

KENYA:

Building a Strong System for HIV Costing

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Acronyms

ABC	Activity-based costing
AGYW	Adolescent girls and young women
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral therapy
BMGF	The Bill and Melinda Gates Foundation
CHMT	County Health Management Team
COP	PEPFAR's Country Operational Plan
DALY	Disability-adjusted life years
FSW	Female sex worker
GBV	Gender Based Violence
HIV	Human Immunodeficiency Virus
KASF I	Kenya AIDS Strategic Framework I
KASF II	Kenya AIDS Strategic Framework II
KP	Key Populations
KSH	Kenyan Shilling
MSM	Men who have sex with men
NACC	National AIDS Control Council
NASCOP	National AIDS and STIs Control Programme
NSP	National Strategic Plan
ODA	Official development assistance
PEPFAR	President's Emergency Plan for AIDS Relief
PLHIV	People living with HIV
PMTCT	Prevention of mother-to-child transmission
PWID	People who inject drugs
PrEP	Pre-Exposure Prophylaxis
RHC	Regional HIV Coordinator
RMNCH	Reproductive, maternal, newborn and child health
RNM	Resource Needs Model
S&T	Sustainability & Transition
STI	Sexually transmitted infection
TA	Technical Assistance
TABC/M	Time activity-based costing for management
TWG	Technical Working Group
UCR	Unit Cost Repository
UHC	Universal health coverage
UNAIDS	Joint United Nations Program on HIV and AIDS
UON	University of Nairobi
USAID	United States Agency for International Development
USD	United States Dollar
VFM	Value for Money
VMMC	Voluntary Medical Male Circumcision
WBG	World Bank Group
WHO	World Health Organization

Executive Summary

The HIV response in Kenya has many sources of funds ranging from various external to internal resources. With total country-reported HIV expenditure of 795 million USD in 2020¹, efficiency and efficacy of the programs are essential. This report focuses on the HIV costing ecosystem in Kenya, or the process that estimates the value of resources in various HIV interventions.

Pharos Global Health Advisors was engaged by the Harvard T. H. Chan School of Public Health under a Bill and Melinda Gates Foundation grant to conduct an analysis of the costing system underlying Kenya's national AIDS programs and to propose actions to enhance its effectiveness and sustainability. The project focused on three specific objectives:

1. To collect all recent reports and unit cost data to facilitate the creation of an accessible and up-to-date Unit Cost Repository (UCR);
2. To evaluate the strengths and weaknesses of the HIV costing landscape in Kenya;
3. And to make recommendations to improve the HIV costing ecosystem based on interviews, workshops, and other stakeholder inputs.

The Pharos team completed the first objective – to update the unit cost database to eventually become the UCR and document library. This below report focuses on the latter two objectives. The major findings on the HIV costing ecosystem strengths and weaknesses are summarized in the table below.

HIV Costing Ecosystem in Kenya	
Strengths	Weaknesses
<ul style="list-style-type: none">• Incipient UCR under development• Health/HIV economics training at several Kenyan universities• HIV Costing Working Group defined• Substantial local expertise• Leadership from the NACC and NASCOP on HIV costing	<ul style="list-style-type: none">• Lack of standard costing guidelines• Expenditure tracking and analysis not fully integrated with costing and budgeting• Lack of data on non-biomedical interventions• University training programs do not have sustained financial support• TWG is not yet fully operational• Lack of harmonized assumptions and cost adjustments• Donor-dependent on investment areas

With these strengths and weaknesses in mind, the Pharos team has made succinct and actionable recommendations that the Kenyan government, international organizations, and other stakeholders can implement in the coming years to improve the HIV costing ecosystem. The basic recommendations are summarized below, and the detailed work plan drafted by Pharos is included in Annex V. The initial work plan included 27 actions for the NACC and other key stakeholders, the timeline, the primary responsible party, and an approximate cost estimate. The Pharos team

¹ UNAIDS: Kenya, 2021.

worked with the NACC and other stakeholders to develop the second version with the sixteen most practical and important actions. The top-line recommendations are shown below.

HIV Costing Ecosystem Recommendations	
1	Standardize HIV unit cost assumptions and what is included in HIV costing package. An assigned team at NACC or MOH can make specific adjustments of unit costs related to specific location, delivery mode, and other factors at the start of each fiscal year based on a set classification (e.g., rural and urban, hard-to-reach).
2	Enhance engagement of local experts , stakeholders, and institutions even for assignment led by international partners to develop capacity through mentorship opportunities.
3	Build capacity through training on-the-job in addition to pre-training. Secure long-term funding for capacity building , especially at NACC and institutions of higher learning.
4	Prioritize generation of costing data for the major gaps : a. non-biomedical interventions and b. emerging implementation areas including costs of adolescent interventions.
5	Publish the unit cost repository in an easy-to-understand software, assign custodian through NACC and update regularly with collaborating institution.
6	Develop a core or reference group to guide the institutionalization of the costing models and approaches in public and private sectors.
7	Encourage post-graduate students and health economists to undertake cost analysis in identified costing data gaps. Offer open brown bag lunch trainings by economists for students. Consider offering unique career opportunities and securing additional funds for these areas

The full report below includes the specific actions required for follow up for each of these overall recommendations (see Annexes V and VI). The report also identifies some key areas for intervention that include the following precise actions to be undertaken:

1. Before the start of the 2022, the stakeholders at NACC, NASCOP, UON, and elsewhere should agree on the assumptions and regional costs to be used and publish a document listing out the agreed upon assumptions. This should include the typical costing assumptions, e.g., the length of a typical treatment and the drug costs. This exercise should also include condition-specific adjustments of the unit costs related to the location, delivery mode, and other factors. These “adjustment sheets” should then be distributed to all projects on HIV costing in Kenya before they begin and store them as part of the UCR. All new adjustments and cost categories can be shared back by MOH, MOF, NACC, donors, or NGOs to the HIV Costing TWG as they evolve and are then disseminated.
2. Future capacity building projects for costing in HIV in Kenya should include a strong focus on (a) non-biomedical interventions and (b) emerging implementation areas including costs of adolescent interventions. The NACC leadership is encouraged to set the agenda for NACC costing staff to focus on these identified areas. The NACC can also meet with outside funders (e.g., BMGF, USAID) to provide resources to cost these gaps.
3. Encourage post graduate students in local collaborating institutions to undertake cost analysis focusing on areas identified to have data gaps, using a new fund for HIV costing capacity research. This can be done through both financial and non-financial incentives, such as trainings and career opportunities.

4. To prevent siloes and loss of knowledge, the NACC can do the following: (1) appoint a point-person liaison from NACC for each outside project on HIV costing; (2) make cross-checking budgets/quarterly reports with UCR a mandatory step in program implementation and monitoring, (3) create a counterpart/peer mentorship program between the NACC and MoF; and (4) create/join a quarterly South-South HIV Costing Exchange based on TWGs from different countries.
5. Institutionalize costing of health interventions in a local organization – potentially the MoH Planning Unit – to increase access to costing data and enable utilization of existing costing information for capacity development and training. Develop a core or reference group to guide the institutionalization of the costing models and approaches across both public and private sectors. The reference group would also review the existing costing studies and assess their fitness for inclusion into the costing data base.
6. Develop a costing database and document library to store costing information in a form that is easily accessible by decision makers and other users both at the national and county level. This would increase policy utility of the cost data generated and reduce duplication of efforts resulting from having different funders repeat the same cost analysis. Along with the foundation of the UCR, the document library would contain all articles and research that arrived at the unit costs stored in the UCR. This should be updated and maintained by the same designated team.

Altogether, the key actions and their specific follow-up tasks included in the work plan should enable a strong growth and development in the HIV costing ecosystem in Kenya. Ultimately, a strong HIV costing ecosystem will lead to a more efficient and stronger national disease response. As noted by the leadership at the NACC, a strong HIV costing ecosystem will bolster the important sustainability and transition goals that Kenya will pursue in the coming decade.

Chapter 1: Introduction and Rationale for the Case Study

1.1. Rationale and objectives of case study

Kenya has experienced a high epidemiological burden of the HIV epidemic. There are roughly 1,400,000 persons living with HIV (PLHIV) in 2020,² and the national prevalence rate remains stubbornly high at 4.5% and incidence at 1.8 per 1000 persons in 2018.³ HIV/AIDS remains the leading cause of death in the nation, though recent estimates show that the mortality rate has lowered in recent years.⁴

Many international funders have entered the country and have supported the national HIV response. The national HIV response has an estimated total expenditure in 2020 of 795,000,000 USD, of which 282,000,000 USD came from domestic public sources and 390,000,000 USD from international sources in the same.⁵ Almost all (around 90%) of official donor assistance (ODA) comes from four organizations: the United States through USAID, PEPFAR, and others (62%), the Global Fund to Fight AIDS, Tuberculosis and Malaria (18%), the United Kingdom (5%), and Gavi (4%).⁶ In 2017, the United States alone contributed 84% of all ODA to Kenya for STDs, including HIV. As of 2017, the domestic government contributed just under a third of overall financing, with international funders providing nearly 69% of total funding for HIV and AIDS prevention and control.

With such large annual expenditures in the HIV response in Kenya, donors, researchers, and government officials have over the past decade invested more time and resources into resource needs estimation, referred to as “costing.” The costing process should estimate the value of resources in a specific intervention or process. This becomes particularly important in resource constrained settings or those where the need is dire. Kenya fulfills both categories. High-quality costing should increase the value for money, as it can lead to policies and programs that allocate resources most efficiently. This can drive national strategic goals, such as those described in Kenya AIDS Strategic Framework II (KASF II), and to increase the life-saving impact (measured in DALYs, for example).

Moreover, in the past decade, the Kenyan government has strategically placed more emphasis on HIV costing. In recent years, there has been a national emphasis on the need for clear costing for the ministerial and departments budgets in line with the Public Finance Management Act in 2012 and Public Finance Management Regulation in 2015. These dictate the budgeting cycle of the country and specify the implementation of Activity Based Costing (ABC) in Kenya.

This context of the importance of costing led to the development of this case study. This specific report in Kenya is one analysis in a multi-country HIV costing project for Eastern and Southern Africa, led by the Harvard T.H. Chan School of Public Health with funding and support from the Bill and Melinda Gates Foundation (BMGF). With this report and the others produced across the

² UNAIDS: Kenya, 2019. <https://www.unaids.org/en/regionscountries/countries/kenya>

³ NACC, 2018 HIV Estimates. <https://nacc.or.ke/2018-hiv-estimates/>

⁴ Institute for Health Metrics and Evaluation, Kenya. <http://www.healthdata.org/Kenya>

⁵ UNAIDS: Kenya, 2021. <https://www.unaids.org/en/regionscountries/countries/kenya>

⁶ “Reducing Kenya’s health system dependence on donors,” Brookings Institution, 2 March 2021.

<https://www.brookings.edu/blog/future-development/2021/03/02/reducing-kenyas-health-system-dependence-on-donors/>

region, the project aims to assess the quality, coherence, and strength of HIV costings in-country including the most recent KASF II and the Global Fund Funding Request, how costing approaches have evolved over time, and what can be done to support countries to expand their national capacity and systems for HIV and related health sector costing.

Pharos Global Health Advisors was engaged to conduct an analysis of the costing system underlying Kenya's national AIDS programs and to propose actions to enhance its effectiveness and sustainability.

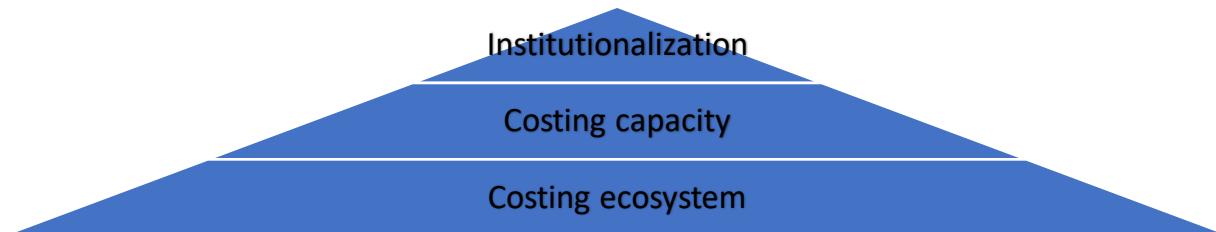
The study in Kenya had three specific objectives:

1. To collect all recent reports and unit cost data to facilitate the creation of an accessible and up-to-date Unit Cost Repository;
2. To evaluate the strengths and weaknesses of the HIV costing landscape in Kenya;
3. And to make recommendations to improve the HIV costing ecosystem based on interviews, workshops, and other stakeholder inputs.

The study team reviewed documentation of the national costing process and interviewed key stakeholders, including experts from the NACC, NASCOP, University of Nairobi, and USAID. The team assessed more than ten important HIV strategy documents and updated the database of Kenya costing studies. This report identifies major gaps in the HIV costing ecosystem in Kenya and recommends a series of precise and practical actions to strengthen national HIV costing.

1.2. Framework for assessing the national HIV costing system

In the conceptualization of this document, the team employed a three-tiered framework to assess the national HIV costing: (1) the overall HIV costing ecosystem including the costings produced thus far and the various gaps in the ecosystem, (2) national costing capacity and where the capacity remains for future costings, and (3) the institutionalization of findings and unit costs once the costings have been completed.



Costing ecosystem considers the strengths and weaknesses of what costs have been produced, where they are done, and where the major gaps lay. In this stage, the Pharos team reviewed academic papers, strategic documents, and Global Fund funding requests to evaluate the major gaps in costing. This is the most fundamental level of costing evaluations.

Costing capacity is essential for any long-term creation of costing data, especially as international funds and resources may become less predictable during the ongoing Covid-19 pandemic and cost national costing capacity becomes ever more important. National leaders should be able to rely on robust and high-quality costings developed by the staff at NACC, NASCOP, and the University

of Nairobi, among others. As such, measuring the gaps in national capacity and making recommendations to fix the shortfalls is essential.

Institutionalization is the necessary component of the ecosystem that can be completed once there is strong capacity and costing content. Studies of high quality can be produced by talented researchers, but it will not be sufficient if this capacity is not built alongside strong country ownership. This process should include strong coordination and consistency, so that the national stakeholders can efficiently build on what has already been produced.

1.3. Methods

This project consisted of four major phases. Throughout the project, the Pharos team maintained a strong coordinated effort with the leadership and technical experts in the NACC (refer to Annexes I and II for a list of key in-country contacts).

1.3.1. Document review

The Pharos team collected all the documents produced since 2015 regarding HIV costing in Kenya listed in Annex III below. With the in-country consultant and technical members of the NACC, the team located all possible reports and research that resulted in HIV-related unit costs. The team members then reviewed the documents and extracted all HIV unit costs.

1.3.2. Key informant interviews

With the studies in hand, the Pharos team interviewed a total of fourteen key informants. The interviewees represented a large array of experts in the government, academic institutions, international institutions, and foreign donors. The interviews were conducted over Zoom, and the in-country consultant was able to meet in person with several of the key informants.

Each interview followed the same format and a similar set of questions, refined throughout the project. The interview guide used at the end of the project is attached in Annex IV.

1.3.3. Unit cost repository development

Concurrently, the Pharos team also assisted in the development of the Unit Cost Repository. As the team reviewed the major studies contributing to the HIV costing ecosystem in Kenya, the team extracted the key unit costs into a spreadsheet last updated in 2017. This spreadsheet, representing a wide effort by the NACC, UON, and other national stakeholders, required updating and completion to transform into the Unit Cost Repository.

Over the past decade, many key partners have supported numerous prospective and retrospective costing analyses aimed at estimating the unit cost of various HIV and health services in Kenya. The generated unit cost data has supported the development of country-specific resource needs estimates and has further informed Investment Cases for HIV and Health Programmes. However, these units cost studies have not been harmonized in their methodologies, and the generated data has not been captured into a central repository. This missing central repository can allow decision-makers to easily access important data and more efficiently deploy resources to avoid repetition.

To address this challenge, the National AIDS Control Council, in collaboration with Pharos Global Health Advisors, has developed a comprehensive workbook that holds all unit cost data for HIV

interventions in the past decade. The project team added a multitude of new studies to the workbook, mainly those since 2017. The Pharos team added three new columns to the existing spreadsheet: (1) the objective of the study, (2) the method of data analysis (retrospective, prospective, mixed), and (3) further specifications on the unit costs where relevant. The team also added more than one hundred costs from major costing studies conducted since 2017.

This updated workbook represents a critical step towards building an online repository that facilitates ease of access to the unit cost data for planning programs on HIV and health. Having collaborated closely with the NACC, the NACC plans in the latter half of 2021 to transition this spreadsheet into the full unit cost repository online. This report includes suggestions made in collaboration with the NACC for the next steps and key concerns of the UCR.

1.3.4. Consultation and buy-in

With the progress on the UCR and the drafting of this report, the Pharos team held regular meetings and discussions with representatives from the NACC. Continued stakeholder involvement was an important component of this project, and our collaboration with our key interviewees helped solidify national buy-in from key stakeholders in the NACC and elsewhere.

The report and its findings were validated in a meeting with the NACC CEO Dr. Laibon-Masha on 12 August 2021. Feedback from the meeting was incorporated into the report and the UCR contributions. The CEO also requested the development of a specific and concise work plan. Accordingly, the Pharos team drafted a work plan attached in Annexes V and VI to this report. This addition has resulted in a straight-forward set of actions that the NACC and others can employ to realize the recommendations included in the report.

Chapter 2: The Kenyan HIV costing ecosystem

2.1. Health costing

High-quality and well sourced data on the cost of providing health care services are becoming increasingly important in the context of donor transition and Universal Health Coverage (UHC) in Kenya. With more emphasis on UHC and other wide health sector interventions, there is ongoing debate within the government on the structure of health sector costing. Some government officials, national experts, and international donors argue that it is best to combine the costing in a generalized health sector costing. In this scenario, HIV costing would be a subset of the larger health system costing. This would prevent siloed costing systems and would combine the data where there is overlap.

However, other stakeholders in the NACC, UON, and other institutions contend that the HIV response requires its own costing ecosystem to meet the needs of the NACC and of specific donors and to analyse and estimate large and unique cost areas related to HIV. While these two potential scenarios would result in different priority interventions for the costing system, it is still essential to strengthen the HIV sector costing ecosystem.

The costing process, whether for HIV, malaria, or any other disease, culminates in stronger and more accurate health and program budgets. For example, budgets for counties, departments, and agencies would normally be compiled, managed, and reported in different components (cost

centres or intervention areas). The cost for an intervention area is determined by estimating the cost of all activities to be implemented under a specific intervention to inform budget development, management, and monitoring.

2.2. HIV costing and strategic plans

There is an increased urgency to scale-up the national HIV program. Faced with progressively more ambitious goals to increase the treatment rate of PLHIV and simultaneously dwindling external funding, high-quality and precise data are essential for costing out HIV care services in Kenya. This move has highlighted the urgency to invest the funds where they will make the most impact intending to realize high Value for Money (VFM) in the national HIV program.

Economic evaluations of HIV programs thus far have mainly focused on cost efficiency and effectiveness analysis. These evaluations have been adopted in randomized control trials of new HIV interventions, e.g., costing and cost-effectiveness of oral Pre-Exposure Prophylaxis (PrEP)^{7,8} to inform the introduction and scale-up of the intervention.

Costing analysis is also a key component in the development of national HIV strategic plans. The Kenya HIV program has used cost analyses to estimate the resource need for priority interventions in the first and second Kenya AIDS Strategic Framework (KASF I & II). KASF II (2021) has a specific thematic area on investment with an aim to utilise long term HIV financing models to ensure self-sufficiency and sustainability. This area captures the costing analysis of the strategic framework and aims to enhance efficiency and effectiveness in resource utilization. The financing section in the KASF highlights how the national HIV program views HIV costing as a central component to guide resource mobilization and program implementation.

The strategy and five-year plan in the KASF II are founded in a macro-costing approach relying on the resource needs model (RNM). RNM is a component of the Spectrum software package of models.⁹ The RNM strategy is used to “calculate the funding required for an expanded response to HIV/AIDS at the national level for five years” and “estimates the costs of implementing an HIV/AIDS program, including costs for care and treatment, prevention programs, and policy and program support.”¹⁰ The RNM-based costing analysis that has been used for the costing of KASF I & II relies on epidemiological data collected and validated by the program. The data are prepared every year to estimate the HIV incidence and prevalence for the country and across the 47 counties.¹¹ This data set also includes population size estimates (e.g., number of female sex workers) and current and projected coverage (e.g., current percentage of people receiving treatment services and future estimates).

⁷ Chen, A., G. Kosimbei, D. Mwai, and A. Dutta. 2014. Cost of Providing Oral Pre-Exposure Prophylaxis to Prevent HIV Infection Among Sex Workers in Kenya. Washington, DC: Futures Group, Health Policy Project.

⁸ Peter Stegman, Urbanus Kioko, Guy Mahiane, Abednego Musau, Daniel Were, Anthony Gichangi, Robert Glaubius, Steven Forsythe (2021). Paying to Prevent HIV infection in Kenya: An Analysis of Client Costs to Access PrEP Services, Report

⁹ Stover J, Andreev K, Slaymaker E, Gopalappab C, Sabin K, Velasquez C, et al. Updates to the spectrum model to estimate key HIV indicators for adults and children. *Aids*. 2014;28(September): S427–34.

¹⁰ Stover J, Friberg I, McKinnon R, Podk T. Spectrum Manual.

¹¹ Updated HIV estimate 2020 for adults and children, by the National Aids Control Council.

The unit costs used in KASF II were derived from previous unit costs analyses spanning the past decade. This includes unit costs for medical interventions in KASF II, e.g., the unit cost of HIV testing and counselling, enrolling a patient on first line ART treatment per year, or delivering prevention services targeting key populations (FSW, MSM, PWID). While detailed unit costs for medical intervention are largely available, costing of KASF II was limited by lack of unit costs for some emerging strategic areas of HIV investment, such as programs for adolescent girls and young women (AGYW). This will be reviewed in further detail below.

Throughout the process of costing KASF I & II, there were significant challenges due to lack of costing data on non-biomedical interventions. These include the following: Communication and advocacy for HIV, STIs, viral hepatitis, care, treatment, prevention, and strategic planning; Resilient sustainable systems for HIV and AIDS and Health; Strengthening strategic information, research and innovation; Human rights-based approach to HIV response; Strategic Information Research and Implementation; and leadership and accountability for delivering the KASF II results.

Rather than using precise costing data, KASF II relied on estimates for non-biomedical program costs based on past practices, e.g., applying a percentage coefficient of the biomedical expenditures. These gaps present key challenges in the costing of the overall HIV service provision in Kenya.

Donors who fund HIV investments in Kenya often require project implementors and the government with its Ministry of Health to develop budgets for application for funds and grant implementation. Accordingly, these policies that rely on costings have raised the policy utility of costing and budgeting. The United States through USAID and PEPFAR (especially the Country Operational Plans) and the in-country allocation of on and off-budget support on HIV program requires precise and high-quality costings. The Global Fund requires a similar process for its funding requests and implementation budgets.

Kenya has successfully applied for Global Fund funding for HIV, TB, and Malaria since its inception. The latest application is under the New Funding Model Three that will provide resources for HIV for 2021/22 through 2023/24. The priority HIV interventions included in the funding request mainly relying on ingredient costing approaches and activity-based costing (ABC). ABC as used in FR traces the following:

1. Input for each activity prioritized in the FR inputs, e.g., labour, conference halls;
2. These inputs are required in specific quantities and with certain frequencies;
3. It is the product of the unit cost, the quantity, and the input frequency that will give the total input cost;
4. The sum of all the input costs gives the activity cost;
5. Activity costs are aggregated to give the cost for priority intervention identified for implementation in each of the Global Fund modules.

Using ABC costing in the FR allows the costing of all interventions across the request, including specific non-biomedical interventions under human rights and prevention interventions for key and vulnerable populations despite lack of unit costs for these range of interventions. However, the scope of these costed interventions is narrow compared to the overall national program. The focus therefore is on interventions and activities selected for funding under the Global Fund grant.

2.3. Utility for costing outputs in HIV programming

The numerous costing studies and analyses undertaken in the past decade are now housed in the unit cost spreadsheet referenced throughout the report, and the studies have been summarized into categories in the table below:

Figure 1: Costings, sponsors, and examples of recent use of cost analysis in Kenya

Purpose of costing	Cost sponsor	Examples
Planning and Budgeting Estimations	Government	Scale up interventions for Oral PrEP will require the unit costs per client
Domestic resource mobilization Initiatives	Development partners.	HIV costing on the need for counterpart funding. Annual work plans and budgets for the HIV program and the national and county level.
Mobilization of External funding	Development partners.	Global Fund- funding request, PEPFAR-Country operational plans.
Assessing priorities of HIV investments healthcare programming	Government institutions, and development partners.	Choosing cheaper effective interventions among those that have the same efficacy e.g., the costing of the HIV testing algorithm to determine the cost saving combination of the testing kits for screening, confirmatory and tie breaker.
Cost projections - estimating future costs for implementing strategic planning of a programme	Government institutions, and development partners.	Kenya AIDS Strategic Framework I and II.
Discussion of the health care financing strategy including HIV financing.	Government institutions, and development partners.	Cost recovery in financing schemes i.e., costs would inform how much we need to recoup from the different financing schemes.
Accountability- Tracking spending among programmes would need an understanding of programme costs.	Government institutions, and development partners.	Ongoing- ABC/M for reference to compare with actual costs, thus managers can be held into account based on accurate data.

Chapter 3: Strengths and gaps in produced costings

3.1. Non-biomedical interventions

Effective prevention care and treatment strategies are distinguished by not relying on any single intervention approach alone. Instead, a coordinated combination of behavioural, structural, and biomedical interventions can achieve maximum effect.¹² To this end, the national HIV program through NASCOP and NACC has been implementing both medical and non-medical interventions on HIV prevention, treatment, care, and support response. This shift in policy has been

¹² Ministry of Health, 2016. Policy for the prevention of HIV infections among key populations in Kenya.

accompanied by the adoption of a multi-sectoral approach mainly targeting a combined prevention and treatment intervention approach.

Non-biomedical interventions catalyse effective linkage to HIV medical services. This report defines non-biomedical interventions as the following:

- Combination HIV prevention approaches that seek an optimal mix of mutually reinforcing behavioural and structural interventions to meet the needs of different groups, such as creating an enabling environment for HIV prevention, human rights protection and stigma reduction, and interventions to address gender and cultural norms that increase vulnerability to HIV infection and coordinate research areas to policy and practice.
- Interventions that seek to catalyse program implementation by supporting HIV-infected persons and limit HIV transmission through behavioural interventions. This includes research, human rights approaches, training, and capacity development among others.

Key components of non-biomedical interventions include implementing structural interventions at scale and increasing knowledge of HIV status through innovations such as review of parental consent for HIV testing for adolescents.¹³

3.2. Challenges in HIV costings

While unit cost and costing data are widely available on the HIV program in Kenya, data on non-biomedical interventions have not been updated recently. The most updated data used to estimate non-biomedical intervention cost areas in KASF II are more than 10 years old. The data on the cost of inputs to implement interventions are not available for the entire HIV system at one time. The last detailed costing for the entire national HIV program at once was conducted in 2009, referred to as “the mode of transmission study.”¹⁴ However, by now, the data are largely outdated as program design and optimal intervention mix have changed. A key informant explained the urgent need to know the “real time costs for HIV services.”

A literature review on existing unit cost data shows a wide gap in costing studies on non-biomedical interventions central to the achievement of the set targets.¹⁵ National stakeholders confirmed this gap in interviews and the priority to address it. For instance, a key expert explained that it is still difficult to understand the actual comprehensive cost of treating a patient for HIV in Kenya. There remain large gaps in the HIV program costs, such as for trainings, human resources not directly linked to medical care, human rights, and many gender-based interventions.

Multiple interviewees identified this as the most significant gap in the HIV costing ecosystem in Kenya. With such a visible gap in the costing landscape, an expert at the University of Nairobi summarized the stakes —incomplete costing data renders the prioritisation process more difficult and obscures measurements for value for money in HIV investments.

¹³ Ministry of Health, 2014. Kenya HIV Prevention Revolution Road Map Count Down to 2030

¹⁴ Kenya National AIDS Control Council. 2009. Kenya Analysis of HIV Prevention Response and Modes of HIV Transmission Study

¹⁵ Unit cost reference workbook, National Aids Control Council and Pharos Global Health Advisors, May 2021.

Unfortunately, there remain limited funding resources thus far in the costing of HIV non-biomedical interventions. The limited resources are largely funnelled to the areas priorities for investment areas targeted by a specific funder. Major areas that have not yet been prioritised include interventions for adolescent girls and young women (AGYW) though interventions for AGYW have received more focus in recent years across the globe. AGYW form a high-risk subset of the population with considerable burden of HIV in Kenya. Hence more accurate costing data are required.

3.3. Recommendations for HIV costings

Consensus is needed on what should be included in the HIV costing package across both the state and non-state implementors who are users and generators of costing data. In addition, costing guidelines should be standardised based on experience learnt over the time. Examples of costs to standardise include the following: cost per person for a 5-day meeting or training, annual management of HIV programs, and supervision per patient on ART.

Before the start of the 2022, the stakeholders at NACC, NASCOP, UON, and elsewhere should agree on the assumptions and regional costs to be used and publish a document listing out the agreed upon assumptions. This should include the typical costing assumptions, e.g., the length of a typical treatment and the drug costs. This exercise should also include condition-specific adjustments of the unit costs related to the location, delivery mode, and other factors. These “adjustment sheets” should then be distributed to all projects on HIV costing in Kenya and stored as part of the UCR. All new adjustments and cost categories can be shared back by MOH, MOF, NACC, donors, and/or NGOs to the HIV Costing TWG as they evolve. Finally, the HIV Costing TWG can connect with other disease-related costing TWGs in Kenya to share the standardised assumptions and condition-specific adjustments.

On the identified gaps, KASF II prioritises some non-biomedical interventions (see the list in Section 3.1) but relies on the proportional costing method.¹⁶ Capacity building projects for costing in HIV in Kenya should include a strong focus on (a) non-biomedical interventions and (b) emerging implementation areas including costs of adolescent interventions.

The NACC leadership is encouraged to set the agenda for NACC costing staff to focus on these identified areas. The NACC can also meet with outside funders (e.g., BMGF, USAID) to provide resources to cost these gaps. If necessary, the NACC on a short-term limited basis could hire outside consultants if need is urgent for costing data in these areas.

Chapter 4: Costing capacity

4.1. Capacity for HIV costing

HIV costing capacity at the Ministry of Health, National AIDS Control Council (NACC), and the National AIDS and STIs Control Programme (NASCOP) is relatively low. It mainly relies on national experts from learning institutions to undertake costing assignments as needed. The planning division at the Ministry of Health (MOH) has the largest costing capacity, supported by approximately six economists who service planning and budgeting needs across the MOH,

¹⁶ Ministry of Health, 2014. Kenya HIV Prevention Revolution Road Map Count Down to 2030.

including the HIV program. The Kenya State Department for Planning posts the economists in the division at the MoH for Planning responsible for the formulation, coordination, monitoring, and evaluation of economic development plans, policies, and strategies towards achieving the national development agenda. The economists posted to MoH are not trained explicitly on health economics, constraining their ability to undertake a rigorous economic evaluation of the health programs. The NACC has two trained health economists based in Nairobi who are mainly involved in undertaking costing for the program and play a key role in planning and budgeting process.

The national capacity for HIV costing in Kenya is concentrated in the institutions of higher learning. The University of Nairobi (UON) is home to the School of Economics where much of the in-country costing capacity currently rests. UON offers post-graduate degrees in health economics and helps train middle-level managers drawn from the national and county governments, private stakeholders, and local and development partners.

The Health Economics Unit at UON has the largest concentration of health economists (ten senior health economists), followed by Kenyatta University (three health economists) and Strathmore University (two health economists). Further costing capacity is spread thinly across research institutions, development and implementing partners, including KEMRI Welcome Trust, the World Bank Group (WBG), and USAID-funded programs, such as USAID HP+.

UON is often seen as a hub for costing across Eastern and Southern Africa, as they utilise and generate data focusing on fiscal space analysis, costing, efficiency and effectiveness analysis, resources tracking for health, and investment case analysis. UON targets health care managers who have already completed their bachelor's education and are posted in a position that requires additional training on the application of health economics. The program averages roughly twenty post-graduate students per intake. The post-graduate degrees cover costing, resource mobilization, and economic evaluation.

Moreover, the evolution of Kenya's health care system from the national level to counties has increased counties' roles in planning & budgeting and appropriate methods for costing with a focus on ABC as outlined in the Public Finance Management of 2012 and regulation in 2015. This has raised the demand for costing at the county level for the middle-level manager, specifically the County Health Management Team (CHMT). The CHMT also uses costing capacity to estimate the resources need for county program implementation. The NACC is currently in collaboration with the CHMT, Regional HIV Coordinator (RHC), and County Aids Coordinators, to develop and launch the costed County AIDS Implementation Plans (CAIPs), using activity-based costing approach.

4.2. External capacity building for HIV costing

There have been several successful attempts through technical assistance (TA) to build expertise in economic evaluation and costing. The previous costing activities were funded and conducted by international consultants supported by the UNAIDS, USAID, PEPFAR, BMGF, and the WBG. However, TA for costing has transitioned to local consultants. Nonetheless, international consultants continue to offer oversight through collaboration which provides the needed mentorship and on-job training to local consultants improving the quality of costing output. The

key partners in this area are Palladium Group, UNAIDS, Avenir Health, WHO, and Global Fund, with key funders being the United States government and BMGF.

USAID, in collaboration with the Kenya School of Government and Palladium Group, held trainings on health sector planning and budgeting on the county-level using the ABC model across 38 counties in 2014 through 2018. These counties were also trained on priority setting to address efficiency issues in costing. Similar efforts have been carried out through the support of UNICEF and the WBG for other counties. These capacity-building efforts targeted the County Health Management Team to position them to assist in health budget preparation and budget advocacy, which mainly require strong costing data. This project developed a costing manual and training curriculum to guide the training on these specific areas.¹⁷

Furthermore, USAID is currently in collaboration with NACC and the University of Nairobi, Health Economics Unit to generate costing data for key health programs in Kenya. Focusing on HIV, TB, Malaria and RMNCH, the project uses the time activity-based costing for management (TABC/M) approach. The approach has seen capacity building initiatives undertaken through training of the MoH, UON, NACC and county level staff involved in the study. The costing study is expected to develop capacity on the use of TABC in costing health program and to update cost estimates for various interventions under the four program areas.

4.3. Challenges for HIV costing capacity

Despite significant progress in HIV costing in-country, there are still some serious capacity challenges:

1. Lack of funds within local institutions (especially universities) to fund research on economic evaluation

Local institutions in Kenya, including universities, have made their key mandate capacity development through training, research, and community service. They have potential to build and develop capacity as key suppliers of human resources in the health sector on economic evaluation across costing, efficiency, and effectiveness analysis. They also have capacity to cascade the various approaches to sub national level and well as the region through training. However, there is still no direct funding to the institutions to perform this role. There is no government funding for the program other than student-related fees or specific donors supporting a limited number of students. Universities rely instead on short-term consultancies, with university staff hired to do on the job training for various development partners in the country such as World Bank, WHO, and USAID.

2. Fledgling but thus far insufficient mentorship programs to build the young trainees in the field of economics

Young trainees need to be mentored on economic tools and their application to the health sector. Local trainees often utilise mentorship to learn how to apply the learnt skill to guide

¹⁷ Ministry of health, Kenya School of Government, the USAID Health Policy Project and the Leadership in Public Financial Management II (LPFM II) Project (Nathan Associates Inc.). Programme based budgeting for the health sector a training manual, 2016.

health financing decision. Mentorship and local collaboration also assist international partners to learn more of the local context and application of the tools to fit the situation in low- and middle-income contexts. Such opportunities are largely lacking, limiting optimisation of new development capacity in these areas.

3. Lack of sustainable structures for capacity development of middle-level managers and other key healthcare managers

Capacity development for costing and economic evaluation of health programs is largely donor driven, using international organisations that do not consistently involve the local institutions. Once the donor leaves, the local institution without any government funding cannot sustain the investment in capacity.

4. A mismatch between donor driven capacity development and national efforts

The capacity development efforts are sometimes short-term and narrow, but this situation could be improved by having a holistic and coordinated approach to capacity development in the country. This would entail strong partnership with all sorts of organisations that operate within Kenya, both those based abroad and in-country.

To remedy this challenge, USAID has implemented a phased approach shifting away from overreliance on international partners to focus more on local partners. This involves what they term a multi-pronged engagement, working with multiple local institutions for costing capacity. For example, much of the ABC analysis on behalf of USAID is being done through UON and in collaboration with NACC and MOH. This collaborative approach is key in capacity development and to ensure that the costs produced are used. USAID has applied this same approach in their work with the Kenya School of Government. This project has included collaboration with local and international NGOs to develop capacity on healthcare financing, including HIV costing for counties and the country.

4.4. Recommendations for HIV costing capacity

1. Additional local expertise should take on the increased workload on economic evaluation of health programs.

Local experts and institutions should be engaged at both national and county levels and across various areas, such as USAID's current projects in-country. The NACC can maintain and update a publicly available list of local experts in HIV costing to share with international partners, researchers, and organizations before research or projects begin (roster should be a document stored within the UCR companion docs). Donors and partners should be encouraged to use this local capacity-driven approach.

Costing experts should also work across the siloed areas and ensure that the entirety of the HIV program is costed, including the identified gap in non-biomedical interventions and interventions for AGYW. To prevent siloes and loss of knowledge, the NACC can do the following: (1) appoint a point-person liaison from NACC for each outside project on HIV costing; (2) make cross-checking budgets/quarterly reports with UCR a mandatory step in

program implementation and monitoring, (3) create a counterpart/peer mentorship program between the NACC and MOF; and (4) create/join a quarterly South-South HIV Costing Exchange based on TWGs from different countries.

2. Capacity should be built mainly through mentorship and training on-the-job

Although capacity building through pre-service and classroom-based training is essential, there is also a need to scale up on-the-job training and mentorship. Long-term funding is needed at the NACC and institutions of higher learning. Instead of focusing solely on workshops, this model can cover the need of the middle level manager and county health management teams who play a critical role in health planning and budgeting despite their lack of formal training on costing and economic evaluation of health programs.

Training on the job can include informal brown bag trainings that focus on economic evaluation with an emphasis on HIV costing. There can also be short courses (virtual or in-person) on specific topics in capacity development. There can be numerous opportunities to work with staff at national and county levels to cost and develop budgets and medium-term plans. Finally, the on-the-job trainings should also be integrated into the curricula in the Kenya School of Government.

To encourage students to invest their time in this area, the UON, NACC, and others can attempt to offer non-financial incentives (e.g., internships for MBA, MPH, MD, and nursing students; student clubs about health finance at universities; mentorship opportunities; career advice) for students.

Chapter 5: Institutionalisation of costing capacity and data

5.1. Institutionalisation of HIV costing

The term “institutionalizing” refers to the promoting of structures and processes suitable to produce costing and economic evaluation assessments that can guide policy and clinical practice towards the best possible health and cost outcomes. In other words, it ensures the implanting of costing in national institutions, effectively and sustainably.

Costing and economic evaluation approaches offer key opportunities to increase evidence and critical information for decision-making in health financing and health care systems. Costing analyses are often conducted by agencies or institutions to assist policymakers at the system level (top-down). The WHO, USAID and other funders of economic evaluation have developed several costing approaches for costing health and HIV interventions in Kenya.¹⁸

Efforts to institutionalize costing approaches can build upon these experiences by establishing collaborative projects and networks with an aim of closer cooperation and more standardization among users across the country and continent. Kenya is in the process of moving toward UHC and further integration of health programs. As such, the long-term institutionalisation of HIV costing should include collaborators including the NACC, and Planning Department of the MoH.

¹⁸ Examples of such models include the One Health model, goals models, activity-based costing model (ABC, ABC/M), inter alia.

Unfortunately, much access to many of the produced costings has been limited because many of the costings done previously are stored as grey literature. Storage of costing data in reports and other types of grey literature limit the ability of potential users of costing analysis to utilise the data as they do not have knowledge for existing costing studies. Much of the previously produced data are in physical books and reports. For example, the PMTCT Framework of 2012 is a physical book stored in the NASCOP offices. To use the data, one must physically go to the NASCOP office and sift through all the material, as the data are not synthesized from this report. This introduces time inefficiencies and often leads to duplication of work as costing analysis are repeated for interventions already costed elsewhere.

With a significant ongoing gap, there is a large need to develop a central institution that would spearhead collection and updating of the costing information in the country. Such an entity would also use the information from retrospective costing analyses to develop capacity on costing and economic evaluation, including adopting and adapting existing models to address the current gap in costing of health programs. This includes HIV but also larger health system costing capacity as the country works toward integration.

First steps may include the establishment of a core group or technical reference group with the leadership at government level. In this case, the planning unit at the Ministry of Health could take the lead with membership from disease programs like HIV, TB, Malaria and RMNCH. The reference group would partner with local institutions that have capacity in costing and economic evaluation, while the core group and the collaborating institution would lead communication with stakeholders and the creation of data warehouses and databases for cost analysis generation, storage, and use. The development of an appropriate information database enables providers, patients, and payers to collect and compare benchmark cost estimates for biomedical and nonbiomedical interventions for HIV. Suggestions for the processes of the UCR are included just below in the second recommendation in Section 5.2.

5.2. Recommendations for Institutionalisation

Given the costing gaps discuss in the earlier chapters and the need to standardise and harmonize approaches for HIV and the health sector in general, there is need to do the following:

1. Formalise assumptions and condition-specific adjustments for costing, specifically unit costs which can sometimes make targets unrealistic

Lack of harmonized assumptions in costing of the health programs pose a challenge to adoption and utilisation of the costing results across various players in the health sector. For example, there are varied assumptions on inputs, such as staff renumeration and transportation costs affiliated with HIV service provision. These costs vary across venues and regions (e.g., urban and rural) and should be remedied through an agreed upon list of condition-specific adjustments. This disconnect could also explain why many costing analyses are undertaken to satisfy specific programming need across different funders in the region.

There is not yet an organization that has institutionalized HIV costs, but such an institution along with collaborators in the NACC and MoH Planning Department can update the

assumptions and adjustments at the beginning of each fiscal year when the budgets are being updated. This team can classify regions and other sub-groups of costing categories on socioeconomic, geographic, and other characteristics of the counties. All staff can then receive the new set of costs to use for the fiscal year.

2. Develop a costing database to store costing information in a form that is easily accessible by decision makers and other users both at the national and county level. This would increase policy utility of the cost data generated and reduce duplication of efforts resulting from having different funders repeat the same cost analysis. This issue has been cited in interviews as a key challenge in the HIV costing data ecosystem. An expert at the planning department of the MOH explained that the costing data may get produced, but not shared with the team at the MOH. Additionally, from the side of the costing study producers, a University of Nairobi professor has identified a related challenge that it is difficult for domestic and international stakeholders to know who is conducting what studies. As such, both the demand and supply remain unclear, and an accessible database is a key step in improving HIV cost sharing and data production.

The Pharos team has updated the comprehensive costing spreadsheet, and NACC has plans to publish the spreadsheet formally as a Unit Cost Repository. There should be a specific institution assigned to manage the UCR, likely the NACC with a formal partnership with the UON or another outside organisation. The UCR should be easily accessible online and in a medium that will be easy enough for anyone who needs the costs to access the costs. Therefore, an easy to use medium, such as Google Sheets or Microsoft Excel in Dropbox may be the most effective.

Moreover, the UCR must be regularly updated; otherwise, it will become outdated rapidly. As such, there should be “custodians” of the UCR. This should include a small group of people so that if one or two persons depart an organisation, the institutional knowledge about the UCR will not be lost. The custodians should receive some built-in time for once per month or quarter (exact frequency can be agreed upon by NACC and other stakeholders) to extract the unit costs from any new reports or documents. Additionally, all stakeholders and programmatic or implementing partners should be encouraged to send any documents with unit costs to a new and specific email address so that the custodians can update the UCR comprehensively at the set interval.

Once the first iteration of the UCR is live and accessible, the TWG should be engaged to check on the progress and maintenance of the UCR. The NACC could also consider adding a mandatory step to every program evaluation, i.e., new project proposals from implementing organisations would include checking budget proposals against the UCR.

Along with the foundation of the UCR, the Kenyan HIV costing ecosystem would benefit from an easily accessible document library that connects with the UCR. The document library would contain all articles and research that arrived at the unit costs stored in the UCR. This should be updated and maintained by the same designated team.

3. Develop a core or reference group to guide the institutionalization of the costing models and approaches across both public and private sectors. The reference group would also review the existing costing studies and assess their fitness for inclusion into the costing data base. This could potentially be built into the MOH Planning Unit. Stakeholders emphasised that this should not be tied to one individual. Rather, an interviewee from Kenyatta University recommends that this should occur at a strong institution and may require some upfront capacity building to ensure the long-term investment. Moreover, experts from the NACC agreed in an interview and opined that the institution responsible for the institutionalisation should maintain the Unit Cost Repository as well.
4. Encourage post graduate students in local collaborating institutions to undertake cost analyses focusing on areas identified to have costing data gap through the creation of a fund for HIV costing capacity research. This approach will provide a sustainable path to continued generation of costing data as well as capacity building opportunity.

Chapter 6: Conclusions

Kenya is already seen as a regional leader in HIV costings, and with some well-placed investments, the country can amplify its strengths and fill the current gaps. This project concluded with a list of 27 activities that can be accomplished by the end of 2022. Some of these suggestions, such as the detailed steps of building a UCR, are already planned by the NACC and others in-country. However, there are numerous other actions that will require new commitments by the government and other key players in-country.

The momentum built in recent years should be continued to (1) prioritize key costing areas with current gaps, (2) encourage post-graduate students and health economists to undertake costing studies in the identified gaps, (3) build national capacity through pre- and on-the-job training and with secure sources of funding for the nation's universities, (4) enhance the engagement of local experts, stakeholders, and institutions, especially with international partners, (5) adapt the unit cost spreadsheet into the Unit Cost Repository and continually update and maintain the UCR, (6) standardise HIV costing condition-based adjustment and the components of the HIV costing package at the start of each year, and finally (7) develop a core or reference group to guide the institutionalisation of the costing models and strategies.

Altogether, these key actions and their specific follow-up tasks included in the work plan (see Annexes V and VI) should enable a strong growth and development in the HIV costing ecosystem in Kenya. Ultimately, a strong HIV costing ecosystem will lead to a more efficient and stronger national disease response. As noted by the leadership at the NACC, a strong HIV costing ecosystem will bolster and build upon the increasingly important sustainability and transition goals that Kenya will face in the coming decade.

Annexes

I. List of Key In-Country Contacts

Name	Organisation	Email
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II. List of Key Informant Interviews

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Dr. Urbanus Kioko	UON, TWG member	urbanusmutukukioko@gmail.com
Dr. Julius Korir	KU, TWG member	jkorir1@gmail.com
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III. List of costing studies reviewed

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IV. Interview Guide

1. Introduction
 - a. Name
 - b. Date
 - c. Interviewers
 - d. Organization
2. Interviewee background
 - a. Experience in HIV/health costing, financing, economics, epidemiology, other
 - b. Written or researched costing?
3. Role/involvement in the KASF II and GF FR?
 - a. How well did the KASF II and FR exercises go in your view?
 - b. How could the process behind KASF II and FR be improved? To make it more efficient and effective?
4. Are there other major HIV costing studies of which you are aware?
5. Are the costs being used? What are the impacts of the HIV costs that have been created? Programs, policies, budgets, national strategy (KASF II), etc.
 - a. Is it epidemiological goals, then costs? Or is it starting with costs?
6. Best practices/examples where costing succeeded?
7. Best practices/examples where costing was less successful?
8. Ways to improve quality of costing?
9. Perception of overall country capacity in costing: strengths/weaknesses
10. How can capacity be expanded?
11. Where should the Costing Capacity be institutionalized?
12. Are there tools, manuals, databases on HIV costing that you think need to be created?
13. How to preserve data and knowledge of HIV costing?
14. Aware of harmonization of unit costing?
 - a. For a UCR, what is needed? What do you advise for UCR process?
 - b. Updates on the development of a repository for costing?
 - c. Use of a reference case guide?
15. Progress of the TWG? Involvement in the development of uniform costing standards?
16. Beyond HIV, what are the tools for costing for programs for other diseases for costing (TB, malaria, reproductive health, etc.) and for UHC?

V. HIV Costing Work Plan Draft

Action area	Specific action		Timeline	Lead agent(s)	Indicative cost (\$, \$\$, \$\$\$)
1 Standardize HIV costing assumptions and what is included in HIV costing package. A team from NACC, MOH & universities collaborate and calibrate standard cost assumptions each start of the fiscal year.	1	Agree before the start of the 2022, on the assumptions, specific adjustments, regional costs to be used and publish a document listing out the agreed upon assumptions	2021 Q4	NACC, NASCOP, MOF	\$
	2	Distribute the “adjustment sheets” to all projects on HIV costing in Kenya before they begin	2022 Q1	NACC, MOH	\$
	3	“Adjustment sheets” to be stored as part of UCR	2022 Q2/3	NACC UCR custodian team	\$\$
	4	New adjustments and cost categories can be shared back by MOH, MOF, NACC, donors, or NGOs to the HIV Costing TWG as they evolve and then disseminated	2022 Q1	MOH, MOF, NACC, TWG	\$
	5	HIV Costing TWG connects with other costing TWGs for other disease areas to share standardized	2022 Q4	TWG	\$
2 Enhance engagement of local experts, stakeholders, and institutions even for assignment led by international partners to develop capacity through mentorship opportunities.	6	Maintain and update a publicly available list of local experts in HIV costing. This can be given to international partners, researchers, and organizations before research or projects begin (roster should be a document stored within the UCR companion docs)	2022 Q2	NACC	\$
	7	Appoint a point-person liaison from NACC for each outside project on HIV costing	2021 Q4	NACC, others	\$
	8	Make cross-checking budgets/quarterly reports/etc. with UCR a mandatory step in program implementation and monitoring	2022 Q3	NACC, others	
	9	Create a counterpart/peer mentorship program between the NACC and MOF	2022 Q2	NACC, MOF	\$
	10	Create/join a quarterly South-South HIV Costing Exchange based on TWGs from different countries (e.g., South Africa’s HIV Costing TWG, Kenya’s HIV Costing TWG)	2022 Q4	NACC, others	\$
3 Build capacity through training on-the-job in addition to pre-training. Secure long-term funding for capacity building, especially at NACC and institutions of higher learning.	11	Secure long-term funding for capacity building, especially at NACC and institutions of higher learning	2022 Q1-4	NACC, UON, KU	\$\$\$
	12	Informal and formal mentorship among NACC, NASCOP, and UON	2022 Q2	NACC, NASCOP, UON	\$
	13	Conduct brown-bag trainings (short training and learn one aspect from an expert) by local experts and outside consultants as available. Examples: How to use the UCR, sharing research on a specific programmatic area	2022 Q1/2	NACC, NASCOP, UON	\$
	14	Tying performance goals to use of cost information. Performance goals related to knowing how much things cost	2022 Q4	NACC, MOH	\$

4	Prioritize generation of costing data for the major gaps: a. non-biomedical interventions and b. emerging implementation areas including costs of adolescent interventions.	15	Set agenda for NACC costing staff to focus on these areas	2021 Q4	NACC	\$
	5 Publish the unit cost repository in an easy-to-understand software, assign custodian through NACC and update regularly with collaborating institution.	16	Meet with outside funders (e.g., BMGF, USAID) to provide resources to cost these gaps	2021 Q4	NACC	\$
		17	Hire outside consultants if need is urgent for costing data in these areas	2022 Q4	Others	\$\$\$
		18	NACC to choose software (e.g., Google Sheets or Microsoft Excel via Dropbox) and make publicly viewable, but edit permissions only within NACC	2021 Q4	NACC	\$
		19	NACC to assign an internal team the custodian role to extract unit costs from recent studies and add into the spreadsheets monthly or quarterly. Set aside one day per quarter for each member of the team.	2021 Q4	NACC	\$
		20	NACC to create an email address for researchers and stakeholders to submit unit costs and HIV costing research.	2021 Q4	NACC	\$
	6 Develop a core or reference group to guide the institutionalization of the costing models and approaches in public and private sectors.	21	TWG to check on progress and maintenance of UCR quarterly	2022 Q1-4	TWG	\$
		22	NACC to consider adding a mandatory step to every program evaluation, i.e., new project proposals from implementing organisations to include checking budget proposals against the UCR	2022 Q3	NACC	\$
	7 Encourage post-graduate students and health economists to undertake cost analysis in identified costing data gaps. Offer open brown bag lunch trainings by economists for students. Consider offering unique career opportunities, and secure additional funds for these areas.	23	Host (virtual) conferences and workshops on health finance and costing, open to presenters from donors, NGOs, PPPs, and universities	2022 Q2	NACC	\$
		24	Use Facebook or other social media platforms to conduct workshops with local businesses and stakeholders on costs and health	2022 Q3	NACC	\$
	7 Encourage post-graduate students and health economists to undertake cost analysis in identified costing data gaps. Offer open brown bag lunch trainings by economists for students. Consider offering unique career opportunities, and secure additional funds for these areas.	25	Speak with government and donors to secure a funding pool for HIV costing research across the country	2022 Q1/2	MOH, MOF	\$\$\$
		26	Hold a semesterly workshop on HIV costing and the gaps needed to fill. Include information for financial resources and grants in this workshop	2022 Q1-4	NACC, UON, KU	\$\$
		27	Offer non-financial incentives (e.g., internships for MBA, MPH, MD, and nursing students; student clubs about health finance at universities; mentorship opportunities; career advice) for students to work with NACC and others on HIV costing in the identified gaps	2021 Q4	UON, KU, NACC, MOH	\$

VI. HIV Costing Work Plan Draft II

ACTION AREA		SPECIFIC ACTION		TIMELINE	LEAD AGENT(S)
1	Standardize HIV costing assumptions and what is included in HIV costing package. A team from NACC, MOH & universities collaborate and calibrate standard cost assumptions each start of the fiscal year.	1	Establish and compile standardized assumptions and regional costs to be used for costing HIV program	2021 Q4	NACC, UON
		2	Online/Virtual dissemination of standardized costing assumptions to stakeholders (National and Counties). "Assumption sheets" to be stored as part of UCR. HIV Costing TWG connects with other costing TWGs for other disease areas to share standardized costs for common elements, e.g., HRH	2022 Q1	NACC, MOH, UON
2	Enhance engagement of local experts, stakeholders, and institutions even for assignments led by international partners to develop capacity through mentorship opportunities.	3	Maintain and update a publicly available list of local experts in HIV costing. This can be given to international partners, researchers, and organizations before research or projects begin (roster should be a document stored within the UCR companion docs)	2022 Q2	NACC
		4	Appoint a point-person liaison from NACC for each outside project on HIV costing	2021 Q4	NACC
		5	Hold quarterly meetings to cross-check with the UCR for any new costing studies and other progress updates of project implementation and monitoring	2022 Q3	NACC, HSCTWG, MoH, others
		6	Develop a peer mentorship program between the NACC and MOH	2022 Q2	NACC, UoN
		7	Create/join a quarterly South-South HIV Costing Exchange based on TWGs from different countries (e.g., South Africa's HIV Costing TWG, Kenya's HIV Costing TWG)	2022 Q4	NACC, MOH, UON
3	Build capacity through training on-the-job in addition to pre-training. Secure long-term funding for capacity building, especially at NACC and institutions of higher learning.	8	Secure long-term funding for capacity building, especially at NACC and institutions of higher learning	2022-2025	NACC, UON, KU
		9	Informal and formal mentorship among National and County officers	2022-2025	NACC, NASCOP, UON
		10	Conduct brown-bag trainings (short training and learn one aspect from an expert) by local experts and outside consultants as available. Examples: How to use the UCR, sharing research on a specific programmatic area	2022 Q1/2	NACC, NASCOP, UON
4	Prioritize generation of costing data for the major gaps: a. non-biomedical interventions and b. emerging implementation areas including costs of adolescent interventions.	11	Joint resource mobilization and undertake costing for non-biomedical interventions and new program areas that have not been costed	2021 Q4	NACC, UoN
5	Publish the unit cost repository in an easy-to-understand software, assign custodian through NACC and update regularly with collaborating institution.	12	Develop and online scale-able repository system to be updated periodically to capture new costings done within the programme	2021-25	NACC, UoN
6	Develop a core or reference group to guide the institutionalization of the costing models and approaches in public and private sectors.	13	Strengthen HSCTWG to support institutionalization of Costing models and application of institutionalized models in costing HIV interventions.	2021-25	NACC, UoN
7	Encourage post-graduate students and health economists to undertake cost analysis in identified costing data gaps. Offer open brown bag lunch trainings by economists for students. Consider offering unique career opportunities, and secure additional funds for these areas.	14	Speak with government and donors to secure a funding pool for HIV costing research across the country	2022 Q1/2	MOH, MOF
		15	Hold a semesterly workshop on HIV costing and the gaps needed to fill. Include information for financial resources and grants in this workshop. Promote short-term courses though grant in tertiary institutions	2022 Q1-4	NACC, UON, KU
		16	Offer non-financial incentives (e.g., internships for MBA, MPH, MD, and nursing students; student clubs about health finance at universities; mentorship opportunities; career advice) for students to work with NACC and others on HIV costing in the identified gaps	2021 Q4	UON, KU, NACC, MOH