Government of Botswana
National AIDS and Health Promotion Agency

COSTING AND FINANCIAL GAP ANALYSIS BOTSWANA'S HIV & AIDS BASIC SERVICES PACKAGE

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Introduction

The African Collaborative for Health Financing Solutions (ACS) is a five-year United States Agency for International Development (USAID)-funded project that supports countries to advance toward universal health coverage (UHC). Specifically, in Botswana, ACS is a two-year project that provides technical assistance to the Government of Botswana (GoB) through the Ministry of Health and Wellness (MOHW) and the National AIDS and Health Promotion Agency (NAHPA) on health financing reforms to ensure efficiency and sustainability of the country's HIV/AIDS response.

In year one, ACS supported the GoB through NAHPA and the MoHW to develop a comprehensive HIV/AIDS basic service package (HABSP) envisaged to propel Botswana to epidemic control and sustain achievements towards an AIDS free generation. The HABSP serves as a reference guide to government, private sector, civil society, communities, collaborating donor agencies, development partners and various institutions on priorities for support.

The HABSP was developed through engagement of key stakeholders in the HIV response including the public sector, non-governmental organizations, development partners, HIV expert-clinicians, policy makers, the private sector and medical aid schemes, reflecting wide collaborative reach and representation. The package aims to harmonize and integrate various HIV strategic and operational documents including implementation guidelines, to provide a foundation towards making informed decision-making for both policy and operations, including transitional finance planning and ensuring efficient HIV service delivery options and long-term programmatic and financial sustainability.

ACS has committed to support the GoB to estimate the resources needed to scale a set of selected interventions outlined in the HABSP, both at site and above site levels, to facilitate effective mobilization and allocation of resources, as well as improve monitoring efforts to enhance efficiency and value-for-money in the HIV/AIDS response. The estimation of costs will guide national budgetary provisions and planning processes, as well as indicate the amount of funding needed to be secured through domestic resources as well as supplementary resources required from development partners in a time of donor transition. In addition, the estimated resources will provide direction for development partners, the private sector, civil society, among others, who intend to support the GoB in its HIV/AIDS response. To complement the costing activity and facilitate real time expenditure data of HIV service provision that is routinely made available to program managers, ACS will first undertake a data system mapping exercise.[1]

Background

Botswana is on track to achieve the Joint United Nations Programme on HIV/AIDS (UNAIDS) 95-95-95 targets, with UNAIDS reporting 91% of people who are aware of their HIV status, of which 92% are on HIV treatment, and 95% of whom were virally suppressed at the end of 2019.[2]

According to the UNAIDS' National HIV Estimates (2020), Botswana had an adult HIV prevalence of 20.7% (18.2%-22.1%) in 2019, with 9,500 new infections and an HIV population of approximately 380,000[3]. The country has lowered its national mother-to-child transmission of HIV (MTCT) rate to less than 1%.[4] The adoption of the 2016 Treat All Strategy has also improved treatment outcomes and decreased HIV transmission and HIV drug resistance. Optimized treatment and improved services such as linkage to care

[1] Refer to separate concept note for the data systems mapping exercise.
[2] Botswana National HIV Estimates, UNAIDS 2020.
[3] Botswana National HIV Estimates, UNAIDS 2020.
[4] PMTCT Programmatic data, GoB, MoHW, 2019.

and patient tracking have further decreased the estimated lost-to-follow-up rates to <2%[5] and the overall cumulative HIV testing yield to 3.8%.[6] With the recent adoption of the World Health Organization (WHO) recommended minimum programme requirements (MPRs), further reductions in HIV and TB incidence are anticipated, making Botswana's goal of HIV epidemic control by 2023 now within reach.

These achievements were made possible through comprehensive and long-term strategic planning of the GoB, as well as significant development partner financial support and technical assistance. In keeping with Botswana's Vision 2036: Achieving Prosperity for All (2016), the country now aspires to begin a new era which focuses on clear plans and deliberate efforts to successfully execute all strategies and initiatives. In alignment with its National Development Plan 11, covering 2017 to 2023 (NDP11), the country further aims to establish a balance between health service provision and community empowerment. Central to these goals is creating a paradigm shift from curative to preventive approaches in healthcare, all within a patient-centered and rights-based approach.[7]

Botswana's rapid economic growth has enabled the country to invest substantially in the health sector, which accounted for around 10.5% of the government's total annual recurrent budget in 2017/18 and 2018/19 (GoB, 2018[8]), and particularly in the fight against HIV/AIDS. In 2011, the latest year for which data are available, Botswana spent nearly BWP 2.77 billion, or 2.55 percent of gross domestic product (GDP), to address HIV/AIDS (Cali and Avila, 2016). Donor funding, in support of the HIV/AIDS response, has also been significant, accounting for one-third of the country's spending on HIV/AIDS in fiscal year 2013/14 (MoHW, 2016a). However, since Botswana's graduation to the World Bank's "upper middle income" country status in the early 2000's, development partner funding to the country has declined and this trend is expected to continue.

Justification

In order for Botswana to maintain, or safeguard, the remarkable achievements made in the delivery of national health care services and in the HIV response, while also compensating for possible declining partner support, especially in the wake of COVID-19, it is essential for the country to transition to domestic resourcing, while also maximizing local partnerships with the private sector and civil society. A costed integrated HABSP will therefore present a comprehensive roadmap to guide national development planning and resource allocation that will sustain gains made in the HIV national response over time. It will inform decision-making, including policy and transition planning.

A costed HABSP will estimate resources needed to scale up a set of selected HIV/AIDS interventions that will assist the country to move towards the achievement of the goals set out in relevant strategic documents (i.e., Vision 2036, the National Development Plan 11, the UN Sustainable Development Goals, as well as UNAIDS HIV Fast Track Targets). The HABSP, if implemented with adequate resources, can serve as an important step towards sustaining HIV prevention, care, and services as well as the national HIV response overall.

In order for Botswana to effectively plan for the transitioning of donor funding and the sustainability of the HIV/AIDS response, it is important to understand the unit costs per intervention as well as the total annual estimated cost of the HIV/AIDS response in the near term in order to achieve and sustainably maintain HIV epidemic control. Additionally, the GoB must understand the funding landscape and

[5] National HIV Testing Programme, GoB, MoHW, 2019.
[6] BUMMHI, ART Programmatic data, 2019.
[7] NDP11 -Ministry of Finance and Economic Development 2011.
[8] Botswana Government Recurrent Estimates of Expenditure: 2017/18 and 2018/19.

predicted available funding, especially considering the COVID-19 pandemic, to effectively mobilize and re-allocate funds, to ensure the sustainability and to maximum the impact of the HIV response.

The GoB has, with support from various partners, undertaken some costing exercises and other related analyses to increase the understanding of various HIV services and intervention costs. Examples include:

- Botswana Investment Case for HIV and AIDS (UNAIDS, 2016)
- Cost of Community-Based HIV Testing Activities to Reach Saturation in Botswana (Lasry, 2019}.
- Botswana National AIDS Spending Assessment (NASA) 2009/10, 2010/11, 2011/12 (NACA & UNAIDS, 2013)
- Antiretroviral Therapy in Botswana: Comparing Costs, Service Utilization, and Quality at Three Levels of Care. Abt Associates as part of the USAID's Health Finance and Governance (HFG Project (Cogswell, 2016)
- Opportunities to improve the efficiency of HIV/AIDS services in Botswana (HFG Project, 2018)
- Health Financing in Botswana: A Landscape Analysis (Cali & Carlos, 2016)
- Botswana Health and HIV/AIDS Public Expenditure Review (World Bank, 2016)
- Estimated Resource Needs for Key Health Interventions Offered under Botswana's Essential Health Services Plan 2013–2017 V (Menon, Iyer & Mosime, 2014)

Although these costing exercises have been undertaken, they are now outdated, and different methodologies were applied for the different services. The GoB is planning to undertake a National Health Accounts and a NASA jointly, which will provide detailed information on the HIV funding landscape. In the meantime, a rapid mapping of the available current and future HIV resources and the HABSP costing exercise will be undertaken to provide more recent estimates of the resources needed for the identified HABSP HIV services and their potential funding gaps. This data will more accurately inform the resource mobilization needed to achieve and sustain epidemic control.

Aim of the costing and financial mapping exercise

This exercise aims to cost the HABSP and will provide decision-makers with critical information to guide the prioritization of HIV/AIDS interventions and will help to estimate the total annual costs between 2020 and 2025. Furthermore, the generated unit cost data will allow the GoB to establish reasonable tariffs for the possible outsourcing of service provision to private providers or social contracting with civil society organizations. In addition, the rapid mapping of current and future funding compared with the estimated costs will highlight any potential funding gap per service and identify possible future studies to explore various health financing options for the transitioning and sustainability of the HIV/AIDS response in Botswana.

Objectives of the costing and financial mapping exercise

The first objective of this exercise is to estimate the unit costs of delivering selected services of the HABSP in Botswana, and then to model the total annual costs to scale up those services. The unit costs could also provide benchmarks which inform the setting of tariffs for contracting of private sector providers or civil society organizations to provide HABSP services. The second objective is to map the current and future funding for the HABSP, to calculate the potential funding gap per intervention, that will inform discussions around resource mobilization and sustainability.

The results of the exercise are expected to provide the following data:

- Unit costs of key interventions in the HABSP;

- Estimation of the total annual national financing requirements for the delivery of the HABSP;
- Estimation of available (current and future) resources, financing gap per HABSP intervention, and additional domestic resources needed.

Methodology

The costing of the HABSP will draw on available unit cost and expenditure data, which will be collected through desk review and interviews, without any primary data collection from service delivery sites. It will take the perspective of the provider, and will apply financial costing methods, so as to inform the government's budgeting processes. A high-level policy costing tools, such as the GOALS model, will be used, and will be populated with the most recent country HIV estimations from Spectrum, as well as updated unit costs and parameters. A literature review to obtain and assess the available HIV unit costs will be undertaken to ascertain where these could be used, or need to be updated/ adjusted with ingredient-based costing. The annual national targets for coverage by each service will applied, for the period 2020-2025. GOALS will also be used to model the impact of implementation of the HABSP in terms of infections and deaths averted to measure whether epidemic control will be achieved and maintained.

The following table lists the interventions in the HABSP that will be costed, the approach and data sources.

Table 1: HABSP services to be costed

Intervention	Approach	Data sources
ART (at facility)	Update existing ART unit costs with latest ARV prices Use Spectrum & GOALS to predict need and costs	Central Medical Stores ARV price list and quantifications Literature review of ART costings in Botswana or region
Differentiated models of ART delivery	Ingredient-based costing Use Spectrum & GOALS to predict need and costs	Implementing partners' DSDs' expenditure and output data
Voluntary male medical circumcision	Use existing unit costs Use Spectrum & GOALS to predict need and costs	Literature review of VMMC costs in Botswana or region
HIV testing services (at facility), including EID	Update existing HTS unit costs with latest commodity prices Use Spectrum & GOALS to predict need and costs	Central Medical Stores HIV test kits prices and quantifications Literature review of HTS costings in Botswana or region
Differentiated models of HTS, including community-led monitoring (CLM)	Ingredient-based costing Use Spectrum & GOALS to predict need and costs	Implementing partners' DSDs' expenditure and output data
Condoms & lubricants	Update existing condoms & lubricant unit costs with latest commodity prices Use Spectrum & GOALS to predict need and costs	Central Medical Stores condom & lubricant prices
PrEP	Update existing PrEP costs with latest drug prices Use Spectrum & GOALS & PrEP-IT to predict need and costs	Central Medical Stores drug price list and quantifications Literature review of PrEP costings in Botswana or region
PMTCT	Update existing PMTCT costs with latest drug prices	Central Medical Stores drug price list and quantifications

	Use Spectrum & GOALS to predict need and costs	
AGYW interventions	Ingredient-based costing Use Spectrum & GOALS to predict need and costs	Implementing partners' AGYW's expenditure and output data
Comprehensive sex education (CSE) for youth	Ingredient-based costing Use Spectrum & GOALS to predict need and costs	Implementing partners' CSE programme expenditure and output data
Interventions for key populations (sex workers, MSM and transgendered persons)	Ingredient-based costing Use Spectrum & GOALS to predict need and costs – *however, requires recent KP size estimates*	Implementing partners' KP programme expenditure and output data – *however, requires a well-defined package of interventions*
Strengthening Families – Parent and caregiver programs, educational subsidies, and socio-economic approaches	Ingredient-based costing Use Spectrum & GOALS to predict need and costs	Implementing partners' programme expenditure and output data
Critical enablers: social, system, services (such as community mobilisation, demand creation, policy/laws, human rights protection, GBV reduction, stigma reduction, M&E systems, lab strengthening, research/surveillance, PSM, HR capacity building, planning, co-ordination and management).		Estimation based on proportion of total package costs, and/or other available data.

Ingredient-based costing – data collection

For those interventions without available unit cost data, the ingredient-based costing approach will require interviews conducted face-to-face or virtually with implementers of services. *No patient-specific data will be collected or accessed, only the expenditure reports of service providers.*

The ingredient-based approach will make use of the service description and information from implementers about the service-delivery approach, the ingredients/resources required to implement these services, and their annual outputs/persons reached. The costs will include their site-level/point-of-care service delivery costs, their above-site costs, direct-patient costs, and fixed costs (such as overheads, management, supervision, campaigns etc.). These costs will be collected and attributed to the specific interventions using a step-down costing approach, where the allocation rule will be based on a rational share per client. This will enable the calculation of an average cost per client.

For those services requiring ingredient-based costing, a representative sample of providers will not be possible due to time and resource limitations. Specific implementers will be identified in consultation with the MoHW, NAPHA, USAID and the CDC. They will be purposively selected to include different delivery models, location, size and other variables deemed important by MOHW, NAPHA and USAID. Depending on the service in question, every effort will be made to include at least two implementers per service.

The key costs for which data will be collected at service-delivery level will include:

- Total cost to company for staffing compliment working to provide each HIV service or intervention
- Expenditure on drugs, commodities and other health supplies
- Expenditure on laboratory and diagnostic tests – or quantities (and prices from NHL applied)
- Non-health materials and supplies used in service provision

- Health and non-health equipment costs and maintenance
- Data on utilization of services, or numbers of persons reached / served
- Site overheads and operational costs
- All other relevant costs as pertain to each specific service

Data that will be collected for non-service delivery costs, such as above-site and national level, will include:

- Average annual salaries including benefits for selected relevant cadres
- Average time spent by national, regional and district level staff on supporting specific HIV services or interventions, including supervision, monitoring and evaluation, etc.
- Expenditures and distribution of non-medical and office materials and supplies, including IEC materials, national campaigns, etc.
- Operational and overhead costs, such as transport (vehicles and their maintenance), utilities, rental, security, etc. (that are not for direct service delivery)
- All other above-site and national-level costs that support the specific HABSP services

An Excel data collection tool will be developed for each service undergoing the ingredient-based costing, and data collectors will interview selected providers of these services to populate the tool.

Mapping of available and projected resources for HABSP services in Botswana

Through interviews with key sources of funding for HIV services in Botswana, a rapid mapping of available and future resources for the HABSP will be undertaken. Since the GoB, PEPFAR and the Global Fund are the main contributors, the mapping will focus primarily on obtaining their current and future commitments and budgets for HIV. Other funding entities will also be interviewed, such as the United Nations (UN) Agencies, German Development Cooperation (GIZ), the Bill and Melinda Gates Foundation (BMGF), and others identified by NAPHA. The estimated future commitments shall be compared with the resources needed for each service and the potential funding gap measured.

Ethical considerations

The collection of resource utilization and financial data from service providers (both public and non-governmental, if required) may require ethical approval, even though no patient-specific data will be collected. The Health Research Committee will review this concept note and then advise as to whether a full ethical application will be required.

All data collected will be treated confidentially and kept securely.

Dissemination

The preliminary results of the costing exercise and resource mapping will be shared (in slide deck format) and discussed with the project core team that includes among other key stakeholders NAHPA, MoHW, USAID, CDC, and the ACS country team in Botswana. Based on their feedback, improvements will be made and the updated slide deck will be shared with, and validated by, other stakeholders and implementing partners. Thereafter, the draft report will be developed and reviewed by ACS, NAPHA, MOHW, USAID, and by other key development partners, the ACS network, relevant health financing technical working groups, key service providers (from whom data were collected), and other critical stakeholders. Further refinements will be made based on feedback, and the final results will be disseminated to all the above and to policymakers, planners, program managers and development partners.

Costing and financing HABPS work plan

The table below indicates the main activities to be undertaken as part of this exercise and the proposed timeframes.

Activity	Aug 2020	Sept 2020	Oct 2020	Nov 2020	Dec 2021	Jan 2021	Feb 2021	Mar 2021
Collection of program details required for costing from program managers.								
Development of the protocol for the study, submission to Ethics, adjustments & resubmission								
Development of data collection tools								
MoHW and Research Committee approval application								
Planning of interviews for data collection								
Data collection at national level								
Data collection from service providers (mostly virtual interviews and some face to face)								
Data collection from HIV funders								
Data cleaning, capturing, GOALS model population, & analysis – **with 2/3 rounds of review and adjustments**								
Break over December/early Jan					XX	XX		
Presentation and discussion of preliminary results								
Adjustments to analysis								
Draft report, and adjustments based on feedback								
Final report								X

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