

Both CNPUD and SMARTgirl have five Executive Committee members (unpaid) and no staff. SMARTgirl has not yet sought registration and CNPUD has sought registration, but the process has been held up. CNPUD Excom is unsure whether the delay in registration is due to the nature of the organization.

Each network carries out a range of services which include:

- Capacity building among its members.
- Documenting the needs and concerns of the community.
- Recording abuses and rights violations and referring victims to legal services and
- Advocating for an enabling environment and the protection the rights of KPs.

In addition, SMARTgirl works on occupational safety and actively engages in the dissemination of Ministry of Labor and Vocational Training (MOLVT) Prakas on Working Conditions, Occupational Safety and Health Rules of Entertainment Service Enterprises, Establishment and Companies to entertainment establishment owners and entertainment workers.

An important point made by many of the NGOs is that their work complements and supports the improvement of services provided by public health providers. Surveying the history of key populations' interactions with health service providers, NGOs said the involvement of outreach workers with doctors and other healthcare workers, and the involvement of NGO managers with police and health administration, had led to markedly better understanding and service provision for key populations over the past decade.

5.2 Funding CSO-implemented activities

International NGOs will continue to receive at least some funding in the coming years. FHI360 has a role in ongoing technical support, funded by PEPFAR. Catholic Relief Services, KHANA and RHAC are Sub-Recipients under the current GF HIV grant. With GF grant funding for one

more year (2018), AHF will discontinue its supplementary work at many ART clinics in 2019: discontinued funding for current AHF activities would at least have some impact on ART services.

Until recently, the national NGOs were supported by an array of funders, with the largest contribution coming from the GF and PEPFAR. In October 2017, with the exception of providing limited bridging funds for some NGOs, PEPFAR funding of NGO activities ended. The Funding Proposal submitted by the Cambodian CCC to the GF also called for a major rationalization and modification of models for HIV prevention, care and support.

According to KHANA, until last year, there were 20 NGOs working in 23 provinces with a workforce of approximately 1500, many of whom were part-time outreach workers and community volunteers earning $60 per month delivering prevention, and care and support services. The changes in funding mean that, from January 2018, it is likely that an estimated 6 NGOs will carry out all the above tasks, with a workforce of about 600 full-time staff (at higher salaries). The rationale for the changes, apart from the reduction in available funding, is that the greater targeting of NGO efforts is expected to provide similar or improved results, especially in terms of finding the missing PLHIV, ensuring they are tested and linking to treatment (the first and second "90").

The overall funding for NGO activities over the three years of the current GF grant (2018-2020) included in the RFF budget are detailed in the table below.[132]

Table 5: Funding for NGO activities in the Global Fund grant RFF budget, 2018-2020 (US Dollars Thousands)

	2018 (USD)	2019 (USD)	2020 (USD)	Total (USD)
Community Led Advocacy	31.8	19.7	19.7	71.2
Grant Management	822.4	809.9	811.4	2,443.8
Social Mobilization	2.5	2.5	2.5	7.4
Addressing stigma, discrimination and violence against PWID	9.1	8.6	8.6	26.2
OST and other drug dependence treatment for PWID	34.0	23.3	24.2	81.5
Needle and Syringe programs for PWID and their partners	293.1	301.1	321.2	915.4
Treatment and Adherence	904.1	892.0	892.0	2,688.1
Behavioral interventions for MSM	8.0	8.0	8.0	24.0
Behavioral interventions for PWID	1.4	1.5	1.5	4.4
HIV testing services for MSM	332.3	327.3	327.3	987.0
HIV testing services for sex workers	326.2	288.6	288.6	903.4

132 Budget summary sheet. FR100 KHM_H Budget.

HIV testing services for TGs	37.3	36.8	36.8	110.8
Condoms and lubricant programming for MSM	1,150.6	808.6	825.0	2,784.2
Other interventions for MSM	26.9	26.9	26.9	80.6
Other interventions for TGs	48.4	48.4	48.4	145.1
Other interventions for treatment	26.2	0	0	26.2
Total	4,054.4	3,603.0	3,642.0	11,299.4

This totals $ 11.3 million over three years, a reduction of more than $700,000 when compared to the previous grant (approx. $ 12 million for NGO services). In addition, PEPFAR funding of $3,893,931 was provided to HIV NGOs in 2016-17.[133] It is possible that some funding for NGOs may continue to be provided by PEPFAR in coming years but the US Government has stated that these PEPFAR funds will not be available for direct service delivery and will be used instead for technical assistance.

The Chouuk Sar clinics will continue to receive funding under the GF grant but only for 2018. During this period the two clinics will be combined into one, and staff numbers will be reduced substantially. After 2018, MOH is expected to take over the clinic, but the modality for doing so has not been made clear. SMARTgirl and CNPUD are uncertain whether their funding support will continue in 2018. BC has some ongoing funding from a regional GF MSM grant through APCOM, but these funds have been earmarked for completing a young MSM survey, not covering the costs of other core roles of the network. Very little fundraising has been carried out by the NGOs as they have been well-financed by the Global Fund and PEPFAR in the past, and due to limited management and governance capacity. No government funding for HIV-related services delivered by NGOs has been secured.

"Social contracting" should be one of the processes used by government to fund CSOs to provide public HIV-related health services in particular vulnerable and key populations in order to assure the health of its citizenry. Evidence across the world suggests that forming a stable, meaningful partnership between governments and CSOs through social contracting can greatly enhance the goals of a country's overall response to HIV.[134] Many evaluations over the past three decades have found the partnership between government and CSOs can bring cost savings and efficiencies as well as increased effectiveness to national HIV responses.[135] The provision of funding resources by government to NGO initiatives improves the reach and the quality of services provided while enhancing linkages with government services, achieving

133 PEPFAR (2016). Cambodia Strategic Direction Summary, COP16.

134 UNAIDS Guidance for Partnerships with Civil Society, including people living with HIV and Key Populations, (2012); Rodriguez-Garcia R, Bonnel R, Wilson D, N' Jie N. Investing in communities achieves results: findings from an evaluation of community responses to HIV and AIDS World Bank (2013); UNAIDS Stronger Together: From health and community systems to systems for health (2016); UNAIDS and STOP AIDS Alliance Communities Deliver: The critical role of communities in reaching global targets to end the AIDS epidemic (2015)

135 For example, Yehia B and Frank I. Battling AIDS in America: an evaluation of the National HIV/AIDS Strategy, American Journal of Public Health Sep2011, Vol. 101 Issue 9, pe4; Government of Canada Report to the Secretary General of the United Nations on the United Nations General Assembly Special Session on HIV/AIDS Declaration of Commitment on HIV/AIDS 2009, Ottawa; UNODC/WHO EURO 2011 Mid-term evaluation of the Estonian national HIV/AIDS strategy 2006 – 2015 and national drug prevention strategy 2012, Copenhagen.

greater results with fewer financial resources, and leading to a sustainable, long-term response to HIV.

While this assessment did not include a full legal and regulatory review related to government funding of CSOs, no legal or specific policy barriers were found that would prevent the Ministry of Health from funding CSOs. In addition, a mechanism already exists in NCHADS for selection and funding of CSOs (including established financial, project and monitoring reporting systems); and CSOs stated that they are willing to be funded by government. Further, stakeholders from the MEF indicated that the RGC would be open to suggestions that government contract with and pay CSO, where this is the most efficient solution.[136]

5.3 A comment on human rights and gender

Although the legal environment is generally supportive of HIV prevention, testing, treatment and care, some legal barriers remain and need to be addressed. The 2013 legal review[137] noted tensions between the provisions of the Law on the Prevention and Control of HIV/AIDS and the Village and Commune Safety Policy. In particular, the this legislation as well as the Law on the Suppression of Human Trafficking and Sexual Exploitation clearly both allow sex work to take place between consenting adults and promote the use of condoms by sex and entertainment workers. But the Village and Commune Safety Policy and misinterpretation of the Law on the Suppression of Human Trafficking and Sexual Exploitation are used in many districts and communes as a rationale for arrest and detention of sex or entertainment workers if they are carrying condoms. The Law on Control of Drugs 2012 is widely interpreted as not penalizing people for the possession of small amounts of illicit drugs for personal use. Without clearly defining what this means in the law and the interpretation of the Village and Commune Safety Policy have led to widespread arrest and detention of people who use drugs. The use of compulsory drug treatment centers represents a significant violation of the rights of people who use drugs. In addition, the RGC began a campaign against illicit drug use in January 2017, which has resulted in the arrest of 17,000 individuals to date.

Other human rights violations affecting key populations and people living with HIV include[138] the following:

Stigma & Discrimination Despite strong advocacy efforts and progress reported by civil society, PLHIV and KPs continue to face stigma and discrimination in the community, when accessing health and other services and at household level. Self-stigmatization is also prevalent amongst KPs and is a barrier to accessing services.

Gender disparities Female KP and young KP have unmet family planning needs, as suggested by high rates of abortion and low uptake of modern contraception within these groups. Other issues include reported challenges by women living with HIV in accessing gynaecologists due

136 MEF Stakeholder Interview, November 2017
137 Building an Enabling Legal Environment for Cambodia's HIV Response: National Legal Review Report National AIDS Authority. Phnom Penh 2013
138 Cambodia HIV Concept Note. 2014

to their HIV status, and incidents of coerced abortion.[139] Women living with HIV are more likely to be widowed (45% females vs. 8% males), and more likely to be unemployed than men living with HIV.[140] Gaps exist in linking health services for female KP and young KP to violence response and other social services, and in making related legal services available to them.

Sexual and gender-based violence is a significant challenge in Cambodia, with 35% of men in a 2013 survey reporting they had ever perpetrated rape (over half of whom were teenagers the first time they did so), and 5% of men reporting they had perpetrated gang rape. Twenty-five percent of Cambodian women have experienced either sexual or physical intimate partner violence during their lifetime.[141]

Prisoners There are a total of 28 prisons in Cambodia holding an official total of 15,404 prisoners, of whom 8% are female. Overcrowding, poor ventilation, inadequate infection control, lack of safe water supply, unsanitary conditions, and inadequate health care in many prisons are key issues that make the prison population vulnerable to many illnesses including TB and HIV. Prisoners face significant challenges in accessing their right to healthcare including HIV-related services.[142]

In response to these human rights violations, a number of important initiatives have been implemented. The management framework of the Police Community Partnership Initiative (PCPI) engages representatives of local authorities, police, health care workers, civil society organizations and key populations. The aim is to ensure an enabling environment for coordinated implementation of HIV prevention and treatment services and non-health-related services for entertainment workers, MSM, transgender people and people who use/inject drugs. PCPI training has been developed that clarifies implementation of the Village and Commune Safety Policy, the Law on the Suppression of Human Trafficking and Sexual Exploitation, the Law on Drug Control and the concerns of people living with HIV and key populations.

Key population members face significant discrimination and sometimes violence from law enforcement and the community. The LGBT network (BC), CNPUD and SMARTgirl networks attempt to document and report human rights violations among MSM and TG, PWID and entertainment workers/ sex workers, respectively, and facilitate linkage with legal assistance, including legal counselling. But there is little funding for this work and there is no clear channel through which such rights violations can be addressed. The Cambodian Human Rights Committee (CHRC) has a mandate to work on these issues but so far there has been limited uptake due to a lack of awareness, a very limited report and response mechanism, and a lack of trust (in the CHRC) from the victims of rights violations.

139 Key Informant Interviews. Cambodian Women for Peace and Development. November, 2017.
140 Cambodia HIV Concept Note. 2014
141 National Survey on Women's Health and Life Experiences, 2016
142 Cambodia HIV Concept Note. 2014

Although Cambodia ratified the Convention on the Elimination of Discrimination against Women (CEDAW) in 1992, implementation has remained slow until recently. Since 2001, however, gender equality efforts have been gaining momentum and receiving national endorsement. The Ministry of Women's Affairs (MOWA) and the Cambodia National Council for Women (CNCW) make up the national machinery for the promotion of gender equality and the empowerment of women. MOWA focuses on gender equality and empowerment in all aspects including economic empowerment, gender equality in education, legal protection, public health issues, including HIV prevention and care, and women's political participation. Specific activities related to gender and HIV include increasing the participation of women with HIV in leadership roles in HIV CSOs and workshops and campaigns to reduce gender-based violence.

All indications are that HIV testing and counselling services are voluntary, confidential, accessible, affordable and respectful.

It should be noted that almost all current activities to reduce human rights barriers to key populations' access to HIV-related services are funded from the Global Fund grant. An important issue for transition will be whether and how these activities will continue to be funded, especially after 2020.

5.4 Risk summary and impact

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
8	The new Global Fund grant (started in January 2018) which provides funding for prevention services fails to achieve the required prevention coverage, negatively impacting new case finding and treatment adherence and causing Cambodia not to continue achieving its 90-90-90 targets.	If GF budget, which is based on a new and untested model for outreach to KPs, turns out to be insufficient (if anticipated efficiencies in prevention services and grant management do not materialise) and ongoing prevention, case finding, and linkage to treatment activities could be curtailed.	Starting in 2018, PEPFAR will only provide support in the form of Technical Assistance, with the Global Fund grant being the only available budget for prevention services focused on key populations (and implemented by CSO) and care and support services for PLHIV . The community action framework proposes a new modality for prevention, care and support services, and anticipates the realisation of efficiencies when compared to the previous delivery modalities. Similarly, the grant management structure has been revised to be more efficient and cost effective. Although the requested Global Fund grant will likely cover these services through 2020, there is a risk that the untested model does not deliver the anticipated efficiencies and management costs are higher than anticipated, creating the need for additional funding.	Severity: 2 Probability (2018-2020): 1 Probability (2021-2025): 2

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
9	Prevention, care and support services for key populations and PLHIV are implemented by the MOH rather than contracting CSOs (with proven track record in implementation) to provide these services; but in practice, MOH prevention, care and support services fail to reach key populations and PLHIV, leading to declines in coverage and quality.	If the MOH decides not to engage in "social contracting" of local CSOs, two things could happen: either KPs will go unreached and ART patient support will decline; or the MOH may decide to implement these services itself. Either way, coverage and quality are likely to be negatively impacted, resulting in failure to sustain the 90-90-90 targets.	Many CSO interviewees and some from the RGC suggested that senior management in the MOH believe that CSOs are not necessary to sustaining Cambodia's HIV response; that external funders can choose to fund CSOs, but that this funding should not be made available from the national budget when external funders reduce or cease funding. However, it is unlikely to be effective and efficient to have MOH staff carry out the outreach, peer education, and peer support activities to reach KPs. There is a lack of understanding by some RGC stakeholders of the need for CSOs to implement HIV prevention and support services. However, when asked what would happen if the activities currently undertaken by CSOs were to stop, most interviewees responded that the country's successes would be reversed: new HIV infections would increase; fewer new cases of HIV would be found, fewer PLHIV would enter ART, fewer PLHIV on ART would reach viral load suppression, and more PLHIV would die. There is substantial international evidence of the value of CSOs in carrying out these tasks in prevention and care and support.	Severity: 3 Probability (2018-2020): 1.5 Probability (2021-2025): 2.5
10	In an environment of declining donor financial support, CSOs are unable to secure adequate funding to operate effectively, which erodes established capacity for advocacy.	Society's ability to advocate for positive change, engage in discussions for improved service delivery and enabling environment will be diminished. The success of the HIV response will be affected, potentially reducing access to and quality of services.	Currently, CSOs have established capacity and serve as a voice for KPs and PLHIV, able to advocate for HIV related changes in policy, legislation and improved service provision. Civil society also comprises an important component in the accountability mechanism. This capacity has been established over many years and loss of this capacity, in the absence of funding would be difficult to re-establish especially given reduced donor funding. The HIV response may be compromised as a result.	Severity: 2 Probability (2018-2020): 1 Probability (2021-2025): 2

6 Current Financing of the HIV Program

6.1 External funding and other nonfinancial external support

According to estimates by the WHO (2018), total health expenditure in Cambodia accounted for 6.0 percent of GDP in 2015, equivalent to $ 70 per capita. Government health expenditure amounted to 1.2 percent of GDP, corresponding to $ 15 per capita and 6 percent of total government expenditures. The composition of health financing has varied from year to year but on average comprised approximately 20 percent from the government, 20 percent from external donors, and 60 percent from out-of-pocket private expenditures.[143] Primary health care services are dominated by the private sector, acting as first provider of health services for over 70 percent of the population (National Institute of Statistics, 2016).

Table 6: Overview of macro-economic and fiscal indicators

Macro-economic and Fiscal Indicators						
	2012	2013	2014	2015	2016	2017*
Macroeconomic indicators 1/						
GDP (US$B)	14.0	15.2	16.7	18.2	20.2	22.3
GDP per capita (US$)	945	1,011	1,091	1,168	1,278	1,390
Real GDP growth (percent)	7.3	7.4	7.1	7.2	7.0	6.9
Fiscal indicators (percent of GDP, unless stated otherwise) 2/						
Government revenue	16.9	18.5	19.8	18.8	19.8	19.5
of which: grants	2.8	3.9	3.0	2.3	2.0	1.5
Government expenditure	20.7	20.7	21.0	20.4	22.7	23.2
Gross debt 1/	34.7	35.4	34.1	35.8	36.7	37.9
Government revenue (US$B)	2.38	2.82	3.32	3.41	4.00	4.34
of which: grants	0.39	0.60	0.49	0.41	0.40	0.34
Government expenditure (US$B)	2.91	3.15	3.51	3.69	4.57	5.16
Health expenditures (percent of GDP, unless stated otherwise) 3/						

143 WHO (2018), Bureau of Health Economics and Planning (2015)

Total health expenditures	7.26	6.91	6.18	5.98	n.a.	n.a.
Public health expenditures	1.41	1.41	1.23	1.25	n.a.	n.a.
Private health expenditures	4.45	4.32	3.90	3.59	n.a.	n.a.
Out of pocket	4.39	4.32	3.89	3.55	n.a.	n.a.
Other	0.06	0.01	0.01	0.04	n.a.	n.a.
External health expenditures	1.41	1.18	1.04	1.15	n.a.	n.a.
Total health expenditures (US$M)	1020.1	1053.3	1032.4	1085.8	n.a.	n.a.
Public health expenditures (US$M)	197.6	214.8	206.3	226.5	n.a.	n.a.
Official development assistance, disbursements 4/						
(US$ millions, unless stated otherwise)						
Total	728.6	764.1	764.1	756.6	n.a.	n.a.
Health and population policies	144.1	150.5	155.5	156.0	n.a.	n.a.
HIV	53.3	42.0	62.2	29.8	n.a.	n.a.

* Projected

Sources:

1/ International Monetary Fund 2017, World Economic Outlook database, October 2017 edition.

2/ International Monetary Fund 2017b, "Cambodia: 2017 Article IV Consultation - Staff Report."

3/ WHO, 2018, "Global Health Expenditure Database," last updated February 12, 2018.

4/ OECD, 2017, Creditor Reporting System, accessed at http://stats.oecd.org/ on Nov. 10, 2017. May differ from national data because of differences in coverage or if funds are recorded in different periods.

Out of total external support of $ 189 million in 2014, health systems strengthening and non-disease specific support received $ 51 million, HIV $ 42 million, reproductive health $ 25 million, and malaria $ 24 million (Table 6). The area most vulnerable to shifts in external funding is HIV, for two reasons. First, among disease categories, HIV shows one of the highest shares of external funding (83% of total expenditures, second only to malaria at 93%). Second, while the incidence and prevalence of malaria have declined steeply by over 90% since 2000, a similar decline in HIV incidence has been accompanied by a much smaller decline in prevalence (by 58%), reflecting the scaling-up of treatment and the transition of HIV into a chronic disease. This means that the spending needs for HIV have been and are more persistent than those for malaria.

Table 7: Spending and funding source by major disease category, 2014

	Total	Government		External support		Private domestic	
	US$ M	US$ M	% of total	US$ M	% of total	US$ M	% of total
Total	1,057.2	210.0	19.9	188.7	17.9	658.5	62.3
Communicable diseases	307.8	88.1	28.6	82.2	26.7	137.5	44.7
HIV	50.3	8.0	16.0	42.2	84.0	0.0	0.0
Tuberculosis	25.3	14.4	56.8	10.9	43.2	0.0	0.0
Malaria	26.3	0.6	2.3	24.4	92.6	1.3	5.1
Respiratory infections	117.4	41.6	35.4	0.2	0.1	75.7	64.5
Other	88.5	23.5	26.6	4.5	5.1	60.5	68.3
Reproductive health	257.9	29.0	11.2	25.2	9.8	203.6	79.0
Non-communicable diseases	71.5	9.3	13.0	1.9	2.7	60.2	84.3
Other diseases	367.3	81.9	22.3	28.3	7.7	257.1	70.0
Health systems strengthening	52.7	1.7	3.2	51.0	96.8	0.0	0.0

Source: Bureau of Health Economics and Planning, 2016.

While the government is committed to increasing financial risk protection in accessing health care (Ministry of Health, 2016), coverage remains limited and uneven. The most significant instrument is the Health Equity Fund scheme, which is partly donor-funded, and which targets the population with incomes below the national poverty line (about 13.5 percent of the population as of 2015). It was covering an estimated 90 percent of the rural poor population as of 2014 (Bureau of Health Economics and Planning, 2015). Other schemes, typically supported by donor funding, support user-fee exemptions for specific diseases (HIV, tuberculosis) or services like birth delivery. Nevertheless, 6.3 percent of the population was reported to have suffered catastrophic health expenditures in 2013 (Bureau of Health Economics and Planning, 2015).

The macroeconomic and fiscal context is robust. GDP per capita is estimated at $ 1 390 in 2017, and economic growth averaged 7.1 percent in 2012-2017 (one of the highest rates of economic growth in the world).[144] Government revenues are estimated at 19.5 percent of GDP in 2017,[145] including external grants equivalent to 1.5 percent of GDP. The government has been successful in expanding domestic revenues. Tax revenues have increased from 10.2

144 Fiscal and macroeconomic data in this paragraph are quoted from IMF (2017, 2017b).
145 The fiscal year coincides with the calendar year.

percent of GDP in 2011 to an estimated 15.3 percent of GDP in 2016, owing to administrative efforts in the implementation of a revenue mobilization strategy and aided by the economic transformation of the country. Meanwhile, the role of external support to the government has been declining, from around 3 percent of GDP in 2012-14 to 1.5 percent of GDP in 2017. Much of this decline relative to GDP directly reflects the growth of GDP (which increased by 40 percent between 2012 and 2017), but external support has also declined absolutely (by about 30 percent in $ terms) over these 5 years. The fiscal outlook is fairly stable. The fiscal deficit is projected at 3.7 percent of GDP, but public and external debt are projected to increase only marginally in the debt sustainability analysis prepared by the IMF and the World Bank (e.g., from 33 percent of GDP in 2017 to 36 percent of GDP in 2022).

6.2 Budget structure and management

Given that the majority of the HIV response has been funded from external sources and implemented using vertical systems, it is of interest to examine whether existing government budget processes and mechanisms can accommodate budget requests and approve allocations for the HIV program as part of routine annual government budgeting as HIV is integrated into the larger health system of Cambodia and the burden of funding shifts from donors to the Government.

The Ministry of Economy and Finance (MEF) has facilitated major Public Financial Management (PFM) reforms, referred to as the Public Financial Management Reform Program (PFMRP)[146], since 2004. The PFMRP is a package of sequenced reforms which according to the MEF[147], aims to install "much higher standards of management of and accountability, transparency, and responsibility for mobilizing all government resources and effectiveness and efficiency in their application to the Government's National Poverty Reduction Strategy and priority programs." The reform programs are concentrated in four phases (or platforms). Of particular relevance in the context of this report is platform 3 which is largely focused on:

i. Strengthening discipline of public financial management

ii. Improving the efficiency of budget allocation and enhancing technical spending efficiency, and

iii. The move from incremental/input based to output/program based budget (PBB) system.

While considerable progress has been made with the implementation of these reforms, implementation has been slower than anticipated. Budgeting in the health sector remains predominantly incremental and focused on inputs. The main basis for preparation of the recurrent (operational) budget is the current year budget, adjusted for approved increments and other budgetary adjustments. However, a partial implementation of PBB has unfolded and includes four main programme areas with HIV as a sub-programme. Within these

146 WHO Regional Office for the Western Pacific. 2017. Strengthening Domestic Financing Institutions for Universal Health Coverage in Cambodia. Situation analysis of health financing policy and implementation.
147 http://mef.gov.kh/pfmrp.html

programme areas a stronger link between the budget and outputs is encouraged. Line ministries can also request additional resources (over and above the current base-line) to finance additional discretionary expenditure. These requests must be defended at the budget discussion meetings (see below).

The budget cycle starts in February or March of each year. The MEF issues a budget circular which outlines strategic priorities, describes the budgeting process, and guides the formulation of submissions. Strategic priorities are derived from the National Strategic Development Plan, which in turn informs the multi-year Mid-term Expenditure Framework. The circular does not spell out the resource envelope for each ministry, but provides an indication of a feasible increase using the previous year's expenditure as a baseline. Initial budget submissions by ministries (or budget entities) are followed by a series of technical discussions/negotiations which take place in April and May. The final negotiation, referred to as the political management negotiation, results in a recommended resource envelope for the health sector and for specific health programs and sub-programs. Budgets are finalised, and allocations approved, during September-October.

In the MOH budget structure, HIV is a sub-program under main program (2) Communicable disease control, which also includes sub-programs for TB and Malaria. The same budget structure also applies at sub-national level. However, the MOH's program budget has salaries of health staff at central and provincial levels included in Program 4: cross-cutting Strengthening health system. A major portion of HIV service delivery budget for HIV is therefore not reflected under the HIV sub-programme. Below the sub-program level, the chart of accounts provides for line item budget items, i.e. expenditure items. The NCHADS budget allocation from government is included under this sub-program and reflects budget line items for contract staff. Based on discussions with MEF and MOH officials, budget line items are available, and it is theoretically possible to account for payments to CSOs providing HIV-related services, but to date no allocations have been made for this purpose ("social contracting"). At present, the Government's contribution to ARV purchases is not shown in the NCHADS budget but appears in the MOH budget.

In conclusion, there appears to be no technical reason why the HIV program cannot include HIV program expenditure items as part of the routine MOH budgeting process at national and sub-national level, either as part of the NCHADS budget or in other areas of the MOH budget. The inclusion of the HIV programme in the PPB is also fortuitous and given the considerable capacity and experience for developing output-based budgets together with good performance and research data, the HIV program is well-positioned to exploit any opportunities for mobilising additional domestic resources through the PBB.

6.2.1 Fragmented Flow of Funding

Health financing in Cambodia is highly fragmented at present, in terms of the levels at which it flows into services and the channels through which it moves, even at the same level, posing a series of management and accountability challenges. This is true of all disease programs in the country and is a common feature of the health system. Control of budget preparation and

subsequent execution of the budget, including cash management, is centralized and controlled by the MEF. All domestic funds are transferred from the Treasury Single Account to budget entities' bank accounts. In the context of health this means that funds are transferred to the MOH but also directly to the provincial health system (via the provincial treasury). The MOH in turn transfers funds to entities within its portfolio including the national centers (such as NCHADS), national hospitals and regional training institutions. Funds are also transferred by the MEF to provincial governors for spending on health. Districts, municipalities and communes also receive funds for mainly infrastructure and social services which could potentially be spent on health. Further fragmentation arises due to transfers to provincial health departments from the MOH directly or via national centers. Hospitals at all levels collect user fees and received payments from the NSSF and the HEF. Development partners support the health system by providing funds to government entities at all levels and/or supporting implementing NGOs. Although most development assistance is disbursed and delivered through the public sector[148] the management of external funding tends to be separated from public financial management procedures, frequently requiring separate bank accounts, dedicated grant management staff and reporting mechanisms. This adds another layer of complexity to the PFM function.

Currently, most HIV funds are spent at national level, either to procure drugs and other commodities or pay staff and service providers both in the public sector and in NGOs . Other MoH financing for HIV, service delivery in hospitals and clinics is channeled through provincial and operating district structures.

Of some concern is the impact which the decentralization and de-concentration reforms will have on an already fragmented flow of funds. Decentralization will provide for the transfer of functions (service delivery) and financial management from central levels of government to sub-national authorities to promote accountability and responsiveness. Currently the focus is on district and commune level. The health sector is among five priority sectors for piloting functional transfers.

In summary, the flow of funding for health is complex and fragmented and some level of inefficiency, both administratively but also in terms of resource allocation and expenditure, is inevitable. Decentralization and de-concentration may add to this complexity if not carefully addressed. From a financial management point of view, these fragmented arrangements make it difficult to manage and coordinate the delivery of services, monitor performance, and make rapid adjustments.

As donors withdraw over time and as the allocation to health from newly created fiscal space is uncertain, improving efficiencies becomes a key contributor to sustainable financing of health programmes. There may be an opportunity for Cambodia to consolidate funding flows for health generally and specifically for HIV resulting in a more efficient allocation and use of funds and simplified financial management processes. If consolidation of funding takes place

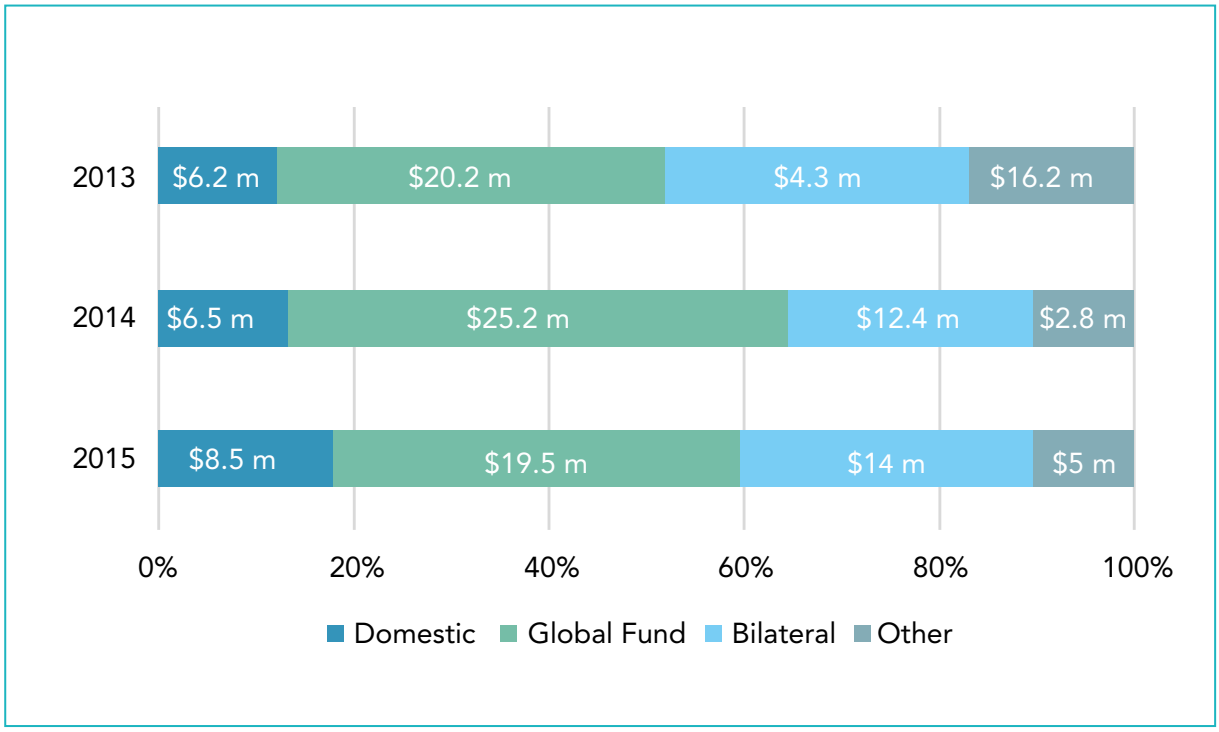
148 According to the IHME's DAH database, about one-quarter of total development assistance was channelled through NGOs or international NGOs.

at the local/facility level, this could also empower facility managers to use these funds efficiently to meet locally-defined needs, though reporting and accountability mechanisms focusing on results will also have to be strengthened. Results in HIV prevention and AIDS treatment would be an important part of this accountability/reporting framework.

6.3 Costs and financing of the HIV program

The HIV response has absorbed around $ 50 million annually from 2009 to 2015, but spending has been declining in recent years from $ 53 million in 2011 to $ 47 million in 2015, according to the latest National AIDS Spending Assessment (NASA).[149] The HIV response has been largely financed externally – on average, 90 percent of funding in 2009-2015 came from external sources, 9 percent from the Royal Government of Cambodia, and 1 percent from private sources. Over this period, the role of the Royal Government of Cambodia has been increasing steadily, from 3 percent of total funding in 2009 to 17 percent in 2015 (and the share of external funding has declined correspondingly).

Figure 6: Financing of the HIV response by source, 2013-2015 (National Aids Spending Assessment)



At the same time, there were important shifts in the role of different sources of external support. The role of the Global Fund (about 40 percent of total funding) and of bilateral support (in turn dominated by the U.S. government), at just below 30 percent of total funding, did not change much over this period. However, the contributions of United Nations agencies

149 There are no comprehensive NASA data available for 2013. However, the data from the National Health Accounts available for 2013 and 2014 suggest that the AIDS spending and financing in 2013 was consistent with the trends described here. Period totals or averages reported in this section exclude the missing data for 2013.

(notably, the World Food Program, UNICEF, UNAIDS, and the United Nations Population Fund, UNDP, WHO) declined steeply (from 14 percent of total in 2009-2010 to 5 percent in 2014-2015), and the role of international NGOs, such as the Clinton Foundation, Médecins Sans Frontières, and World Vision declined similarly (from 15 percent of total in 2009-2010 to 5 percent in 2014-2015). Thus, as seen in Table 8, the period between 2009-2010 and 2014-2015 was characterized by a shift from near-complete (97 percent) external funding to a situation in which the government covered about one-sixth of spending, and a concentration of external support around two principal donors – the Global Fund and the U.S. government.

Table 8: HIV-related spending and funding, 2009-2015

	2009	2010	2011	2012	2014	2015
(In millions of U.S. dollars)						
Total Spending	53.7	58.1	52.8	50.9	49.1	46.9
Prevention	10.8	11.0	14.8	14.6	10.9	11.2
Treatment and care	15.1	13.7	10.1	11.0	18.7	19.9
Antiretroviral therapy	7.9	6.3	5.1	6.3	9.7	9.9
Other treatment and care	7.3	7.4	5.0	4.7	9.1	10.0
Social services & enabling environment	10.3	12.0	9.2	7.1	4.8	4.1
Program management, research, HR	17.5	21.3	18.7	18.1	14.7	11.7
(In percent of total)						
Prevention	20.1	19.0	28.0	28.7	22.1	23.9
Treatment and care	28.2	23.5	19.1	21.7	38.1	42.4
Social services & enabling environment	19.2	20.7	17.5	14.0	9.8	8.9
Program management, etc.	32.5	36.7	35.4	35.6	30.0	24.9
(In millions of U.S. dollars)						
Total Funding	53.7	58.1	52.8	50.9	49.1	46.9
Domestic financing	1.7	2.5	6.3	6.2	6.5	8.5
Royal Government of Cambodia	1.7	2.4	5.3	5.2	6.4	8.2
Private domestic	0.0	0.1	1.0	1.0	0.0	0.3
External financing	52.0	55.6	46.6	44.7	42.7	38.4
Global Fund	19.0	22.7	20.0	20.2	25.2	19.4
United Nations agencies	7.5	8.4	5.7	4.3	2.3	2.4
Other multilateral	0.6	1.0	1.6	1.4	0.4	0.2
Bilateral	15.6	15.7	15.3	15.9	12.4	14.0

International NGOs	9.1	7.5	3.7	2.9	2.4	2.3
Private international	0.1	0.3	0.3	0.1	0.0	0.1
(In percent of total)						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Domestic	3.2	4.3	11.9	12.1	13.2	18.0
External	96.8	95.7	88.1	87.9	86.8	82.0
of which: Global Fund	35.4	39.1	37.8	39.7	51.3	41.5
of which: Bilateral	29.0	27.0	28.9	31.2	25.2	30.0

Source: National AIDS Spending Assessments, various issues.

The changes in funding coincided with and were in part related to shifts in the composition of spending (as seen in Table 8 above). Reflecting the scaling-up of antiretroviral therapy, the share of care and treatment in the costs of the HIV response increased from 26 percent of total spending in 2009-2010 to 40 percent in 2014-2015, while the role of social support spending declined steeply, from 15 percent of total spending in 2009-2010 to just 4 percent in 2014-2015. The shifts in funding sources and in its composition are related – the role of lead donors in expanding access to treatment (the Global Fund, the U.S. government) grew, while agencies focusing on impact mitigation and social support (e.g., the World Food Program or UNICEF) declined/withdrew. One factor that complicates an assessment of shifts in expenditure is the relatively large role of expenditure items which are not clearly attributed to activities, including "care and treatment – not broken down" (about $ 3.3 million annually, or 7 percent of total spending, funded mainly by the Government, in 2014-2015) and especially "human resources (training and incentives)," accounting for $ 5.3 million annually (11 percent of spending, largely from the Global Fund, in 2014-2015.

To appreciate the contributions of the Royal Government of Cambodia and various donors, and the complications of anticipated gradual decline in donor support, it is also necessary to understand the different roles of the main funders. As much as donor support is tied to specific purposes, the government plays a relatively large role in the funding of program management. Support from the U.S. government (29 percent of total funding in 2015) was concentrated in the areas of prevention, advocacy and human rights (70 percent of total spending on advocacy).[150] The Global Fund played a relatively important role in supporting care and treatment, and especially of antiretroviral therapy and related items, of which it covers 75 percent of the costs.

The next section of the report uses this background information to highlight the main transition risks to financial sustainability of the Cambodia HIV response.

150 The estimates of spending supported by PEPFAR include capacity building and technical assistance. The shares reported in the lower half of Table 9 may therefore exceed PEPFAR's contributions to the financing of current service delivery, and correspondingly understate the contributions from other donors.

Table 9: HIV-related spending by purpose and source, 2015

	Government of Cambodia	Other domestic	Global Fund	Other Multi-lateral	United States	Other Bilateral	Other inter-national	Total
(In millions of U.S. dollars)								
Total	8.2	0.3	19.4	2.5	13.7	0.4	2.4	46.9
Prevention	0.5	0.3	2.2	1.4	5.8	0.1	0.9	11.2
Treatment and Care	3.5	0.0	10.8	0.2	4.0	0.1	1.2	19.9
ART and related items	0.8	0.0	9.9	0.0	1.7	0.0	0.8	13.2
Other care and treatment	2.7	0.0	1.0	0.2	2.3	0.1	0.4	6.7
OVC support	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Program management	3.4	0.0	0.8	0.5	1.2	0.0	0.0	6.0
Human resources n.i.e.	0.7	0.0	4.2	0.1	0.0	0.0	0.0	5.0
Social protection for PLHIV	0.0	0.0	0.9	0.0	0.2	0.0	0.2	1.4
Advocacy and human rights	0.0	0.0	0.3	0.3	1.9	0.1	0.0	2.7
Research	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.6
(Contribution by spending category, in percent)								
Total	17.5	0.6	41.5	5.4	29.3	0.9	5.1	100.0
Prevention	4.6	2.3	20.0	12.5	51.9	0.8	7.9	100.0
Treatment and Care	17.7	0.0	54.5	1.2	20.3	0.4	5.9	100.0
ART and related items	6.1	0.0	74.9	0.0	13.2	0.0	5.8	100.0
Other care and treatment	40.5	0.0	14.4	3.6	34.2	1.1	6.2	100.0
OVC support	0.0	0.0	4.8	0.0	0.0	0.0	95.2	100.0
Program management	56.7	0.0	14.0	7.9	20.4	0.7	0.3	100.0
Human resources n.i.e.	14.4	0.0	82.7	1.6	0.9	0.4	0.0	100.0
Social protection for PLHIV	0.0	0.0	65.9	3.5	16.2	1.4	12.9	100.0
Advocacy and human rights	1.2	0.0	12.9	9.5	70.3	5.4	0.7	100.0
Research	0.0	0.0	16.3	1.7	82.0	0.0	0.0	100.0

Source: National AIDS Spending Assessment 2014-2015 (Health Finance and Governance Project, National AIDS Authority, and UNAIDS, 2017).

7 Health and HIV Financing in Transition

Key risks in this area:

11. The Government is unable to mobilize sufficient domestic funding for the HIV response, because of fiscal constraints and (mis)perceptions that the HIV program is "over-funded".
12. In the event that Global Fund puts Cambodia on a path to full transition by the late-2020s the Government may not be in a position to react fast enough to expand its budget to cover the resulting funding gaps, which could amount to as much as $5 million a year.
13. A larger than expected funding gap emerges because future financing needs are higher than envisaged (e.g., more patients must be treated, patient monitoring and adherence is more labour-intensive, program management cannot be fully rationalized, etc.).

7.1 Health financing in transition

Health financing in Cambodia is in transition, primarily as a consequence of the country's rapid economic development. Additionally, there are some specific factors at work, including the ongoing transition in the funding of various disease-specific programs and the objective of expanding access to financial risk protection.

One consequence of the continued rapid economic development is the expansion in fiscal resources over the coming years.[151] For example, according to the IMF, GDP per capita will increase from $ 1,390 in 2017 to $ 1,765 in 2022 (controlling for inflation, as for subsequent USD figures in this section), an increase of 27 percent. Government revenues are projected to increase by 33 percent in real terms (also reflecting an increase from 19.5 percent of GDP to 20.4 percent of GDP in 2022). If the share of health in public spending remains constant at 5.9 percent of GDP (as of 2014), this means that public spending on health could increase from $ 61 per capita in 2017 to $ 81 in 2022. However, some of this increase will be absorbed by increasing salaries of health professionals.

Meanwhile, the role of external support is declining, at least in relative terms. The IMF (2017, 2017b) projects that external grants to the government (overall, not health-specific) will stay roughly constant in absolute terms between 2017 and 2022 (at about $ 340 million). In the presence of rapid economic growth, though, this means that external grants to the government will decline from 1.5 percent of GDP to 1.1 percent of GDP. The health sector receives a disproportionally high share of external resources (nearly one-half of non-private spending as of 2014, according to the NHA report), is particularly vulnerable to this slowdown in the role

151 Macroeconomic and fiscal projections were taken from IMF (2017).

of external funding. To compensate for the declining role of external funding, public health spending would need to increase by 0.4 percent of GDP between 2017 and 2022, a large shift relative to current spending equivalent to 1.26 percent of GDP (as of 2014).[152] Over the same period, however, domestic public revenues are projected to increase faster than GDP (from 18.0 percent of GDP in 2017 to 19.3 percent of GDP in 2022 (IMF, 2017b), easing the financial transition.

External support, however, is distributed unevenly across the health sector, and concentrated in areas such as HIV, malaria, immunization, and maternal health, or specific services within these sub-sectors, and externally funded services are sometimes subject to specific institutional arrangements (e.g., on governance and service delivery). The aggregate picture of the fiscal adjustment to declining donor support therefore masks very considerable operational challenges in scaling up specific domestically funded activities and transforming service delivery models. While most other donor-funded programs are currently not expected to end during the next decade (for example according to current rules Cambodia should remain eligible for Global Fund support for malaria and tuberculosis over the next 10 years and according to Gavi's website Cambodia is not listed as graduating and will remain eligible for funding given GNI per capita[153]), it is important that the government remain vigilant as the simultaneous drawing down and exit of donors in several areas of health would complicate the challenges facing Cambodia in adjusting to declining external resources for HIV. The Ministry of Economy and Finance is beginning a process to examine this issue, trying to project ahead and identify areas in the health sector that may be vulnerable to reductions in donor funding.

As mentioned earlier in this report, a significant portion of health expenditure is out of pocket and the poor in particular are exposed to the risk of catastrophic health expenditure. In response and as part of long-term health financing reforms, the government is aiming to expand financial risk protection. In the first instance, this takes the form of expanding coverage of HEFs to additional populations, such as the urban poor and children under the age of 5. Through user-fee exemptions and subsidies on (travel) costs of accessing care, this policy could contribute to access to and early initiation of ART treatment among socially disadvantaged populations as well as protect against related health events. HEFs increase healthcare utilization by the poor and reduce catastrophic healthcare spending, while ensuring facilities are paid through co-funding from the RGC and external donors. Payments by the HEF to facilities are not ring-fenced for specific health programs and it is not possible to determine what the total funding contribution to the HIV program might be and how these are used

152 In 2014, domestic public health spending and external support for the health sector accounted for 1.26 percent of GDP and 1.13 percent of GDP, respectively, which we take as basis of this projection as the latest available estimates. (Note that the figure on external assistance includes support not administered through the government's budget, i.e., there is an implicit assumption in the calculation that the government would take over funding of such externally funded health services as donors withdraw.) If external funding remains constant in USD terms while GDP increases by one-half in USD terms (as suggested by IMF (2017, 2017b), then the contribution of external funding would decline by 0.4 percent of GDP (to 0.7 percent of GDP). To compensate for the declining role of external funding, maintaining non-private health spending at least constant relative to GDP, public health expenditures would need to increase by 0.4 percent of GDP, from 1.26 percent of GDP (5.4 percent of public expenditures) to 1.65 percent of GDP (6.8 percent of public expenditures).

153 Gavi. Country Programs: Cambodia. https://www.gavi.org/country/cambodia/

other than as incentives for health staff. Therefore, it is difficult to directly quantify the impact of HEF on the HIV response.

Looking ahead, components of the HIV response could eventually be covered through a social health insurance program under the umbrella of UHC. The government's policies and plan on expanding social insurance as part of the larger reform of social protection and social security are still at an early stage and will be evolving in the coming year. However, under the National Social Protection Policy Framework (2016-2025) (NSPPF), the government is proposing to develop a cohesive and financially sustainable social health protection system.[154] There are some suggestions that Cambodia will take the next step soon by building a social health insurance fund for those in formal employment by drawing on wage taxes to finance health care for those contributing, in line with the social security financing of pensions and retirement benefits (NSSF-C and NFV) and the workers Injury Insurance Fund (IIF) which have been in place for nearly a decade.[155] There is also discussion of a subsequent phase in which the government would aim to bring together the HEF (for the poor) and social health insurance (for the most affluent) into a unified system, adding the missing "middle" of those in informal employment.

The exact timing of these moves toward universal health coverage based on social insurance in Cambodia is unclear. The government's plans could well transform health financing in Cambodia over the coming years, and may have a positive impact on AIDS by lowering barriers in access to treatment and care, especially if AIDS services are guaranteed benefits in the social health insurance package for those covered, which should eventually include all Cambodians. It will be important for NAA and NCHADS, as well as Cambodia's HIV partners, to remain attuned to these changes in the health financing system, so that they can advocate for the inclusion of HIV-related services in the social insurance package. This would seem an excellent opportunity to ensure the long-term financial sustainability of the national HIV response. At the same time, there are some risks that will need to be carefully managed. The HEF, for example, is partly funded externally, so a decline in outside support for HEF, if not replaced by domestic funding, could have a negative effect on the range of services covered, including for PLHIV that have ID poor cards. As government contributions to these social protection programs increase, including to pensions and retirement benefits, it will be important to ensure that financing for social health insurance is not short-changed because of competing priorities for public spending. This is an issue for the entire health sector and goes beyond HIV. Also, as domestic support for horizontal health insurance expands, this may reduce the fiscal space available within the health sector for the existing direct and vertical financing of the HIV response. While such a shift may be good in the long-run, it will be vital to ensure that overall and combined (vertical and horizontal) financing for HIV-related services

154 Strengthening Domestic Financing Institutions for Universal Health Coverage in Cambodia Situation analysis of health financing policy and implementation, Health Policy and Financing Unit, Cambodia - WHO Country Office, WHO Regional Office for the Western Pacific, January 2017

155 OECD (2017), Social Protection System Review of Cambodia, OECD Development Pathways, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264282285-en

does not decline and prove insufficient to sustain the country's response in seeking elimination by 2025. These multiple flows will need to be closely monitored.

7.2 Anticipated costs of the HIV response

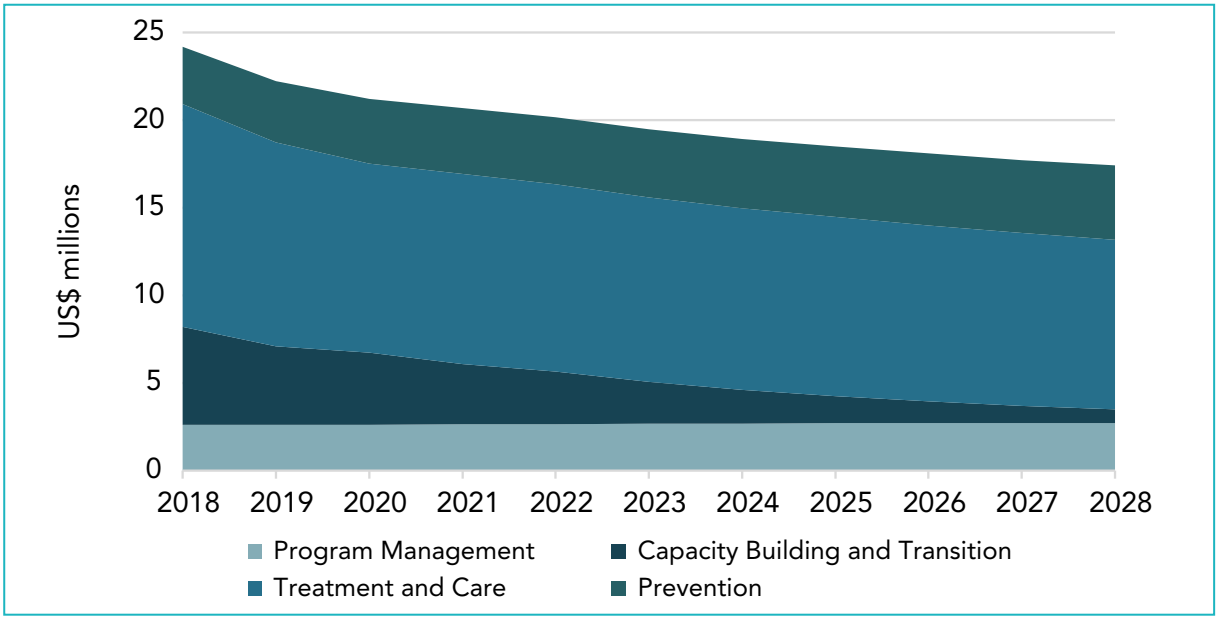
The cost projections used in this TRA build on recent estimates and projections developed for the Cambodia HIV investment case,[156] issued in April 2017, and the underlying estimates and projections contained in the AEM report.[157] The investment case reflects the principles of the UNAIDS investment framework, focusing on the strategic use of resources (notably the prioritization of prevention services for key populations) and realizing efficiency gains, and embraces a "test and treat" strategy (endorsed by the Government in August 2016). In addition to core spending on capacity building envisaged in the investment case, we make allowance for anticipated support to capacity building and transition provided by PEPFAR based on an analysis of project allocations in PEPFAR's Country Operational Plan 2017.

The most important driver of the projected costs of the HIV program over the coming years is the cost of treatment, accounting for $ 13.4 million as of 2016. These costs are projected to decline. (Note that all projected costs are adjusted for inflation) Over the next few years (until about 2020), this reflects anticipated declines in per patient unit costs of treatment, from $ 218 in 2018 to $ 192 in 2020 (reflecting an ongoing switch in drugs, and more efficient service delivery and community support to ART patients), while the number of people accessing antiretroviral therapy is expected to be broadly constant. Beyond 2020, projected treatment costs are estimated to decline very slowly, reflecting a slow decrease in the number of people receiving treatment – as HIV incidence has declined steeply from its peak, very few people now become infected and progress to treatment – partly offset by a slow rise in unit costs reflecting increasing human resource costs.[158]

The projected costs of prevention largely consist of the costs of prevention activities aimed at key populations – female entertainment workers, men who have sex with men, transgender people and people who inject drugs. Some other elements of prevention (e.g., aiming at people living with HIV to prevent transmission) are no longer covered or appear with much reduced costs as in case of PMTCT, because the bulk of costs – in the context of "test and treat" – are now covered through the treatment program.

156 The Case for Investing in Cambodia's HIV and AIDS Response, 2017
157 Spectrum AEM, 2017
158 The estimated number of new adult infections has declined from 8,800 in 2000 to about 700 in 2016 (UNAIDS, 2017). From this level, the number of new infections is projected to decline further by three-quarters between 2016 and 2030, according to the investment case.

Figure 7: Projected costs of the HIV response, 2018-2028



Other costs include the costs of program management, and the spending on capacity building and in support of the ongoing transition. The projections on overhead costs (estimated at $ 2.6 million in 2018) are based on the corresponding estimates in the investment case.[159] Spending on capacity building and transition ($ 5.6 million in 2018) include the PEPFAR-supported investments in this area (explained further in Section 7.3 on external support), as well as domestic spending on the Integrated Active Case Management and quality assurance (covered in the investment case). Because much of this spending supports the financial and administrative transition, it is assumed that this spending will decline at a rate of 20 percent annually (apart from the cost components explicitly costed in the investment case).

Overall, the costs of the HIV response are estimated at $ 24.2 million in 2018.[160] Costs are projected to decline steadily, to $ 21.2 million by 2020 and $ 17.4 million by 2028, primarily reflecting declining spending on capacity building etc. (from $ 5.6 million in 2018 to $ 0.8 million in 2028). For the reasons stated above, projected costs of treatment and care also decline from $ 12.7 million in 2018 to $ 9.3 million in 2028. Costs of prevention and of program management are projected to increase slowly, reflecting increasing human resource costs as GDP per capita increases. Further details on these assumptions are presented in Annex 9.8 and Annex 9.9.

7.3 Outlook on external support

The shifts in external financing in the area of HIV or the health sector overall reflect the rapid pace of economic development and the corresponding changing role of external assistance – as domestic resources are growing and because donors tend to focus resources on countries

159 The investment case applies a mark-up of 11 percent on treatment costs, and of 56 percent on prevention interventions targeting key populations, to account for various categories of program management costs.

160 In line with the estimates in the HIV/AIDS investment case ($ 20.5 million), plus $ 3.5 million of PEPFAR supported spending in support of capacity building and transition.

with per capital GDP below that of Cambodia. Overall, these shifts occur slowly, and overall government revenues (domestic revenues plus grants) have increased, e.g. from 15.1 percent of GDP in 2007 to 16.9 percent of GDP as of 2012, and 19.5 percent of GDP in 2017 (IMF, World Economic Outlook database, October 2017). While fiscal space is thus expanding overall (also important in the context of plans to expanding social protection), the challenges posed by this transition are particularly acute in the health sector, where external financing plays a relatively important role, and – within the health sector – in the areas of HIV, TB and malaria where external support is the dominant source of funding.[161]

Direct consequences of the changing economic context for external support occur in the disease programs supported by the Global Fund, which adopts a funding formula in which the required co-financing is gradually increasing with country income classification; accordingly, the government has made a commitment to cover an increasing share of the costs of HIV and tuberculosis drugs. Meanwhile, co-financing requirements for GAVI support of the immunization program are also increasing. These specific transitions – and changes in support from the international community more generally in light of Cambodia's changing economic circumstances – are expected to occur gradually over a period of several years. Nevertheless, because of the large role of external funding in the health sector, these transitions in this sector need to be carefully planned, and the Ministry of Economy and Finance stated during this assessment that they are studying the future of donor aid for health in Cambodia. In analyzing and assessing the risks connected with the gradual withdrawal of the Global Fund and PEPFAR for HIV, it is important for Cambodia to take into account the fact that reductions in donor aid for health may also be occurring simultaneously for other diseases such as malaria, tuberculosis, including the immunization programme – as well as broader external support for health systems from the International Development Association part of the World Bank. While none of these other areas of donor support is expected to end imminently, and in fact it appears that these other transitions will not occur for at least another 5-8 years (and possible later),[162] During this assessment it was stated by the Ministry of Economy and Finance that they are beginning a process to better understand the future of donor aid in Cambodia and are starting the development of a government-wide transition strategy, which will be important in beginning to understand the potential for multiple donor exits.

While the response to HIV has predominantly been funded from external sources since 2004-5, the share of external funding has been declining, from 97 percent in 2009 to 82 percent in 2015. This shift reflects a gradual withdrawal of various multilateral agencies (e.g. UNICEF, WFP), while the role of the contributions of the two major donors (Global Fund, PEPFAR) did not change much. Consequently, these two donors now account for the bulk (86 percent) of external financing, and 71 percent of the costs of the HIV response overall. Support from the Global Fund has averaged $ 21 million a year in 2011-2015 but is expected to decline over the coming years. Under the current Global Fund allocation period (2018-20), Cambodia received an allocation of $ 41.6 million in support of the HIV response, or an average of $ 14

161 WHO Regional Office for the Western Pacific. 2017. Strengthening Domestic Financing Institutions for Universal Health Coverage in Cambodia. Situation analysis of health financing policy and implementation.
162 Key Informant Interviews. GAVI. April, 2018.

million per year.[163] Under the current concept note, this is divided into $ 16.1 million in 2018, $ 12.9 million in 2019, and $ 12.5 million in 2020. Over the years beyond 2020, the available funding is projected to decline further, for two reasons. First, while the number of people living with HIV continues to increase globally, it is declining in Cambodia. Under the Global Fund's current allocation rules (which may change for the next round of grants), Cambodia's share would therefore decline. Second, since 2015 Cambodia has reached (lower) middle income status, this also means that the Global Fund allocation to Cambodia will decline, as the Global Fund applies weights which decline with GNI per capita in determining its funding allocations. It should be noted, though, that these country-specific factors regard Cambodia's share in Global Fund allocations, and do not reflect uncertainty about the total to be allocated across countries. Overall, the projections assume that Global Fund contributions will decline by one-quarter between successive 3-year grant cycles from 2021 (after conclusion of the current cycle).

Support from the U.S. government through PEPFAR – the other major source of external funding – is more difficult to predict, because of the ongoing realignment of U.S. foreign policy, and as PEPFAR has shifted from funding HIV-related services to focus on technical assistance and capacity building, in part in support of the ongoing financial and administrative transition. Our projections of PEPFAR support to the HIV program are based on the detailed allocations by project contained in the COP 2017 (Appendix B), covering $ 6.4 million of projected spending/funding. Of these, projects which appear to imply a continuous engagement ($ 3.5 million) were included in the projections. All of these items were classified under capacity building/TA/transition preparedness in the expenditure data. In light of the focus on transition, it is assumed that PEPFAR funding for the HIV program will decline by 20% annually, to just $ 0.4 million in 2028.

7.4 Outlook on domestic financing

As explained above, the Government will need to increase domestic funding for the health sector overall over the coming years, in light of the ongoing economic transition and the declining role of external support. In the area of HIV, the challenges are more concrete and acute – concrete because of the changing role of PEPFAR and the declining outlook on Global Fund support, acute because the bulk of expenditures which need to be funded regard ongoing treatment and care.

The Government is responding to these challenges in the short run through increased spending commitments and has recognized the need to further increase domestic funding for the HIV response (see investment case, p. 12). In terms of the co-financing agreement with the GF, government will contribute $ 1.5 million annually for the procurement of ARVs and $ 0.7 million annually to substantially cover the costs of contracted human resources formerly funded mainly by the Global Fund during the period 2018-2020. In addition to these core funding commitments, the MOH is also funding portions of the costs of delivering treatment and care through public health services and associated management costs, included in general

163 In addition to $ 13.8 million in support of the TB program, and $ 28 million on malaria

health expenditures in the MOH budget. These expenditures are accounted for as government-funded HIV-related spending in the base-case projections, estimated at $ 1.6 million in 2018. Adding the core commitments to the general service delivery expenditure, results in total domestic funding of $ 3.8 million in 2018.[164] In the base-case projection, the government's core commitments are assumed to remain static at $ 2.2 million for three years 2018-2020. However, as external funding declines in 2019 and 2020 (e.g. significant reduction of AHF support and closure of NGO ART clinic) it has been assumed that the general HIV-related service delivery expenditure funded by the MOH will increase from $ 1.6 million in 2018 to $ 4.8 million by 2020 as it absorbs these HIV-related services into the health system.

Looking further ahead, the government's capacities to contribute to the HIV program will reflect the ongoing economic transformation of the country. As noted, the IMF (2017, 2017b) projects that over the next years economic growth will continue at a rate of about 6 percent annually, and that government revenues will continue to increase (somewhat) faster than GDP. Beyond 2020, we assume as a benchmark that domestic financing will increase in proportion to projected government revenues. This would mean that domestic financing increases from $ 7.0 million in 2020 to $ 11.2 million by 2028.

Considering that the costs of the HIV response are projected to decline, this outlook implies that the government would be able to fund a gradually increasing share of the costs of the HIV program if it just maintained its allocations constant in proportion to its revenues. This gradual increase, however, would be insufficient in the short term, especially considering the drop-in resources projected from the Global Fund in the next few years.

7.5 Financing outlook

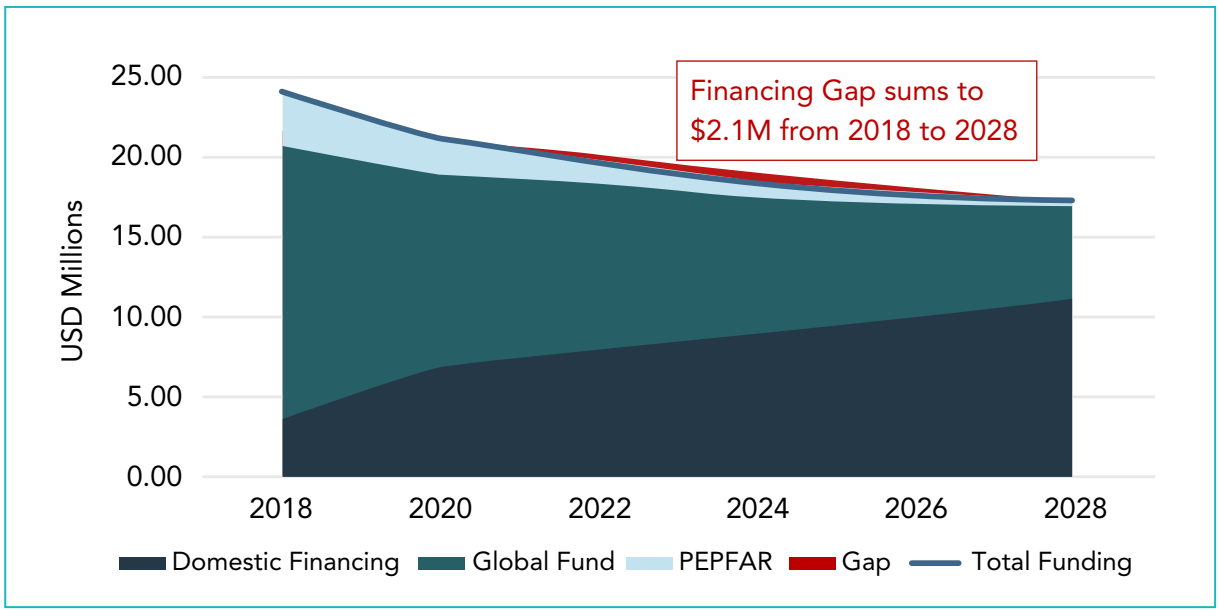
The projections on domestic financing and external support for the HIV response available between 2018 and 2028 are summarized in Figure 8. Total funding available would decline from $ 24.2 million in 2018 to $ 17.5 in 2028. The decline reflects steep drops in expected funding from PEPFAR and – less fast, but absolutely more important – from the Global Fund, while domestic financing increases steadily. As a consequence, the domestic government would become the largest source of funding of the HIV response, rising from $ 3.8 million (of which $ 2.2 is static core HIV funding and $ 1.6 million is related to service delivery costs as described above) in 2018 to $ 11 million (about two-thirds of total funding) by 2028. Meanwhile, funding from the Global Fund will drop from $ 16.9 million in 2018 to $ 11.9 million in real terms in 2020 (as envisaged in the funding proposal for the current grant cycle).[165] Subsequently, it is assumed to gradually decline to $ 5.8 million by 2028 (reflecting a decline of 25 percent

164 This number is considerably lower than the estimate for domestic financing from the most recent NASA (for 2015), for a number of reasons (other than the lapse of time of three years between the estimates). Our estimates and projections are based on the recent investment case, which identifies and costs core HIV program expenditures. The NASA sought to comprehensively identify expenditures associated with Cambodia's HIV response. With regard to domestic financing, the main differences arise in two areas – (1) program management, where the investment case envisages savings relative to historical costs, and (2) costs of treatment other than ART, where the NASA makes allowance for services of PLWH through the public health service (such as treatment of opportunistic infections) which are not budgeted for under the HIV program.

165 According to the Global Fund proposal: The number on projected Global Fund support for 2020 of $ 11.9 million is lower than the nominal amount specified in the Global Fund proposal ($ 12.5 million), because the cost projections are in constant prices. The nominal figure in the Global Fund proposal therefore has been adjusted for inflation.

between 3-year grant cycles), while the contribution from PEPFAR (i.e., the portion included in these projections on program funding) nearly disappears, dropping from $ 3.5 million in 2018 to $ 0.4 million in 2028.

Figure 8: Projected costs and financing of the HIV response, 2018-2028



Under these projections, a small financing gap emerges from 2021, also shown in Figure 8 (as the cost curve lies above the curve representing total funding). This financing gap grows to $ 0.6 million by 2024 but declines to 0 by 2028 and adds up to $ 2.1 million over the period 2018 to 2028.[166] Further details on the costs and financing projections are presented in Annex 9.10. This funding gap is very small, corresponding to only about 1 percent of the total costs or funding projected over this period. Consequently, it could be closed if unit costs of treatment could be reduced by 0.5 percent annually, the annual increase in domestic financing would be 0.5 percent higher, the allocations from the Global Fund declined by 0.6 percent less annually, or a combination by these factors.

Thus, with minimal adjustments to the assumptions on program costs or available funding, this funding gap would be closed. In light of the large uncertainties surrounding the assumptions on costs and especially on funding availability, though, it is important to understand the robustness of the funding outlook to deviations from the assumed cost and funding trajectories. To test this robustness, three variations on the cost and financing outlook are considered to highlight and summarize relevant risk from three sides: domestic financing, external financing, and efficiencies/spending needs (Figure 9 and 10 and Table 10):

1. a faster than anticipated decline in the unit costs of treatment declining to $ 75 rather than $ 108 by 2020[167]

166 All period totals reported in this section are discounted at a rate of 3 percent.
167 Black dotted line in Figure 9 and 10. From May 2018, First Line regimen ARVs are being procured at $75 per patient per annum (CHAI correspondence). Actual average costs per patient per annum remain higher at over $90 per patient per annum.

2. a drop in the availability in support from the Global Fund, declining by one-half rather than one-quarter between grant periods (i.e. to $ 5.5 million rather than $ 9.4 million by 2023, and $ 1.7 million rather than $ 5.8 million by 2028),[168] and

3. a faster-than-anticipated build-up in the number of people receiving antiretroviral therapy, whereby the number of patients increases by an additional 500 each year between 2019 and 2018, and by 2028 the number thus is 5,000 higher than envisaged in the investment case.[169]

Figure 9: Alternative cost scenarios with expected funding

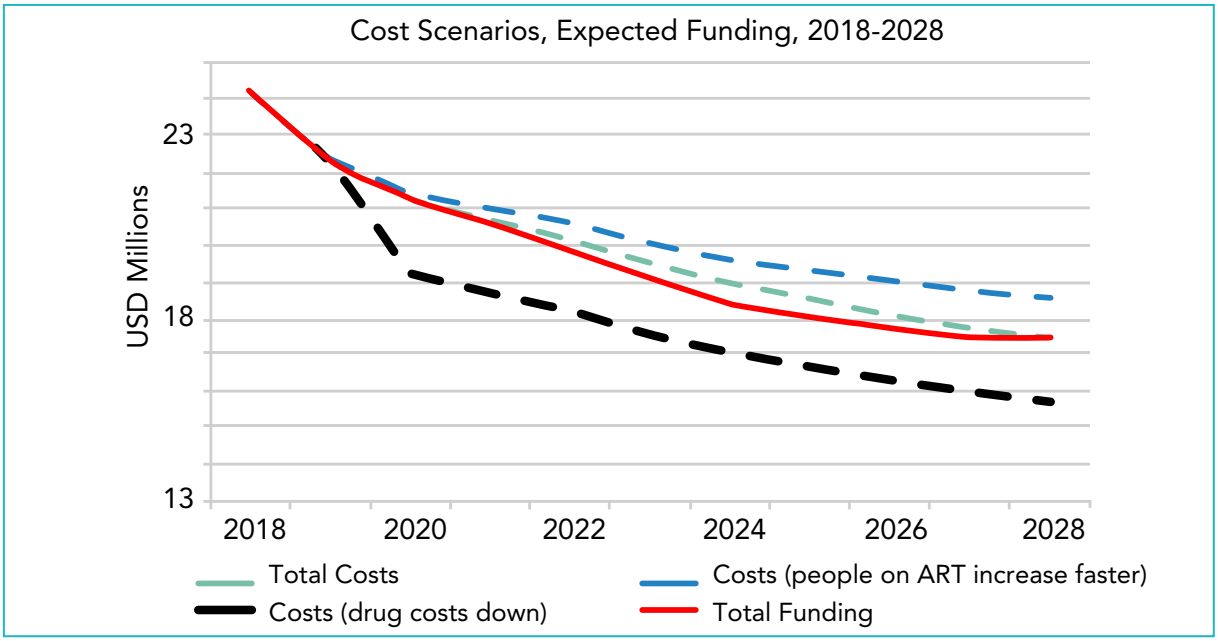
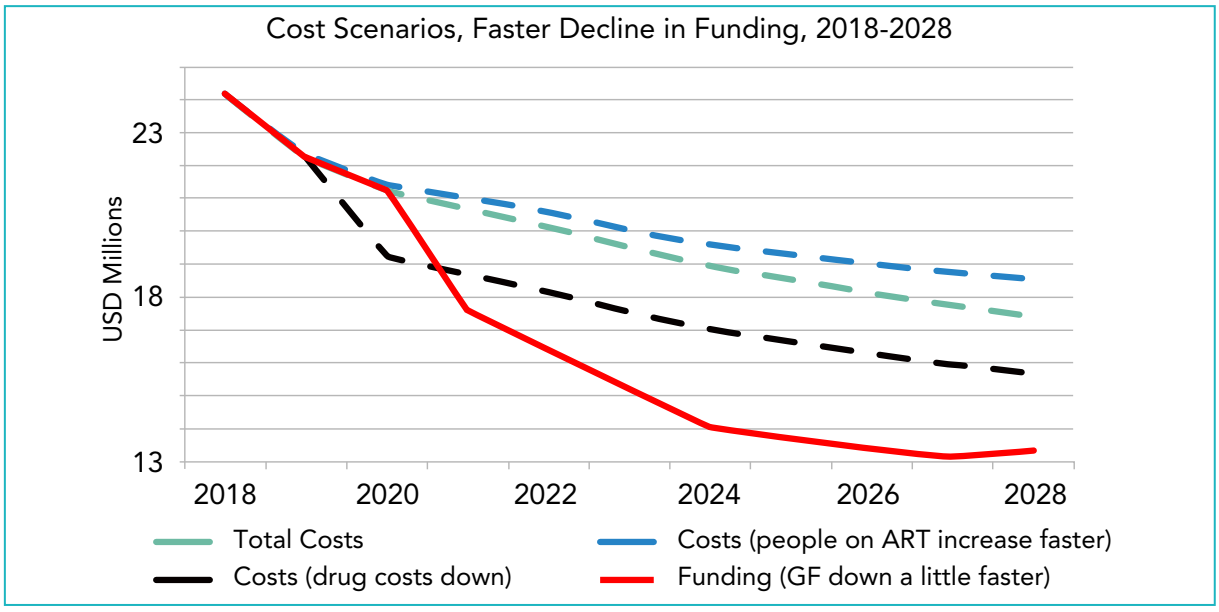


Figure 10: Alternative cost scenarios with faster decline in funding



168 Red line in Figure 10
169 Blue dotted line in Figures 9 and 10

As seen in Figure 10, a faster decline in Global Fund support would have the largest consequences, increasing the funding gap in 2028 by $ 4.1 million and by a total of $ 28.1 million over the entire period (see also table below). To offset this shortfall in funding, domestic public funding would need to grow faster by over 5 percentage points annually (in addition to GDP growth), or by a total of 36 percent over the period 2018-2028. A larger build-up in the number of people receiving treatment (blue dotted line in Figures 9 and 10) would cause a funding gap of $ 5.7 million over the period 2018-2028, which could be offset by a higher annual increase in domestic financing of 1.6 percent. The potential further drop in the unit costs of treatment (black dotted line in Figures 9 and 10) would be sufficient to more than offset either of these negative shocks (but not both of them).

Table 10: Funding gap under alternative scenarios

	Funding Gap		Required Adjustment in Domestic Financing	
	2028 $ million	Overall[1] $ million	Overall[2]	Annual Change[3]
Base Scenario	0.0	1.7	2.6%	0.5%
Treatment costs decline faster than anticipated	-1.7	-10.3	-15.7%	-3.4%
Number of people receiving treatment increases faster than anticipated	1.1	5.7	8.7%	1.6%
Global Fund support declines faster than anticipated	4.1	28.1	36.0%	5.4%

1 Total over period 2018-2028, applying discount rate of 3%

2 Rate at which the value of domestic financing would have to grow overall in 2018-2028

3 Rate at which domestic financing would have to grow faster by year to close gap

7.6 Risk summary and impact

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
11	The Government is unable to mobilize sufficient domestic funding for the HIV response, because of fiscal constraints and (mis)perceptions that the HIV program is "over-funded".	Insufficient funds to improve and sustain quality of prevention, treatment and care and support services in the short run, as well as lack of money for other prevention and KP activities in the longer-run.	Base projections assume that domestic funding will grow proportionally with GDP over time. However, pressure from competing health and other development priorities or fiscal objectives, or a perception that the HIV program is overfund (e.g., because the HIV epidemic appears under control or HIV investments are not considered good value for money) could result in lower program allocations.	Severity: 3 Probability (2018-2020): 1.5 Probability (2021-2025): 2

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
		This would result in failure to deliver HIV-related services and serious backsliding on elimination goals.	Such funding shortfalls could result in deteriorating health outcomes if they result in disruptions or compromised quality of treatment services, or reversals in access. If investments in prevention are compromised (e.g., prevention efforts towards key populations are insufficient, or as the potential of treatment as prevention is not realized), this would result in a reversal in HIV incidence. These outcomes would compromise the sustainability of the HIV response in terms of achieving epidemic control in the first place, and – in the long run, beyond the time horizon covered here – result in additional spending pressures. Because HIV-related services are currently funded almost entirely by the government and donors, a shortfall in funding could also have equity implications, if access becomes subject to user fees. In addition to these direct consequences, such domestic funding shortfalls could have negative consequences for the availability of donor funding, reflecting co-financing requirements or a perceived lack of commitment on the part of the government.	
12	In the event that Global Fund puts Cambodia on a path to full transition by the late-2020s the Government may not be in a position to react fast enough to expand its budget to cover the resulting funding gaps, which could amount to as much as $5 million a year.	In case the two main donors reduce their funding support rapidly, and the RGC does not react quickly to make up the shortfall, the entire HIV response could be seriously disrupted, leading to reversals in new infections and in HIV-related mortality,	Funding from the Global Fund is subject to uncertainties in terms of the successes of future funding rounds, the allocation mechanism (and how it factors in domestic fiscal capacities and the burden of disease), and the risk inherent in the grant application process. A shortfall in funding from the Global Fund early on (e.g., from 2021, following the current grant period) would have severe consequences, as the Global Fund remains the largest source of funding (under the baseline scenario) through 2023. In later years, the impact would be mitigated as domestic funding plays a more important role.	Severity: 3 Probability (2018-2020): 1 Probability (2021-2025): 2

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
		as prevention and treatment are negatively impacted.	However, while donors are unlikely to step in if the government reduces its financial commitments, it is conceivable that the government will increase allocations to avoid service disruptions. On the other hand, lower commitments from donors could reduce the government's incentive to invest in the HIV response or aspects of it, a factor that could exacerbate the consequences of a donor withdrawal.	
13	A larger than expected funding gap emerges because future financing needs are higher than envisaged (e.g., more patients must be treated, patient monitoring and adherence is more labour-intensive, program management cannot be fully rationalized, etc.).	Even if resource mobilization from RGC and donors is positive, greater than expected funding needs could create a financing crisis for the HIV response, leading to cuts in services and negative HIV outcomes.	The projections on progress in controlling the epidemic - in terms of extending treatment access and reducing HIV incidence - build on judgments as to what can be achieved, and how much it will cost to do so. The funding needs in these projections optimistically assume increased efficiencies and lower drug costs. Extending treatment coverage to populations facing barriers in treatment access or through earlier detection may require additional investment (or the current efforts may result in lower increases in coverage than envisaged). The consequences of this would be a combination of higher unit costs of reaching the intended targets and of less progress in reaching treatment access targets and the associated health outcomes, with an unclear net effect on costs. If the envisaged program is less effective than expected in reducing incidence among key populations, or if the scaling-up of treatment is less effective in reducing HIV transmission, this may lead to an uptick in HIV incidence. Based on current estimates of HIV incidence, epidemic control consequences and the financial sustainability consequences of such an uptick would be limited,	

Risk Number	Risk	Likely Impact	Explanation	Rankings (1= low, 3 = high)
			as estimated HIV incidence already is very low (estimated at 0.006 percent of the population at ages 15-49 in 2017) relative to earlier levels (e.g., 0.13 in 2000) and prevalence (0.54 percent in 2017). For the financial outlook, the immediate consequences of such an uptick would therefore be small, although this is an area to watch from the perspective of long-term sustainability, and in light of the uncertainties in measuring HIV incidence.	Severity: 3 Probability (2018-2020): 1 Probability (2021-2025): 2

8 Conclusions and Next Steps

Cambodia has made significant progress on national HIV goals and the global 90-90-90 targets. It is important that these gains are maintained, and that Cambodia continues to make progress towards the elimination of HIV.

The TRA suggests that in the short term (2018-2020) Cambodia is well positioned to fund its HIV response. However, funding becomes increasingly uncertain beyond 2020. Although total HIV expenditure is a small proportion of total health expenditure, competing health and other development priorities may impact the RGC's ability to fill the funding gap after 2020. Cambodia has demonstrated its commitment to the sustainability of the HIV program following transition from donor aid through actions such as providing significant resources for the funding of contract staff at NCHADS, engaging with AHF to plan for the reduction in the number of AHF-supported sites and increasing its contribution to ARVs. Notwithstanding these actions, the HIV response remains largely externally funded and several risks remain that may have a serious impact on the program if steps are not taken to mitigate them. The table below provides a summary of all the identified risks.

Table 11: Summary of transition risks

AREA	RISK	Severity	Probability (2018-2020)	Probability (2021-2025)
Service Delivery	1. In the context of declining external support, failure to develop a common long-term implementation mechanism after 2020, defining the respective roles of the health sector, CSOs in the HIV response, results in confusion and reduced efficiency.	2	N/A	2
	2. Government health staff are unable to absorb the workload when AHF externally-funded posts supporting treatment (currently receiving one year of Global Fund support in 2018) are phased out in facilities at the end of 2018	2	2	1.5
	3. NCHADS is not able to retain key contract staff as the RGC takes over the funding of their posts from the Global Fund, especially after 2020, thus reducing the effectiveness of this key agency in planning, managing, and monitoring the health sector response to HIV	2.5	1	2
	4. Development partner budget cuts and refocusing leads to the elimination of high-level technical posts providing support in areas such as forecasting, quantification, and strategic information, thereby diminishing the speed, coverage, and quality of key supporting services.	3	2	2
	5. Quality control and monitoring systems for service delivery currently supported by the Global Fund are not diligently maintained by NCHADS/MOH as external support (TA and funds) is decreased and as donors withdraw from Cambodia	2	1	2
	6. Current PEPFAR funded projects to integrate (increase interoperability) and strengthen HIV and health information systems are discontinued as PEPFAR winds down its funding in Cambodia	2	2	2
	7. MOH takes over ARV and other HIV commodity procurement, without first establishing the necessary capacity of the national procurement mechanism, resulting in a shift to less efficient processes and higher costs	2.5	N/A	3

AREA	RISK	Severity	Probability (2018-2020)	Probability (2021-2025)
CSOs	8. The new Global Fund grant (started in January 2018) which provides funding for prevention services fails to achieve the required prevention coverage, negatively impacting new case finding and treatment adherence and causing Cambodia not to continue achieving its 90-90-90 targets.	2	1	2
	9. Prevention, care and support services for key populations and PLHIV are implemented by the MOH rather than contracting CSOs (with proven track record in implementation) to provide these services; but in practice, MOH prevention, care and support services fail to reach key populations and PLHIV, leading to declines in coverage and quality.	3	1	2.5
	10. In an environment of declining donor financial support, CSOs are unable to secure adequate funding to operate effectively, which erodes established capacity for advocacy.	2	1	2
Costs and Financing	11. The Government is unable to mobilize sufficient domestic funding for the HIV response, because of fiscal constraints and (mis)perceptions that the HIV program is "over-funded".	3	1.5	2
	12. In the event that Global Fund puts Cambodia on a path to full transition by the late-2020s the Government may not be in a position to react fast enough to expand its budget to cover the resulting funding gaps, which could amount to as much as $5 million a year.	3	1	2
	13. A larger than expected funding gap emerges because future financing needs are higher than envisaged (e.g., more patients must be treated, patient monitoring and adherence is more labour-intensive, program management cannot be fully rationalized, etc.).	3	1	2

Experience has shown that developing and implementing feasible solutions to facilitate transition is a time-consuming process which is typically implemented over a number of years. To accommodate this process, the Cambodian government and its external partners are encouraged to focus on a small number of the most important risks, and start developing policies and actions to mitigate these risks and thus ensure that Cambodia reaches its elimination targets by 2025 and sustains this status beyond 2025.

While the process of HIV transition in Cambodia appears to be a gradual one that will unfold over the next 5-10 years, the exact pace is hard to predict, and there are no grounds for complacency. It is hard to forecast with precision, for example, how quickly GF and PEPFAR financing will decline, or whether the optimistic projections of future costs will turn out to be accurate or will have under-estimated the required funding to sustain the HIV response and achieve elimination by 2025. Some of the transition risks mentioned above and detailed throughout the TRA report will begin to be felt soon in 2019 and need to be tackled swiftly. Even if the monetary value associated with some of these risks is modest (less than $ 1 million a year), failure to respond decisively and effectively to the risks may negatively impact service delivery and begin to erode the significant gains made in recent years. Other risks will likely take longer to materialize but could have larger financial consequences and will be easier to mitigate if actions are taken in the next 1-2 years to address them.

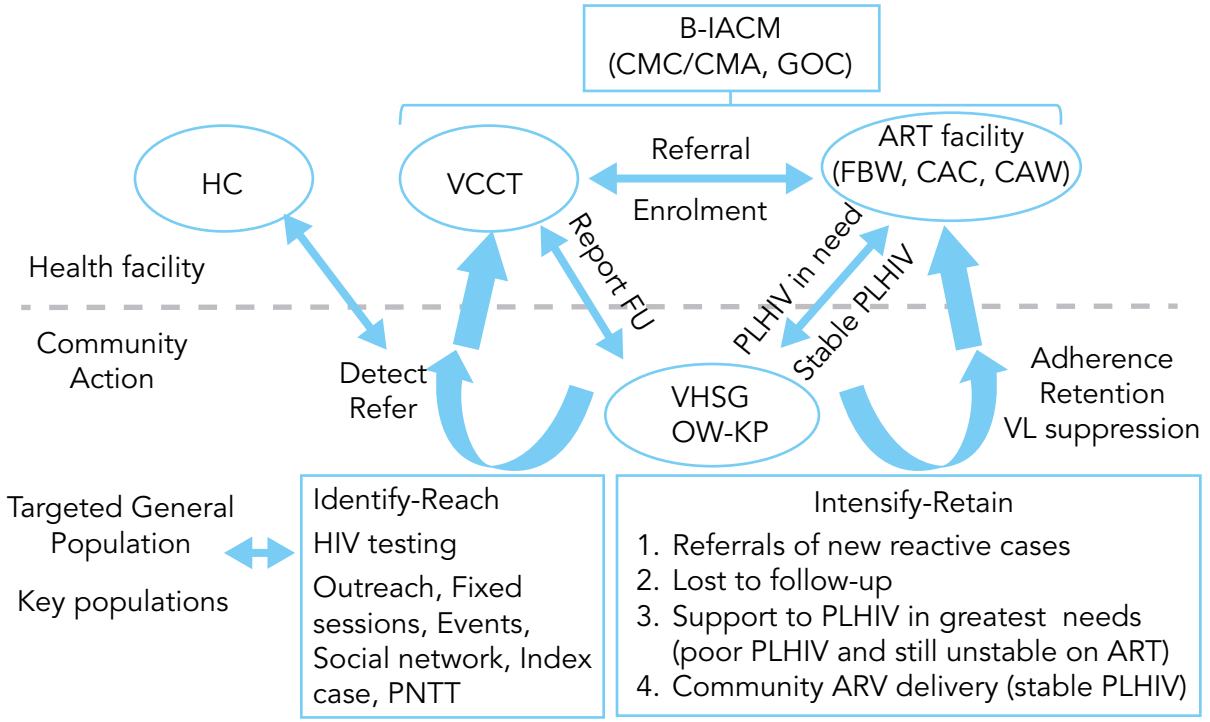
It is suggested that the TRA analysis and the identification of the priority risks be thoroughly debated by the STWG during the first quarter of 2018, and that a Sustainability Roadmap with concrete steps to mitigate these risks, be developed and approved during the second quarter of 2018. Thereafter, a detailed Action Plan can be developed and swiftly implemented. In this way, Cambodia's renowned HIV program can be sustained, and the country can look forward to achieving the ambitious goal of eliminating HIV by 2025.

9 Annexes

9.1 Stakeholder interviews

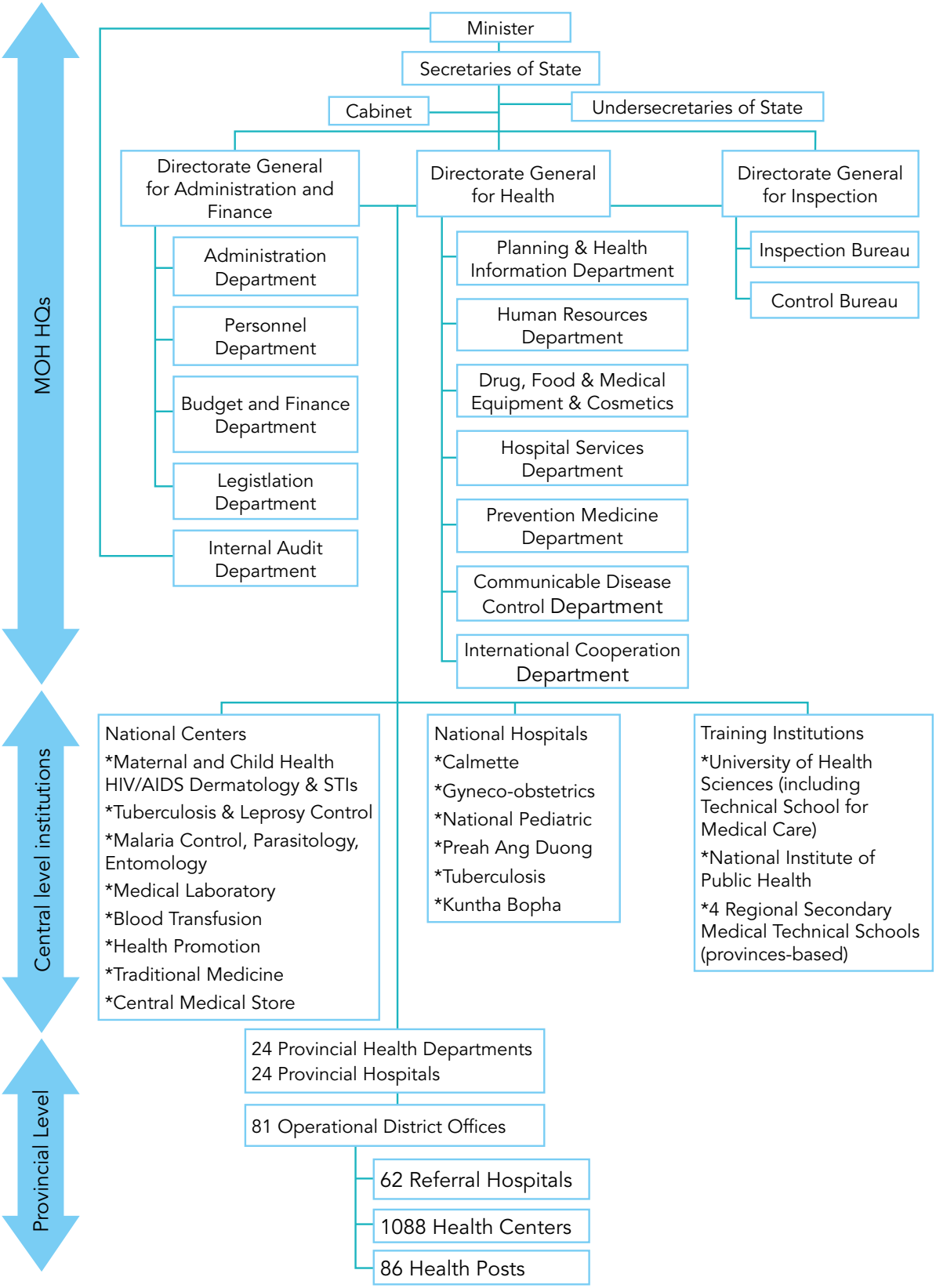
Government Partners	NGOs and CSOs	Donors	Other Partners
National AIDS Authority NCHADS • Finance Unit • BCC Unit • AIDS CARE Unit Dir. Planning and Health Information, MOH Ministry of Planning Ministry of Economy and Finance	KHANA Mith Sam Lanh Friends International Men's Health Committee Korsang Khemara Cambodian Women for Peace and Development Men's Health and Social Services SIT Chouuk Sar Association CPN+ ART Users Association (AUA) Smartgirl Network CamPUD Bandanh Chaktomuk Legal Aid Cambodia	PEPFAR USAID World Bank GIZ	Mean Chey Hospital ART Clinic PNH Dr. Mean Chhi Vun: Ex-Director NCHADS and Advisor to MoH HP+

9.2 Community Action Framework



Source: Consolidated Operational Framework on Community Action Approach to implement B-IACM towards achieving the 90-90-90 in Cambodia, August 2017

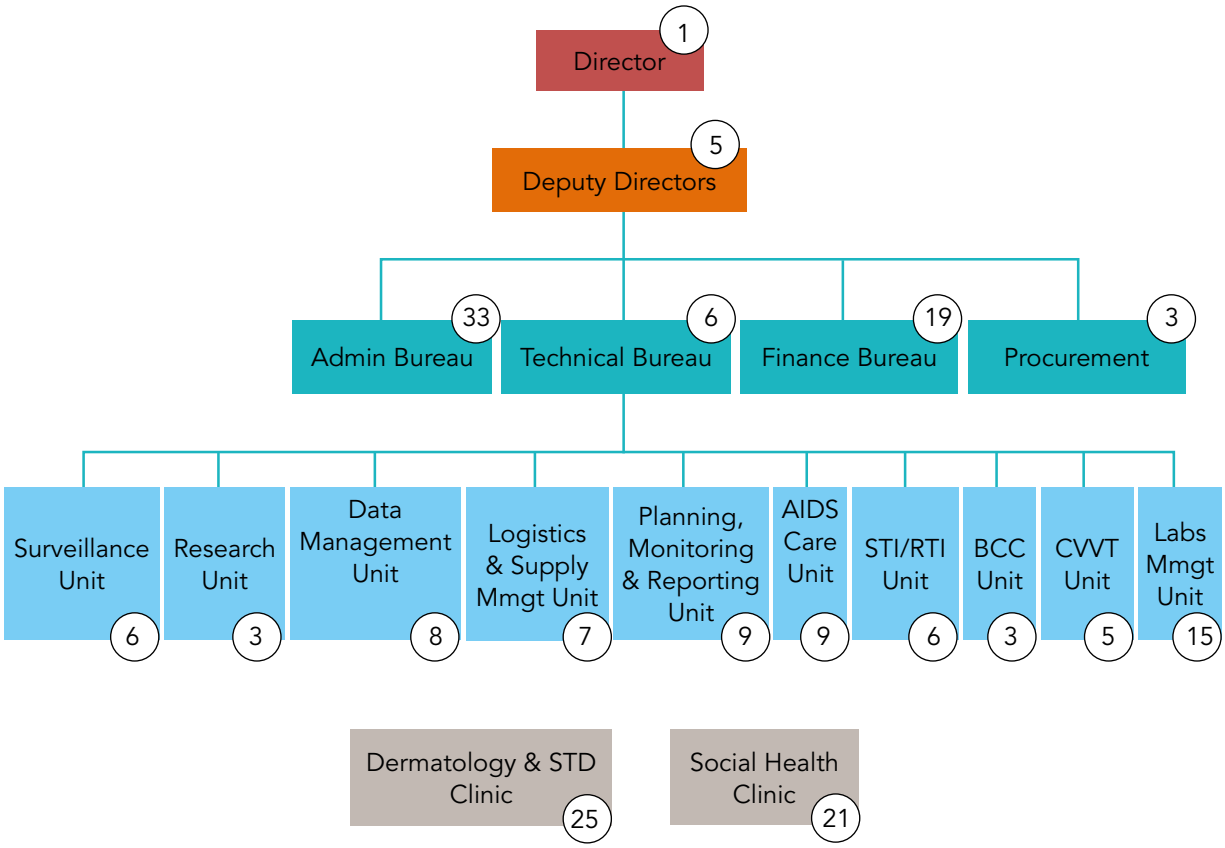
9.3 Public health system



Source: Health Systems in Transition (WHO), 2015

Note: Some numbers have changed since the creation of this figure in 2015. This figure was included to provide a visual of the health system structure and not to provide exact numbers of facilities.

9.4 NCHADS organizational structure



Source: NCHADS

9.5 Documents feeding into the Strategic Plan

Existing Concept Notes, Guidelines and Standard Operating Procedures used for the writing of the Health Strategic Plan are described below:

- Community Based Prevention, Care & Support (CBPCS) Concept Note (Nov 2015)
- Conceptual Framework for Elimination of New HIV infections in Cambodia by 2020, NCHADS-MOH (2012)
- Guidance Note on Integrated Active Case Management (ICAM) and Partner Tracing and HIV Testing Partner Notification Testing & Treatment (PNTT) for Cambodia 3.0 Initiative, NCHADS-MOH (2013)
- Guidance Note Treatment as Prevention (TasP), NCHADS-MOH (2012)
- Guidelines for Diagnosis and Antiretroviral Treatment of HIV Infection in Infants, Children and Adolescents in Cambodia (2016)
- Guidelines: Cambodian National HIV Clinical Management Guidelines for Adults and Adolescents (2016)

- Guidelines: National Guideline For the Prevention of Mother-to-Child Transmission of HIV and Syphilis, NMCHC (2016)
- SOP Boosted Continuum of Prevention, Care & Treatment (COPCT), NCHADS-MOH (2013)
- SOP Boosted Continuum of Care (B-COC)
- SOP Boosted Integrated Active Case Management (B-IACM-PNTT) incorporating IRIR, Rapid Monitoring and Analysis for Action (RMAA) and Payment for Results (P4R), draft (2016)
- SOP Boosted Linked Response (B-LR), NCHADS-MOH (2013)
- SOP NCHADS QC Sampling Plan (draft 2016)
- SOP Procurement, based on MEF Procurement Guidelines (2012)

9.6 Global Fund investment in commodities for diagnosis and treatment (2015-2017)

	People covered by Global Fund	Allocation (USD)	% Global Fund contribution total
TCS	53,797	$29,087,014	63%
PMTCT	644	$788,980	2%
Strategic Information	2,500	$1,521,365	3%
HTC FSW	68% of population for HTC	$2,655,649	6%
	19,156 for prevention		
HTC MSM/TG	67% of population for HTC	$1,819,884	4%
	13,225 for prevention		
HTC PWID	36% of population for HTC	$516,636	1%
	554 for prevention		
Non-Health Interventions		$567,976	

9.7 Global Fund grant activity for HIV- Past and current grants

Round	Grant	Principal Recipient	Grant Start Date	End Date	Total Grant Amount (USD)	Rating
10	Sustain HIV Responses, Move towards Elimination of New HIV Infections; Increase Access to and Improve Quality of TB Services at OD and Community Levels, with Linkages to TB-HIV in Cambodia (KHM-C-MEF)	Ministry of Economy and Finance	1/1/18	12/31/20	$40.7M[170]	
9	Continued achievement of Universal Access of HIV/ Sexually Transmitted Infections Prevention, Treatment and Care services in Cambodia (KHM-H-NCHADS)	National Center for HIV/AIDS, Dermatology and STI	1/1/11	12/31/17	$128.2M	
7	Scaling up interventions for HIV Prevention, Treatment, Care and Mitigation for Vulnerable and Marginalized Populations at Risk (KHM-708-G11-H)	National Center for HIV/AIDS, Dermatology and STI	12/1/08	12/31/10	$22.5M	B1
5	Strengthening Cambodia's Health System in the fight against HIV/AIDS, Tuberculosis and Malaria (KHM-506-G08-S)	Ministry of Health of the Kingdom of Cambodia	11/1/06	10/31/11	$3.5M	B1
5	HIV/AIDS - Increasing Coverage in Key Service Areas (KHM-506-G07-H)	Ministry of Health of the Kingdom of Cambodia	10/1/06	9/30/11	$30.4M	B1
4	Continuum of Care (KHM-405-G05-H)	Ministry of Health of the Kingdom of Cambodia	9/1/05	8/31/10	$35.4M	A1
2	Partnership for going to scale with proven interventions for HIV/AIDS (KHM-202-G02-H-00)	Ministry of Health of the Kingdom of Cambodia	1/1/04	12/31/08	$14.5M	A2
1	Partnership for going to scale with proven interventions for HIV/AIDS, TB and Malaria (KHM-102-G01-H-00)	Ministry of Health of the Kingdom of Cambodia	9/1/03	8/31/05	$14.7M	B1

170 This amount excludes the total value of TB/HIV, MDR TB and TB Care and Prevention

9.8 Cost projection assumptions

Base-case costs and financing

Assumptions for key drivers	Comments	Unit	2018	2019	2020	2021
Cost projections (need)						
Annual treatment costs	Annual treatment cost follow the trend reflected in the final IC scenario	Drug cost per patient per year	123.2	115.6	107.9	107.9
		US$ millions	12.7	11.7	10.8	10.8
Prevention budget	Levels of expenditure as reflected in the IC projections are adequate to further reduce incidence	US$ millions	3.3	3.5	3.7	3.8
Program Management	Current levels of program management are adequate to ensure successful implementation of the response.	US$ millions	2.6	2.6	2.6	2.6
Capacity building and transition	Investments in health systems strengthening envisaged in IC, and some PEPFAR-supported investments in capacity building and transition.	US$ millions	5.6	4.5	4.1	3.4
Financing						
Global Fund	Following current grant period, continues to decrease at approximately 1 mil USD per annum	US$ millions	16.9	12.6	11.9	10.7
PEPFAR etc.	TA need included in projections fully funded by PEPFAR	US$ millions	3.5	2.8	2.2	1.8
Domestic 1/	Takes on portion of costs of ARVs and delivery of treatment and care from 2018 and mirrors front-loaded Global Fund allocations in 2018-2020, then increases in proportion to government revenues (to 2022) or GDP.	US$ millions	3.8	6.8	7.1	7.5

Note: All costs and amounts are specified at constant 2018 prices.

1/ Includes concrete government commitments of US$ 1.5 million annually for the procurement of ARVs in 2018-2020, and of US$ 0.7 million annually to cover the costs of contracted human resources formerly funded mainly by the Global Fund, as well as an allowance for the costs of delivery of treatment and care services through the public sector.

9.9 Figure 7 Data Points: Projected costs of the HIV response, 2018-2028 ($ million)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Costs	24.2	22.2	21.2	20.7	20.2	19.5	18.9	18.5	18.1	17.7	17.4
Prevention	3.3	3.5	3.7	3.8	3.8	3.9	4.0	4.0	4.1	4.2	4.3
Treatment and Care	12.7	11.7	10.8	10.8	10.7	10.5	10.4	10.2	10.1	9.9	9.7
Program Management	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.7
Capacity Building and Transition	5.6	4.5	4.1	3.4	3.0	2.4	1.9	1.5	1.2	1.0	0.8

9.10 Figure 8 Data Points: Projected costs and financing of the HIV response, 2018-2028 ($ million)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Funding	24.2	22.2	21.2	20.6	19.8	19.1	18.4	18.0	17.7	17.4	17.4
Domestic Financing*	3.8	6.8	7.1	7.5	8.0	8.5	9.0	9.5	10.1	10.6	11.2
Global Fund	16.9	12.6	11.9	11.3	10.4	9.4	8.5	7.8	7.1	6.3	5.8
PEPFAR	3.5	2.8	2.2	1.8	1.4	1.1	0.9	0.7	0.6	0.5	0.4

*In 2018 to 2020, the domestic financing contribution comprises the fixed, direct contribution for the procurement of ARVs and the payment of contract staff together with the estimated contribution through service delivery; mainly HR, equipment and infrastructure.