TECHNICAL BRIEF

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Investment Case for the HIV Workforce in Uganda

Results from financial and political economy analyses

Background and Methodology

Given anticipated human resources for health (HRH) constraints and the need for greater shared financial responsibility for HIV in an era of HIV scale-up, it is critical to understand government capacity and willingness to increase and maximize the efficiency of investments in HRH for HIV. To assess this, the PEPFAR-funded USAID HRH2030 program developed a methodology that was applied in Uganda from October 2016 to October 2017. It involved three components:

— **Baseline analysis**
What are the current (2015) funding levels for HRH salaries to deliver HIV services?

— **Fiscal space and cost scenario analysis**
How much funding may be available for HIV HRH salaries from 2016 to 2020, and is this sufficient to meet national HIV targets? What are the potential cost savings, if any, if there are changes to HIV service delivery models?

— **Political economy analysis**
What are some of the political and structural barriers and enablers to the government of Uganda increasing funding for HIV HRH?

This mixed-method analysis involved secondary quantitative data analysis, literature review, and interviews with 52 stakeholders. HRH2030 analyzed both public and private sector HRH, generated scenarios for the cost and fiscal space analyses, and conducted sensitivity analyses to account for uncertainty in inputs.

Results

Across all funding sources, an estimated $63 million was spent on direct salary support for clinical facility-based HRH[1] in the public sector in 2015, of which an estimated $10 million (16 percent) went toward supporting 4,633 full-time equivalent health workers for HIV service delivery (Figure 1) PEPFAR funded about four percent — or $2.4 million — of this direct salary support for facility-based HRH in the public sector, while remaining funds came

Community-based Health Workers (CHWs)*

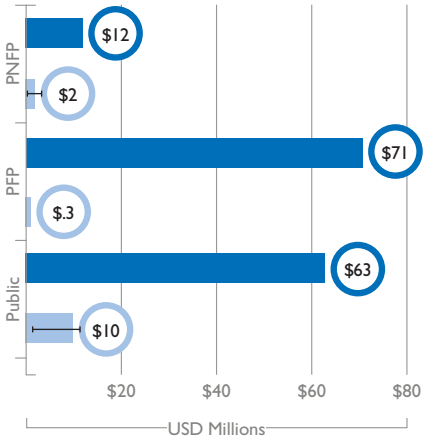
1. CHWs supporting control of HIV in Uganda are volunteers. These include both government and donor-supported CHWs. Cadres that receive stipends for their services are entirely funded by donors.
2. PEPFAR spent about $1.7 million in 2015 on stipends for an estimated 8,386 CHW cadres providing a range of community-based HIV services.
3. Between $3.3 and $6.7 million is needed in CHW stipend support in 2020 to reach national HIV targets, depending on annual case and workload determined for CHWs, assuming stipend levels stay constant.

**CHWs included in the cost analysis are all supported by PEPFAR and include expert clients, leaders of community client-led ART delivery groups, mentor mothers, linkage facilitators, and drama members. Uganda government village health team volunteers and other donor CHWs are not included in the cost analysis. CHW stipend cost data were provided by seven implementing partners, but CHW workload data were available for just one partner.*

[1] Analysis includes medical officers, clinical officers, nurses, midwives, lab staff, and pharmacy staff.

HIV testing being conducted in East Central Uganda. Photo Credit: JSI, 2013. USAID Office of HIV/AIDS

FIGURE 1
HIV vs. Overall Expenditures for Select Facility-based Health Worker Cadre Salaries (2015)



Note: Expenditures shown are best estimates based on averages of available data. Range in HIV service delivery expenditures are based on sensitivity analysis of how much time was spent conducting specific HIV services and accounts for funding from government, PEPFAR, and out-of-pocket sources. Health workers included are: medical officers, clinical officers, nurses, midwives, lab staff, and pharmacy staff. PFP = private for profit; PNFP = private not for profit.

from the government of Uganda budget. PEPFAR also provided $1.9 million in direct salary support of providers in the private not for profit (PNFP) sector, accounting for an estimated 16 percent of total PNFP salary expenditure in 2015, and paid an estimated $1.7 million in stipend support for community-based health workers (CHWs) who primarily support HIV services such as HIV testing and counseling, linkage to antiretroviral treatment (ART), and ART adherence counseling.

The government of Uganda aims to increase the number of medical officers, clinical officers, nurses, midwives, laboratory staff, and pharmacy staff working in the public sector from 27,771 in 2015 to 31,758 in 2018. Salary funding for these cadres could increase to $72 million in 2018 if the government met its HRH recruitment plan targets. If recent health worker strikes result in increased wages for certain cadres, salary funding may need to be even higher. However, with slower-than-anticipated economic growth and projected health sector budget cuts, Uganda is unlikely to have the funds to pay the salary costs to meet its HRH targets by 2018. Further, the political economy analysis revealed critical HRH evidence gaps and a lack of appetite to increase wage spending by the government at the time of the analysis.

Even if Uganda met its HRH recruitment targets by 2020 rather than in 2018, which may be feasible given macroeconomic and other projections, we estimate a clinical facility-based HRH funding gap of $1 million for reaching 90-90-90 and other HIV goals in 2020 (assuming HIV service delivery models, private sector contribution to HIV service delivery, and donor funding levels for HRH remain constant between 2015 and 2020). The funding gap may be even larger for community-based workers based on determined cases and workload, ranging from $1.6 to $5 million in 2020, depending on how many people each CHW is able to support. This analysis assumes PEPFAR stipend support remains constant at $1.7 million annually and that there is no other funding available for these cadres. The total gap for facility- and community-based HRH without PEPFAR support could be as high as $11 million in 2020.

Uganda can reach its HIV goals only under a scenario where the government meets its HRH recruitment targets, there is additional investment in CHWs, and/or the private sector provides a greater proportion of HIV services. Additionally, improvements in service delivery efficiency through national roll-out of differentiated models of HIV care can yield HRH cost savings. Differentiated care models for HIV treatment change the frequency of clinical and refill visits and the types of laboratory monitoring conducted by patient groups. If these models were rolled out, fewer facility-based full-time equivalent health workers would be needed exclusively for HIV treatment, resulting in an estimated $1.7 million in HRH cost savings in 2020 alone (Figure 2). However, additional CHWs may be needed to scale up differentiated care models, which are traditionally supported by PEPFAR, and may offset the projected efficiency gains.

Conclusion

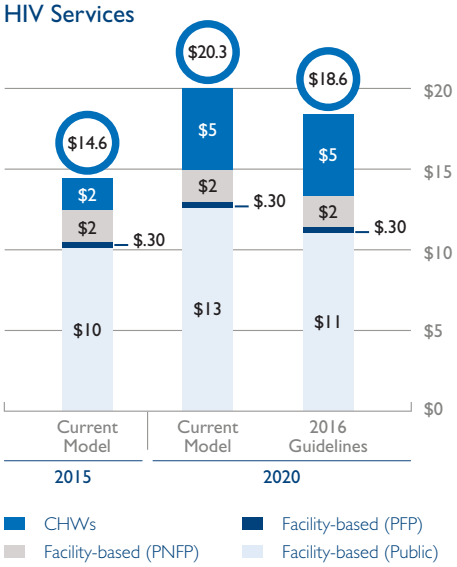
Increasing investment in HRH is essential to reach national HIV goals and 90-90-90 targets by 2020 and sustain achievements. While Uganda faces political and financial constraints to increasing HRH investment for HIV in the short-term, investing in HRH absorption and recruitment may be feasible over a five-year horizon given macroeconomic and other projections. However, increasing investment in facility-based HRH in line with the government's recruitment plan is still not enough to reach national HIV targets; investments in CHWs, based on defined roles of community-based workers for HIV, and efficiency gains are also needed. The analysis suggests that national roll-out of differentiated care modes for HIV treatment, for example, has the potential to improve efficiency to allow more people on treatment with fewer facility-based HRH (Table 1).

This analysis has several limitations. First, salary costs for management and support staff are excluded, meaning the total salary support needed to reach HIV targets is likely higher than the support estimated here, based on needed requirements of these workers to support HIV service delivery. Further, there is a lack of data, and therefore considerable uncertainty, in average salaries paid by cadre in the private sector and how much time is required to deliver HIV services in those settings. HRH2030 attempted to account for this uncertainty by conducting sensitivity analyses that varied estimates of private sector salaries and time spent by cadre delivering HIV services to assess the related impact on total cost projections. Similarly, there are wide ranges in CHW costs due to uncertainty in annual cases seen by and workload requirements for the range of CHW cadres supporting HIV. Existing CHW workloads vary from one implementing partner to another based on current models of HIV care supported, and data were available from only one partner. Lastly, the projected cost savings from national roll-out of ART differentiated care models do not account for any additional costs that may be required during scale up, such as the costs of pre- or in-service training, and assume that facility-based HRH time saved from implementing these models of care can be used to complete other tasks.

Due to these limitations and based on the findings from Uganda, HRH2030 recommends further analysis, including:

- Conducting a feasibility assessment to examine how facilities can maximize use of existing staff and hire additional workers as needed, including CHW cadres supporting HIV, to realize projected HRH efficiency gains from differentiated models of care;
- Analyzing how differentiated care models and introduction of a new government community health extension worker program affect CHW requirements and costs for HIV services; and
- Analyzing other potential HRH efficiency gains through possible improvements in HRH productivity or further task sharing.

FIGURE 2
Projected HRH Costs for Providing HIV Services



HRH2030 did not generate scenarios for CHW costs in 2020, due to lack of information on the CHW cadre's workload required to deliver different service delivery models and the number of patients who will receive specific types of community-based support.

The analysis from Uganda has implications for other countries. Many countries likely face funding gaps for HRH that jeopardize achievement of national and global HIV targets. In these cases, an evidence-based HIV workforce investment case can lead to a better understanding of planning requirements and convince key stakeholders to make more strategic investments in HRH for HIV. The type of strategic investment required will vary by country, but may include increased government spending, reallocation of existing financial resources, increased provision of HIV services in the private sector or at the community level, integration of HIV financing into broader health financing reforms (e.g., health insurance), and/or smarter use of HRH through introduction or expansion of efficient service delivery models, such as differentiated models of care for ART.

Worst Case

Best Case

TABLE 1
Facility-based HIV HRH Funding Gap (2020)

Scenario (funding + cost)	Funding gap (USD millions)
Constant funding levels, current service models	- $2.83
Constant funding, differentiated ART	- $1.17
Increased funding based on recruitment plan, current service models	- $0.99
Increase funding based on recruitment plan, differentiated ART	+ $0.67

An HIV counselor tests a client in Lagos, Nigeria. Photo Credit: URC, 2016

Program Partners

- Chemonics International
- American International Health Alliance (AIHA)
- Amref Health Africa
- Open Development
- Palladium
- ThinkWell
- University Research Company (URC)

About HRH2030

HRH2030 strives to build the accessible, available, acceptable, and high-quality health workforce needed to improve health outcomes.

Global Program Objectives

1. **Improve performance and productivity of the health workforce.** Improve service delivery models, strengthen in-service training capacity and continuing professional development programs, and increase the capacity of managers to manage HRH resources more efficiently.
2. **Increase the number, skill mix, and competency of the health workforce.** Ensure that educational institutions meet students' needs and use curriculum relevant to students' future patients. This objective also addresses management capability of pre-service institutions.
3. **Strengthen HRH/HSS leadership and governance capacity.** Promote transparency in HRH decisions, strengthen the regulatory environment, improve management capacity, reduce gender disparities, and improve multi-sectoral collaboration for advancing the HRH agenda.
4. **Increase sustainability of investment in HRH.** Increase the utilization of HRH data for accurate decision-making with the aim of increasing investment in educating, training, and managing a fit-for-purpose and fit-for-practice health workforce.

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