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SUSTAINABLE HIV FINANCING IN UGANDA

Baseline Analysis and
Prospects for New Domestic
Resource Mobilization



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Sustainable HIV Financing in Uganda

*Baseline Analysis and Prospects for New
Domestic Resource Mobilization*



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Abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
ATF	AIDS Trust Fund
BCC	behavior change communication
CBHI	community-based health insurance
FUE	Federation of Uganda Employers
FY	fiscal year
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
HMO	health management organization
HPP	Health Policy Project
HTC	HIV testing and counselling
NASA	National AIDS Spending Assessment
NGO	nongovernmental organization
NHA	National Health Accounts
NHIS	National Health Insurance Scheme
NSP	National HIV and AIDS Strategic Plan 2015/2016—2019/2020
PEPFAR	President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission
OI	opportunistic infection
OOP	out-of-pocket
OVC	orphans and vulnerable children
THE	total health expenditure
UMA	Uganda Manufacturers Association
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
VMMC	voluntary medical male circumcision
WHO	World Health Organization

Rationale

In the past decade, PEPFAR has committed significant technical and financial resources to the fight against HIV, working with local partners in target countries to promote prevention programs, increase the number of patients receiving antiretroviral therapy (ART), and strengthen national coordination and monitoring of programs. As donor funding stagnates and developing economies grow, it is critical to identify long-term, sustainable sources of domestic funding for HIV to maintain and build upon the successes achieved by low- and middle-income-countries, in partnership with PEPFAR.

In this context, PEPFAR has established the Sustainable Financing Initiative to work with seven target countries to mobilize non-donor, domestic resources and ensure transparency, accountability, and efficiency in the use of these resources to help achieve an AIDS-free generation. This initiative will support countries to leverage new financial resources in the public and private sectors, with the goal of unlocking US\$1 billion in new domestic financing for HIV across the target countries between 2016 and 2018.

To advance this goal, the Health Policy Project (HPP) conducted a baseline assessment of the current state of HIV financing in Uganda and Zambia, against which future achievements in domestic resource mobilization can be measured. The assessment analyzes current resource commitments from all sources, both domestic and external, against the projected resource needs under the Joint United Nations Program for HIV/AIDS' (UNAIDS') 90-90-90 target. The assessment then determines the gap in resources that must be filled through new domestic resources in each country and examines the efficiency and equity in the use of funds to maximize the impact of financial commitments.

For the baseline assessment, HPP measured 10 indicators, developed in consultation with USAID across four strategic objectives:

- Resource availability for HIV
- Domestic resource mobilization
- Efficiency in the use of funding
- Equity in access and utilization of HIV services

The indicator measures and results for Uganda are summarized in this report. Where applicable, the HPP team included recommendations to generate additional data and policy actions to improve domestic resource mobilization and efficiency and equity in Uganda's HIV response.

Table 1. Uganda Baseline for HIV Sustainable Financing Initiative
Performance Indicators, Values, and Data Sources

Performance Indicator	Value	Sources
Funding for HIV		
1. Patients on ART (% of PLHIV) (2015)	763,720 (46%)	OneHealth Tool file developed for National HIV and AIDS Strategic Plan 2015–2020
2. Resources Committed for HIV (FY 2014/15)	US\$574 million	Approved Estimates of Revenue and Expenditure (Ministry of Finance, 2011/12–2014–2015) Uganda HIV and AIDS Country Progress Report (2014) PEPFAR Dashboard (2015) Global Fund Dashboard (2015)
3. Projected HIV Funding Gap (2016-2020)	US\$1.09 billion	OneHealth Tool file developed for National HIV and AIDS Strategic Plan 2015–2020 Approved Estimates of Revenue and Expenditure (Ministry of Finance, 2011/12–2014–2015) NHA 2010/11 and 2011/12 (2015) PEPFAR Dashboard (2015) Global Fund Dashboard (2015)
Domestic Resource Mobilization		
4. Government HIV Budget (FY 2014/15)	US\$69.9 million	Approved Estimates of Revenue and Expenditure (Ministry of Finance, 2011/12–2014–2015)
5. Private Sector (non-OOP) Expenditure on HIV (2014)	US\$3.8 million	Interview/program data from Uganda Private Health Support Program Interview with Uganda Insurers Association Interview/program data from private sector associations

Performance Indicator	Value	Sources
Technical Efficiency		
6. Key HIV Service Unit Costs	ART, including health systems (facility-level only): Adult: US\$482 (US\$345) Pediatric: US\$488 (US\$417) HTC: US\$8-19	ART: OneHealth Tool file developed for National HIV and AIDS Strategic Plan 2015 – 2020 (2015); MEASURE Evaluation (2013) HTC: Menzies et al., 2009
7. Government HIV Budget Execution Rate (FY 2014/15)	95%	Approved Estimates of Revenue and Expenditure (Ministry of Finance, 2011/12–2014–2015)
Equity of Access and Utilization		
8. Insurance Enrollment	Total Pop.: ~1,000,000 (2.6%) PLHIV: unknown	Interviews with Uganda Insurers Association and Save for Health Uganda
9. OOP Expenditure on Health (FY 2011/12)	37.4% of THE US\$157.72 per capita (US\$0.47, poorest quintile)	NHA (2011–2012) Current data on OOP expenditure on HIV unavailable
10. Benefit Incidence of Expenditure, Poorest Quintile	17.9% Benefit 22.8% Need	Kwesiga et al., 2015

Methodology

To calculate the values for each indicator, HPP conducted a secondary analysis of existing data sources and interviews with key stakeholders from government agencies, donors, implementing partners, and private sector organizations.

For current ART and prevention of mother-to-child transmission (PMTCT) coverage rates (Indicator 1), HPP used the most recent OneHealth projection model¹ provided by the Uganda AIDS Commission, which was developed in 2014 for the HIV Investment Case and refined in 2015 to inform the National HIV and AIDS Strategic Plan 2015/2016-2019/2020 (NSP). The OneHealth model was also used for the gap analysis (Indicator 3) to calculate the total number of people living with HIV (PLHIV), number of patients eligible for treatment, number of patients on ART, and the total cost of national HIV response. For the baseline assessment, HPP projected these values and cost under two scale-up scenarios: (1) NSP targets; and (2) UNAIDS 90-90-90 guideline targets (by 2020, 90% of all PLHIV are diagnosed and know their status, 90% of those diagnosed are initiated and maintained on ART, and 90% of those on ART are virally suppressed).

For estimates of resource commitment (Indicator 2) and expenditure, the study team used the National Health Accounts (NHA), fiscal year (FY) 2011/12 as a framework, supplemented by the 2010 National AIDS Spending Assessment (NASA). HPP used the most recent data from publicly-available budgets and dashboards from the Government of Uganda, PEPFAR, and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) to update the funding commitment and expenditure for these sources. Where data were unavailable or out-of-date, values were assumed to be constant from the most recently available year. Private sector sources were updated based on data gathered through key informant interviews.

For estimates of the Government of Uganda's HIV budget (Indicator 4), HPP analyzed budget line items in the Approved Estimates of Revenue and Expenditure for FYs 2011/12 to 2014/15 for HIV-specific programs (i.e., antiretroviral [ARV] drug procurement, and Uganda AIDS Commission) and health systems, including hospital and clinical infrastructure and staffing, human resource management (Health Service Commission), and coordination and oversight (Ministry of Health). Budgets for HIV-specific programs were allocated at 100 percent to the calculated total, while health systems budgets were allocated at 15, 20, or 25 percent, based on health service level, in accordance with the NASA methodology (Uganda AIDS Commission, 2012a).

Expenditure and budget execution (Indicator 7) for the HIV budget were calculated using the same allocations as above, utilizing data on releases and expenditure from the Annual Budget Performance Report for the relevant years.

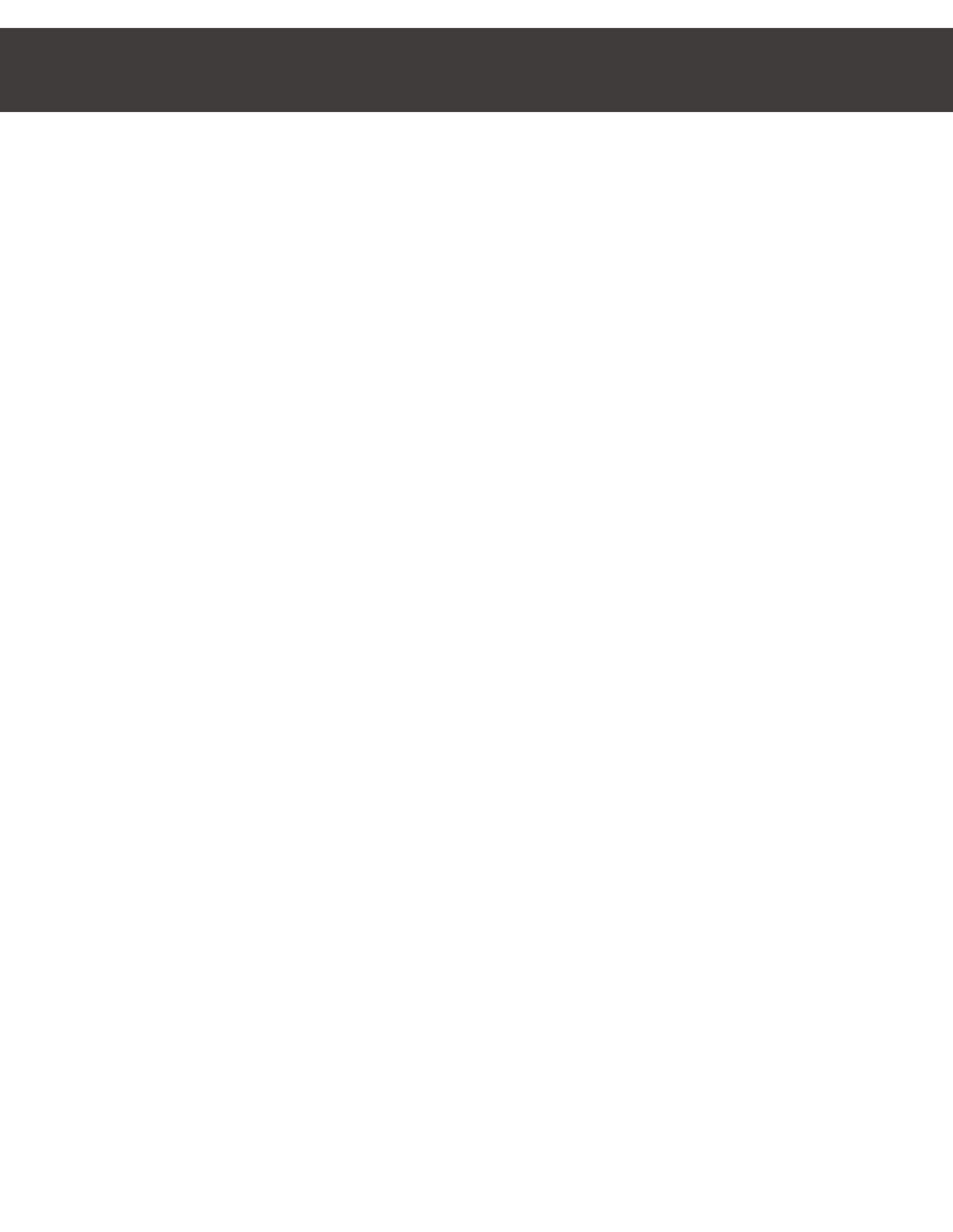
For unit cost estimates (Indicator 6) for ART and HIV testing and counseling (HTC), HPP first conducted a literature review. In addition, the study team acquired unit cost information from PEPFAR and the Global Fund. The unit costs used by various stakeholders in Uganda for their own programming and budgeting were compared against those used in the costing of the NSP. There is no consensus on how to cost for ART and HTC in Uganda; while NSP and MEASURE Evaluation presented comprehensive cost of ART service, including ARV drug costs as well as treatment for OI and other associated HIV services, PEPFAR and the Global Fund had ARV drug costs only for drug procurement purposes. For the purpose of scenario-based costing (Indicator 3), HPP used NSP's comprehensive ART unit cost. This also allowed for Scenario 1 (NSP target) to be consistent with the expenditures projected in the Plan.

¹ The OneHealth Tool is a suite of policy modeling softwares that can be used to support costing and budgeting of national health strategies. HPP extensively reviewed inputs made by the Uganda AIDS Commission in the AIDS Impact Model (which estimates impact of HIV treatment), GOALS Model (which estimates the impact of prevention interventions), and the Resource Needs Model (which estimates the cost of the entire package of a program based on coverage targets set in the prior two models). The OneHealth Tool is available for download at: <http://www.avenirhealth.org/software-onehealth>.

To better understand the private sector contribution to HIV services (Indicator 5), HPP conducted interviews with key stakeholders in the private sector. For direct service provision through workplace programs, HPP interviewed two associations that represent the private sector: the Federation of Uganda Employers (FUE) and the Uganda Manufacturers Association (UMA). Both associations offer technical assistance to its members to establish and expand workplace health programs. The USAID-funded Private Health Support Program and its predecessor projects had been partnering with these institution and their members to scale-up workplace health programs. HPP sourced programmatic information from all of these stakeholders to estimate the overall private sector contribution to health through corporate health programs.

For insurance coverage (Indicator 8) and expenditure, HPP collected data from the Uganda Insurers Association, which has all five health insurers in Uganda as members, and Save for Health Uganda, one of the largest community-based health insurance (CBHI) scheme operators. The Uganda Insurers Association provided information on average premium payments, number of lives covered, and medical loss ratio, each of which informed the expenditure analysis.

Current estimates on out-of-pocket (OOP) expenditure for HIV (Indicator 9) were unavailable, so the team relied on estimates available in the FY 2011/12 NHA and data from a single benefit incidence analysis study (Indicator 10) assessing the distribution of healthcare.



Funding for HIV

Indicator 1

PATIENTS ON ART (% OF PLHIV)

763,720 (46%)

Background

In 2014, UNAIDS established the 90-90-90 HIV treatment target, where, by 2020, 90 percent of all PLHIV are diagnosed and know their status, 90 percent of those diagnosed are initiated and maintained on ART, and 90 percent of those on ART are virally suppressed (UNAIDS, 2014). In conjunction, the World Health Organization (WHO) released a new standard treatment guideline in 2015 recommending immediate ART initiation for all patients who test positive for HIV (WHO, 2015). While these global targets can galvanize support for the HIV response among the international community, they also raise the bar for countries already facing challenges to achieve old treatment guidelines due to the limitations of their health systems and resources. Uganda faces similar challenges, where financial and human resource limitations have prohibited extensive scale-up of HIV programs on par with global targets. Domestic resource mobilization efforts must consider the current constraints in the system and effectively tackle bottlenecks in order to achieve sustainable financing.

Uganda's HIV Epidemic

Uganda's HIV epidemic remains among the largest in sub-Saharan Africa; there are more than 1.7 million PLHIV living in Uganda, the fourth largest PLHIV population in sub-Saharan Africa in 2013 (UNAIDS, 2014). Adult HIV prevalence, which declined steeply between 1990 and 2005 from 13 percent to less than 6 percent, has risen steadily over the past decade and was estimated to reach 7.9 percent in 2015—a 17-year high (Uganda AIDS Commission, 2015a).

Among adults, HIV incidence peaked at nearly nine new infections per 1,000 people between 2010 and 2012, and has since declined to an estimated six new infections per 1,000 people in 2015 (Uganda AIDS Commission, 2015a). In 2015, there were an estimated 106,117 new adult infections and 15,267 new pediatric infections (Uganda AIDS Commission, 2015a). The number of HIV-related deaths declined from more than 100,000 in 2000 to an estimated 40,903 in 2015, in large part due to the scale-up of ART (Uganda AIDS Commission, 2015a). With lower mortality rates, the number of PLHIV is expected to continue to grow, surpassing two million by 2030 (Uganda AIDS Commission, 2015a).

The HIV epidemic in Uganda disproportionately affects a number of high-risk groups. Estimated HIV prevalence among sex workers and men who have sex with men—historically two of the highest risk groups—is 33 to 35 percent and 14 percent, respectively (Uganda AIDS Commission, 2015b). Young women in Uganda are also particularly at risk of HIV infection, with more new infections among young women than in any sub-Saharan country except South Africa (Uganda AIDS Commission, 2015c). Women in general are more likely to be infected with HIV than men, at 8.3 percent prevalence compared to 6.1 percent. Furthermore, those who experience intimate partner violence are 50 percent more likely to acquire HIV. HIV prevalence is also higher in rural areas, particularly among fishing communities, who experience an estimated prevalence rate roughly three times higher than that of the general population (Uganda AIDS Commission, 2015b). The Uganda AIDS Commission has also identified long-distance truck drivers and uniformed service members (i.e., military) as at-risk groups.

Treatment Guidelines and Targets

Uganda adopted the 2013 WHO guidelines in 2014. These guidelines call for universal treatment for children under the age of 15; adult patients with a CD4 count of 500 cells/mm³ or less, with active tuberculosis, co-infected with Hepatitis B, or in serodiscordant relationships; and HIV-infected members of key populations, including sex workers, their partners and clients, men who have sex with men, and fishing communities (Uganda AIDS Commission, 2015c; Uganda AIDS Commission, 2012b). Option B+ for PMTCT, where all pregnant women who test positive for HIV are put on life-long treatment, has been in effect since 2013. Male circumcision has been practiced traditionally in Uganda, and voluntary medical male circumcision (VMMC) has been scaled up since 2011 as a critical part of the country's HIV prevention strategy, targeting adult men between the ages of 15 and 49.

The recently published NSP sets the following targets for controlling Uganda's HIV epidemic (Uganda AIDS Commission, 2015b):

- 80 percent of eligible adult and pediatric patients on ART
- 95 percent PMTCT Option B+ coverage of pregnant women
- 40 percent male circumcision coverage, ages 15-49
- 35 percent of adults tested for HIV in the last 12 months and 80 percent of those tested know their results

HIV Service Provision

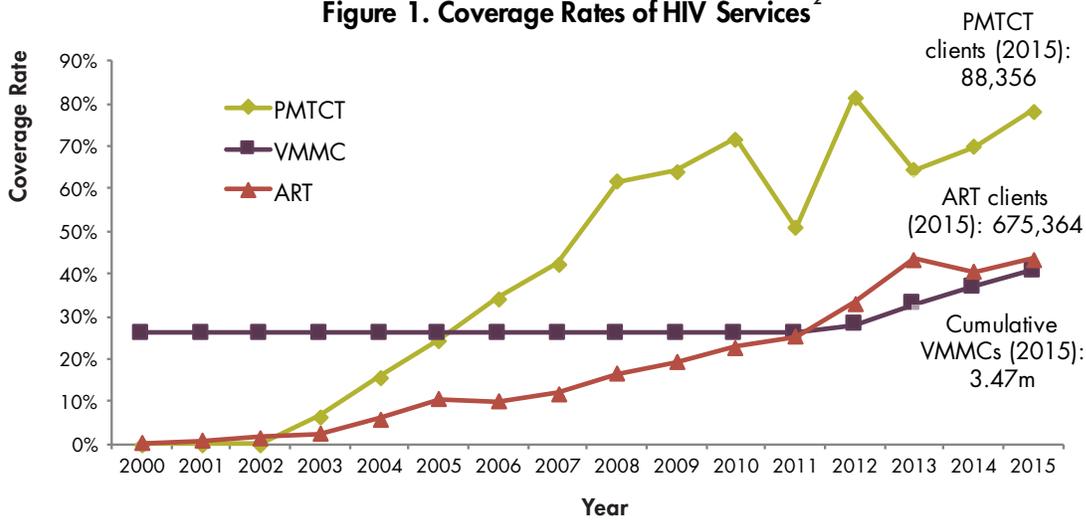
As of December 2014, 1,602 health facilities were providing adult ART services, compared to 1,063 providing pediatric ART (Uganda AIDS Commission, 2015c). In addition, 3,028 antenatal care facilities provide HTC services, 1,117 facilities performed VMMC, and 2,138 facilities provided PMTCT services in 2013 (Uganda AIDS Commission, 2014). As of November 2015, 83 percent of level 3 health centers were providing PMTCT Option B+, while only 7 percent of level 2 facilities were offering Option B+ (Musoba, 2015). The Uganda AIDS Commission also notes that many ART sites lack the capacity to implement the new WHO guidelines (Uganda AIDS Commission, 2015c).

HIV Service Coverage

In 2013, Uganda reached a tipping point in its HIV epidemic. For the first time, the numbers of new clients initiated on ART exceeded the number of new infections for that year (Uganda AIDS Commission, 2015b). In 2015, there were an estimated 763,720 people on ART—46 percent of all PLHIV. When pregnant women receiving PMTCT are excluded, the number of clients on ART is 675,370, compared to 607,566 in 2013 (Figure 1). This amounts to an increase of 11 percent in the absolute number of ART (non-PMTCT) clients over two years, although the ART coverage rate has remained relatively flat, increasing from just 43 to 44 percent due to the increased number of PLHIV. For 2015, adult coverage excluding PMTCT (48%) is significantly higher than pediatric coverage (32%) (Uganda AIDS Commission, 2015a). An additional estimated 88,356 women were receiving PMTCT services in 2015. The retention rate for ART patients was reported as 86 percent in 2015, slightly above the target of 85 percent (Uganda AIDS Commission, 2015b).

At the same time, with the expansion of sites providing HIV prevention services, Uganda has also scaled up VMMC and PMTCT programs. Male circumcision coverage increased from 26 percent in 2011 to an estimated 41 percent in 2015. PMTCT coverage reached 78 percent in 2015.

Figure 1. Coverage Rates of HIV Services²



Sources: Uganda AIDS Commission, 2015a

Conclusions and Recommendations

To achieve 80 percent coverage among adults and children eligible for ART, Uganda will need to dramatically scale up treatment services. As of 2015, there are an estimated 574,971 adults eligible for ART, not currently on treatment. With the number of PLHIV projected to grow by 13 percent by 2020, the total number of adults on ART will need to more than double from an estimated 632,186 to 1,282,273 over five years in order to reach coverage targets. Achieving this will require the significant mobilization of new resources from both foreign donors and domestic sources. In addition, low ART coverage among pediatric patients presents a significant need for scale-up among that population.

² For PMTCT, the denominator is all pregnant women living with HIV. For male circumcision, the denominator is all males, ages 15-49. For ART, the denominator is the total PLHIV population less pregnant women. The decision to consider ART coverage as a percentage of total PLHIV was made for the purposes of comparison with the 90-90-90 targets, in which all PLHIV are eligible for treatment.

Background

Uganda's ambitious scale-up targets will require the mobilization of significant resources from both external and domestic sources. As with other countries with high HIV burden, Uganda's health sector relies heavily on donor funding. According to the most recent NHA, in FY 2011/12, donor resources accounted for 46 percent (US\$860 million) of total health expenditure (THE). In comparison, government funding accounted for only 15 percent (US\$283 million) of THE. Private sources played a significant role in the financing of health services, making up the remaining 38 percent of funding (US\$713 million), with households contributing 97 percent of that figure (US\$ 694 million) in the form of OOP expenditures (Ministry of Health, 2015a). Although OOP expenditure for HIV is relatively low,³ high OOP expenditure on health in general suggests that, as donor support for HIV services flattens and perhaps declines, much of the financial burden of HIV may shift to households. This highlights the need for Uganda to identify new sources of financing for HIV programming in order to promote long-term equity in access to and utilization of services.

Resource Commitments

Significant scale up of HIV services in Uganda over the past decade has been primarily supported by high levels of donor funding. PEPFAR funding increased rapidly between 2005 and 2009, from US\$96 million to US\$284 million (PEPFAR, 2015). Since then, the total value of PEPFAR resources in Uganda has remained relatively steady, peaking at US\$323 million in 2014, before declining slightly to US\$317 million in 2015. As a share of total resources for HIV, excluding households, PEPFAR funding has declined slightly over that period from 61 percent in FY 2011/12 to 55 percent in FY 2014/15 (Figure 2).⁴

Contributions from the Global Fund have fluctuated significantly in past years. In six out of nine years, between 2004 and 2012, the value of budgeted funds changed by more than 75 percent from the previous year (Global Fund, 2015). In four of those years, funding levels fell from the previous year. However, the Global Fund commitments have risen steeply over the past five years, from US\$49 million (10%) in 2012 to US\$110 million (19%) in 2015.⁵

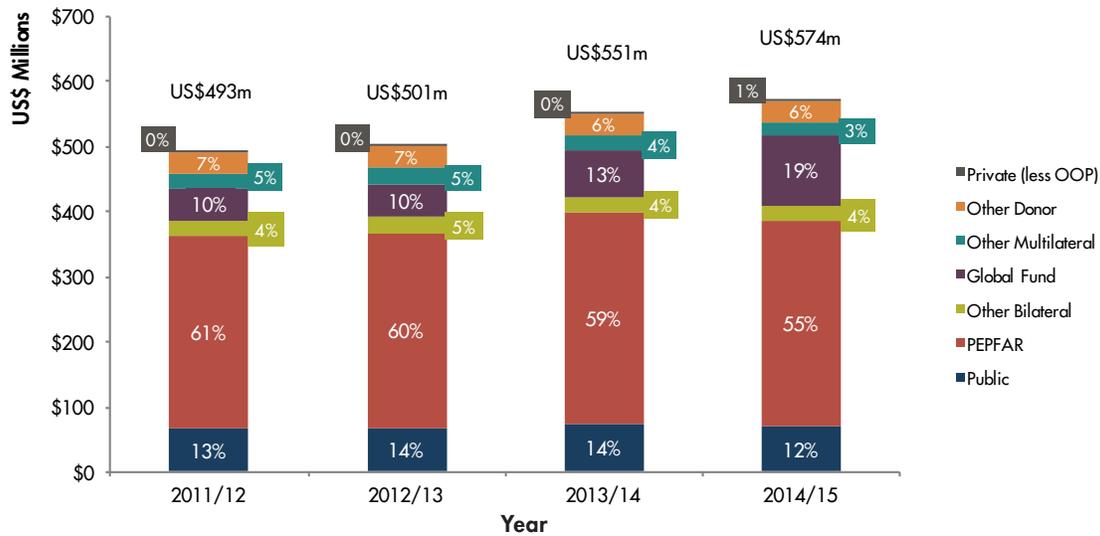
Funds from other external sources, including bilateral and multilateral donors, international foundations, and corporations, declined slightly as a share of funding, from 16 to 13 percent. In absolute terms, funds from other external sources declined from US\$78 million to US\$74 million, from FY 2011/12 to FY 2014/15. Of this US\$74 million in FY 2014/15, US\$15.3 million come from United Nations agencies, US\$7.1 million from the Danish International Development Agency, US\$9.2 million from Irish AID, US\$5.4 million from United Kingdom's Department for International Development,

³ Although data on OOP expenditure on HIV is limited, stakeholders interviewed indicated that direct OOP expenditure is low, likely due to the free provision of HIV services in public clinics. OOP expenditure for health in general is discussed further in Indicator 9 of this report.

⁴ For purposes of aggregation and comparison, PEPFAR's reported planned funding for each year was applied to the Uganda FY ending in the same calendar year (i.e., PEPFAR reported planned funding for 2014 was applied to FY 2013/14).

⁵ In keeping with the above methodology, Global Fund commitments for the calendar year 2015 were applied to Uganda FY 2014/15.

Figure 2. Funding for HIV (excluding household)



Source: Ministry of Finance, Planning and Economic Development, 2015; PEPFAR, 2015; Global Fund, 2015; Private sector data⁶

US\$2.9 million from UNITAID/Clinton Health Access Initiative, US\$0.5 million from the European Union, and US\$0.1 million from Global Alliance for Vaccines and Immunizations (Uganda AIDS Commission, 2015c). An additional US\$33 million was contributed by non-disaggregated donors.⁷

Domestic sources of funding for HIV, excluding households, accounted for 14 percent or less of total HIV financing in the years assessed. Public (i.e., government) sources accounted for the vast majority of these funds (95% in 2015). Contributions and calculations from public and private domestic sources are discussed in greater detail in sections four and five of this report, respectively.

Conclusions and Recommendations

The low contribution of domestic sources highlights the need for new domestic resource mobilization in Uganda. Although donor resources continue to be an important component, and perhaps the central component, of total resources for HIV in the coming years under the Sustainable Financing Initiative, domestic sources are a key area for new resource mobilization.

⁶ Estimates of private sector funding (excluding OOP) for HIV for FY 2014/15 were calculated based on interviews with private sector stakeholders. Estimates for previous years are based on NHA 2011/12 calculations and assumed to be constant in subsequent years.

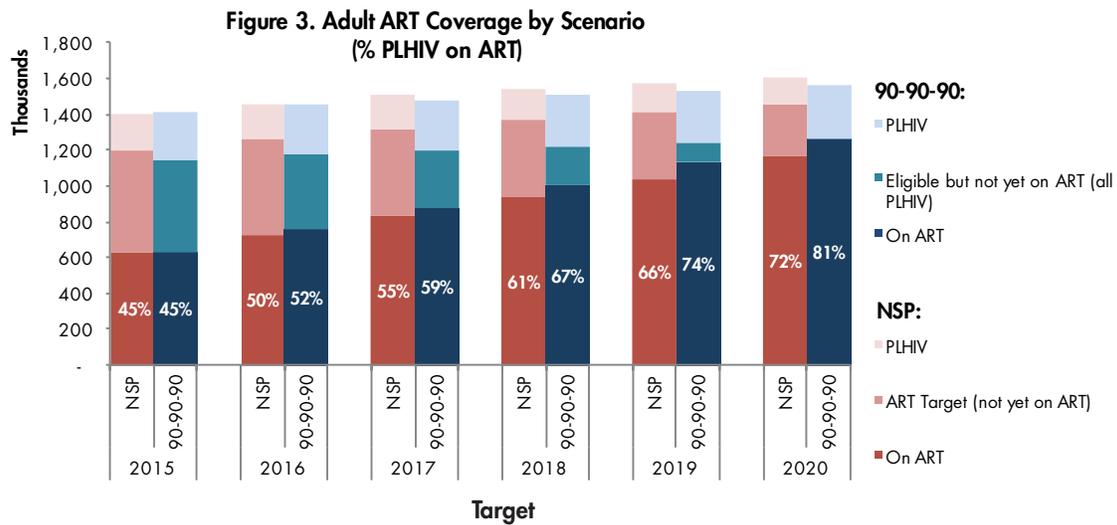
⁷ HIV funding estimates from other external sources (excluding PEPFAR and Global Fund) are based on historical and projected figures; where available, estimated contributions were taken from the National AIDS Strategic Plan 2011/12–2014/15. In FY 2014/15, these accounted for 54 percent of total funding from non-PEPFAR or Global Fund external sources. For other sources, contributions were assumed to be constant from the latest year from which data was available in the NHA 2011/12.

Background

Despite declining HIV incidence, steady increases in HIV prevalence and the total number of PLHIV in Uganda present a significant unmet need for ART. In order to both achieve its current ART targets and ensure the long-term sustainability of its HIV response, Uganda will need to mobilize funds from a variety of sources, both domestic and external. Understanding the resource requirements and gaps of future scale up is a critical component of resource mobilization efforts and can help to ensure sustainable and predictable financing flows.

Scale-up Target

Recent global ART treatment guidelines have presented a continually increasing target for ART coverage. Recognizing the financial and health systems limitations currently faced in-country, the Government of Uganda focused the 2015-2020 NSP on achieving universal ART coverage for high-risk populations. Simultaneously, the NSP is focused on making steady progress towards covering the rest of the adult population under the WHO 2013 guidelines so that, cumulatively, the adult PLHIV population will achieve 80 percent coverage by 2020 (Uganda AIDS Commission, 2015b). Based on these targets, the Government of Uganda is aiming to expand ART to 1.16 million adults by 2020, adding more than 530,000 new patients on treatment (Figure 3) (Uganda AIDS Commission, 2015a). In comparison, if the country were to adopt the 90-90-90 target for 2020, it would need to increase the number of patients on ART by nearly 630,000 over that period, for a total of 1.26 million adults on treatment.⁸



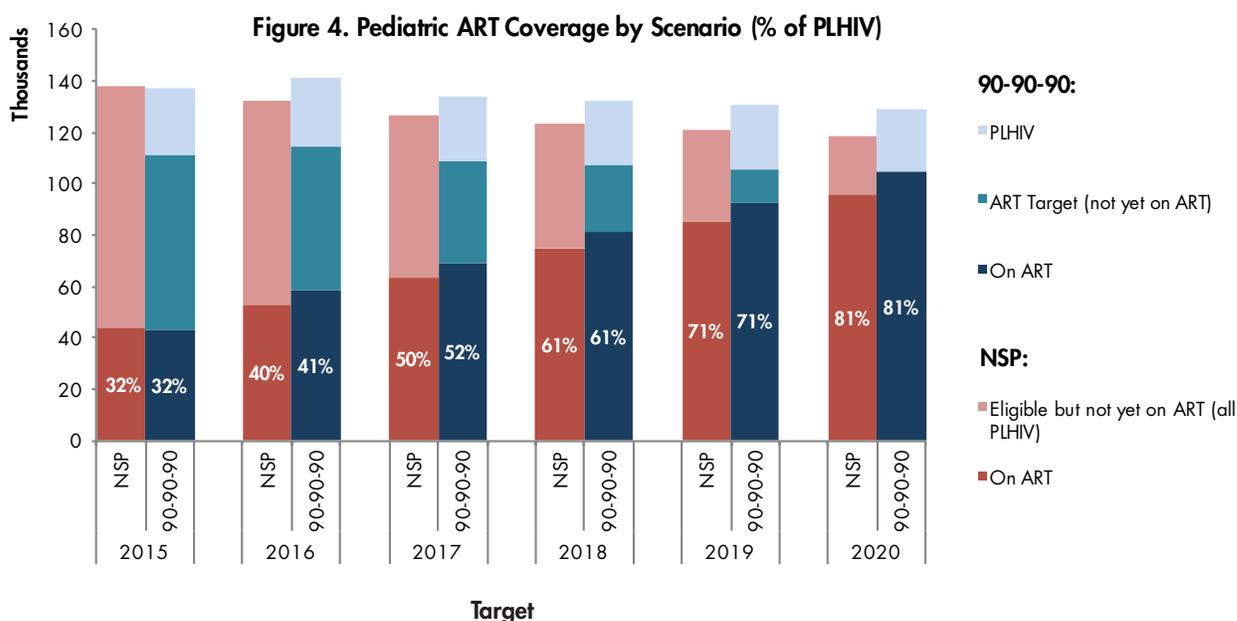
Source: HPP OneHealth estimates

⁸ The team modified the coverage targets within OneHealth model's AIDS Impact Model shared by the Uganda AIDS Commission from its strategy targets to the 90-90-90 goal for the entire population.

At the same time—given the impressive progress already made in PMTCT—the NSP aims to scale up Option B+ from 78 percent in 2014 to 95 percent coverage of all HIV-positive pregnant women by 2017. With this almost-universal access to treatment for pregnant women, the mother-to-child-transmission rate at six weeks after delivery will decline from 5.1 percent in 2015 to 2.5 percent in 2020 (Uganda AIDS Commission, 2015a).

The greatest challenge for ART scale-up may lie in pediatric treatment. Uganda adopted a new treatment guideline in 2013 calling for universal access to ART for all HIV-positive children under 15 years of age, regardless of their CD4 count. Further, the NSP set a target of 80 percent pediatric coverage by 2020, a significant increase compared to only 32 percent ART coverage among all children living with HIV in 2013 (Uganda AIDS Commission, 2015b). There are unique challenges to identification, enrollment, and retention of children on treatment, including the lack of consistent and proactive entry-points for HTC for children, understanding on the part of care givers of the need for treatment, and familiarity of healthcare providers with pediatric treatment guidelines and dosages. Currently, there are insufficient data around the strength and weaknesses of the pediatric treatment cascade. It is therefore critical to understand the current status of the health system so that strategic interventions can be implemented, specifically to increase uptake of treatment by HIV-positive children.

Uganda’s current pediatric ART target of 80 percent coverage of all HIV-infected children by 2020 will require putting an estimated additional 52,000 children on ART by 2020 (Figure 4). By comparison, HPP estimates that achieving 90-90-90’s similar goal of expanding ART to 81 percent of pediatric PLHIV will require approximately 61,000 new patients over



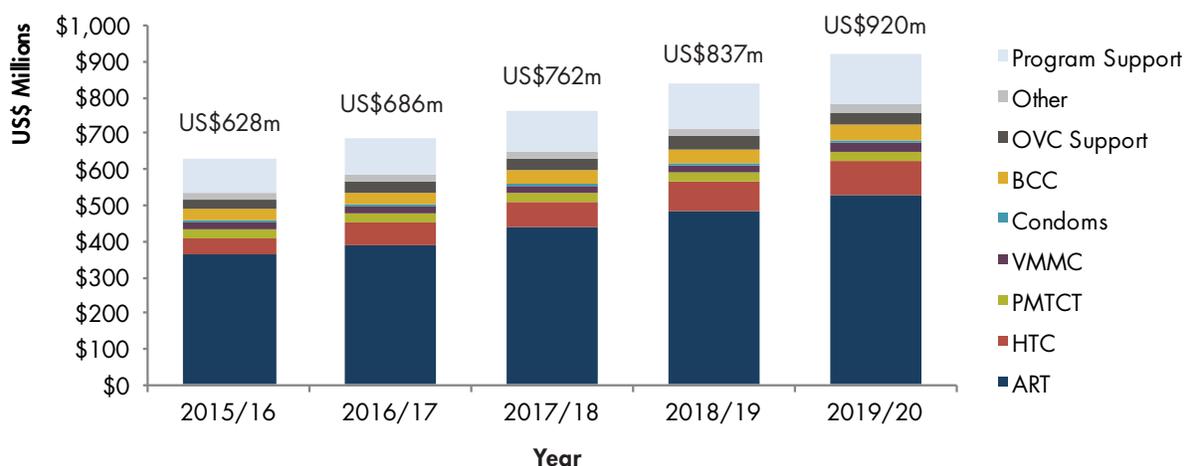
Source: HPP OneHealth estimates

the same time frame.

Resource Need

Under Uganda’s NSP targets, the resource requirement from FYs 2015/16 to 2019/20 is US\$3.83 billion.⁹ The annual resource need increases from US\$628 million to US\$920 million (Figure 5). ART remains relatively constant as a percentage of the total requirement, between 57 and 58 percent, but increases in absolute terms from US\$362 million to US\$530 million. At the same time HTC costs more than double from US\$49 million to US\$93 million over five years. Other programs including PMTCT, VMMC, condoms, behavior change communication (BCC), support for orphans and vulnerable children (OVC), collectively decline from 20 percent to 18 percent of the total resource need over the same period. Resources for program support, which are assumed to be equal to 18 percent of direct program costs, and therefore make up 15 percent of the total resource requirement, increase from US\$91 million to \$135 million.

Figure 5: Resource Requirements, NSP Scenario



Source: Uganda AIDS Commission, 2015a

⁹ The OneHealth tool used for this analysis provides estimates by calendar year. In order to align these projections with the estimated available resources by Ugandan fiscal year, the resource requirement for a given year was applied to the fiscal year ending in the same calendar year (e.g., the estimated resource requirement for 2020 was applied to FY 2019/20. This is consistent with the treatment of PEPFAR and Global Fund funding in the previous section (Indicator 2) of this report.

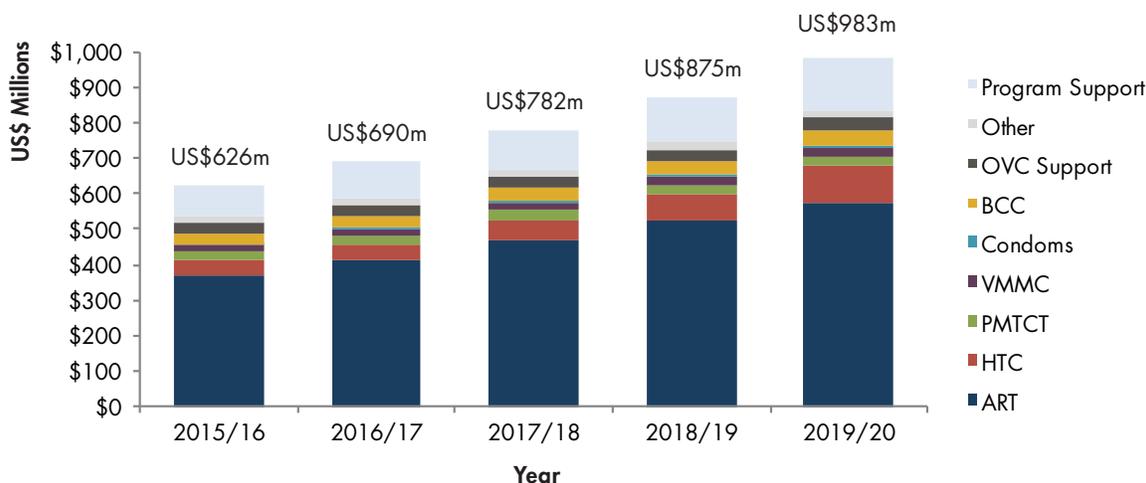
¹⁰ HPP calculated HTC costs under the 90-90-90 scenario in a two-step process. First, the study team calculated the testing yield by dividing to the number of unidentified PLHIV by the total population, less those on ART. To meet the target of 90 percent of PLHIV knowing their status, the number of PLHIV needing to be identified each year was then divided by the yield to estimate the number of tests needed for each year. All the necessary input values (number of unidentified PLHIV, total population size, number of people currently on ART, and number of people to put on treatment to achieve annual target) were extracted from the OneHealth tool. The total number of tests required (both pediatric and adult) was taken as a percentage of the adult population to be entered into the OneHealth tool. The HTC coverage rates under each scenario are shown below.

HTC coverage rates (adult)	2015/16	2016/17	2017/18	2018/19	2019/20
90-90-90	33%	33%	42%	51%	66%
NSP	37%	43%	48%	54%	60%

Under the 90-90-90 scenario the total, five-year (FYs 2015/16–2019/20) resource need is approximately US\$3.96 billion. Annually, the resource need grows from US\$626 million in FY 2015/16 to US\$983 million in FY 2019/20 (Figure 6). As in the national strategy scenario, ART is the primary cost driver. However, the resource requirement is slightly higher under 90-90-90, increasing from US\$367 million to US\$576, but remains constant as a share of the total resource requirement (between 59 and 60%). HTC costs aimed at identifying remaining PLHIV also doubles under the 90-90-90 scenario, from US\$44 million to US\$102 million.¹⁰ HTC costs increase exponentially, growing from 7 to 10 percent of the total resource requirement, due to a decline in testing yield. In other words, as more people are identified and put on treatment, the number of PLHIV who do not know their status declines. Despite this decline, the target for the number of new HIV-positive individuals to be identified remains constant. For this reason, a larger number of people will need to be tested, identified, and put on treatment to meet rising treatment coverage targets.

Other program costs were also similar to the NSP scenario, declining from 20 percent of the total resource requirement to 16 percent by FY 2019/20. All additional interventions, including PMTCT, VMMC, condoms, BCC and OVC support were unchanged from the NSP due to a lack of additional data. Program support costs were also kept constant at 18 per-

Figure 6. Resource Requirements, 90-90-90 Scenario



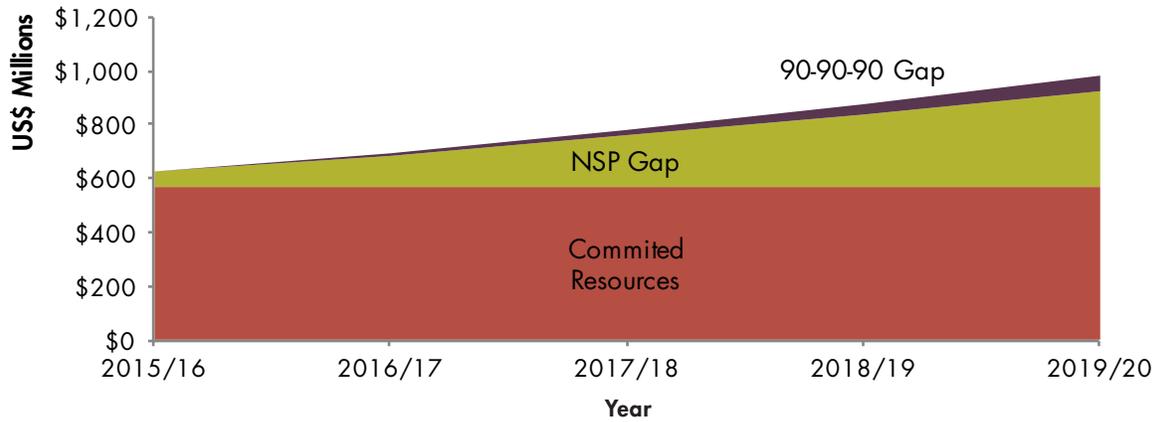
Source: HPP OneHealth projection estimates

cent of program costs and 15 percent of the total.

Resource Gap

Uganda has almost met its HIV resource need for the current (2014/15) fiscal year, with an estimated resource gap of only US\$10-12 million (not including household financing sources). Under both scenarios, where the value of estimated available resources is assumed as constant over the next five years, the financial gap grows steadily over that period. By FY 2019/20, the resource gap under the NSP scenario is US\$346 million, or an additional 60 percent of total estimated available resources (Figure 7). For the same year, the resource gap for the 90-90-90 scenario is US\$409 million. In other words, the total value of committed resources for FY 2014/15 will only meet 62 percent of the total resource need under the NSP scenario and 58 percent under the 90-90-90 scenario by FY 2019/20. Over five years, the total resource gap will amount to US\$964 million under the NSP and US\$1.09 billion under the 90-90-90 scenario.

Figure 7. Financial Gap (2015/16-2019/20)



Source: HPP OneHealth projection estimates

Conclusions and Recommendations

The immense resource gap under both scenarios highlights how far Uganda still has to go to achieve a sustainable HIV response. Furthermore, the analysis did not scale up prevention interventions—an unrealistic yet necessary approach due to lack of scale-up information—which means committed resources for HIV in Uganda may, realistically, need to double to make meaningful progress towards an AIDS-free generation in the country. While strong commitments to domestic resource mobilization from partners in both the public and private sectors will be imperative to achieve ART scale-up goals, external partners must also reaffirm their commitments to supporting Uganda’s HIV response. In the short term, realistic targets should be set for scale up to establish quantifiable and achievable targets for the mobilization of domestic

resources.

Background

As countries grow economically, government should be the driving force in ensuring affordable and high-quality health-care. Resources mobilized through the government and allocated through direct service provision or by contracting with the private sector can reduce the financial burden to a country's population, especially those who are marginalized or poor. Identifying opportunities to simultaneously increase fiscal space for HIV, health, and the government as a whole, will be vital in the country's domestic resource mobilization efforts.

Uganda's overall domestic government contribution to HIV is low; estimated at 13 percent of total resources for HIV in FY 2014/15, down from 15 percent in FY 2011/12. By comparison, the government contribution as a portion of total health sector funding was estimated at 23 percent in FY 2011/12 (Ministry of Health, 2015a). HIV made up 17 percent of total government funds for health, compared to 69 percent of all donor funds for health, suggesting possible crowding out of domestic HIV funding. Positioning the government as the leader in financing for health and HIV will be critical to continuing scale up of the HIV response and promoting the sustainability of funding in the long-run.

Budget Allocation

Estimates of the Government of Uganda's HIV budget vary by source. According to the NASA (FYs 2008/09–2009/10) and the NHA (FYs 2010/11–2011/12), average government expenditure on HIV was 146 billion Uganda shillings (UGX) over those four years, the equivalent of US\$64 million (Uganda AIDS Commission, 2012a; Ministry of Health, 2015a).¹¹ The NASA methodology allocates indirect or health systems costs to HIV, providing a comprehensive view of the Government of Uganda's role in the provision of HIV services. On the other hand, government estimates provided in the NSP 2011/12–2014/15 indicated that the contribution of domestic resources to direct HIV commodities and services climbed from US\$14 million in FY 2007/08 to US\$38 million in FY 2010/11, and was projected at US\$42 million annually from FY 2011/12 onwards.¹²

To provide a more recent, comprehensive estimate of the Government of Uganda budget for HIV, HPP conducted an analysis of the approved budgets for FYs 2011/12–2014/15. In our calculation, we counted 100 percent of HIV-specific programs budgets (i.e., Uganda AIDS Commission and ARV procurement line item in the National Medical Store budget) and applied the NASA methodology to allocate a fixed proportion of health systems costs (i.e., human resources for health, administration and program management, infrastructure development, trainings, and operational costs) to HIV.¹³ The assumptions for NASA's allocation of health systems costs to HIV are based on expert opinion and health management information system utilization profiles. These assumptions are based on utilization from FY 2008/09 to FY 2009/10. As adult HIV prevalence has since increased from less than 7 percent to nearly 8 percent by 2015, these estimates may be conservative.

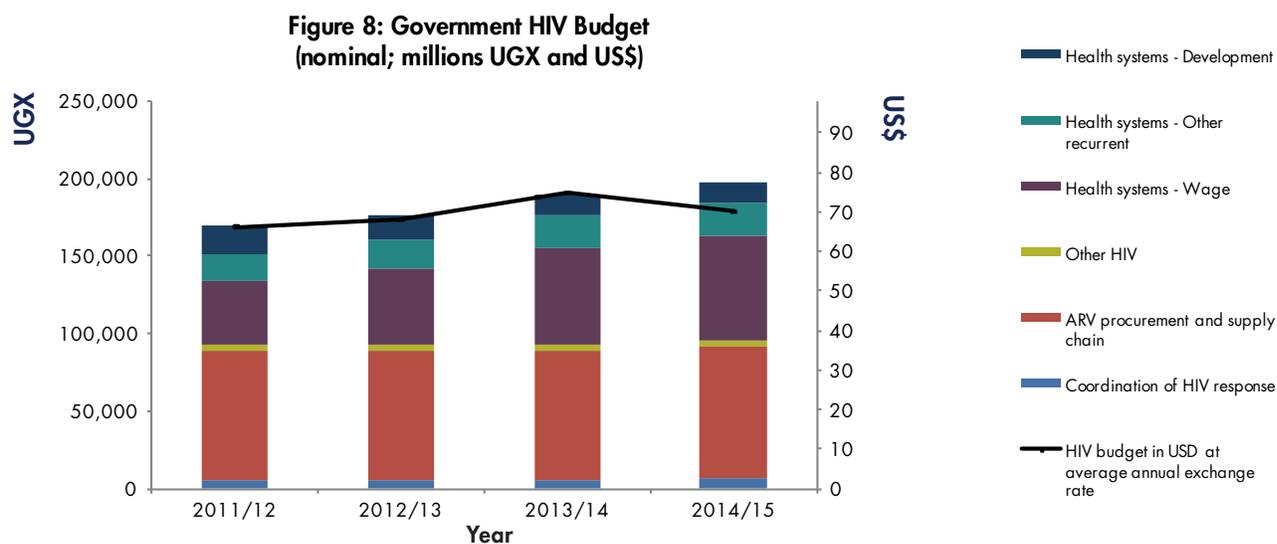
¹¹ Calculated expenditure on HIV for each of the four years was UGX124 billion, 121 billion, 215 billion, and 124 billion.

¹² The NSP notes that the government contributes through the provision of indirect costs, including treatment of opportunistic infections, health worker salaries, and coordination, but that these are not included in their calculations.

¹³ HPP included the full budget for the Ministry of Health, Health Service Commission, and all public health facilities, as well as funds for the support of NGO facilities to allocate to HIV. Funds were allocated by level of service (district level clinics and hospitals, regional and national level referral hospitals, and national level policy formulation) at 20 percent, 25 percent, and 15 percent, respectively, based on the NASA methodology.

Based on this analysis, the total Government of Uganda budget for HIV has steadily increased from UGX169 billion (US\$66 million) to UGX198 billion (US\$70 million) in nominal terms between FYs 2011/12 and 2014/15 (Figure 8). In real local currency terms, this amounts to a decrease of 7 percent, based on an average annual inflation rate¹⁴ of 7.9 percent during the period. In FY 2011/12 dollars, the value of the current HIV budget (FY 2014/15) is US\$66 million.

The largest component of the HIV budget is allocated for the procurement¹⁵ and delivery of ARVs. The budget for ARVs remained constant at UGX84 billion for all four analyzed years, but fell as a share of the total HIV budget from 50 percent to 43 percent during that period. Wages for health workers were the second largest component, and grew substantially as a share of the HIV budget from 24 percent (UGX40 billion) to 34 percent (UGX67 billion) between FYs 2011/12 and 2014/15. Shares for the other cost components, including recurrent health systems (non-wage) costs (11%), development costs (7%), funding for the Uganda AIDS Commission (4%), and other HIV-specific items (3%) remained relatively stable over the period.¹⁶



Source: Government of Uganda, 2012, 2013, 2014, and 2015a

According to HPP’s estimates, the Government of Uganda’s budget for HIV makes up more than a quarter of the total government budget for health, despite having declined steadily from 29 percent in FY 2011/12 to 26 percent in FY 2014/15. This is significantly higher than the NHA’s estimate of 17 percent for FY 2011/12, likely due to the inclusion of health systems costs. Although the government’s overall contribution to health is small, this allocation suggests that HIV— the leading cause of morbidity (in terms of disability adjusted life years) and mortality (17% of years of lives lost)— is being heavily prioritized within the health sector (Institute for Health Metrics and Evaluation, 2013). Therefore, to increase the government budget contribution to HIV in absolute terms, it will be necessary to expand the Government of Uganda’s fiscal space for health overall.

¹⁴ Consumer price index

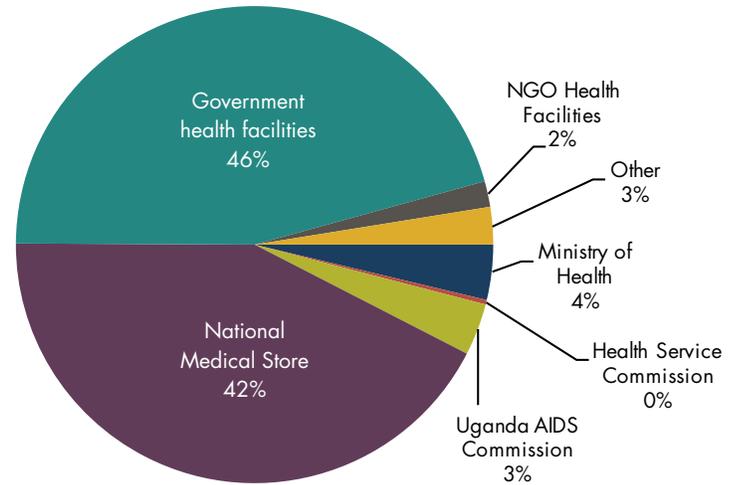
¹⁵ The value of the National Medical Stores (NMS) budget that HPP allocated to HIV covers only the cost of commodity procurement, and does not include associated supply chain costs. Therefore, this estimate is likely lower than the actual value of the HIV budget and expenditure managed by NMS.

¹⁶ Shares are reported for 2014/15

Management of the HIV Budget

Uganda has a partially decentralized health system, with funds for health facilities allocated to the regional and district level (Ministry of Health, 2015a). However, administration and procurement of drugs and medical supplies, including for HIV programming, remain highly centralized. At the national level, these functions are divided between four agencies: (1) Uganda AIDS Commission; (2) Ministry of Health; (3) Health Service Commission; and (4) National Medical Store. The Uganda AIDS Commission is tasked with coordinating the national HIV response. The Ministry of Health coordinates and monitors both clinical and public health programs. The Health Service Commission manages recruitment, training, and quality of human resource for health. National Medical Stores is responsible for the procurement, storage, and transport of all medical supplies.

Figure 9. Management of HIV Line Items (2015)



Source: Government of Uganda, 2012, 2013, 2014, and 2015a

Based on this structure, 88 percent of the Government of Uganda funds for HIV, or UGX174 billion (US\$62 million), are managed by the government health facilities (46%) and National Medical Stores (42%) (Figure 9). The remainder of the budget for HIV is managed by Ministry of Health (4%), Uganda AIDS Commission (3%), nongovernmental organizations (NGOs) (2%), Health Service Commission (0.3%) and other agencies (3%).

Fiscal Space

Further increasing domestic funding for HIV in Uganda will require increasing fiscal space for public spending in general. With current high rates of budget execution (further discussed under Indicator 7: Government HIV Budget Execution Rate), the Ugandan government's relevant agencies (noted above) are maximally using their current resources. Continued HIV service scale up will require increases in budget line items while improving efficiency in service provision, so that more can be done with the funds available. However, within the Ugandan political context, it will be difficult to successfully advocate for a higher proportion of the total government budget to be allocated to HIV. Currently, there is a belief within the government that health, and especially HIV, receives an appropriate amount of funding relative to its position within the government's National Development Strategy and given the current resource envelope (Musoba, 2015; Mukunda et al., 2015; Kyambadde et al., 2015).¹⁷ Therefore, increasing fiscal space overall by improving tax administration and identifying new, innovative funding sources, will be necessary to increase the flow of funding for health and HIV.

The HIV and AIDS Prevention and Control Act, which formed the national AIDS Trust Fund (ATF) in 2014, identified four potential innovative sources to financing, including a two percent levy on beers, spirits, or waragi; soft drinks; and bottled water. The current draft of the ATF regulation designates the use of funds to procure goods and services for HIV counseling, testing, and treatment (including for service provision through the private sector) and to cover expenses for awareness raising campaigns (Government of Uganda, 2015b). The Uganda AIDS Commission has calculated that, on

¹⁷ The health sector is prioritized fourth by Uganda's National Development Plan. Infrastructure is prioritized first, followed by energy and education.

average, a two percent levy will amount to US\$2 million per year, which key informants acknowledged was not large compared to the resource needs for the national HIV response (Musoba, 2015). However, informants expressed the hope that this money would catalyze buy-in contributions from the private sector. The private sector contribution to HIV is discussed further in the next section (Indicator 5: Private Sector Expenditure on HIV) of this report. Key informants estimate that it will take at least another year for the regulation that defines the governance structure to be set. The current draft designates the Ministry of Health to oversee the ATF, yet there is still a lack of clarity about which commodities and services will be covered by ATF, and which will be covered by the National Health Insurance Scheme (NHIS) (see Indicator 8: Insurance Enrollment for more information on the NHIS). Until the institutional arrangement is defined, the funds from the levy will not be made available for HIV services.

Conclusions and Recommendations

Despite steady funding for both HIV commodities and service delivery, the Government of Uganda will need to consider ways to dramatically increase its current budget allocation for HIV if it hopes to achieve ART scale-up goals. In particular, the Government of Uganda will need to do its part to increase funding for ARVs in order to keep up with a growing number of patients on treatment. Increasing budgetary space through improved tax revenue collection and creating secured streams of funding for health and HIV through innovative funding mechanisms will be critical to achieving these targets.

For Uganda to reach its ART coverage goal of 80 percent of the eligible population on treatment, much less the 90-90-90 targets, the public sector will need to mobilize significant new domestic resources for HIV. In addition, with increasing HIV prevalence and a high number of new infections, the Government of Uganda's role in the procurement and provision of commodities and services for HIV prevention, including condoms and VMMC, should be evaluated.

Background

Private sector contributions are critical in achieving a sustainable, accessible, and equitable health system. The Government of Uganda has recognized the importance of the private sector in the financing and provision of health services in its Health Finance Strategy, noting that, “to realize its theme and vision, the National Development Plan is pursuing a quasi-market approach, which includes a mix of government investments in strategic areas and private sector market driven actions” (Ministry of Health, 2015b, p.1).

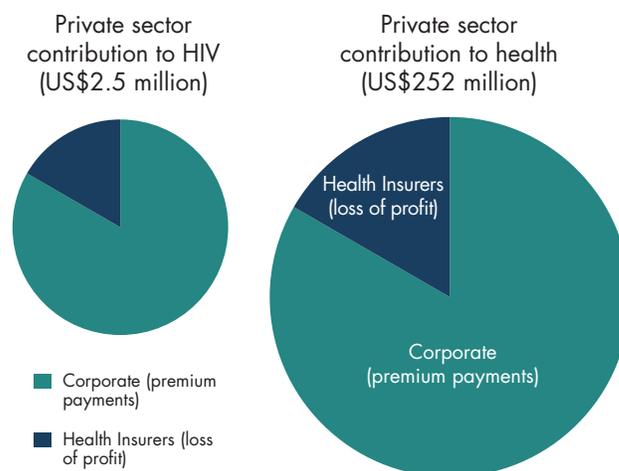
Although it is difficult to assess the direct contribution of the private sector to HIV services as there has not been any formal comprehensive study of such nature conducted in the past in Uganda, HPP estimates total expenditure from the private sector (excluding household payment) on HIV was approximately US\$3.7 million in 2014. To obtain this estimate, HPP conducted key stakeholder interviews with private health insurers and key private sector partners. Accordingly, the value is composed of health services covered through private health insurance and direct costs associated with implementing workforce health programs.

Private Insurance

Currently, approximately 850,000 Ugandans (2.2% of the population) have private health insurance through corporate coverage, paid for fully by employers (Ministry of Health, 2015a; Aheebwa, 2015). An additional 150,000 Ugandans are covered through CBHI schemes (Aheebwa, 2015; Makaire, 2015). CBHI scheme premiums are paid by households.

HPP estimates that US\$2,515,068 is paid out by private health insurance for HIV services (Figure 10). This estimate assumes that corporate coverage has a premium of UGX900,000 (US\$247) per covered individual per year. This represents a medical loss ratio of 120 percent (Aheebwa, 2015) and a proportion of health insurance reimbursements that are attributable to HIV as one percent.¹⁸ From this calculation, the private sector contributes over US\$252 million to cover healthcare through health insurance.

Figure 10: Private Health Insurance Pay-out to HIV and Health Services, by Source



Source: Aheebwa, 2015

¹⁸ All assumptions on private corporate health insurance pay-out are based on interviews with the Uganda Insurers Association (Aheebwa, 2015). While premiums vary between schemes, key informant stated UGX900,000 (US\$247) to be a reasonable premium per individual per year. The private health insurance industry has recorded a loss ratio of between 90 and 150 percent, thus we used the mean of 120 percent in our calculation. Key informant noted that health insurers have reimbursed HIV services and drugs in the past. However, given that these services are provided for free through the public sector, the study team conservatively estimated that 1 percent of the total claims reimbursed are associated with HIV.

The medical loss ratio of 120 percent means that 100 percent of the premium payments made by private sector corporations are paid out, and private health insurers must use profit from other business lines to cover the additional 20 percent. Thus, both private sector employers and health insurers are contributing to pay for HIV services covered through private health insurance. Indicator 8: Insurance Enrollment provides more details on health insurance.

This value is significantly larger than the voluntary employer contribution measured in the NHA 2011/12 at US\$18.4 million (UGX48.1 billion) (Ministry of Health, 2015a). Although insurance coverage has likely grown in recent years, key informants suggested that previous data collection for past NHA and NASA exercises was not comprehensive, and thus underestimates the private sector contribution (Hammer et al., 2015; Tamale and Ssenabulya, 2015).

CBHI schemes also contribute to health services in Uganda. Currently, approximately 150,000 lives are covered through CBHIs, spending approximately US\$575,000 in healthcare.¹⁹ While CBHIs do cover some HIV-related services, including treatment for opportunistic infections (OI), they do not cover ART. Due to the inherent difficulty of estimating the value of OI treatment and the limited availability of data, no estimate of the contribution of CBHIs to HIV services was included in HPP's analysis.

Employer-run Healthcare Programs

To ensure a healthy workforce, large enterprises in Uganda have opted to provide direct health services through workplace programs. While a handful of employers offer both workplace programs and health insurance, these are limited to those located in urban areas, where health services outside of the company property are easily accessible. Rural businesses, such as tea and sugarcane farms, have found it more economical and accessible to operate their own clinics to serve, not only their employees, but also the employees' dependents and the local community (Tamale and Ssenabulya, 2015).

The FUE and the UMA implement a variety of technical assistance services to support their members to establish corporate health programs. These workplace programs range from single-day health campaigns to raise awareness or conduct voluntary counseling and testing of HIV, to long-term engagements assisting private corporations to develop workplace health and HIV program strategies and training of trainers.

The study team estimates that private sector corporations contribute US\$1,241,054 through employer-run health programs to HIV. A study conducted by the USAID-funded Private Health Sector Program estimated that their corporate partners on average contributed US\$16,000 in their workplace health programs attributable to HIV (Kiragga and Busulwa, 2015). HPP's calculation accounts for 76 corporate partners of the FUE and the UMA in 2014, although some overlap may exist between FUE (60) and UMA (16).

Other Private Sector Contribution to Healthcare and Innovative Financing

In Uganda, the private sector also provides in-kind contributions to HIV programs. For example, major hotel operators provide venues for free whenever organizations are holding health-related events. In 2014, this contribution was valued at approximately US\$9,600. In addition, FUE and the UMA allocate their own operational budgets to support their workplace health program staff. UMA's annual budget for health programs is US\$23,000. These unorthodox private sector contributions should also be valued in the future.

Finally, private sector contribution through ATF is currently under discussion, although not yet rolled out. Some private

¹⁹ See Indicator 8: Insurance Enrollment for detailed calculation.

sector stakeholders noted that they would be interested in contributing to the ATF if it ensures a stable supply of ARVs (Kiwanuka and Turyagenda, 2015). They expressed significant concern around the current lack of sustainability in funding and the vulnerabilities of the ARV supply chain, especially given the shock experienced by the ART service delivery system when the Global Fund halted disbursement in 2012 due to concerns over fund management by the Ministry of Health. However, there is still no clear understanding of the level of contribution the private sector is willing to provide to the ATF. Once the regulation, the institutional framework, and governance structures of the ATF are put in place to the satisfaction of all stakeholders (which is expected to take at least another year), the private sector players will engage in discussion on whether and how much they will contribute.

Conclusions and Recommendations

This baseline assessment's preliminary calculations indicate that the private sector may be contributing significantly more than historically expected to health and HIV services, both through health insurance and workplace programs. The private health insurance contribution was an order of magnitude larger than was estimated under the NHA 2011/12; yet its contribution was calculated based on one data source, thus should be further investigated to refine the estimate. See Indicator 8: Insurance Enrollment for detailed conclusions and recommendations associated with private health insurance.

Success in future advocacy efforts to align private sector business decisions with health financing goals will require further investigation on the business case for health sector investment by the private sector. In light of this, HPP identified the following opportunities:

- Use the data collection process of the current NHA exercise (FY 2013/14) being led by the Ministry of Health to work with the private sector to obtain more accurate data and conduct detailed analysis into private sector contribution to health expenditure.
- Map the clinics operated by private corporations as part of workplace programs and quantify the benefit of leveraging this infrastructure to expand health services in rural areas. Identify opportunities for public-private partnerships in health.
- Conduct a study to quantify value for money in implementing health programs through the workplace.

KEY HIV SERVICE UNIT COSTS

ART, including health systems (facility-level only)
 Adult: \$482 (\$345); Pediatric: \$488 (\$417)
 HTC: \$8-\$19

Background

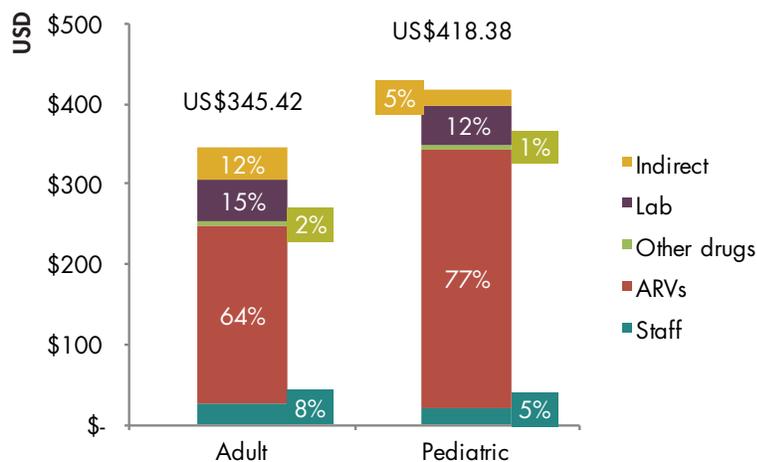
In the path towards sustainable financing for HIV, domestic resource mobilization efforts must go hand-in-hand with reducing the cost of HIV services through efficiency improvements and input price reductions. Along with the prioritization of funding—particularly domestic funding—for treatment, comprehensive and reliable estimates of ART unit cost are a critical component of ensuring the sustainability of HIV financing. In addition, to successfully achieve the 90-90-90 goal, it will be vital to scale up HTC so that more people can initiate treatment as early as possible. Within this context, the government and its development partners must have access to high-quality data around the cost of service provision. This will enable the government and other stakeholders to identify cost drivers and efficiencies to maximize scale-up within the available financial resource envelope. The unit cost estimates presented in this section will provide a baseline for measuring efficiency gains in the cost of HIV service provision during the implementation of PEPFAR’s Sustainable Financing Initiative.

Antiretroviral Therapy

There are no agreed upon unit costs for services in Uganda, primarily due to the lack of recent and reliable cost data and the various procurement and distribution mechanism established by each payer which introduces differences in unit cost (detailed further below). The most recent costing study on ART was conducted by MEASURE Evaluation using service provision and cost data from 2011 (Moreland et al., 2013). In addition, the Government of Uganda, the US Government, and the Global Fund, all of which supports ARV procurement, use their own cost estimates in their planning (Arinaitwe, 2015; Kachali and Nakawunde, 2015; Uganda AIDS Commission, 2012b).

MEASURE Evaluation estimated that it costs, on average, US\$345.42 per person per year to provide ART to an adult patient and US\$417.97 for a pediatric patient (Figure 11). ARVs made up the largest portion of the cost, at 64 percent for adults and 77 percent for children. The study only included the costs at the facility-level and did not include “up-stream” costs such as those associated with government supervision and oversight, supply chain, and the provision of technical assistance.

Figure 11: ART Unit Cost, by Cost Type and Patient Type



Source: Moreland et al., 2013

The Uganda AIDS Commission, in the NSP, estimates the current (2015) unit cost of ART for adults and children at US\$482.10 and US\$488.30, respectively. The Commission further predicts that unit costs for both adults and children will decline to US\$445 by 2020 (Uganda AIDS Commission, 2015a). The slightly higher costs used in the NSP may reflect the additional costs associated with the health system. However, no detailed breakdown of these costs is currently available. Despite these variations in unit costs, for consistency, our resource needs analysis in Indicator 3 has used the Uganda AIDS Commission unit costs.

Looking at the unit cost of ARVs—the largest cost driver in HIV treatment—MEASURE Evaluation estimated that annual cost of ARVs in 2011 was US\$221.16 for adults and US\$321.48 for children in 2011 (Moreland et al., 2013). On the other hand, PEPFAR estimated that, on average, ARVs cost US\$130 per person per year (both adults and children) and the Government of Uganda purchases from ARV at an average cost of approximately US\$184 per person per year (Kachali and Nakawunde, 2015).²⁰ Global Fund did not have a set price per patient per year for ARVs, although they noted that it is less expensive than that of the Government of Uganda (Arinaitwe, 2015).

This wide variation in unit cost likely stems from the fact that each funder has its own procurement system. The Government of Uganda manages procurement through the National Medical Store, and purchases a portion of their ARV needs through the in-country manufacturer, Quality Chemical Limited. Since this manufacturer only produces a small number of ARV types, the government procures the remainder through the international market. It is important to note that while the Global Fund provides on-budget support for ARV procurement and uses the National Medical Store's distribution system, they negotiate their ARV purchase on the international market separately from the Government of Uganda. Therefore, the government does not currently benefit from bulk purchase pricing that may be enjoyed by the Global Fund.

Due to historical concerns around corruption and lack of transparency in the use of funds, PEPFAR procures separately from the Government of Uganda. USAID purchases their ARVs through the Supply Chain Management Systems Project, and the Centers for Disease Control and Prevention purchases through Medical Access. In total, there are four separate procurement systems set up in Uganda, which presents an opportunity for improving efficiency by merging some or all of these systems.

HIV Testing and Counseling

Menzies, et al. (2009) and Tumwesigye, et al. (2010) provide the most recently available published data on HTC, although both analyze data from 2004 to 2007. Menzies, et al. (2009) estimates that depending on the service provision model, cost per test can range between US\$8.29 – 19.26.²¹ Furthermore, cost per new HCT client ranged between US\$9.21 and US\$29.70, with door-to-door HCT being the cheapest option in both costing estimates. Tumwesigye, et al. (2010) found that home-based HTC programs cost on average US\$7.83 per previously untested client. Neither study broke down the cost by cost components.

The US Government and the Global Fund are the only agencies that procure HIV test kits. The US Government estimates that HIV test kits cost about US\$1.30 per kit, and the Global Fund procures test kits at US\$0.82 per kit (Kachali and Nakawunde, 2015; Arinaitwe, 2015).²² It is not possible to compare the HTC costs from the two studies above with the 2015

²⁰ Average cost to purchase ARVs from Quality Chemical Limited, a local manufacturer, was US\$220. This higher cost is offset by the unit cost of lower-priced products from international markets.

²¹ Cost per HCT client for stand-alone HCT clinic was US\$19.26, for hospital-based HCT was US\$11.68, for household-member HCT was US\$13.85, and door-to-door HCT was US\$8.29.

²² Unit cost calculated based on the weighted average of Global Fund procurement cost of Determine (US\$80.21 for 100 packs), Stat-Pak (US\$27.60 for 30 packs), and Unigold (US\$32.00 for 20 packs). Key informant noted that Determine is used as the first screening test, accounting for approximately 85 percent of the tests used, while Stat-Pak is used 2.5 percent of the time as tie breaker, and Unigold is used 7.5 percent of the time as confirmation test.

test kit cost estimates, as the studies do not clarify the portion of the cost attributable specifically to the test kits and reflect different time frames. However, the cost difference between the studies and those used currently for budget programming provided the study team with an understanding that service provision and supply chain costs make up a significant portion of HTC.

The HTC scale-up required to meet both the NSP and 90-90-90 targets will become harder and more resource intensive since the program will need to seek out unidentified PLHIV. It is important to gather data on program costs and areas in which efficiencies can be gained so that programs can be expanded within the limited resource envelope.

Conclusions and Recommendations

There seems to be a significant opportunity to realize efficiency gains through improvements in the supply chain in Uganda. Interventions that tackle this issue can lower the input cost of drugs and lab commodities, with potential side benefits, such as reduced likelihood of stock-outs. The following steps may yield essential data, valuable in decision making so that the right commodities are available at the right time in the right place:

- Assess the potential of integrating some or all of the four supply chain systems currently in Uganda. Estimate the cost of the current system and the potential benefits and challenges associated with integration.
- Conduct a SWOT analysis of local manufacturing of ARVs and identify market-based interventions that the Government of Uganda and donors may put in place to reduce the cost of local manufacturing, while improving quality.
- Implement a cost-outcome study of ART to identify factors that enable patients to stay and to respond to treatment.
- Achieving the 90-90-90 goal will require viral load testing. In 2015, two-thirds of the patients on treatment should receive at least one viral load monitoring test (Kachali and Nakawunde, 2015). To ensure cost-effective rollout and implementation of viral load testing in Uganda, conduct a costing analysis in a sample of facilities that already have testing capacity, and identify bottlenecks in roll out at the facility level.

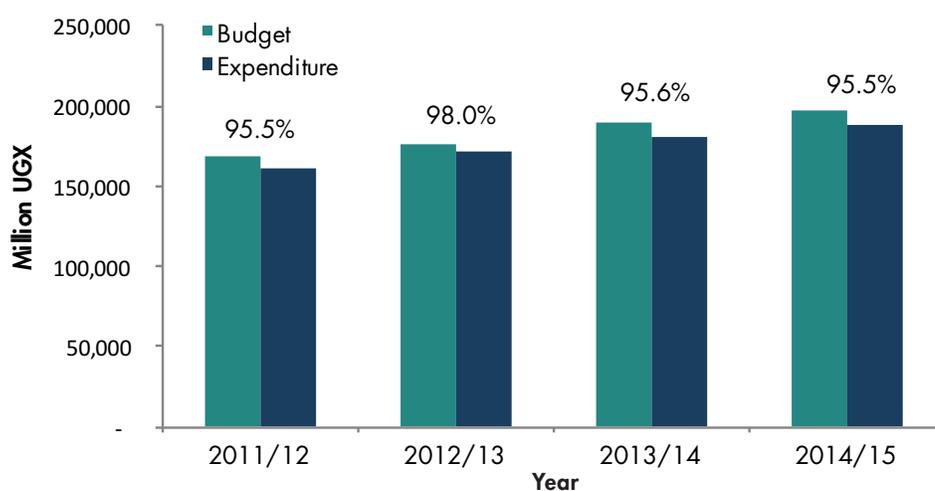
Background

Domestic resource mobilization must be matched by the ability for the fund management agencies (whether public, private, or donor) to effectively and efficiently use those funds. Any trends seen in budget execution can highlight the bottlenecks or opportunities within the system when additional resources are mobilized. Uganda’s high budget execution rates demonstrate the government’s commitment and performance to utilize resources allocated to budget line items. High rates of utilization of available funds suggest that further investment in HIV and health sector may yield positive result, and highlight the need to increase domestic contributions of domestic resources to these areas.

Data from recent years show that, for the health sector in general, rates of expenditure have kept pace with disbursement (Table 2). The health sector budget execution rates range between 94 and 96 percent from FY 2011/12 to FY 2014/15

Table 2. Health Budget and Execution, UGX Billion				
	2011/12	2012/13	2013/14	2014/15
Budget	593	631	711	749
Release	576	631	680	730
Expenditure	573	618	671	715

Figure 12. Government HIV Budget Execution



Source: Ministry of Finance, Planning and Economic Development, 2012, 2013, 2014, and 2015

(Ministry of Finance, Planning and Economic Development, 2012, 2013, 2014, and 2015). Expenditure of the HIV budget has been similarly high (Figure 12).

For HIV-specific items (i.e., ARVs and the Uganda AIDS Commission), the utilization of funds has improved somewhat, increasing from 91 percent in FY 2011/12 to 98 percent or more in each of the three subsequent fiscal years. On the other hand, absorption of health systems funds has declined somewhat with the budget increases, from greater than 100 percent in FY 2011/12 to 93 percent in FY 2014/15. This suggests that, while there is significant room for continued investment in HIV programs, strengthening health systems will be an important step in ensuring the future growth and sustainability of the response. While the data indicates that the Government of Uganda, and specifically the Ministry of Health, maintains a high budget execution rate, several key informants raised concern regarding the ministry’s absorptive capacity and ability to effectively utilize the funds that are made available. The recent declining trend may reflect this challenge.

Expenditure of HIV funds from external sources is also high for FY 2014/15, at 88 percent for PEPFAR and 99 percent for the Global Fund (Figure 13) (PEPFAR, 2015; Global Fund, 2015). Maintaining high utilization rates of donor funds will be critical for Uganda to achieve its scale-up targets.

Conclusions and Recommendations

Figure 13. HIV Budget Execution Comparison



A focus on increasing the domestic resource envelope through innovative financing sources and the mobilization of additional resources through already-established mechanisms are keys to ensuring that Uganda has adequate funds for its HIV and AIDS response. At the same time, government agencies must continue to refine their capacity to protect the currently available resources and effectively and efficiently use them to ensure that potential future budget ceilings and cuts do not adversely affect the sustainability of Uganda’s HIV response.

INSURANCE ENROLLMENT

Total Enrollment: ~1,000,000 (2.6%)
 PLHIV Enrollment: Unknown

Background

In many sub-Saharan countries, OOP payments remain the largest source of health financing. Shifting those people to instead contribute to a prepayment scheme can significantly improve the sustainability, efficiency, and equity of the health financing system while reducing individuals' risk of incurring catastrophic health expenditures. Furthermore, the resource envelope is unlikely to grow significantly over the next several years, as noted by several key informants both in the public and private sectors, despite a relatively robust economic growth of over 6 percent between 2014 and 2016. If this is the case, efficiently financing healthcare through prepayment mechanisms will be critical in improving its sustainability (African Economic Outlook, 2015; Musoba, 2015; Clarke, 2015).

Currently in Uganda there are only private prepayment schemes in operation; individuals may get coverage through an employer-based private health insurance scheme or through CBHIs. The Government of Uganda has been deliberating the introduction of a NHIS since 1995 (Basaza et al., 2013), and is still in the process of structuring and gaining stakeholder buy-in (Aliyi, 2015). Since its introduction in the early 2000s, the private health insurance industry has grown to cover approximately 1,000,000 people in Uganda. The majority of these (approximately 850,000) are covered through corporate schemes with premiums paid for by the employers, while a smaller subset (approximately 150,000 people) purchase coverage through CBHIs.

Employer-based Private Health Insurance Schemes

The private health insurance industry pays out more than US\$251 million in health expenses annually (Aheebwa, 2015). While most products have limited HIV coverage, key informants have noted that some providers do reimburse HIV services and ARVs. Thus, HPP estimates conservatively that 1 percent of the pay-out (approximately US\$2.5 million) is related to HIV services (See Indicator 5: Private Sector (non-OOP) Expenditure on HIV for calculation details). The health insurance

industry is still relatively nascent, with five insurers currently in the market: Jubilee Insurance, Insurance Company of East Africa, Liberty Life Assurance, Sanlam Life Insurance, and UAP Insurance. While three companies also offer individual health insurance products, there are few clients for these products at this point in time.

Private health insurance companies note an average medical loss ratio ranging from 90 to 150 percent. Primary reasons cited for high medical loss ratio are: overutilization of services due to adverse incentives placed on hospitals through fee-for-service schemes; clients' poor understanding of insurance schemes where overuse leads to increased premiums in the future; and lack of capacity among health insurers to assess risk and price their products appropriately (Aheebwa, 2015).

Uganda's health insurance industry is highly competitive; a key informant noted that the insurers historically had undercut each other on price to acquire customers, which has progressively reduced profitability (Aheebwa, 2015). This tendency to lower prices seems to have set the expectation of the clients, and a recent insurance industry market assessment showed

*Private health insurance...
 [pays] out more than
 US\$251 million in health
 expenses annually.*

that clients believe UGX 706,690 (US\$194) to be an optimal price for a health insurance product, although most products are currently priced around UGX 900,000 (\$247) (Uganda Insurers Association, 2014; Aheebwa, 2015). Most insurance companies have to rely on non-health life insurance business lines, which are much more profitable, to offset losses on their health insurance business. Interestingly, one study found that past health insurance holders who had gotten rid of their insurance often later acquired health services through health maintenance organizations (HMOs) (Uganda Insurers Association, 2014). While further investigation is warranted, key informants believe HMOs are more attractive due to their perceived lower price given their ability to cross-subsidize from their service provision arms (Clarke, 2015).

Community-based Health Insurance

CBHIs have existed in Uganda in various forms since the 1990s, although household expenditure towards prepayment schemes such as CBHIs were not noted in the most recent NHA 2011/12 (Ministry of Health, 2015a). Currently, approximately 150,000 lives are covered through CBHIs, spending approximately US\$575,000 in healthcare.²³ The coverage is based on the contracted provider's service offering.²⁴ CBHIs do not cover ART, as it is provided for free through the public sector. However, schemes usually cover any other associated health services, such as treatment for OIs, if the contracted providers offer that service. No study exists on CBHI contribution to HIV-related services and CBHIs do not keep track of the HIV status of their members. Thus, HPP's baseline assessment did not account for any contribution by CBHI to HIV financing. However, key informants noted that PLHIV are enrolled in the schemes. As an affordable prepayment scheme option, scale up of CBHIs holds potential for proportionately increased access for PLHIV in the informal sector.

The Uganda Community Based Health Financing Association currently records 19 CBHI schemes operating in 16 districts, primarily focused on Western and Southwestern regions. Almost half of these schemes are structured around one facility, where members can gain access to health services for free or at a lower cost, thus making this prepayment scheme similar to an HMO. The remaining schemes are more "traditional," usually forming a risk pool at the parish-level (a group of eight to ten villages) and contracting with several private providers within easy access to the parish. Traditional CBHIs have premiums between UGX 10,000 and 18,000 (approximately US\$2.74–4.93) per person per year.²⁵ Annual usage limit is set at UGX 100,000 with co-payment of UGX 2,000 for outpatient services and UGX 5,000 for inpatient services.

Sustainability remains a significant issue for CBHIs. Stand-alone, traditional schemes collect sufficient premiums to cover all payments to providers. However, most do not collect enough in premiums to cover the management costs. To improve sustainability, while increasing the offering to its members,²⁶ 40 schemes have merged to form a single network. In this arrangement, all costs for the scheme's operation, such as enrollment administration, can be covered through premium payments. However, currently, the schemes can only cover 20 percent of the network management cost—such as coordination across parishes, CBHI marketing, contract management, and payment administration—and require donor assistance. Lack of human resource capacity at the community level is another limitation, where the availability of staff from headquarters/urban areas remains a bottleneck as long as the schemes rely on their technical assistance.

²³ Calculation assumes an average annual premium of US\$3.84 (see premium range in text), 150,000 lives covered, and 100 percent loss ratio since key informant noted that most stand-alone CBHIs use up their entire premium pool to pay out reimbursements to providers, and do not have enough to cover operating costs.

²⁴ Coverage excludes elective surgery and treatment of self-inflicted injury services that may be offered by the contracted provider.

²⁵ CBHI structure detail provided in this brief is based on Save for Health Uganda's schemes (Makaire, 2015). Key informants noted that the features of Save for Health Uganda's schemes are consistent with other CBHI schemes.

²⁶ Networked schemes have increased the usage limit from UGX100,000 to UGX200,000.

National Health Insurance Scheme

The Uganda Ministry of Health is currently developing its first health financing strategy, of which the establishment of the NHIS is a key initiative (Ministry of Health, 2015b). In its current form, the proposed primary mechanism for funding the NHIS will be the eight percent tax on gross earnings, equally contributed by the employer and the employee. The current financing structure proposes that the government subsidize the premium payments for the poor, although it is not yet clear whether there will be additional government budget for NHIS subsidization or if the eight percent tax from the formal sector will be used for this purpose. Various key informants noted that this eight percent tax is infeasible given the burden already placed on the formal sector. Rather, informants suggested that the government needs to decrease the burden on the formal sector while simultaneously refining its approach to extend coverage to people who work in the informal sector. This may necessitate cutting down on the minimum package of health services to decrease the total cost of the NHIS (Aheebwa, 2015; Aliyi, 2015; Clarke, 2015).

The current draft of the National Health Finance Strategy envisions CBHIs to be made part of the NHIS as the primary method of covering the informal sector. The current draft of the health financing strategy includes developing a district-level CBHI network. CBHI key informants noted that, while they are open to working with the government to establish comprehensive social health protection for all Ugandans, this process may take up to 15 years. The provision of a consistent package of health services across various schemes was identified as the most challenging step along the road-map (Makaire, 2015).

Conclusions and Recommendations

The Health Finance Strategy 2015/16—2024/25 shows that the Government of Uganda understands the current macro-economic environment and its limited ability to mobilize resources from the formal sector. In that context, the strategy proposes to improve the efficiency of health resource mobilization, pooling, and allocation, not only for public funds, but also through strategic partnerships with international donor agencies and the private sector. There are many opportunities for efficiency improvement through public and private insurance. However, the baseline assessment showed that there is a lack of data and analysis to make the current private insurance and CBHIs more sustainable. Such information, if generated, could be used to better structure the NHIS. HPP has identified the following potential activities that may facilitate domestic resource mobilization:

- Partner with private health insurance companies and HMOs to understand the underlying cost of health services and areas of efficiency improvement in the system.
- Mine data to understand the current coverage and benefits gained in the area of HIV service provision through private health insurance and CBHIs.
- Evaluate networked CBHIs to gain lessons learned that could be applied to district-level networking of CBHIs.
- Support health finance strategy development and execution, especially around NHIS by contributing cost and service information around HIV and health in general.

OOP EXPENDITURE ON HEALTH (FY 2011/12)

37.4% of THE
US\$157.72 per capita
(US\$0.47, poorest quintile)

Background

OOP payments are an inefficient and inequitable way to fund healthcare; there is no risk pooling and the poor are at risk of incurring catastrophic health expenditure. Reducing OOP payments is one of the keys to achieving sustainable, universal access to healthcare. Tracking OOP expenditure on health, especially for the poorest quintile, can help to assess progress towards a more equitable health system.

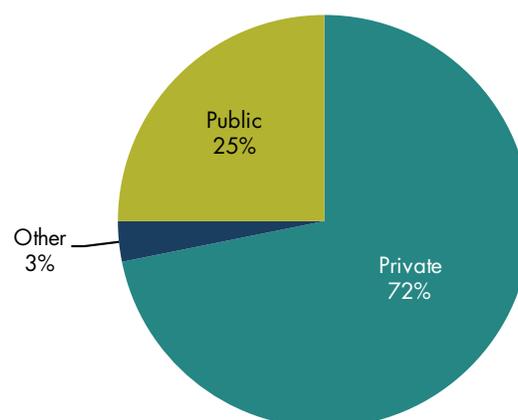
OOP Expenditure in Uganda

In 2001, the Government of Uganda attempted to reduce OOP by abolishing user fees at public facilities (Kwesiga et al., 2015). Despite this effort, OOP expenditure still makes up a significant portion of private healthcare expenditure. The share of OOP expenditures as a percentage of private health expenditure has increased from 56.7 percent in 2000 to 97.3 percent in 2012, making households the single largest source of health expenditure (Ministry of Health, 2004; Ministry of Health, 2015a).

Almost three-quarters of household OOP expenditure are spent in private facilities (Figure 14). Although free services are available at public facilities, around 24.5 percent of household expenditure is incurred in public health facilities (Ministry of Health, 2015a). While it is unclear who spent these funds, the vast majority of OOP expenditure in the public sector was for hospital care. This may indicate the use of separate, private wards to access inpatient care with additional benefits such as individual rooms for a fee.

All wealth quintiles experienced an increase in OOP expenditure between FY 2010/11 and FY 2011/12, and the NHA posits that poor quality in some public facilities may be causing the population to seek care in private facilities (Ministry of Health, 2015a). As expected, the richest quintiles spent the most OOP, spending US\$734 (UGX 1,913,985) per capita in FY 2011/12. The two lowest quintiles also paid OOP to access care at US\$0.47 (UGX 1,236) for the poorest and US\$2.51 (UGX 6,542) for the second poorest quintile (Ministry of Health, 2015a). It is important to note that while the accessibility of public sector facilities has improved, private sector facilities remain more accessible to the population according to the most recent household survey (Bureau of Statistics, 2014).²⁷ According to the survey, among the poorest quintile, 20

Figure 14. Household Expenditure by Service Provider (FY 2011/12)



Source: Ministry of Health, 2015a

²⁷ In FY 2012/13, the average distance to a private hospital or clinic was 3.2km and to a government health center was 3.4km. Further, 37.5 percent of the population lived within 5km radius of a private hospital or a clinic, while 34.9 percent lived within 5km radius of a government health center (Bureau of Statistics, 2014).

	2010/11		2011/12	
	Total OOP Expenditure (USD Million)	Per capita OOP (USD)	Total OOP Expenditure (USD Million)	Per capita OOP (USD)
Poorest	\$6.00	\$0.43	\$6.82	\$0.47
Second	\$20.99	\$2.28	\$23.82	\$2.51
Third	\$40.18	\$5.82	\$45.60	\$6.42
Fourth	\$92.36	\$41.98	\$104.81	\$45.57
Richest	\$439.60	\$628.00	\$498.85	\$733.61
TOTAL POPULATION (per capita)	\$599.73	\$135.70	\$680.57	\$157.72

Source: Ministry of Health, 2015a

percent of patients access healthcare through private providers; by comparison, 55 percent of the highest quintile population access private health services (Bureau of Statistics, 2014).

Conclusions and Recommendations

There is an urgent need for a current assessment of OOP per capita expenditure. Currently, the most recent information on OOP is from the NHA 2011/12. Up-to-date and detailed data around OOP spending will help identify opportunities to shift household expenditures toward sustainable mechanisms, such as premium payments for health insurance. For example, understanding why poorer populations access private health services for a fee may provide further insight when deciding provider inclusion in a NHIS. Also important is ensuring that already disadvantaged groups, such as PLHIV, are not unduly burdened with high OOP costs. Additional data to assess healthcare spending patterns of sub-populations could help ensure inclusive health financing mechanisms.

BENEFIT INCIDENCE OF EXPENDITURE, POOREST QUINTILE

17.9% Benefit
22.8% Need

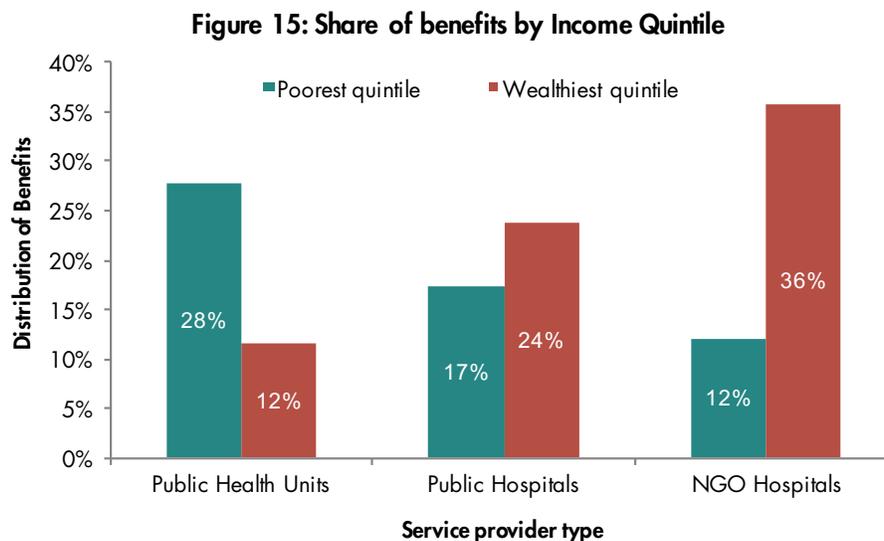
Background

Benefit incidence analyses assess the distribution of healthcare benefits. By understanding where different segments of the population access health services, health financing policies can be put in place to target subsidies and provide support for service levels that the poor most often access. When reviewed in conjunction with trends in household spending, this indicator will show whether the Sustainable Financing Initiative has successfully targeted its efforts to implement pro-poor health financing policies.

Benefit Incidence Analysis by Quintile and Service Delivery Level/Type

In Uganda, healthcare benefits are not equitably distributed and the two poorest quintiles benefit less from health services as compared to their proportionate need. Specifically, based on analyzing the data from the National Household Survey, the poorest quintile's need for health services make up 22.8 percent of the total population's need, but they only benefited from 17.9 percent of health service utilization. This benefit incidence analysis study proposes several potential reasons for this skewed benefit vs. need, including the potential that financial barriers may be limiting access to higher-level health services (Kwesiga et al., 2015).

As described in Indicator 8: Insurance Enrollment, prepayment mechanisms like health insurance are not widespread in Uganda. Existing programs cover a very small percentage of the population. Government general revenue taxes are the main mechanism for funding health services and the share of OOP payments is high (Ministry of Health, 2015b). Hospi-



Source: Bureau of Statistics, 2014

tals have better resources than health centers and tend to be located in urban areas not easily accessible to the rural poor. In public and NGO hospitals the distribution of benefits is pro-rich. Government-run health units are pro-poor with the poorest quintile getting 27.7 percent of the benefits.

High costs and travel time to healthcare facilities were two key reasons cited for not seeking healthcare (Bureau of Statistics, 2014). Households in the bottom quintile were much more likely to not seek care (12.8% versus 9.6% households in the top income quintile) and to cite cost as a reason for not seeking treatment (22.7% versus 12.1%) (Figure 15) (Ministry of Health, 2015b).

While the overarching health system is slightly pro-rich, financing for healthcare is largely progressive. Kwesiga, et al. (2015) found that direct taxes (personal income tax and corporate income tax) that make up the general government revenue are highly progressive and ultimately get used for healthcare financing through the public sector. Indirect taxes, such as excise tax, are also relatively progressive. OOP payment was also pro-poor, with wealthier populations using a higher proportion of their income towards OOP payments, although the progressiveness was less marked (Kwesiga, 2015).

Conclusions and Recommendations

Benefit incidence analysis using data from Uganda's 2009/10 household survey shows that poorer populations are significantly more likely than wealthier populations to access lower-level public health facilities. Achieving equitable healthcare access is by improving lower-level healthcare service delivery is one of the keys to ensuring Uganda stays on track to achieve its HIV targets. Increasing domestic funding for healthcare in Uganda and targeting resources to lower-level facilities where the poor are likely to access them will help address bridge the gap between those in most need of healthcare and the distribution of healthcare services. At the same time, further qualitative analysis to understand the trends, motivations, and barriers to access healthcare may provide insights into health financing policy that will facilitate improved access for the poor.

References

- African Economic Outlook. 2015. "Uganda." Available at: <http://www.africaneconomicoutlook.org/en/statistics/>.
- Aheebwa, M. (Uganda Insurers Association), interview by S. Koseki and V. Menon, October 5, 2015.
- Aliyi, W. (Ministry of Health), interview by D. K. Kisitu, November 24, 2015.
- Arinaitwe, J. (Global Fund to Fight AIDS, Tuberculosis and Malaria), interview by V. Menon, October 5, 2015.
- Basaza, R. K., T.S. O'Connell, and I. Chapcakova, I. 2013. "Players and Processes Behind the National Health Insurance Scheme: A Case Study of Uganda." *BMC Health Services Research*, 13 (357).
- Bureau of Statistics. 2014. *Uganda National Household Survey 2012/13*. Kampala: Uganda Bureau of Statistics.
- Clarke, I. (Clarke Group, International Healthcare Kampala), interview by S. Koseki, September 30, 2015.
- Government of Uganda. 2012. *Approved Estimates of Revenue and Expenditure, FY 2012/13*. Kampala: Government of Uganda.
- Government of Uganda. 2013. *Approved Estimates of Revenue and Expenditure, FY 2013/14*. Kampala: Government of Uganda.
- Government of Uganda. 2014. *Approved Estimates of Revenue and Expenditure, FY 2014/15*. Kampala: Government of Uganda.
- Government of Uganda. 2015a. *Approved Estimates of Revenue and Expenditure, FY 2015/16*. Kampala: Government of Uganda.
- Government of Uganda. 2015b. *The HIV and AIDS Prevention and Control (HIV and AIDS Trust Fund) Regulation - August 2015 Draft*. Kampala: Government of Uganda.
- Hammer Odeng, C., H. Kenyange, J. Kyalimpa, and S. Kiyuuba Nkuutu (Health Team, Uganda Manufacturer's Association), S. Koseki and V. Menon, October 5, 2015.
- Institute for Health Metrics and Evaluation. 2013. *Global Burden of Disease Profile: Uganda*. Available at: http://www.healthdata.org/sites/default/files/files/country_profiles/GBD/ihme_gbd_country_report_uganda.pdf
- Kachali, L. and S. Nakawunde (USAID), interview by S. Koseki and V. Menon, October 2, 2015.
- Kiragga, D. and I. Busulwa (Private Health Support Program Project), interview by S. Koseki, September 29, 2015.
- Kiwanuka, G. and H. Turyagenda (Uganda Healthcare Federation), interview by S. Koseki, September 29, 2015.

- Kwesiga, B., J. Ataguba, C. Abewe, P. Kizza, and C. Zikusooka. 2015. "Who Pays for and Who Benefits from Health Services in Uganda." *BMC Health Services Research*, 15(44).
- Kyambadde, A., R. Okot-Chono, M. Lang-Alli, W. Owembabazi, G. Kena, and P. Greene. (USAID/Uganda), interview by S. Koseki and V. Menon, September 29, 2015.
- Makaire, F. (Save for Health Uganda), interview by S. Koseki and V. Menon, October 6, 2015.
- Menzies, N., B. Abang, R. Wanyenze, F. Nuwaha, B. Mugisha, et al. 2009. "The Costs and Effectiveness of Four HIV Counseling and Testing Strategies in Uganda." *Journal of Acquired Immune Deficiency Syndromes*, 395-401.
- Ministry of Finance, Planning and Economic Development. 2012. Uganda Annual Budget Performance Report FY 2011/12. Kampala: Government of Uganda.
- Ministry of Finance, Planning and Economic Development. 2013. Uganda Annual Budget Performance Report FY 2012/13. Kampala: Government of Uganda.
- Ministry of Finance, Planning and Economic Development. 2014. Uganda Annual Budget Performance Report FY 2013/14. Kampala: Government of Uganda.
- Ministry of Finance, Planning and Economic Development. 2015. Uganda Annual Budget Performance Report FY 204/15. Kampala: Government of Uganda.
- Ministry of Health. 2004. Financing Health Services in Uganda 1998/1999 - 2000/2001: National Health Accounts. Kampala: Ministry of Health.
- Ministry of Health. 2015a. Uganda Health Accounts 2010/11 and 2011/12. Kampala: Ministry of Health.
- Ministry of Health. 2015b. Health Finance Strategy 2015/16 - 2024/25, Draft. Kampala: Uganda Ministry of Health.
- Moreland, S., E. Namisango, A. Paxton, and R. A. Powell. 2013. The Costs of HIV Treatment, Care, and Support Services in Uganda. Chapel Hill, NC: MEASURE Evaluation.
- Mukunda, J., D. Walakira, and P. Katabazi (Civil Society Budget Advocacy Group), interviewed by S. Koseki and V. Menon, October 6, 2015.
- Musoba, N. (Uganda AIDS Commission), interview by S. Koseki and V. Menon, September 24, 2015.
- PEPFAR. 2015. "Uganda PEPFAR Dashboard." Available at: <https://data.pepfar.net/country/funding?country=Uganda&year=2004&yearTo=2014>.
- Tamale, G. and R. Ssenabulya (Federation of Ugandan Employers), interview by S. Koseki, October 5, 2015.
- The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). 2015. "Find a Grant." Available at: <http://www.theglobalfund.org/en/portfolio/find/>. Tumwesigye, E., G. Wana, S. Kasasa, E. Muganzi, and F. Nuwaha. 2010. "High Uptake of Home-Based, District-Wide, HIV Counseling and Testing in Uganda." *AIDS Patient Care and STDs*, 735-741.

Uganda AIDS Commission. 2012a. National AIDS Spending Assessment Uganda: 2008/09-2009/10. Kampala: Uganda AIDS Commission.

Uganda AIDS Commission. 2012b. National Strategic Plan for HIV and AIDS 2011/12 - 2014/15. Kampala: Uganda AIDS Commission.

Uganda AIDS Commission. 2014. 2013 Uganda HIV and AIDS Country Progress report. Kampala: Uganda AIDS Commission.

Uganda AIDS Commission. 2015a. Spectrum Model for the Uganda National Strategic Plan for HIV/AIDS 2015-2020. Kampala: Uganda AIDS Commission.

Uganda AIDS Commission. 2015b. National HIV and AIDS Strategic Plan 2015/2016- 2019/2020. Kampala: Uganda AIDS Commission.

Uganda AIDS Commission. 2015c. 2014 Uganda HIV and AIDS Country Progress report. Kampala: Uganda AIDS Commission.

Uganda Insurers Association. 2014. Market Research Report May 2014. Kampala: Uganda Insurers Association.

UNAIDS. 2014. Fast-Track: Ending the AIDS Epidemic by 2030. Geneva: UNAIDS.

WHO. 2015. Guideline on When to Start Antiretroviral Therapy and on Pre-Exposure Prophylaxis for HIV. Geneva: WHO.



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