

NATIONAL AIDS SPENDING ASSESSMENT REPORT 2017/18 | 2018/19



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**NATIONAL
AIDS
SPENDING
ASSESSMENT
REPORT**

2017/18 | 2018/19

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FOREWORD

The HIV and AIDS response in Uganda has seen significant progress, with the prevalence of HIV reducing from 18% in the 1980s to 5.8% today. The number of new HIV infections has decreased steadily from 83 000 in 2015 to 53 000 in 2020, and the number of AIDS-related deaths has decreased from 28 000 to 21 000.

In Uganda, 86% of people living with HIV know their HIV status, 86% are receiving antiretroviral therapy, and 73% are virologically suppressed. These accomplishments have been possible thanks to the financial support of the international community and increased investment in the HIV and AIDS response by the Ugandan Government.

Fast-Tracking the HIV and AIDS response to reach the new 95–95–95 targets and achieving zero HIV infections, zero AIDS-related deaths and zero discrimination requires additional investment and focused efforts. Not reaching these targets would negatively impact on the HIV and AIDS response and result in a reversal of the currently positive trends. Investing in the epidemic now would help save resources over the longer term.

The Ugandan Government has been committed to monitoring national spending on HIV and AIDS since the first National AIDS Spending Assessment (NASA) exercise in 2011. A second NASA was conducted in 2018 for the financial years 2014/15, 2015/16 and 2016/17.

The current assessment was conducted in 2020 for the years 2017/18 and 2018/19. These efforts provide indicators on HIV and AIDS financing, allowing international comparability and offering key data to monitor Uganda's HIV and AIDS goals. The current NASA will be useful during the implementation of the new National Strategic Plan for 2020/21 to 2024/25.

On behalf of the Uganda AIDS Commission, I strongly recommend that the information in this report is used to improve the financial allocation of the HIV and AIDS response and to show the importance of sustaining adequate HIV and AIDS financing in Uganda in the future. It is my sincere hope that all stakeholders in the multisectoral HIV and AIDS response, including AIDS development partners, implementing partners, service providers, decision-makers and policy-makers at the national and district level, will use this report to inform their planning and resource allocation in our joint efforts to end HIV and AIDS as a public threat in Uganda by 2030.

Dr Eddie Mukooyo Sefuluya

Chairman, Uganda AIDS Commission

ACKNOWLEDGEMENTS

This report contains the results of the third National AIDS Spending Assessment (NASA) in Uganda, covering the financial years 2017/18 and 2018/19. The assessment was carried out under the leadership of the Uganda AIDS Commission, but the process of compiling the report was highly participatory, with support from various stakeholders, including ministries, departments and agencies of the Ugandan Government, AIDS development partners, implementing partners, academia, and international and domestic civil society organizations.

I would like to recognize and congratulate the NASA task team that took on the job with great courage and enthusiasm, and I express appreciation to the NASA core team for their technical advice. Much appreciation and gratitude go to the team of consultants who planned and implemented the assessment. Annex 4 lists the key people involved.

Very special thanks go to the many institutions and individuals who participated in the assessment. NASA would not have been possible without their keen interest in this exercise and their timely submission of financial data to the Uganda AIDS Commission.

The Uganda AIDS Commission is grateful to the financing agents—the Embassy of Ireland, the Joint United Nations Programme on HIV and AIDS, and the United States Agency for International Development Uganda Health Systems Strengthening activity—for technical and financial support, without which this assessment would not have been possible.

Analysis and recommendations resulting from this NASA will serve as the basis to develop new approaches to strategic planning and resource mobilization and will contribute to the development of a platform for sustainable HIV and AIDS financing mechanisms as we work towards ending AIDS by 2030 in Uganda.

Dr Nelson Musoba

Director General, Uganda AIDS Commission

DEFINITION AND DESCRIPTION OF TERMS

AIDS spending category

This is a functional classification that includes the categories of prevention (the five prevention pillars—adolescent girls and young women, key populations, condoms, voluntary medical male circumcision, pre-exposure prophylaxis—and other prevention activities), HIV testing and counselling, HIV and AIDS care and treatment, and other health and non-health services related to HIV and coinfections such as tuberculosis and hepatitis. Except for direct services, new classifications include categories with the purpose of strengthening the system of response to HIV and AIDS in general, such as social protection and economic support; social enablers; programme enablers and health systems strengthening; development synergies; and HIV and AIDS-related research.

Beneficiary population

The populations presented here are explicitly targeted or intended to benefit from specific activities. Identification of a beneficiary population aims to quantify the resources specifically allocated to the population as part of the service delivery process of a programmatic intervention. Beneficiary populations are selected according to the intention or target of the spending in programmatic interventions. This represents an outcome linked to the resources spent, regardless of its effectiveness or effective coverage.

Production factors

This classification uses comparable breakdowns that can easily cross over to other reports. The resource cost classification captures expenditure according to the standard economic classification of resources used for the production of goods and services. The classification

includes two major categories: current expenditure and capital expenditure. In NASA the classification of production factors categorizes expenditure in terms of resources used for production.

Capital expenditure

The main categories in this classification are buildings, capital equipment and capital transfers. These categories may include major renovations, reconstruction or enlargement of existing fixed assets, as these can improve and extend the previously expected service life of an asset.

Current expenditure

This is the total value of resources in cash or in kind payable to a health provider by a financing agent on behalf of the final consumer of health services in return for services performed (including the delivery of goods) during the year of the assessment (e.g. wages, salaries, commodities).

Financing agent-purchaser

This is an institutional unit involved in the management of one or more financing schemes that implements the revenue collection or purchasing of HIV and AIDS services. This includes households as financing agents for out-of-pocket payments. It may collect revenues, purchase services under the given financing scheme(s), and be involved in the management and regulation of health and social services financing. There is not necessarily a one-to-one correspondence between financing schemes and financing agents.

Revenue of the schemes

This is the mechanism (transactions) involved in providing resources to financing schemes. The classification of revenues of financing schemes is suitable for tracking the collection mechanisms of a financing framework. The new classification makes it possible to analyse the contribution of institutional units to health and social HIV and AIDS financing.

Financing schemes

These are structural components of health-care financing systems. They are financing arrangements through which people obtain health services. Health-care financing schemes include direct payments by households for services and goods, and third-party financing arrangements. Third-party financing schemes are distinct bodies of rules that govern the mode of participation in the scheme, the basis for entitlement to health services, and the rules on raising and pooling the revenues of the given scheme.

Service delivery modalities

This is a new classification created by UNAIDS to add the option of analysing programmes disaggregated by models in terms of efficiency and effectiveness.

Out-of-pocket expenses

This is expenditure by households and individuals on HIV and AIDS-related services, such as household income spent on care and treatment services and pooled funds of support groups to provide support.

Development synergies

These are programmes necessary to enable the efficacy, equity and rollout of basic programme activities. They encourage sustainability of HIV and AIDS responses through integration into broader health and non-health sectors. Although development synergies can have a profound impact on HIV and AIDS outcomes, their reason for being is not typically for HIV and AIDS. Maximizing the HIV and AIDS-related benefits and minimizing the HIV and AIDS-related harms of development synergies would make them HIV and AIDS-sensitive.

ABBREVIATIONS

AIDS	acquired immunodeficiency syndrome	UHSS	Uganda Health Systems Strengthening
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria	UNAIDS	Joint United Nations Programme on HIV/AIDS
HIV	human immunodeficiency virus	USAID	United States Agency for International Development
NASA	National AIDS Spending Assessment	WHO	World Health Organization
NSP	National Strategic Plan		
PEPFAR	United States President's Emergency Plan for AIDS Relief		

EXECUTIVE SUMMARY

With the purpose of ensuring a coordinated and adequately resourced HIV and AIDS response, Uganda, through the Uganda AIDS Commission, committed to undertaking a National AIDS Spending Assessment (NASA) to track actual HIV and AIDS-related spending from public, international and private sources for the financial years 2017/18 and 2018/19.

The initiative was financially supported by the Embassy of Ireland, the Joint United Nations Programme on HIV/AIDS (UNAIDS), and the United States Agency for International Development (USAID) Uganda Health Systems Strengthening (UHSS) activity.

NASA describes the flow of resources from their origin down to the beneficiary populations. The financial flows for the national HIV and AIDS response are grouped in three dimensions: finance, provision and consumption. Expenditure is reconciled from these three dimensions using data triangulation.

A mapping of all institutions involved in the HIV and AIDS response was carried out, followed by a desk review of key national policy documents, programme documentation and available budgetary and expenditure reports for the years 2017/18 and 2018/19.

Most of the key data sources (detailed expenditure records) were obtained from the majority of primary sources for the reporting period. Secondary sources were used only where primary sources were not available. In a few cases a logical estimation approach was applied, based on available secondary data (e.g. cost estimates for health systems strengthening and human resources for the Ministry of Health).

The assessment comprised five stages: planning and mapping of actors; NASA training; data collection and processing; data validation and quality control; and data analysis and report writing.

METHODOLOGY

The assessment used a mainly top-down approach for data collection. All major HIV and AIDS financing sources in Uganda from the public, private and international sectors were sampled, with guidance from the Uganda AIDS Commission e-mapping tool. When financiers were not able to give spending details, implementing partners were contacted and data triangulation performed to avoid double-counting. Primary data were collected through a customized Excel-based data-collection template. Detailed disaggregated HIV and AIDS expenditure data were captured in the NASA consolidation tool developed by UNAIDS and exported into the Resource Tracking Tool for analysis.

Quality control was assured through data triangulation by cross-checking multiple sources of data to avoid duplication. Consultants reviewed the data entry sheet regularly to troubleshoot potential inconsistencies, and provided guidance on standardized data coding in the Resource Tracking Tool. The Resource Tracking Tool control board also indicated discrepancies that needed to be adjusted or fixed.

MAIN FINDINGS

Substantial resources have been invested in Uganda's HIV and AIDS response from various sources, including the Ugandan Government, development partners and the private sector (including households). Total HIV and AIDS spending in Uganda increased exponentially from US\$ 1109 billion (Ugandan shillings) in 2008/09 to US\$ 2146 billion in 2018/19. Despite the exponential increase between 2008/09 and 2015/16, there was then an 11% decline in HIV and AIDS spending from US\$ 2411 billion in 2016/17 to US\$ 2146 billion in 2018/19.

The Ugandan Government's contribution in absolute terms has increased by 48% from 2008/09 to 2018/19, indicating its positive commitment to increasing

domestic resources towards the HIV and AIDS response. The bulk of HIV and AIDS financing in Uganda, however, continues to come from international sources, which accounted for 84% in 2017/18 and 83% in 2017/18 and 2018/19. The Government's contribution is the second largest source of HIV and AIDS financing, with a contribution of 8.1% in 2017/18 and 8.5% in 2018/19.

Private resources (mainly households through out-of-pocket expenditure) accounted for 7.8% of total HIV and AIDS spending in 2017/18 and 8.4% in 2018/19.

The United States of America, through the United States President's Emergency Plan for AIDS Relief (PEPFAR), was the largest financier of the HIV and AIDS response in Uganda, providing 66.8% of total HIV and AIDS spending in 2017/18 and 63.4% in 2018/19. The second largest funder was the Global Fund to Fight AIDS, Tuberculosis and Malaria, providing 11.2% of total HIV and AIDS spending in 2017/18 and 12.5% in 2018/19.

Other multilateral and bilateral agencies and international nongovernmental organizations contributed 5.8% of total HIV and AIDS spending in 2017/18 and 7.2% in 2018/19.

International organizations provided the largest share of financing, at 72.3% of total HIV and AIDS spending in 2017/18 and 69.4% in 2018/19. Public-sector agents accounted for 19.4% of financing in 2017/18 and 20.2% in 2018/19. The private sector, which includes local nongovernmental organizations, business organizations and households, accounted for 8.3% of financing in 2017/18 and 10.4% in 2018/19.

More than half of total HIV and AIDS spending in Uganda was on HIV and AIDS care and treatment, at 54% in 2017/18 and 58% in 2018/19, followed by programme enablers and health systems strengthening, at 20% in 2017/18 and 17% in 2018/19. Prevention interventions accounted for 13% in 2017/18 and 10% in 2018/19, representing a 25% decline. Social protection and economic support, social enablers, development synergies and research accounted for the remainder of HIV and AIDS financing.

People living with HIV were the largest beneficiary population, receiving 55% of total HIV and AIDS spending in 2017/18 and 59% in 2018/19. This was followed by non-targeted (non-specific) populations, at 22% in 2017/18 and 20% in 2018/19. Vulnerable and accessible populations¹ received 10% in 2017/18 and 8% in 2018/19. Key populations (e.g. sex workers, men who have sex with men, transgender people) received the least, with less than 1% in both years.

Recurrent expenditure took the largest portion of production factor spending, at 98% in 2017/18 and 97% in 2018/19. Capital expenditure accounted for only 2% in 2017/18 and 3% in 2018/19.

Medical products and supplies accounted for the largest percentage of total HIV and AIDS spending, at 38% in 2017/18 and 43% in 2018/19. Operational and programme management costs accounted for 30% in 2017/18 and 28% in 2018/19. Personnel costs (wages and salaries) accounted for 15% in 2017/18 and 13% in 2018/19.

A key challenge in conducting the assessment was the difficulty in disaggregating production factors from expenditure, as required for NASA classification by some partners, particularly non-health entities and the private sector. This was made more difficult by the absence of a centralized resource tracking system to easily generate HIV and AIDS spending data and reports for all actors.

OUT-OF-POCKET EXPENDITURE SURVEY

Out-of-pocket expenditure contributes significantly to overall financing of the national HIV and AIDS response in Uganda. Out-of-pocket expenditure survey findings for 2020 show that about 8% of the financing that pays for HIV and AIDS-related care and treatment activities comes from private sources in the form of out-of-pocket payments (see Annex 1).

The costs of seeking care varied with the type of service provider. People using public facilities spent less per visit than people who sought care from other

¹ Vulnerable and accessible populations comprise orphans and vulnerable children, adolescent girls and young women, refugees, internally displaced people, migrants and mobile populations, indigenous groups, truck drivers, children and youth living on the streets, children and youth out of school, people attending clinics for sexually transmitted infections, junior and high school students, university students, health-care workers, military personnel and employees (for workplace interventions).

facilities, especially private profit-making organizations, pharmacies, private non-profit-making organizations and mobile clinics. Costs of seeking care from urban facilities were higher than those in rural areas.

The two major cost drivers of out-of-pocket expenditure were transport to public and private non-profit-making facilities, and medicines from private profit-making organizations and pharmacies.

The disproportionately high household contribution to HIV and AIDS care demonstrates the economic burden for people living with HIV and their families. In the absence of coverage for treatment of HIV and AIDS and opportunistic infections, a family's access to services depends on the ability to pay.

CONCLUSIONS AND RECOMMENDATIONS

In absolute terms, public spending increased by 2% over the two years under assessment. International contributions were the major source of financing for the national HIV and AIDS response. Household contributions were remarkably close to public financing. A strong coordination mechanism is needed between the private business sector and the Uganda AIDS Commission to fully capture private-sector expenditure on HIV and AIDS.

Care and treatment accounted for the largest share of total HIV and AIDS spending in Uganda, followed by programme enablers and health systems strengthening and HIV and AIDS prevention. The main providers of HIV and AIDS services were public facilities and international nongovernmental organizations. Local nongovernmental organizations also played an important role in the delivery of health services, particularly those supported through donor financing.

People living with HIV were the main beneficiary population. There was relatively low spending on adolescent girls and young women and key populations.

A major limitation of the study was the inability to undertake a comprehensive assessment of the private sector. Some of the organizations did not provide data disaggregated to the level required by the NASA methodology, especially on production factors.

One of the key challenges to the current system of HIV and AIDS financing in Uganda is sustainability. Overdependence on donors is not sustainable in the long term. The key recommendations from this assessment are centred on the need to implement and enforce a strategic framework to mobilize additional resources for the health sector, and particularly for HIV and AIDS, in order to maintain the significant health and economic gains realized as a result of the aggressive response to HIV and AIDS.

Institutionalizing routine resource tracking instead of using ad hoc surveys remains one of the key recommendations to ensure accountability, transparency and long-term sustainability.

To achieve epidemic control, the Ugandan Government and its partners should continue to invest in interventions with high impact—that is, those that target populations most at risk and those likely to significantly decrease the number of new HIV infections.

The Ugandan Government should seek innovative ways to improve financial accessibility to good-quality health care. Prepayment plans are an alternative to out-of-pocket payments that help to remove financial barriers to using health services when needed. Patients insured under a prepayment plan face less uncertainty about how much they will need to pay when seeking care.





INTRODUCTION

UGANDA'S HIV AND AIDS EPIDEMIC

Over the past four decades, the HIV and AIDS epidemic in Uganda has evolved significantly. At the outset, Uganda recorded one of the highest prevalence rates in the region, at 18% in the 1990s, but this was followed by a marked decline to 6% by 2017 (1).

This decrease was attributed to, among other factors, the Ugandan Government's political will and public and private leadership in responding to HIV and AIDS; a high level of community mobilization; adoption of combination HIV prevention strategies; and an innovative institutional response framework with a multisectoral approach that tackles HIV and AIDS as both a public health problem and a development challenge affecting all sectors of the economy (2).

HIV in Uganda has evolved into a mature and generalized epidemic, with multiple and diverse features affecting different population subgroups and with different transmission dynamics within and between these subgroups.

In 2019, 1.4 million people in Uganda were living with HIV. The incidence per 1000 uninfected people of all ages was 1.31, but substantially higher in specific subpopulations and locations. The prevalence was 6.8% in women, 4.2% in men, 2.8% in adolescent girls and young women, and 1.1% in young men. A total of 53 000 people were newly infected in 2019, including 5700 children aged 0–14 years, 48 000 adults aged 15 years and over, and 28 000 women aged 15 years and over (3).

Uganda has achieved some milestones since the implementation of the last two National Strategic Plans (NSPs), including reduced numbers of new infections and AIDS-related deaths. The number of new infections decreased by 43% from 92 000 in 2010 to 53 000 in 2019. The number of AIDS-related deaths

reduced by 58% from 56 000 in 2010 to 23 000 in 2019 (4, 5). Nevertheless, numbers of new infections remain unacceptably high, especially among women of reproductive age (6).

With a current prevalence of 6%, Uganda is a country with a high HIV burden. This has severe social and economic effects, which arise from both direct costs (e.g. expenditure on care and treatment) and indirect costs (e.g. time off work) (2). People living with HIV incur substantial out-of-pocket expenses for HIV and AIDS-related health care, including care and treatment, consultations, laboratory tests, consumables and hospitalization. Out-of-pocket expenditure is arguably the most important component that should be examined for the economic impact of the HIV and AIDS epidemic.

Effective governance of the HIV and AIDS response requires a multisectoral approach responsive to and inclusive of other government sectors, the private sector and civil society. HIV and AIDS impact all the social and economic sectors within a country (7).

The Uganda AIDS Commission is mandated to oversee, plan and coordinate HIV and AIDS prevention and control activities. With support from development partners and nonstate actors, including civil society organizations and the private sector, the Uganda AIDS Commission is committed, and continues to provide much-needed leadership, to the national HIV and AIDS response. Programming aspects include strengthening institutional arrangements at the national and decentralized levels; strategic programme development by ensuring there are successive evidence-based NSPs and policies; management, support and coordination of the response; and mobilizing for financing.

The Uganda AIDS Commission is advocating for HIV and AIDS planning and budgeting to be mainstreamed in governmental activities as a sustainable strategy to address the drivers and consequences of the epidemic. The budget call circular by the Ministry of Finance, Planning and Economic Development for 2019/20 stated that 0.1% of the total budget allocation for all ministries, departments and agencies should go towards HIV and AIDS interventions (8).

HIV and AIDS mainstreaming is preserved in the Presidential Fast-Track Initiative on Ending HIV and AIDS in Uganda (9). This initiative, launched in June 2017, includes a five-point plan for focused action against the spread of HIV and AIDS in Uganda:

- Accelerate steps to decrease the spread of new HIV infections, particularly among adolescent girls and young women and their partners.
- Eliminate mother-to-child transmission of HIV.
- Accelerate test and treat programmes to meet the 90–90–90 targets (whereby 90% of people living with HIV know their HIV status, 90% of people who know their HIV-positive status are accessing treatment, and 90% of people on treatment have suppressed viral loads).
- Guarantee financial sustainability for HIV and AIDS programmes.
- Reinforce institutional effectiveness for a multisectoral response.

Uganda's HIV and AIDS response is guided by the NSP. In the NSP for 2015/16 to 2019/20, Uganda adopted the 90–90–90 targets. The Uganda AIDS Commission developed the third NSP for 2020/21 to 2024/25, which aligns to national and international laws, development frameworks and other commitments, such as the third National Development Plan 2020/21 to 2024/25 and the Sustainable Development Goals.

The current NSP offers the Uganda AIDS Commission an opportunity to guide stakeholders towards the implementation of the Presidential Fast-Track Initiative on Ending HIV and AIDS in Uganda by 2030 and the Three Ones (one coordination framework, one strategic

plan, one monitoring and evaluation mechanism) to respond to the HIV and AIDS epidemic (10).

The NSP will also contribute to the objectives of regional initiatives, including the African Union commitment on HIV and AIDS management and control (11), the East African Community, and the Intergovernmental Authority on Development. More specifically, it is aligned to the goals set by the United Nations in the 2016 Political Declaration on HIV and AIDS: On the Fast Track to Accelerating the Fight against HIV and to Ending the AIDS Epidemic by 2030 (12).

The overall goal of the current NSP is to increase productivity, inclusiveness and well-being of the population by ending AIDS as a public health threat by 2030. Its five main objectives are to:

- Reduce new HIV infections by 65% among adults and youth, and new paediatric HIV infections to less than 5%, by 2025.
- Reduce HIV and AIDS-related morbidity and mortality by 2025.
- Strengthen social and economic protection to reduce vulnerability to HIV and AIDS and mitigate its impact on people living with HIV, orphans and vulnerable children, key populations, and other vulnerable groups.
- Strengthen the multisectoral HIV and AIDS service delivery and coordination system to ensure sustainable access to efficient, good-quality services for all targeted populations.
- Strengthen the national HIV and AIDS strategic information management system for improved effectiveness and efficiency.

The NSP will be implemented within the existing planning, policy and legal framework using the public health approach, which requires evidence-based interventions to sufficiently impact the epidemic to achieve satisfactory levels for control. The National HIV and AIDS Policy (2011) provides a broader framework for delivering HIV and AIDS services in Uganda and inspires national action at all policy formulation, planning, programming and service delivery levels (13).

HIV AND AIDS FINANCING IN UGANDA

The Ugandan health system is continuously undergoing review at the policy, planning and implementation levels. The system functions within the guiding framework of the World Health Organization (WHO) universal access to health and universal health coverage policy umbrella. The Uganda AIDS Commission, through the NSP, places emphasis on prevention, care and treatment, social support and health systems strengthening, including health governance, health financing and resource mobilization.

Health financing is always part of the policy agenda of government authorities around the world. Health financing includes the “mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system” and has two goals: “to raise sufficient funds and ... provide financial risk protection to the population” (14).

In Uganda, resources for health come from domestic and external sources. Domestic sources include private spending (typically out-of-pocket expenditure and the business sector) and public spending (Ugandan Government). External sources include bilateral and multilateral financing, private donors and philanthropic organizations (15).

With most countries in the region experiencing a decline in external financing for HIV and AIDS, Uganda faces considerable challenges in organizing and financing HIV and AIDS services. The pressure of costs usually exceeds the revenue-generating ability of the system, making health financing a continuing matter of concern in Uganda.

Uganda requires more than just increased financial resources for HIV and AIDS. It needs improved ways of organizing resource mobilization, allocation and expenditure to obtain maximum value for money,

equitable and sustainable financing, and financial protection against health expenditure for the entire population (16).

For years, international entities have responded to HIV and AIDS in Uganda by financing efforts to avert new infections and to provide treatment and other clinical services. International entities continue to account for the largest source of HIV and AIDS financing in Uganda, contributing over 68% of total financing in 2010 and 92% in 2016 (15, 17). Domestic financing was about 10% in 2010 and only 6% in 2016.

This high level of international financing means Uganda’s HIV and AIDS response is unsustainable and reliant on continued international investments. The largest portion of these resources was from bilateral support of the United States Government through the United States President’s Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) (15, 17).

Some other African countries are similarly reliant on international financing for their national HIV and AIDS responses, including Eswatini (59%), Ethiopia (82%) and Zambia (85%).

Overdependence on external donors creates fragility and the possibility of the HIV and AIDS response being seriously interrupted if financing is terminated or reduced. It is anticipated that the Ugandan Government will take responsibility for mobilizing and managing funds for programmes and specific interventions under the NSP 2020/21 to 2024/25. Contributions are expected to come from development partners and nonstate actors, including the private sector, civil society, local communities, families and individuals.

Full operationalization of a national AIDS trust fund, the One Dollar Initiative, and establishment of a national health insurance scheme to operate concurrently with community and private commercial health insurance schemes will contribute to bridging the financial gap in the HIV and AIDS response (18).



NASA IN UGANDA

OVERVIEW

NASA is a comprehensive systematic methodology to track the flow of resources for the HIV and AIDS response, from the sources, through different economic agents, to the beneficiaries. The NASA resource tracking algorithm is designed to describe financial flows and expenditure using the same categories as in the Global Resource Needs Estimation. The NASA framework is based on globally accepted standardized methods and definitions that are compatible with, but more disaggregated than, National Health Accounts (now called the System of Health Accounts). NASA captures data beyond health expenditure to embrace other spending in the multisectoral HIV and AIDS response.

Resource tracking is an important method of transparency, accountability and monitoring to ensure future resources are spent in high-priority areas and among people with the greatest needs. NASA tracks the flow of resources from their source to the point of expenditure.

Uganda has undertaken two previous NASA exercises. The first was in 2012 and covered the financial years 2008/09 and 2009/10; the second was in 2018 and covered the financial years 2014/15, 2015/16 and 2016/17.

The total resource envelope for HIV and AIDS was US\$ 1109 billion (US\$ 586.6 million) in 2008/09 and US\$ 1167 billion (US\$ 579.7 million) in 2009/10. The first NASA explored all possible sources of financing for HIV and AIDS-related health services (public, private and external financiers). Out-of-pocket expenditure was estimated and not primarily researched. In both years, similar trends of financing were established, with public sources contributing 10.3% of the total HIV and AIDS resource envelope, private sources 20.8% and external sources 68% (17).

The second NASA revealed that HIV and AIDS expenditure was US\$ 1.210 trillion (US\$ 433.5 million) in 2014/15, US\$ 2.269 trillion (US\$ 666.8 million) in 2015/16, and US\$ 2.411 trillion (US\$ 691.8 million) in 2017/18. External sources contributed 90% of the total HIV and AIDS resource envelope, public sources 9.4%, and private non-profit-making sources 2%. The largest proportion of international sources came from the United States Government through PEPFAR, which contributed 99.8% of total bilateral funds over the three years (15).

Information on private profit-making financing, including out-of-pocket expenditure, for HIV and AIDS was not assessed in the 2018 NASA. In Uganda, the private sector contributes significant amounts to health care, and particularly to HIV and AIDS. The most recently concluded National Health Accounts, covering the years 2016/17, 2017/18 and 2018/19, show that out-of-pocket expenditure is an important component of current health expenditure (19). Out-of-pocket expenditure was estimated at US\$ 1.737 billion (37.7%) in 2016/17, US\$ 1.818 billion (35.6%) in 2017/18 and US\$ 2.033 billion (38.6%) in 2018/19; this excluded prepaid expenditure by households to insurance companies. On average, out-of-pocket expenditure accounted for 95% of private-sector expenditure; the remaining 5% was from employer-based insurance.

Despite evidence of such contributions from the private sector, a survey of HIV and AIDS-related out-of-pocket expenditure had not previously been conducted in Uganda. Owing to its importance in health financing, it was deemed necessary to conduct a survey to collect data on out-of-pocket expenditure on HIV and AIDS services in the current NASA (Annex 1). This will help to determine key areas of out-of-pocket expenditure on HIV and AIDS services in Uganda. Without such an assessment, HIV and AIDS-related expenditure would remain underestimated.

RATIONALE FOR CONDUCTING NASA IN 2020

The 2001 United Nations General Assembly Special Session on HIV and AIDS urged countries to invest in monitoring and evaluation systems of their HIV and AIDS responses. This entails the institutionalization of a monitoring system that enables implementers to routinely collect financial and health service delivery data on the HIV and AIDS response.

The NASA methodology produces information that can guide decision-making to determine the level of expenditure incurred in each programme area, to measure the potential financing gap, and to improve future allocative decisions and mobilize additional resources in an evidence-based planning process. Additionally, the NASA result informs the processes of developing or improving key national strategies such as sustainability plans and allocative or productive efficiency analyses, and permits monitoring of implementation of the NSP.

This is particularly important when future HIV and AIDS financing is threatened by competing global priorities and economic downturns but expectations to achieve more remain high. NASA data allow for further examination of aspects of equity, efficiency, absorptive capacity and allocative efficiency, and are critical for informing the sustainability discourse.

Uganda faces challenges related to timely financial reporting for HIV and AIDS services, resource mobilization, allocation and absorptive capacity at all levels. At the same time, the size of the HIV and AIDS resource envelope is unpredictable, and it is not easy to understand how these resources are used. Information on financing of the national response and spending of the public, civil society and private sectors remains largely uncoordinated and with data deficiencies. The effective tracking of such resources is therefore an important policy issue for all stakeholders.

Tracking HIV and AIDS expenditure produces estimates of the flow of resources into a country's health system. To answer policy questions around financial sustainability, it is vital to understand and explain the financial flows; to demonstrate how the funds are dispersed to different economic agents and the channels used to access financing; to determine the level of expenditure incurred in each programme area and the targeted beneficiary populations; and to

measure the potential financing gap. Additional impact analysis can be undertaken at minimal cost because in-house capacity has been built.

Against such a background, the Uganda AIDS Commission, in collaboration with its development partners the Embassy of Ireland, UNAIDS and the United States Agency for International Development (USAID), commissioned the third NASA for the period 2017/18 to 2018/19. With a dearth of information on HIV and AIDS spending attributable to out-of-pocket expenditure in Uganda, the 2020 NASA was conducted with a particular focus on the assessment of out-of-pocket expenditure among people living with HIV and AIDS to guide future policy decisions. This exercise builds on the 2012 and 2018 NASAs.

OBJECTIVES

The overall objective was to capture health and non-health financial flows and expenditure related to Uganda's HIV and AIDS response. The primary objective was to collect data on HIV and AIDS expenditure in Uganda for the financial years 2017/18, 2018/19 and 2019/20 using the NASA methodology. Due to data unavailability for 2019/20, the National Task Team resolved to consider only two years (2017/18 and 2018/19).

Specific objectives were to:

- Conduct an HIV and AIDS spending assessment focusing on public and development partner resources and including private (profit-making and non-profit-making) entities known to contribute to HIV and AIDS activities in 2017/18 and 2018/19.
- Collect data on out-of-pocket expenditure on HIV and AIDS services and determine key areas of out-of-pocket expenditure, including medicines, primary care visits, medical devices and supplies, and laboratory services.
- Conduct selected impact analysis of HIV and AIDS expenditure to inform programming.
- Prepare a report of expenditure trends that will contribute to reprioritizing financing allocations and mobilizing new resources.
- Identify and measure the flow of HIV and AIDS resources by financing entities, revenue, financing

schemes, financing agent-purchasers, service providers, service delivery modalities, functions or interventions, cost components, and beneficiary populations.

In addition to the descriptive questions answered by the NASA methodology, this NASA has attempted to provide the following information:

- Comparison of estimated total NSP resources needed for 2018/19 and actual spending in 2018/19.
- Comparison of interventions for which estimated costs and expenditure data were available and comparable for 2018/19.
- Comparison of allocation of expenditure on HIV and AIDS and the priorities defined in the NSP.



NASA

METHODOLOGY AND SCOPE CLASSIFICATION

NASA is based on standardized methods, definitions and accounting rules of the globally available and internationally accepted System of National Accounts, National Health Accounts and National AIDS Accounts. NASA follows the basic framework and templates of National Health Accounts but is not limited to health expenditure. It embraces other expenditure to track the multisectoral response to HIV and AIDS.

The NASA approach to tracking resources is a comprehensive and systematic methodology used to determine the flow of resources intended to respond to HIV and AIDS. This methodology seeks to provide answers to the following questions:

- Who paid for HIV and AIDS services in Uganda in 2017/18 and 2018/19?
- What mechanisms were in place to provide resources to financing schemes?
- What were the modalities through which populations access services?
- Who pooled funds and purchased HIV and AIDS services?
- Who were the providers of HIV and AIDS services in Uganda?
- What HIV and AIDS services were provided, and what was spent on them?

- Who were the beneficiaries of HIV and AIDS spending in Uganda?
- What were the key cost drivers of HIV and AIDS spending in Uganda?
- What services are being provided, and what service delivery modes are being used?

To answer these questions, the NASA methodology reconstructs all the financial transactions related to the national response to HIV and AIDS. In the NASA 2020 framework, the financial flows and expenditure related to the national response to HIV and AIDS are grouped into three dimensions: finance, provision and use. Each of these dimensions is broken down to give a total of nine vectors; in this NASA, however, only seven vectors were discussed in detail.

The three dimensions and nine vectors that constitute the NASA 2020 framework are:

Financing:

- Financing entities (sources) are the economic units providing resources to the schemes (used by agents).
- Financing revenues are mechanisms providing resources to financing schemes (used by agents).
- Financing schemes are modalities through which a population accesses services.

- Financing agents and purchasers are economic units that operate the schemes. They collect revenue, pool financial resources, pay for service provision, and make programmatic decisions (allocation and purchase modalities).
- Provision of HIV and AIDS services:
 - Service providers are entities that engage in the production, provision and delivery of HIV and AIDS services.
 - Production factors are inputs and resources (e.g. labour, capital, natural resources, know-how, entrepreneurial resources) used to produce AIDS spending categories.

Use:

- AIDS spending categories are HIV and AIDS-related interventions and activities. There are eight categories of spending: prevention; testing and counselling; care and treatment; social protection and economic support; social enablers; programme enablers and health systems strengthening; development synergies; and HIV and AIDS-related research. NASA spending categories are also divided into a functional classification that includes health and non-health HIV and AIDS services.
- Beneficiary segments are populations intended to benefit from specific activities, such as people living with HIV, key populations, vulnerable and accessible populations, the general population, and specific targeted populations not classified elsewhere.
- The service delivery modality is a new variable in NASA 2020 that indicates the modality of the service provided.

SCOPE

The following parameters defined the scope of this NASA:

- Financial years: 2017/18 and 2018/19.
- Financing entities to be included: public, international, private (businesses, out-of-pocket expenditure, non-profit-making organizations).

- Level of assessment: national.
- Nine vectors to be analysed.
- Household survey for out-of-pocket expenditure on HIV and AIDS services, covering all 15 subregions from the 5 regions of the country, and rural, semiurban and urban settings.
- The database and report currency was Ugandan shillings (USh). Key tables have been converted to United States dollars (US\$), applying each year's annual average weighted exchange rate from the Bank of Uganda.

IMPLEMENTATION PHASES

This NASA was conducted under the leadership of the Uganda AIDS Commission in collaboration with the Embassy of Ireland, UNAIDS and the USAID Uganda Health Systems Strengthening (UHSS) activity. The NASA core team was made up of the Uganda AIDS Commission, the Embassy of Ireland, UHSS, UNAIDS and NASA consultants. The NASA National Task Team was involved in guiding and overseeing NASA implementation, securing the buy-in of all partners, and ensuring the process met the country's needs.

Implementation involved the following phases (see Annex 2):

- Planning and mapping of actors.
- NASA training.
- Sampling and data collection.
- Quality control and data validation.
- Data analysis and report writing.

Advocacy and sensitization meetings were held with partners to facilitate the process. The NASA team obtained all necessary permissions from the national and local authorities to access relevant data and conduct the assessment.

SAMPLING AND DATA COLLECTION

Sampling approach

With guidance from the NASA core team, the assessment targeted the top major financers of HIV and AIDS in Uganda. Data from some of their implementing partners were obtained for data triangulation and completeness of NASA transactions.

The sampling frame included development partners; Ugandan Government ministries, departments and agencies; international and local nongovernmental organizations; civil society organizations; and private-sector organizations. An out-of-pocket expenditure survey was conducted to estimate private household spending on HIV and AIDS-related interventions.

The major financing entities included were the Embassy of Ireland, the Global Fund, the Ugandan Government, United Nations agencies, the United States Government through PEPFAR, and private entities (including household out-of-pocket expenditure). For completeness, other major HIV and AIDS funders such as international nongovernmental organizations and foundations and large local nongovernmental organizations were included, guided by the Uganda AIDS Commission e-mapping tool.

Sampling of the private sector was guided by the private-sector self-coordinating entity under the Uganda AIDS Commission. Sampled associations included industries such as manufacturing, agriculture, banking, brewing, private health insurance, poultry and tea. Of the eight associations sampled under private business, only three were able to provide HIV and AIDS-specific data.

The response rate for the private business sector was low (33%) due to failure to tease out specific HIV and AIDS spending data from general health spending. Due to this, and since not all sampled associations provided HIV and AIDS-specific data, the 33% obtained could not be extrapolated nationally to 100% because the data were not representative enough. A recommendation was derived that a standalone study on HIV and AIDS contributions from private businesses should be commissioned to estimate this spending in future NASAs.

Data collection

The assessment used a top-down approach to data collection. Resources allocated to financing agents from

financing entities were identified and tracked down. After identification of service providers and allocated spending, the resources were tracked down to specific AIDS spending categories and beneficiary groups. This approach successfully achieved its objectives, with only a few organizations referring to their implementing partners for further data disaggregation.

The Uganda AIDS Commission contracted the resource tracking team, which comprised 4 research assistants for NASA and 20 data collectors for the household survey. The research assistants were trained in NASA principles and methodologies, the use of NASA tools, and interviewing and research skills. Data were collected between 21 September and 30 November 2020. Due to delayed responses and interruptions related to the COVID-19 pandemic, the second round of data collection was extended to the second week of January 2021.

The customized NASA data collection template was applied through face-to-face interviews and virtual meetings. Respondents' expenditure records were obtained as part of the primary source for NASA. Research assistants helped respondents to complete the NASA tools. The Global Fund, PEPFAR and others provided electronic expenditure reports, which research assistants and consultants converted into the NASA format. The assessment also used secondary data through a desk review of key financial reports and documents, policies, health financing documents and annual programme reports.

Where expenditure data were missing, secondary data estimations were applied, based on available reports (e.g. cost estimates for health systems strengthening and human resources for the Ministry of Health), but generally estimations were used as little as possible.

Out-of-pocket expenditure

An out-of-pocket expenditure study was conducted in September 2020 to estimate HIV and AIDS expenditure at the household level and to determine key areas of expenditure, such as medicines, primary care visits, medical devices and supplies, and laboratory services. The purpose was to determine drivers of out-of-pocket expenditure and to estimate annual total household expenditure to feed into the NASA database as part of domestic private expenditure.

Respondents were picked mainly from public and private non-profit-making facilities, because private profit-making health facilities had stopped offering

antiretroviral therapy by the time of the assessment. Respondents were people living with HIV, and most were on antiretroviral therapy.

An appropriate regional sample size of 3676 was estimated using the Cochran formula to calculate sample size when the population is infinite. Table 1 indicates how the 3676 respondents were distributed according to duration of antiretroviral therapy.

TABLE 1 Respondents sampled in out-of-pocket expenditure study

Time on antiretroviral therapy (years)	Number sampled	%
0–1	498	13.5%
2–3	738	20.1%
4–5	564	15.3%
> 5	1850	50.3%
Not on antiretroviral therapy	26	0.7%
Total	3676	100%

Data were collected from 15 HIV subregions stratified by the Ministry of Health. The Uganda AIDS Commission guided district sampling based on HIV burden. All the regions in Uganda were represented and the sample size was representative.

Expenditure items included were medicines, transport to reach health facilities, consultation fees, laboratory fees, nutritional expenditure associated with antiretroviral therapy, indirect costs associated with loss of income (opportunity costs), and home-based care services. These all fell under the AIDS spending category of HIV and AIDS care and treatment.

All cost categories and expenditure were included in the calculation to determine the average cost. The average expenditure per visit per person and use data (average number of visits per person in a year) were used to estimate total out-of-pocket expenditure. This was extrapolated to give the overall annual national out-of-pocket HIV and AIDS expenditure, as follows:

Total annual out-of-pocket expenditure = average cost per person per visit × number of visits per month × 12

Data required for the NASA were retrospective (for the years 2017/18 and 2018/19), but this survey could

not assess those costs due to recall bias. Instead, questions were based on the current year (2020) and the results were deflated to 2017/18 and 2018/19, as follows:

Deflation-adjusted value = present cost amount / (1 + average inflation %) ^ number of years

Out-of-pocket expenditure contributed significantly to overall HIV and AIDS financing in Uganda. People who sought “free” services at public facilities still experienced costs, including transport fees, meals and time off work while seeking care.

Although people who visited public facilities spent less on other HIV and AIDS services compared with people who visited private non-profit-making and profit-making services, they reported spending on medicines other than antiretroviral medicines in pharmacies and at private profit-making facilities.

People who visited public facilities spent more on transport and contributed more to the overall annual estimated out-of-pocket expenditure than people who sought care at private non-profit-making facilities.

The two major cost drivers of out-of-pocket expenditure were transport for people using public and private non-profit-making facilities, and medicines for people using private profit-making facilities and pharmacies.

The costs of seeking care varied with the type of service provider. People who visited public facilities spent less per visit than people at other facilities, especially private profit-making facilities, pharmacies, private non-profit-making facilities and mobile clinics. Costs of seeking care were higher for urban facilities than rural areas.

Full results of the out-of-pocket expenditure survey are presented in Annex 1.

DATA CAPTURE AND PROCESSING

Data were captured using hard copies of the tools. The raw data were then entered into Excel spreadsheets and translated into the NASA format. The data were entered into the Data Consolidation Tool by research assistants and consultants. This tool

is an Excel-based spreadsheet that follows the nine vectors of the NASA methodology. It translates raw data into the NASA format and organizes, cleans and verifies data completeness, so that any missing, incomplete or contradictory data can be identified and addressed.

The NASA principle of capturing only completed transactions and the processing of the data in Excel spreadsheets helped the team undertake triangulation, ensured complete transactions, and reduced the possibility of double-counting.

DATA ANALYSIS

The data from the Data Consolidation Tool were imported into the NASA Resource Tracking Tool. This allows the user to create the NASA set of matrixes, linking all the NASA vectors to the HIV and AIDS spending amounts entered into the system. The Resource Tracking Tool was essential in aggregating and analysing the data and in creating financing flow diagrams. It also generated the full dataset in Excel spreadsheets that were used to create graphical displays and tables.

QUALITY CONTROL

The consultants provided guidance and mentorship skills and developed local capacity in data collection, processing and data entry. Data collection and processing occurred concurrently in the field. The collected data were checked, cleaned, triangulated and validated, before entry into the Resource Tracking Tool by the consultants.

For accuracy and consistency, consultants checked the capturing of all the transactions daily from all the data collectors. During data processing, the transactions were triangulated by cross-checking multiple sources of data to avoid double-counting.

Consultants reviewed the data entry sheet regularly with the aim of troubleshooting potential inconsistencies, and provided guidance on standardized data coding entry in the Resource Tracking Tool. The tool's control board also indicated where there were discrepancies that needed to be adjusted or fixed.

OVERVIEW OF DATA AND QUALITY OF SOURCES

Data were collected from the Ugandan Government, international agencies and private sectors.

The bulk of public HIV and AIDS financing comprised the following:

- Total direct Ugandan Government expenditure on HIV and AIDS (obtained through primary data collection and verified from information management systems of the Ministry of Finance, Planning and Economic Development). Data covered the Joint Clinical Research Centre, the Ministry of Health (AIDS Control Programme and Global Fund co-financing), the National Medical Store, the Uganda AIDS Commission and the Uganda Virus Research Institute.
- Costs of HIV and AIDS-related health systems strengthening and Ministry of Health human resources at the health facility level (20).
- Ministries and parastatals estimated from the consolidated ministerial policy statement for 2019/2020. A total of 160 Ugandan Government ministries and parastatals that had HIV and AIDS mainstreaming were considered, and all HIV and AIDS-specific allocations were included in public HIV and AIDS spending. HIV and AIDS-specific allocations were considered under ministries and parastatals because they have no way to track expenditure performance indicators. Proposed HIV and AIDS activities were considered as actual activities implemented.

International development partners included the Embassy of Ireland, the Global Fund, PEPFAR, United Nations agencies and other donors (bilateral organizations, international nongovernmental organizations, foundations), as guided by the Uganda AIDS Commission e-mapping tool.

The private sector included the following:

- Household out-of-pocket expenditure from a survey conducted in 2020.
- Private non-profit-making organizations (a few of these also generate their own resources).

- Domestic corporations and businesses (although the response rate was only 33%, and it was not possible to estimate spending on HIV-specific activities for most corporations).

TABLE 2 Overview of response rates

Sector	Number targeted	Number of responses	Response rate
Government	165	165	100%
Private non-profit-making organisation	25	25	100%
Private profit-making organisation	33	11	33%
International Partners	28	27	96%

The average response rate of 82% provides a fairly accurate picture of HIV and AIDS expenditure in Uganda, as most of the targeted entities submitted data. The response rate of 33% in the private sector indicates that more data can be collected from this sector and there is an underestimation of expenditure, especially related to care and treatment.

Table 3 shows an overview of the data captured and analysed. The bulk of the data were from primary sources (93.45% in 2017/18 and 93.81% in 2018/19). Some data were based on estimations from budget documents (3.79% in 2017/18 and 3.91% in 2018/19). Some data were adapted from primary sources, especially when the production factor was not disaggregated (2.76% in 2017/18 and 2.28% in 2018/19). This implies that sound and valid data were collected.

TABLE 3 Overview of data captured

Data quality	2017/18	2018/19
Primary source certificates	93.5%	93.8%
Estimates	3.8%	3.9%
Adapted from primary sources	2.8%	2.3%

LIMITATIONS

- All data were obtained at the national level, and so this study could not analyse and report on HIV and AIDS spending by region or district.

- Limited data were available from domestic private entities. Although the study was able to capture out-of-pocket expenditure and private non-profit-making contributions, only about 33% of private business contributions were captured.
- Some organizations were not able to provide data disaggregated to the level required by NASA. In these cases, funds spent on different activities were not broken down into specific AIDS spending categories and production factors and were lumped together as “not disaggregated”.
- Different donors and development partners have different fiscal years for reporting expenditure. It was not possible to align their years with the Ugandan fiscal year without distorting their expenditure in the years. For example, for the 2018/19 Ugandan fiscal year, we used the PEPFAR 2019 expenditure report.
- This NASA has tried to compare trends of HIV and AIDS spending with those in previous NASAs, but it is important to note that different NASAs used different approaches to estimate costs, and some comparisons may not be appropriate.

ASSUMPTIONS

- This NASA assumed that budget allocations to Ugandan ministry and parastatal HIV funds were fully consumed. There was no evidence of funds allocated to HIV and AIDS being returned.
- The Ugandan Government’s indirect spending on health systems strengthening could not have changed within one year from 2017/18 to 2018/19, and there was no evidence for any changes. Therefore, the same amounts adopted from the results of the Health Net Consult study for 2017/18 were applied for 2018/19.
- Senior management human resources costs not specifically linked to the Ministry of Health AIDS Control Programme were apportioned at 10%.
- Of the total National Medical Store spending on antiretroviral medicine procurement, 8% was allocated to storage and distribution.

- Where the data on the service delivery modality for HIV testing and counselling were not disaggregated and detailed enough, the bulk was labelled “service delivery modalities not disaggregated”.
- This NASA used secondary data from a study carried out by Health Net Consult to estimate indirect Ugandan Government costs of health systems strengthening and human resources (21). The study used a cost analysis to estimate spending on human resources for health specifically related to HIV and AIDS, including utilities and overheads, buildings and equipment, and furniture attributed to HIV and AIDS provision. Health facilities were sampled from districts represented in all four regions (Central, Eastern, Northern, Western). Due to the integrated nature of service delivery, the attribution factor (14%) was based on the total annual number of HIV cases as a proportion of all other cases (outpatient + inpatient) for the whole country, especially for utilities and overhead costs.
- For salaried labour, staff directly involved in the provision of HIV services were interviewed to determine the amount of time spent on HIV and AIDS services at health facilities in a week, and this was then extrapolated annually. The number of staff directly involved in HIV and AIDS services was scaled up to get a national estimate of human resources costs.
- The valuation of equipment and furniture was based on the replacement cost of each item multiplied by an annualization factor at a 3% discount rate, to give the annual cost of the item. Prices were based on private-sector sources such as retail shops. Costs were scaled up nationally.
- For buildings, the cost per square metre to build a new facility was multiplied by an annualization factor at a 3% discount rate, to give the annual cost of space used for HIV and AIDS services.

Some expenditure, especially from development partners, was provided in international currencies. All costs were converted to Ugandan shillings (Table 4).

TABLE 4 Annual average exchange rates

Currency	2017/18 (UGX)	2018/19 (UGX)
US\$1	3,684	3,737
£ 1	4,662	4,973
€ 1	4,088	4,400



RESULTS

FINANCIAL FLOWS

IN HIV AND AIDS

SPENDING

Figure 1 shows the financing transfer mechanisms linking financing entities, revenue of financing schemes, financing schemes through which people obtain health services, and financial agents that pool funds and make decisions to allocate and make payments to service providers.

Figure 2 demonstrates how resources flow from financing entities to financing agents, and from financing agents to service providers.

TRENDS IN HIV AND AIDS SPENDING

Total HIV and AIDS spending in Uganda nominally increased in Ugandan shilling value but slightly decreased in dollar terms from US\$ 587 million in 2008/09 to US\$ 2146 billion (US\$ 574 million) in 2018/19. Between these two periods, HIV and AIDS spending peaked at US\$ 2411 billion (US\$ 692 million) in 2016/17 (Figure 3).

The highest spending was in 2016/17, attributed to Global Fund frontloaded funds from the following year to cover the financing gap for antiretroviral medicines.

As a percentage of gross domestic product, spending on HIV and AIDS increased from about 1.2% in 2008/09 to 2.3% in 2015/16. A decreasing trend was seen thereafter, declining to 1.6% in 2018/19.

HIV and AIDS spending constituted a large share of total health expenditure, at 51% in 2016/17, but this declined to about 39% in 2018/19.

Figure 4 illustrates a different trend in the volume of funds spent in dollars. This figure reflects the constant fluctuations in external aid. The total HIV and AIDS envelope has changed moderately over a decade. Variations in the currency exchange rates contributed to the increase in the Ugandan shilling value from 2008/09 to 2018/19.

TOTAL HIV AND AIDS SPENDING

HIV and AIDS spending trends disaggregated by financing entities, 2008/09 to 2018/19

Figure 5 shows the evolution of the financing sources of spending on HIV and AIDS. The omitted years correspond to the years in which HIV and AIDS spending assessments were not carried out.

The previous two NASAs showed that Uganda relies heavily on development partners to finance the HIV and AIDS response. The first NASA estimated external financing at 68% in 2008 and 67.3% in 2009; the second NASA had estimates of 89% in 2014, 95% in 2015, and 93% in 2016. The current NASA estimated external financing at 84% in 2017/18 and 81% in 2018/19.

FIGURE 1 Financial flows related to the HIV and AIDS response in Uganda, 2018/19

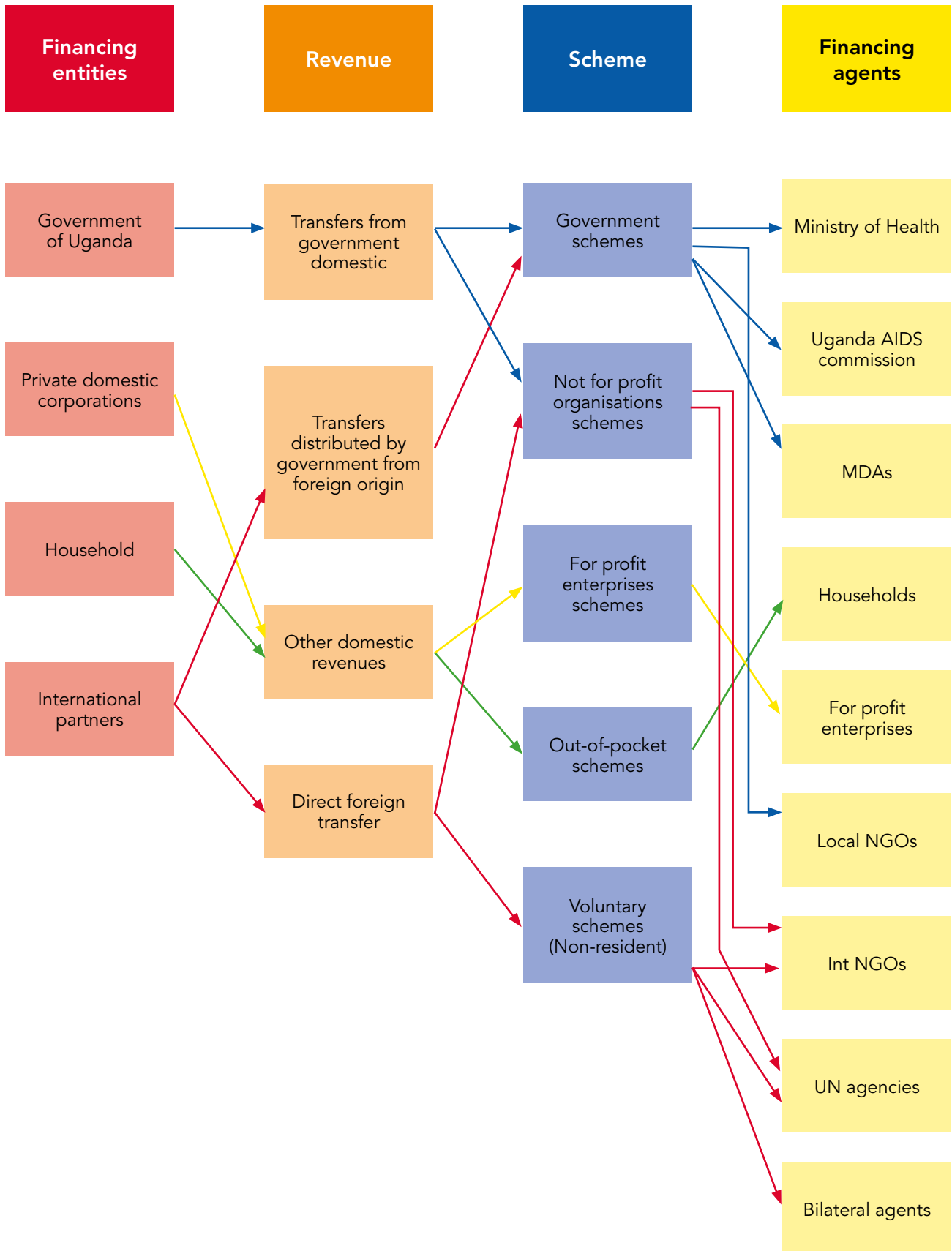


FIGURE 2 Financing entities, financing agents and service providers in the HIV and AIDS response in Uganda, 2019

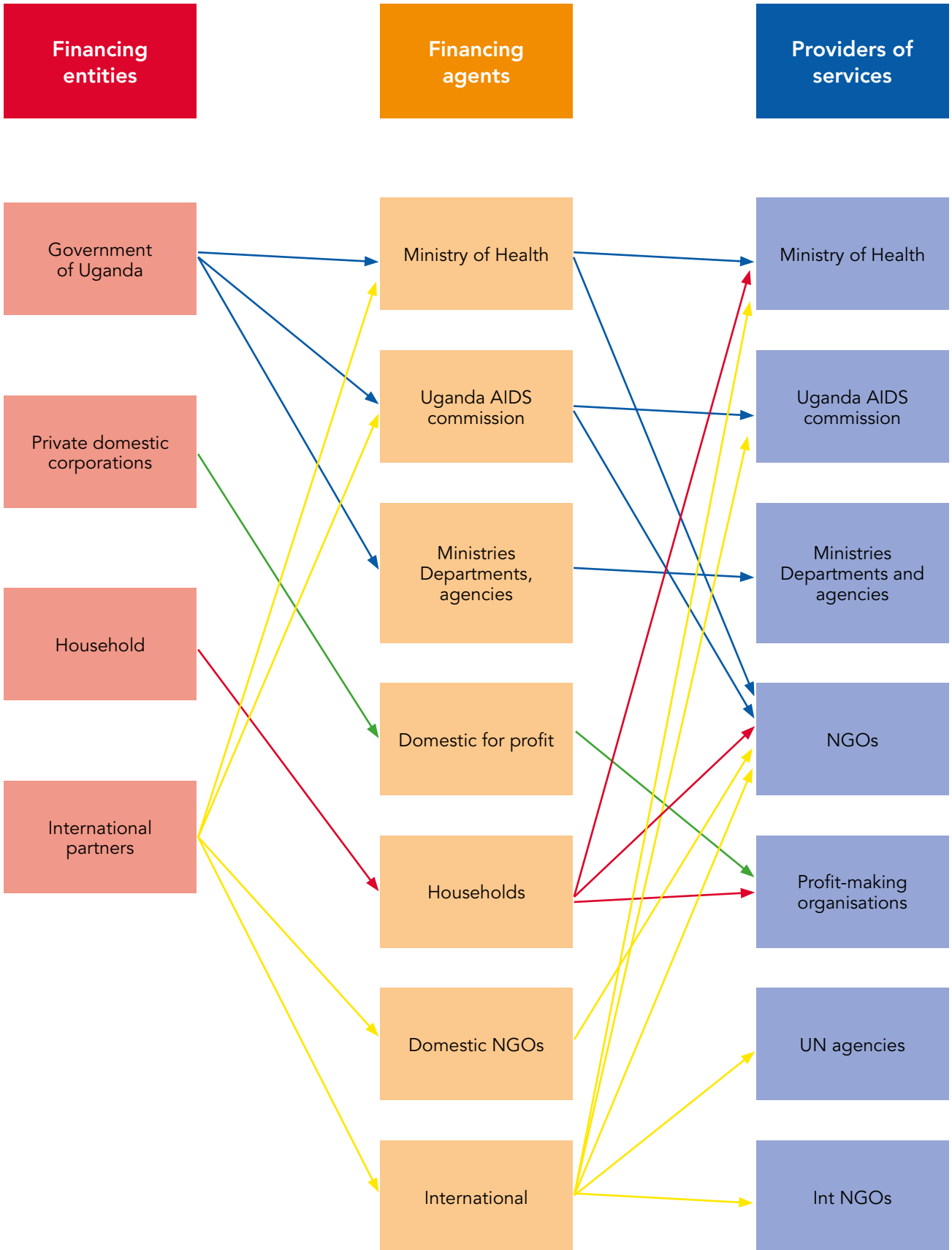


FIGURE 3 Trends in HIV and AIDS spending in Uganda, 2008/09 to 2018/19

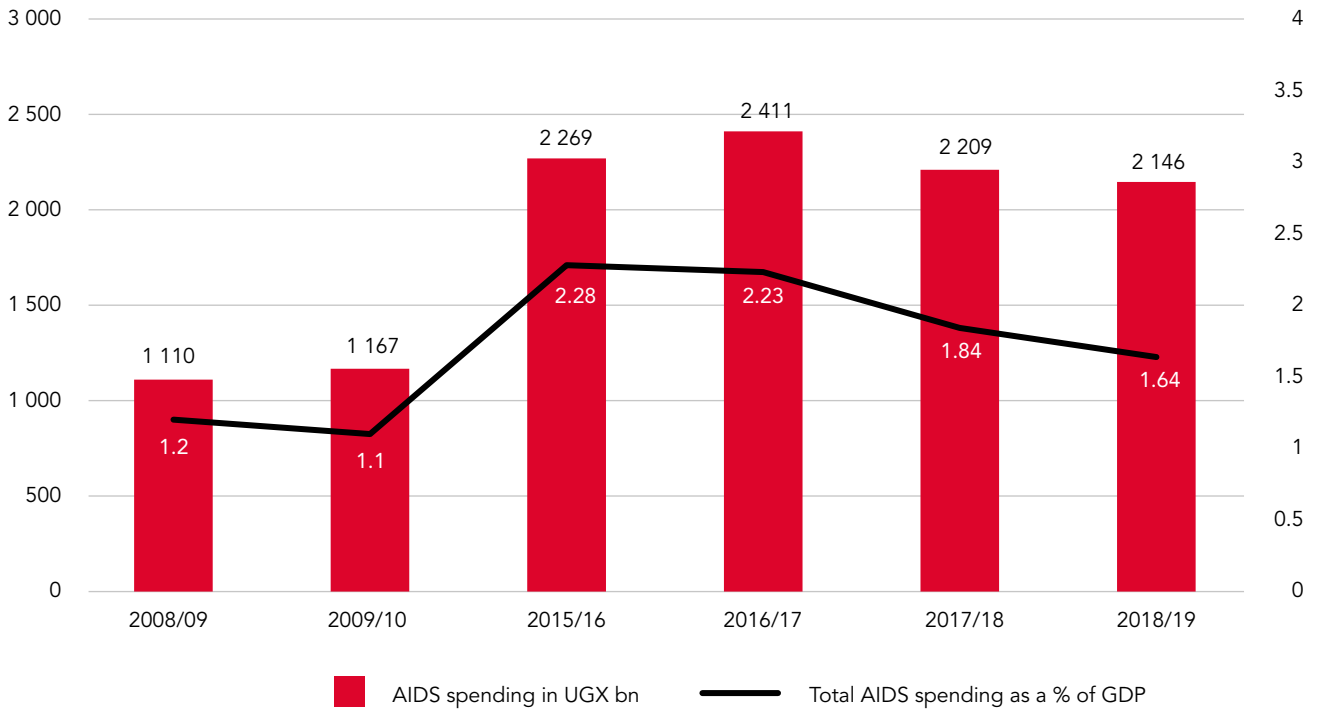


FIGURE 4 Trends in HIV and AIDS spending in Uganda, 2008/09 to 2018/19

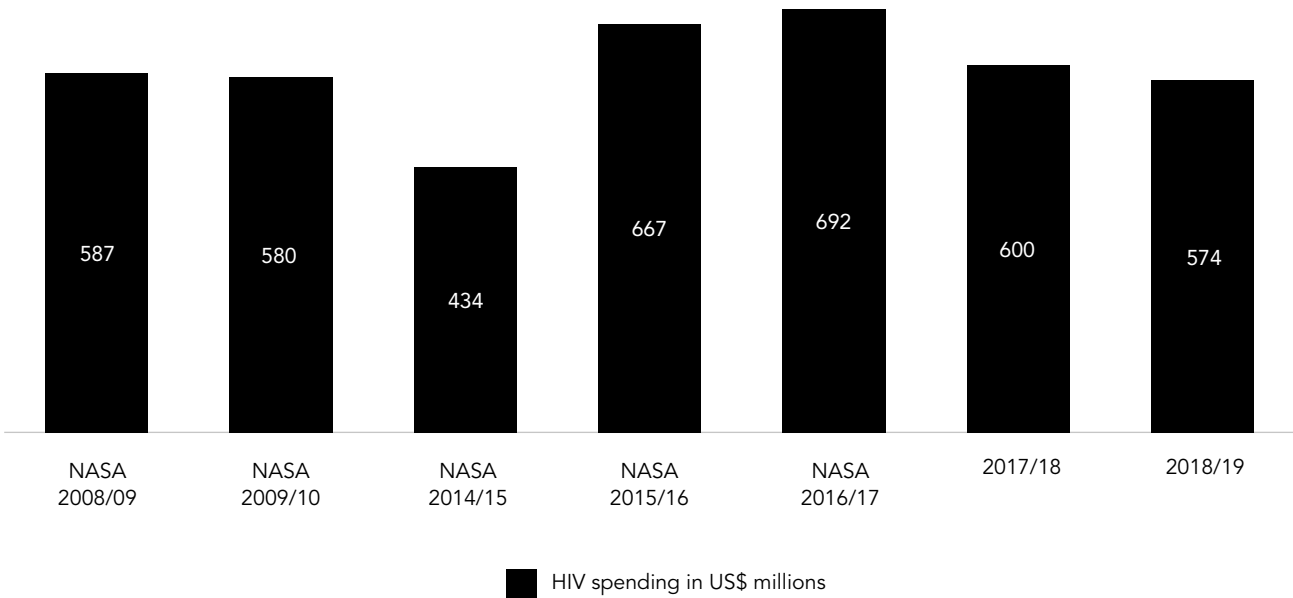
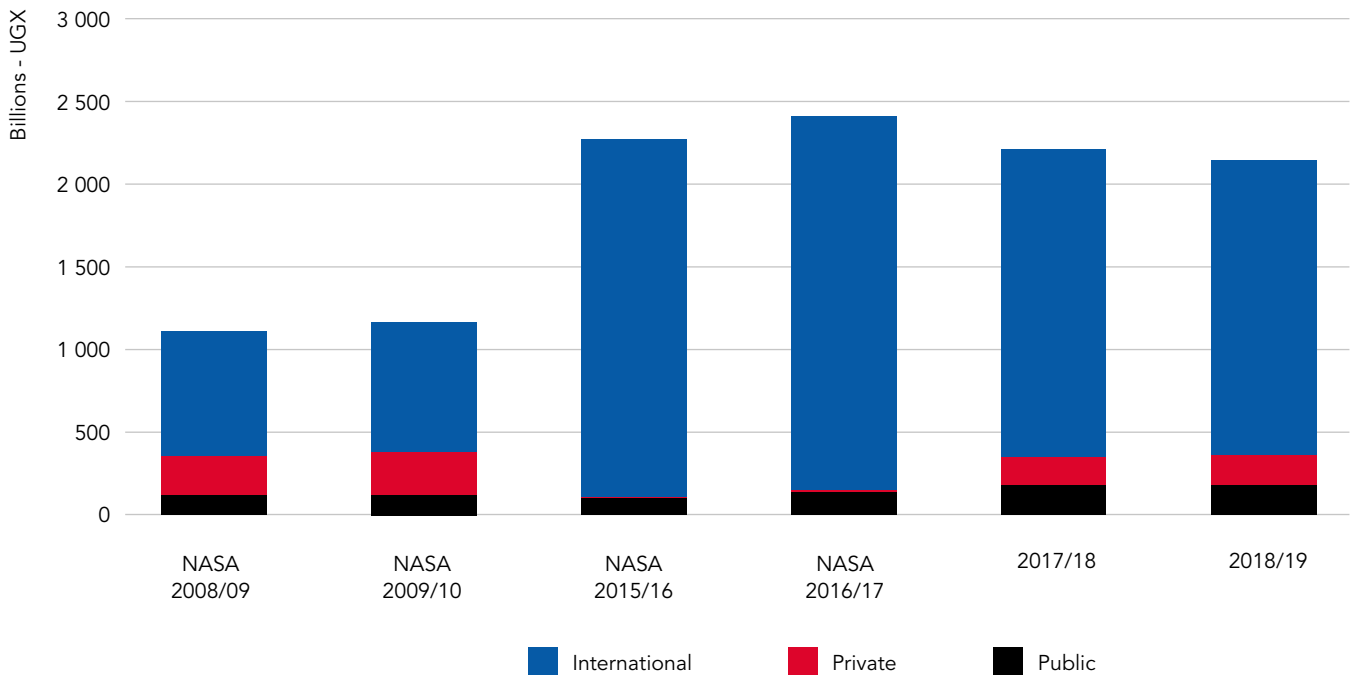


FIGURE 5 Total HIV and AIDS spending in Uganda disaggregated by financing sources, 2008/09 to 2018/19



Donor financing has increased over the past 10 years by 22% between 2008/09 and 2017/18, but decreased by 3% between 2017/18 and 2018/19.

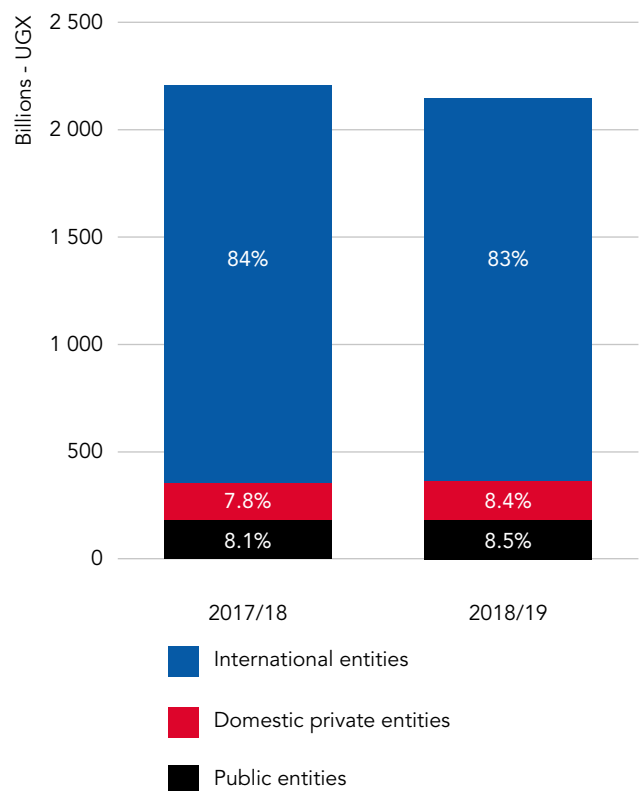
The spending trend shows an overreliance on external donors. To reduce this dependence on foreign aid and ensure the sustainability of HIV and AIDS programmes, new financing mechanisms have been defined to mobilize domestic resources, including increased contributions from the Ugandan Government.

Some of the proposed initiatives to increase domestic resources include mainstreaming of 0.1%, the National AIDS Trust Fund, the One Dollar Initiative, and establishment of a national health insurance scheme to operate concurrently with community and private schemes (2).

The Ugandan Government contribution was estimated at 10.3% in 2009/10 but only 5.9% in 2016/17. The sharp decrease could be the result of different methodologies used in the two previous NASAs. The current NASA showed an increasing trend from 8.1% in 2017/18 to 8.5% in 2018/19. This slow increase in proportional terms of public-sector spending has been attributed mainly to increased external resources.

In dollar terms, increments in the Ugandan Government’s contributions are often insignificant,

FIGURE 6 Total HIV and AIDS spending in Uganda, 2017/18 and 2018/19



given the fluctuating exchange rate with the Ugandan shilling, which often loses value to the dollar. When external funds increase, the overall proportion of public funds decreases. In absolute terms, the Government's contribution has increased by 48% from 2008/09 to 2018/19, indicating its positive commitment to increasing domestic resources for HIV and AIDS. Thus, using proportions alone as a measure of the country's spending performance may be misleading.

Total HIV and AIDS spending disaggregated by financing entities, 2017/18 to 2018/19

HIV and AIDS financing in Uganda comes from several entities, including the Ugandan Government, domestic private entities (business sector, nongovernmental

organizations, households) and international entities (Figure 6 and Table 5).

Total HIV and AIDS spending was US\$ 2 209 788 189 851 (US\$ 599.7 million) in 2017/18 and US\$ 2 146 081 221 015 (US\$ 574.2 million) in 2018/19. This was equivalent to 2% of gross domestic product in 2017/18 and 1.7% in 2018/19.

HIV and AIDS spending per capita for the general population was US\$ 58 390.96 in 2017/18 and US\$ 54 936.65 in 2018/19. For people living with HIV, it was US\$ 1.67 million in 2017/18 and US\$ 1.53 million in 2018/19. This 8% decrease is attributable to a decline in donor financing.

TABLE 5 Total HIV and AIDS spending in Uganda, 2017/18 and 2018/19

Financing entities	2017/18 (UGX)	2018/19 (UGX)	Change
Public	179,705,968,054	183,337,668,881	2%
Private	172,699,866,497	180,058,880,765	4.3%
Domestic private	338,475,743	310,532,184	-8%
Household	170,806,969,867	178,308,931,703	4%
Foreign	1,857,382,355,300	1,782,684,671,369	-4%
Bilateral	1,534,709,376,925	1,409,994,281,302	-8%
Multilateral	272,833,727,890	304,587,971,830	12%
Other	49,839,250,485	68,102,418,237	19%

Uganda largely depends on foreign entities to finance the HIV and AIDS response. Foreign entities covered 84% of overall HIV and AIDS spending (US\$ 1.8 trillion) in 2017/18 and 83% (US\$ 1.7 trillion) in 2018/19. Total HIV spending in Uganda decreased by about 3% from 2017/18 to 2018/19; this may be explained by the 8% decrease in external (particularly bilateral) financing between the two years. These results are generally consistent with many other countries in the region, which have also seen a decline in external financing (e.g. 12% for Eswatini, 34% for Ethiopia).

Although the Ugandan Government contribution to the HIV and AIDS response is increasing, it has stagnated below 10%. The Government contributed 8.1% (US\$ 179.7 billion) in 2017/18 and 8.5% (US\$ 183.3 billion) in 2018/19, an increase of 2% in absolute terms.

Initiatives to increase domestic financing are being implemented to sustain the progress made in the HIV and AIDS response. The Health Financing Strategy 2015/16 to 2024/25 provides a framework through

which the Ugandan Government will finance the health sector to achieve its goals. In addition, in 2018/19 and 2019/20, the Ministry of Finance, Planning and Economic Development instructed all ministries to allocate 0.1% of their budgets to HIV and AIDS activities. If implemented well, these strategies will serve as instruments for resource mobilization. The expectation is that the Government will be better positioned to assume primary responsibility for the national HIV response in terms of decision-making, strategic direction, management and coordination.

Private-sector financing (mainly from businesses and households) has remained relatively low but increased marginally from 7.8% (US\$ 172.3 billion) in 2017/18 to 8.4% (US\$ 179.7 billion) in 2018/19. About 99% of domestic private spending is out-of-pocket expenditure. Business-sector spending was not reported adequately due to low response rates and an inability to tease out HIV and AIDS activities from the overall health services offered by insurance companies.

The Ministry of Health provides all necessary HIV and AIDS services free of charge in public health facilities, but many people pay for HIV and AIDS services at private profit-making and non-profit-making facilities. Factors associated with this include distance to service providers, perceived better quality of service, and long waiting times (22). Estimates of out-of-pocket expenditure based on the household survey conducted in 2020 show that individual spending on HIV accounted for 8% in both years, amounting to US\$ 171 billion in 2017/18 and US\$ 178 billion in 2018/19.

HIV and AIDS spending by key financing entities, 2017/18 to 2018/19

HIV and AIDS services in Uganda are financed primarily by donor governments and philanthropic organizations, with contributions from the Ugandan Government and the private sector (Figure 7).

PEPFAR remains the largest source of international financing, providing 67% of total financing in 2017/18 and 63% in 2018/19. The Global Fund is the second largest source, providing 11.2% of total financing in 2017/18 and 12.5% in 2018/19.

The total public contribution provided 8.1% of total financing in 2017/18 and 8.5% in 2018/19. Domestic private entities, which include the business sector, nongovernmental organizations and households, contributed 7.8% of total financing in 2017/18 and 8.4% in 2018/19.

Other bilateral organizations, United Nations agencies and international nongovernmental organizations together contributed the smallest share of total HIV and AIDS financing, at 5.8% in 2017/18 and 7.2% in 2018/19.

The reduction in international HIV and AIDS financing in Uganda correlates with that seen in many countries in the region. Bilateral partners reduced their spending in 2018 by 8% in Uganda, 12% in Eswatini and 34% in Ethiopia.

Donor financing is not guaranteed, is volatile and is becoming less available. More efforts need to be made to increase domestic resource mobilization in Uganda. It would be good to benchmark against other countries in the region and learn some lessons for best practices. These benchmarks should reflect a commitment to shared responsibility and the needs of each country. For example, the Government of Zanzibar's contribution was 48.1% of total HIV and AIDS spending in 2017/18, surpassing the international contribution,

and Eswatini increased its contribution to 40% of total HIV and AIDS spending in 2018/19.

The largest contributor of bilateral financing sources is the United States Government through PEPFAR, at around 97% of total bilateral expenditure (Table 6). In the 2018 NASA, the United States Government contributed 99% in the three years under assessment. Resources from Ireland and the United States Government cover a larger proportion of the cost of HIV-specific interventions. Other bilateral HIV and AIDS financing was often integrated into broader sexual and reproductive health and rights interventions.

Among the multilateral organizations, the Global Fund contributed the highest share of HIV and AIDS financing, with 90.7% in 2017/18 and 87.5% in 2018/19. Of the external sources, the largest contributors were the United States Government through PEPFAR and the Global Fund. Other external sources played important roles, despite being relatively small.

FIGURE 7 HIV and AIDS spending in Uganda disaggregated by key financing entities, 2017/18 and 2018/19

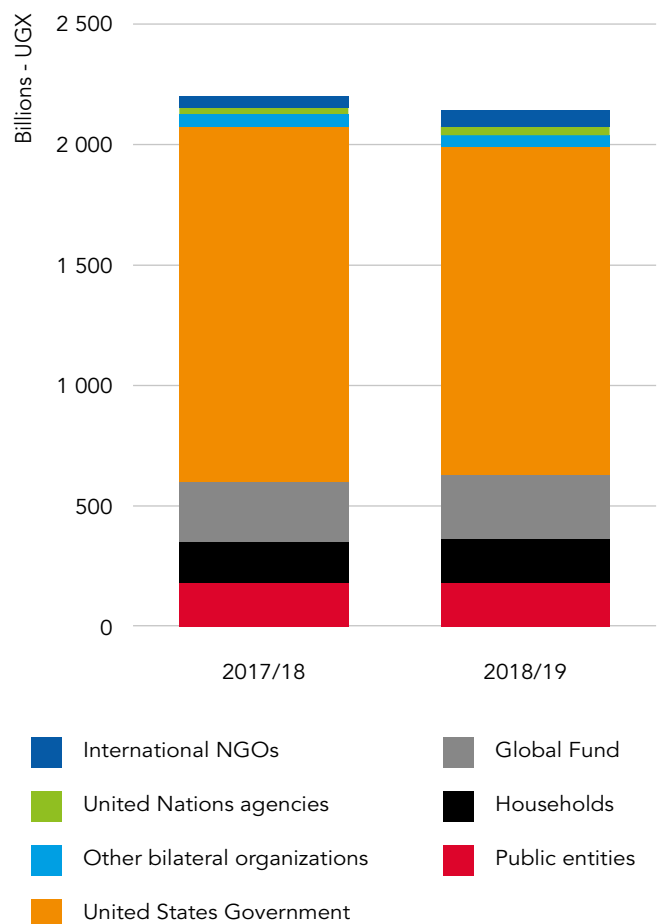


TABLE 6 HIV and AIDS financing in Uganda by international financing entities, 2017/18 and 2018/19^a

Bilateral financing entities	2017/18		2018/19	
	UGX	%	UGX	%
Government of Netherlands	106,963,044	0.01%	107,400,000	0.01%
Government of Ireland	7,963,064,285	0.5%	15,081,019,357	1.1%
Government of United Kingdom	13,763,913,630	0.9%	17,053,448,893	1.2%
Government of Sweden	22,457,597,409	1.5%	12,134,754,953	0.9%
Government of United States	1,476,650,986,064	97%	1,361,348,369,238	97%
Total	1,520,942,524,432	100%	1,405,724,992,441	100%

Multilateral financing entities	2017/18		2018/19	
	UGX	%	UGX	%
EU			4,615,665,675	1.5%
WFP	74,668,194	0.0%	74,736,400	0.0%
IOM	182,689,744	0.1%		0.0%
WHO	182,088,418	0.1%	34,832,716	0.0%
UNDP	182,923,445	0.1%	368,247,431	0.1%
UNICEF	2,632,818,712	1.0%	1,325,466,613	0.4%
UNAIDS	3,065,188,786	1.1%	4,610,553,147	1.5%
UNFPA	18,644,688,462	6.8%	25,939,136,553	8.5%
Global Fund	247,868,662,130	90.8%	267,619,333,297	87.9%
Total	272,833,727,890	100.0%	304,587,971,830	100.0%

EU, European Union; Global Fund, Global Fund to Fight AIDS, Tuberculosis and Malaria; IOM, International Organization for Migration; UNAIDS, Joint United Nations Programme on HIV/AIDS; UNDP, United Nations Development Programme; UNFPA, United Nations Population Fund; UNICEF, United Nations Children's Fund; WFP, World Food Programme; WHO, World Health Organization.

^a The interventions that are more HIV-specific or have a specific HIV outcome were funded by Ireland and the United States of America and warranted a greater share of resources for HIV and AIDS. Interventions that primarily contribute to other health outcomes while being HIV-sensitive were funded by other bilateral organizations (Sweden and the United Kingdom of Great Britain and Northern Ireland) and warranted a much smaller share of HIV-specific financing of about 3%.

REVENUES OF FINANCING SCHEMES

Revenues of financing schemes describe the main flows through which financing schemes obtain their revenues—that is, the mechanisms through which resources enter the system. The classification of revenues of financing schemes tracks the collection mechanisms of a financing framework.

Direct financial transfers from foreign entities accounted for the highest proportion of HIV and AIDS financing, at 73% in 2017/18 and 71% in 2018/19. Direct foreign transfers from bilateral organizations accounted for 70% in 2017/18 and 66% in 2018/19. Multilateral organizations contributed less than 2% of total HIV and AIDS financing. Foreign transfers distributed

by the Ugandan Government from foreign entities (mainly donor support to HIV and AIDS programmes) accounted for 11% of total HIV and AIDS financing in 2017/18 and 13% in 2018/19.

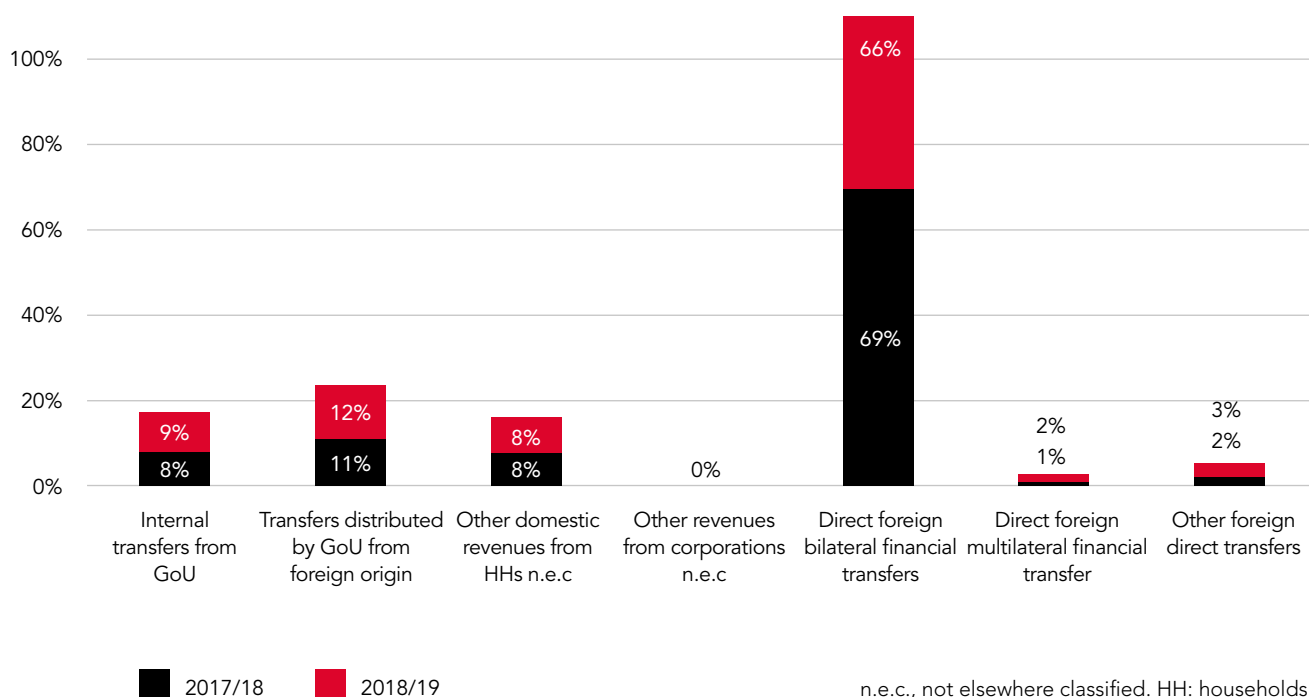
Corporations contributed less than 1% of total HIV and AIDS financing, with funds mainly channelled through cash benefits for HIV and AIDS services and insurance premiums paid on behalf of employees, and HIV and AIDS programmes conducted by such entities.

The Ugandan Government, through central revenues (internal transfers), accounted for 8.1% of total HIV and AIDS financing in 2017/18 and 8.6% in 2018/19.

Household out-of-pocket expenditure accounted for 7.7% of total HIV and AIDS financing in 2017/18 and 8.3% in 2018/19.

TABLE 7 Total HIV and AIDS financing in Uganda disaggregated by revenues of health financing schemes

	2017/18 (UGX)	2018/19 (UGX)	Change
Transfers from Ugandan Government revenue (including loans allocated to HIV and AIDS activities)			
Internal transfers and grants	179,705,968,054	183,337,668,881	2%
Foreign transfers distributed by Ugandan Government	244,887,649,793	251,998,210,123	3%
Voluntary prepayments from individuals and households	170,806,969,867	178,308,931,703	4%
Other domestic revenues not elsewhere classified			
Other revenues from corporations	338,475,743	310,532,184	-8%
Other revenues from non-profit-making organizations	1,554,420,887	1,439,416,878	
Direct foreign transfers			
Direct foreign bilateral financial transfers (e.g. PEPFAR)	1,534,120,924,554	1,408,524,548,779	-8%
Direct foreign multilateral financial transfers (e.g. United Nations agencies)	29,706,306,774	58,748,162,456	98%
Direct foreign transfers from international nongovernmental organizations	48,667,474,180	63,413,750,011	30%

FIGURE 8 HIV and AIDS spending in Uganda disaggregated by revenues of health financing schemes, 2017/18 and 2018/19

HEALTH-CARE FINANCING SCHEMES

Health-care financing schemes are structural arrangements through which HIV and AIDS services and goods are paid for and obtained by households. Financing schemes help to define how HIV and AIDS funds are managed and organized, and the extent to which resources are pooled and allocated to pay for

HIV and AIDS services by different health-care financing agents and purchasers.

Examples include direct payments by households, third-party financing arrangements such as voluntary and social health insurance, government schemes, and voluntary prepayment schemes from non-profit-making institutions serving households.

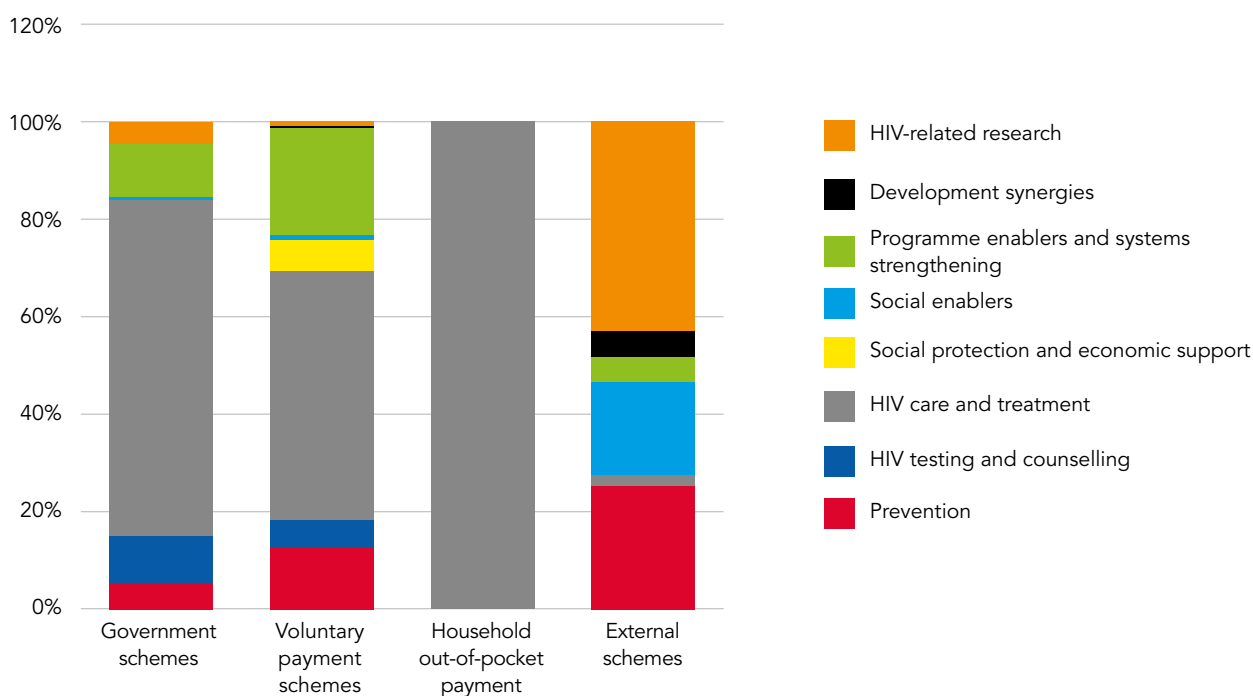
Voluntary payment schemes accounted for 71.4% of HIV and AIDS funds in 2017/18 and 68.8% in 2018/19 (Table 8).

TABLE 8 Total HIV and AIDS financing in Uganda by health-care financing schemes

	2017/20 (UGX)	2018/20 (UGX)	Change
Ugandan Government schemes and compulsory contributory health-care schemes	435,902,495,891	456,709,912,680	5%
Voluntary payment schemes ^a			
Enterprise financing schemes	575,274,743	328,394,184	
Resident foreign agency schemes	1,537,379,885,494	1,420,303,482,403	-8%
Non-profit-making organization schemes	40,918,466,817	55,302,329,773	35%
Household out-of-pocket payments (excluding cost-sharing)	170,806,969,867	178,308,931,703	4%
Voluntary schemes (non-resident)	24,205,097,039	35,128,170,273	45%

^a This category includes all domestic prepaid health-care financing schemes under which access to health services is at the discretion of private actors (although this discretion can be, and often is, influenced by government laws and regulations). Included are voluntary health insurance, non-profit-making financing schemes and enterprise financing schemes.

FIGURE 9 Financing schemes and AIDS spending categories in Uganda, 2018/19



Ugandan Government schemes accounted for 19.7% of total HIV and AIDS spending in 2017/18 and 21.3% in 2018/19. Household out-of-pocket direct payments accounted for 7.7% in 2017/18 and 8.3% in 2018/19. Although HIV and AIDS services in Uganda are free,

households incur significant out-of-pocket expenditure, including opportunity and transportation costs. To improve services, the Government needs strategies to address the costs that accompany the need to access HIV and AIDS services.

TABLE 9 Health-care financing schemes for HIV and AIDS, 2018/19

Funding entities	Financing schemes (UGX)				
	Government schemes	Not-for-profit-making organisation schemes	For-profit enterprise schemes	Household out-of-pocket payment	External schemes (non-resident)
Public entities	181,649,874,339	1,687,794,542			
Domestic corporations			310,532,184		
Households				178,308,931,703	
Domestic NGOs		1,439,416,878			
Bilateral aid	1,657,436,616	1,395,050,455,359	17,862,000		11,705,374,304
Multilateral organizations	255,901,367,569	31,367,132,369			18,622,524,195
International NGOs and foundations	5,841,234,155	45,156,482,115			4,800,271,774
International for-profit organizations	11,660,000,000	904,530,913			
Total	456,709,912,680	1,475,605,812,176	328,394,184	178,308,931,703	35,128,170,273

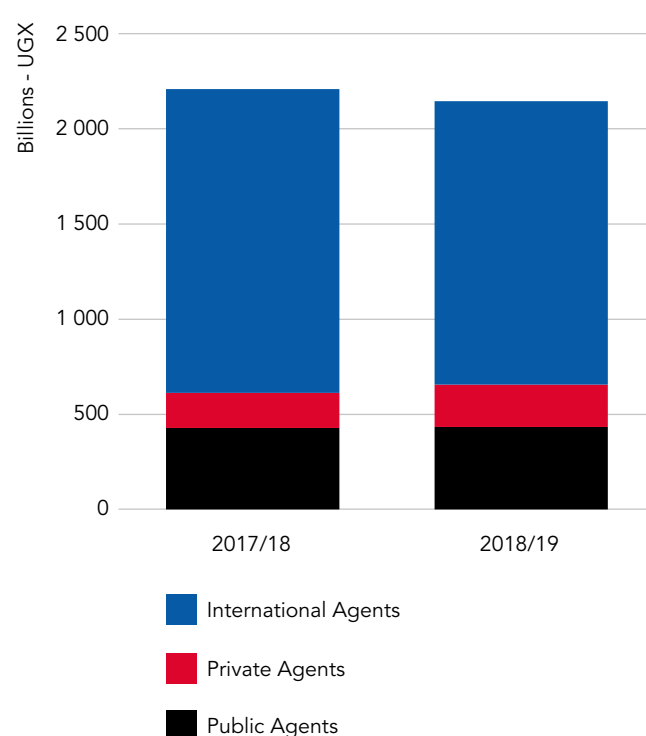
HEALTH-CARE FINANCING AGENTS

A health-care financing agent or purchaser is an institutional unit that mobilizes and pools funds and makes decisions to allocate and make payments to providers for the services rendered. Financing agents are mainly involved in the management of one or more financing schemes.

Uganda's HIV and AIDS funds are largely managed by international financing agents, with an average share of 72.3% in 2017/18 and 69.4% in 2018/19 (Figure 10). The public sector, which includes the Ministry of Health, the Uganda AIDS Commission, and other ministries acting as financial agents, managed 19.4% in 2017/18 and 20.2% in 2018/19. The private sector, which includes nongovernmental organizations, business organizations and private households, managed 8.3% in 2017/18 and 10.4% in 2018/19.

Although the Ugandan Government has the mandate and responsibility for the transparent management of resources as one of the functions of stewardship,

FIGURE 10 Financing agents in Uganda, 2017/18 and 2018/19



a significant amount of donor financing for HIV and AIDS is still managed by international agencies and nongovernmental organizations. This complicates efforts by the Government to manage and oversee resources that it does not receive directly.

In the 2012 and 2018 NASAs, international financing agents controlled the largest share of HIV and AIDS spending. The public agent share increased from 19% in 2017/18 to 21% in 2018/19, showing better control and good direction from the Ugandan Government, presumably reflecting alignment with national priorities. Having greater control over the response would imply important leadership by the Government. Increasing domestic resource allocations also increases policy space by strengthening the country’s capacity and giving it ownership over the implementation process.

The most recent NASA in Zambia reported similar trends, showing growth in public management of HIV and AIDS funds. Although the increase was small, there was significant growth, doubling from 7% in 2016/17 to 14% in 2017/18 (22).

Progress has been made in some other countries in the region. Without sufficient domestic and international resources, Eswatini and Zanzibar have strengthened

their domestic strategies to reduce dependency on external aid. Between 2017/18 and 2018/19, Eswatini’s public contribution increased to 40% of total HIV and AIDS financing (23). Zanzibar’s public contribution increased to 48.1% in 2017/18 (24). Such increases are in accord with a key component of the Abuja Declaration, encouraging government commitment to increasing the allocation towards health services for managing HIV and AIDS.

Table 10 shows the top four financing agents. International purchasing organizations, including United States Government agencies (e.g. Centers for Disease Control and Prevention, Department of Defence, Bureau of African Affairs, USAID), accounted for the most expenditure, with 66.4% in 2017/18 and 62.7% in 2018/19, as they were managing all United States Government financing.

The second largest financing agent in both years was the Ugandan Government. The Ministry of Health managed 12.7% of total HIV and AIDS spending in 2017/18 and 13.4% in 2018/19. The Uganda AIDS Commission pooled and managed less than 1% of total HIV and AIDS spending in 2017/18 and 2018/19. Other ministries and public units controlled 6.3% of total HIV and AIDS spending in 2017/18 and 6.4% in 2018/19.

TABLE 10 Financing agents in Uganda, 2017/18 and 2018/19

	2017/18 (UGX)	2018/19 (UGX)	Change
Public sector			
Ministry of Health	280,873,176,535	288,593,776,084	3%
Uganda Aids Commission	7,655,566,774	6,930,227,320	-9%
Other ministries and departments	139,635,436,774	137,884,081,058	-1%
Private sector			
Private companies	338,475,743	310,532,184	-8%
Non-profit-making institutions (other than social insurance)	13,153,971,029	43,933,351,955	234%
Private households (out-of-pocket payments)	170,806,969,867	178,308,931,703	4%
International purchasing organizations			
Bilateral agencies managing external resources and fulfilling financing agent roles, (e.g. GTZ, DFID, USAID)	1,467,888,156,295	1,346,521,118,098	-8%
Multilateral agencies managing external resources	69,995,912,621	61,335,326,813	-12%
International non-profit-making organizations and foundations	59,391,364,214	82,263,875,800	39%

DFID, United Kingdom Department for International Development; GTZ, German Technical Cooperation; USAID, United States Agency for International Development.

Multilateral (mainly United Nations) agencies together comprised the third largest financing agent. Their management of financing was stable over both years, at about 3% of total HIV and AIDS spending. Funds managed by the United Nations were primarily attributed to administrative costs, in line with technical support and funds disbursed to implementing nongovernmental organization partners. Most of the funds managed by United Nations agencies originated from United Nations and bilateral partners.

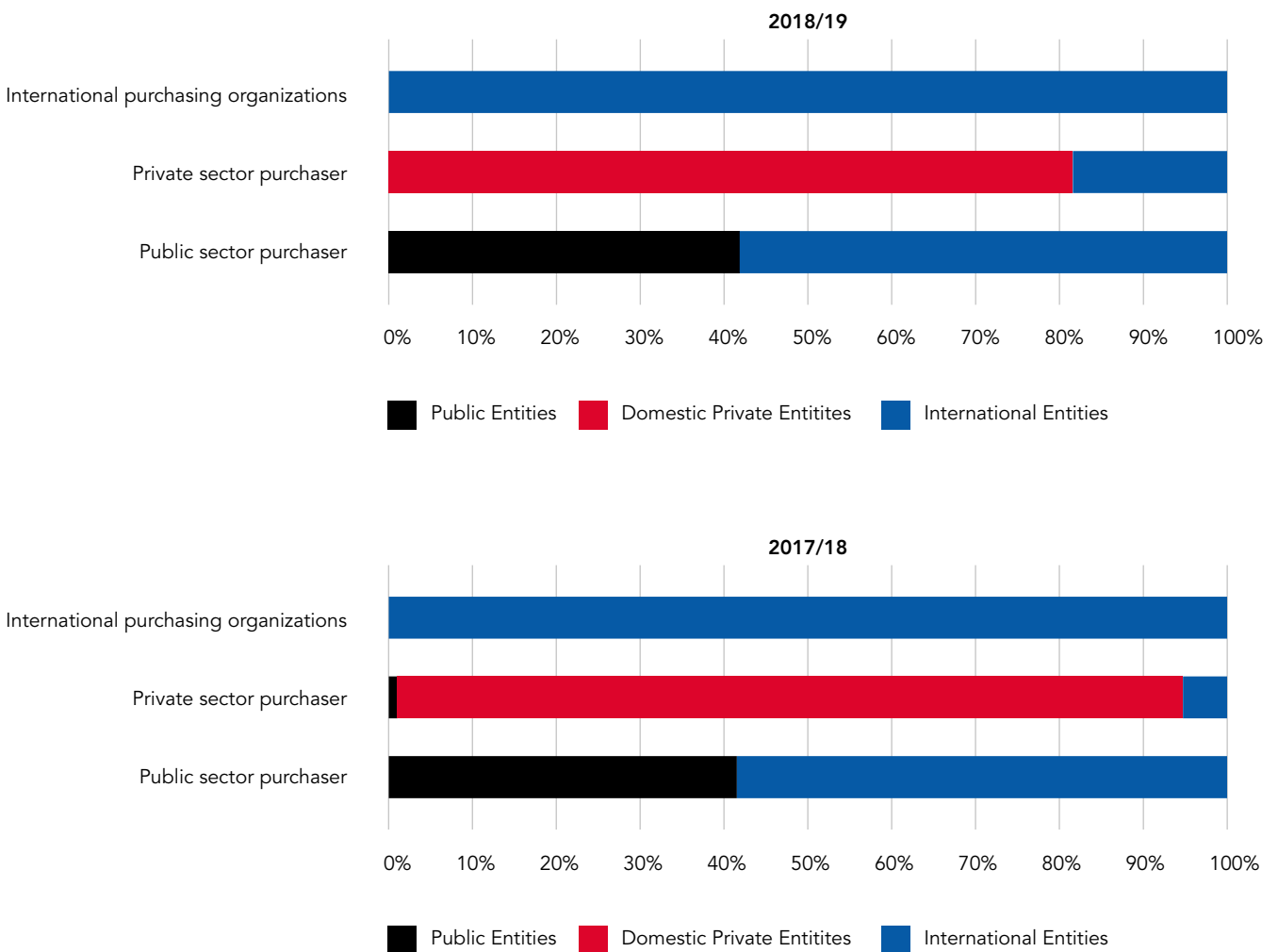
Other international organizations that represent donor agencies directly managed about 2.7% of total HIV and AIDS spending in 2017/18 and 3.8% in 2018/19.

Households who are the agents of their own HIV financing managed 7.7% of total HIV and AIDS

spending in 2017/18 and 8.3% in 2018/19. The business sector accounted for 0.02% of total HIV and AIDS spending in 2017/18 and 0.01% in 2018/19.

Poor domestic resource allocation can result from a lack of control over resources because some international donors have their own priorities. In some cases, a country may “be hesitant to turn down resources, even if those resources will skew the national response towards interventions which planners do not believe will be successful” (25). Without sufficient domestic resources, countries may adjust their spending based on the donor’s priorities, which may not be aligned with the NSP priorities. There could be a risk of losing ground in the HIV and AIDS response if a government does act accordingly.

FIGURE 11 Financing agents in Uganda, 2017/18 and 2018/19



AIDS SPENDING CATEGORIES

NASA uses the term “AIDS spending categories” to define all HIV-related interventions and activities in the HIV and AIDS response. AIDS spending categories include prevention, care and treatment, and other health and non-health services related to HIV and AIDS.

This section presents the broader programme areas and a breakdown of each category. It is important to note that in the NASA 2020 classifications, the HIV testing and counselling programme has been separated into a new programme area. Previously, voluntary testing and counselling was considered part of prevention, and provider-initiated testing and counselling was part of treatment. In the new framework, all forms of HIV testing and counselling are combined.

Of total HIV and AIDS spending in Uganda, care and treatment took the highest share, at 54% in 2017/18 and 58% in 2018/19. This was followed by programme enablers and health systems strengthening, at 20% in 2017/18 and 17% in 2018/19.

The third largest, but declining, expenditure was on prevention, accounting for 13% in 2017/18 and 10% in 2018/19. This 36% decrease was attributable to a reduction in PEPFAR financing for the five pillars of prevention, which contributed significantly to a drop in overall prevention spending.

Despite developing a roadmap to accelerate the scale-up of combination HIV prevention services in Uganda, the decrease in financing for combination HIV prevention may plunder efforts to avert new infections. The 2016 Political Declaration on HIV and AIDS encouraged Member States to spend 25% of all HIV and AIDS spending on prevention, highlighting the current gap in financing for this area.

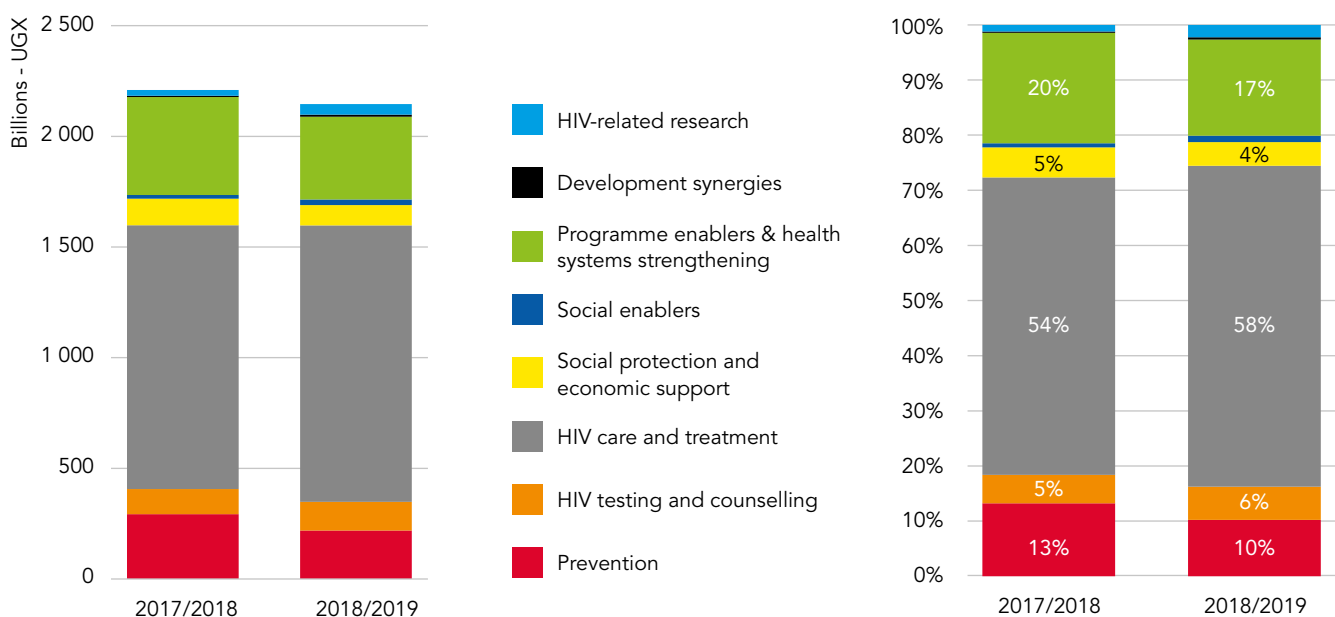
HIV testing and counselling accounted for 5% of total HIV and AIDS spending in 2017/18 and 6% in 2018/19.

The remaining categories (social protection and economic support, social enablers, development synergies, research) combined accounted for 2.1% of total HIV and AIDS spending in 2017/18 and 3.8% in 2018/19. This slight rise was attributed to increased spending on HIV-related research in Uganda, from 1.2% of total HIV and AIDS spending in 2017/18 to 2.2% in 2018/19.

The 2012 and 2018 NASAs showed similar trends. In both, care and treatment took the highest proportion of total HIV and AIDS spending, followed by programme enablers and health systems strengthening, and prevention.

The proportion of total HIV and AIDS spending on prevention has reduced over the years. Spending on HIV prevention services reduced by 33% between 2009/10 and 2016/17, and by 25% between 2017/18

FIGURE 12 HIV and AIDS spending in Uganda disaggregated by programme areas, 2017/18 and 2018/19



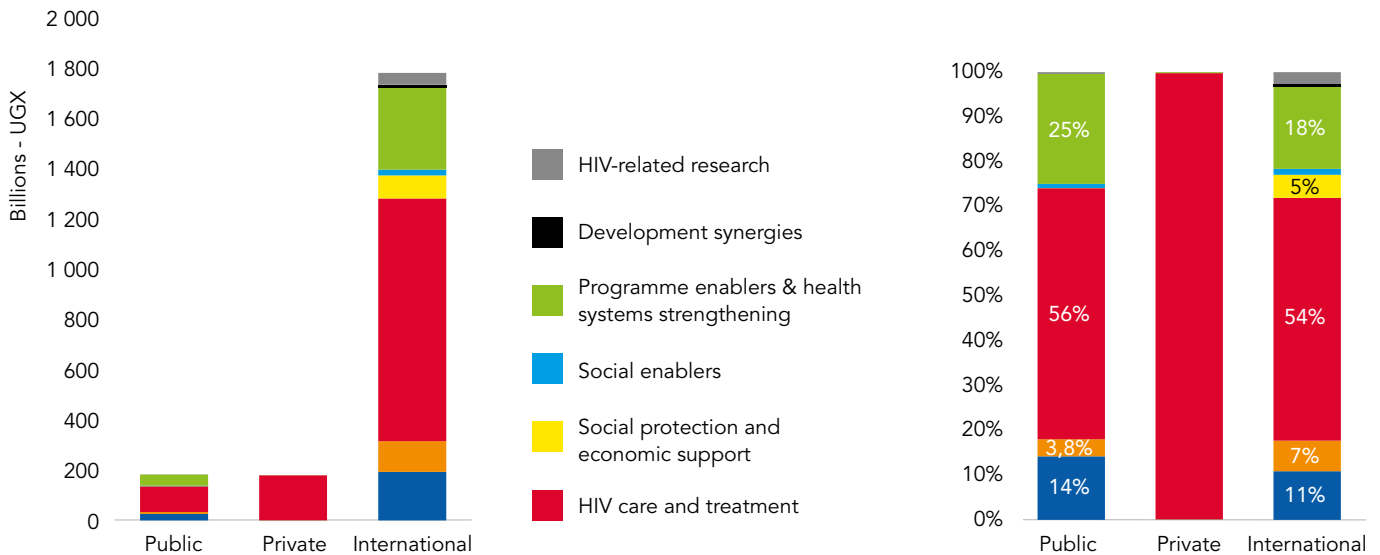
and 2018/19. The Ugandan Government must recognize the negative long-term consequences associated with underspending on HIV prevention. Dedicated prevention programmes and increased financing would help to stabilize HIV prevalence and numbers of new infections.

The HIV and AIDS responses in Eswatini and Ethiopia have prioritized care and treatment and programme enablers at the expense of prevention. In Zambia, however, prevention took the second-largest share of spending after care and treatment. In 2017 HIV

strengthening (18%), prevention (11%), HIV testing and counselling (7%), social protection (5%) and research (3%). International organizations were sole contributors to prevention, testing and counselling, and HIV-related research.

In both years under assessment, 98% of private expenditure was on care and treatment. Further disaggregation showed that out-of-pocket expenditure went on care and treatment not disaggregated by activity type (43%), medicines (33%), nutrition (10%) and laboratory expenses (3%) in 2018/19. It may be

FIGURE 13 HIV and AIDS programme area spending in Uganda disaggregated by financing entities, 2018/19



prevention activities rose to 23% of total HIV and AIDS spending in Zambia, almost reaching the 25% recommended by UNAIDS. This increase was a result of reducing care and treatment spending from 65% in 2016 to 57% in 2017.

The majority of public HIV and AIDS spending went on care and treatment, at 56% in 2018/19. Programme enablers and health systems strengthening accounted for 25% of Ugandan Government HIV and AIDS spending, prevention for 14%, and HIV testing and counselling for 3.8%.

International partners expended funds across seven AIDS spending categories through their implementing partners in both years under review. The largest share of international funds in 2018/19 was spent on care and treatment, accounting for 54%. The remainder was split between programme enablers and health systems

comparatively cheaper and beneficial for people living with HIV to channel some of these funds into an insurance scheme for effective service delivery.

Prevention activities

Given the emphasis on the five pillars of prevention (26) (prevention for adolescent girls and young women and their partners; prevention for key populations; condom programming; voluntary male medical circumcision; and pre-exposure prophylaxis), this assessment shows the comparison between the five pillars of prevention and other prevention activities. The five pillars accounted for 66% of total HIV and AIDS spending (US\$ 191.9 billion) in 2017/18 and 62% (US\$ 136 billion) in 2018/19. Other prevention activities accounted for 34% (US\$ 100 billion) of total HIV and AIDS spending in 2017/18 and increased proportionally to 38% but decreased in nominal terms (US\$ 82.8 billion) in 2018/19.

TABLE 11 Spending on HIV prevention in Uganda, 2017/18 and 2018/19

Prevention (UGX)	2017/18	2018/19	% share 2017/18	% share 2018/19
Five Pillars of Prevention	191,973,998,927	136,552,701,868	66%	62%
Other Prevention	100,709,954,252	82,937,462,001	34%	38%
Total Prevention	292,683,953,179	219,490,163,869	100%	100%

In the subcategory of “other prevention”, voluntary medical male circumcision was the most heavily funded intervention, at 53% of total HIV and AIDS spending in 2017/18 and 46% in 2018/19. This was followed by social and behavioural change communication, at 8% in 2017/18 and 13% in 2018/19.

Adolescent girls and young women accounted for 6% of total HIV and AIDS spending in 2017/18 and 5% in 2018/19. Condoms accounted for 6% in 2017/18 and 8% in 2018/19. Prevention of mother-to-child transmission accounted for 6% in 2017/18 and 5% in 2018/19. Key populations were poorly financed, accounting for 1% of total HIV and AIDS spending in 2017/18 and 3% in 2018/19.

The 2018/19 Annual Joint AIDS Report highlights the progress made in implementing the NSP. The report shows a decline in new HIV infections, but the magnitude of the epidemic in Uganda is still high, with 1000 new infections and 500 deaths a week (27).

Targeting of some HIV and AIDS services for key populations is suboptimal. Although some nongovernmental organizations, community-based organizations and governmental entities are working to address key populations, these services are of insufficient scale and duration, largely due to inadequate investment of financial and technical resources to yield sustainable change (28). It is important to allocate resources efficiently to these groups and increase the level of knowledge about HIV and its prevention. Prevention programmes should be evaluated for their cost-effectiveness, and non-effective interventions should be decommissioned.

Of specific spending on the five pillars of prevention, voluntary medical male circumcision took the largest share, at 80% in 2017/18 and 74% in 2018/19 (Table 12). The NSP identified voluntary medical male circumcision as a high-impact HIV prevention intervention that must be implemented for Uganda to end AIDS by 2030. The current NASA demonstrates, however, that resources were directed in an imbalanced way among the five

FIGURE 14 Total HIV prevention spending in Uganda disaggregated by interventions, 2017/18 and 2018/19



- Prevention activities not disaggregated
- Workplace programmes
- Prevention for PLHIV
- Children and youth
- Vulnerable and accessible populations
- Community mobilization
- SBCC
- PMTCT
- VMMC
- PreP
- Condoms
- Key populations
- AGYW

AGYW, adolescent girls and young women; PMTCT, prevention of mother-to-child transmission; PreP, pre-exposure prophylaxis; SBCC, social and behavioural change communication; VMMC, voluntary medical male circumcision. PLHIV, people living with HIV.

pillars of prevention. A cost-effectiveness study should be conducted to establish the cost per HIV infection averted by voluntary medical male circumcision.

The Presidential Fast-Track Initiative emphasizes the importance of involving men in reducing new infections, especially among adolescent girls and young women. Unfortunately, expenditure on these is low. Condoms took the second largest share of HIV prevention expenditure, at 9% in 2017/18 and 13% in 2018/19. Prevention among adolescent girls and young women took 9% in both years. A correlation between financing and outcomes is not yet established, but if efforts are not made to increase expenditure on such prevention activities in the next NSP, the Presidential Fast-Track Initiative will remain largely unachieved.

The vulnerability to HIV of adolescent girls and young women in Uganda is alarming. HIV prevalence among women aged 15–24 years is almost four times that among men of the same age. To have the greatest impact on reducing the incidence of HIV, the allocation of prevention resources targeting adolescent girls

and young women must be improved to integrate actions into programmes for education, sexual and reproductive health and rights, protection, social services, human rights and gender (29).

With support from international partners, the Ugandan Government formulated an action plan to increase coverage of comprehensive HIV prevention targeting adolescent girls and young women and their male partners. In 2018/19, partners were engaged in a multimedia sexual and reproductive health and rights campaign, Live Your Dream, which reached 3.7 million adolescents and young people with information on sexual and reproductive health and rights and gender-based violence.

With prioritized scale-up, new HIV infections among adolescent girls and young women are projected to decline by almost 85% to about 2000 per year in 2025. HIV prevention among adolescent girls and young women is estimated at 5% of total HIV and AIDS financing in the new NSP, compared with 1% in 2018/19.

TABLE 12 HIV and AIDS spending on the five pillars of HIV prevention in Uganda, 2017/18 and 2018/19

Five Pillars of prevention (UGX)	2017/18	2018/19	% share 2017/18	% share 2018/19
AGYW	17,759,279,532	11,774,408,374	9%	9%
Key populations	3,080,810,150	5,816,640,095	2%	4%
Condoms	17,124,264,306	17,379,958,064	9%	13%
VMMC	153,678,975,165	100,788,619,398	80%	74%
PreP	330,669,774	793,075,937	0%	1%
Total spend on 5 pillars	191,973,998,927	136,552,701,868	100%	100%

Key population groups (female sex workers, men who have sex with men, people who inject drugs, transgender people) are disproportionately affected by HIV and AIDS in Uganda. HIV prevalence among sex workers was estimated at 37% in the modes of transmission study conducted in 2014 (30). Sex workers and their clients account for about 20% of new HIV infections in Uganda, men who have sex with men and their female partners 0.6%, and people who inject drugs 0.4%.

Some prevention intervention strategies are more acceptable to some societies than others. Men who

have sex with men are disproportionately affected by HIV and AIDS, and there is evidence that targeted prevention interventions for this group can reduce the risk of HIV and AIDS (4). Action should be taken to reallocate and reprioritize the five pillars of prevention, particularly for key populations. Increasing financing for interventions aimed at key populations could improve efficiency. Only 0.3% of all HIV and AIDS financing, and around 4% of resources allocated specifically for prevention, was spent on key populations in 2018/19, despite the fact that 21% of all new HIV infections in adults occur among key populations and their partners.

TABLE 13 Spending on HIV prevention disaggregated by financing entities in Uganda, 2018/19

HIV prevention	Public (UGX)	Public (%)	International (UGX)	International (%)
AGYW	-		11,774,408,374	6.1%
Key populations	6,000,000	0.0%	5,810,640,095	3.0%
Condoms	5,416,735	0.0%	17,372,176,329	9.0%
VMMC	577,954	0.0%	100,778,010,845	52.1%
PrEP			787,875,937	0.4%
PMTCT	1,007,110,261	3.9%	10,365,962,295	5.4%
SBCC	4,094,917	0.0%	29,457,404,032	15.2%
Community mobilization	717,759,020	2.8%	920,082,908	0.5%
Vulnerable and accessible populations	9,310,194,542	35.8%	3,536,451,648	1.8%
Prevention for PLHIV			2,298,039,669	1.2%
Children and youth			1,854,437,027	1.0%
Workplace programmes	14,960,397,549	57.5%	-	0.0%
Prevention activities not disaggregated			8,389,919,474	4.3%
Total	26,011,550,978	100%	193,345,408,633	100%

International funds contributed to 88% (US\$ 193 billion) of prevention expenditure in 2018/19. Approximately 22% of prevention expenditure was provided from public Ugandan Government sources. This represents a 25% decrease from US\$ 292 billion in 2017/18. Uganda is heavily dependent on international donors to finance HIV and AIDS prevention. Public-sector contributions were mainly to workplace programmes (57.5%) and vulnerable and accessible populations (35.8%). In 2018/19, international financing entities prioritized voluntary medical male circumcision (52.1%) and social and behavioural change communication (15.2%).

HIV testing and counselling activities

Voluntary testing and counselling for the general population accounted for 66% of HIV and AIDS financing in 2017/18 and 78% in 2018/19. The second-largest component in this subgroup was provider-initiated testing and counselling, which accounted for 25% in 2017/18 and 17% in 2018/19.

There was reduced expenditure on HIV testing and counselling for vulnerable and accessible populations, at 9% in 2017/18 and 6% in 2018/19, and very low expenditure on HIV testing and counselling for sex workers in both years.

HIV testing and counselling is a critical intervention in the Presidential Fast-Track Initiative, the test and treat strategy and the Fast-Track 90–90–90 targets, particularly among men and young people. Despite this, only 5% of total HIV and AIDS spending in 2017/18 and 6% in 2018/19 went on testing and counselling.

As of March 2020, 89% of all adults (93% of women, 86% of men) living with HIV knew their HIV status (27), but sufficient and increased financing for testing and counselling is required to achieve the 95–95–95 targets by 2025. A well-functioning HIV response system emphasizes the provision of preventive services, but the limited financing for HIV testing and counselling, especially for sex workers and other vulnerable populations, is concerning. If funds are not well allocated to the potential transmitters of HIV, numbers of new HIV infections are likely to increase. Prevention funds should be redirected to interventions that are shown to be most cost-effective in preventing new HIV infections.

Innovative approaches targeting key populations that should be promoted include the moonlight HIV testing strategy, which has improved uptake of HIV testing services, particularly among key populations, including sex workers and men who have sex with men. The Global Fund, through The Aids Support Organization Uganda, has been implementing this testing approach in Uganda.

TABLE 14 Spending on HIV testing and counselling in Uganda, 2017/18 and 2018/19

HIV testing and counselling	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
Sex workers	60,758,618	76,941,124	0%	0%
Provider-initiated testing and counselling	28,024,818,582	21,717,131,058	25%	17%
Vulnerable and accessible populations	10,508,954,221	7,170,585,027	9%	6%
General population	75,201,309,869	100,390,052,772	66%	78%
Total	113,795,841,290	129,354,709,980	100%	100%

Care and treatment activities

Antiretroviral therapy accounted for the largest proportion of spending on HIV care and treatment in both years; a similar trend was observed in the previous NASAs. The nominal amount for antiretroviral therapy increased by 14% from US\$ 625 billion in 2017/18 to US\$ 714 billion in 2018/19 (Table 15).

The second-largest proportion went on HIV care and treatment services not disaggregated, which decreased from US\$ 239 billion in 2017/18 to US\$ 203 billion in 2018/19. HIV care and treatment services not disaggregated made up 20% of treatment services in 2017/18 and 16% in 2018/19.

Expenditure in 2018/19 increased by 8% for opportunistic infections but decreased by 13% for

laboratory monitoring. Expenditure on adherence and retention on antiretroviral therapy had the most significant increase, of 60%.

This trend of spending is similar to the two previous NASAs, with antiretroviral therapy being the highest cost driver among spending on HIV care and treatment. This can be explained by a large increase in the number of people living with HIV and in the number of people on antiretroviral therapy over the past decade, which has resulted in lower mortality rates (31). Another factor was evidenced in the NSP 2020/21 to 2024/25, which reported that the increase in spending on HIV treatment as prevention has led to viral suppression and a reduction in the likelihood of people living with HIV infecting other people.

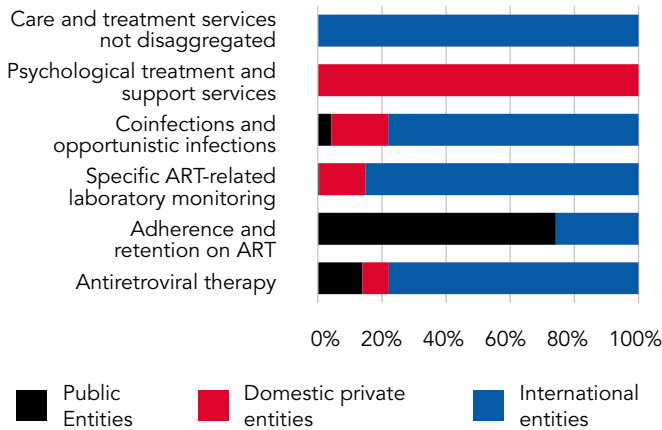
TABLE 15 Spending on HIV care and treatment in Uganda, 2017/18 and 2018/19

HIV care and treatment	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
Anti-retroviral therapy (ART)	624,940,100,074	714,729,481,559	52.4%	57.2%
Adherence and retention on ART	30,843,220,262	49,207,788,973	2.6%	3.9%
Specific ART-related laboratory monitoring	182,812,167,915	158,879,998,740	15.3%	12.7%
Coinfections and opportunistic infections	108,024,642,443	116,500,317,066	9.1%	9.3%
Psychological treatment and support services	5,726,462,447	5,941,922,182	0.5%	0.5%
Care and treatment services not disaggregated	239,799,122,596	203,703,917,749	20.1%	16.3%
Total	1,192,145,715,737	1,248,963,426,268	100%	100%

Given that an estimated 1.46 million people were living with HIV in Uganda in 2018/19 and the country has a high HIV prevalence rate of 6.2%, care and treatment is a major cornerstone and strategy of the national response. Financing for care and treatment should be

adequate and managed effectively to ensure more than 1.2 million people on antiretroviral therapy continue to receive treatment. Spending on care and treatment in 2017/18 and 2018/19 was below the cost estimate proposed by the NSP for the same years. This suggests

FIGURE 15 Contributions to care and treatment activities in Uganda disaggregated by financing entities, 2018/19



the sustainability of these services is uncertain, as international financing has declined and there is no short-term plan for the Ugandan Government to fill the potential gap.

HIV care and treatment was heavily financed by international financing entities, at 77% (Figure 15). The private sector, mainly through out-of-pocket expenditure, financed 14%. The public sector contributed only 8% to the antiretroviral therapy programme. The private sector fully financed psychological treatment and support services and nutritional support for people living with HIV. Antiretroviral therapy was largely financed by international financing entities (79%), which also contributed 98% of financing for laboratory monitoring.

Social protection and economic support

Spending on social protection and orphans and vulnerable children continues to be minimal, representing 5% of total HIV and AIDS spending in 2017/18 and 4% in 2018/19. This was also the trend in the previous NASAs. Spending on social protection and economic support in Uganda declined from US\$ 19 billion in 2017/18 to US\$ 11 billion in 2018/19; the majority of this in both years was support for orphans and vulnerable children. Orphans and vulnerable children took a significant share of 90% (US\$ 107 billion) of total social protection spending in 2017/18, but this decreased in nominal and proportional terms to 82% (US\$ 75 billion) in 2018/19. Orphans and vulnerable children not disaggregated by activity took the largest share in both years, at about 55%. International entities fully funded the social protection and economic support programme (Figure 16).

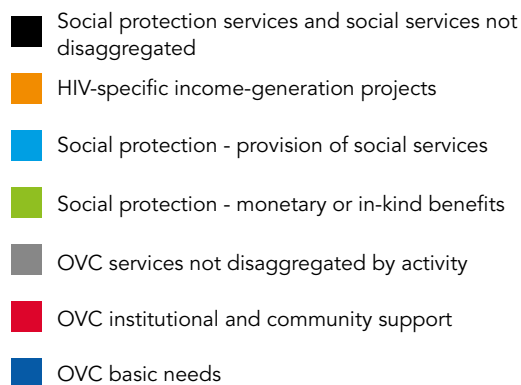
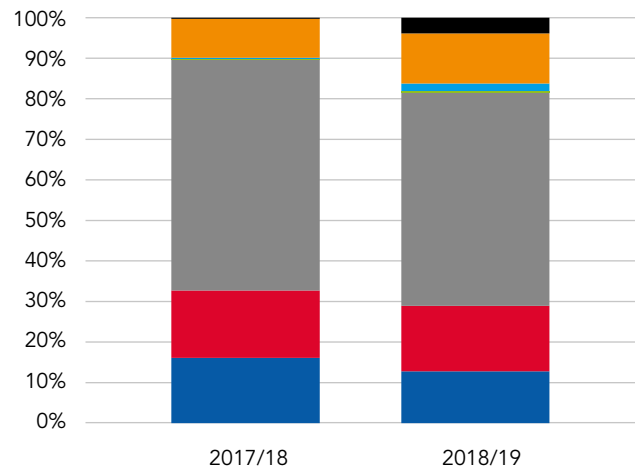
Although gains in reduced mortality have been made, there continues to be minimal expenditure on populations such as orphans and vulnerable children and other vulnerable people. If left ignored, this may impact the NSP targets.

Social enablers

Overall spending on social enablers was exceptionally low, at only US\$ 16.6 billion in 2017/18. This increased to US\$ 24.9 billion in 2018/19 due to Global Fund and PEPFAR financial support for legal, human rights and protection programming.

The Ugandan Government is implementing social protection and economic support programming, mainstreamed in a range of ministries, departments and agencies, primarily to reduce vulnerability and risk of low-income households not accessing social services. The agenda also aims to reduce the economic and social vulnerability of poor, vulnerable and marginalized people by initiating policies and promoting development programmes that protect their rights.

FIGURE 16 Social protection and economic support spending in Uganda, 2017/18 and 2018/19



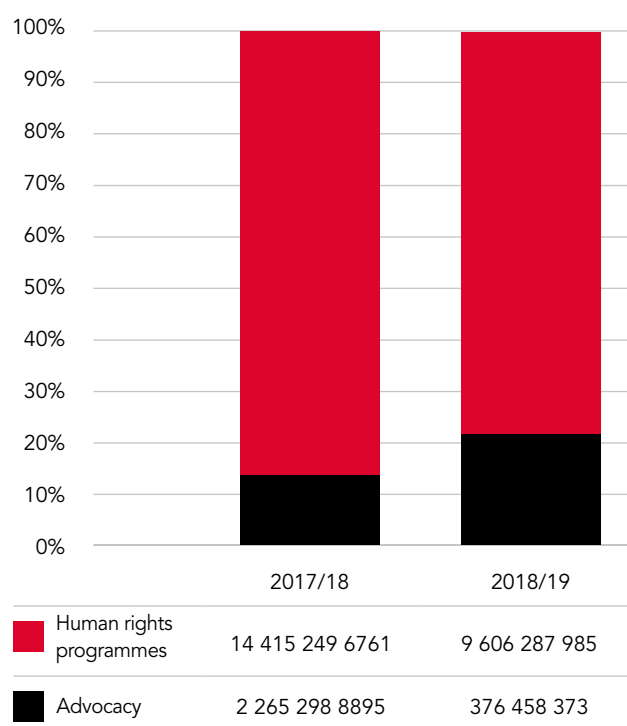
The ultimate development objective is to embed a national social protection system that benefits the poorest people in Uganda as a core element of the country's national policy, planning and budgeting process. This includes systems that contribute to asset redistribution and measures to address the structural basis of poverty.

Social protection mechanisms in Uganda include cash transfers to vulnerable people, pensions for elderly people, and grants to child-headed households and people with disabilities. These mechanisms include access to nutrition, health care, housing and education. Notable examples of programmes in Uganda include the Youth Livelihood Programme, under the Ministry of Gender, Labour and Social Development; Operation Wealth Creation, a directive by the President of Uganda to facilitate national social economic transformation; the Emyooga programme, a Presidential initiative on wealth and job creation centred on economic empowering of people in organized groups; and the National Agricultural Advisory Services under the Ministry of Agriculture, Animal Industry and Fisheries. Such programmes indirectly and directly benefit people living with HIV and other vulnerable groups, such as adolescent girls and young women and fishing communities.

HIV vulnerabilities have not been included among the criteria for selecting beneficiaries of such programmes. The current NASA could not estimate the Ugandan Government's economic contribution specifically to HIV and AIDS because social protection and economic empowerment programmes in Uganda are not streamlined and earmarked for the HIV and AIDS response. Spending and overall programme outcomes on HIV and AIDS could not be traced due to lack of HIV and AIDS-related reporting indicators.

The NSP 2020/21 to 2024/25 recognizes and prioritizes social support and protection as an important intervention to end AIDS as a public health threat by 2030. Social support consists of material and psychological resources often accessed through social networks. It involves psychological support and more instrumental support such as material and financial resources. According to estimates in the HIV Investment Case Framework 2020 (32), large increases in financing are required to expand programmes to reduce stigma (US\$ 40 million in 2030) and violence against women (US\$ 70 million). The largest component of violence prevention is economic empowerment, which produces benefits beyond the HIV and AIDS response.

FIGURE 17 Social enabler spending in Uganda, 2017/18 and 2018/19



This NASA discovered that social protection, economic support, and social enablers against stigma and discrimination, human rights violations, gender-based discrimination and advocacy were poorly funded. Social protection and economic support accounted for only 4% of total HIV and AIDS spending in 2018/19, and social enablers for only 1%. These two thematic areas were heavily funded by international entities. With this low financing, achieving the objectives and goals for the new NSP may be difficult.

Programme enablers and health systems strengthening

The NSP 2015/20 recommended that 18% of the HIV and AIDS programme budget should be committed to health systems strengthening. The total spending on programme enablers and health systems strengthening accounted for 21% (US\$ 442 billion) of total HIV and AIDS spending in 2017/18 but then declined in nominal and proportional amounts to 18% (US\$ 373 billion) in 2018/19.

In 2018/19 the largest proportion of the health systems strengthening programme was for strategic planning, coordination and policy development, at 48% (US\$ 178.9 billion). The next largest proportions were programme administration and management activities, at 25% (US\$ 93.5 billion), and public systems

strengthening, at 20% (US\$ 74.7 billion). The remaining activities took 7% of the total spending on programme enablers and health systems strengthening.

International financing entities funded 51% of programme enablers and health systems strengthening, totalling over US\$ 47.3 billion in

2018/19. Public entities contributed US\$ 44.9 billion (49%). Public spending on programme management and administration made up 22% of total public spending on HIV and AIDS in 2018/19. Spending by international financing entities on programme management and administration made up 26% of total international financing of HIV and AIDS.

TABLE 16 Spending on programme enablers and health systems strengthening in Uganda, 2017/18 and 2018/19

Programme enablers and systems strengthening	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
Strategic planning, coordination and policy development	237,816,324,704	178,936,431,325	53.7%	47.9%
Building meaningful engagement	1,148,840,805	769,116,061	0.3%	0.2%
Programme administration and management	82,114,167,703	93,577,413,828	18.6%	25.0%
Strategic information	4,389,071,581	3,384,509,075	1.0%	0.9%
Public Systems Strengthening	73,243,808,528	74,762,252,905	16.5%	20.0%
Community system strengthening	1,438,094,989	513,846,086	0.3%	0.1%
Human resources for health	32,518,547,181	18,079,276,999	7.3%	4.8%
Programme enablers and systems strengthening not disaggregated	9,975,571,206	3,804,740,440	2.3%	1.0%
Total	442,644,426,698	373,827,586,719	100%	100%

Development synergies

Development synergies are programmes necessary for the efficacy, equity and rollout of basic programme activities. They tend to have a broader range of impacts across health and development sectors, while encouraging sustainability of HIV responses through integration into broader health and non-health sectors.

The most relevant development synergies for HIV in Uganda include reducing violence against women and young girls; formative education to build up an HIV and AIDS workforce; other training not related to specific activities; and promoting HIV and AIDS-sensitive cross-sectoral development.

Spending on development synergies was extremely low, at only 0.3% of total HIV and AIDS spending (US\$ 5.7 billion) in 2017/18 and 0.4% (US\$ 9.5 billion) in 2018/19.

Spending on development synergies was fully financed by the Global Fund. Almost all (97%) of this financing

went towards the reduction of gender-based violence in 2018/19. Another 2% was for formative education for the HIV and AIDS workforce. (This does not include service-specific training, which would have been captured under the services for which they were being trained.) The remaining 1% was for promoting HIV and AIDS-sensitive cross-sectoral development.

Development synergies activities were financed by international partners, mainly PEPFAR.

NASA shows extremely low expenditure on development synergies. For adolescent girls and young women and other vulnerable populations, more resources should be allocated to integrate HIV and AIDS-related actions with education, protection and social services, human rights and gender programmes.

Development synergies can open up the space to introduce programme activities, drive efficiency, and address the needs of people who are most affected by and most vulnerable to HIV and AIDS.

TABLE 17 Spending on development synergies in Uganda, 2017/18 and 2018/19

Development synergies	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
Formative education to build-up an HIV workforce & training	588,774,694	227,911,305	10%	2%
Reducing gender based violence	5,129,319,415	9,261,369,630	89%	97%
Promote HIV-sensitive, cross-sectoral development	34,047,000	45,439,731	1%	0%
Total	5,752,141,109	9,534,720,666	100%	100%

HIV and AIDS-related research

HIV and AIDS-related research accounted for 1% of total HIV and AIDS spending (US\$ 26.2 billion) in 2017/18. In subsequent years, spending on research increased to 2% (US\$ 47.8 billion). In 2017/18, biomedical research accounted for 53% and epidemiological research 19% of total research spending. In 2018/19, the highest expenditure was on research not disaggregated (35%) and clinical research (31%).

HIV and AIDS-related research expenditure in 2017/18 and 2018/19 was funded mainly by international sources (98%), with only 2% coming from the public sector.

The NSP identified research as a strategic priority under the thematic area of systems strengthening for 2015/20. Although expenditure on research has increased, biomedical and operations research in Uganda require more financing to continue informing HIV and AIDS policy, planning and effective programme implementation. Efforts to promote the research agenda are being made by setting up or strengthening research institutions at the national level to conduct HIV and AIDS-related research.

TABLE 18 Spending on HIV and AIDS-related research in Uganda, 2017/18 and 2018/19

Research activities	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
Epidemiological research	7,530,569,298	6,992,486,651	29%	15%
Sociobehavioural research	2,420,682,590	3,761,813,845	9%	8%
Biomedical research	13,731,478,715	14,970,721,585	53%	31%
Economic research	1,881,163,929	2,654,218,208	7%	6%
Vaccine-related research	159,720,000	1,446,154,000	1%	3%
Clinical research	325,881,868	1,109,582,900	1%	2%
HIV research not disaggregated	168,250,316	16,868,002,205	1%	35%
Total	26,049,496,401	47,802,979,394	100%	100%

HIV AND AIDS SERVICE DELIVERY MODALITIES

The NASA 2020 framework has included the new service delivery modality vector to identify the different ways in which HIV and AIDS services are delivered. The data provide an opportunity to analyse the efficiency of programmes according to their modes of delivery, provided all expenditure is labelled correctly and comprehensively.

Service delivery modalities include models of HIV testing, antiretroviral therapy initiation, and antiretroviral therapy delivery for stable and unstable clients and different subpopulations. By 2018/19, facility-based interventions accounted for 66% of total HIV and AIDS spending. The “not applicable” category for services that did not have a specific delivery model (e.g. programme enablers and health systems strengthening) accounted for 20%. Home- and community-based services, including HIV testing and counselling, social protection, economic support, and other community-based prevention activities, accounted for 9%. Modalities not disaggregated (mainly HIV testing and counselling activities) accounted for 6%.

TABLE 19 Service delivery modalities in Uganda, 2017/18 and 2018/19

Service delivery modalities	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
Facility-based services	1,404,285,262,133	1,406,854,651,764	64%	66%
Home and community-based	230,062,655,487	186,661,068,997	10%	9%
Non-applicable	456,299,322,948	451,339,315,362	21%	21%
Modalities not disaggregated	119,140,949,284	101,226,184,892	5%	5%
Total	2,209,788,189,851	2,146,081,221,015	100%	100%

Uganda is widely considered a leader in differentiated service delivery modalities for antiretroviral therapy provision. It was one of the first countries to provide for differentiated service delivery in its national antiretroviral therapy treatment guidelines and to roll it out nationally (33). With the decentralized provision of antiretroviral therapy, care and treatment are mostly delivered in facilities. Small portions of activities, especially support for adherence and retention on antiretroviral therapy (including nutrition and transport), are home- or community-based services.

Most prevention activities are home-based services. These include HIV testing and counselling, social protection, economic support, and other community-based prevention activities.

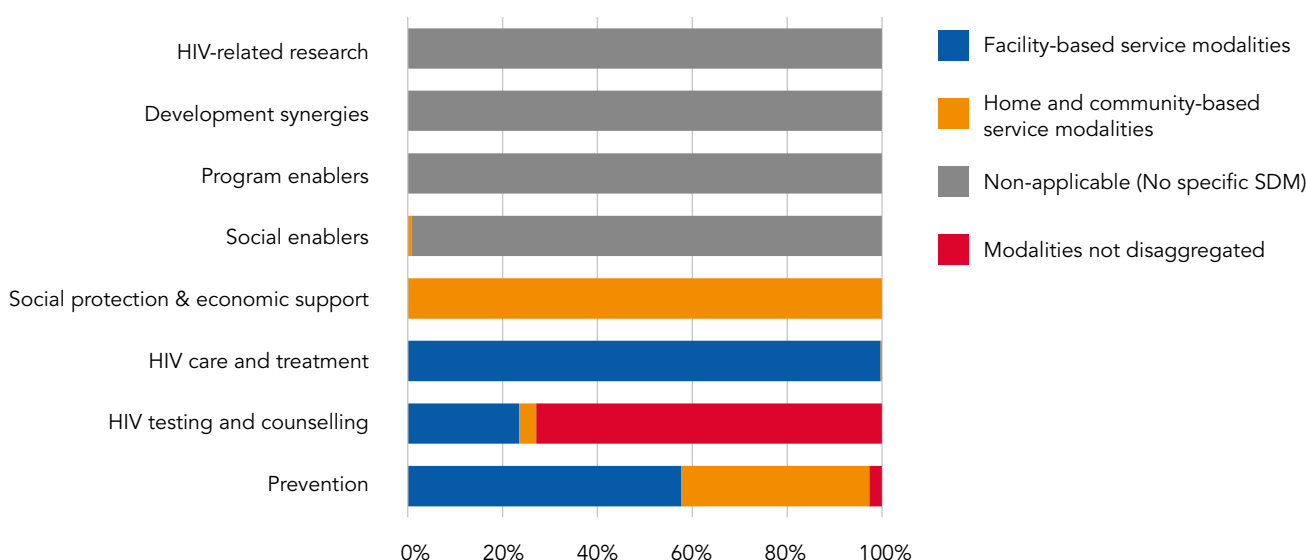
Programme enablers, systems strengthening and some other services were classified as “not applicable” and accounted for 22% of the total in both years.

BENEFICIARIES OF HIV AND AIDS SPENDING

The main beneficiaries of HIV and AIDS spending were people living with HIV, accounting for 55% (US\$ 1.2 trillion) in 2017/18 and 59% (US\$ 1.26 trillion) in 2018/19. This is consistent with the proportional spending on HIV care and treatment that directly benefits people living with HIV. As in the previous NASAs, HIV care and treatment take the largest share of total HIV and AIDS spending, benefiting people living with HIV.

The second-largest group of beneficiaries was non-targeted populations, accounting for 22% (US\$ 425 billion) in 2017/18 and 20% (US\$ 389 million) in 2018/19. When there was no explicit intention of directing the benefits to a specific population, the expenditure was labelled “non-targeted interventions”.

FIGURE 18 Service delivery modalities for HIV and AIDS programme areas in Uganda, 2018/19



This category was attributed to all programme enablers and health systems strengthening activities, which accounted for the second-largest proportion of total HIV and AIDS spending.

The general population who largely benefit from prevention activities accounted for 13% of total HIV and AIDS spending in 2018/19. Vulnerable and accessible populations received 10% of spending in 2017/18, but this decreased in nominal and proportional terms to 8% (US\$ 164 billion) in 2018/19. Within the category of vulnerable populations, the

largest share (65%) in 2018/19 went to orphans and vulnerable children, followed by adolescent girls and young women (16%), and people attending clinics for sexually transmitted infections (10%); all other vulnerable and accessible groups combined accounted for 7%.

Key populations accounted for the lowest spending (less than 1% in both years). Sex workers accounted for 95% of spending among key populations; the remaining 5% was shared between men who have sex with men and transgender people.

TABLE 20 Beneficiaries of HIV and AIDS spending in Uganda, 2016/17 and 2018/19

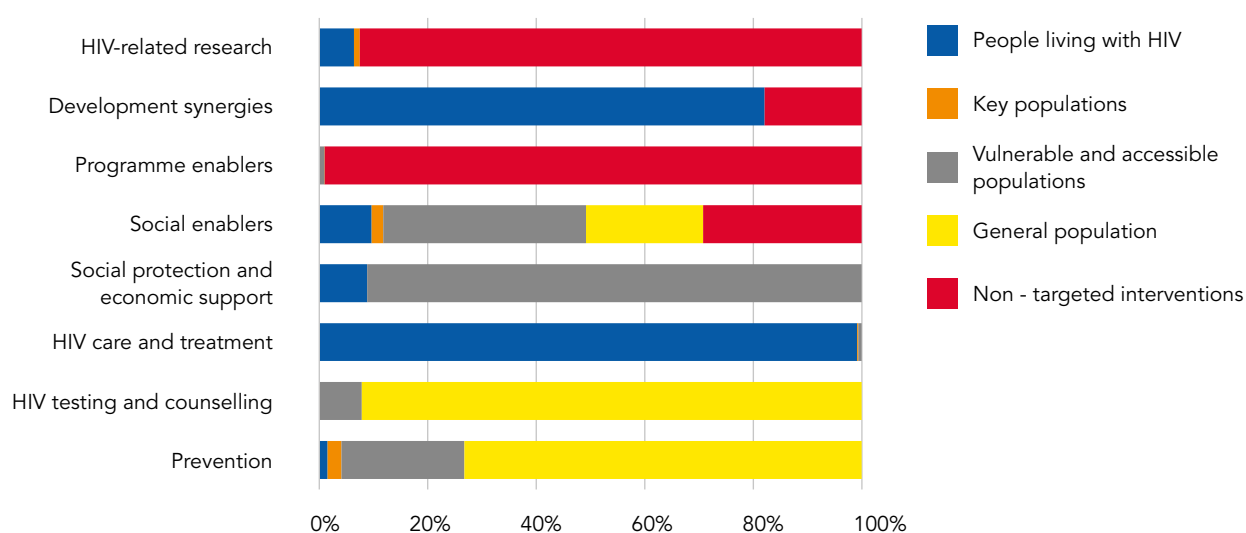
Beneficiary populations	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
People living with HIV	1,205,854,504,965	1,260,864,207,052	55%	59%
Key populations	2,879,810,024	8,949,880,303	0.1%	0.4%
Vulnerable and accessible populations	219,814,994,490	164,750,266,879	10%	8%
General population	305,119,452,819	286,437,662,841	14%	13%
Non-targeted interventions	476,119,427,553	425,079,203,940	22%	20%
Total	2,209,788,189,851	2,146,081,221,015	100%	100%

Spending on HIV care and treatment benefited people living with HIV in 2018/19. HIV testing and counselling was primarily for the general population, with some benefit for vulnerable and accessible populations. Spending on prevention mainly benefited the general population, followed by vulnerable and accessible populations and some key populations.

None of the spending on programme enablers, development synergies, HIV- and AIDS-related research, and some social enablers was targeted towards a specific beneficiary group.

A small number of nongovernmental organizations, community-based organizations and governmental

FIGURE 19 Beneficiaries in Uganda disaggregated by AIDS spending categories, 2018/19



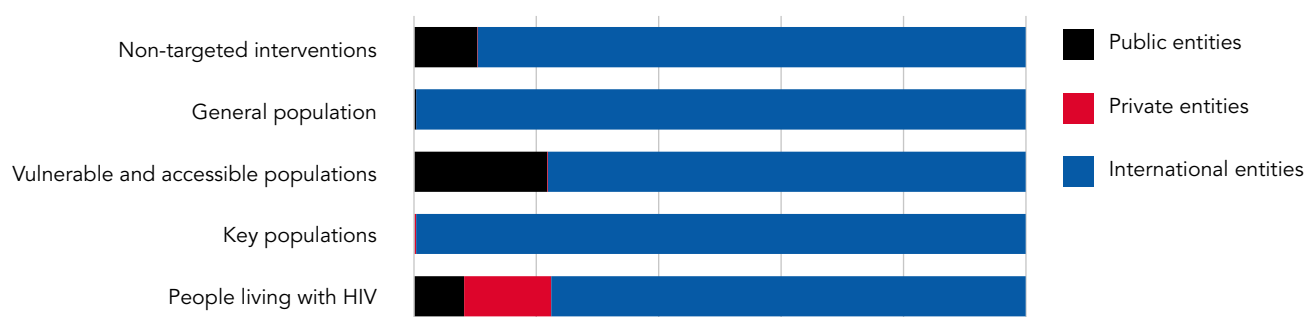
entities provide services to key populations, but these services are of insufficient scale and duration, largely due to inadequate investment, to yield sustainable change.

People living with HIV were funded mainly by international entities (78%), the private sector (14%) and public entities (8%) (Figure 20). The general population was funded totally by international entities in both years. Ninety per cent of non-targeted interventions was

financed by public entities. Vulnerable, accessible and other target populations were financed by international entities (78%) and public entities (22%). Key populations were financed entirely by international entities (100%).

Although activities targeting key populations are among the high-priority interventions of the NSP, NASA findings revealed that insufficient attention is given to key populations and other populations most affected by HIV and AIDS.

TABLE 20 Beneficiaries of HIV and AIDS spending in Uganda, 2016/17 and 2018/19



PRODUCTION FACTORS OF HIV AND AIDS SPENDING

Production factors are critical inputs required to deliver planned services and goods to beneficiaries. Production factors comprise capital and recurrent expenditure. Capital expenditure is the value of the non-financial assets acquired. Recurrent expenditure is expenditure on goods and services consumed within the current year that needs to be made recurrently to sustain the production of services.

In NASA classification, recurrent expenditure includes, among other things, salaries and wages, medicines, and administrative and consulting services. Capital expenditure includes building, vehicles, IT equipment, and laboratory and other medical equipment.

NASA results showed that recurrent expenditure had the largest proportion of spending in both years, at 97.6% in 2017/18 and 97.1% in 2018/19 (Table 21).

TABLE 21 Production factors of HIV spending, 2017/2018 and 2018/2019

Production factors	2017/18 (UGX)	2018/19 (UGX)	2017/18 (%)	2018/19 (%)
Current expenditure	2,155,857,515,790	2,084,929,750,560	97.6%	97.2%
Capital expenditure	45,202,099,925	32,917,003,511	2.0%	1.5%
Not disaggregated	8,728,574,135	28,234,466,945	0.4%	1.3%
Grand Total	2,209,788,189,851	2,146,081,221,015	100%	100%

The main production factors were medical products and supplies, at 38% of total HIV spending (US\$ 839 billion) in 2017/18 and 43% (US\$ 912 billion) in 2018/19 (Figure 21). Antiretroviral medicines alone represented 27% of total HIV and AIDS spending in 2017/18 and 29% in 2018/19. Approximately 90% of antiretroviral medicine expenditure each year was based on procurement through the Global Fund and PEPFAR.

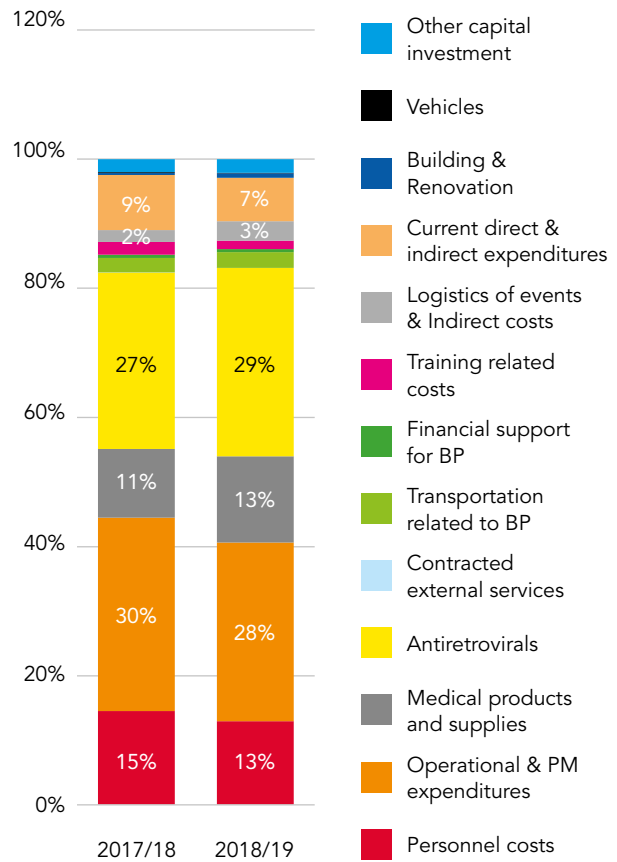
The second cost driver was operational and programme management costs, and included services not disaggregated by type. This consumed 30% of total HIV and AIDS spending (US\$ 661 billion) in 2017/18 and 28% (US\$ 594 billion) in 2018/19.

Personnel costs (wages and salaries) decreased from 15% of total HIV and AIDS spending (US\$ 320 billion) in 2017/18 to 13% in 2018–/19 (US\$ 277 billion).

There was reduced spending on all production factors, but spending on medical products and supplies has increased proportionally and nominally. This is in accordance with NSP 2015/16 to 2019/20, which highlights care and treatment as a priority (55% of NSP resources) for long-term health and well-being of people living with HIV.

Generating or disaggregating production factors from expenditure, as required by NASA classification, was difficult for some partners. There was a tendency to group production factors into a single category to avoid cumbersome calculations. The detail and specificity of reported data varied considerably, and it was a challenge to disaggregate some data.

FIGURE 21 Production factors of HIV spending in Uganda, 2017/18 and 2018/19



Consequently, 9% of total HIV and AIDS spending in 2017/18 (US\$ 188 billion) and 8% in 2018/19 (US\$ 144 billion) went on current direct and indirect expenditure not disaggregated.

FIGURE 22 Production factors in Uganda disaggregated by financing entities, 2018/19

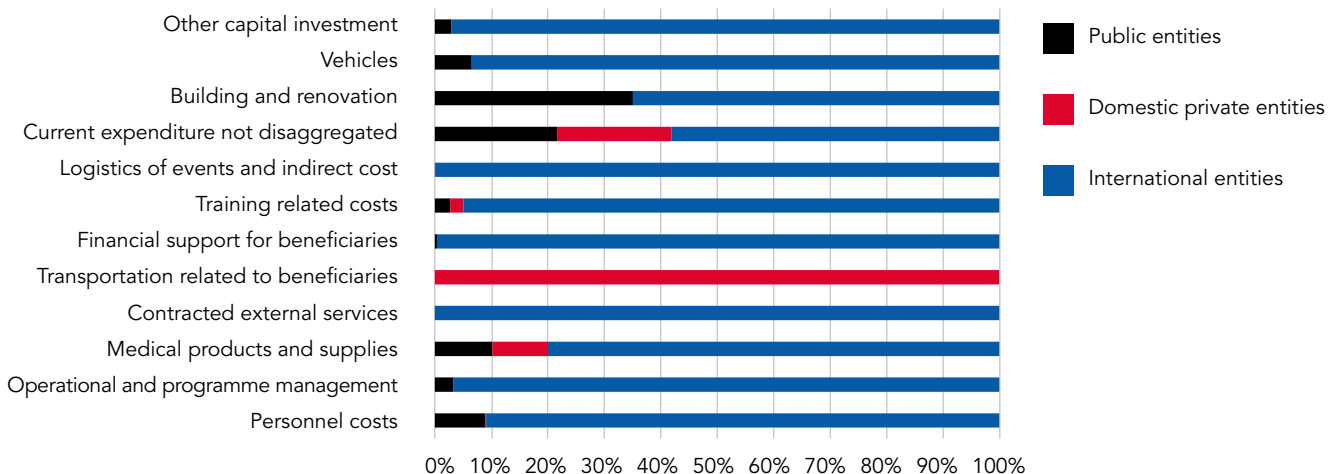


FIGURE 23 Production factors and cost drivers in Uganda disaggregated by financing entities, 2018/19

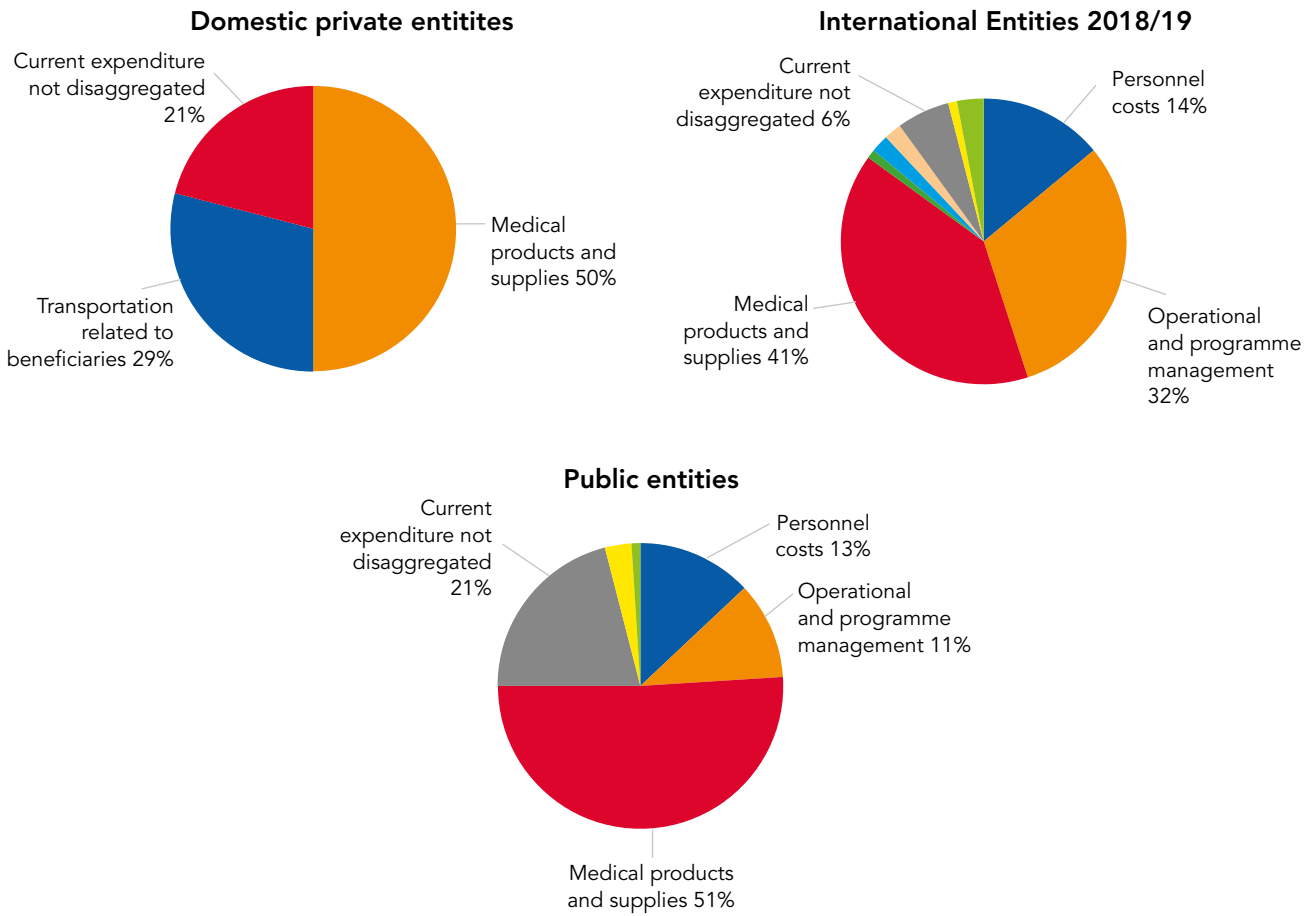
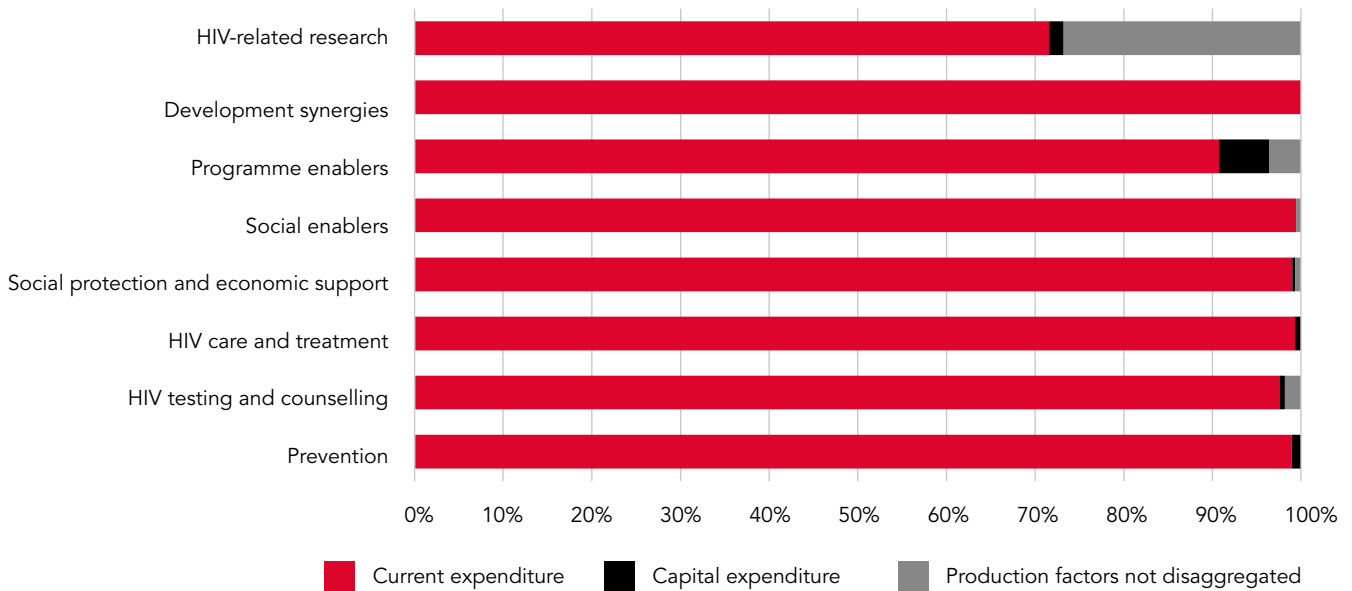


FIGURE 24 Production factors in Uganda disaggregated by AIDS spending categories, 2018/19



Capital expenditure accounted for 2% of total HIV spending in 2017/18 and 3% in 2018/19. This included building renovations, vehicles and other capital investments.

Medical products and supplies account for the largest production factor proportion of total HIV and AIDS spending. As Uganda has rolled out the test and treat strategy, it is crucial to assess the source of financing of these resource costs. In 2018/19, 80% of expenditure on antiretroviral medicines was from international financing entities (61% from PEPFAR, 24% from the Global Fund) and the Ugandan Government (15%) (Figure 22). Less than 1% of expenditure on antiretroviral medicines was from private sources (household funds). A similar trend was observed in 2017/18.

Of the total operational and programme management costs, the largest source of financing was international entities, which invested 97%; the remainder was provided by the Ugandan Government. Financing for current direct and indirect expenditure not disaggregated came from international financing

entities (58%), the Ugandan Government (22%) and domestic private sources (20%) in 2018/19. Personnel costs (salaries and wages) are heavily funded by international financing entities (91%).

SERVICE PROVIDERS IN UGANDA

Public service providers such as ministries and agencies, public hospitals and clinics accounted for 38% of expenditure (Table 22). Public-sector spending accounted for 28% of total HIV and AIDS spending (US\$ 382 billion) in the 2009/10 NASA and US\$ 815 billion in 2018/19. This US\$ 433 billion increase can be attributed to growth of HIV and AIDS expenditure over the past 10 years and implementation at an adequate scale of interventions in public facilities, such as rolling out antiretroviral therapy and test and treat strategies. With this new treatment policy, more financing was allocated to the care and treatment programme, primarily delivered by the Ugandan Ministry of Health.

TABLE 22 Service providers in Uganda, 2017/18 and 2018/19

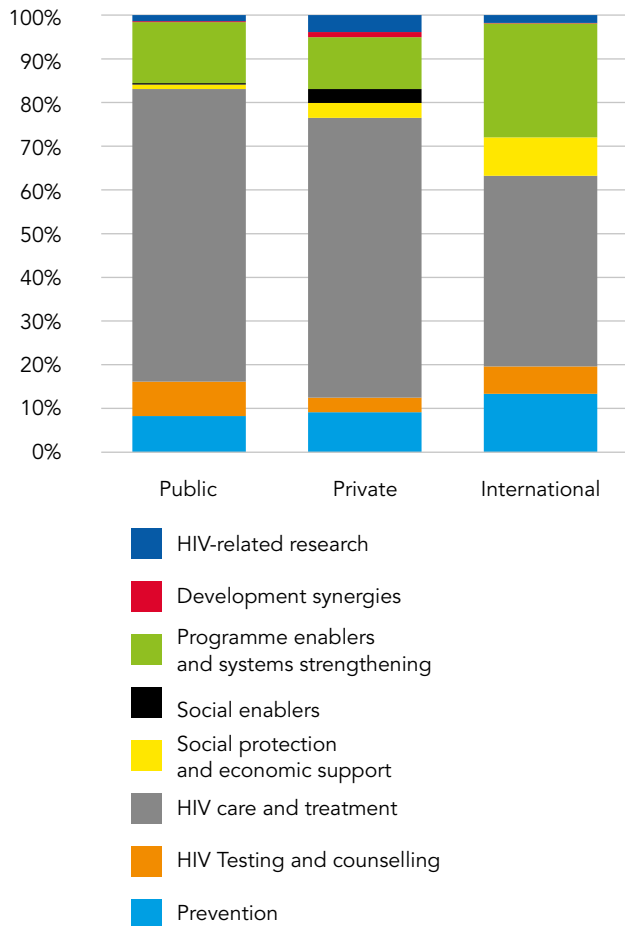
Providers of services/ UGX	2017/18	2018/19	% share 2017/18	% share 2018/19
Public sector providers	828,964,680,217	815,056,406,500	38%	38%
Non-profit providers	544,131,301,623	549,754,059,216	25%	26%
Profit making private provider	53,845,527,680	54,993,114,528	2.4%	2.6%
Multilateral country offices	19,263,086,374	24,229,753,247	0.9%	1.1%
International NGOs	763,583,593,957	702,047,887,524	34.6%	32.7%
Grand Total	2,209,788,189,851	2,146,081,221,015	100%	100%

Services provided by the public sector, including the AIDS Control Programme and health facilities, accounted for most of the HIV and AIDS expenditure for both years. The Ugandan Ministry of Health has the highest level of expenditure, as it provides HIV and AIDS services and is responsible for capital expenditure, including for some of the subrecipients. Spending on HIV and AIDS by the Ministry of Health increased from US\$ 230 billion in 2009/10 to US\$ 622 billion in 2018/19.

Non-profit-making service providers include many of the nongovernmental and civil society organizations involved in the HIV and AIDS response and accounted for 25% of total HIV and AIDS spending

in 2017/18 and 26% in 2018/19. International nongovernmental organizations reduced the level of HIV financing from 35% (US\$ 763 billion) in 2017/18 to 33% (US\$ 702 billion) in 2018/19. This decrease in financing by international providers has positively impacted the level of financing by non-profit-making providers. This may be indicative of donors placing more trust in local nongovernmental stakeholders and in building capacity of nongovernmental organizations, resulting in them being better able to mobilize and absorb funds. This could also confirm the PEPFAR change in policy to “foster enhanced HIV service delivery by the private non-profit-making sector through direct awards to local Ugandan implementing partners” (34).

FIGURE 25 HIV and AIDS programme area spending in Uganda disaggregated by service providers, 2018/19



enablers and health systems strengthening (14%), HIV testing and counselling (8%) and prevention (8%) in 2018/19.

Private provision amounting to US\$ 387 billion was spent on care and treatment (42%), HIV testing and counselling (24%), programme enablers and health systems strengthening (22%) and prevention (7%) in 2018/19.

International provision amounting to US\$ 316 billion was spent on HIV care and treatment (44%), programme enablers and health systems strengthening (26%) and prevention (13%) in 2018/19. The remainder was distributed among other programmatic areas.

Of the US\$ 597 billion financed by nongovernmental organizations in 2017/18, 82% was from international financing entities. All multilateral spending was from international organizations, mainly United Nations agencies (UNAIDS, United Nations Development Programme, WHO).

Public provision in 2018/19 was mainly accounted for by ministry and public agency service providers (Table 23). About 98% of this expenditure was from ministries, mainly the Ministry of Health; the remainder was from nongovernmental organization service providers.

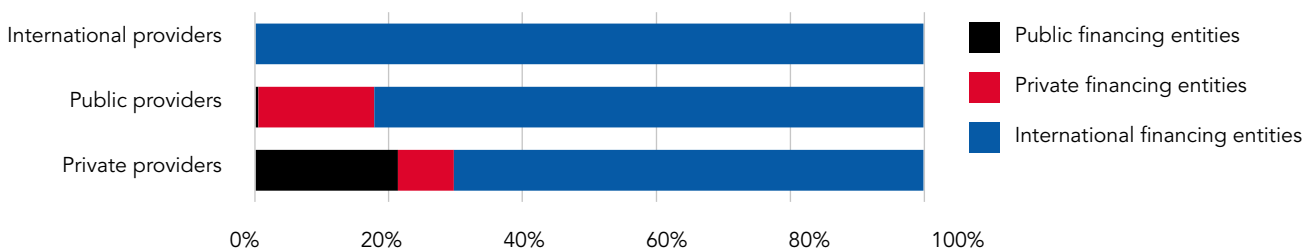
International funds in 2018/19 accounted for most of the Ugandan Government expenditure as a service provider, with 68% of funds (US\$ 562 billion) accounted for by this category of service provider.

Private profit-making entities have contributed through clinics and wellness programmes and provide services such as testing and other prevention activities.

Public provision amounting to US\$ 545 billion was spent on care and treatment (67%), programme

International donors were the sole source of funds for international nongovernmental and multilateral organizations that provided services for the two years under assessment. This is expected, as multilateral financing entities are mainly the United Nations agencies that also provide services.

FIGURE 26 Financing entities in Uganda disaggregated by service providers, 2017/18



Private nongovernmental organization providers received US\$ 494 billion (81% of their funds) from international donors and US\$ 107 billion from private financing entities. This accounted for 17% of expenditure in the private provider category.

The private sector plays an important role in the delivery of health services in Uganda, particularly those supported through donor financing. NASA showed that the Embassy of Ireland, the Global Fund and PEPFAR channel considerable amounts of financing to

nongovernmental and community-based organizations, which have expanded the delivery of services beyond the public sector.

Private-sector financing, mainly from household contributions, was split between nongovernmental organizations and public service providers. Nongovernmental organizations as service providers accounted for 60% of spending (US\$ 107 billion); the remaining 40% was used by public service providers.

TABLE 23 Financing entities in Uganda, 2018/19

Financing entities	Public providers (UGX)	Private providers (UGX)	International providers (UGX)	Total
Public	180,622,897,865	2,714,771,016		183,337,668,881
Private	72,335,185,149	107,723,695,616		180,058,880,765
International	562,098,323,486	494,308,707,112	726,277,640,771	1,782,684,671,369
Total	815,056,406,500	604,747,173,744	726,277,640,771	2,146,081,221,015



COMPARISON OF SPENDING AND ESTIMATED NSP COSTS

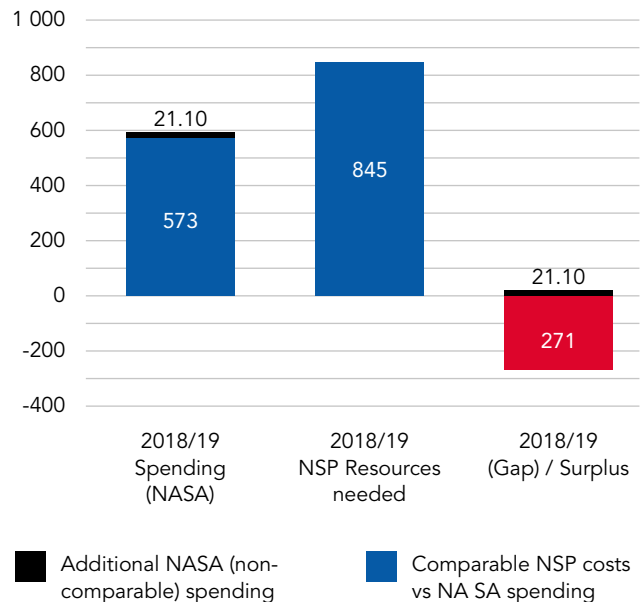
The most recent NSP covers the years 2015/16 to 2019/20 (35). The cost for implementing the NSP was projected to grow from US\$ 546.9 million in 2015/16 to US\$ 918.9 million in 2019/20.

In this section we compare the resources estimated in the NSP for 2017/18 and 2018/19 against the actual spending in the NASA. Analysis provides a comparison of interventions for which estimated costs and expenditure data were available and comparable for the two financial years. The results show how well the allocation of financing to HIV conformed to the priorities defined in the NSP.

The NSP costs for HIV and AIDS in 2018/19 were US\$ 845 million, while NASA recorded an expenditure of US\$ 574 million. The NSP estimates for 2018/19 are 47% higher than the actual spending in NASA, which leaves a financing gap of US\$ 271 million in 2019/20. This financing gap is remarkably close to the NSP financing gap analysis, which projected a shortfall of US\$ 236 million for 2018/19.

Despite failure to raise the required financing, the programmatic targets were achieved in 2018/19. This could be due to the gradual adoption of newer, more efficient technologies, better tracking of resources and results, and improved accountability. Closing the financial gap will involve increasing the level of available resources and continuing to improve efficiency by allocating resources to programmes that

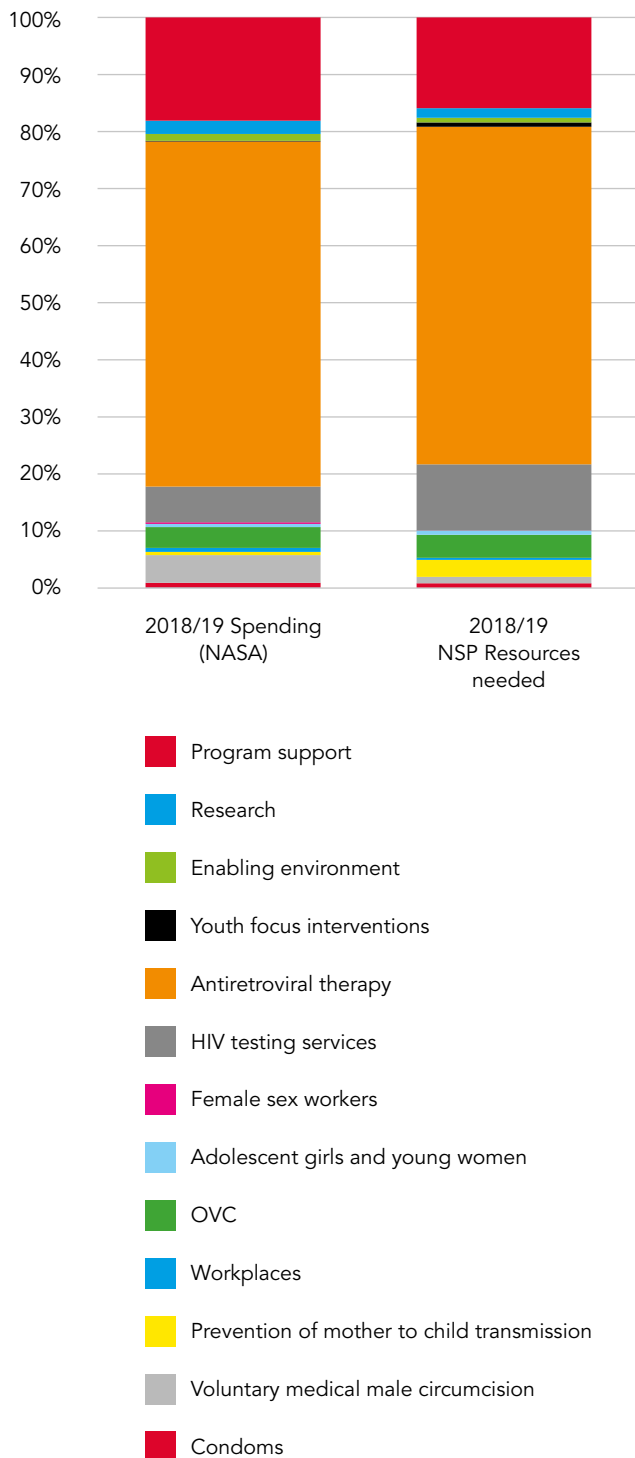
FIGURE 27 Total HIV and AIDS spending in Uganda compared with estimated costs, 2018/19



could have a greater impact and target the populations most affected by HIV and AIDS.

The NSP 2015/16 to 2019/20 had four main strategic objectives: care and treatment, prevention, social support, and protection and health systems strengthening. Some of the spending assessments in NASA align with these four priorities.

FIGURE 28 NASA spending in Uganda compared with NSP estimated costs, 2018/19



For the NSP to be implemented effectively and the targets achieved, care and treatment should account for 55% of costs, prevention 23%, social support and protection 4%, and protection and health systems strengthening 18%.

The closest alignment of spending and predicted costs is for HIV care and treatment, which was only 2% higher in NASA (Figure 28). Other interventions that align with the NSP include health systems strengthening, orphans and vulnerable children, and research. This is encouraging for the national response, showing that some allocative efficiencies were achieved in 2018/19.

The remaining interventions show the greatest dissonance between spending and predicted costs for 2018/19. Since the NSP places HIV testing and counselling under “prevention”, adding the proportion of HIV testing and counselling to prevention will represent only 16%.

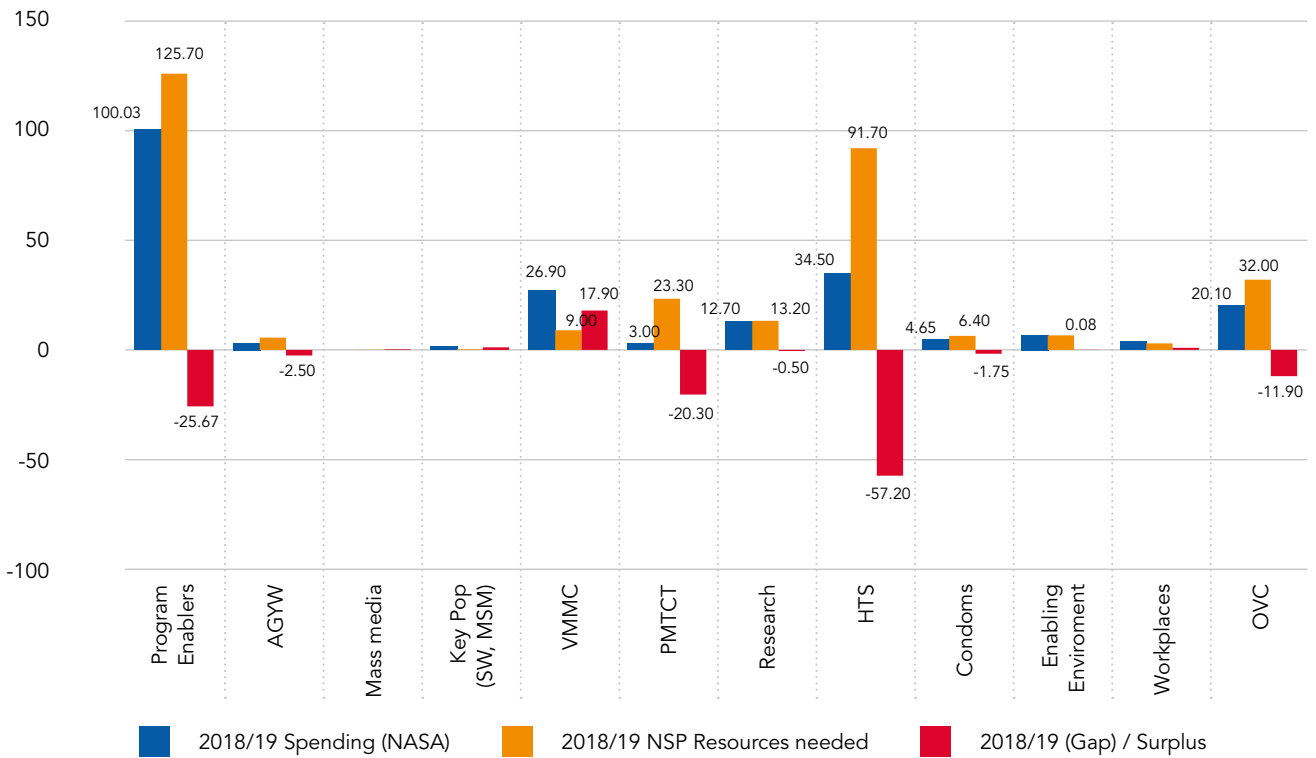
The closest alignment between expenditure in 2017/18 and 2018/19 with the NSP estimates is seen in HIV- and AIDS-related research and enabling environments (also called development synergies in NASA), which includes gender-based violence and human rights activities (Figure 29). Average spending on research in 2017/18 and 2018/19 was US\$ 12 million, compared with a total average costing of US\$ 13 million (4% difference). Development synergies showed a slight surplus of 1% when compared with the estimated resources.

The greatest difference between expenditure and costing was seen in HIV testing and counselling (voluntary testing and counselling in the NSP), with 106% less expenditure compared with projected costs. The NSP estimate for 2018/19 was US\$ 91 million, but NASA 2018/19 recorded expenditure of US\$ 34 million. The high estimate for HIV testing and counselling should be re-evaluated given the fact that testing coverage is declining.

The Ugandan Government should contribute more in line with needs to ensure the sustainability of the HIV and AIDS response and reallocate resources to improve cost-effectiveness and spending efficiency. With the adoption of a prioritized scale-up scenario, and efforts to achieve the 95–95–95 targets, the new NSP estimates a decreasing trend for HIV testing and counselling costs, from US\$ 21 million in 2020/21 to US\$ 9.5 million in 2024/25. Interestingly, NASA 2018/19 shows the level of expenses achieved is higher than the values projected for 2020/21.

Another key prevention intervention that appears to have been overfunded is voluntary medical male circumcision. The average expenditure between 2017/18 and 2018/19 was US\$ 34 million, but the average costing was only US\$ 9 million (67% surplus).

FIGURE 29 NASA spending in Uganda compared with NSP estimated costs per intervention (excluding antiretroviral therapy), 2018/19

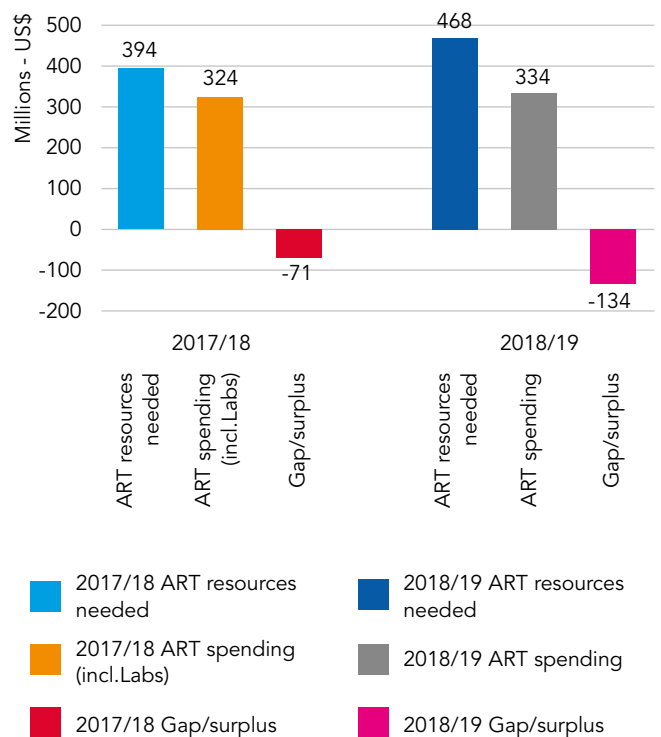


Performance indicators show that targets for voluntary medical male circumcision were overachieved by 137% in 2019 (36). This may demonstrate that scale-up is accelerating and prioritized over other HIV and AIDS interventions. An efficiency analysis would help to explore the possible causes of this surplus.

Expenditure on programme support is lower than the costed needs in the NSP. Programme support includes programme management; monitoring and evaluation; strategic communication; logistics; programme-level human resources; enabling environments; research; laboratory equipment; and infrastructure. To compare programme support with programme enablers and system strengthening in NASA, we disassociated research, training and enabling environments.

The average expenditure on programme enablers and health system strengthening across 2017/18 and 2018/19 was US\$ 110 million, but the total average costing is about US\$ 126 million, representing only 14% less expenditure than the projected costs. This indicates decreased investment to health systems strengthening, which would affect the sustainability of the HIV response, especially as international financing is declining.

FIGURE 30 NASA spending on antiretroviral therapy in Uganda compared with estimated costs, 2017/18 and 2018/19

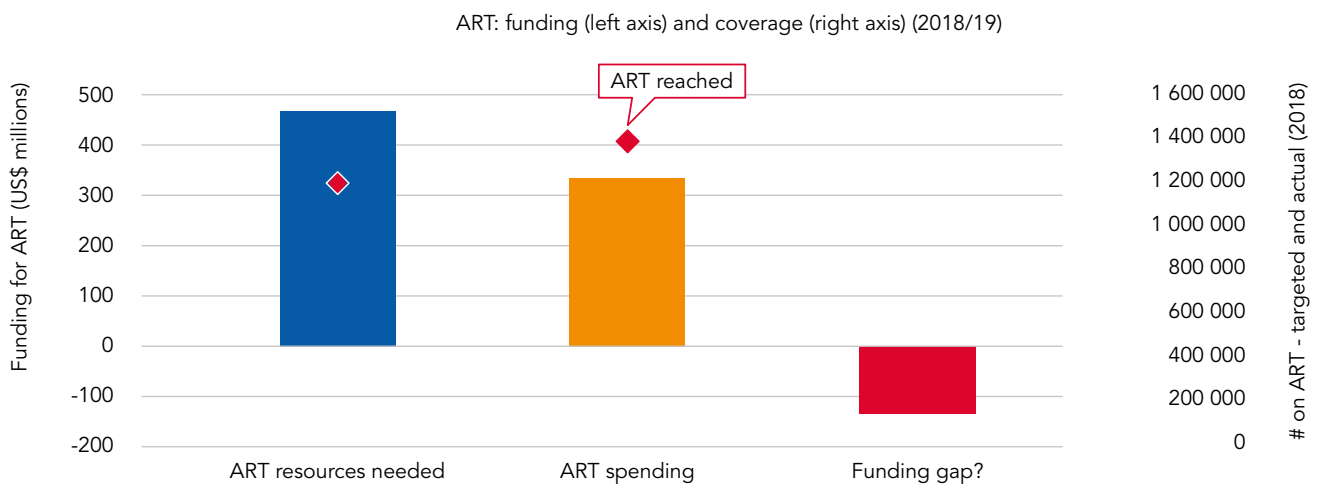


Care and treatment appear to have been adequately prioritized in spending, accounting for 58%. Nominal spending on antiretroviral therapy between 2017/18 and 2018/19 was valued at US\$ 328 million per annum, but the NSP was costed at US\$ 431 during the same period, representing a 31% (US\$ 103 million) difference (Figure 30). This difference could be due to missing information related to public-sector treatment (especially inpatient) and HIV- and AIDS-related opportunistic infections.

Information was also missing on private-sector treatment, especially insurance scheme payments for treatment-related services. Given this, care and treatment expenditure is possibly underestimated in NASA.

Antiretroviral therapy performance indicators show that targets of 80% have been surpassed. Despite limited spending on antiretroviral therapy, 84% of people living with HIV were enrolled in antiretroviral therapy services in 2018/19. This may imply efficiency in spending. The actual saving on antiretroviral therapy may be due to the gradual rollout of dolutegravir regimens (25% of people on antiretroviral therapy were moved to tenofovir, lamivudine and dolutegravir by the end of 2019), the costs of which were not anticipated at the beginning of the NSP. This was an important achievement and should be continued to reach the Ministry of Health target of 51% of all people on antiretroviral therapy using dolutegravir-based formulations (34).

FIGURE 31 Estimated antiretroviral therapy resources needed in Uganda compared with spending, 2018/19



CONCLUSIONS

- HIV spending decreased by 3% from USh 2.209 trillion (US\$ 599.7 million) in 2016/17 to USh 2.14 trillion (US\$ 574.2 million) in 2018/19.
- Total HIV spending was less than the estimated resources needed for 2017/18 and 2018/19. The gap was about US\$ 236 million for 2018/19. There appears to have been inadequate financing for the HIV response in both years.
- HIV spending by the Ugandan Government increased by 2% in 2018/19 compared with 2017/18.
- The HIV response in Uganda is heavily dependent on international funds, with bilateral agencies (mainly the United States Government) as the main source of international financing.
- Programmatic decisions on implementation of HIV services were largely determined by international financing agents and purchasers.
- HIV care and treatment took the largest share of HIV financing, followed by programme enablers and health systems strengthening, and HIV prevention. This trend was the same in previous NASAs and across the years. Antiretroviral therapy took the largest share of financing in this subcategory.
- HIV prevention activities were not adequately financed, and the majority of financing for prevention came from international donors.
- The five pillars of prevention were fully financed by international donors.
- The main providers of HIV and AIDS services were public entities, followed by international entities, which mainly provided financing for health systems strengthening and programme management. The private sector and civil society (particularly organizations supported through donor financing) also played an important role.
- The main beneficiary population was people living with HIV, who benefited from more than half of total HIV and AIDS spending.
- There was relatively low spending on adolescent girls and young women and key populations. Interventions targeting these groups were financed mainly by international partners.
- Medical products and supplies (including antiretroviral medicines), followed by operational and programme management costs (including salaries), were the production factors accounting for the largest proportion of total HIV and AIDS spending.
- Facility-based interventions accounted for the largest share of expenditure. With decentralized provision of antiretroviral therapy, care and treatment are mostly delivered in facilities. Only a small proportion of activities, especially support for adherence and retention on treatment (including nutrition and transport), were home- or community-based.

RECOMMENDATIONS

PROMOTE SUSTAINABLE AND INNOVATIVE FUNDING

The budget allocated to HIV and AIDS is lower than the costed needs in the NSP. With the declining trend in donor funds, HIV and AIDS programmes will continue to encounter financing gaps during the new NSP. The Ugandan Government, in collaboration with its development partners, will need to implement and enforce a strategic framework to mobilize additional resources for the health sector, and particularly for HIV and AIDS, to maintain the significant gains realized in the health sector and to deal with emerging demands.

To avoid unsustainable overdependence on development partners, the Ugandan Government should operationalize other means of mobilizing funds domestically. This includes enforcement of the AIDS Trust Fund, the One Dollar Initiative and the 0.1% national mainstreaming strategy. These innovative financing mechanisms and additional sources of domestic financing, including the private sector, need to be secured for the entire health system within a national health financing strategy and for HIV and AIDS financing to be aligned to the national strategy and priorities.

INSTITUTIONALIZE ROUTINE HIV AND AIDS RESOURCE TRACKING

To ensure accountability and transparency and honour the right to information of responses to HIV and AIDS programmes, a central system needs to be set up to obtain data on expenditure from all economic agents operating in Uganda in an agreed format once a year, as proposed in previous NASAs. This information should be made available in the public domain (e.g. on the Ministry of Health or Uganda AIDS Commission website). Institutionalizing routine resource tracking involves the following:

- Collect data from stakeholders more frequently.
- Improve health information systems.

- Use health records to create or amend tools and indicators for routine collection.
- Increase the number of indicators collected from various stakeholders.
- Improve or amend data collection tools for pharmacies and laboratories.
- Create policies to increase data collection on a timely basis among stakeholders.
- Build consensus with stakeholders regarding the most effective timing for data collection.
- Assess the nuances of each stakeholder, such as the issue of confidentiality in the private sector.

There is a need for a strong coordination mechanism between the business sector and the Uganda AIDS Commission to fully capture private-sector spending on HIV and AIDS. The Uganda AIDS Commission should closely engage the business sector in all HIV and AIDS platforms and form synergies or partnerships to fight the epidemic together.

There is also a need to undertake a comprehensive assessment of private-sector spending on HIV and AIDS in Uganda. The findings of this could be used as proxies when estimating private-sector contributions in future resource-tracking studies.

IMPROVE ALLOCATIVE EFFICIENCY FOR EFFECTIVE INVESTMENT

To improve allocative efficiency, donors and the Ugandan Government should invest in interventions with high impact and targeting populations that are most at risk or drivers of new HIV infections.

Gains have been made in reduced numbers of new HIV infections and AIDS-related deaths, but there continues to be minimal expenditure on adolescent girls and young women and key populations. If left ignored, this

may impact the NSP targets and hamper any gains in the HIV and AIDS response.

The Ugandan Government and its partners should focus on adolescent girls and young women and key populations, who are major drivers of new HIV infections, and increase financing for prevention activities through education, testing and counselling, condom distribution, pre-exposure prophylaxis, and services for adolescent girls and young women. This includes creating a conducive environment that encourages access to HIV and AIDS services to achieve the Presidential Fast-Track Initiative of ending HIV and AIDS by 2030.

Innovative approaches targeting key populations should be promoted, including the moonlight HIV testing strategy, which has improved uptake of HIV testing services, particularly among key populations such as sex workers and men who have sex with men. The Global Fund, through The Aids Support Organization Uganda, has been implementing this testing strategy in Uganda, and financing should be sustained to reach more key populations.

The HIV and AIDS response seems to be making a large investment in programme enablers and health systems strengthening, which could be indicative of investments in broader health systems. Given the current description of expenditure, with the burden of investment on this programme area, planners and policy-makers must make long-term decisions to determine whether this should be redirected and invested in areas such as prevention and treatment. This is important, as neither costing nor expenditure of HIV implementation seems to be aligned. As part of the process to increase the efficacy of programme and policy planning, more robust tracking of treatment spending is needed, especially as it relates to inpatient care and the overall public health system.

USE NASA FOR NATIONAL PLANNING NEEDS

Resource planning tends to be on the higher side, but the actual amount is low. When preparing the NSP or other resource projection documents, NASA information could be a strong reference for making a reasonable projection. The budgeting and programme implementation strategy should be revisited to harmonize the NSP and programme implementation.

Development partners should use NASA results in planning to reallocate and realign their HIV funds with the needs and objectives of the NSP.

OTHER KEY FINDINGS

With decreasing financing from development partners, overreliance on donors to finance prevention activities poses a danger to curbing new infections. To achieve the NSP goals and the 95–95–95 targets, and ensure the sustainability of HIV prevention activities, HIV testing and counselling and prevention activities (especially the five pillars of prevention) should be highly promoted from domestic financing sources.

NASA identified extremely low values for spending to create synergies between diverse HIV- and AIDS-related programmes. Considering the HIV epidemic and the vulnerability of adolescent girls and young women in Uganda, the assessment recommends increasing the allocation of resources to integrate HIV- and AIDS-related actions in education, protection, social services, human rights and gender programmes. The Uganda AIDS Commission should work with public ministries, departments and agencies implementing economic empowerment programmes to agree on clear guidelines and criteria for inclusion of people living with HIV and other vulnerable groups, as part of mainstreaming HIV and AIDS. This will ease the fast-tracking of economic support for people living with HIV and vulnerable groups.

Civil society and community-based organizations could be involved in organizing formal networks of people living with HIV and vulnerable youth that can apply for and benefit from such programmes. These groups can then advocate for budget allocations specifically targeting people living with HIV under ministries and other organizations that receive budgets for economic empowerment, and in turn ease the fast-tracking of expenditure.

For low-income and vulnerable populations that cannot afford to pay out-of-pocket expenses, the Ugandan Government should roll out and operationalize insurance schemes with adequate HIV care and treatment packages and mobilize people living with HIV to channel some of these funds into schemes for effective service delivery, such as community insurance schemes, private health insurance and national health insurance.

A study should be commissioned on linking programme expenditure to outputs and outcomes. This can be achieved by costing the required activities with their given outputs against the NASA results to gauge whether there is a correlation between financing and expenditure and outputs if other factors remain constant.

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ANNEX 1

OUT-OF-POCKET SURVEY RESULTS

Of the 3676 respondents interviewed, the majority of people living with HIV (53%) sought HIV and AIDS care from Ugandan Government facilities; 25% from private non-profit-making faith-based facilities; 7% from private non-profit-making non-faith-based facilities; 7% from private profit-making facilities; 4% from private pharmacies; 4% from mobile clinics; and 0.4% from traditional facilities.

Costs of seeking care varied with the type of service provider visited. The average cost per person was USh 30 875.

Respondents who visited Government facilities spent an average of USh 19 090 per person, but those who visited private profit-making facilities spent an average of USh 101 551. This was mainly due to high costs of medicines at private profit-making facilities.

Estimated costs were USh 28 580 at private non-profit-making faith-based facilities, USh 64 087 at mobile units and clinics, and USh 47 404 at pharmacies.

Estimated annual out-of-pocket expenditure was USh 187 billion (US\$ 50.6 million) in 2019/20. This was deflated to USh 151 201 204 027 for 2017/18 and USh 157 842 066 885 for 2018/19 using the deflation formulae to accommodate the years of interest for the wider NASA survey.

Of the total attributable to out-of-pocket expenditure, visits to public facilities accounted for USh 61.5 billion (US\$ 16.6 million), private profit-making facilities USh 42 billion (US\$ 11.3 million), and private non-profit-making facilities USh 42.8 billion (US\$ 11.6 million).

Spending on different cost categories was determined by the type of service provider visited. People who visited Government facilities spent 42% of the total out-of-pocket expenditure attributable to Government facilities on transport, 26% on lost income, 16% on nutrition, and 12% on meals.

People who sought care from private profit-making facilities spent 58% of the total out-of-pocket expenditure attributable to private profit-making facilities on medicines, 14% on consultations and laboratory services, 11% on transport, and 5% on lost income.

People who visited private non-profit-making facilities spent 30% of the total out-of-pocket expenditure attributable to private non-profit-making facilities on transport, 24% on medicines, and 20% on lost income.

The average outpatient visit cost per person was USh 30 875 (US\$ 8.3). Average expenditure was estimated from the total expenditure for a single outpatient visit for all people seeking HIV and AIDS services divided by the number of respondents. This was extrapolated nationally and annually to obtain the total annual out-of-pocket household expenditure of USh 187 billion (US\$ 50.6 million) based on figures for 2019/20.

The average out-of-pocket expenditure was USh 22 800 (US\$ 6.2) in rural areas and USh 36 697 (US\$ 9.9) in urban areas.

The survey looked at the following expenditure items: medicines, transport fees to health facilities, consultation fees, laboratory fees, meals while seeking care, nutritional expenditure associated with antiretroviral therapy, lost income, and home-based care services.

Medicines were the highest cost drivers of out-of-pocket expenditure, irrespective of the service provider visited (USh 44 917). This was followed by laboratory fees (USh 11 262), consultation fees (USh 8868) and transport costs (USh 8751). The cost items incurred by the majority and thus contributing most to total annual out-of-pocket expenditure are different, however, with transport fees and medicines the highest contributors.

Respondents paid an average of USh 8751 on transport during visits to health facilities, which translates to annual out-of-pocket household expenditure of USh 53.5 billion (US\$ 14.93 million). This is 30% of the total annual out-of-pocket expenditure, making this the highest cost driver.

Respondents who visited nongovernmental organization facilities spent an average of USh 44 917 on medicines. The total annual out-of-pocket household expenditure on medicines was USh 51.67 billion (US\$ 13.97 million). This is 28% of the total annual out-of-pocket expenditure, making medicines the second highest contributor.

Respondents lost income equivalent to an average of USh 5254 (US\$ 1.4) as a result of leaving their work to seek HIV care. Total income lost was USh 31.3 billion (US\$ 8.46 million). This is 17% of the total annual out-of-pocket expenditure, making lost income the third highest contributor.

ANNEX 2

NASA IMPLEMENTATION TIMELINE

	The X indicates early, mid, or late in the month - approximately					
Phases and Activities	Sep-20	Oct-29	Nov-20	Dec-20	Jan-21	Feb & March 21
CONTRACT SIGNED	X X					
Phase 1. Planning, mapping stakeholders and capacity building						
1.5 Development of data collection tools / adjustment of UNAIDS tools (if changes needed)	X					
1.6 Training of research team and UAC staff (designated to institutionalise NASA)	X					
1.7. OOPE questionnaire piloting	X					
Ph2. Sampling, Data Collection and Quality Control						
2.1 stakeholder mapping (sampling frame)	X					
2.2 Finalise the data collection plan	X					
2.4 Obtain all departments' financial records and other performance reports	X	X				
2.5 Data collection	X	X X X	X X			
2.9 Restructure PEPFAR data for NASA RTT import		X X X	X X		X X	
2.14 Capturing all data collected in DCT		X X X	X X X		X X X	
2.16 Capturing all data in NASA RTT, checking, cleaning			X X X		X X X	
Ph3. Data Analysis, Validation and Report Writing						
3.1. Undertake OOPE analysis			X		X	
3.2. finalisation of OOPE report			X		X	
3.1 Undertake initial analysis, once 80% of data has been collected and captured, prepare slides			X X		X X	
3.2 Review of preliminary analysis by NASA SC and NTT			X	X	X	
3.3 Make adjustments, add missing data, corrections, prepare slide deck for stakeholder validation					X	
3.4 Stakeholder validation meetings - national					X	
3.5 Adjustments made to the data and analysis, UAC and NASA S to confirm analysis (slide deck)					X	
3.6 Once all data and analysis has been confirmed, Consultants will draft the report .					X	
3.7 Review of draft report by NASA NTT						X X
3.8 Finalisation of report and other products						X
3.9 Report dissemination, other activities to ensure application of NASA data						X

ANNEX 3

NASA DATA COLLECTION TEMPLATE

Year: 2017/18	Region		Currency:
	Financing Entity (FE)		
	Financing Agent (FAP)		
	Provider (PS)		
	Total Amount spent	0	Amount Spent
ASC 1			
Service Delivery Model			
Beneficiary (BP) 1			
Beneficiary (BP) 2			
Total spent BP			–
Production Factor 1			
Production Factor 2			
Production Factor 3			
Production Factor 4			
Total Spent PF			–
ASC 2			
Service Delivery Model			
Beneficiary (BP) 1			
Beneficiary (BP) 2			
Total spent BP			–
Production Factor 1			
Production Factor 2			
Production Factor 3			
Production Factor 4			
Total Spent PF			–

ANNEX 4

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